LOCAL AGENCY FORMATION COMMISSION
FOR SAN BERNARDINO COUNTY

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DATE: **SEPTEMBER 10, 2025**

FROM: **SAMUEL MARTINEZ, Executive Officer**
MICHAEL TUERPE, Assistant Executive Officer

TO: **LOCAL AGENCY FORMATION COMMISSION**

SUBJECT **AGENDA ITEM #8 – LAFCO 3274 – REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (SPRING TRAILS SPECIFIC PLAN PROJECT)**

INITIATED BY:

City of San Bernardino Council Resolution No. 2024-220, November 6, 2024

RECOMMENDATIONS:

The staff recommends that the Commission approve LAFCO 3274 by taking the following actions:

1. With respect to the environmental review:

   a. Certify that the Complete Final Environmental Impact Report (EIR) and other related environmental documents prepared by the City of San Bernardino for the Spring Trails Specific Plan have been independently reviewed and considered by the Commission, its staff and its Environmental Consultant;

   b. Determine that the Complete Final EIR for the project prepared by the City of San Bernardino is adequate for the Commission's use as a California Environmental Quality Act (CEQA) Responsible Agency for its determination related to LAFCO 3274;

   c. Determine that the Commission does not intend to adopt alternatives or additional mitigation measures for the Spring Trails Specific Plan, and that the mitigation measures identified for the project are the responsibility of the City of San Bernardino and others, not the Commission;

d. Adopt the Facts, Findings and Statement of Overriding Considerations as presented by the Commission's Environmental Consultant and attached to the staff report; and,

e. Direct the Executive Officer to file the Notice of Determination within five days, and find that no further Department of Fish and Wildlife filing fees are required by the Commission's approval since the City, as CEQA Lead Agency, has paid said fees.

2. Approve LAFCO 3274, with the following determination and conditions:

Determination – The Commission determines that approval of LAFCO 3274 will create an unincorporated island surrounded by the City of San Bernardino. Since the inclusion of the island area would likely terminate the annexation proposal due to the number of registered voters within said island, the Commission determines, pursuant to the provision of Government Code Section 56375(m), to waive the restrictions on the creation of a totally-surrounded island contained within Government Code Section 56744 because it would be detrimental to the orderly development of the community, and it further determines that the area to be surrounded by the City of San Bernardino cannot reasonably be annexed to another city or incorporated as a new city.

Conditions – The standard LAFCO terms and conditions that include, but are not limited to, the "hold harmless" clause for potential litigation costs by the applicant and the continuation of fees, charges, and/or assessments currently authorized by the annexing agency, and the identification that the transfer of utility accounts will occur within 90 days of the recording of the Certificate of Completion.

3. Waive protest proceedings, as permitted by Government Code Section 56662(d), with 100% landowner consent to the reorganization; and,

4. Adopt LAFCO Resolution No. 3427 setting forth the Commission's determinations and conditions of approval concerning LAFCO 3274.

BACKGROUND INFORMATION:

The reorganization proposal is an annexation to the City of San Bernardino (hereafter the "City") and detachment from County Service Area 70. The proposal encompasses approximately 350 acres and is generally located east of the community of Devore and northeasterly of the I-215 Freeway. The reorganization boundary is generally bordered by a combination of Meyers Road and parcel lines (existing City boundaries) on the south, parcel lines (a portion of existing City boundaries) on the west, and parcel lines on the north and east, within the City's existing sphere of influence. Below is a vicinity map of the reorganization area (see Figure 1). This vicinity map as well as the official reorganization map are included as part of Attachment #1 to this report.

For over 25 years, the Local Agency Formation Commission and its staff have been involved in discussions with the City and/or the landowner regarding the delivery of services for a development proposal within the annexation area known as the Spring Trails Specific Plan Project, or its predecessor—Martin Ranch.

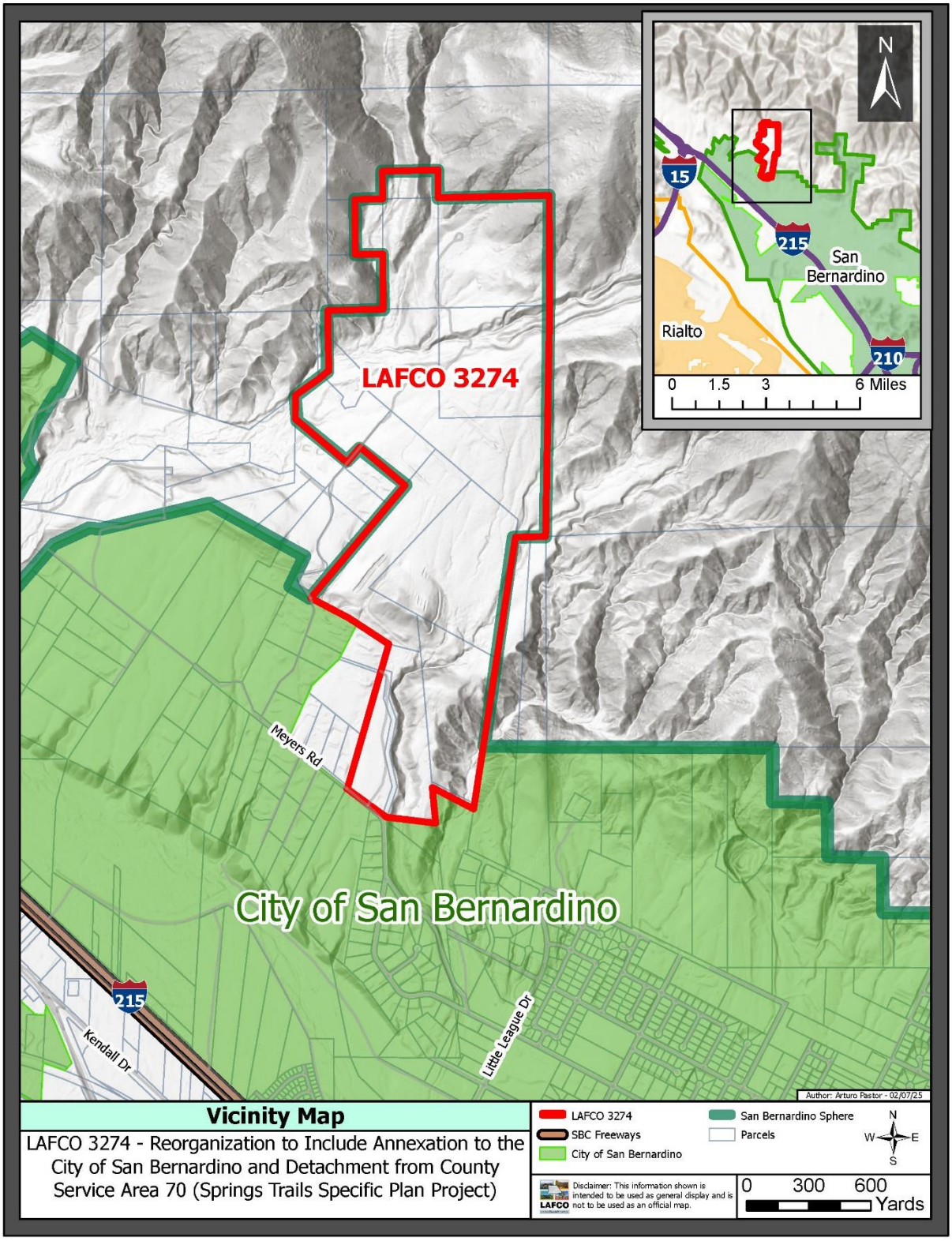


Fig. 1 – Vicinity Map of LAFCO 3274

Project History:

The Spring Trails Specific Plan Project (or Martin Ranch) is a project that has been extensively reviewed and evaluated.

Sphere of Influence Expansion of the Area (LAFCO 2808)

In 1996, the Commission reviewed and considered a sphere of influence expansion proposal, LAFCO 2808, which was initiated by the property owner—Montecito Equities, Ltd—to include the area (known then as Martin Ranch) into the City's sphere of influence (see Figure 2). The Commission approved the sphere expansion noting that future development would logically be served by the City and that the City should assume the primary role in developing the land use and service plans for the area. It was outlined at that time that the approval of the sphere expansion was simply to allow the landowner and the City to move forward in completing the pre-zoning, general plan amendment, and a comprehensive Environmental Impact Report for the project.

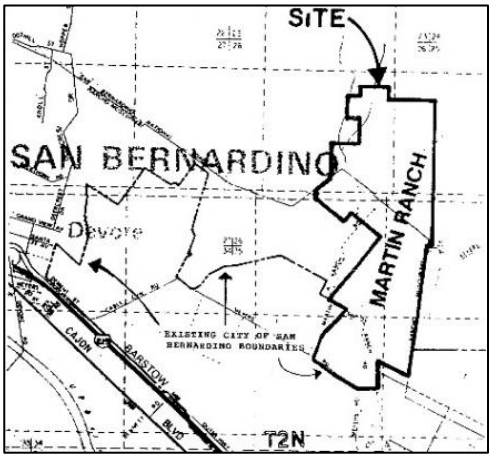


Fig. 2 – LAFCO 2808

City of San Bernardino's Entitlement Process for the Martin Ranch/Spring Trails Project

In 1998, the City issued a Notice of Preparation (NOP) for the project; however, the ensuing Draft Environmental Impact Report (EIR) was rejected by the City's Planning Department.

In December 2002, an application for the General Plan Amendment and Tentative Tract Map (15576) was filed with the City. A revised Draft EIR was released in 2002. In October 2003, a major fire burned through the project site requiring preparation of a new Draft EIR.

In 2004, a new NOP reflecting the revised project was issued by the City. It included a general plan amendment and pre-zoning for the project site and the adjacent unincorporated (island) area which designated the area as Planned Residential Development, the establishment of a Hillside Management Overlay District to allow lot size averaging, and a Tentative Tract Map to subdivide the project site into approximately 359 lots. However, the 2004 Draft EIR, which addressed traffic, access, as well as other issues, was never circulated for public review.

In 2005, the project was again revised to pre-zone the project site to Residential Low and the adjacent unincorporated (island) area to Residential Estate. A new Draft EIR was not released until 2006 when the City released a completed Draft EIR. Significant issues were again raised, and the City opted to prepare a revised Draft EIR to address concerns related to noise, air quality, biological resources, geotechnical issues and fire safety.

In 2007, another fire on the site required further changes to the project. A new NOP was released for public review in 2009 along with an Initial Study. In March 2010, the application for the Specific Plan (SP 10-01) was filed with the City. Due to significant technical issues, the revised Draft EIR was not released until July 2011. Applications for a Development Agreement (DA 11-01) and a Development Code Amendment (DCA 12-10) were filed with the City in October 2011 and October 2012, respectively.

In November 2012, the City's Planning Commission held a public hearing to consider the component actions for the Spring Trails Specific Plan (except for the Development Agreement portion of the project which was continued at the request of the property owner) but recommended denial of all the actions. In January 2013, the City's Planning Commission held another public hearing to consider the Development Agreement, and it also recommended denial of the proposed Development Agreement.

Finally, on February 19, 2013, the City Council reviewed and considered the Final EIR, the Mitigation Monitoring and Reporting Plan, the Facts, Findings and Statement of Overriding Considerations and the recommendations of the City's Planning Commission related to the Spring Trails Specific Plan, the General Plan Amendment, the Development Code Amendment, Tentative Tract Map 15576 to subdivide the project site into 304 single-family residential lots and the project's Development Agreement. The City Council reversed the Planning Commission's recommendations and approved and/or adopted all actions related to the Spring Trails Specific Plan Project.

Prior Applications to LAFCO

LAFCO 3188

In March 2015, the property owner submitted a property owner petition including the application materials for a proposed reorganization to the City. The applicant not only requested the annexation of its properties but also included the adjacent unincorporated area totaling approximately 376 acres (see Figure 3).

It should be noted that the City (and the applicant) included the adjacent unincorporated area as part of its proposal to prevent the creation of a totally-surrounded unincorporated island territory within the City. This is why the adjacent 26-acre unincorporated area was included in the City's environmental assessment for the project.

However, during the circulation of the Notice of Filing for LAFCO 3188, the Registrar of Voters (ROV) certified that there were 16 registered voters within the entire reorganization area.

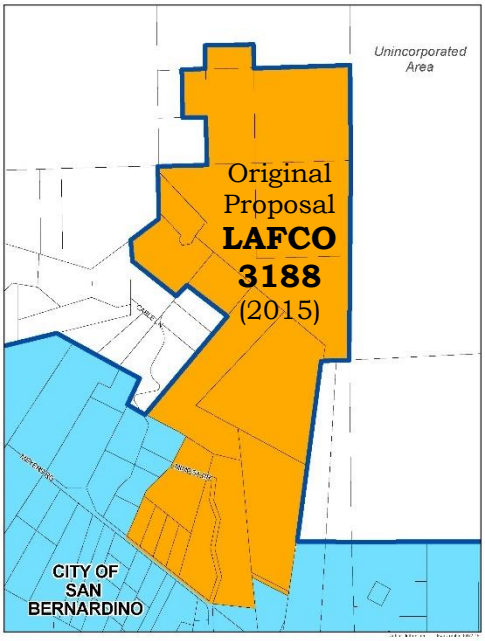


Fig. 3 – LAFCO 3188

That changed the annexation proposal from being (initially) an "uninhabited" annexation (less than 12 registered voters) to an "inhabited" annexation which allows for registered voter protest. This also meant likely termination due to registered voter protest—primarily from within the unincorporated island area. As a result, the applicant requested that LAFCO suspend the processing of its application proposal pending the outcome of the voter registration verification process by the ROV.

LAFCO 3188A

After almost a year, there still was no resolution from the ROV on the applicant's request for verification of registered voters within the annexation area. This prompted the applicant to submit a revised application in June 2016 that removed the adjacent unincorporated area from its proposal boundary (see Figure 4).

LAFCO 3188A, as submitted by the applicant, only included the annexation of properties solely associated with the Spring Trails Specific Plan Project and did not include the adjacent 26-acre unincorporated area, which creates a totally-surrounded island territory within the City.

LAFCO 3188A was approved by the Commission subject to a condition of approval that required the City to initiate the annexation of the adjacent 26-acre unincorporated area within one year of the Commission's approval of said LAFCO 3188A[1].

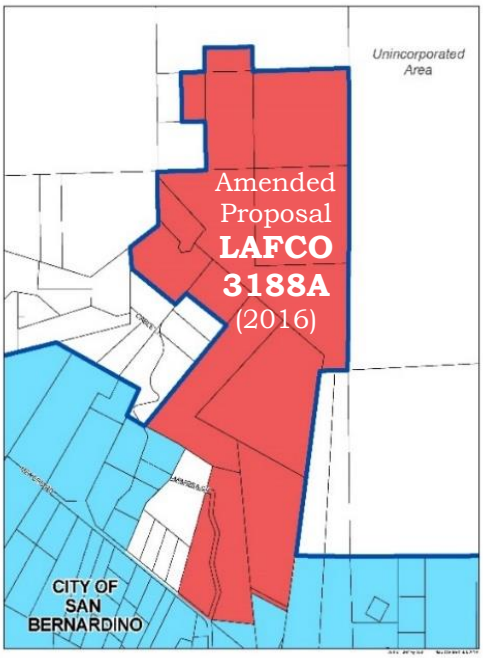


Fig. 4 – LAFCO 3188A

However, the city never initiated the annexation of the adjacent unincorporated area and the condition of approval was never met; therefore, in November 2020, LAFCO 3188A was terminated by LAFCO after the City failed to fulfill its obligation to initiate the annexation of said adjacent unincorporated area within the required one-year timeframe following the Commission's approval of LAFCO 3188A.

Litigation

Following the termination of LAFCO 3188A, the property owner sued the City and LAFCO; however, LAFCO's lawsuit was put on hold pending the outcome of the City's lawsuit. In the end, the City and the property owner reached a settlement and the lawsuit against LAFCO was eventually dropped by the property owner.

[1] LAFCO Resolution No. 3291 was adopted by the Commission on October 16, 2019, which included, among others, the following condition: "The City of San Bernardino shall be required to initiate annexation of the totally surrounded island within one year of the Commission's approval of LAFCO 3188A. A resolution by the City Council of the City of San Bernardino shall be submitted to the Executive Officer of LAFCO outlining the City's commitment to fulfilling this requirement prior to the issuance of the Certificate of Completion for LAFCO 3188A…"

The Settlement Agreement between the City and the property owner outlines, among other things, the requirement for the City to initiate and process through completion the annexation of the Spring Trails Specific Plan Project area (current item, LAFCO 3274) as well as the adjacent 26-acre unincorporated area (LAFCO 3275), which has also been submitted to LAFCO and would be considered by the Commission at a later date should it approve LAFCO 3274.

City of San Bernardino's Current Application(s):

On November 6, 2024, the City initiated (and is now processing) two separate applications to LAFCO (see Figure 5). First, the City Council unanimously adopted City Resolution No. 2024-220, which is its initiation and application for the Spring Trails Specific Plan Project, LAFCO 3274, that includes only the annexation of properties associated with the Spring Trails Project (shown in red shade).

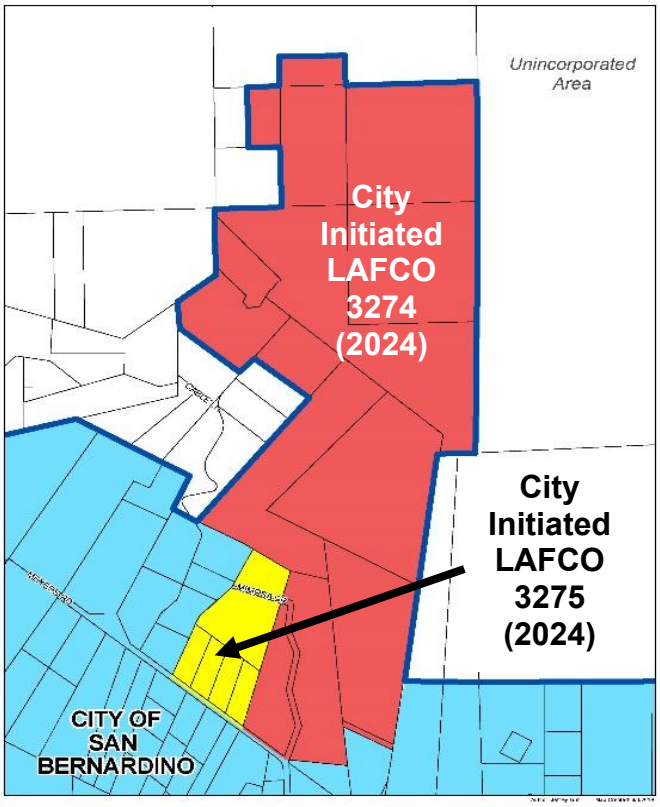


Fig. 5 – City's Applications

Then, the City Council also unanimously adopted City Resolution No. 2024-221, which is its separate application for the annexation of the adjacent 26-acre unincorporated area (shown in yellow shade, which has been assigned a LAFCO number, LAFCO 3275) that would be considered by the Commission at a later date should it approve LAFCO 3274.

This report will provide the Commission with the information related to the four major areas of consideration required for a jurisdictional change – boundaries, land uses, service issues and the effects on other local governments, and environmental considerations.

BOUNDARIES:

As noted earlier, LAFCO 3274 only includes the annexation of properties associated with the Spring Trails Specific Plan Project, which completely surrounds the adjacent 26-acre unincorporated area, thus creating a totally surrounded island (see Figure 6).

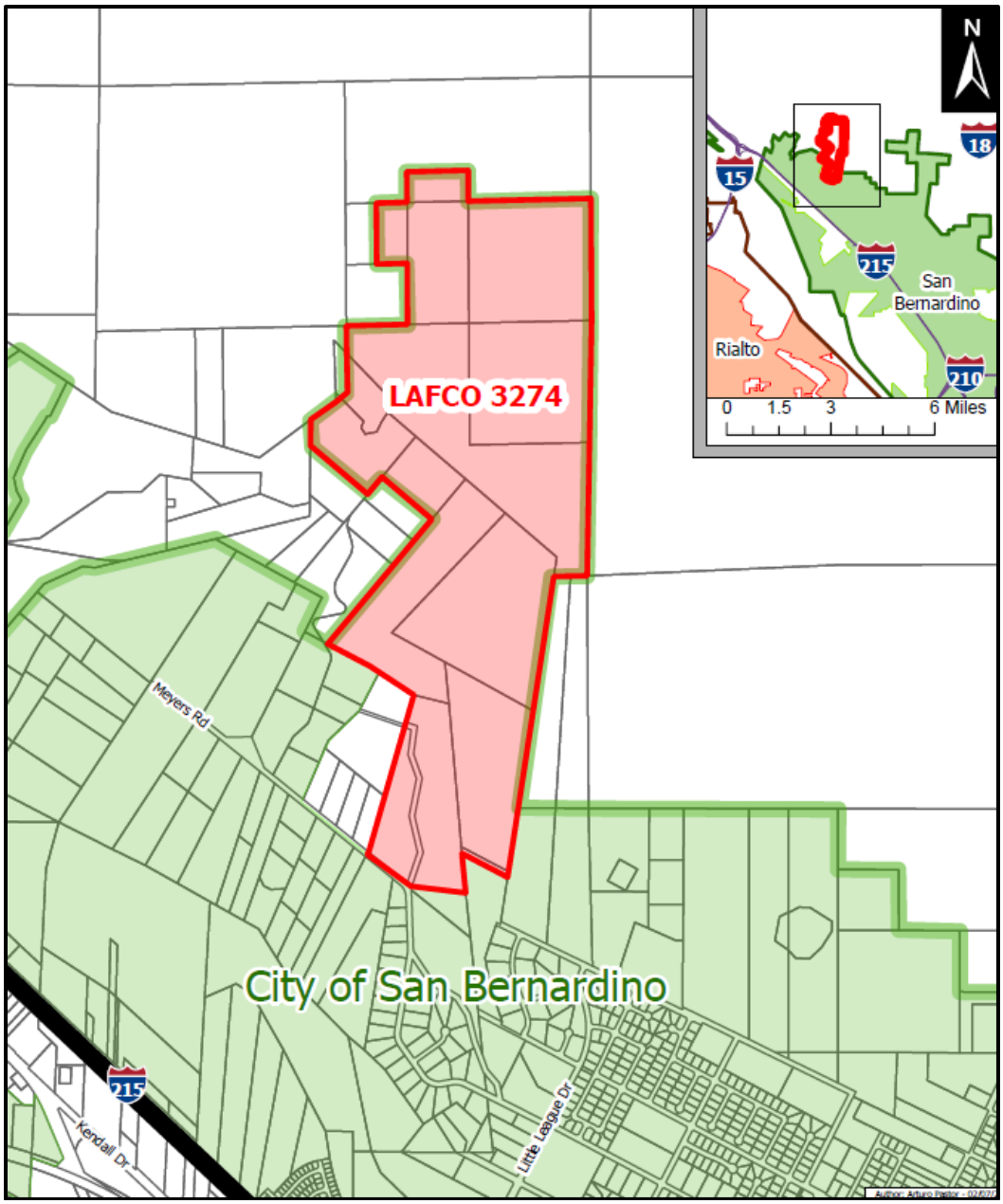


Fig. 6 – Detail Map of LAFCO 3274

In staff's view, the Commission has the following options to address the totally surrounded island given that the City has already initiated a separate application for the annexation of said adjacent 26-acre unincorporated area:

Option A: Expand LAFCO 3274 to include the adjacent 26-acre unincorporated area; or,

Option B: Approve LAFCO 3274 making the determinations required by Government Code Section 56375(m) regarding the creation of a totally surrounded island, which are that the imposition of the restrictions within GC 56744 would be detrimental to the orderly development of the community and that the area to be enclosed is so located that it cannot be reasonably annexed to another city or incorporate as a new city.

With regard to Option A, as discussed earlier related to the prior proposal (LAFCO 3188, discussed on pages 5 and 6 of the staff report), if both the Spring Trails Specific Plan Project area and the adjacent 26-acre unincorporated area were combined and considered together as one proposal, it would change the proposal from being an uninhabited annexation to an inhabited annexation since there would be at least 12 registered voters within the combined area.

Given that many have expressed opposition to the Spring Trails Specific Plan during the previous LAFCO consideration of the prior proposal, even from the very beginning of the City's consideration of said project, many have opposed said annexation to the City. Therefore, in staff's view, expansion of LAFCO 3274 to include the adjacent 26-acre unincorporated area would likely result in the termination of the proceedings since most of the registered voters are from within the said adjacent 26-acre island area.

Option B allows for the completion of LAFCO 3274 on the basis that the Spring Trails Specific Plan Project requires annexation into the City to get the project entitled and to receive the municipal-level services the Spring Trails Specific Plan Project requires. Although approval of LAFCO 3274 creates a totally surrounded island, it should be noted that the City has already initiated and submitted to LAFCO the annexation of the adjacent 26-acre unincorporated area (LAFCO 3275).

Therefore, staff supports approving LAFCO 3274 that includes only the properties associated with the Spring Trails Specific Plan Project by making the determination required by Government Code Section 56375(m), which is as follows:

> **The Commission determines that approval of LAFCO 3274 will create an unincorporated island surrounded by the City of San Bernardino. Since the inclusion of the island area would likely terminate the annexation proposal due to the number of registered voters within said island, the Commission determines, pursuant to the provision of Government Code Section 56375(m), to waive the restrictions on the creation of a totally-surrounded island contained within Government Code Section 56744 because it would be detrimental to the orderly development of the community, and it further determines that the area to be surrounded by the City of San Bernardino cannot reasonably be annexed to another city or incorporated as a new city.**

LAND USE:

The reorganization area is predominantly vacant with the exception of an existing single-family residence on one of the parcels with an associated nominal population (see Figure 7). According to the application submitted, the reorganization area has an approximate population of 20. The area is surrounded by a combination of National Forest boundary and vacant lands to the east; a combination of residential development including Meyers Road to the south; a combination of residential development, vacant lands, and the National Forest boundary to the west; and the National Forest boundary to the north.

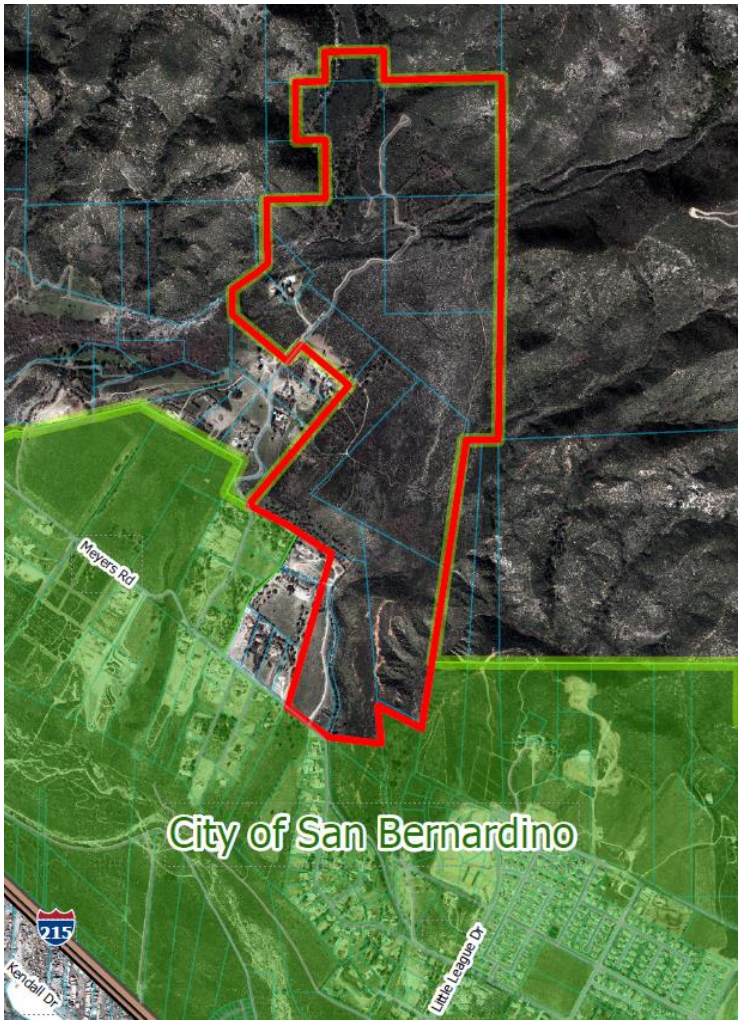


Fig. 7 – Aerial Map

County Land Use Designations:

The County's current land use designations for the reorganization area are: RL-5 (Rural Living, 5 acres minimum), which provides sites for rural residential uses and incidental agricultural uses; and RC (Resource Conservation), which provides sites for open space and recreational activities, and single-family homes on large parcels.

City's Land Use/Pre-zone Designation(s):

The City of San Bernardino has assigned the reorganization area as Spring Trails Specific Plan District and has pre-zoned the area as "Specific Plan No. 10-01, Spring Trails" under its Special Purpose Zones through the City's consideration of Ordinance No. MC-1386, which was adopted on March 5, 2013. The underlying Spring Trails Specific Plan pre-zone designations within the reorganization area are Residential (Estate), Open Space, and Parks that will take effect upon completion of the annexation process. Pursuant to the provisions of Government Code §56375(e), these zoning designations shall remain in effect for a period of two (2) years following annexation unless specific actions are taken by the City Council at a public hearing.

The Spring Trails Specific Plan

The Spring Trails Specific Plan (included as Attachment #3) is a proposed development within the 350-acre annexation area that was approved by the City Council of the City of San Bernardino in February 2013. At that time the Specific Plan was approved by the City, it contemplated development of 307 new single-family residential lots on approximately 242 acres and the remainder area for open space, parks, slopes, and other uses (see Figure 8).

Fig. 8 – Original Development Plan

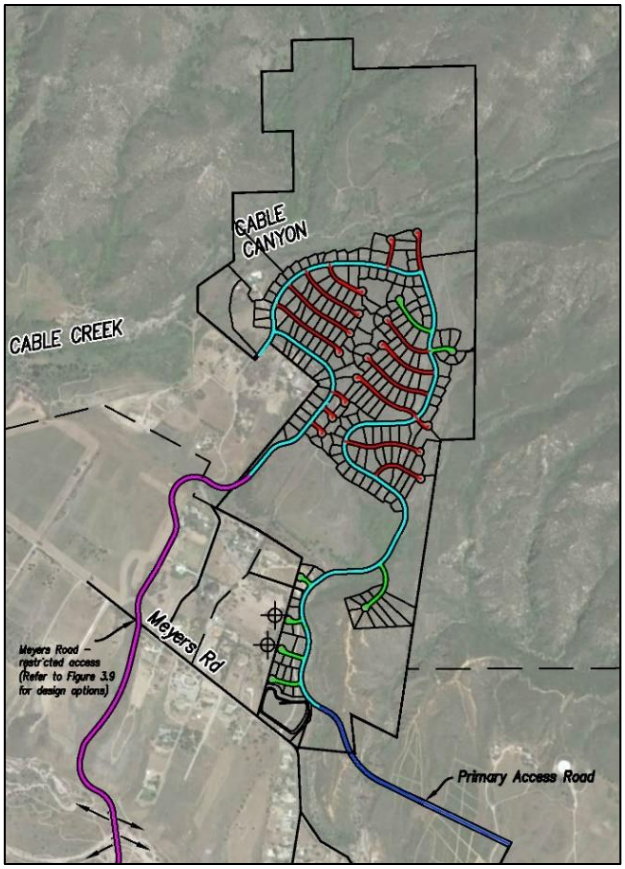


Fig. 9 – Current Development Plan

However, since the City's approval of the Specific Plan, the land area to be developed and the total number of residential lots have been reduced. Through subsequent analysis of the geology and soils within the Specific Plan Project area, it has been determined by the landowner that it is only feasible to construct 215 residential lots, and the land area to be developed has been significantly reduced from 242 acres to 199 acres (see Figure 9). The Current Development Plan configuration is also included as part of Attachment #1.

Constraints

Development of the Spring Trails Specific Plan Project includes a number of challenges that the Commission should be aware of given the location of the project. Below is a summary of some, but not all, of the constraints associated with the Spring Trails Specific Plan.

The Spring Trails is on the northern edge of the City in the foothills of the San Bernardino Mountains. The area is generally bounded by the San Bernardino National Forest on three sides and the elevation of the site ranges from approximately 2,010 feet above sea level at its southern boundary to approximately 3,540 feet at the northern boundary. The topography of the site varies from steep (over 30% slopes) in the north and southeast portions of the site to gentle (0–15% slopes) in the central portion of the site. The site slopes to the southwest at approximately 10 to 15%.

- *Fire Hazard*

Because the San Bernardino National Forest is adjacent to the project site, with steep slopes and high winds, the Spring Trails Specific Plan Project area is at risk from wildland fires (see Figure 10). The Foothill Fire Zone Overlay District identifies three fire zones with different degrees of hazard based on slope, type of fuel, and natural barriers. Approximately one third of the site is in Fire Zone A (Extreme Hazard with slopes 30% or greater), one third of the site is in Fire Zone B (High Hazard with slopes of 15–30%), and the remaining third is in Fire Zone C (Moderate Hazard with slopes of 0–15%). As noted in the Spring Trails Specific Plan, areas in the Foothill Fire Zones are required to be developed with proper building separation, landscaping, and building materials; adequate emergency access and evacuation routes; and sufficient water resources.

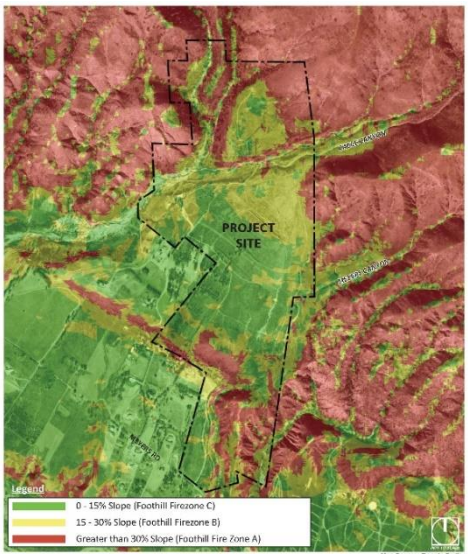


Fig. 10 – Topography (Fire Zones)

The recommended preventative measures are incorporated in the Specific Plan as standards for fuel modification zones, setbacks, landscaping methods/materials, construction materials/methods, and building protection systems. The Mitigation Monitoring Program for the Specific Plan also outlines mitigation measures on fire safety.

- *Fault Zone*

The site includes three traces of the San Andreas Fault zone that runs in a general east–west direction (see Figure 11). As noted in the Spring Trails Specific Plan, the southern portion of the site is traversed by two faults: the main trace of the San Andreas Fault and a secondary trace just north of the main trace. The fault zone of the main trace ranges from approximately 50 ft. to 150 ft. wide and the fault zone of the secondary trace is approximately 40 ft. wide.

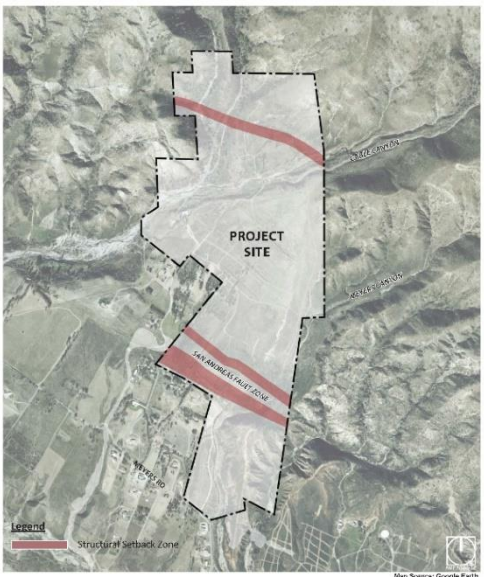


Fig. 11 – Earthquake Faults

The Spring Trails Specific Plan has been designed to comply with the requirements of the Alquist-Priolo Earthquake Fault Zoning Act, which prevents the construction of buildings within 50 feet of active faults. Setbacks and additional fault studies are included as mitigation measures in the Mitigation Monitoring Program for the Spring Trails Specific Plan.

- *Circulation*

The Spring Trails Project requires two points of access that connect directly to collector roads and avoid existing neighborhoods. The primary access to Spring Trails will be via a street extending from Little League Drive to the project site. Secondary access to Spring Trails will be via a street extending from the western edge of the project site to Frontage Road along the I-215 Freeway. The secondary access road is designed to restrict non-resident access onto Meyers Road. The Specific Plan complies with the City's Foothill Fire Overlay District development standards relating to access and circulation.

- *High Wind Areas*

The City of San Bernardino experiences periods of high velocity winds, especially in the Cajon Pass and at the bottoms of canyons. Spring Trails is included in the City's designated High Wind Area, which has certain building standards. Development will be required to comply with the building standards for this area. The Mitigation Monitoring Program for the Specific Plan outlines development guidelines for high wind areas.

- *Flooding and Drainage*

Because Spring Trails sits on an alluvial plain on the slopes of the San Bernardino Mountains, flooding and drainage are also critical factors. Spring Trails is designed to avoid grading or construction of residences in the flood plains.

These are just some of the constraints associated with the Spring Trails Specific Plan. These mitigation measures must be implemented by the City to allow development of the project. However, the Commission has no direct responsibility in implementing these mitigation measures.

SERVICE ISSUES AND EFFECTS ON OTHER LOCAL GOVERNMENTS:

In every consideration for jurisdictional change, the Commission is required to look at the existing and proposed service providers within an area. Due to the vacant nature of the lands currently, government service requirements are minimal – primarily law enforcement and fire protection. The current service providers within the reorganization area include the California Highway Patrol for law enforcement along existing roadways in the unincorporated areas, County of San Bernardino, San Bernardino County Fire Protection District, its Valley Service Zone, and its Zone FP-5, and County Service Area 70 (unincorporated, multi-function entity). In addition, the regional independent special districts—Inland Empire Resource Conservation District and the San Bernardino Valley Municipal Water District (State Water Contractor)—overlay the reorganization area.

Plan for Service:

The City's application includes a "Plan for Service" for this reorganization proposal as required by law and Commission policy (included as part of Attachment #2 to this report). The Plan for Service, which was prepared by Stanley R. Hoffman Associates and was certified by the City, includes a Fiscal Impact Analysis outlining its ability to provide its range of services and ongoing maintenance and operation to the area given the anticipated revenues and expenditures associated with the project. Also included with the materials for review is the Development Agreement approved by the City and the applicant, outlining land use assumptions, financing and service requirements for the reorganization area (the Development Agreement is included as part of Attachment #3). In general, the Plan identifies the following:

- Fire Protection and Emergency Medical Response:

  The entire reorganization area is currently designated as State Responsibility Area (SRA) lands. This designation would be removed upon annexation to the City and the financial burden for fire service transitions to the Local Responsibility Area.

  In 2016, the City of San Bernardino was annexed into the San Bernardino County Fire Protection District (County Fire), its Valley Service Zone, and its Zone FP-5 for fire protection and emergency medical response services. The area being annexed is already within the boundaries of County Fire; therefore, fire protection and emergency medical response services will continue to be provided by County Fire and its Valley Service Zone. No change in actual service provider will occur upon completion of the annexation.

  The closest fire station is Station #232 located on 6065 Palm Avenue, which is approximately 2.1 miles away from the project site. The next closest fire station is Station #2 located in Devore (1511 Devore Road), which is approximately 4.2 miles away from the project site.

  The Spring Trails project evaluated response times for a number of stations using time/distance calculations from the different fire stations to the project site via Meyers Road. Below are the drive times for the two stations nearest the project site:

Station		MPH	Miles	Time
1. Station #232		45	0.78	01:02
		25	0.16	00:23
		35	0.43	00:44
		35	0.70	01:12
	Meyers		2.07	03.21
	Ranch		3.31	05:29
	Farthest		3.74	**06:13**
2. Station #2		45	2.35	03:08
		35	1.38	02:22
	Meyers		3.75	05:30
	Ranch		4.97	07:38
	Farthest		5.40	**08:22**

source: Spring Trails Fire Protection Plan (Appendix G, STSP EIR)

Based on the calculations identified in the Spring Trails Fire Protection Plan, Station #232 can reach the farthest portion of the site in 6m 13s and Station #2 can get to the farthest portion of the site in 8m 22s.

LAFCO staff also prepared its own analysis of the drive times from both stations using the primary access road based on actual speed limits (see Figure 12). Staff's analysis indicates that Station #232 can reach the farthest portion of the site in 7m 4s, and Station #2 can get to the farthest portion of the site in 9m 7s.

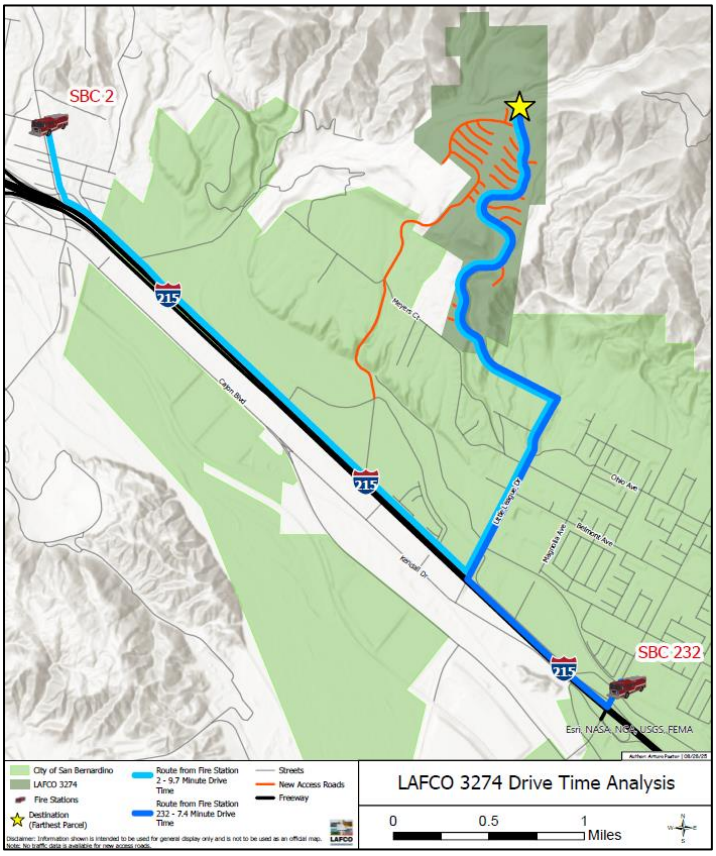


Fig. 12 – Drive Times

- Law Enforcement:

  Law enforcement responsibilities will shift from the San Bernardino County Sheriff's Department to the City of San Bernardino Police Department. The area is served by a main police station located at 710 North D Street, and four designated geographical patrol districts. The project area is within the City's patrol beat B1 in the Northwest Patrol District.

- Park and Recreation:

  Regional park and recreation services are currently provided by the County Regional Parks system. The closest regional park is Glen Helen Regional Park, which has various recreation activities. Due to the primarily vacant nature of the reorganization area, local park amenities are not currently provided.

  The City of San Bernardino has a variety of parks and recreation facilities. The closest City park is the Al Guhin Park located approximately 1.3 miles from the proposal area. The Spring Trails project plans to develop two neighborhood parks, natural open space, as well as pedestrian/equestrian trails.

- Water Service:

  Water service will be provided by the City's Municipal Water Department, as outlined in its Plan for Service. Current storage facilities nearest to Spring Trails is the Meyers Canyon Reservoir, but is not adequate for buildout of Spring Trails. Therefore, water will be supplied to Spring Trails by a combination of expanding and improving the offsite water systems and the provision of onsite reservoirs and transmission lines.

  The City's Municipal Water Department outlines the need for the developer to enter into an agreement with Department and provide its share of funding to construct the infrastructure necessary to serve the new pressure zones. In addition, the developer must enter into a developer-installed agreement and provide a performance bond to install the required transmission and distribution mains for construction.

- Sewer Service:

  Sewer collection and treatment will also be provided by the City's Municipal Water Department. There is no sewage collection system within the area at the present time. The Sewer Capacity Study concludes that the City's existing sewer system has the capacity to accommodate the project.

  Spring Trails would connect to the existing 10-inch main located on Little League Drive. The only offsite improvement that may be required is in North Little League Drive, which may be upgraded from an 8-inch to a 10-inch main.

- Solid Waste

  Solid waste services are currently provided by Burrtec Industries within the reorganization area and within the City of San Bernardino (by contract). No change in service provider will occur through the annexation.

- Schools

  The area is within the San Bernardino City Unified School District (SBCUSD). Upon annexation, SBCUSD will continue to be the school district with North Verdemont Elementary School, Chavez Middle School, and Cajon High School.

As required by Commission policy and State law, the Plan for Service submitted by the City of San Bernardino and its Municipal Water Department show that the extension of the City's services to the reorganization area are required to provide the level of service anticipated by the Spring Trails Specific Plan Project. Such service extensions will exceed current service levels provided through the County as the area is primarily vacant at the present time.

ENVIRONMENTAL CONSIDERATIONS:

The City's processing of the Spring Trails Specific Plan included the preparation and certification of an Environmental Impact Report (EIR) that was finalized by the City in 2013. LAFCO's Environmental Consultant, Tom Dodson and Associates, has reviewed the City's Complete Final EIR, which includes the Draft EIR and the Final EIR, and determined that, if the Commission chooses to approve LAFCO 3274, the City's environmental documents are adequate for the Commission's use as a responsible agency under the California Environmental Quality Act (CEQA). The following are the actions that are appropriate for the review of LAFCO 3274, which are:

- Certify that the Commission, its staff, and its Environmental Consultant have individually reviewed and considered the environmental assessment for the Spring Trails Specific Plan prepared by the City of San Bernardino;

- Determine that the Complete Final EIR is adequate for the Commission's use in making its decision related to LAFCO 3274;

- Determine that the Commission does not intend to adopt alternatives or additional mitigation measures for the project; that the mitigation measures identified in the City's environmental documents for the Spring Trails Specific Plan are the responsibility of the City and others, not the Commission;

- Adopt the Facts, Findings and Statement of Overriding Considerations as presented by Mr. Dodson, which are the conclusions made regarding the significance of a project in light of the impacts and mitigation measures that have been identified; and,

- Direct the Executive Officer to file the Notice of Determination within five days and find that no further Department of Fish and Wildlife filing fees are required by the Commission's approval since the City, as lead agency, has paid said fees.

Mr. Dodson's response letter is included as Attachment #4 to this report. The draft Facts, Findings and Statement of Overriding Considerations is attached to Mr. Dodson's letter. Copies of the City's Complete Final EIR and all associated documents are included as web links located on the last page of said Attachment #4.

WAIVER OF PROTEST PROCEEDINGS:

The reorganization area is legally uninhabited (as determined by the Registrar of Voters office) and LAFCO staff verified that the study area possesses 100% landowner consent to the annexation. Therefore, if the Commission approves LAFCO 3274 and none of the subject agencies have submitted written opposition to a waiver of protest proceedings, staff is recommending that protest proceedings be waived. The actions would include direction to the Executive Officer to complete the reorganization following completion of the mandatory reconsideration period of 30-days.

CONCLUSION:

In the mid-90s, the property owner already began planning the development of its landholdings that encompass the Spring Trails Specific Plan Project area. This began by a request to LAFCO for expansion of the City's sphere of influence in 1996. The first development project was originally called "Martin Ranch". As noted in the History Section of this report, the prior Martin Ranch and the current Spring Trails Specific Plan Project has been in the making for more than 25 years with numerous changes to the project description and multiple Draft EIRs prepared and revised since its inception. The final project approved and/or adopted by the City of San Bernardino, which is the Spring Trails Specific Plan Project, requires a broad range and level of municipal services that are only available through the City of San Bernardino.

The reorganization area will benefit from the extension of the City's services as well as the continuation of fire protection and emergency medical response services from the San Bernardino County Fire Protection District and its Valley Service Zone based upon the anticipated development of 215 (current configuration) single-family residences, open space, parks, and other public facilities.

The Spring Trails Specific Plan was approved and adopted by the City with certain guidelines, conditions of approval, and mitigation measures. Therefore, the Commission's approval of LAFCO 3274 assumes that the City will adhere to the parameters that have been imposed on the Spring Trails Specific Plan Project and the mitigation measures outlined in the Mitigation Monitoring Program for the Spring Trails Specific Plan.

However, approval of this proposal calls into question the issue related to the adjacent unincorporated area that will become totally-surrounded by the City of San Bernardino. This report provides for options for addressing the creation of said island territory. Staff recommends including a determination required by Government Code Section 56375(m), which can be applied to this proposal, noting that the City has already initiated the annexation of said adjacent 26-acre unincorporated area.

For all these reasons, and those outlined throughout the staff report, staff supports approval of LAFCO 3274 as the Spring Trails Specific Plan Project will benefit from the full range of municipal level services available from the City of San Bernardino.

DETERMINATIONS:

The following determinations are required to be provided by Commission policy and Government Code Section 56668 for any changes of organization/reorganization proposal:

1. The reorganization area is legally uninhabited containing five (5) registered voters as of August 6, 2025, as certified by the County Registrar of Voters Office.

2. The County Assessor's Office has determined that the total assessed value of land and improvements within the reorganization area is $2,604,332 (land--$2,493,122; improvements--$111,210) as of April 1, 2025.

3. The reorganization area is within the sphere of influence of the City of San Bernardino.

4. Legal notice of the Commission's consideration has been provided through publication in *The Sun*, a newspaper of general circulation within the reorganization area. In addition, individual notices were provided to all affected and interested agencies, County departments, and those individuals and agencies having requested such notification. Comments from affected and interested agencies have been considered by the Commission in making its determination.

5. In compliance with the requirements of Government Code Section 56157 and Commission policies, LAFCO staff has provided individual notice to:

    - landowners (14) and registered voters (5) within the reorganization area (totaling 19 notices); and,

    - landowners (92) and registered voters (117) surrounding the reorganization area (totaling 209 notices).

    Comments from registered voters, landowners, and other individuals and any affected local agency in support or opposition have been reviewed and considered by the Commission in making its determination.

6. The reorganization area is predominantly vacant with the exception of an existing single-family residence on one of the parcels with an associated nominal population.

    The City of San Bernardino adopted the Spring Trails Specific Plan (SP #10-01) along with a General Plan Amendment (GPA #02-09) and a Development Code Amendment (DCA #12-10), which pre-zoned the reorganization area as Spring Trails Specific Plan with the following underlying specific plan zone designations: Residential (Estate), Open Space, and Parks. These pre-zone/specific plan zone designations are consistent with the City's General Plan and are generally compatible with surrounding land uses within the City and in the County. Pursuant to the provisions of Government Code Section 56375(e), these pre-zone designations shall remain in effect for two years following annexation unless specific actions are taken by the City Council.

7. The Southern California Associated Governments (SCAG) recently adopted its 2024-2050 Regional Transportation Plan and Sustainable Communities Strategy (RTP-SCS), referred to as Connect SoCal 2024, pursuant to Government Code Section 65080. The 2025 Federal Transportation Improvement Program includes plans for the reconstruction of the University Parkway interchange on the I-215 Freeway and a non-capacity landscaping project along said I-215 Freeway within the City of San Bernardino, which is in close proximity to LAFCO 3274.

8. The City of San Bernardino recently adopted its 2024 Local Hazard Mitigation Plan (LHMP) in May 2025 (Resolution No. 2025-282). Said LHMP includes hazards such as earthquake/geologic hazards, high wind, and wildfire, which are considered high probability hazards given the location of the Spring Trails project. In 2022, the County of San Bernardino created a Multi-Jurisdictional Hazard Mitigation Plan which presents updated information about the County's climate hazards. The risk assessment was added to align and comply with the State's Hazard Mitigation Plan and recent SB 379 initiatives.

   Note: The City's 2024 Local Hazard Mitigation Plan as well as the Safety Element portion of the City's General Plan are included as Attachment #5 to this report.

9. A Complete Final Environmental Impact Report (EIR) was prepared and certified as adequate by the City of San Bernardino for its approval of the Spring Trails Specific Plan (SCH No. 2009111086). The Commission, its staff, and its Environmental Consultant have independently reviewed the City's Complete Final EIR and found it to be adequate for the reorganization decision.

   The Commission certifies that it has reviewed and considered the City's Complete Final EIR and the effects outlined therein, and as referenced in the Facts, Findings and Statement of Overriding Considerations, prior to reaching a decision on the project. By considering the Complete Final EIR adopted by the City of San Bernardino and adopting the revised Facts, Findings and Statement of Overriding Considerations for the proposal, the Commission is reconfirming its position regarding the adequacy of the City's Complete Final EIR and originally-approved Statement of Overriding Considerations in light of the reduced Project scope, for purposes of its approval of LAFCO 3274 as a Responsible Agency under CEQA.

   The Commission hereby acknowledges the mitigation measures and mitigation monitoring and reporting program contained in the City's Complete Final EIR and finds that no additional feasible alternatives or mitigation measures will be adopted by the Commission. The Commission finds that all changes, alterations, and mitigation measures are within the responsibility and jurisdiction of the City and other agencies, and not the Commission. The Commission finds that it is the responsibility of the City to oversee and implement these measures and the mitigation monitoring and reporting program.

   The Commission hereby adopts the Facts, Findings and Statement of Overriding Considerations regarding the environmental effects of the reorganization. The Commission finds that all feasible changes or alterations have been incorporated into

the project; that these changes are the responsibility of the City and other agencies identified in the Facts, Findings and Statement of Overriding Considerations and the City's Complete Final EIR; and that specific economic, social or other considerations make infeasible adoption of the alternatives identified in the City's Complete Final EIR.

The Commission directs its Executive Officer to file a Notice of Determination within five (5) days with the San Bernardino County Clerk of the Board of Supervisors. The Commission, as a Responsible Agency, also notes that this proposal is exempt from the California Department of Fish and Wildlife fees because the fees were the responsibility of the City of San Bernardino as a CEQA Lead Agency.

10. The local agencies currently serving the area are: County of San Bernardino, Inland Empire Resource Conservation District, San Bernardino Valley Municipal Water District, San Bernardino County Fire Protection District, its Valley Service Zone, and its Zone FP-5 (fire protection and emergency medical response), and County Service Area 70 (multi-function unincorporated County-wide).

    Upon reorganization, the area will be detached from County Service Area 70 and its sphere of influence reduced as a function of the reorganization. None of the other agencies are affected by this proposal as they are regional in nature.

11. The City of San Bernardino has submitted a plan for the provision of services to the reorganization area, as required by Government Code Section 56653. The Plan for Service and the Fiscal Impact Analysis, as certified by the City, indicates that the City can, at a minimum, maintain and/or improve the level and range of services currently available in the area.

    The Plan for Service and Fiscal Impact Analysis have been reviewed and compared with the standards established by the Commission and the factors contained within Government Code Section 56668. The Commission finds that the Plan for Service and the Fiscal Impact Analysis conform to those adopted standards and requirements.

    The Plan indicates that the revenues to be provided through the transfer of property tax revenues and existing and potential financing mechanisms are anticipated to be sufficient to provide for the infrastructure and ongoing maintenance and operation of the services to be provided from the City of San Bernardino and its Municipal Water Department as well as the services from the San Bernardino County Fire Protection District and its Valley Service Zone.

12. The reorganization area will benefit from the availability and extension of municipal-level services from the City of San Bernardino.

13. The reorganization proposal complies with Commission policies and directives and State law that indicate the preference for areas proposed for urban intensity development to be included within a City so that the full range of municipal services can be planned, funded, extended, and maintained.

However, approval of this proposal will create an island of unincorporated territory that will be totally-surrounded by the City of San Bernardino. The City has already initiated the annexation of the adjacent 26-acre unincorporated island area (LAFCO 3275) to be considered at a later date should the Commission approve LAFCO 3274.

14. This proposal will assist the City of San Bernardino's ability to achieve its fair share of the regional housing needs as it proposes to build the addition of 215 single-family residential units.

15. With respect to environmental justice, which is the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services, the following demographic and income profile was generated using ESRI's Business Analyst for the City of San Bernardino and the reorganization and adjacent unincorporated areas (2025 data):

Demographic and Income Comparison	City of San Bernardino (%)	Reorganization Area and Adjacent Unincorporated Area (%)
Race and Ethnicity		
• White Alone	22.7 %	60.5 %
• Black Alone	11.6 %	2.7 %
• American Indian Alone	2.3 %	1.3 %
• Asian Alone	4.3 %	4.6 %
• Pacific Islander Alone	0.4 %	0.2 %
• Some Other Race Alone	41.8 %	14.8 %
• Two or More Races	16.9 %	15.9 %
• Hispanic Origin (Any Race)	70.7 %	35.2 %
Median Household Income	$77,677	$128,136

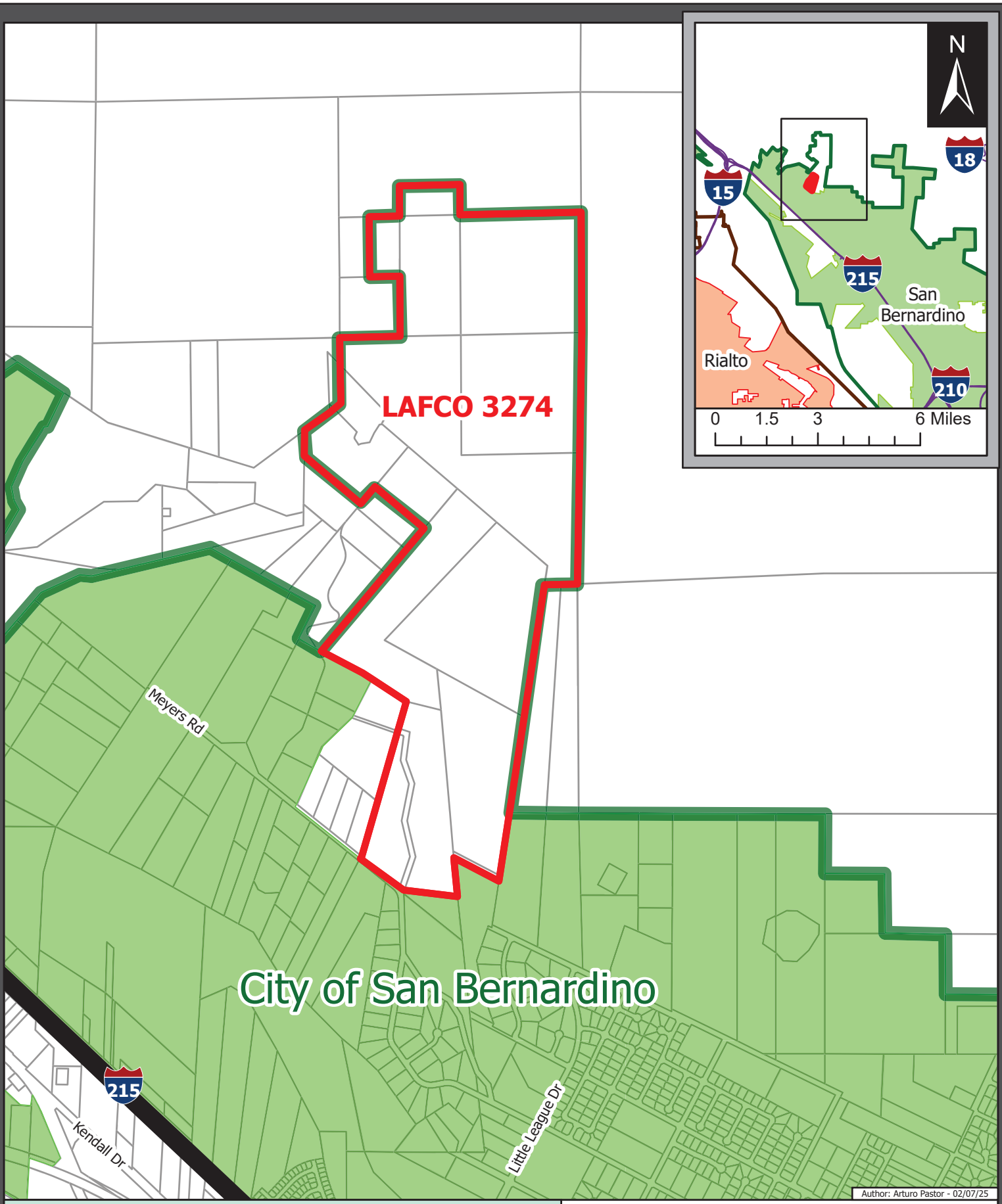
Through future development, the reorganization area will benefit from the extension of services and facilities from the City and, at the same time, would not result in the deprivation of service or the unfair treatment of any person based on race, culture or income through approval of LAFCO 3274.

16. The County (for itself and acting on behalf of the San Bernardino County Fire Protection District) and the City of San Bernardino have negotiated a transfer of property tax revenues that will be implemented upon completion of this reorganization. Copies of the resolutions adopted by the City Council of the City of San Bernardino and the San Bernardino County Board of Supervisors are on file in the LAFCO office outlining the exchange of revenues.

17. The maps and legal descriptions, as revised, are in substantial compliance with LAFCO and State standards through certification by the County Surveyor's Office.

Attachments:

1. Vicinity Map, Reorganization Map, and Current Development Plan Configuration
2. City's Application and Plan for Service
3. Spring Trails Specific Plan and Recorded Development Agreement
4. Letter from Tom Dodson and Associates and Facts, Findings and Statement of Overriding Considerations, and Environmental Documents Related to the City of San Bernardino's Approval of the Spring Trails Specific Plan
5. City of San Bernardino's 2024 Local Hazard Mitigation Plan and Safety Element Portion of the City's General Plan
6. Draft Resolution No. 3427 for LAFCO 3274



Vicinity Map

LAFCO 3274 - Reorganization to Include Annexation to the City of San Bernardino and Detachment from County Service Area 70 (Springs Trails Specific Plan Project)

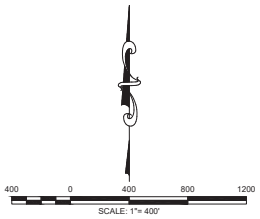
SBC Freeways
City of San Bernardino
City of San Bernardino Sphere
Parcels
LAFCO 3274

N
W E
S

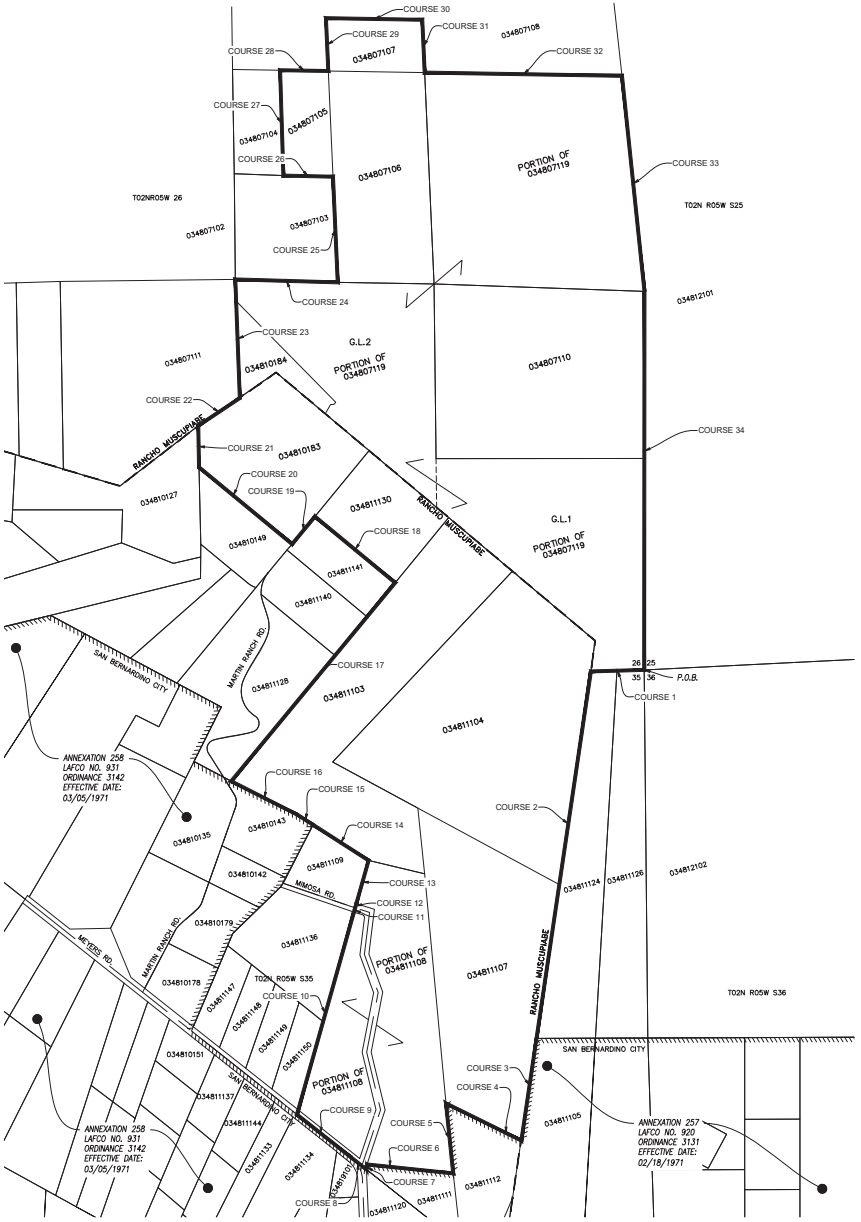
Disclaimer: This information shown is intended to be used as general display and is not to be used as an official map.

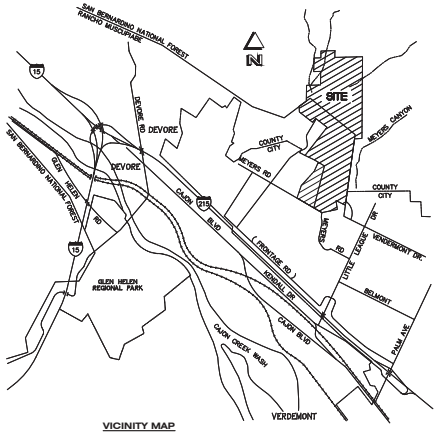
0 300 600 Yards

LAFCO 3274 - REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (SPRING TRAILS SPECIFIC PLAN PROJECT)



Line Table		
Line #	Direction	Length
COURSE 1	S88° 23' 29"W	363.28
COURSE 2	S08° 25' 45"W	2529.70
COURSE 3	S08° 25' 45"W	703.63
COURSE 4	N63° 46' 26"W	572.96
COURSE 5	S05° 53' 31"E	480.00
COURSE 6	N84° 02' 43"W	590.01
COURSE 7	S06° 50' 45"W	35.48
COURSE 8	N51° 31' 14"W	132.22
COURSE 9	N51° 38' 25"W	472.85
COURSE 10	N15° 43' 10"E	1433.20
COURSE 11	N15° 44' 02"E	30.01
COURSE 12	N15° 53' 54"E	30.01
COURSE 13	N15° 53' 55"E	306.36
COURSE 14	N57° 15' 54"W	448.80
COURSE 15	N57° 17' 03"W	124.74
COURSE 16	N63° 07' 32"W	509.44
COURSE 17	N39° 33' 40"E	1755.23
COURSE 18	N50° 27' 28"W	709.08
COURSE 19	S39° 36' 09"W	244.15
COURSE 20	N50° 26' 50"W	823.52
COURSE 21	N00° 58' 41"W	282.73
COURSE 22	N56° 18' 05"E	340.00
COURSE 23	N02° 08' 54"W	809.56
COURSE 24	S88° 20' 06"E	698.21
COURSE 25	N02° 32' 47"W	721.28
COURSE 26	N88° 40' 48"W	338.59
COURSE 27	N01° 45' 10"W	718.47
COURSE 28	S89° 03' 45"E	328.48
COURSE 29	N02° 32' 47"W	360.64
COURSE 30	S89° 03' 45"E	656.96
COURSE 31	S02° 32' 47"E	360.64
COURSE 32	S89° 03' 45"E	1345.57
COURSE 33	S05° 57' 30"E	1477.72
COURSE 34	S00° 02' 57"W	2580.79





VICINITY MAP
N.T.S.

GENERAL DESCRIPTION

- LOCATED NORTH OF MYERS ROAD / WEST OF LITTLE LEAGUE DRIVE
- 349.36 ACRES

LEGEND

- BOUNDARY LIMITS
- EXISTING RANCHO
- EXISTING CENTERLINES
- EXISTING PROPERTY LINES
- EXISTING CITY BOUNDARY
- EXISTING UNPAVED ROAD

LAFCO 3274

REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (SPRING TRAILS SPECIFIC PLAN PROJECT)

BONADIMAN

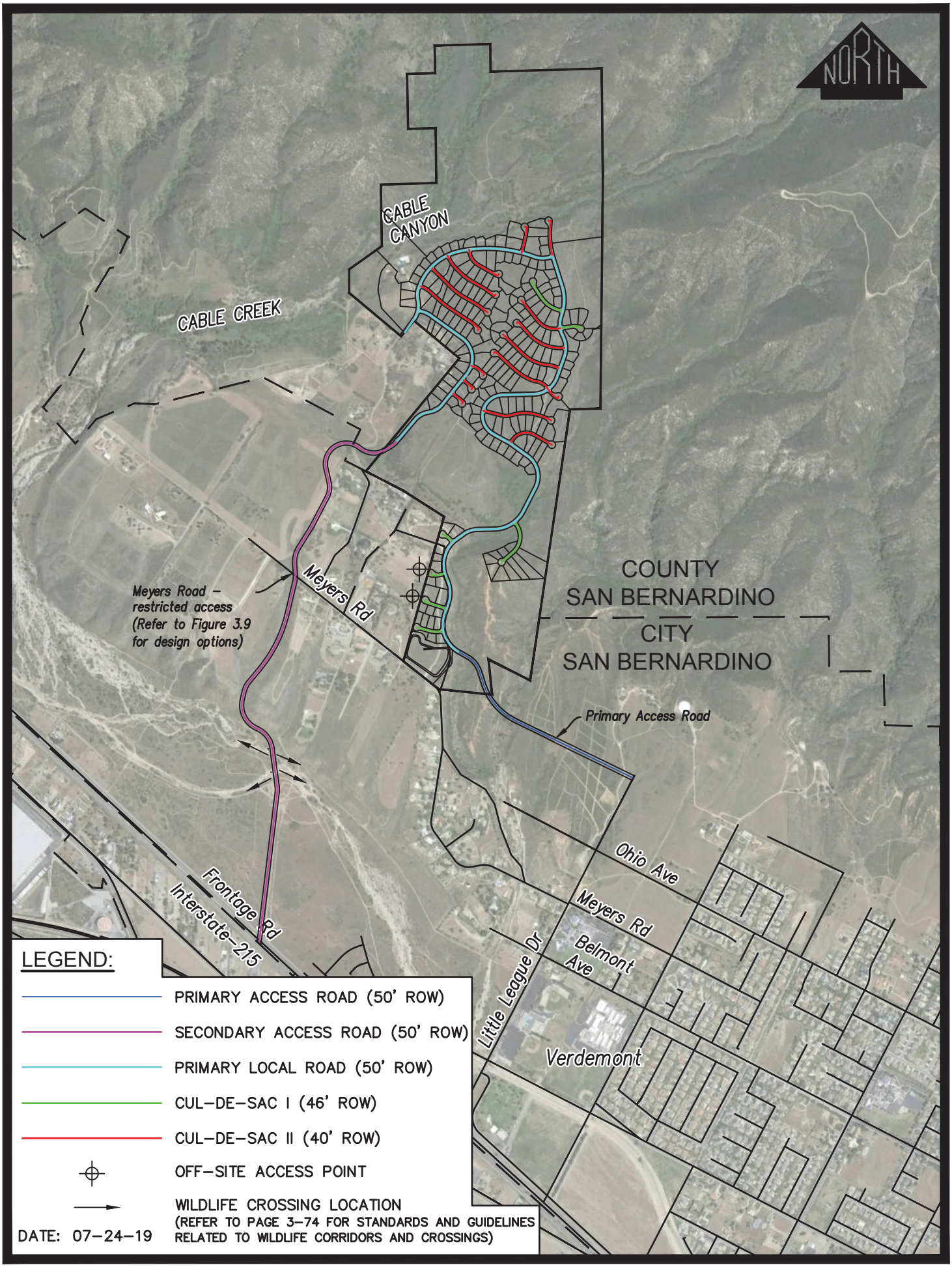
EDWARD J. BONADIMAN
L.S. 7529

08-29-25
DATE

LICENSED LAND SURVEYOR
EDWARD J. BONADIMAN
L.S. 7529
STATE OF CALIFORNIA

PREPARED FOR: MONTECITO EQUITIES LTD

DRAWN BY:	JH	SCALE:	1" = 400'	SHEET: 1 OF 1	D1
CHECKED BY:	E.J.B.	JOB NO:	133952		
DISREGARD PRINTS BEARING EARLIER REVISION DATES		08-29-25			


NORTH
CABLE CANYON
CABLE CREEK
Meyers Road – restricted access (Refer to Figure 3.9 for design options)
Meyers Rd
COUNTY SAN BERNARDINO
CITY SAN BERNARDINO
Primary Access Road
Ohio Ave
Meyers Rd
Belmont Ave
Little League Dr
Verdemont
Frontage Rd
Interstate-215
LEGEND:
PRIMARY ACCESS ROAD (50' ROW)
SECONDARY ACCESS ROAD (50' ROW)
PRIMARY LOCAL ROAD (50' ROW)
CUL-DE-SAC I (46' ROW)
CUL-DE-SAC II (40' ROW)
OFF-SITE ACCESS POINT
WILDLIFE CROSSING LOCATION
(REFER TO PAGE 3-74 FOR STANDARDS AND GUIDELINES RELATED TO WILDLIFE CORRIDORS AND CROSSINGS)
DATE: 07-24-19

(FOR LAFCO USE ONLY)

SAN BERNARDINO LAFCO
APPLICATION AND PRELIMINARY
ENVIRONMENTAL DESCRIPTION FORM

INTRODUCTION: The questions on this form and its supplements are designed to obtain enough data about the proposed project site to allow the San Bernardino LAFCO, its staff and others to adequately assess the project. By taking the time to fully respond to the questions on the forms, you can reduce the processing time for your project. You may also include any additional information which you believe is pertinent. Use additional sheets where necessary, or attach any relevant documents.

GENERAL INFORMATION

1. NAME OF PROPOSAL: Application for LAFCO _____

   LAFCO 3274 - Reorganization to Include Annexation to the City of San Bernardino and Detachment from County Service Area 70 (Spring Trials Specific Plan Project)

   Annex tract No. 15576 (Spring Trails) into the City of San Bernardino

2. NAME OF APPLICANT: City of San Bernardino

   MAILING ADDRESS: 201 North E Street, San Bernardino, CA 92401

   PHONE: (909) 384-5567

   FAX: _____

   E-MAIL ADDRESS: Martin_tr@sbcity.org

3. GENERAL LOCATION OF PROPOSAL: North of Meyers Road, east of Little League Drive

4. Does the application possess 100% written consent of each landowner in the subject territory?
   YES _X_ NO ___ If YES, provide written authorization for change.

5. Indicate the reasons that the proposed action has been requested. Approval of the Spring Trails project requires annexation into the City of San Bernardino. _____

6. Would the proposal create a totally or substantially surrounded island of unincorporated territory?
   YES __ NO _X__ If YES, please provide a written justification for the proposed boundary configuration.

(FOR LAFCO USE ONLY)

LAND USE AND DEVELOPMENT POTENTIAL

1. Total land area (defined in acres): 349 more or less

2. Current dwelling units in area classified by type (Single Family detached, multi-family (duplex, four-plex, 10-unit), apartments) Single Family homes

3. Approximate current population in area: 20

4. Indicate the General Plan designation(s) of the affected city (if any) and uses permitted by this designation(s):

   General Plan No. 02-09 will establish the Spring Trails Specific Plan as the pre zoning for the project site and will establish the RE, Residential Estate land use district for the additional 26.4 acre annexation area. Specific Plan # 10-01 for Tentative Tract No. 15576, will establish the site development standards.

   San Bernardino County General Plan designation(s) and uses permitted by this designation(s):

5. Describe any special land use concerns expressed in the above plans. In addition, for a City Annexation or Reorganization, provide a discussion of the land use plan's consistency with the regional transportation plan as adopted pursuant to Government Code Section 65080 for the subject territory:

   Not applicable

6. Indicate the existing land use. Approximately 160 acres in the northern portion of the site is Resource Conservation (RC) and approximately 190.6 acres in the southern portion of the site is Rural Living (RL-5) which allows up to one dwelling unit per five (5) acres.

   What is the proposed land use? Spring Trails Specific plan # 10-01

(FOR LAFCO USE ONLY)

7. For a city annexation, State law requires pre-zoning of the territory proposed for annexation. Provide a response to the following:

   a. Has pre-zoning been completed? YES _X__ NO ___
   b. If the response to "a" is NO, is the area in the process of pre-zoning? YES ___ NO ___

   Identify below the pre-zoning classification, title, and densities permitted. If the pre-zoning process is underway, identify the timing for completion of the process.

   _____

   _____

   _____

8. Will the proposal require public services from any agency or district which is currently operating at or near capacity (including sewer, water, police, fire, or schools)? YES ___ NO _X__ If YES, please explain.

   _____

   _____

   _____

9. On the following list, indicate if any portion of the territory contains the following by placing a checkmark next to the item:

   ☐ Agricultural Land Uses ☐ Agricultural Preserve Designation

   ☐ Williamson Act Contract ☐ Area where Special Permits are Required

   ☐ Any other unusual features of the area or permits required: _____

   _____

10. If a Williamson Act Contract(s) exists within the area proposed for annexation to a City, please provide a copy of the original contract, the notice of non-renewal (if appropriate) and any protest to the contract filed with the County by the City. Please provide an outline of the City's anticipated actions with regard to this contract.

    _____

    _____

    _____

11. Provide a narrative response to the following factor of consideration as identified in §56668(o): *The extent to which the proposal will promote environmental justice. As used in this subdivision, "environmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services:*

    _____

    _____

(FOR LAFCO USE ONLY)

ENVIRONMENTAL INFORMATION

1. Provide general description of topography. A plateau rising in elevation from 1200 to 2200 feet. __

2. Describe any existing improvements on the site as % of total area.

Residential	5%	Agricultural	0%
Commercial	0%	Vacant	95%
Industrial	0%	Other	0%

3. Describe the surrounding land uses:

NORTH	Vacant USFS
EAST	Vacant privately owned
SOUTH	Residential
WEST	Vacant privately owned

4. Describe site alterations that will be produced by improvement projects associated with this proposed action (installation of water facilities, sewer facilities, grading, flow channelization, etc.).

Construction of 215 single family homes, the installation of the sewer, water, storm drain, streets parks and trails

5. Will service extensions accomplished by this proposal induce growth on this site? YES _X__ NO __ Adjacent sites? YES __X_ NO ___ Unincorporated _X__ Incorporated ___

6. Are there any existing out-of-agency service contracts/agreements within the area? YES ___ NO _X__ If YES, please identify.

(FOR LAFCO USE ONLY)

7. Is this project a part of a larger project or series of projects? YES ___ NO X__ If YES, please explain.

_____

_____

_____

NOTICES

Please provide the names and addresses of persons who are to be furnished mailed notice of the hearing(s) and receive copies of the agenda and staff report.

NAME City of San Bernardino – Travis Martin TELEPHONE NO. (909) 384-5567

ADDRESS: 201 North E Street, 3rd Floor, San Bernardino, CA 92401

NAME _____ TELEPHONE NO. _____

ADDRESS: _____

NAME _____ TELEPHONE NO. _____

ADDRESS:

_____

CERTIFICATION

As a part of this application, City of San Bernardino. (the applicant) (real party in interest: subject landowner agree to defend, indemnify, hold harmless, and release the San Bernardino LAFCO, its agents, officers, attorneys, and employees from any claim, action, proceeding brought against any of them, the purpose of which is to attack, set aside, void, or annul the approval of this application or adoption of the environmental document which accompanies it. This indemnification obligation shall include, but not be limited to, damages, costs, and expenses, including attorney fees. The person signing this application will be considered the proponent for the proposed action(s) and will receive all related notices and other communications. I/We understand that if this application is approved, the Commission will impose a condition requiring the applicant to indemnify, hold harmless and reimburse the Commission for all legal actions that might be initiated as a result of that approval.

As the proponent, I/We acknowledge that annexation to the city of San Bernardino may result in the imposition of taxes, fees, and assessments existing within the (city or district) on the effective date of the change of organization. I hereby waive any rights I may have under Articles XIIIC and XIIID of the State Constitution (Proposition 218) to a hearing, assessment ballot processing or an election on those existing taxes, fees and assessments.

I hereby certify that the statements furnished above and in the attached supplements and exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented herein are true and correct to the best of my knowledge and belief.

(FOR LAFCO USE ONLY)

DATE FEB. 6, 2025

SIGNATURE OF APPLICANT

ROCHELLE CLAYTON

PRINTED NAME OF APPLICANT

ACTING CITY MANAGER

TITLE

PLEASE CHECK SUPPLEMENTAL FORMS ATTACHED:

- ☐ ANNEXATION, DETACHMENT, REORGANIZATION SUPPLEMENT
- ☐ SPHERE OF INFLUENCE CHANGE SUPPLEMENT
- ☐ CITY INCORPORATION SUPPLEMENT
- ☐ FORMATION OF A SPECIAL DISTRICT SUPPLEMENT
- ☐ ACTIVATION OR DIVESTITURE OF FUNCTIONS AND/OR SERVICES FOR SPECIAL DISTRICTS SUPPLEMENT

KRM-Rev. 8/15/2012

(FOR LAFCO USE ONLY)

SUPPLEMENT
ANNEXATION, DETACHMENT, REORGANIZATION PROPOSALS

LAFCO 3274 - Reorganization to Include Annexation to the City of San Bernardino and Detachment from County Service Area 70 Spring Trails Specific Plan Project)

INTRODUCTION: The questions on this form are designed to obtain data about the specific annexation, detachment and/or reorganization proposal to allow the San Bernardino LAFCO, its staff and others to adequately assess the project. You may also include any additional information which you believe is pertinent. Use additional sheets where necessary, and/or include any relevant documents.

1. Please identify the agencies involved in the proposal by proposed action:

ANNEXED TO	DETACHED FROM
City of San Bernardino, California	**San Bernardino County, California**

2. Will the territory proposed for change be subject to any new or additional special taxes, any new assessment districts, or fees?

   See attached Meyers Road Annexation Area Plan for Services and Fiscal Analysis dated February 20,2024

3. Will the territory be relieved of any existing special taxes, assessments, district charges or fees required by the agencies to be detached?

   See attached Meyers Road Annexation Area Plan for Services and Fiscal Analysis dated February 20,2024.

4. Provide a description of how the proposed change will assist the annexing agency in achieving its fair share of regional housing needs as determined by SCAG.

   The project's cumulative housing and population impact provides benefits for the jobs/housing ratio, regional housing goals that promote housing production, and state-mandated fair share housing programs. The proposed project would create a jobs/housing ratio that is slightly more balanced compared to the projected buildout in the area, improving the jobs/housing ratio within the City.

5. **PLAN FOR SERVICES**:

(FOR LAFCO USE ONLY)

For each item identified for a change in service provider, a narrative "Plan for Service" (required by Government Code Section 56653) must be submitted. This plan shall, at a minimum, respond to each of the following questions and be signed and certified by an official of the annexing agency or agencies.

1. A description of the level and range of each service to be provided to the affected territory.

2. An indication of when the service can be feasibly extended to the affected territory.

3. An identification of any improvement or upgrading of structures, roads, water or sewer facilities, other infrastructure, or other conditions the affected agency would impose upon the affected territory.

4. The Plan shall include a Fiscal Impact Analysis which shows the estimated cost of extending the service and a description of how the service or required improvements will be financed. The Fiscal Impact Analysis shall provide, at a minimum, a five (5)-year projection of revenues and expenditures. A narrative discussion of the sufficiency of revenues for anticipated service extensions and operations is required.

5. An indication of whether the annexing territory is, or will be, proposed for inclusion within an existing or proposed improvement zone/district, redevelopment area, assessment district, or community facilities district.

6. If retail water service is to be provided through this change, provide a description of the timely availability of water for projected needs within the area based upon factors identified in Government Code Section 65352.5 (as required by Government Code Section 56668(k)).

CERTIFICATION

As a part of this application, Montecito Equities LTD. (the applicant) (real party in interest: subject landowner and/or registered voter) agree to defend, indemnify, hold harmless, and release the San Bernardino LAFCO, its agents, officers, attorneys, and employees from any claim, action, proceeding brought against any of them, the purpose of which is to attack, set aside, void, or annul the approval of this application or adoption of the environmental document which accompanies it. This indemnification obligation shall include, but not be limited to, damages, costs, and expenses, including attorney fees. The person signing this application will be considered the proponent for the proposed action(s) and will receive all related notices and other communications. I/We understand that if this application is approved, the Commission will impose a condition requiring the applicant to indemnify, hold harmless and reimburse the Commission for all legal actions that might be initiated as a result of that approval.

As the proponent, I/We acknowledge that annexation to the city of San Bernardino may result in the imposition of taxes, fees, and assessments existing within the (city or district) on the effective date of the change of organization. I hereby waive any rights I may have under Articles XIIIC and XIIID of the State Constitution (Proposition 218) to a hearing, assessment ballot processing or an election on those existing taxes, fees and assessments.

(FOR LAFCO USE ONLY)

I hereby certify that the statements furnished above and the documents attached to this form present the data and information required to the best of my ability, and that the facts, statements, and information presented herein are true and correct to the best of my knowledge and belief.

DATE FEB. 6, 2025

SIGNATURE OF APPLICANT

/REVISED: krm – 8/15/2012

Spring Trails Annexation
Plan for Service and Fiscal Analysis
City of San Bernardino

Prepared for:

City of San Bernardino
290 North D Street
San Bernardino, CA 92418
909.384.7272

October 10, 2023

SRHA Job # 1405

STANLEY R. HOFFMAN ASSOCIATES

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Los Angeles, California 90049-5111
310.820.2680-p, 310.820.8341-f
www.stanleyrhoffman.com

CERTIFICATION

The City of San Bernardino hereby certifies that this document presents the data and information required for the Plan for Service and Fiscal Impact Analysis for the *Spring Trails Annexation* to the best of my ability, and that the facts, statements, and information presented herein are true and correct to the best of my knowledge and belief.

DATE 01/21/2025

ROCHELLE CLAYTON

SIGNATURE OF APPLICANT

CITY MANAGER

TITLE OF APPLICANT

City of San Bernardino, California

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EXECUTIVE SUMMARY

This report provides an assessment of public service delivery capabilities of the City of San Bernardino and other agencies or special districts affected by the proposed Spring Trails Annexation to the City of San Bernardino. The City of San Bernardino is surrounded by the cities of Highland, Redlands, Colton and Rialto.

This report is being submitted to the County of San Bernardino Local Agency Formation Commission (LAFCO) as a "Plan for Service" required by California Government Code Section 56653. Currently, the County of San Bernardino provides many services to the annexation area including fire and paramedic services, general government, development services, sheriff patrol, public library, regional parks and recreation, street lighting, transportation, flood control and drainage, and health and welfare. Public schools are provided by the San Bernardino Unified School District.

After annexation, the City of San Bernardino is anticipated to provide services including general government, community development, police protection, local parks and recreation, community services and public works' services. The City of San Bernardino has annexed into the San Bernardino County Fire Protection District (SBCFPD) and its Service Zone FP-5 for fire protection and emergency medical response services. Since the Spring Trails annexation area is already within SBCFPD and Service Zone FP-5, the SBCFPD will continue to be the service provider for fire protection and emergency medical services. The County of San Bernardino will continue to provide other services such as regional parks and recreation, regional flood control and drainage and health and welfare.

The proposed annexation area includes the Spring Trail Specific Plan, a proposed residential community in the foothills of the San Bernardino Mountains. The preferred plan accommodates 215 new single-family lots ranging from 10,801 square feet to 18 acres. The development footprint encompasses about two thirds of the total site, on gently sloping alluvial benches between canyons, steep hillsides, and the Cable Canyon and Meyers Canyon drainage ways. The remaining one third of the site remains open space. There are 3.8 miles of trails that traverse the site and provide access to parks and natural open space.

Fiscal Impacts

Based on an analysis of current service delivery capabilities, the City is equipped to handle additional demand from the proposed annexation of the 215 new homes planned for Spring Trails. One or more community facilities district(s) will be formed to pay for the cost of certain offsite public facilities necessary for the development of the Project, including roads and traffic improvements, parks and open space improvements, flood control and drainage systems, water and sewer systems, and utilities. A capital improvement plan, and rate and method of apportionment will be prepared which will outline the facilities cost, rates, and manner of collection.

The onsite streets, landscaping, lighting, community walls, community fences, open space, detention basins, and drainage systems will be maintained by the Homeowners Association (HOA). However, a Community Facilities District (CFD) will be approved as a backup to the HOA, in case the HOA is does not adequately maintain these facilities. The offsite roads, drainage systems, lighting, and utilities will be maintained by the City. The San Bernardino Municipal Water Department will maintain the onsite and offsite water and sewer systems. This report explains the transfer of service requirements upon annexation, estimates development impact fees and other cost responsibilities.

General Fund. As shown in Table 1, projected recurring fiscal impacts to the City General Fund for the Spring Trails Annexation is shown to generate a surplus for all phases. At buildout a recurring annual surplus of $37,705 is projected to the General Fund.

Projected surpluses to the General Fund for Year 1 through Year 4 range from $827 for Year 1 to $37,705 for Year 4. The projected surpluses for all years assume revenues from the recently adopted CFD 2018-1 tax for safety services family unit.

Other Funds. Projected recurring revenues for the Gas Tax Fund and Measure I Fund that are earmarked for street and road related expenditures are presented in Table 2.

Gas Tax Fund. As shown in Panel A of Table 2, projected recurring gasoline revenues to the City are projected. The projected revenues range from $67 for Year 1 to $16,112 at buildout.

Measure I Fund. Projected recurring Measure I sales tax revenues to the City are projected to range from $88 for Year 1 to $5,949 at buildout, as shown in Panel B of Table 2.

Table 1
Summary of Projected General Fund Recurring Fiscal Impacts
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

General Fund	Year 1 - 2026 Existing Unit (Grading)	Year 2 - 2027 New Units (Phase 1)	Year 3 - 2028 New Units (Phase 2)	Year 4 - 2029 New Units (Phase 3)	Year 5 - 2030 Buildout of New Units (Phase 4)
Estimated Annual Recurring Revenues	$2,719	$66,413	$178,387	$311,172	$493,179
Estimated Annual Recurring Costs	$1,892	$63,085	$168,438	$290,822	$455,474
Estimated Annual Recurring Surplus	$827	$3,328	$9,949	$20,351	$37,705
Estimated Annual Revenue/Cost Ratio	1.44	1.05	1.06	1.07	1.08

Sources: Stanley R. Hoffman Associates, Inc.
J. P. Weber Group, September 2023

Table 2
Summary of Projected Other Funds Recurring Revenues
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

Other Funds	Year 1 - 2026 Existing Unit (Grading)	Year 2 - 2027 New Units (Phase 1)	Year 3 - 2028 New Units (Phase 2)	Year 4 - 2029 New Units (Phase 3)	Year 5 - 2030 Buildout of New Units (Phase 4)
A. Fund 126 - Gas Tax [1]					
Annual Recurring Gasoline Tax	$67	$2,233	$5,962	$10,294	$16,122
B. Fund 129 - Measure I [1]					
1/2 cent sales and road tax	$88	$860	$2,207	$3,791	$5,949

1. Annual recurring gasoline tax and Measure I revenues are restricted to street related expenditures.

Sources: Stanley R. Hoffman Associates, Inc.
J. P. Weber Group, September 2023

CHAPTER 1
INTRODUCTION

The Spring Trails Annexation area is on the northern edge of the City of San Bernardino in the foothills of the San Bernardino Mountains, as shown in Figure 1.1. The site is approximately 1.5 miles east of the unincorporated community of Devore and the junction of Interstate 215 (I-215) and I-15. The Spring Trails Annexation area is bounded by the San Bernardino National Forest on three sides and the City of San Bernardino on the southern side.

1.1 Purpose of the Study

The Local Agency Formation Commission (LAFCO) of the County of San Bernardino requires a jurisdiction to submit a Plan for Service and Fiscal Impact Analysis when the jurisdiction is affected by a proposed change in boundaries, formation, or organization. The proposed project intends to annex into the City of San Bernardino, which requires the City to show that the necessary infrastructure improvements and services can be provided to the proposed development. Per the application form in the *LAFCO Policy and Procedure Manual*, Updated September 2018, the Plan for Service must include the following components:

a. *A description of the level and range of each service to be provided to the affected territory.*

b. *An indication of when those services can feasibly be extended to the affected territory.*

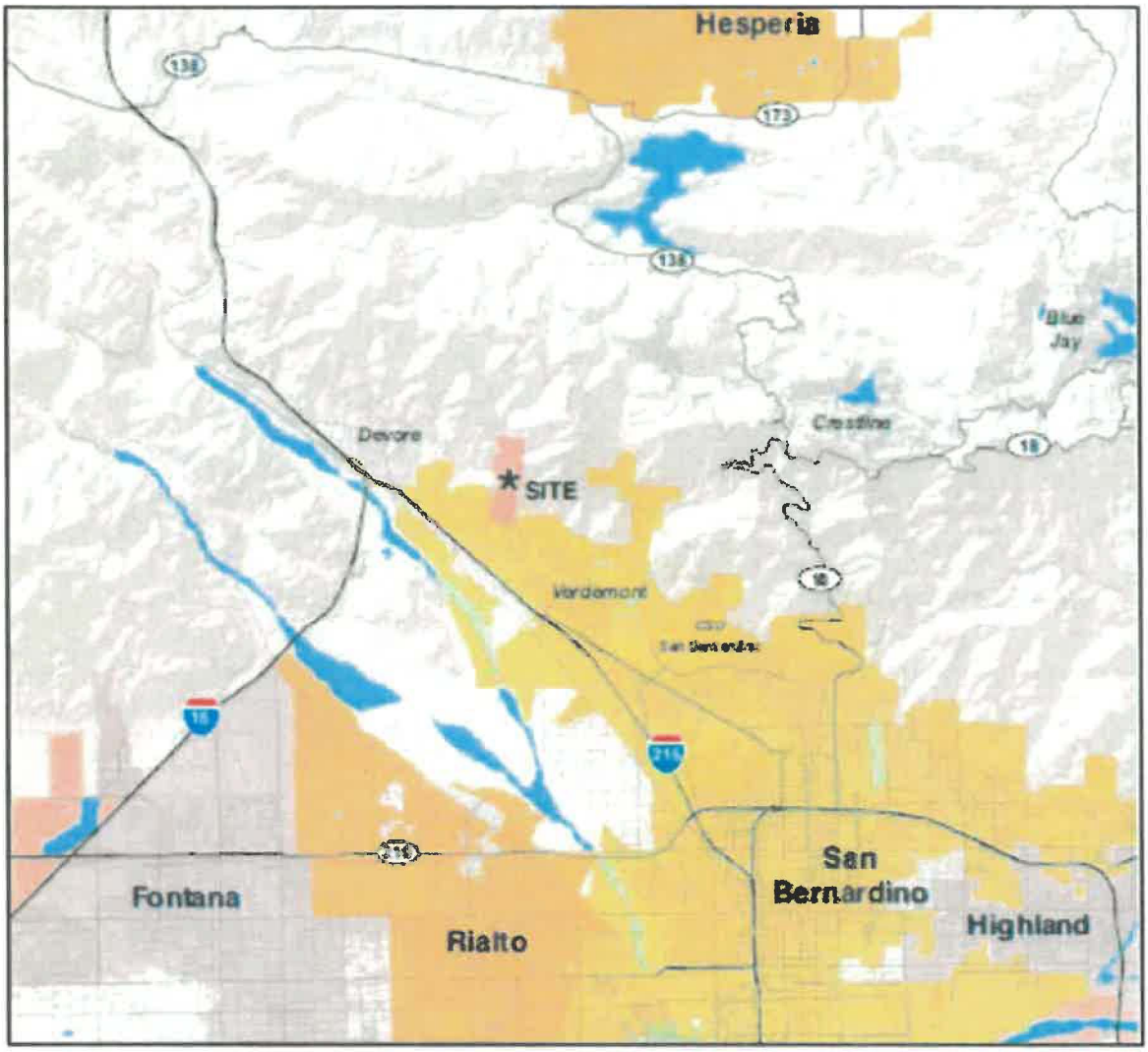
c. *An identification of any improvement or upgrading of structures, roads, water or sewer facilities, other infrastructure, or other conditions the affected agency would impose upon the affected territory.*

d. *The Plan shall include a Fiscal Impact Analysis which shows the estimated cost of extending the service and a description of how the service or required improvements will be financed. The Fiscal Impact Analysis shall provide, at a minimum, a five (5)-year projection of revenues and expenditures. A narrative discussion of the sufficiency of revenues for anticipated service extensions and operations is required.*

e. *An indication of whether the affected territory is, or will be, proposed for inclusion within an existing or proposed improvement zone/district, redevelopment area, assessment district, or community facilities district.*

f. *If retail water service is to be provided through this change of organization, provide a description of the timely availability of water for projected needs within the area based upon the factors identified in Government Code Section 65352.5 (as required by Government Code Section 56668(k)).*

Figure 1-1
Spring Trails Annexation Regional Vicinity
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino



Sources: Stanley R. Hoffman Associates, Inc.
Montecito Equities, Ltd., *Spring Trails Draft Specific Plan*, October 2012

1.2 Overview of the City of San Bernardino

The City of San Bernardino is the county seat of San Bernardino County, occupying 62.5 square miles and is an anchor city for the Inland Empire. The 2023 city population is estimated at 223,230. Residents have access to more than 40 parks and fields, including premier athletic facilities, 7 community centers, a year-round aquatics center, a public library system, two higher education institutions, and 73 K-12 public schools. Major employers in the city include the County of San Bernardino, San Bernardino City Unified School District, California State University, the City of San Bernardino, Saint Bernardino Medical Center, the Community Hospital of San Bernardino, Caltrans, Stater Bros. Markets, Wells Fargo and Omnitrans. The city has been a major transit hub for over 100 years with the Interstate 10 and 215, the 210 and 259 Freeways, and the Metrolink commuter rail service. San Bernardino is a charter city, which means that the city has supreme authority over its municipal affairs, rather than being bound by the state's general law if the City were a general law city. The City operates under a City Council-City Manager form of government. The Mayor and the seven-seat City Council are elected positions. Under the supervision of the City Council, the City Manager is the Chief Administrative Officer and directs most of the City Departments, other than the City Attorney and City Clerk, who report directly to the City Council, and the Municipal Water Department and the Library, which are governed by the Water Board and the Library Board of Trustees, respectively.

1.3 Organization of the Report

Chapter 2 contains the description of the annexation area and the proposed development. The analysis of existing public service delivery in the annexation area and upon annexation into the City is presented in Chapter 3. Chapter 4 discusses the development impact fees and charges for infrastructure associated with the proposed annexation. The fiscal impact analysis of the annual operations and maintenance costs for the provision of services to the annexation area is provided in Chapter 5. Chapter 6 covers the revenue and cost assumptions used for the fiscal analysis.

Appendix A includes the detailed infrastructure description for the Annexation. Supporting tables for the fiscal assumptions appear in Appendix B. Appendix C lists the project contacts and references used in the preparation of this study.

CHAPTER 2
PROJECT DESCRIPTION

This chapter presents the detailed land uses for the Spring Trails Annexation. Information includes housing units, population, assessed valuation and taxable sales. The total Spring Trails Annexation includes one existing unit and the proposed Spring Trails Specific Plan 215 new units.

As shown in Figure 2-1, the Spring Trails Annexation is in Verdemont Heights, approximately one-third mile northwest of the intersection of Meyers Road and Little League Drive. Primary access is from a new roadway connecting to Little League Drive and a secondary roadway via a new road extending south and connecting to the frontage road along I-215. Freeway access is from the Palm Avenue interchange and the Glen Helen Parkway/Devore Road interchange.

2.1 Residential Development

As shown in Panel A of Table 2-1, there is one existing residential unit located on the Spring Trails site. With the 215 lots proposed for the Spring Trails site, total lots for the Annexation after buildout are 216.

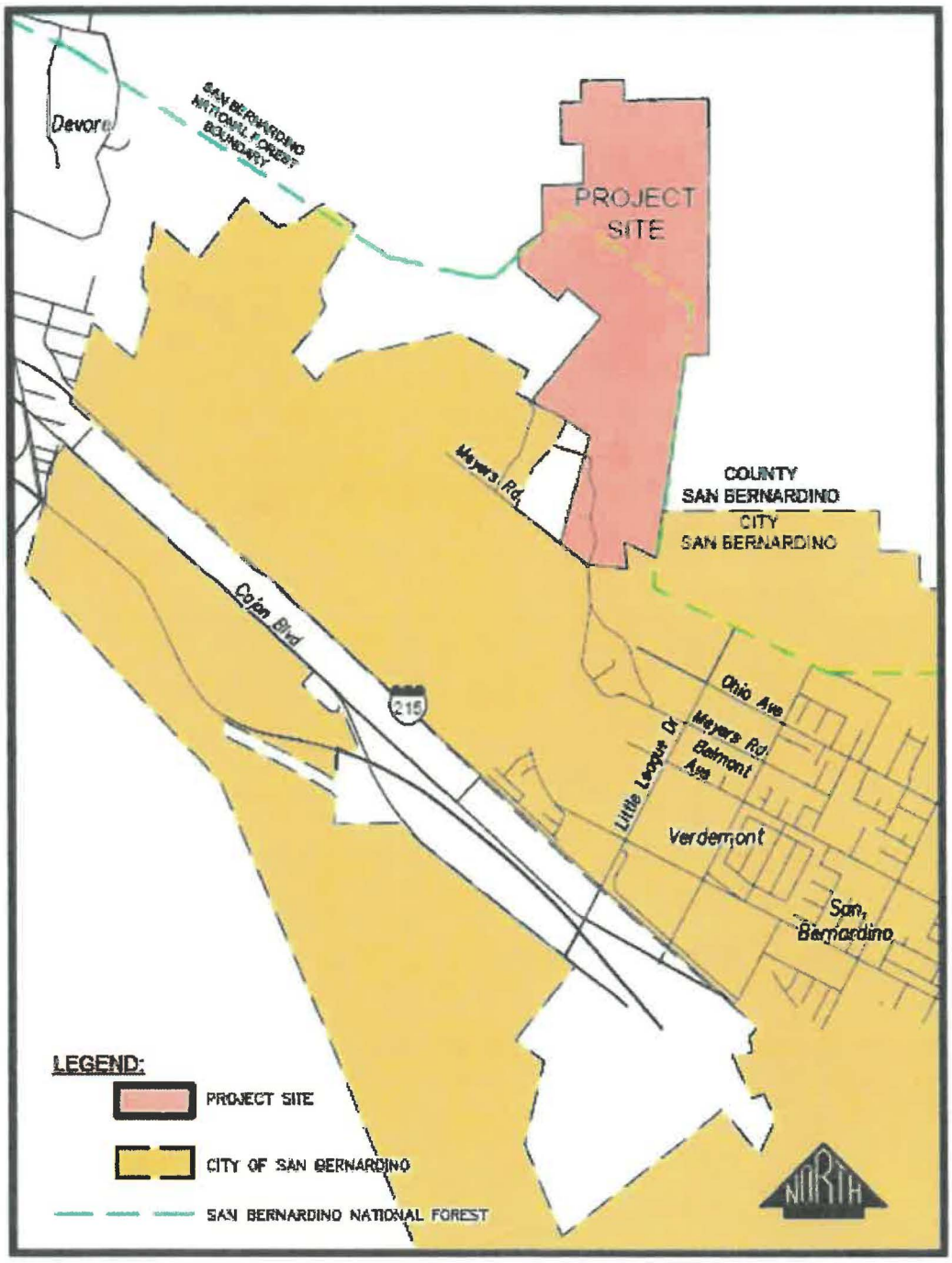
Based on the January 1, 2023 Citywide average estimate of 3.34 persons per unit from the Department of Finance, total population for the Annexation is projected at 750 after buildout, as shown in Panel B of Table 2-1.

2.2 Infrastructure

One or more community facilities district(s) will be formed to pay for the cost of certain offsite public facilities necessary for the development of the Project, including roads and traffic improvements, parks and open space improvements, flood control and drainage systems, water and sewer systems, and utilities. A capital improvement plan, and rate and method of apportionment will be prepared which will outline the facilities cost, rates, and manner of collection.

Table 2-2 presents only the Spring Trails project infrastructure that is publicly maintained through the City General Fund and other City Funds or Departments. The total publicly and

Figure 2-1
Spring Trails Annexation Local Vicinity
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino



Sources: Stanley R. Hoffman Associates, Inc.
J.P. Weber Group, November 2016

Table 2-1
Residential Development Description
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

Category	Year 1 - 2026 Existing Unit (Grading)	Year 2 - 2027 New Units (Phase 1)	Year 3 - 2028 New Units (Phase 2)	Year 4 - 2029 New Units (Phase 3)	Year 5 - 2030 Buildout of New Units (Phase 4)	Total
A. Residential Units						
Existing Unit - Spring Trails Project Site	1	0	0	0	0	1
New Units - Spring Trails Project Site	0	29	50	58	78	215
Total Annual Units	1	29	50	58	78	216
Total Cumulative Units	*1*	*30*	*80*	*138*	*216*	
Spring Trails - New Annual Residential Square Feet [2]	n/a	78,300	135,000	156,600	210,600	580,500
Total Cumulative New Square Feet	*n/a*	*78,300*	*213,300*	*369,900*	*580,500*	
B. Population [3]						
Total Annual Population	3	97	167	194	261	722
Total Cumulative Population	*3*	*100*	*267*	*461*	*722*	

1. Land uses and phasing for the Spring Trails Specific Plan are provided by J. P. Weber Group.
2. Based on information from the developer, the average unit size is 3,200 square feet.
3. Population is projected at the Citywide average of 3.34 persons per unit for January 1, 2023.

Sources: Stanley R. Hoffman Associates, Inc.
J. P. Weber Group, September 2023

Table 2-2
Public Infrastructure Development Description
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

Category	Year 1 - 2026 Existing Unit (Grading)	Year 2 - 2027 New Units (Phase 1)	Year 3 - 2028 New Units (Phase 2)	Year 4 - 2029 New Units (Phase 3)	Year 5 - 2030 Buildout of New Units (Phase 4)	Total
A. Roads - Offsite (Publicly Maintained)						
Primary Access	1.04	0.00	0.00	0.00	0.00	1.04
Secondary Access	2.61	0.00	0.00	0.00	0.00	2.61
Total Lane Miles	3.65	0.00	0.00	0.00	0.00	3.65
Cumulative Lane Miles	*3.65*	*3.65*	*3.65*	*3.65*	*3.65*	
B. Drainage - Offsite (Publicly Maintained)						
Reinforced Concrete Box Lineal Feet	1,430	0	0	0	0	1,430
Reinforced Concrete Pipe Lineal Feet	3,685	0	0	0	0	3,685
Arch Culvert Lineal Feet	580	0	0	0	0	580
Total Lineal Feet	5,695	0	0	0	0	5,695
Cumulative Lineal Feet	*5,695*	*5,695*	*5,695*	*5,695*	*5,695*	
C. Sewer - Onsite and Offsite (Publicly Maintained)						
Sewer Main Lineal Feet	4,017	10,857	0	13,479	0	28,353
Cumulative Lineal Feet	*4,017*	*14,874*	*14,874*	*28,353*	*28,353*	

1. Only the publicly maintained road, drainage and sewer infrastructure is presented in this table. All on onsite roads, drainage, parks, trails and open space will be maintained through a homeowners association. Appendix Table A-1 presents the total roads, drainage, sewer, parks, trails and open space for the Spring Trails project.

Sources: Stanley R. Hoffman Associates, Inc.
J. P. Weber Group, September 2023

privately maintained roads, drainage, sewer, parks, trails and open space infrastructure for the Annexation is presented in Appendix Table A-1. All water and sewer infrastructure will be operated and maintained by the City of San Bernardino Municipal Water Department.

As shown in Panel A and Panel B of Table 2-2, only the proposed offsite streets of 3.65 lane miles and the 5,695 lineal feet of offsite drains will be publicly maintained by the City. Sewer mains will be publicly maintained by the City of San Bernardino Municipal Water Department and are estimated at 28,353 lineal feet after buildout of the project. The onsite streets, landscaping, lighting, community walls and fences, open space, detention basins, and drainage systems will be maintained by the Homeowners Association.

2.3 Assessed Valuation and Property Tax

Assessed valuation for the total Spring Trails Annexation after buildout is projected at about $167.75 million, as shown in Panel B of Table 2-3. The current assessed valuation of about $2.50 million is estimated for Year 1. Existing assessed valuation is based on the County Assessor's 2023 tax roll value, as shown in Table 2-4.

New residential valuation for the proposed Spring Trails Specific Plan is based on residential pricing provided by the project developer. The following summarizes the average values per unit by Phase provided by the project applicant based on information from Land Advisors, Inc.:

- Phase 1 $750,000 per unit
- Phase 2 $760,000 per unit
- Phase 3 $770,000 per unit
- Phase 4 $780,000 per unit

Projected Property Tax

As shown in Panel C of Table 2-3, the City General Fund will not receive property tax for the assessed valuation of the annexation area. The San Bernardino County Fire Protection District (SBCFPD) is now providing fire protection to the City. Based on the service agreement between the two jurisdictions, the property tax that would usually accrue to the City will remain with the SBCFPD and no property tax from other County funds and districts will be allocated to the City.

Projected Property Tax in Lieu VLF

The City General Fund will receive property tax in lieu of vehicle license fees (VLF) based on the increase in assessed valuation in the City. Per State law, when an annexation occurs the

Table 2-3
Assessed Valuation and Property Tax
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

Category	Year 1 - 2026 Existing Unit (Grading)	Year 2 - 2027 New Units (Phase 1)	Year 3 - 2028 New Units (Phase 2)	Year 4 - 2029 New Units (Phase 3)	Year 5 - 2030 Buildout of New Units (Phase 4)	Total
A. Residential Units						
Existing Unit - Spring Trails Project Site	1	0	0	0	0	1
New Units - Spring Trails Project Site	0	29	50	58	78	215
Total Annual Units	1	29	50	58	78	216
Total Cumulative Units	*1*	*30*	*80*	*138*	*216*	
B. Assessed Valuation						
Current Valuation [2]	$2,496,189					
Phase 1a @ $750,000 per Unit		$21,750,000				
Phase 1b @ $760,000 per Unit			$38,000,000			
Phase 2a @ $770,000 per Unit				$44,660,000		
Phase 2b @ $780,000 per Unit					$60,840,000	
Total Annual Valuation	$2,496,189	$21,750,000	$38,000,000	$44,660,000	$60,840,000	$167,746,189
Total Cumulative Valuation	*$2,496,189*	*$24,246,189*	*$62,246,189*	*$106,906,189*	*$167,746,189*	
C. Projected Property Tax						
Annual 1 Percent Property Tax Levy (@ 1% of Valuation)	$24,962	$217,500	$380,000	$446,600	$608,400	$1,677,462
Annual General Fund Property [3] (@ 0% of 1 Percent Levy)	$0	$0	$0	$0	$0	$0
Total Cumulative Projected Property Tax	$0	$0	$0	$0	$0	
D. Projected Property Tax in Lieu VLF						
Total Annual Valuation for Property Tax in Lieu VLF [4]	$0	$21,750,000	$38,000,000	$44,660,000	$60,840,000	$165,250,000
Total Cumulative Valuation for Property Tax in Lieu VLF	*$0*	*$21,750,000*	*$59,750,000*	*$104,410,000*	*$165,250,000*	
Total Cumulative Projected Property Tax in Lieu VLF (@ $1,270 per $1,000,000 Assessed Valuation)	$0	$27,623	$75,883	$132,601	$209,868	
times						
Share Allocated to General Fund [5]	73.5%	73.5%	73.5%	73.5%	73.5%	
equals						
General Fund Property in Lieu VLF	$0	$20,303	$55,774	$97,462	$154,253	

1. Phasing and valuation for the Spring Trails Specific Plan are provided by the applicant, J. P. Weber Group. The applicant's valuation is estimated based on information from Land Advisors Inc. of Irvine, California.
2. Current assessed valuation is based on the 2023 tax roll values.
3. The San Bernardino County Fire Protection District (SBCFPD) provides fire protection to the City. Based on an agreement between the City and the SBCFPD, the City will not receive any allocation of the basic one percent property tax levy upon annexation of the Spring Trails project.
4. Property tax in lieu of vehicle license fees (VLF) is projected based on the increase in assessed valuation in a jurisdiction. Per State law, when an annexation occurs the existing valuation in the annexing area cannot be used in adjusting the amount of assessed valuation in the annexing City. Therefore, the current valuation of $2,496,189 is not included in the projection of property tax in lieu of VLF.
5. Based on the agreement between the SBCFPD and the City, the City will receive 73.5 percent of the projected property tax in lieu of VLF and the remaining 26.5 percent of the property tax in lieu of VLF will go to the SBCFPD.

Sources: Stanley R. Hoffman Associates, Inc.
J. P. Weber Group, September 2023
City of San Bernardino, Finance Director

Table 2-4
Estimated Existing Assessed Valuation: 2023 Tax Roll
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

Assessor Parcel Number	Acres	Assessed Value			Land Type
		Land	Improvement	Total	
0348-071-05-0000	5.00	$7,534	$0	$7,534	Single Family Residential - Vacant
0348-071-06-0000	20.00	$34,852	$0	$34,852	Single Family Residential - Vacant
0348-071-07-0000	5.00	$7,534	$0	$7,534	Single Family Residential - Vacant
0348-071-09-0000	100.28	$107,589	$0	$107,589	Single Family Residential - Vacant
0348-071-10-0000	40.00	$66,204	$0	$66,204	Public Facilities
0348-101-83-0000	23.561	$90,019	$0	$90,019	Single Family Residential - Vacant
0348-101-84-0000	7.02	$26,834	$109,029	$135,863	Single Family Residential
0348-111-03-0000	36.00	$1,042,000	$0	$1,042,000	Single Family Residential - Vacant
0348-111-04-0000	45.45	$72,642	$0	$72,642	Single Family Residential - Vacant
0348-111-07-0000	28.92	$34,852	$0	$34,852	Single Family Residential - Vacant
0348-111-08-0000	33.50	$897,100	$0	$897,100	Single Family Residential - Vacant
	344.73	**$2,387,160**	**$109,029**	**$2,496,189**	

Sources: Stanley R. Hoffman Associates, Inc.
J. P. Weber Group
San Bernardino County, Office of the Assessor, Property Information System, 2023 Roll Values

existing valuation in the area that is being annexed cannot be used in adjusting the base amount of assessed valuation in the annexing City. The City will receive property tax in-lieu of VLF based on the change in its gross assessed valuation of taxable property for new development in the annexed area. As shown in Appendix Table B-5, the property tax in lieu of VLF in the City is projected to increase at $1,270 per million dollars of new assessed valuation (AV). However, based on the service agreement between the San Bernardino County Fire Protection District (SBCFPD) and the City, the City will receive 73.5 percent of the projected property tax in lieu of VLF and the remaining 26.5 percent will go to the SBCFPD.

As shown in Panel D of Table 2-3, no property tax in lieu VLF is projected for existing valuation in Year 1 per State law. By Year 2 property tax in lieu VLF is projected at $27,623 and 73.5 percent or $20,303 goes to the City. Total property tax in lieu VLF increases to $75,883 by Year 3, with $55,774 going to the City. By Year 4, total property tax in lieu VLF is projected at $132,601 and the amount for the City is projected at $97,462. After buildout (Year 5) of the Spring Trails project total property tax in lieu VLF is projected at $209,868, with 73.5 percent of this amount, or $154,253, projected for the City.

2.4 Sales and Use Tax

Sales and use tax is projected for the retail taxable sales that will be captured in the City from offsite purchases made by the future residents of the Spring Trails Specific Plan. The fiscal

analysis assumes that the residents of the existing home on the Spring Trails site are already making purchases in the City. Therefore, no offsite sales and use tax is projected for the existing unit.

Offsite retail sales and use tax from taxable purchases made by future Spring Trails Specific Plan residents is projected based on the resident's estimated household income and estimated taxable retail purchases made in the City. Household income is estimated at 28 percent of average housing value based on a mortgage cost analysis by Stanley R. Hoffman Associates. Based on the U.S. Bureau of Labor Statistic, *Consumer Expenditure Survey*, the fiscal analysis estimates the Spring Trails' residents will generate total taxable retail purchases at about 33 percent of household income.

Sales and Use Tax

As shown in Table 2-5, estimated annual offsite retail sales and use tax from taxable purchases made by future Spring Trails Specific Plan residents are projected at $62,332 after buildout. This estimate is based on total household income projected at about $48.97 million after buildout (28 percent of residential valuation of about $167.75 million). At 33 percent of household income, the projected retail taxable purchases made by Spring Trails' residents are projected at about $15.5 million after buildout. The fiscal analysis assumes that 35 percent of the retail taxable purchases, or about $5.42 million, will be made annually in the City at buildout.

At one percent of the estimated captured taxable sales of about $5.42 million, sales tax is projected at $54,249 after buildout. At the City average use tax rate of 14.9 percent of sales tax, an additional $8,083 of use tax is projected after buildout. Total sales and use tax captured in the City by the future residents of Spring Trails is projected at $62,332 after buildout. Based on the projected residential valuation for each Phase, the offsite sales and use tax from future residents is projected to increase from $9,009 in Year 2 to $62,332 by Year 5.

Table 2-5
Estimated Offsite Sales and Use Tax by Project Residents
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

Category	Year 1 - 2026 Existing Unit (Grading)	Year 2 - 2027 New Units (Phase 1)	Year 3 - 2028 New Units (Phase 2)	Year 4 - 2029 New Units (Phase 3)	Year 5 - 2030 Buildout of New Units (Phase 4)	Total
A. ANNUAL PROJECTIONS						
Annual New Residential Valuation	$2,496,189	$21,750,000	$38,000,000	$44,660,000	$60,840,000	$167,746,189
Annual Household Income (@ 28% of household valuation) [1]	$698,933	$6,090,000	$10,640,000	$12,504,800	$17,035,200	$46,968,933
Annual Taxable Retail Spending (@ 33% of household income)	$230,648	$2,009,700	$3,511,200	$4,126,584	$5,621,616	$15,499,748
Annual Projected Off-Site Retail Taxable Sales Captured in City (@ 35% capture)	$80,727	$703,395	$1,228,920	$1,444,304	$1,967,566	$5,424,912
Annual Projected Sales and Use Tax to City						
Sales Tax (@ 1% of taxable sales)	$807	$7,034	$12,289	$14,443	$19,676	$54,249
Use Tax (@ 14.9% of sales tax)	120	1,048	1,831	2,152	2,932	8,083
Total Projected Sales and Use Tax	$927	$8,082	$14,120	$16,595	$22,608	$62,332
B. CUMULATIVE PROJECTIONS						
Cumulative Sales and Use Tax	$927	$9,009	$23,129	$39,724	$62,332	

1. Based on current mortage-based estimates obtained from Zillow, and with housing expenditures at 30% of household income.

Sources: Stanley R. Hoffman Associates, Inc.

CHAPTER 3
PUBLIC FACILITIES BEFORE AND AFTER ANNEXATION

This chapter describes the existing and anticipated future service providers for the proposed Spring Trails Annexation project area. The level and range of the services for the annexation area are described, if they are known. The following services are detailed in this chapter:

- ☐ General Government
- ☐ Fire and Paramedic
- ☐ County Sheriff and Public Safety
- ☐ Library
- ☐ Parks and Recreation
- ☐ Animal Control
- ☐ Street Lighting
- ☐ Landscape Maintenance
- ☐ Water
- ☐ Sewer
- ☐ Transportation
- ☐ Flood Control and Drainage
- ☐ Utilities
- ☐ Schools
- ☐ Solid Waste Management
- ☐ Health and Welfare

Table 3-1 presents current and anticipated service providers in the Spring Trails annexation area. In many cases, such as general government, community development, economic development, and sheriff/police, among others, responsibilities shift from the County of San Bernardino to the City of San Bernardino.

The City of San Bernardino has annexed into the San Bernardino County Fire Protection District (SBCFPD) and its Service Zone FP-5 for fire protection and emergency medical response services. Since the annexation area is already within SBCFPD and Service Zone FP-5, the SBCFPD will continue to be the service provider for fire protection and emergency medical services upon annexation.

Other services, like water, sewer, and utilities, remain unchanged before and after annexation. These changes are detailed in subsequent sections of this chapter.

Table 3-1
Current and Anticipated Service Providers in the Spring Trails Annexation
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

Service Type	Current Service Provider	Anticipated Service Provider
General Government - Administrative Services:		
Finance Division	County of San Bernardino	City of San Bernardino
Human Resources Division	County of San Bernardino	City of San Bernardino
Business Registration	County of San Bernardino	City of San Bernardino
Community Development:		
Planning	County of San Bernardino	City of San Bernardino
Building & Safety	County of San Bernardino	City of San Bernardino
Code Compliance	County of San Bernardino	City of San Bernardino Police Department
Fire and Paramedic	San Bernardino County Fire Protection District (SBCFPD), Service Zone FP-5	San Bernardino County Fire Protection District (SBCFPD), Service Zone FP-5
Sheriff/Police	County of San Bernardino Sheriff's Department	City of San Bernardino Police Department
Library	County of San Bernardino Library District	City of San Bernardino Public Library
Parks and Recreation:		
Local Facilities	County of San Bernardino	City of San Bernardino
Regional Facilities	County of San Bernardino	County of San Bernardino
Animal Control	Contract with City of San Bernardino Police Department's Animal Control Division	City of San Bernardino Police Department's Animal Control Division
Street Lighting	City of San Bernardino	City of San Bernardino Public Works Department
Landscape Maintenance	Forest/Natural	HOA
Water:		
Domestic Water	Private	City of San Bernardino Municipal Water Dept. (SBMWD)
Recycled Water	Private	City of San Bernardino Municipal Water Dept. (SBMWD)
Water Quality	Private	City of San Bernardino Municipal Water Dept. (SBMWD)
Sewer	Private/Septic Systems	City of San Bernardino Municipal Water Dept. (SBMWD)
Transportation:		
Freeways and Interchanges	Caltrans	Caltrans
Arterials and Collectors	San Bernardino County - Public Works	City of San Bernardino Public Works Department
Local Roads	San Bernardino County - Public Works	City of San Bernardino Public Works Department
Transit	Omnitrans	Omnitrans
Flood Control and Drainage:		
Local Facilities	San Bernardino County Flood Control District	HOA
Regional Facilities	San Bernardino County Flood Control District	San Bernardino County Flood Control District
Utilities:		
Cable/Internet Provider/Phone	Charter Communications	Charter Communications
Telephone	Verizon	Verizon
Power	Southern California Edison	Southern California Edison
Natural Gas	Southern California Gas Company	Southern California Gas Company
Schools	San Bernardino City Unified School District (SBCUSD)	San Bernardino City Unified School District (SBCUSD)
Solid Waste Management	San Bernardino County Solid Waste Management Division contract with Burrtec	City of San Bernardino contract with Burrtec
Health and Welfare	San Bernardino County Department of Public Health	San Bernardino County Department of Public Health

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, Website
Spring Trails Specific Plan

3.1 General Government

Before Annexation

The County of San Bernardino provides general government services, including: all Administrative services, Community Development services, and Economic Development services to the annexation area.

After Annexation

After the annexation, the City of San Bernardino will provide the general government services

which include administrative services as well as General Governance, Community Development and Economic Development.

3.2 Fire and Paramedic

Before Annexation

Currently, the annexation area is in a State Responsibility Area (SRA), where CAL FIRE is responsible for fire and emergency response services. The area is also serviced by San Bernardino County Fire Station Number 2 (Devore Station). The proposed project is also located within the recently expanded boundary of the San Bernardino County Fire Protection District (SBCFPD), Service Zone FP-5 which is a special tax zone for funding fire protection and EMS. The current annual special tax for property in Service Zone FP-5 is estimated at $157.26 per parcel. The tax includes an annual inflationary factor up to a maximum of 3 percent. No water facilities are available to serve fire protection in the project area.

After Annexation

The City of San Bernardino has annexed their fire protection services to the SBCFPD. Therefore, the SBCFPD, Service Zone FP-5 will be the service provider for fire prevention, fire protection and emergency medical services (EMS) after annexation. Most of the existing City fire stations and equipment are transferred to the SBCFPD; with existing Station 232 (City), located at 6065 Palm Avenue, being the closest (approximately 1 mile) to the Spring Trails project site, as shown in Figure 3-1.

Water facilities for fire protection will be owned and operated by the San Bernardino Municipal Water Department. All water facilities, hydrants, and water systems for fire protection in the area shall meet the water flow demands and be installed prior to development. All previous agreed upon egress for the project site that has been approved in the Environmental Impact Report shall be in place prior to construction. This includes the primary and secondary egress outlets.

3.3 Sheriff/Police

Before Annexation

The San Bernardino County Sheriff-Coroner's Department provides public safety services to the unincorporated areas. The County Sheriff operates from an office in the City of San Bernardino

Figure 3-1
Fire Protection
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

Sources: Stanley R. Hoffman Associates, Inc.
Google Earth Pro

at 655 East Third Street. The Sheriff's Department and the City Police Department provide mutual backup services upon request within both the City and unincorporated areas. The California Highway Patrol in San Bernardino provides traffic patrol on State Highways within the unincorporated areas of the County. The Highway Patrol can also provide emergency response backup to the City Police and the County Sheriff upon request.

After Annexation

After the annexation, the City of San Bernardino Police Department will be providing the public safety services for Spring Trails and the rest of the annexed area. The area is served by a main police station, located at 710 North D Street, and four designated geographical patrol districts (Northwest, Northeast, Southwest, and Southeast). The project site belongs to patrol beat B1 in the Northwest Patrol District, as shown in Figure 3-2. The San Bernardino Police Department maintains a ratio of approximately one sworn officer for every 1,000 residents.

The City Police Department operates under a mutual aid agreement with police agencies in the surrounding cities that allows use of up to fifty percent of adjacent agency resources upon request and for automatic response within zones of mutual aid. The California Highway Patrol in San Bernardino will continue to provide traffic patrol on State Highways within the unincorporated areas.

3.4 Library

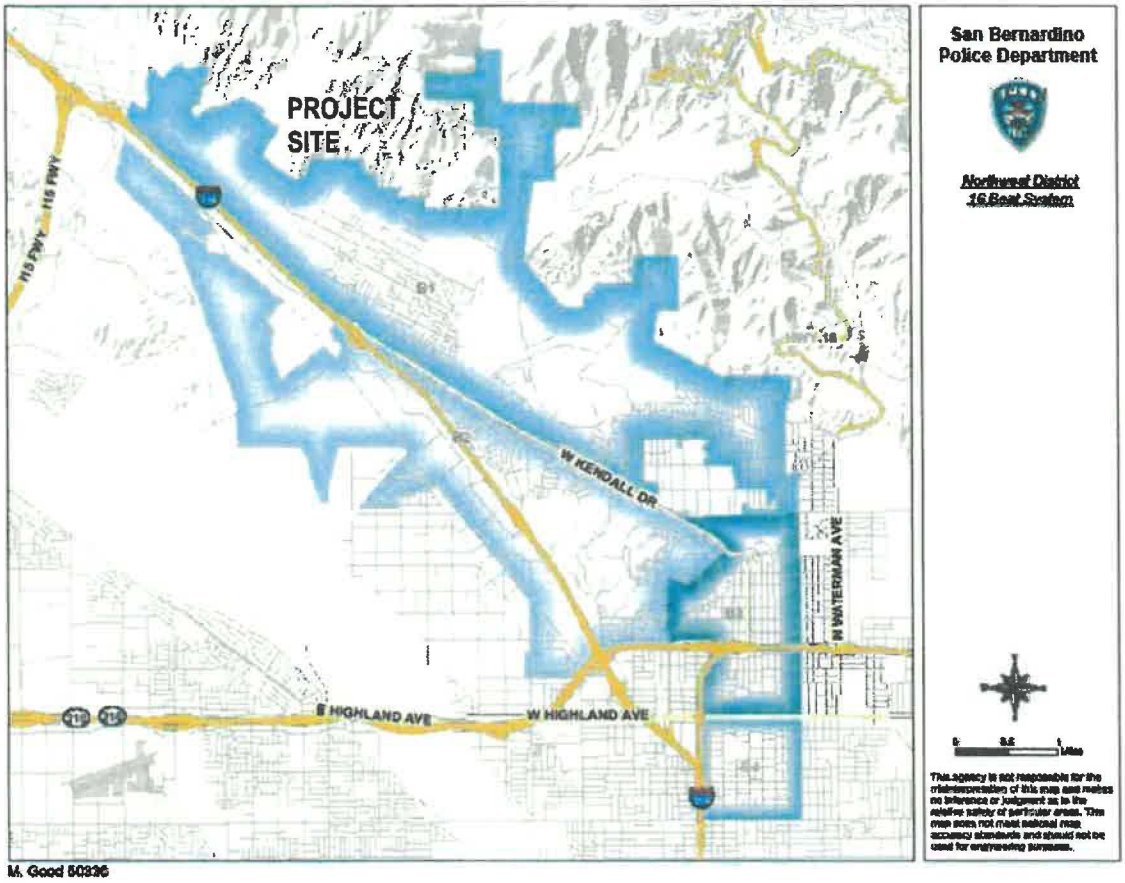
Before Annexation

Currently, the existing household within the annexation area is served by the San Bernardino County Library system. However, the nearest County library, the Carter Branch Library is located at 2630 North Linden Drive in Rialto, and is a driving distance of about 12.2 miles away from the annexation area.

After Annexation

The Howard M. Rowe Branch Library facility is a branch of the San Bernardino City Library system. Located at 108 East Marshall Boulevard in the City of San Bernardino, this branch is closest to the Spring Trails project site, with a driving distance of about 9.6 miles. The annexation area would continue to receive library services from the City of San Bernardino Branch library upon annexation.

Figure 3-2
City of San Bernardino Police Department: Northwest District
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino



M. Good 50226

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, Police Department

3.5 Parks and Recreation

Before Annexation

The County Regional Parks Department provides regional park services to all residents within the County, including unincorporated areas. The County Regional Parks system includes the following parks: Glen Helen, Yucaipa, Lake Gregory, Cucamonga, Guasti, and Prado. The closest regional park is Glen Helen Regional Park which has various recreation areas with amenities for fishing, boating, and picnicking. However, the County does not provide local park services, and, currently, there are no local parks within the annexation area.

After Annexation

The City of San Bernardino General Plan indicates that there are a total of 52 developed parks and recreational facilities in the City. There are a variety of different types of parks, including: 19 neighborhood, 10 community, 17 mini-parks, 3 regional parks, and 3 special facilities. The parks contain a broad range of facilities; including children's play equipment, tennis and volleyball courts, and athletic fields. The special facilities include community buildings and senior centers. Al Guhin Park, located at 3650 Little League Drive, is the closest City park to the annexation area (approximately 1.3 miles).

The Spring Trails Specific Plan provides open spaces that are meant to function as recreational opportunities, buffers, visual landmarks and interconnecting trails. The facilities will consist of community trails, equestrian/pedestrian trails and hiking trails. The proposed parks include two dual-use neighborhood parks (meaning that the parks also serve as water detention basins), a dog park and a thematic garden park with amenities, as shown in Figure 3-3.

Per Chapter 19.30 of the City of San Bernardino Subdivision Regulations, the City requires five acres of park and recreational land per 1,000 residents. The Spring Trails development plans to develop and reserve public parks, private parks, natural open space, and homeowner maintained open space, exceeding the City's requirements. Two neighborhood parks are planned for Spring Trails, which would total 7.0 acres; they would also serve as water detention basins. However, parks and open space will be maintained by the Spring Trails Homeowner Association (HOA).

3.6 Animal Control

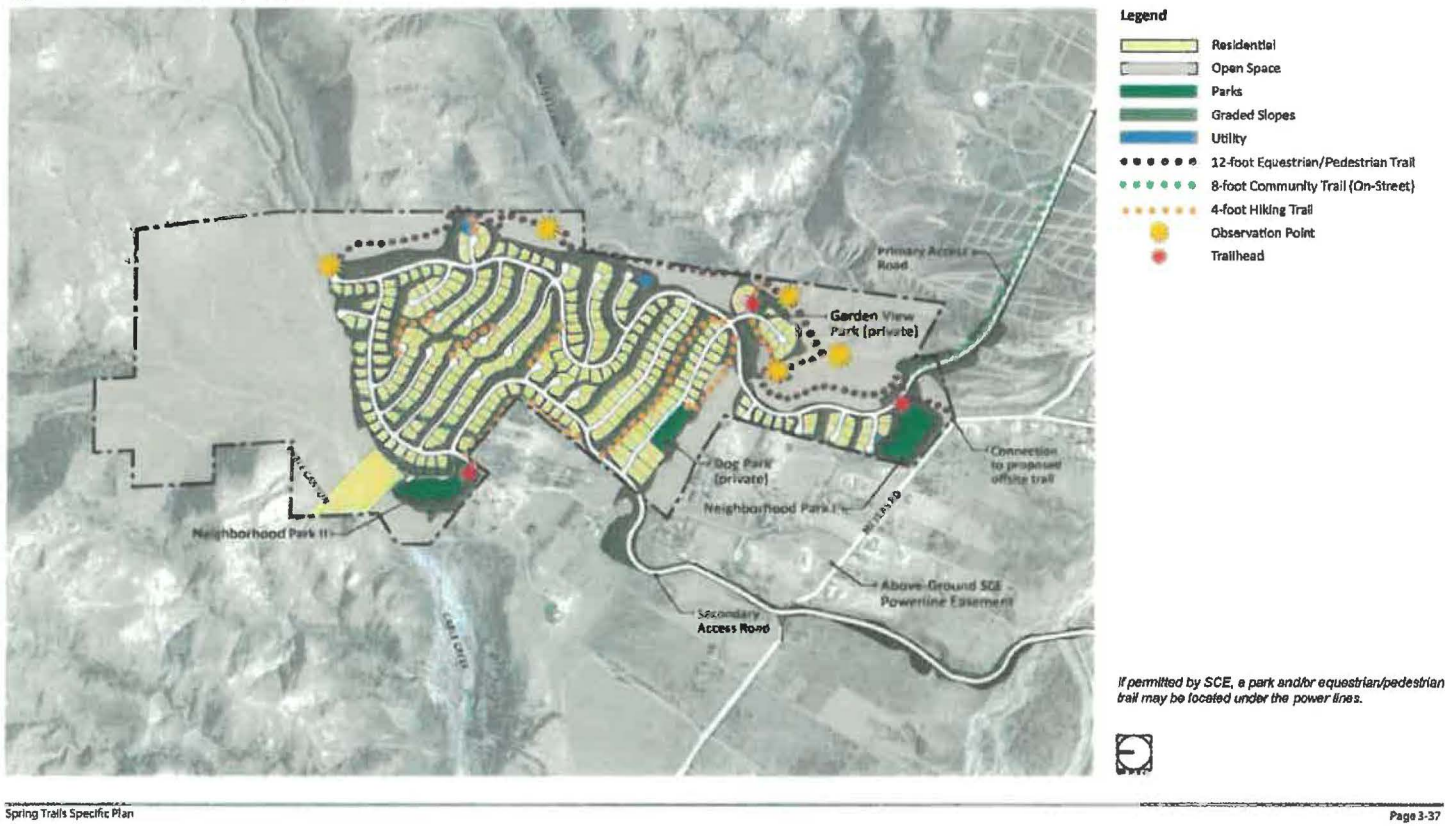
Before Annexation

Currently, the annexation area is serviced by the City of San Bernardino's Animal Control on a contract basis. Animal Control operates under the San Bernardino Police Department and is responsible for animal licensing, dead animal pickup, loose animal investigations, animal shelter management, and other services.

After Annexation

The Animal Control Division of the San Bernardino Police Department will continue to provide services to the area after annexation.

Figure 3-3
Spring Trails Specific Plan Trails, Parks, and Open Space
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino



Sources: Stanley R. Hoffman Associates, Inc.
Montecito Equities, Ltd., July 2013

3.7 Street Lighting

Before Annexation

Street lighting is a service provided to the area by Southern California Edison. However, the street lighting only extends to the southern border at Meyers Road, and no street lighting exists within the annexation area.

After Annexation

Upon annexation, street lighting within the project is maintained by a HOA. Outside the project area, on public right of ways, the City of San Bernardino Public Works Department is responsible for the maintenance provided by Southern California Edison.

3.8 Landscape Maintenance

Before Annexation

San Bernardino County provides road pavement and minimal landscaping maintenance.

After Annexation

Upon annexation and development, significant landscaping amenities will be added to the Spring Trails annexation area. Maintenance within the Specific Plan Area would be managed by the homeowners association (HOA). Figure 3-4 shows the landscape zones as presented in the Spring Trails Specific Plan.

3.9 Water

Before Annexation

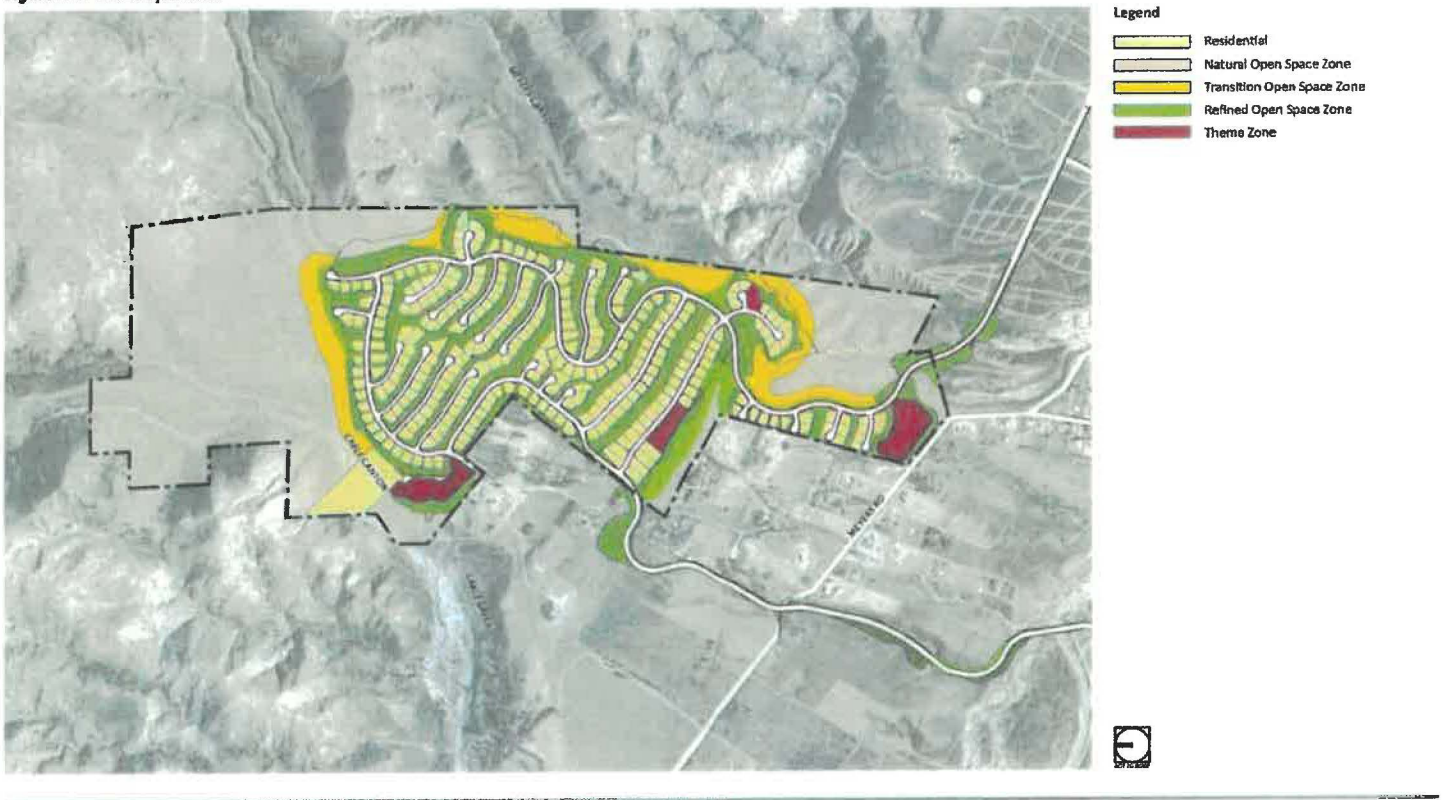
Currently, public water facilities do not serve the proposed Spring Trail project.

After Annexation

Upon annexation, the City of San Bernardino Municipal Water Department (SBMWD) would provide water services to Spring Trails and currently provides service to pressure zones ranging from 1,249 feet to 2,300 feet. Spring Trails lies between the 2,300 to 3,000-foot pressure zones. The nearest existing reservoir is the Meyers Canyon Reservoir, which is within the 2,100-foot pressure zone, but is not adequate for buildout of Spring Trails or Verdemont Heights. Therefore, water will be supplied to Spring Trails from lower elevations by a combination of expanding and improving the offsite water system and the provision of onsite reservoirs and transmission lines.[1] Figure 3-5 shows the conceptual water plan for Spring Trails.

[1] Montecito Equities, *Spring Trails Specific Plan, October 2012, p. 3-101*

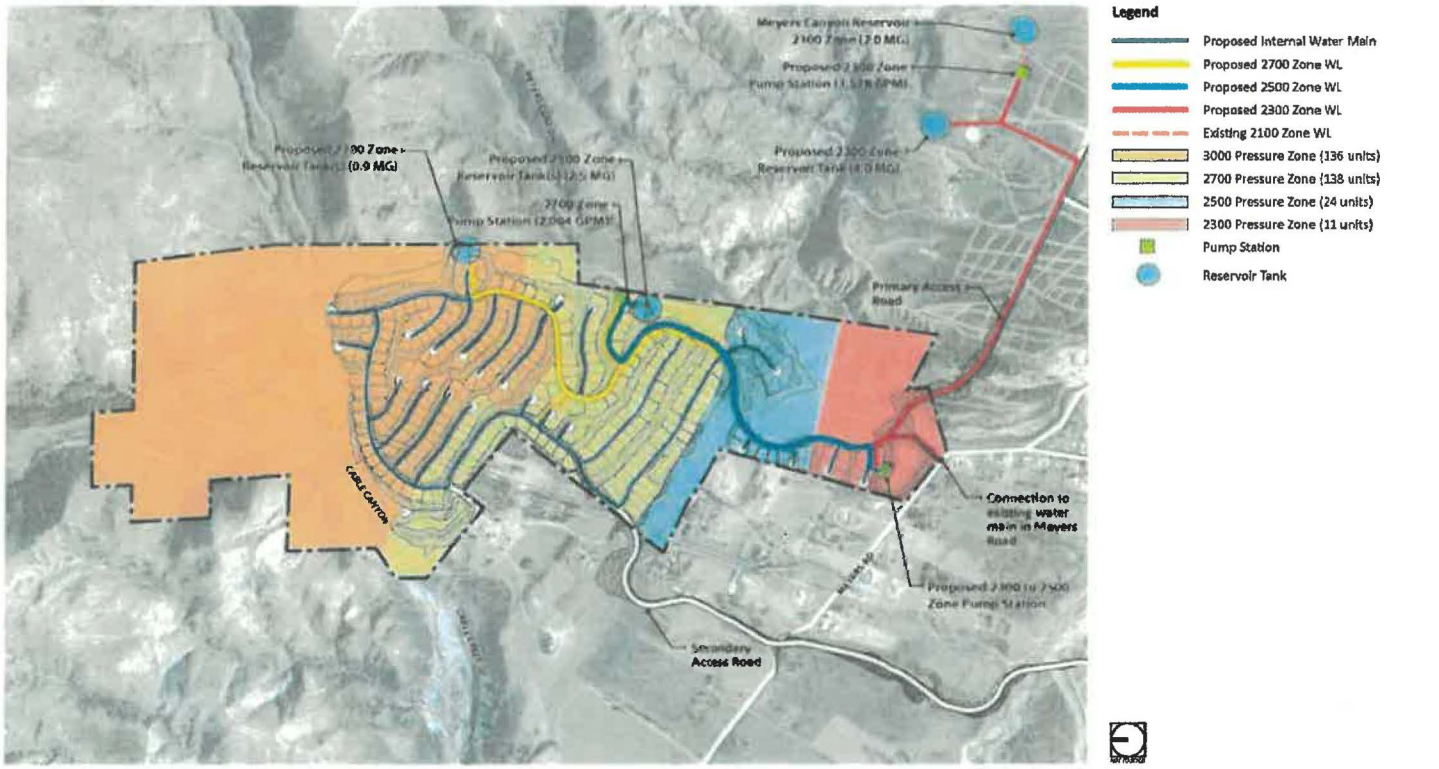
Figure 3-4
Spring Trails Specific Plan Landscape Zones
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino



Sources: Stanley R. Hoffman Associates, Inc.
Montecito Equities, Ltd., July 2013

Figure 3-5
Spring Trails Specific Plan Conceptual Water Plan
Spring Trails Annexation Plan for Service and Fiscal Analysis,

Figure 3.30B Conceptual Water Plan



Spring Trails Specific Plan
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Sources: Stanley R. Hoffman Associates, Inc.
Montecito Equities, Ltd., July 2013

3.10 Wastewater Collection

Before Annexation

Sewer service to the project site is currently via septic tanks.

After Annexation

The Spring Trails project is within the City's Public Works Department's sanitary sewer service area. The City's engineering sewer capacity study concluded that the existing sewer system has the capacity to accommodate the project. Beginning May 2017, operation and maintenance of the City's wastewater collection system was transferred to the City of San Bernardino Municipal Water Department (SBMWD).

As shown in Figure 3-6, Spring Trails would connect to the existing 10-inch sewer line located on Little League Drive, which connects to a major interceptor system to the south and is eventually treated in the San Bernardino Water Reclamation Plant operated by SBMWD. The only offsite improvement that may be required is North Little League Drive, which may be upgraded from an 8" to a 10" line depending upon the ultimate slope as determined in final engineering.[2]

3.11 Transportation

Before Annexation

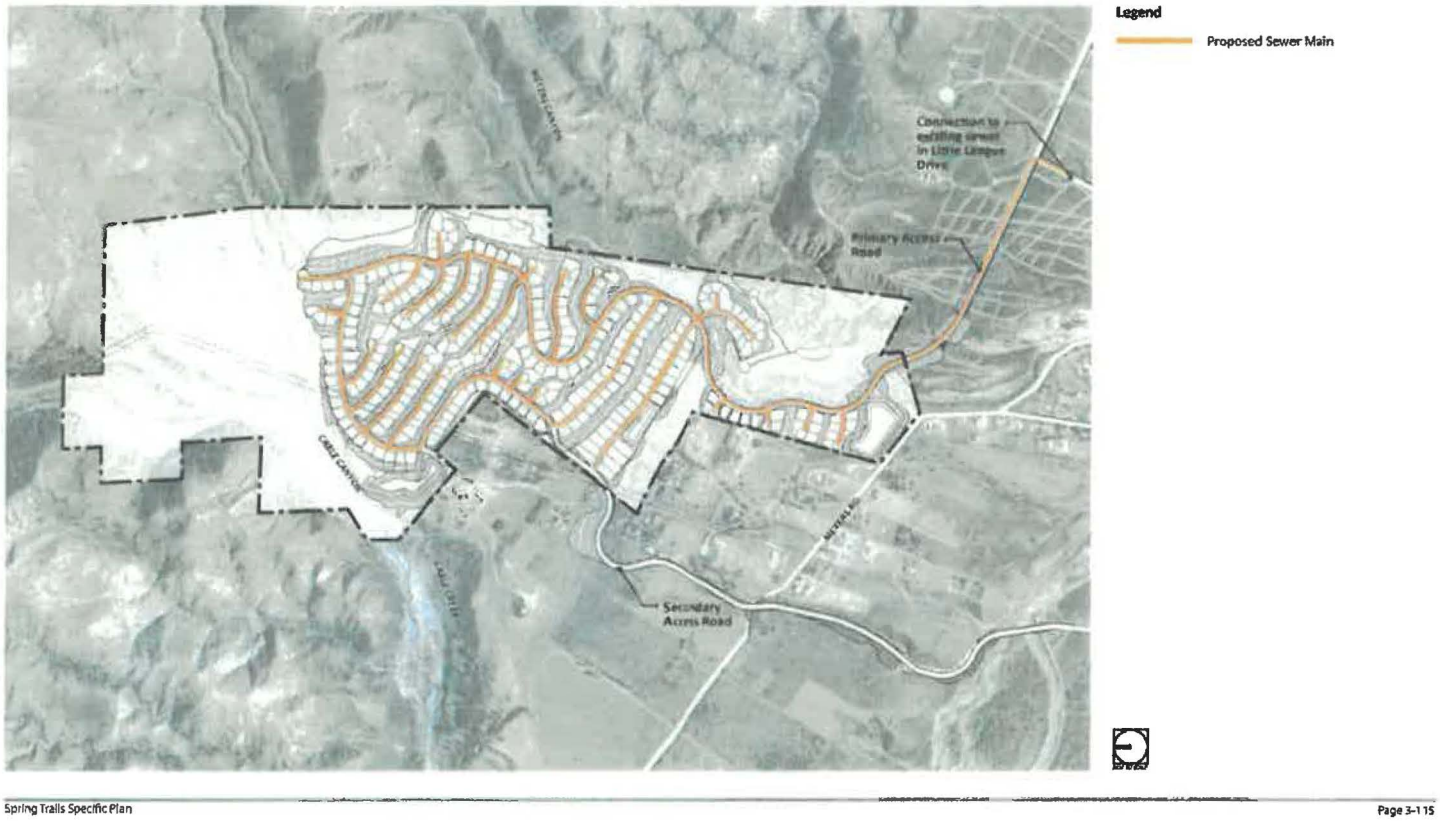
Current transportation services for the annexation area include freeways and interchanges serviced by Caltrans; arterials and collectors serviced by the County Public Works Department; local roads also serviced by the Public Works Department of San Bernardino County; and public transit serviced by Omnitrans. The closest Omnitrans bus stop to the annexation area is at Kendall Drive and Palm Avenue with a driving distance of about 2.2 miles.

After Annexation

Caltrans and Omnitrans will continue to provide their services post annexation for arterials, collectors and public transit. All onsite street local roads will be maintained by a homeowners association. The developer will be responsible for improvements of all necessary public streets, both onsite and offsite, as shown in Figure 3-7. Upon annexation, the City becomes responsible for the regional transportation fee associated with the proposed project, which is included in the estimated City fees for the project in Chapter 4, Table 4-2.

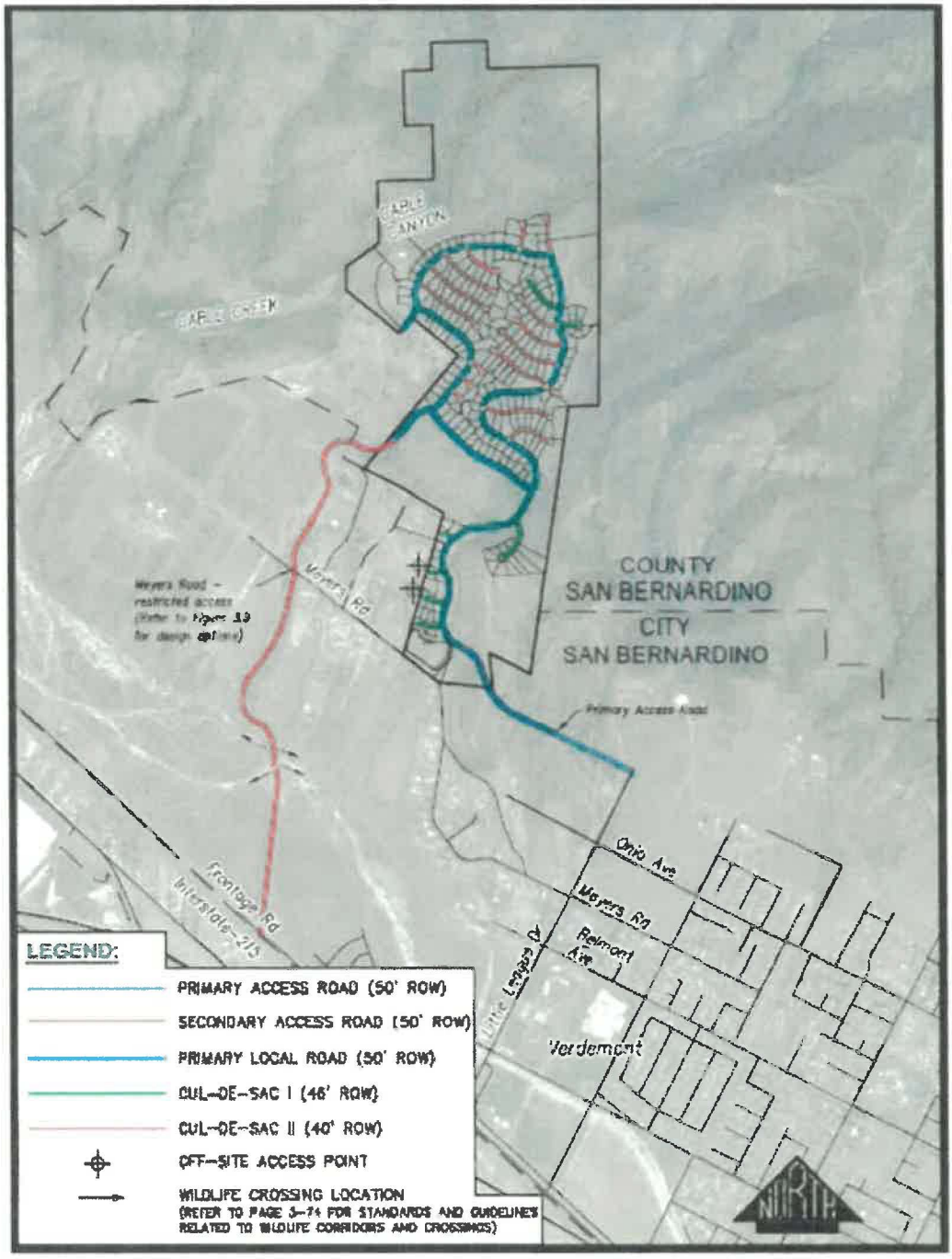
[2] Montecito Equities, *Spring Trails Specific Plan, October 2012, p. 3-112*

Figure 3-6
Spring Trails Specific Plan Conceptual Sewer Plan
Spring Trails Annexation Plan for Service and Fiscal Analysis



Sources: Stanley R. Hoffman Associates, Inc.
Montecito Equities, Ltd., July 2013

Figure 3-7
Spring Trails Specific Plan Conceptual Circulation Plan
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino



Sources: Stanley R. Hoffman Associates, Inc.
J.P. Weber Group, November 2016

3.12 Flood Control and Drainage

Before Annexation

The drainage area to which Spring Trails belongs flows into Cable Canyon, then into Cable Creek, then into Devil Creek Diversion Channel, then into Lytle Creek Wash and eventually into the Santa Ana River. Currently, there are no local flood control or drainage facilities in the annexation area. On a regional level, the San Bernardino County Flood Control District intercepts and manages flood flows through and away from developed areas throughout the County. The District is also responsible for water conservation and storm drain construction.

After Annexation

Upon annexation, flood control and drainage systems would be constructed by the developer and onsite flows would be managed and maintained by the HOA. The Spring Trails Specific Plan includes drainage improvements that collect and convey storm flows that would reduce the amount of storm runoff to levels prior to annexation and development, as shown in Figure 3-8. The existing Cable Canyon and Meyers Canyon drainage ways would remain relatively unchanged, except for necessary roadway and infrastructure improvements. Onsite and offsite stormwater flows would be collected and routed using catch basin inlets and storm drain systems that would carry water to three onsite detention basins, which also serve as parks.

3.13 Utilities

Before and After Annexation

Utilities include cable television, internet, telephone, electric power, and natural gas. Currently, Charter Communications is the cable television and internet service provider. Verizon maintains telephone service to the annexation area. Electricity is provided by Southern California Edison, while natural gas is supplied by the Southern California Gas Company. These service providers are not anticipated to change upon annexation.

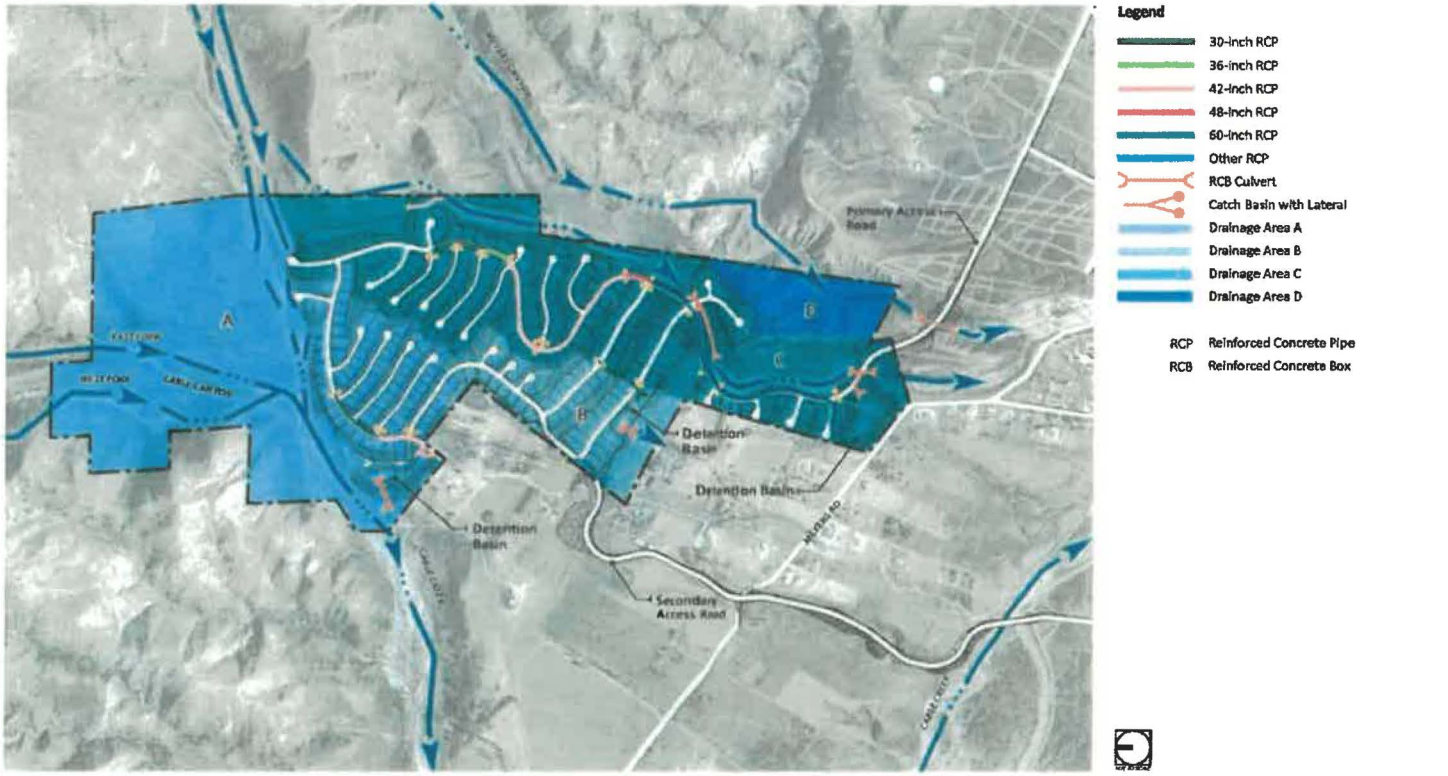
3.14 Schools

Before and After Annexation

Public education in the City of San Bernardino is provided by San Bernardino City Unified School District (SBCUSD). SBCUSD is the eighth-largest public school district in California with over 54,379 students enrolled at 44 elementary schools, 10 middle schools, 8 high schools and 3 special education schools. Before the annexation, the SBCUSD served the unincorporated area.

Figure 3-8
Spring Trails Specific Plan Conceptual Drainage Plan
Spring Trails Annexation Plan for Service and Fiscal Analysis

Figure 3.31 Conceptual Drainage Plan



Spring Trails Specific Plan

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Sources: Stanley R. Hoffman Associates, Inc.
Montecito Equities, Ltd., July 2013

SBCUSD will continue to serve the existing development as well as any future development in the annexation with North Verdemont Elementary School (3555 West Meyers Road), Chavez Middle School (6650 North Magnolia Avenue), and Cajon High School (1200 Hill Drive), as shown in Figure 3-9. Palm Avenue Elementary School is also located near the annexation area at 6565 Palm Avenue.

Figure 3-9
Local Elementary, Middle and High Schools
San Bernardino City Unified School District
City of San Bernardino

Source: Stanley R. Hoffman Associates, Inc.

3.15 Solid Waste Management

Before Annexation

The current service provider of solid waste management for the annexation area is the San Bernardino County Department of Public Works' Solid Waste Management Division, under the contract with Burrtec. The division oversees the operation and management of the County's solid waste disposal system, which includes five regional landfills and nine transfer stations.

After Annexation

Solid waste collection within the City of San Bernardino and a portion of the unincorporated planning area is provided by Burrtec on a contract basis with the City.

3.16 Public Health and Welfare

Before and After Annexation

The San Bernardino County Department of Public Health currently serves the City for the general public's health and welfare services. The department provides a variety of programs and services that informs and educates the public about health issues. The County Department of Public Health additionally provides public assistance welfare and healthcare needs for all residents within San Bernardino County. There are no anticipated changes in service levels or costs after the annexation of the proposed project.

CHAPTER 4
PAYING FOR PUBLIC FACILITIES AND INFRASTRUCTURE

4.1 Spring Trails Facilities and Infrastructure

One or more community facilities district(s) will be formed to pay for the cost of certain offsite public facilities necessary for the development of the Project, including roads and traffic improvements, parks and open space improvements, flood control and drainage systems, water and sewer systems, and utilities. A capital improvement plan, and rate and method of apportionment will be prepared which will outline the facilities cost, rates, and manner of collection.

Table 4-1 presents the list of infrastructure improvements for the Spring Trails Specific Plan. The majority of the infrastructure will be constructed by the project's master developer with interior neighborhood walls and fences constructed by merchant builders. Table 4-1 also identifies the jurisdiction, special district or private association responsible for maintenance of each facility and the ownership of each facility. The projected annual fiscal impacts to the City for provision of services to the Spring Trails project are presented in Chapter 5.

4.2 City of San Bernardino Development Impact Fees

While the developer is responsible for constructing the facility and infrastructure improvements for the Spring Trails Specific Plan, the developer will also pay one-time development impact fees (DIF) to offset the additional public capital costs required of new development. If the developer constructs any facilities covered by DIFs, the developer will receive credit toward construction costs for an equivalent amount of DIF fees.

As shown in Table 4-2, total one-time development impact fees for Spring Trails are estimated at about $7.2 million. Of the total estimated fees, about $4.9 million are estimated for the City and the remaining $2.3 million are estimated for the City of San Bernardino Municipal Water Department. The estimated City fees include the regional transportation fee that will become the responsibility of the City upon annexation of the project.

Table 4-1
Spring Trails Facilities and Infrastructure
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

Type	Developed By	Maintained By [1]	Owned By [1]
Streetscape			
Primary and Secondary Offsite Entry Roads	CFD	City	City
Onsite Roads and Cul-de-sacs	Master Developer	HOA	HOA
Onsite Entry Features/Landscaping	Master Developer	HOA	HOA
Onsite Street Lighting	Master Developer	HOA	HOA
Onsite Community Walls and Fences	Master Developer	HOA	HOA
Interior Neighborhood Walls and Fence	Guest Builder	Homeowner	Homeowner
Parks and Open Space			
Onsite Parks and Open Space	Master Developer	HOA	HOA
Offsite Parks	CFD	City	City
Onsite Detention Basins	Master Developer	HOA	HOA
Cable Creek and Meyers Open Space Areas	Master Developer	HOA	City
Fuel Modification Zone A	Master Developer	HOA/Homeowner	Homeowner
Fuel Modification Zones B and C	Master Developer	HOA	HOA/Homeowner
Infrastructure			
Drainage Systems (offsite)	CFD	City	City
Drainage Systems (onsite)	CFD	HOA	HOA
Sewer Systems (onsite and offsite)	CFD	SBMWD	SBMWD
Water Systems (onsite and offsite)	CFD	SBMWD	SBMWD
Nonpotable Water Systems (onsite and offsite)	CFD	SBMWD	SBMWD

1. LLMD = Landscape and Lighting District or special maintenance district
   HOA = Homeowners' Association (Master or Neighborhood)
   SBMWD = San Bernardino Municipal Water Department
   Certain facilities and improvements may be subject to reimbursement agreements.

Sources: Stanley R. Hoffman Associates, Inc.
Gresham Savage Nolan & Tilden, PC, April 7, 2017
San Bernardino Municipal Water Department

Table 4-2
Summary of Spring Trails City Development Impact Fees
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

Development Impact Fee Category [1]	Amount	Estimated Development Fees Impact Fees
New Residential Units	215	
	Fee per Unit	
City Fees [2]		
Community Development Fees		
Aquatic Facilities	$326	$70,114
Cultural Development	$3,000	$645,000
Library Facilities	$638	$137,146
Public Meeting Facilities	$1,090	$234,251
Parkland and Open Space	$9,518	$2,046,340
Subtotal	***$14,571***	***$3,132,851***
Public Safety Fees		
Law Enforcement	$639	$137,400 [3]
Subtotal	***$639***	***$137,400***
Engineering Fees		
Local Circulation Systems	$233	$50,082
Regional Circulation Systems	$2,435	$523,525
Storm Drain	$3,926	$844,071
Verdemont (Chestnut Drainage Fee -- $0.289/ sq. ft.)	$957	$205,712
Verdemont (Palm Box Culvert/ Signal -- $0.022/ sq. ft.)	$74	$15,824
Subtotal	***$7,624***	***$1,639,214***
Total City Fees	**$22,835**	**$4,909,465**
Water & Sewer - City of San Bernardino Municipal Water Department (SBMWD) [4]		
Sewer Capacity	$3,500	$752,500
Water Connection (3/4" x 3/4")	$7,110	$1,528,650
Total SBMWD Fees	***$10,610***	***$2,281,150***
TOTAL FEES	**$33,445**	**$7,190,615**

1. Note that the analysis does not include engineering processing fees, applicable fee credits, potential CFD/AD proceeds or potential impact of a Development Agreement, Mitigation Agreement, SB 50 Agreement, or similar agreement.
2. Represents the applicable fees per the City of San Bernardino fee schedule cited below. Actual fee amounts may differ at the time of application for building permits or connection to services.
3. Upon annexation, payment of the regional circulation system fee which was the requirement of the County prior to annexation will transfer to the City. As shown above, the regional circulation fee is estimated at $523,525 for the project.
4. Represents the applicable water fees per the City of San Bernardino Municipal Water Department.
   (Note that per the Conditions of Approval, upgrades and construction of new water and sewer system facilities will need to be completed in order for the Water Department to be able to serve the Tract, i.e. booster pump stations, 2,300 ft. level reservoir, etc.)

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, *Land Development Division Impact Fees, Effective February 15, 2022 (Accessed 8/2023)*

4.3 Schools

There is a one-time School Impact Fee of $4.31 per square foot for new, single-family residential development in the City of San Bernardino. At an average of 3,200 square feet of living space per new, single-family residential unit, the cost per unit is estimated to be $13,792. With a total of 215 residential units, the estimated school impact fee for the Spring Trails development totals approximately $3.0 million.

4.4 Utilities

Cable television, internet, power, and gas utilities are enterprise services, where fees are determined by each company's rate structure.

4.5 Roads and Drainage

The local circulation systems fee is $233 per unit, while the regional circulation systems fee is $2,435 per unit, as shown in Table 4-2. With 215 units, local and regional fees would total $573,607 for the development.

4.6 Water and Sewer

The developer is responsible for funding their share of the required water and sewer facilities to include, but not limited to reservoirs, booster stations, and transmission mains. Once the major facilities are complete and conveyed to the San Bernardino Municipal Water Department (SBMWD) for operation to serve water to the new pressure zones, the developer is then responsible to construct distribution facilities to provide water and sewer to the proposed housing in the project.

CHAPTER 5
FISCAL IMPACTS

This chapter describes the fiscal analysis of the Spring Trails Specific Plan. Fiscal impacts are first presented to the City of San Bernardino General Fund followed by the projected recurring revenues to the City's Gas Tax Fund and the City's Measure I Fund. Fiscal impacts are shown in constant 2018 dollars with no adjustment for possible future inflation.

5.1 City General Fund

A recurring surplus of $37,705 is projected to the City General Fund for the Spring Trails Annexation after buildout, as shown in Table 5-1. The projected surplus after buildout is based on recurring revenues of about $493,179 and recurring costs of about $455,474. This projection includes assumed revenues from the recently adopted CFD 2018-1 tax for safety services. The revenue-to-cost ratio is estimated at about 1.08 after buildout.

A small surplus of $827 is projected for Year 1, which is planned for onsite grading and offsite infrastructure capital improvements. With completion of new housing units in Year 2 (Phase 1), a surplus of $3,328 is projected. The projected surplus increases to $9,949 for Phase 2 (Year 3) and by Phase 3 (Year 4) a surplus of $20,351 is projected. When the final units are developed in Phase 4 (Year 5), the projected surplus to the General Fund is $37,705.

Table 5-1
Summary of Projected General Fund Recurring Fiscal Impacts
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

General Fund	Year 1 - 2026 Existing Unit (Grading)	Year 2 - 2027 New Units (Phase 1)	Year 3 - 2028 New Units (Phase 2)	Year 4 - 2029 New Units (Phase 3)	Year 5 - 2030 Buildout of New Units (Phase 4)
Estimated Annual Recurring Revenues	$2,719	$66,413	$178,387	$311,172	$493,179
Estimated Annual Recurring Costs	$1,892	$63,085	$168,438	$290,822	$455,474
Estimated Annual Recurring Surplus	$827	$3,328	$9,949	$20,351	$37,705
Estimated Annual Revenue/Cost Ratio	1.44	1.05	1.06	1.07	1.08

Sources: Stanley R. Hoffman Associates, Inc.
J. P. Weber Group, September 2023

General Fund Projected Recurring Revenues

Projected property tax in lieu of vehicle license fees, CFD 2018-1 (safety services) taxes and off-site sales tax account for about 65 percent of the total projected General Fund revenues after buildout, as shown in the detailed projected fiscal impacts in Table 5-2.

General Fund Projected Recurring Costs

As also shown in Table 5-2, police protection and general government account for about 76 percent of total projected recurring General Fund costs for the project after buildout.

Table 5-2
Detailed General Fund Projected Recurring Fiscal Impacts
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

General Fund	Year 1 - 2026 Existing Unit (Grading)	Year 2 - 2027 New Units (Phase 1)	Year 3 - 2028 New Units (Phase 2)	Year 4 - 2029 New Units (Phase 3)	Year 5 - 2030 Buildout of New Units (Phase 4)	Percent of Buildout
Estimated Recurring Revenues						
Property tax [1]	$0	$0	$0	$0	$0	0.0%
Property tax in lieu of VLF	0	20,303	55,774	97,462	154,253	31.3%
Off-site retail sales and use tax	927	9,009	23,129	39,724	62,332	12.6%
Measure S - sales tax	853	8,288	21,279	36,546	57,345	11.6%
Franchise tax	126	4,215	11,254	19,431	30,432	6.2%
CFD 2018-1 (safety services) [2]	416	12,992	36,032	64,641	105,224	21.3%
Charges for current services	31	1,033	2,758	4,762	7,458	1.5%
Fines and forfeitures	13	432	1,153	1,992	3,119	0.6%
Intergovernmental revenues	17	579	1,546	2,669	4,180	0.8%
Miscellaneous revenues	13	428	1,143	1,973	3,090	0.6%
Tow franchise revenues	7	217	579	1,000	1,567	0.3%
Property transfer tax-turnover	69	667	1,712	2,940	4,613	0.9%
Sales tax - public safety	17	582	1,554	2,683	4,202	0.9%
Utility user tax	230	7,668	20,474	35,349	55,363	11.2%
Total Projected Revenues	$2,719	$66,413	$178,387	$311,172	$493,179	100.0%
Estimated Recurring Costs						
Economic and housing development	$18	$615	$1,642	$2,835	$4,440	1.0%
Police protection	1,142	38,071	101,650	175,507	274,873	60.3%
Parks, recreation and community services	62	2,059	5,498	9,492	14,866	3.3%
Public works' services	285	9,507	25,384	43,827	68,641	15.1%
Transfer to Animal Control Fund	45	1,514	4,042	6,980	10,931	2.4%
Library	35	1,180	3,151	5,440	8,520	1.9%
General government - O&M/contracts	106	3,523	9,406	16,241	25,436	5.6%
General government - overhead	198	6,616	17,665	30,500	47,768	10.5%
Total Recurring Costs	$1,892	$63,085	$168,438	$290,822	$455,474	100.0%
Estimated Net Recurring Surplus	$827	$3,328	$9,949	$20,351	$37,705	
Estimated Revenue/Cost Ratio	1.44	1.05	1.06	1.07	1.08	

1. Based on information from the City Finance Director, per the agreement between the City and the San Bernardino County Fire Protection Distri (SBCFPD) the City will not receive any of the basic one percent property tax upon annexation of the Spring Trails project.
2. The City formed CFD 2018-1 in October 2018 which levies a special tax to provide finances for a portion of ongoing citywide public safety servic The special tax is $385 per single family unit and $358 per multi-family unit effective July 1, 2019 through June 2024. Beginning July 1, 2024, these rates will increase by four percent each following July 1.

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, Finance Director
J. P. Weber Group, September 2023

5.2 Other Funds

Fund 126 – Gas Tax

As shown in Panel A of Table 5-3, recurring Gas Tax Fund revenues to the City are projected at $16,122 for the Spring Trails project after buildout. These revenues are earmarked for transportation related expenditures.

Fund 129 – Measure I

Measure I includes a ½ cent sales tax for transportation expenditures. Recurring Measure I revenues are projected at $5,949 after buildout, as shown in Panel B of Table 5-3.

Table 5-3
Summary of Projected Other Funds Recurring Revenues
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

Other Funds	Year 1 - 2026 Existing Unit (Grading)	Year 2 - 2027 New Units (Phase 1)	Year 3 - 2028 New Units (Phase 2)	Year 4 - 2029 New Units (Phase 3)	Year 5 - 2030 Buildout of New Units (Phase 4)
A. Fund 126 - Gas Tax [1]					
Annual Recurring Gasoline Tax	$67	$2,233	$5,962	$10,294	$16,122
B. Fund 129 - Measure I [1]					
1/2 cent sales and road tax	$88	$860	$2,207	$3,791	$5,949

1. Annual recurring gasoline tax and Measure I revenues are restricted to street related expenditures.

Sources: Stanley R. Hoffman Associates, Inc.
J. P. Weber Group, September 2023

CHAPTER 6
CITY OF SAN BERNARDINO FISCAL ASSUMPTIONS

This Chapter presents the revenue and cost assumptions for projecting the ongoing operations and maintenance costs to the City General Fund and related City Funds for the Spring Trails annexation into the City of San Bernardino. As discussed earlier, the annexation area is currently located in the unincorporated area of San Bernardino County, within the existing sphere of influence of the City of San Bernardino.

The general City demographic and economic assumptions used for calculating fiscal factors are first presented. The assumptions for projecting recurring revenues are then presented followed by the assumptions for projecting recurring costs. The fiscal factors are based on discussion with City finance staff and the City's *Fiscal Year 2022-23 Adopted Budget*.

6.1 City General Assumptions

Fiscal impacts that are not based on valuation and taxable sales are generally projected based on a per capita, per employee, or per service population basis. Some fiscal impacts are projected based on other factors, such as per unit or per acre, based on the available data. General fund revenue and cost factors are estimated by dividing the FY 2022-23 budget categories by the City's resident population, employment, total service population, or developed acres where appropriate. Table 6-1 provides the City's general assumptions for this fiscal analysis.

Population

As shown in Table 6-1, the State Department of Finance (DOF) estimates the City of San Bernardino's January 1, 2023, total population at 223,230. The City population estimate is used for projecting certain revenues and costs on a per capita basis, such as State subvened gas taxes.

Housing Units

DOF estimates 67,593 total housing units for the City of San Bernardino for January 1, 2023. DOF estimates that 64,905 units are occupied.

Persons per Household

The 2023 average persons per household for the City is estimated at 3.34 persons based on dividing the household population estimate of 216,854 by the 64,905 estimated occupied units.

Table 6-1
City Population, Housing and Employment Assumptions
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

Assumption	Description
	Population and Housing [1]
216,854	Total Household Population
6,376	Group Quarters Population
223,230	Total Resident Population
43,315	Single Family Units
24,278	Multi-Family Units
67,593	Total Housing Units
64,905	Occupied Housing Units
3.34	Citywide Average Household Size
	Employment
112,478	Total City Employment [2]
	Service Population [3]
223,230	Total Resident Population
56,239	Employment Weighted at 50%
279,469	Total Service Population

Note: 1. Population and housing estimates are January 1, 2023 estimates provided by the California Department of Finance (DOF).
2. The total employment estimate for 2023 based on an interpolation of the 2019 and 2035 estimates from the Southern California Association of Governments, (SCAG) 2024 RTP preliminary estimates.
3. This analysis has weighted the employment at 50% to account for the estimated less frequent use of City services by employment versus population. Service population equals the total resident population plus the weighted employment.

Sources: Stanley R. Hoffman Associates, Inc.
State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties and the State - January 1, 2021-2023*, Sacramento, May 2023
Southern California Association of Governments (SCAG), *Preliminary RTP 2024 Projections Data*

Employment

For fiscal factors that are impacted by only employment, such as business license taxes, the City's total employment is used as the basis for calculating the factor. The total City employment of 112,478 for the year 2023 represents an interpolation of the years 2019 and 2035 from the Southern California Association of Governments (SCAG) *2024 Regional Transportation Plan (RTP), Preliminary Data.*

Service Population

Fiscal factors that are impacted by both population and employment growth are estimated by allocating total budgeted revenues or costs to the estimated service population. Service population includes the City's resident population plus 50 percent of the total estimated City employment. Employment is weighted at 50 percent to account for the estimated less frequent use of City services by employment versus population.

As shown in Table 6-1, The City's service population is estimated at 279,469 and represents the City's estimated resident population of 223,230 plus 50 percent of the City's estimated total employment, or 56,239 (50 percent of the total employment of 112,478).

6.2 City Revenue Assumptions

The General Fund and Gas Tax Fund revenue factors that are used in preparing the fiscal analysis for the Spring Trails Specific Plan are presented in Table 6-2. These factors are based on the City's Fiscal Year (FY) 2022-23 Adopted revenues for the General Fund and Other Funds shown in Appendix Table B-1 and Table B-2 and the City's population, employment and service population estimates that are presented in Table 6-1.

General Fund

Property Taxes - General Fund. The San Bernardino County Fire Protection District (SBCFPD) is now providing fire protection to the City. Based on the agreement between the City and the SBCFPD, the City will not receive a share of the 1.0 percent basic levy. The SBCFPD will receive the entire allocations that would have previously been allocated to the City.

Property Tax In Lieu of Vehicle License Fees. Cities and counties began receiving additional property tax revenue to replace vehicle license fee (VLF) revenue that was lowered in 2004 when the state reduced the vehicle license tax. This property tax in lieu of VLF is projected to grow with the change in the citywide gross assessed valuation (AV) of taxable property from the prior year.

As shown in Appendix Table B-3, the property tax in lieu of VLF in the City is projected to increase at an average of $1,270 per million dollars of new assessed valuation (AV). This factor is based on the change in AV and the change in property tax in lieu of VLF in the City over the last 10 years.

Table 6-2
General Fund and Other Funds Recurring Revenue Factors
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

Revenue Source	FY 2022-23 Adopted Budget	Projection Basis [1]	Projection Factor
GENERAL FUND			
Property Taxes [2]	n/a	Case Study: Project Valuation	0.00% City general share of 1% levy
Property Tax In Lieu VLF (PTVLF) [3]	$22,500,000	Case Study	$1,270 per $1,000,000 assessed valuation
			73.5% of PTVLF allocated to General Fund
Sales and Use Tax	$50,000,000	Taxable Sales	100% tax
Use Tax Factor		Use Tax as Percent of Sales Tax	14.9% of sales tax
Measure S - Sales Tax [4]	$46,000,000	Case Study	$920.00 per $1,000 of sales and use tax
Franchise Taxes	$11,781,000	Service Population = 279,469	$42.15 per service population
CFD 2018-1 (Safety Services) [5]	n/a	Residential Units	$400 per single family unit
			$372 per multi-family unit
Charges for Current Services	$2,305,500	Population = 223,230	$10.33 per capita
Fines and Forfeitures	$1,206,500	Service Population = 279,469	$4.32 per service population
Intergovernmental Revenues	$1,292,000	Population = 223,230	$5.79 per capita
Business Registration	$8,000,000	Employment = 112,478	$71.13 per employee
Miscellaneous Revenues	$1,196,556	Service Population = 279,469	$4.28 per service population
Tow Franchise	$606,000	Service Population = 279,469	$2.17 per service population
Property Transfer Tax	$1,100,000	Property turnover and valuation assumptions	5.0% Residential turnover rate
			$0.55 per $1,000 assessed valuation
Sales Tax - Public Safety	$1,300,000	Population = 223,230	$5.82 per capita
Utility User Tax	$21,430,500	Service Population = 279,469	$76.68 per service population
GAS TAX FUND 126			
State gasoline tax	$4,985,468	Population = 223,230	$22.33 per capita
MEASURE I FUND 129			
1/2% sales tax	$4,772,000	City Sales and Use Tax = $50,000,000	$95.44 per $1,000 City sales and use tax

1. For fiscal factors that are based on population and employment, an estimated service population factor is applied, which represents the total population plus 50% of the total employment estimate.
2. Based on information from the City Finance Director, at this time the City General Fund will not receive any of the one percent basic property tax levy on the property's assessed valuation because of the property tax exchange agreement between the City and the County Fire Protection District. The County Fire Protection District now provides fire protection to the City.
3. The State has lowered the VLF rate, which reduces the amount of VLF received by cities and counties. However, the State is providing property taxes to offset the VLF reduction. VLF is estimated to change according to the City's increased in assessed valuation, as shown in Appendix Table B-3. Based on the property tax agreement between the City and the County Fire Protection District, the City will receive 73.5 percent of the projected property tax in lieu of VLF from the project.
4. The City enacted Measure S in 2006 which is a 0.25 percent sales tax and increased to 1 percent in 2020 by voters.
5. The City formed Community Facilities District (CFD) 2018-1 in October 2018 which levies a special tax to provide finances for a portion of ongoing citywide public safety services. The special tax is $385 per single family unit and $358 per multi-family unit effective July 1, 2019 through June 2024. Beginning July 1, 2024, these rates will increase by four percent each following July 1.

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, *Fiscal Year 2022-23 Adopted Budget*
City of San Bernardino, Finance Director
State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities*, Counties and the State - January 1, 2021-2023, Sacramento, May 2023
Southern California Association of Governments (SCAG), *Preliminary RTP 2024 Projections Data*
J. P. Weber Group, September 2023

The City receives property tax in-lieu of VLF based on the change in its gross assessed valuation of taxable property for new development in the annexed area. Per State law, the existing valuation in an annexing area cannot be used in adjusting the base amount of assessed valuation in the annexing City. However, based on the agreement between the City and the San Bernardino County Fire Protection District the City will receive only 73.5 percent of the projected property tax in lieu of VLF.

Sales and Use Tax. Sales tax revenues to the local jurisdiction are projected at one percent of taxable sales. The City receives one percent of the taxable sales of most goods occurring within City limits. In addition to sales tax revenue, the City receives revenues from use tax, which is levied on shipments into the state and on construction materials for new development not allocated to a situs location. Use tax is allocated by the California Department of Tax and Fee Administration (CDTFA) based on each jurisdiction's proportion of countywide and statewide direct taxable sales.

Use tax revenues to the City of San Bernardino are estimated at an additional 14.9 percent of point-of-sale sales tax, as shown in Appendix Table B-4. Half-year 2022 sales tax data provided obtained from CDTFA estimates that $3,549,772 of total sales and use tax were made from levies designated as use tax and the remaining $23,826,715 of the sales and use tax was point-of-sale sales tax. Therefore, use tax revenues to the City of San Bernardino are estimated at an additional 14.9 percent of point-of-sale sales tax.

Measure S – Sales Tax. As shown in Table 6-2, Measure Z sales tax is projected at $920 per $1,000 of City sales and use tax. This tax is an additional component of sales and use tax that established an additional 0.25 percent sales tax that took effect in 2007. Measure S was increased to 1 percent sales tax by voters in 2020. Based on discussion with the City's finance director, this revenue is assumed for the fiscal analysis.

Franchise Taxes. Franchise taxes are projected at $42.15 per service population based on FY 2022-23 Adopted Budget revenues of $11,781,000 and the service population estimate of 279,469. City franchise taxes are collected for providers of cable, electric, gas, and telephone.

Community Facilities District (CFD) 2018-1 (Safety Services). The City formed CFD 2018-1 In October 2018 which levies a special tax to provide financing for a portion of ongoing public safety services. The special tax is $385 per single family unit and $358 per multi-family unit.

Collection of the fee began July 1, 2019 and remain at the current rate for five years. Beginning July 1, 2024, these rates will increase by four percent and by four percent each following July 1.

Charges for Current Services. Based on estimated FY 2022-23 Adopted Budget recurring revenues of $2,305,000 and the City's population estimate, charges for current services are projected at $10.33 per capita. These revenues do not include one-time fees and charges, as shown in Appendix Table B-1.

Fines and Forfeitures. These revenues include vehicle code fines, parking citations and other fines and penalties, and are projected at $4.32 per service population based on estimated FY 2022-23 Adopted Budget revenues of $1,206,500 and the City's service population of 279,469.

Intergovernmental Revenues. As shown in Table 6-2, these revenues are projected at $5.79 per capita based on estimated FY 2022-23 Adopted Budget revenues of $1,292,000 and the City's population estimate of 223,230.

Business Registration. These revenues are not projected for the proposed residential Spring Trails project because there is no employment projected for the project.

Miscellaneous Revenue. These revenues are projected at $4.28 per service population based on estimated FY 2022-23 Adopted Budget recurring revenues of $1,196,556 and the City's service population estimate of 279,469. Water Fund contributions for administrative services are included in this category. Revenues that are generated on a one-time basis and revenues that are not directly generated by the project are not included in this category.

Tow Franchise. Tow franchise revenues are projected at $2.17 per service population based on FY 2022-23 Adopted Budget revenues of $606,000 and the service population of 279,469.

Property Transfer Tax. Sales of real property are taxed by San Bernardino County at a rate of $1.10 per $1,000 of property value. For property located in the City, property transfer tax is divided equally between the City and the County, with the City receiving $0.55 per $1,000 of transferred property value. Based on the U.S. Census Bureau, American Community Survey for the period from 2015 to 2021, residential development in the City of San Bernardino is estimated to change ownership at an average rate of about 5.0 percent per year (Appendix Table B-5).

Sales Tax – Public Safety. These revenues are projected at $5.82 per capita based on the City FY 2022-23 Adopted revenue amount of $1,300,000 and the population estimate of 223,230.

Utility User Tax. The City of San Bernardino levies a utility user tax on the users of cable, natural gas, electricity and telephone services within the City. Based on the City FY 2022-23 Adopted Budget revenue amount of $21,430,500 and the City's estimated service population of 279,469, utility user taxes are projected at $76.68 per service population.

Gas Tax Fund 126

As shown in Table 6-2, total State gasoline tax revenues to the City are projected at $23.33 per capita based on estimated FY 2022-23 Adopted Budget revenues of $4,985,468 and the City's total population estimate of 223,230. These revenues include appropriations the shown in Appendix Table B-2. These revenues are earmarked for road related expenditures.

Measure I Fund 129

Measure I includes is a ½ cent sales tax. As shown in Table 6-2, total Measure I sales tax revenues to the City are projected at $95.44 per $1,000 of total sales and use tax. This factor is based on estimated FY 2022-23 Adopted Budget revenues of $4,772,000 for Measure I sales tax and the City's total sales and use tax of $50,000,000. These revenues are earmarked for transportation related expenditures.

6.3 City Cost Assumptions

The General Fund cost factors that are used in preparing the fiscal analysis for the Spring Trails Annexation are presented in Table 6-3. These factors are based on the City's Fiscal Year (FY) 2022-23 Adopted Budget net expenditures shown in Table 6-3 and the City's population and service population estimates that are presented in Table 6-1.

City General Fund expenditures are projected for general government, or overhead functions; community development; police; parks, recreation and community services; public works; and transfers from the General Fund to the Animal Control Fund and to Library services.

Water and sewer operations are assumed to not impact the General Fund because they are enterprise functions and maintenance costs are assumed to be covered through the payment of user fees and charges. Fire protection to the City is provided by the San Bernardino County Fire Protection District, and these costs are not included in this analysis.

Table 6-3
General Fund Recurring Cost Factors
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

Cost Category	FY 2022-23 Adopted Budget		Projection Basis [1]	Cost Factor [1]
	Total	Net		
General Government - Overhead	$19,345,530	$19,345,530	Share of Line Costs	11.7% of direct department costs
General Government - Operations and Maintenance (O&M)/Contracts	$9,846,601	$9,846,601	Service Population = 279,469	$35.23 per service population
Community and Economic Development [2]	$11,698,803	$1,719,303	Service Population = 279,469	$6.15 per service population
Police Protection	$106,395,588	$106,395,588	Service Population = 279,469	$380.71 per service population
Parks, Recreation and Community Services	$4,596,710	$4,596,710	Population = 223,230	$20.59 per capita
Public Works Services	$26,567,943	$26,567,943	Service Population = 279,469	$95.07 per service population
Transfer to Animal Control Fund	$3,378,783	$3,378,783	Population = 223,230	$15.14 per capita
Library	$2,633,501	$2,633,501	Population = 223,230	$11.80 per capita

1. For fiscal factors that are based on population and employment, an estimated service population factor is applied, which represents the total population plus 50% of the total employment estimate.
2. Net community and economic development services costs are calculated from budgeted costs minus projected one-time charges for services revenues, license revenues and permit revenues that offset the budgeted costs, as shown in Table B-6.

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, *Fiscal Year 2022-23 Adopted Budget*
City of San Bernardino, Finance Director
State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties and the State - January 1, 2021-2023*, Sacramento, California, May 2023
Southern California Association of Governments (SCAG), *2024 Regional Transportation Plan (RTP), Preliminary Data.*

General Government

General government costs include administration and support of the departmental functions. General government costs for City of San Bernardino include Mayor, City Council, City Clerk, City Attorney, City Manager, Human Resources, Finance, Benefits, Dues and Subscriptions and Debt Service. These are generalized citywide services and can't be directly linked to a specific department or project.

As shown in Table 6-4, Fiscal Year 2022-23 Adopted Budget general government costs are estimated at $19,345,530 and direct departmental costs (or non-general government) are estimated at $165,117,929. Average general government costs are projected at about 11.7 percent of direct non-general government costs.

Table 6-4
Calculation of City General Government Overhead Rate
Spring Trails Specific Plan Fiscal Analysis, City of San Bernardino
(In Constant 2023 Dollars)

General Fund Expenditures	FY 2022-23 Adopted Budget		
	Total	General Government	Non-General Government
General Government			
Mayor	$377,224	$377,224	
City Council	931,882	931,882	
City Clerk	1,486,807	1,486,807	
City Attorney	3,176,084	3,176,084	
City Manager	2,331,558	2,331,558	
Human Resources	2,508,177	2,508,177	
Finance	6,000,647	6,000,647	
General Government:			
Transfer to Animal Control	3,378,783		3,378,783
Net Personnel	45,090	45,090	
Dues and Subscriptions	122,953	122,953	
Maintenance and Operations/Contractual	9,846,601		9,846,601
Debt Service	2,365,108	2,365,108	
General Government Subtotal	*15,758,535*		
Non-General Government			
Community & Economic Development	$11,698,803		$11,698,803
Police	106,395,588		106,395,588
Parks, Recreation and Community Services	4,596,710		4,596,710
Public Works	26,567,943		26,567,943
Library	2,633,501		2,633,501
GRAND TOTAL GENERAL FUND	**$184,463,459**	**$19,345,530**	**$165,117,929**
Current General Government Overhead Rate			
General Government Expenditures			$19,345,530
		divided by	
Direct General Fund Expenditures			$165,117,929
		equals	
Current General Government Overhead Rate			**11.7%**

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, *Fiscal Year 2022-23 Adopted Budget*
City of San Bernardino, Finance Director

General Government – Operations and Maintenance (O&M)/Contracts

About $9,846,601 of General Fund expenditures are for operations and maintenance contracts. Based on this amount and the City's estimated service population of 279,469, these costs are projected at $35.23 per service population, as shown in Table 6-3.

Community and Economic Development

As also shown in Table 6-3, Community and Economic Development costs are projected on net cost basis. Fiscal Year 2022-23 Adopted Budget Community and Economic Development costs of $11,698,803 are offset by one-time development related permit and fee revenues, as shown in Appendix Table B-6, to result in net costs of $1,719,303. This divided by the service population of 279,469 results in $6.15 per service population.

Police Department

Based on expenditures of $106,395,588 in the FY 2022-23 Adopted Budget budget, and the City's service population estimate of 279,469, police costs are projected at $380.71 per service population. As discussed in Chapter 3, the San Bernardino Police Department maintains a ratio of approximately one sworn officer for every 1,000 residents. The annexation area will be served by a main police station, located at 710 North D Street. The project site belongs to patrol beat B1 in the Northwest Patrol District.

Parks, Recreation and Community Services

Citywide average annual costs for parks, recreation and community services are projected at $20.59 per capita based on the City's FY 2022-23 Adopted Budget recurring costs for these services of $4,569,710 and the City's population estimate of 223,230. Onsite parks, trails and open space will be maintained through a homeowners association.

Public Works Services

The Public Works Department maintains streets, sidewalks, curbs, gutters; street signs, street trees, traffic signals, streetlights, storm drains and sewer main lines. The Department also works with the Police Department for the prevention and removal of graffiti and provides collection services for refuse, recyclables and green waste.

Based on FY 2022-23 expenditures of $26,567,943 and the City's service population estimate of 279,469, average costs for all General Fund Public Works services are projected at $95.07 per service population. All project onsite streets, drains and streetlights will be maintained through a homeowners association and a lighting/ landscaping maintenance district.

Transfer to Animal Control Fund

Animal Control services are financed through a separate Animal Control Fund. Based on the City's FY 2022-23 Adopted Budget General Fund transfers of $3,378,783 to the Animal Control Fund and the City's population estimate of 223,230, these costs are projected at $15.14 per capita, as shown in Table 6-3.

Library Fund

Library services are also paid through a separate fund. Library service costs are projected at $11.80 per capita based on the City's FY 2022-23 Adopted Budget General Fund transfers of $2,633,501 to the Library Fund and the City's population estimate of 223,230.

APPENDIX A
SUPPORTING LAND USE TABLE

Table A-1
Road, Drainage, Sewer. Parks, Trails and Open Space Phasing
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

Roads [1]

		Offsite		Onsite (Private)			
				Phase 1		Phase 2	
Road Type	Unit of Measure	Lane Miles	Square Feet	Lane Miles	Square Feet	Lane Miles	Square Feet
Primary Access	Miles/Square Feet	1.04	153,216	0.19	25,188		
Secondary Access	Miles/Square Feet	2.61	344,789	0.08	10,254		
Primary Local	Miles/Square Feet			2.96	309,382	0.97	250,669
Secondary Local	Miles/Square Feet					0.27	28,275
Cul-De-Sac I	Miles/Square Feet			0.63	99,076	0.31	43,960
Cul-De-Sac II	Miles/Square Feet			0.84	110,501	2.41	288,137
Total		3.65	498,005	4.70	554,401	3.96	611,041

Drainage (Basins, Storm Drain) [2]

		Offsite		Onsite			
				Phase 1		Phase 2	
Facility Type	Unit of Measure	Public	Private	Public	Private	Public	Private
Detention Basin	Square Feet				298,277		178,392
Infiltration Trench	Square Feet						
Reinforced Concrete Box	Lineal Feet	1,430			2,286		
Reinforced Concrete Pipe	Lineal Feet	3,685			7,460		2,378
Arch Culvert	Lineal Feet	580					
Total Lineal Feet		5,695			9,746		2378

Sewer [3]

		Offsite		Onsite			
				Phase 1		Phase 2	
Facility Type	Unit of Measure	Public	Private	Public	Private	Public	Private
Sewer Main	Lineal Feet	4,017		10,857		13,479	

Parks, Trails and Open Space [4]

		Phase 1		Phase 2	
Facility Type	Unit of Measure	Public	Private	Public	Private
Open Space	Acre		47.4		27
Graded Slopes	Acre		25.18		9
12' Pedestrian/Equestrian Trail	Lineal Feet		5,700		6,100
4' Hiking Trail	Lineal Feet		4,600		2,700
Observation Point	Each		3		3
Trailhead	Each		2		1
Park	Square Feet		57,331		

Note: 1. All proposed offsite roads are assumed to be public maintained roads. Road sections are based on the proposed section on the Tentative Map exhibit. All roads are proposed as 2-lane roads. Lane miles are calculated by doubling the centerline length of a road segment. Road square footage is based on the entire road section, from R/W to R/W.

2. Detention basins are measured by square footage of the entire drainage lot. There are 2 basins in Phase 1 and 1 basin in Phase 2. Infiltration trenches are as proposed in the project WQMP and Hydrology Report. RCB quantities are based on the length of the centerline of each cell within a multiple celled box culvert. Arch Culverts are assumed for the Secondary Access Road crossing of Cable Creek. Arch Culverts are also proposed for Street " and Street "DD" crossing of Cable Canyon.

3. Offsite sewer is from the tract boundary on Verdemont Drive to Little League Drive, and in Little League Drive to existing facilities as depicted on the proposed Tentative Map.

4. Parks, Trails and Open Space sections are based on the Trails, Parks, and Open Space Plan in the Spring Trails Specific Plan. Trail lengths are approximate based on the Trails, Parks, and Open Space Plan. Open Space is areas on the Tentative Map that is not impacted by any development activity, except trail grading. Graded Slopes are areas within the proposed open space lots that have proposed grading and landscaping.

Sources: Stanley R. Hoffman Associates, Inc.
J. P. Weber Group, October 2016

APPENDIX B
SUPPORTING FISCAL TABLES

Table B-1 (page 1 of 2)
General Fund Revenues, Fiscal Year 2022-23 Adopted Budget
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

Revenue Category	Total	Non-Recurring [1]	Not Projected [2]	Projected
Property Taxes				
Property Tax In Lieu of VLF	*$22,500,000*	*$0*	*$0*	*$22,500,000*
Sales and Use Tax				
Sales and Use Tax	*$50,000,000*	*$0*	*$0*	*$50,000,000*
Measure Z - Sales Tax				
Measure Z - Sales Tax	*$46,000,000*	*$0*	*$0*	*$46,000,000*
Franchise Tax				
Franchise Tax - So Cal Edison	$1,000,000	$0	$0	$1,000,000
Franchise Tax - So Cal Gas	550,000	0	0	550,000
Franchise Tax - Charter Cable TV	1,100,000	0	0	1,100,000
Franchise Tax - Verizon	120,000	0	0	120,000
Franchise Tax - AT&T (Pacific Bell)	11,000	0	0	11,000
Franchise Tax - Burrtec Disposal	9,000,000	0	0	9,000,000
Total Franchise Taxes	*$11,781,000*	*$0*	*$0*	*$11,781,000*
Charges For Services				
On Site Plan Check Fees	$400,000	$400,000	$0	$0
Cannabis Permit Application Fee	0	0	0	0
Cannabis Permit Regulatory Fee	120,000	120,000	0	0
Passport Fees	40,000	0	0	40,000
Subdivision Filing Fee	130,000	130,000	0	0
Planning Development PR	600,000	600,000	0	0
Technology Fee Development Services	150,000	150,000	0	0
Plan Review	165,000	165,000	0	0
C&D Application Fee	7,500	7,500	0	0
Plan Check Fee - B&S	1,575,000	1,575,000	0	0
Plan Check Fee - Fire	0	0	0	0
Board Up/Demolition	400,000	400,000	0	0
CDBG Revenue	0	0	0	0
Pendency Release	4,000	0	4,000	0
Miscellaneous Police Receipts	1,000,000	0	0	1,000,000
Sale of Photos	1,500	0	0	1,500
Traffic Offender OTS Fee	105,000	0	0	105,000
Police Tow Release	525,000	0	0	525,000
Private Property Tow Fee	150,000	0	0	150,000
Fingerprint Fee	3,500	0	0	3,500
Property Auction	2,500	0	0	2,500
False Alarm Fee	50,000	0	0	50,000
Vehicle Repossession Fee	5,000	0	0	5,000
Investigation Fee	5,000	0	0	5,000
Fireworks Enforcement	80,000	0	0	80,000
Code SFIF	1,000	1,000	0	0
Administrative Citations SFRPIP	50,000	50,000	0	0
Payoff Demand Fee	5,000	5,000	0	0
Crime Free Rental Housing	135,000	0	135,000	0
Cemetery Burial Fee	10,000	0	0	10,000
Sale of Cemetery Vaults and Liners	2,000	0	0	2,000
Blanket Inspection Fee	225,000	225,000	0	0
Miscellaneous Engineering Receipt	50,000	50,000	0	0
Plan Check Fee - Engineering	1,500,000	1,500,000	0	0
Archival Fee - Development Services	30,000	30,000	0	0
NPDES Storm Drain Utility Fee	175,000	175,000	0	0
NPDES Inspection Fee	25,000	25,000	0	0
Weed Abatement Destruction	50,000	0	0	50,000
Program & Facility Use Fees	100,000	0	0	100,000
Park Energy Fee	8,000	0	0	8,000
Signal maint/energy	100,000	0	0	100,000
Class Registration Fee	18,000	0	0	18,000
Swimming Pool Fee	50,000	0	0	50,000
Burrtec Host Fee	325,000	325,000	0	0
Library Fines	4,000	4,000	0	0
Election Filing Fees	3,000	3,000	0	0
Sale of Vases	500	500	0	0
Non Resident Fee	500	500	0	0
Crime Prevention Revenue	400	400	0	0
Total Charges for Services	$8,386,400	$5,941,900	$139,000	$2,305,500

Table B-1 (page 2 of 2)
General Fund Revenues, Fiscal Year 2022-23 Adopted Budget
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

Revenue Category	Total	Non-Recurring [1]	Not Projected [2]	Projected
Fines and Forfeitures				
General Fines	$15,000	$0	$0	$15,000
Code Administration Citations	65,000	0	0	65,000
Parking Citations	550,000	0	0	550,000
General Administrative Civil Penalty	125,000	0	0	125,000
Police Administrative Civil Penalty	0	0	0	0
PW Administrative Civil Penalty	0	0	0	0
Code Administrative Civil Penalty	450,000	0	0	450,000
Private Property Tow Fee	0	0	0	0
Library Fines	0	0	0	0
City Attorney Administrative Citations	1,500	0	0	1,500
Total Fines and Forfeitures	$1,206,500	$0	$0	$1,206,500
Intergovernmental				
Motor Vehicle In Lieu Tax	$130,000	$0	$0	$130,000
Other Governmental Agencies	2,051,260	0	2,051,260	0
State Aid - POST	35,000	0	0	35,000
State Mandated Cost Reimbursement	25,000	0	0	25,000
SBIAA Reimbursement	65,000	0	65,000	0
Recoverable Expense Income	1,100,000	0	0	1,100,000
San Manuel Community Credit	1,000,000	0	1,000,000	0
Water Reimbursement	2,000	0	0	2,000
Total Intergovernmental	$4,408,260	$0	$3,116,260	$1,292,000
Investment Income				
Land and Building Rental/Lease	$525,000	$0	$525,000	$0
ATS Land and Building Rental	0	0	0	0
Total Use of Money and Property	$525,000	$0	$525,000	$0
Licenses and Permits				
Business Registration	$8,000,000	$0	$0	$8,000,000
Miscellaneous Planning Permits	12,000	12,000	0	0
Annual Alarm Permits	50,000	50,000	0	0
Building Permits	2,000,000	2,000,000	0	0
Mechanical Permits	115,000	115,000	0	0
C&D Self Haul Permit	5,000	5,000	0	0
Street Cut Permits	0	0	0	0
Miscellaneous Licenses and Permits	350,000	350,000	0	0
Grading Permits	15,000	15,000	0	0
Public Works Construction Permits	380,000	380,000	0	0
On Site Permits	1,500,000	1,500,000	0	0
Mobile Home Park Permit	3,000	0	3,000	0
Total Licenses & Permits	*$12,427,000*	*$4,427,000*	*$0*	*$8,000,000*
Miscellaneous				
Miscellaneous Planning Receipts	$120,000	$0	$0	$120,000
Miscellaneous Library Receipts	10,000	0	0	10,000
Miscellaneous Receipts	175,000	0	0	175,000
Refunds and Rebates	0	0	0	0
Litigation Settlements	55,000	0	0	55,000
Restitutions	5,000	0	0	5,000
Water Fund Contributions	793,556	0	0	793,556
Vehicle Take Home Reimbursement	0	0	0	0
DUI Reimbursement	10,000	0	0	10,000
Off-Track Betting	28,000	0	0	28,000
Total Miscellaneous	*$1,196,556*	*$0*	*$0*	*$1,196,556*
Other Taxes				
Tow Franchise	606,000	$0	$0	$606,000
Transient Occupancy Tax	4,650,000	0	0	4,650,000
Property Transfer Tax	1,100,000	0	0	1,100,000
Sales Tax - Public Safety	1,300,000	0	0	1,300,000
Cannabis Tax	4,000,000	0	0	4,000,000
Total Other Taxes	*$11,656,000*	*$0*	*$0*	*$11,656,000*
Use of Money and Property				
Interest on Idle Cash	$325,000	$0	$325,000	$0
Rental Income From Former EDA Properties	200,000	0	200,000	0
Vending Machine Commission	4,000	0	4,000	0
Total Use of Money and Property	*$529,000*	*$0*	*$529,000*	*$0*
Utility Users Tax				
Utility Users Tax	*$21,430,500*	*$0*	*$0*	*$21,430,500*
General Fund Total	$192,046,216	$10,368,900	$4,309,260	$177,368,056

Note: 1. One-time development related fees are not projected as recurring revenues because they are netted from projected development development services costs.

2. Certain recurring revenues (such as transient occupancy tax, intergovernmental revenues and set payment amounts) that are not impacted by the proposed project are not projected in the fiscal analysis.

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, *Fiscal Year 2022-23 Adopted Budget*

Table B-2
Fiscal Year 2022-23 Adopted Budget: Revenues for Other City Funds [1]
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

Revenue Category	Total	Not Projected [2]	Recurring
Fund 124 - Animal Control			
Animal Licenses	$205,000	$0	$205,000
Miscellaneous Licenses and Permits	2,000	0	2,000
General Fines	5,200	0	5,200
Animal License Penalty	13,250	0	13,250
Animal Adoption Fee	52,000	0	52,000
Contracted Shelter Fee	0	0	0
Apprehension Fee	10,500	0	10,500
Boarding Fee	30,000	0	30,000
Field Service Fee	5,000	0	5,000
Owner Release Fee	13,000	0	13,000
Vaccination Fee	35,000	0	35,000
Microchip Identification Fee	31,000	0	31,000
Miscellaneous Receipts	12,500	0	12,500
Transfers from General Fund	3,305,413	0	3,305,413
Intergovernmental	0	0	0
Total Animal Control Fund	*$3,719,863*	*$0*	*$3,719,863*
Fund 126 - Gas Tax			
State Gasoline Tax:			
- HUTA Prop 42 Replacement (for Section 2103)	$1,600,833	$0	$1,600,833
- Proposition 111 (Section 2105)	1,175,980	0	1,175,980
- Section 2106	713,030	0	713,030
- Section 2107	1,495,625	0	1,495,625
Subtotal	$4,985,468	$0	$4,985,468
- Section 2107.5 flat amount [3]	9,532	0	9,532
Use of Money and Property	5,000	5,000	0
Total Gas Tax Fund	*$5,000,000*	*$5,000*	*$4,995,000*
Fund 129 - Measure I			
1/2 Cent Sales Tax	$4,772,000	$0	$4,772,000
Federal Aid Street Construction		0	0
Subtotal	$4,772,000	$0	$4,772,000
Interest on Idle Cash	28,000	28,000	0
Total Gas Tax Fund	*$4,800,000*	*$28,000*	*$4,772,000*

1. This table includes only the special fund revenues that are projected in the fiscal analysis.
2. Revenues that are not impacted by the proposed project are not projected as recurring revenues. Also, revenues allocated to capital expenditures and interest on idle cash revenues are not projected.
3. Section 2107.5 gas tax revenues are allocated based on the population size-range population of the City.

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, *Fiscal Year 2022-23 Adopted Budget*

Table B-3
Estimated In Lieu Property Tax of Vehicle License Fees (VLF) Factor
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

Fiscal Year	VLF - Property Tax In Lieu [1]	Assessed Valuation (AV) [2]	VLF per $1,000,000 AV [3]
2013-2014	$16,328,700	$10,695,499,230	$1,530
2014-2015	$17,249,209	$11,298,819,747	$1,530
2015-2016	$18,206,540	$11,924,444,131	$1,530
2016-2017	$17,844,545	$12,662,283,004	$1,410
2017-2018	$15,000,000	$13,395,373,121	$1,120
2018-2019	$15,800,000	$14,215,676,776	$1,110
2019-2020	$16,805,900	$15,437,323,990	$1,090
2020-2021	$18,316,742	$16,296,056,728	$1,120
2021-2022	$19,267,608	$17,611,502,086	$1,090
2022-2023	$22,500,000	$18,993,544,611	$1,180
Average of Ten Years			***$1,270***

1. The property tax in lieu VLF amounts are from the City's budget as cited below.
2. City assessed valuation is from the County Assessor report as cited below.
3. Estimated VLF per $1,000,000 AV is rounded to the nearest tens.

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, Adopted *Budgets, 2013-2014 through 2022-23.*
County of San Bernardino, *Assessed Rolls, 2013 through 2023*

Table B-4
Calculation of Use Tax Factor
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

City of San Bernardino	Amount [1]
Use Tax	
County Pool	$3,539,112
State Pool	$10,660
Total Use Tax	$3,549,772
divided by	
Point-of-Sale	$23,826,715
equals	
Use Tax Rate [2]	**14.9%**

1. Obtained from CDTFA data for Half-year 2022.
2. The use tax rate is the County Pool plus the State Pool divided by point-of-sale taxable sales tax.

Sources: Stanley R. Hoffman Associates, Inc.
California Department of Tax and Fee Administration, CDTFA, 2023

Table B-5
Estimated Annual Residential Turnover
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

City of San Bernardino	Occupied Housing Units	Percent Turnover
Total Owner Occupied Units	**32,391**	
Moved in 2019 or later	5,241	
Moved in 2015 to 2018	6,044	
Total Moved 2015 to 2021	11,285	
Estimated Annual Turnover Rate: 2015 to 2021 [1]	**1,612**	**5%**

1. The annual turnover rate is based on the assumption of seven years for the 2015 to 2021 period.

Sources: Stanley R. Hoffman Associates, Inc.
U.S. Census Bureau, *2021 American Community Survey (ACS) 1-Year Estimate, Tenure by Year Householder Moved Into Unit, Report B25038, San Bernardino, California*

Table B-6
General Fund Net Community and Economic Development Cost Factor
Spring Trails Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2023 Dollars)

Category	Amount
Total General Fund Community and Economic Development Costs	$11,698,803
	minus
Charges for Service	
On Site Plan Check Fees	$400,000
Cannabis Permit Application Fee	0
Cannabis Permit Regulatory Fee	120,000
Subdivision Filing Fee	130,000
Planning Development PR	600,000
Technology Fee Development Services	150,000
Plan Review	165,000
C&D Application Fee	7,500
Plan Check Fee - B&S	1,575,000
Board Up/Demolition	400,000
Blanket Inspection Fee	225,000
Miscellaneous Engineering Receipt	50,000
Plan Check Fee - Engineering	1,500,000
Archival Fee - Development Services	30,000
NPDES Storm Drain Utility Fee	175,000
NPDES Inspection Fee	25,000
Total One-Time Charges for Service	$5,552,500
	minus
One-Time Licenses and Permits	
Miscellaneous Planning Permits	$12,000
Annual Alarm Permits	$50,000
Building Permits	2,000,000
Mechanical Permits	115,000
C&D Self Haul Permit	5,000
Street Cut Permits	0
Miscellaneous Licenses and Permits	350,000
Grading Permits	15,000
Public Works Construction Permits	380,000
On Site Permits	1,500,000
Total One-Time Licenses and Permits	$4,427,000
	equals
Recurring Net Community Development Costs	$1,719,303
	divided by
City Service Population	279,469
	equals
Community Development Costs per Service Population	**$6.15**

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, *Fiscal Year 2022-23 Adopted Budget*
City of San Bernardino, Finance Department

APPENDIX C
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SPRING TRAILS

DRAFT SPECIFIC PLAN
October, 2012

Prepared for:

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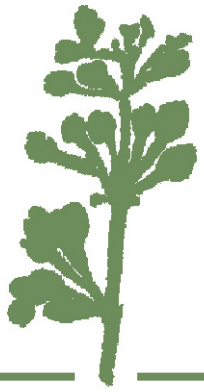

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Acknowledgments

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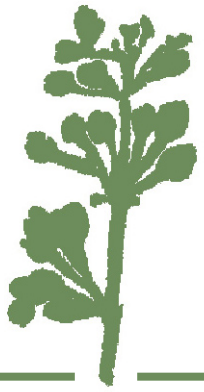
Section 1

INTRODUCTION



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INTRODUCTION

Project Summary

Spring Trails is a 352.8-acre residential community in the foothills of the San Bernardino Mountains. The preferred plan accommodates 304 single-family lots ranging from 10,801 square feet to 18 acres. The development footprint of Spring Trails encompasses 68 percent of the total site (242 acres), on gently sloping alluvial benches between canyons, steep hillsides, and the Cable Canyon and Meyers Canyon drainageways. The remaining 32 percent (111 acres) remains open space. There are 3.8 miles of hiking trails that traverse the site and provide access to parks and natural open space. An alternative plan is depicted in Appendix F that assumes the existing SCE power line would be relocated and could accommodate 307single family lots.

View looking southeast from the Spring Trails site.

Spring Trails is carefully designed to respect the San Andreas Fault system, which crosses the northern and southern ends of the project; the Cable Canyon and Meyers Canyon drainageways; and steep slopes. These features have been incorporated into Spring Trails as open space.

Purpose of the Specific Plan

The purpose of the Spring Trails Specific Plan is to provide unique development standards and guidelines to allow the creation of a high-quality residential community.

The California Government Code, Section 65450, establishes the authority for cities and counties to adopt specific plans by resolution as policy or by ordinance as regulation, identify the required contents of a specific plan, and mandate consistency with the general plan. A specific plan enables enhanced or innovative development and design options not possible under conventional zoning controls. The Spring Trails Specific Plan is a regulatory document providing a means of implementing a site-specific development proposal in accordance with the goals and policies of the City of San Bernardino General Plan.

The City of San Bernardino Municipal Code Chapter 19.64 describes the purpose, requirements, regulations, and procedures for preparation of a specific plan in the City. As required by the California Government Code, a General Plan Consistency Analysis has been prepared for this Specific Plan (see Appendix B).

Project Location

As shown in Figure 1.1, *Regional Location*, Spring Trails is on the northern edge of the City of San Bernardino in the foothills of the San Bernardino Mountains. The site is approximately 1.5 miles east of the unincorporated community of Devore and the junction of Interstate 215 (I-215) and I-15. Spring Trails is bounded by the San Bernardino National Forest on three sides and Verdemont Heights on the southern side.

As shown in Figure 1.2, *Local Vicinity*, Spring Trails is in Verdemont Heights, approximately one-third mile northwest of the intersection of Meyers Road and Little League Drive. Primary access is from a new roadway connecting to Little League Drive and a secondary roadway via a new road extending south and connecting to the frontage road along I-215. Freeway access is from the Palm Avenue interchange and the Glen Helen Parkway/Devore Road interchange.

Figure 1.1: Regional Location

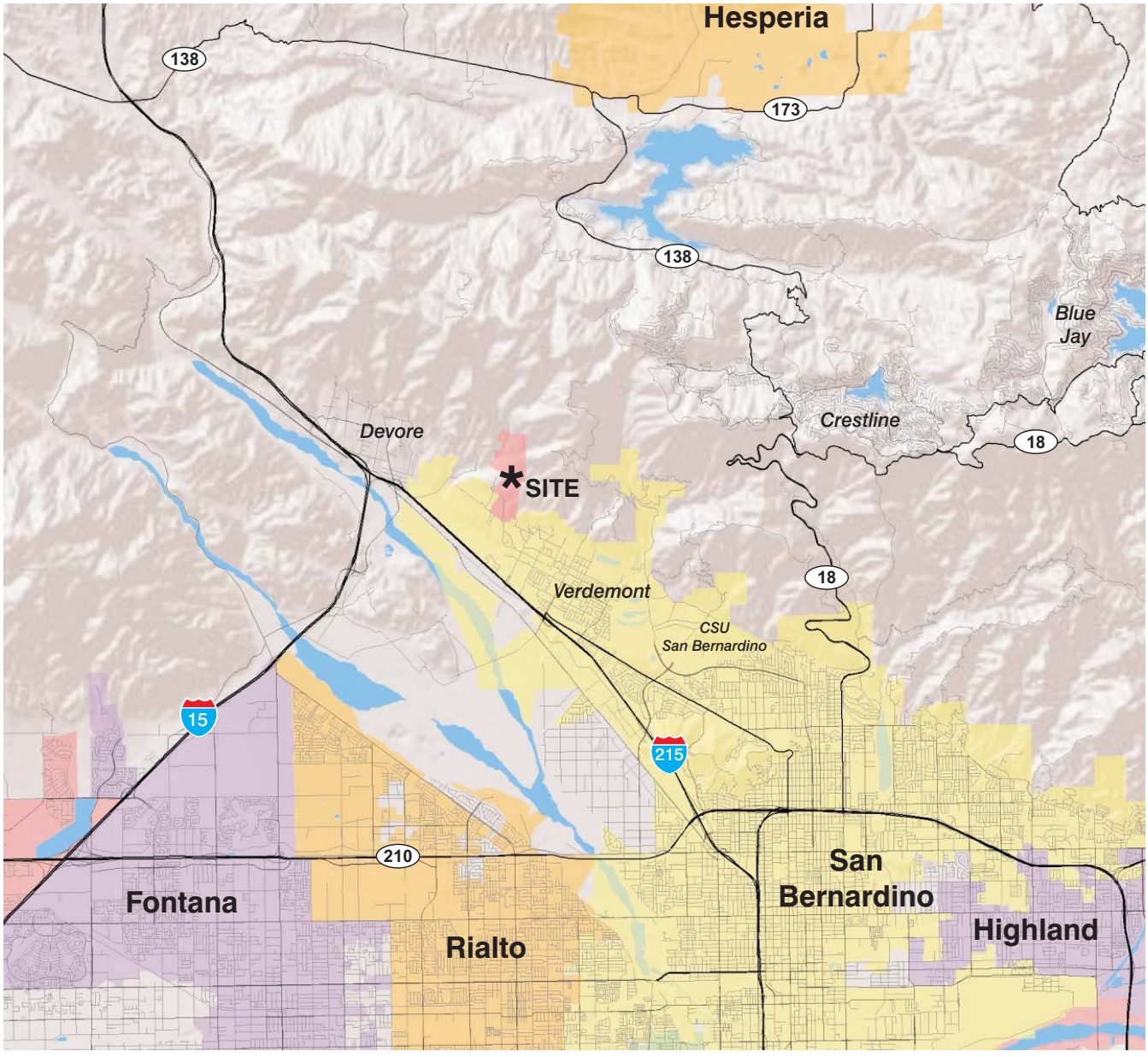

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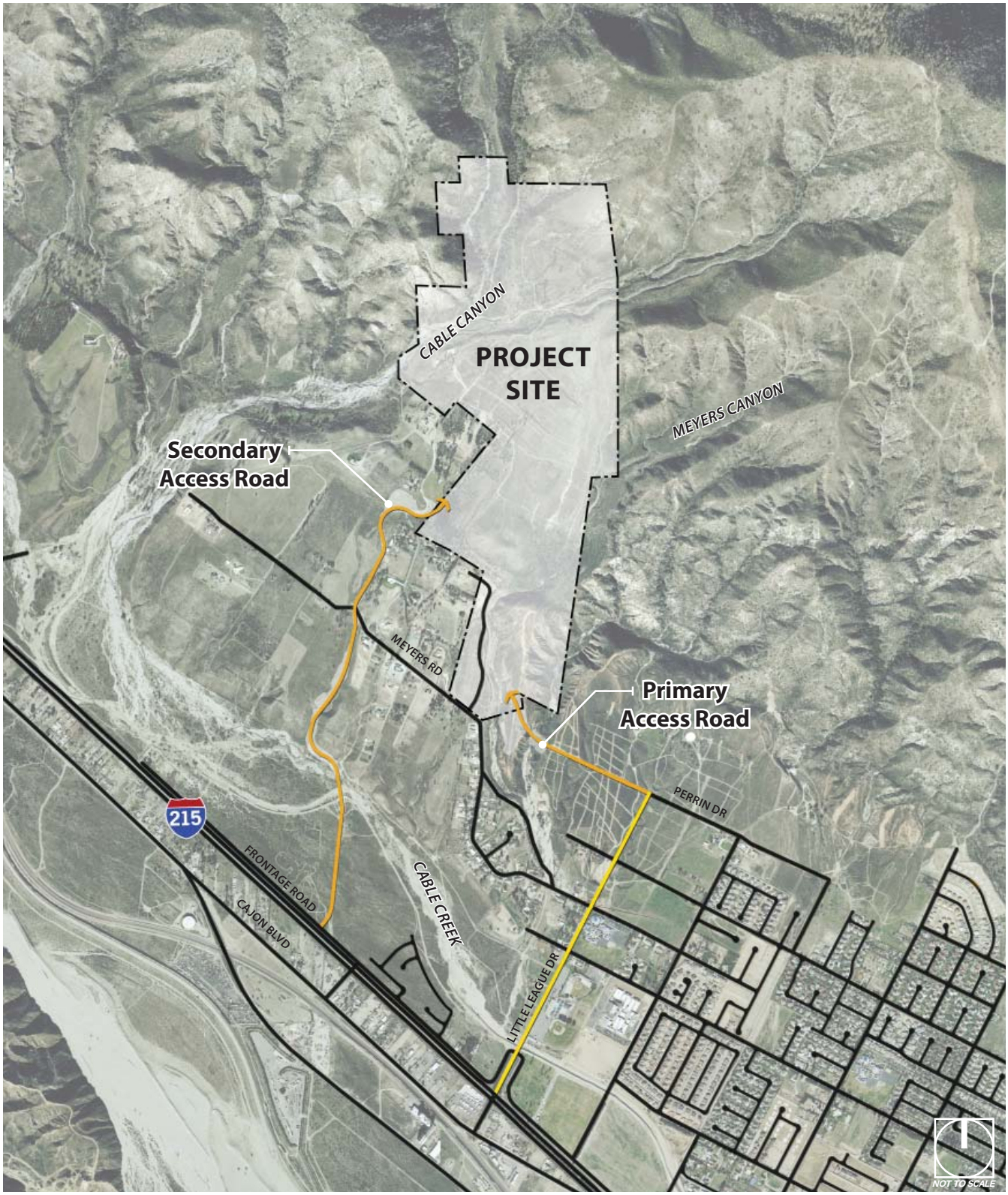
Figure 1.2: Local Vicinity



Map Source: Google Earth

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Format of the Document

The Spring Trails Specific Plan is organized into the following sections.

Section 1: Introduction. This section describes the purpose, intent, authority, and scope of the Specific Plan: compliance with guiding documents, project setting, and a summary of opportunities and constraints.

Section 2: Development Concept. This section explains the vision and development concept. The land use plan and buildout statistics are also included in this section.

Section 3: Development Standards. This section provides the allowable uses, development standards, circulation plan, open space plan, and utility and infrastructure plans.

Section 4: Design Guidelines. This section lays out guidelines that define the aesthetic character of Spring Trails.

Section 5: Sustainability. This section describes opportunities and guidelines for environmentally sustainable development in Spring Trails.

Section 6: Administration and Implementation. This section contains the development processing and amendment procedures, as well as phasing, for Spring Trails.

Appendices. The appendices contain definitions, a General Plan consistency analysis, fire safety plan, and a comparison of this Specific Plan to the City's Foothill Fire Zones Overlay District.

Terminology

Statements occur in this plan in the form of policies, standards, and guidelines that create expectations of actions intended to successfully implement the plan. The following terms clarify the level of commitment described in the plan and reflect expected outcomes.

Shall – This type of policy is always to be followed. "Shall" represents an absolute commitment to the guidance expressed in the policy. Similar action words: require, enforce, must, ensure.

Should – This type of policy is to be followed in most cases and exceptions or degrees of implementation are acceptable with valid reasons. Similar action words: encourage, supposed to.

Allow – This type of policy permits and supports someone else's initiative unless there is a very good reason not to. Similar action words: permit.

Restrict – This type of policy sets specified limits within which action and/or implementation will occur. Similar action words: control, limit, contain.

Prohibit – This type of policy requires the active prevention of specified conditions or decisions. Similar action words: forbid, ban.

Other terminology may appear in certain policy statements. These terms are to be interpreted according to their similarity to the appropriate term described above.

Conceptual/Illustrative Graphics

Some illustrations, product prototypes, and accompanying descriptions contained in this Specific Plan are conceptual and are labeled accordingly. These illustrations are intended to depict the desired character and are not to be taken as compulsory or as dictating exact building types, material types, architectural styles, or final amenity designs.

Relationship to Other Plans/Agencies

Pre-Annexation

Prior to adoption of this Specific Plan, the entire site was in the jurisdiction of the County of San Bernardino and annexation of approximately 379 acres into the City of San Bernardino was necessary. The area of annexation associated with Spring Trails consisted of the project site and an adjacent 26.4-acre area required to prevent the creation of a county island within the City.

The Spring Trails site was placed in the City of San Bernardino's Sphere of Influence in September 1996, when the Local Agency Formation Commission (LAFCO) approved a Sphere of Influence Expansion for the City of San Bernardino. Government Code Section 56706 states that a sphere of influence is the plan for the probable physical boundaries and service area of a local agency as determined by LAFCO. While the land is in the sphere of influence, the county retains land use authority. Under the County of San Bernardino's authority, the County General Plan designated approximately 160 acres in the northern portion of the site Resource Conservation (RC) and approximately

190.6 acres in the southern portion of the site Rural Living (RL-5), which allowed up to one dwelling unit per five acres.

Prior to annexation and adoption of this Specific Plan, the City's General Plan and Zoning maps designated the entire site, which was within their Sphere of Influence, as Residential Estate (RE), which allowed one dwelling unit per acre.

General Plan

Upon annexation into the City, the entire Spring Trails site will be designated Spring Trails Specific Plan on both the City's General Plan and Zoning maps. The existing Residential Estate designation permits one dwelling unit per acre. Through the Spring Trials Specific Plan, development has been clustered into the most appropriate areas so that individual lots may exceed the density limit; however, on a gross basis the specific plan still complies with the density restrictions of the Residential Estate land use designation (307 units on 353 acres). The Specific Plan also demonstrates compliance with the City's Foothill Fire Zone development standards. Upon annexation, the 26.4-acre additional annexation area will be designated RE.

Specific plans are required to be consistent with the goals and policies of the governing General Plan. The General Plan Consistency Analysis, included as Appendix B, discusses how the project implements and exemplifies the goals and policies of the City of San Bernardino General Plan. Future projects within the Specific Plan must be consistent with this Specific Plan (Government Code, Sections 65455, 66473.5, 65860, and 65401). All projects that are found to be consistent with this Specific Plan will likewise be deemed consistent with the City's General Plan.

Verdemont Heights Area Plan

According to the State General Plan Guidelines, an area plan provides focused policies for a particular geographic area within a general plan. Spring Trails is in the Verdemont Heights Area Plan, which presents the General Plan-level development and use guidance for a 3,409-acre area in the northwestern corner of the City.

Spring Trails is in the Verdemont Estates subarea of the Verdemont Heights Area Plan, which calls for a rural character and large-lot residential uses.

As stated in the General Plan, the goal of the Verdemont Heights Area Plan is to: "Create an identifiable and unique village that includes distinct residential neighborhoods and a full array of services and activities to meet the needs of residents of the area." Issues addressed in the Area Plan include:

- Developing a Plan-wide trail system that connects to the rest of the City
- Increasing active park lands
- Creating gateways and landscaped corridors

Municipal Code and Zoning

View from the southwestern edge of the site, looking north, with the gently sloping areas proposed for development in the foreground and the steeper slopes that will be left untouched in the background.

The Spring Trails Specific Plan is adopted by Resolution of the Mayor and Common Council and serves as the zoning for the project site. It provides the standards and development criteria to guide future development of the site. The text and diagrams of the Specific Plan address the planning of necessary infrastructure and facilities as well as land uses and open space. Future subdivisions, building permits, and public works projects must be consistent with the Specific Plan (Government Code Sections 65455, 66473.5, 65860, and 65401).

Environmental Impact Report

The California Environmental Quality Act (CEQA) was adopted to inform decision makers, staff, and the public about the potential environmental impacts of development. The CEQA process provides an opportunity to address potential impacts in order to maintain California's environmental quality. Compliance with CEQA requires that a project be evaluated for potential impacts before being approved. The adoption of a specific plan is a project subject to CEQA. In accordance with CEQA, the City has prepared an Environmental Impact Report (State Clearinghouse No. 2009111086) to accompany the Spring Trails Specific Plan. The EIR analyzes the project and its alternatives to identify potential significant environmental impacts associated with the development of the Spring Trails Specific Plan area. The EIR is incorporated into this Specific Plan by reference and is attached under separate cover.

Surrounding Environment

San Bernardino Mountains

Spring Trails is on the western flank of the San Bernardino Mountains, which run for approximately 60 miles east from the Cajon Pass to the Coachella Valley. The highest peak in the range is Mount San Gorgonio, which has an elevation of 11,501.6 feet and is the highest peak in southern California. Most of the range is in the San Bernardino National Forest.

Faulting

As shown on Figure 1.3 Spring Trails includes three traces of the San Andreas Fault zone, which runs in an east–west direction through the northern and

southern portions of the project site. Accordingly, prior to the creation of the land plan 26 trenches and detailed geologic studies were conducted to locate earthquake faults and assess geologic conditions in Spring Trails (see EIR appendices).

The southern portion of the site is traversed by two faults: the main trace of the San Andreas Fault and, to its north, a secondary extension feature of the main trace fault. The fault zone of the main trace ranges from approximately 50 feet to 150 feet wide and the fault zone of the secondary trace is approximately 40 feet wide.

Spring Trails has been designed to comply with the requirements of the Alquist-Priolo Earthquake Fault Zoning Act, which prevents the construction of buildings used for human occupancy within 50 feet of active faults.

Images of the site's topography. Top and second from top: views south and southeast showing gently sloping area proposed for development. Third from top: view east with gently sloping area in foreground and steeper slopes behind. Bottom: view north of steeply slopes areas that will not be developed.

Topography

As shown in Figure 1.4, the topography of the site varies from steep (over 30 percent slopes) in the north and southeast portions of the site to gentle (0–15 percent slopes) in the central portion of the site. The elevation of the site ranges from approximately 2,010 feet above sea level at its southern boundary to approximately 3,540 feet at the northern boundary, a difference of 1,530 feet. The site slopes to the southwest at approximately 10 to 15 percent.

The site has been shaped by the San Andreas Fault and the Cable Canyon and Meyers Canyon drainageways and includes gently sloping alluvial benches, canyons, and steep hillsides.

Hillside Management Overlay

The City has established the Hillside Management Overlay District to ensure that development occurs in a manner that:

> Protects a hillside's natural and topographic character and identity, environmental sensitivities, aesthetic qualities, and the public health, safety, and general welfare. This protection is obtained by ensuring that development does not create soil erosion, silting of lower slopes, slide damage, flooding problems, and severe cutting or scarring. It is the intent to encourage a sensitive form of development while still allowing for residential uses which complement the natural and visual character of the City and its hillsides.

The Spring Trails Specific Plan contains site-specific hillside design and development standards that are consistent with the General Plan and replace the Hillside Management Overlay for this site. The Hillside Management Overlay zone does not apply in the Spring Trails Specific Plan and the Conditional Use

Permit called for in Section 19.17.050 of the Development Code is not required prior to construction. Instead, a Development Permit is required prior to construction and will be reviewed to ensure consistency with the Fire Protection Plan detailed in this Specific Plan.

Slope Stability

Slope failures can be hazardous to buildings, reservoirs, roads, and utilities. Therefore, the impact must be mitigated or structures need to be built in areas that have the least potential to be impacted. Accordingly, extensive on-site geologic studies were conducted to pinpoint potential landslide areas (see EIR appendices). The geologic studies indicate that significant natural slope instability is not present on the portions of the site where development is proposed.

Foothill Fire Zones

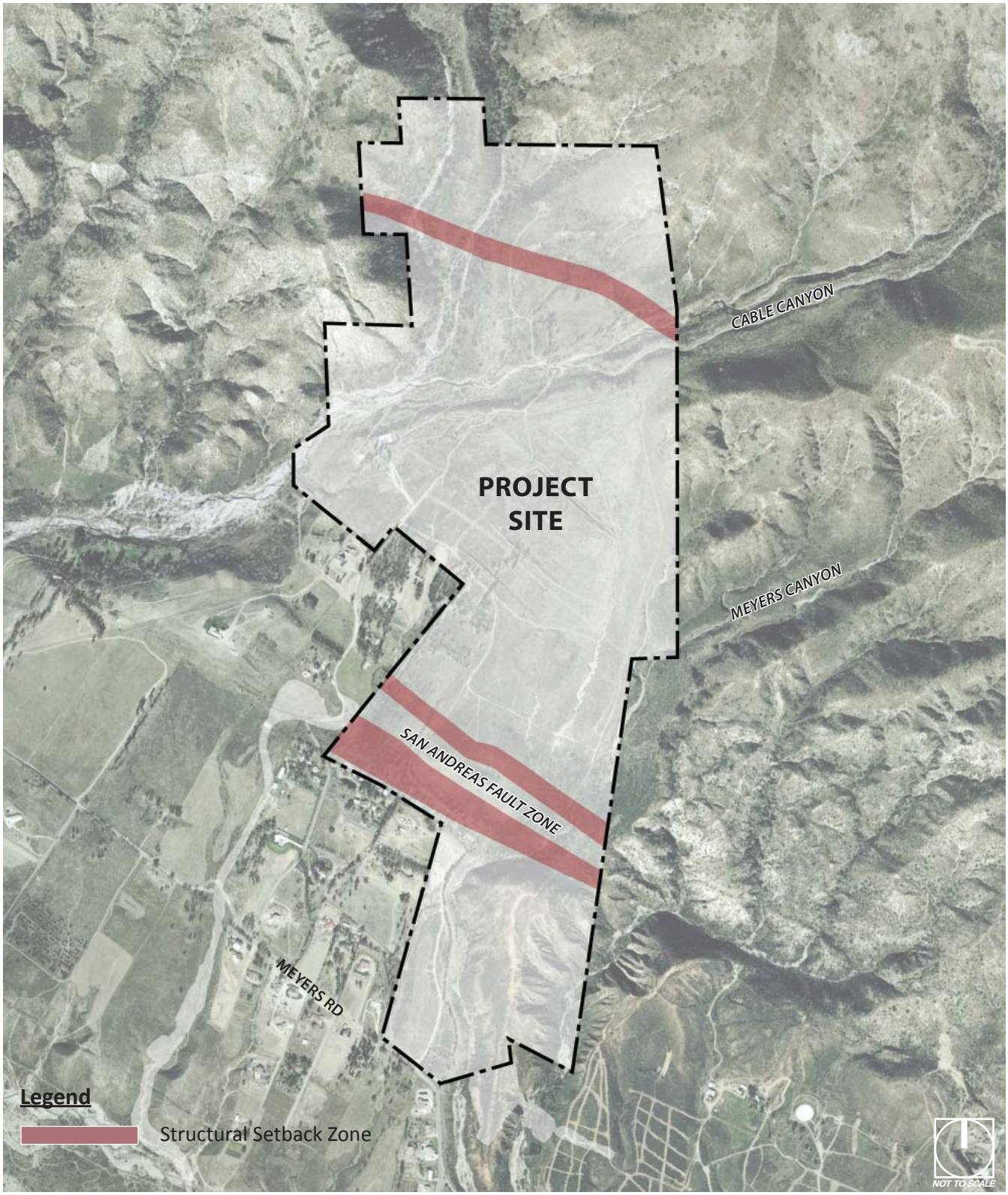
Because of the adjacent San Bernardino National Forest, steep slopes, and high winds, the Spring Trails area is at risk from wildland fires. Chapter 19.15 of the San Bernardino Development Code, Foothill Fire Zone Overlay District, has been established to "mitigate the spread of fire, to help minimize property damage and to reduce the risk to the public health and safety." The Foothill Fire Zone Overlay District identifies three fire zones with different degrees of hazard based on slope, type of fuel, and natural barriers. The foothill fire zones are:

- Fire Zone A, Extreme Hazard. Areas with slopes of 30 percent or greater.
- Fire Zone B, High Hazard. Areas with slopes of 15–30 percent
- Fire Zone C, Moderate Hazard. Areas with slopes of 0 –15 percent

As shown on Figure 1.4, approximately one third of the site is in Fire Zone A, one third of the site is in Fire Zone B, and the remaining third is in Fire Zone C. Areas in the Foothill Fire Zones are required to be developed with proper building separation, landscaping, and building materials; adequate emergency access and evacuation routes; and sufficient water resources. A comparison of the provisions of this Specific Plan with the Foothill Fire Zones Overlay District is provided in Appendix D.

California Fire Plan (CAL FIRE) also ranks the wildland fire hazard using four main criteria: fuels, weather, assets at risk, and level of service (which is a measure of a fire department's success in initial-attack fire suppression). While the fire hazard severity zone maps are currently being updated, the entire project site is in a very high fire hazard severity zone (CAL FIRE 2007a).

Figure 1.3: Earthquake Faults



Map Source: Google Earth

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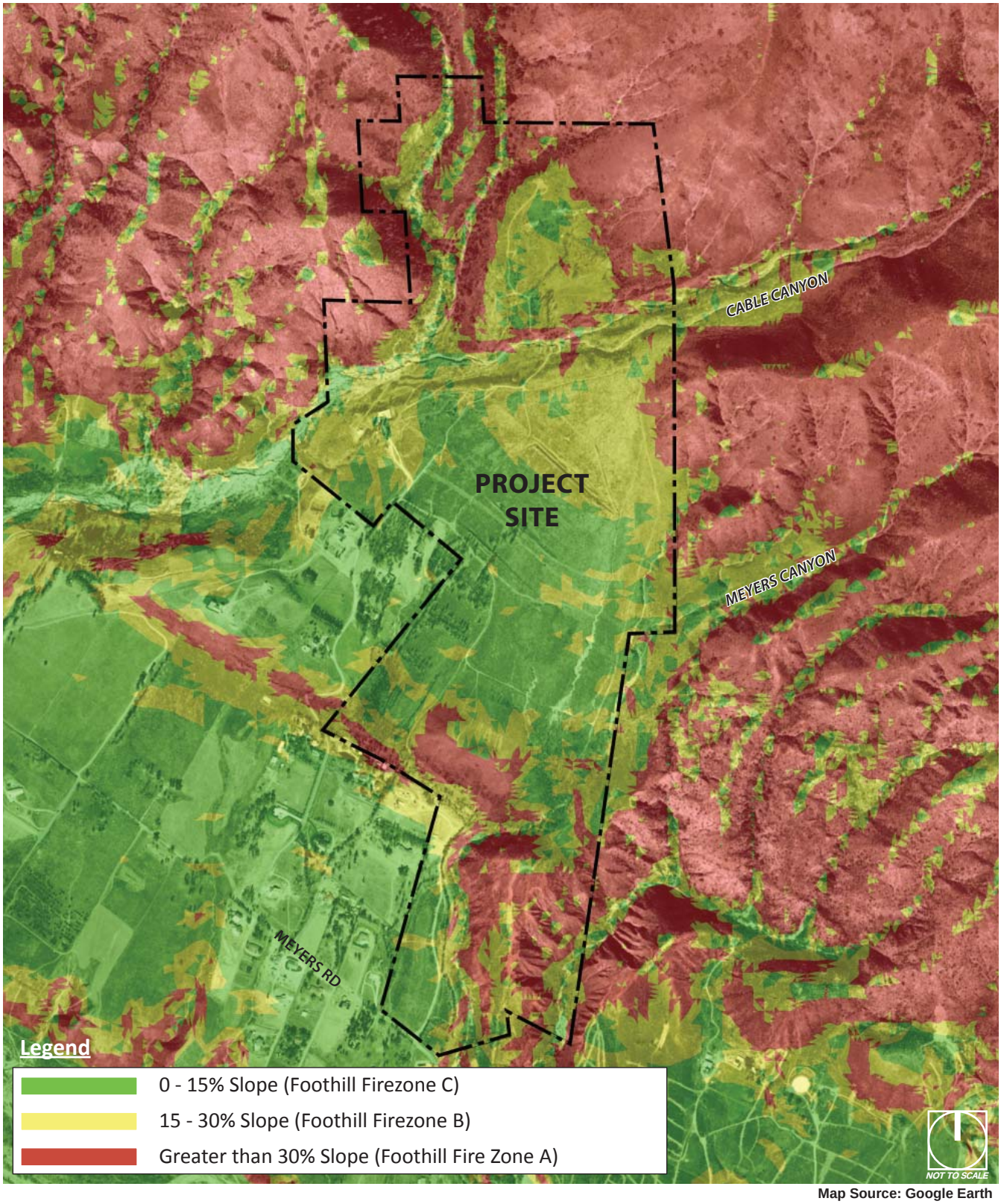
Figure 1.4: Topography (Fire Zones)



Map Source: Google Earth

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To ensure the safety of property and lives, a detailed fire safety analysis was conducted by FireSafe Planning Solutions and a fire protection plan was prepared (see Appendix C). The fire analysis factored in wind patterns, fuel types (vegetation), topography, weather patterns, and historical burn patterns to determine the potential severity of wildfires and appropriate protection methods.

Using the BEHAVE Computer Fire Behavior Prediction and Fuel Modeling System, FireSafe Planning Solutions assumed a worst-case scenario of Santa Ana winds (northeasterly) and the prevailing southwest wind to determine potential flame height, rate of spread, and spotting distance. These results were then used to determine the safest combination of preventative measures that ensure the protection of property and lives. The recommended preventative measures are incorporated into this Specific Plan as standards for fuel modification zones, setbacks, landscaping methods/materials, construction materials/methods, and building protection systems.

High Wind Areas

The City of San Bernardino experiences periods of high velocity winds, especially in the Cajon Pass and at the bottoms of canyons. These winds have been known to cause severe damage to roofs, utility poles, and traffic signals. Spring Trails is included in the City's designated High Wind Area, which has certain building standards. Development will be required to comply with the building standards for this area and should be designed and oriented to avoid the creation of wind tunnels that concentrate gusts in corridors.

Flooding and Drainage

Because Spring Trails sits on an alluvial plain on the slopes of the San Bernardino Mountains, flooding and drainage are critical factors. A hydrology study was conducted to carefully study the drainage patterns affecting the site (see EIR appendices).

As shown on Figure 1.5, there are four major drainage patterns affecting Spring Trails:

- Cable Canyon and its tributaries form the dominant topographic feature of the northern portion of the site. The east and west forks of Cable Canyon flow south through the northeastern corner of the property and then meet a tributary flowing from the east. This unnamed tributary enters the property from the east as two drainages, which merge approximately 600 feet west of the eastern property boundary. All eventually drain into Cable Creek Wash, which runs parallel to I-215

Cable Creek as it passes through the Spring Trails site.

and is funneled into a concrete channel. This watershed comprises 148.9 acres of on-site and 1,881 acres of off-site drainage area.

- Meyers Creek touches the southeastern corner of the site and forms a 30- to 50-foot-deep canyon, which is the dominant topographic feature of the southeastern portion of the site. This watershed comprises 21.8 acres of on-site and 319.8 acres of off-site drainage area.
- Surface drainage that flows southwest through the center of the project and ultimately into Cable Canyon. This watershed comprises 51.6 acres of on-site and 12.1 acres of off-site drainage area.
- Off-site surface drainage that flows onto the site and exits through southeastern part of the project. This watershed comprises 128.4 acres of on-site and 69.8 acres of off-site drainage area.

The Federal Emergency Management Agency has classified Cable Canyon and Meyers Creek as 100-year flood zones, specifically the deep channels that have cut into the alluvial fan. Development within a 100-year flood zone is prohibited unless adequate protection from flood hazards is provided. Spring Trails is designed to avoid grading or construction of residences in the flood plains.

Wildlife Corridors

Canyon bottoms and riparian areas provide the greatest opportunity for wildlife movement since they provide suitable cover, forage resources, and year-round or seasonal water sources. As shown on Figure 1.5, Spring Trails contains two primary areas of wildlife movement: Cable Creek and an unnamed tributary of Cable Creek located in the northern third of the site.

Cable Creek provides a natural wildlife corridor and a year-round water source. The vegetation associated with this water source also provides cover and food resources for animals traveling between upland areas above the project site to valley areas below the site. The unnamed tributary of Cable Creek that crosses the northern third of the site provides the most effective avenue for wildlife movement across the site. The tributary offers cover and foraging resources that make it especially suitable for wildlife movement.

The South Coast Missing Linkages Project (2004) identified the Spring Trails site and the surrounding area as an important component in maintaining wildlife population linkages between the San Bernardino Mountains and the San Gabriel Mountains to the west. Species such as mountain lion, American badger, mule deer, and a number of small mammal and bird species were identified as being likely to use the site and the surrounding area for travel between various habitat areas in the greater Cajon Pass area. A number of mammal species have been either directly observed, or their presence deduced by diagnostic sign (track,

scat, burrows, etc.) including the desert cottontail, California ground squirrel, bobcat, coyote, mule deer, mountain lion, and black bear.

The riparian areas of Cable Creek and the unnamed tributary are not planned for development; however roads will cross the identified wildlife corridors at two locations: 1) at the southern end of the site, where the outwash of Cable Creek will be crossed by the secondary access road; and 2) in the northern half of the project where the unnamed tributary will be crossed by two roads. Development standards contained in Chapter 3 will ensure that the wildlife corridor crossings accommodate the movement of wildlife through the site.

Transmission Lines

Three 112-kilovolt Southern California Edison (SCE) transmission lines traverse the western portion of the site from north to south. SCE also has an access easement over the project site to service these transmission lines. In the preferred plan, the SCE transmission lines remain above ground and will preclude the use of three lots. If the transmission lines can be located underground and the right-of-way relocated, then the alternative plan contained in Appendix F will be utilized for the development of the project site and would allow the development of 307 units. Final engineering plans will commence during the final engineering portion of the project.

SCE transmission lines, which traverse the western edge of the site from north to south.

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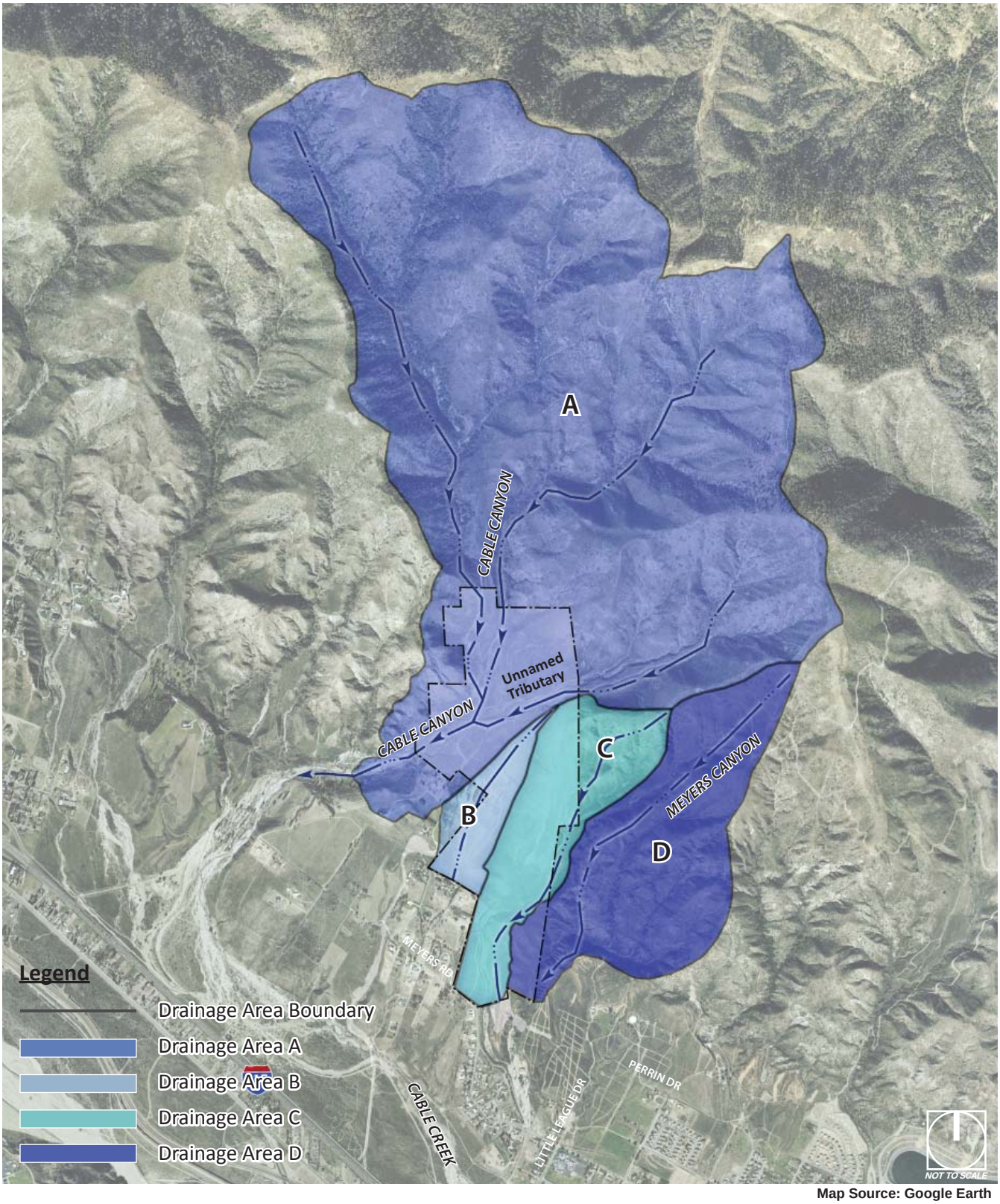
Figure 1.5: Drainage and Flooding (Pre-Development)



Map Source: Google Earth

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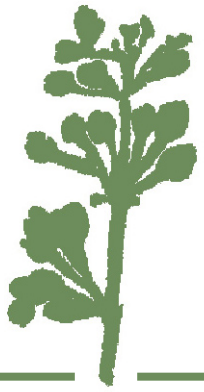
Section 2

DEVELOPMENT CONCEPT



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DEVELOPMENT CONCEPT

Guiding Principles

Spring Trails is envisioned as a high-quality, residential living environment that is sensatively integrated into its physical surroundings. The following are the guiding principles for Spring Trails.

Sensitive to Physical Surroundings. Carefully weave Spring Trails into its physical surroundings by:

- Accounting for the potential impacts of the hazards posed by seismic activity, flooding, and wildland fires.
- Preserving significant watersheds, severely sloped areas, and seismic hazard areas and incorporating them into the land plan as open space.
- Minimizing the development footprint and area of grading and disturbance.
- Prohibiting residential development in the fault zones.
- Using lighting systems that respect habitat in the adjacent National Forest.
- Considering the long-term desires of the City as expressed in its General Plan.

Distinctive Identity. Create a distinctive identity for Spring Trails through:

- The provision of design and architectural standards in the Specific Plan that lead to a variety of architectural styles, floor plans, materials, and colors.
- A tailored array of streetscaping, signage, and lighting.
- Unique entries that create a recognizable character and sense of arrival.
- A tailored palette of landscaping that is fire resistant and drought tolerant and is carefully located to highlight significant features.
- Distinctively designed residences set among a system of open spaces and parks.

Examples of the types of residential development and street scenes envisioned in Spring Trails.

Examples of the character envisioned in Spring Trails.

Unique Living Opportunities. Provide new living opportunities in San Bernardino to take advantage of the surrounding mountains and foothills, valley views, the National Forest, and proximity to the University, and that include recreational amenities and open spaces.

Promote Health and Wellness. Promote personal health and wellness in Spring Trails through:

- A system of open spaces that serves multiple purposes as drainage courses, pedestrian pathways, recreational and visual amenities, and separations between residences.
- An internal system of integrated pathways.
- Connections to regional trail systems.
- A variety of parks and amenities that encourage outdoor use.
- Educational features that provide an understanding of the physical features of the site.

Examples of the unique recreational amenities envisioned in Spring Trails.

Sustainability. Incorporate active and passive energy and resource conservation measures, such as the preservation of significant drainage corridors, provision of bioswales for water quality, provision of pedestrian pathways, drought-tolerant landscaping, and utilization of green building techniques/materials.

Spring Trails

Spring Trails is a 352.8-acre residential development that is nestled in the foothills of the San Bernardino Mountains. Because of the geologic and hydraulic forces that have shaped the site, the development footprint of Spring Trails is focused on the gently sloping alluvial benches between canyons, steep hillsides, and the Cable Canyon and Meyers Canyon drainageways, as shown on Figure 2.1, *Development Footprint*, includes all graded and developed areas as well as areas within the fuel modification zones.

Examples of the physical community envisioned in Spring Trails.

As shown on Figure 2.2, *Development Plan,* the preferred plan for Spring Trails accommodates 304 single-family detached units (303 new units and 1 existing residence), which are set among neighborhoods separated by open space corridors, drainage ways, roadways, and sloped areas. The preferred plan assumes that the SCE power lines will be remain in-place above ground. Under the central portion of the power line easement, the land use is designated as Open Space-Homeowner Maintained. If permitted by SCE, a park and/or trail may be located under this portion of the power lines as a permitted use; however, they are not assumed in the buildout of the alternative plan. The northern portion of the power line easement is designated as residential on Figure 2.2; however, development is not permitted within the power line easement.

An alternative plan that assumes that the SCE power lines will be located underground is contained in Appendix F. The alternative plan is identical to the preferred plan except that it contains 307 single-family detached units (306 new units and 1 existing residence).

In Spring Trails, pathways connect residents with parks and to 3.8 miles of trails that provide access to the surrounding natural open spaces. Development is focused onto approximately 242 acres, or 68 percent of the total site, and includes 9 acres of parks and 125.1 acres of internal slopes and fuel modification zones. The remaining 32 percent of Spring Trails (111.3 acres) is preserved as natural open space.

Examples of the type of multipurpose trail envisioned in Spring Trails.

The average lot size in Spring Trails is 29,000 square feet. The largest lots are on the northern portion and upper elevations of the site, and the largest lot measures 18.3 acres. The smallest lots are on the lower elevations and southern portion of the project, and the smallest lot measures 10,801 square feet. It is important to note that in many instances the legal lots extend beyond the buildable area and include graded slopes, fuel modification zones, power-line easements, steep slopes, and open spaces. The buildable and nonbuildable areas of each lot are depicted on Figure 2.2 and Tract Map 15576, which accompanies this Specific Plan.

Primary access to Spring Trails is provided by a new road extending from the southeastern corner of the site, connecting to Little League Drive. Secondary access is provided by a new road extending from the southwestern corner of the site to a frontage road along I-215. Vehicular access from the secondary access road to Myers Road will controlled by one of the two options discussed in Section 3. Within Spring Trails, circulation is provided by a loop road and a series of cul-de-sacs.

Approximately 193 acres of the total site is graded and improved for the on-site development of residential lots, roadways, trails, detention basins, fuel modification zones, and parks. An additional 23.7 acres is graded and improved for off-site access, including 4.2 acres for the primary access road and 19.0 acres for the secondary access road.

Spring Trails includes several drainage improvements that collect and convey storm flows in a manner that reduces the amount of storm runoff to levels below those existing on the site prior to development. Chiefly, the existing Cable Canyon and Meyers Canyon drainageways remain largely untouched with the exception of the crossings for necessary roadway and infrastructure improvements. In addition, on- and off-site stormwater flows are collected and routed through a series of catch basin inlets and storm drain systems that convey water to three on-site detention basins, which double as parks. Water and sewer service is provided through connections to existing facilities in the southeastern portion of the project site. There are three water storage tanks along the eastern edge of the project to provide water service for three elevation zones.

As noted earlier, Spring Trails is in the Foothill Fire Zone and a fire protection plan has been woven into the design of the community to ensure its long-term safety. The fire protection plan for Spring Trails includes:

- The protection of structures through the use of noncombustible exterior building materials; restrictions on the use of cornice and eave vents; fire sprinklers; and compliance with the most current fire codes.
- Greater levels of structure protection on the perimeters of the project.
- Adequate access and maneuverability for fire protection vehicles. And careful placement of fire hydrants to facilitate fire suppression efforts and fire hose access.
- Strict landscape and use zones, called fuel modification zones, wherein there are restrictions on the type of uses and the species, spacing, irrigation, and maintenance of landscaping.

- Clear disclosure to potential homebuyers of the fire threat, preventative measures, and individual responsibilities.
- Clear delineation of and maintenance responsibilities for the fuel modification zones.

Land Plan and Buildout

Preferred Development Plan

The preferred land use plan for Spring Trails is shown on Figure 2.2, *Development Plan,* and is a true representation of the use of land, irrespective of legal lot lines. Figure 2.2 shows the areas where buildings may be located, graded slope areas, parks, roadways, and open space areas. Figure 2.2 includes categories that describe the actual use and character of land in Spring Trails. If the alternative plan is utilized, Figure 2.2A contained in Appendix F may be used instead.

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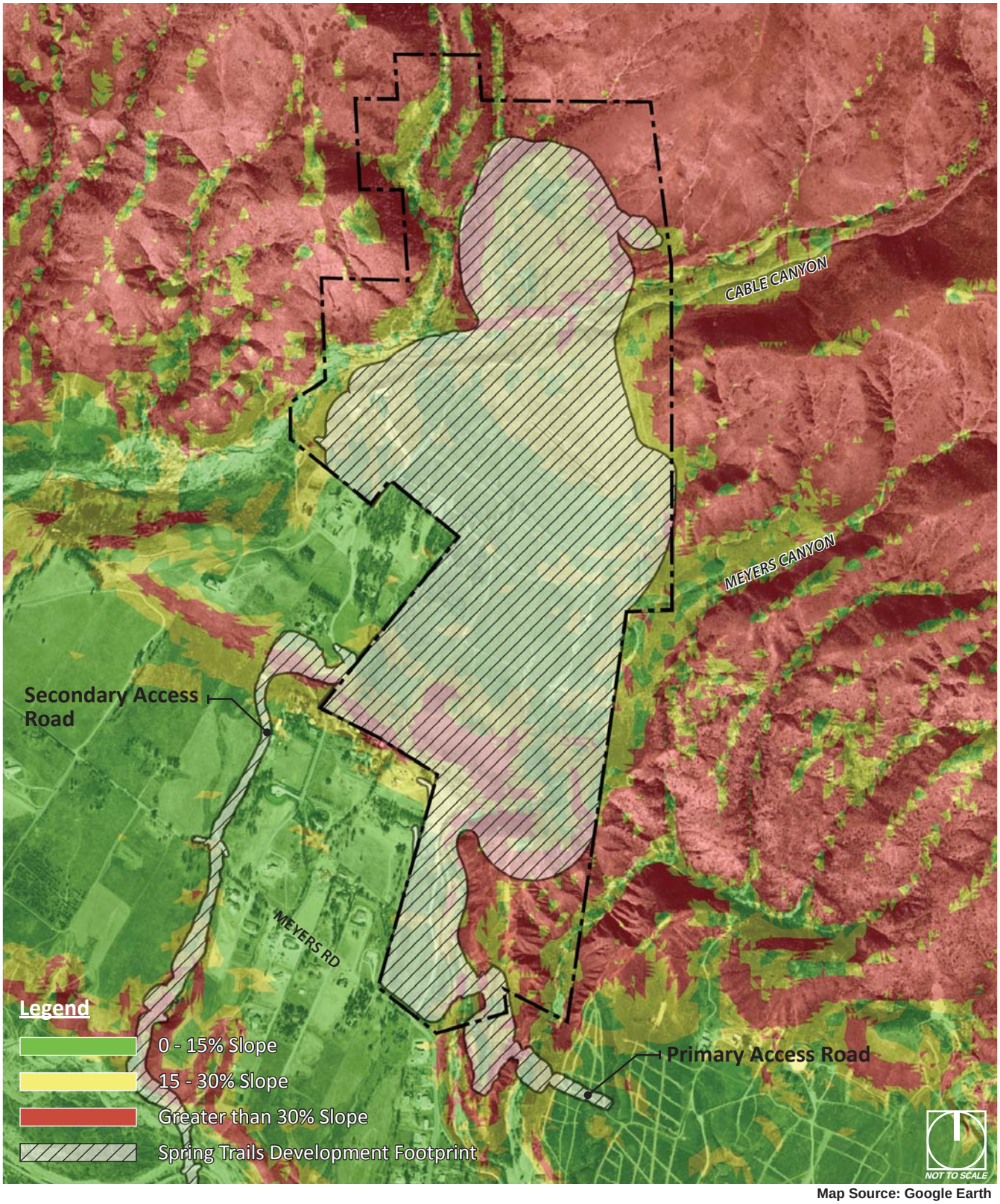
Figure 2.1: Development Footprint



Map Source: Google Earth

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Figure 2.2 Development Plan

Legend

- Residential
- Open Space - Natural
- Open Space – Homeowner Maintained
- Parks
- Utility
- Road

Notes:

1. The Development Plan is a true representation of the use of land irrespective of legal lot lines and shows the areas where buildings may be located, graded slope areas, parks, roadways, and open space areas. The development potential shown in Table 2.1 is keyed to this figure.

2. When determining the use, development standards, and buildable area of each lot within Spring Trails, this Figure and its associated land use categories shall govern.

3. This Figure represents the intended development pattern of Spring Trails and minor adjustments to roadway alignments and widths, grading areas, buildable pad confi gurations, and land use boundaries may be made per the provisions of Chapter 6, Administration and Implementation.

4. The preferred development plan assumes that the SCE powerlines will remain above ground. The plan contained in Appendix F and Figure 2.2A shall be used if the powerlines are to be located underground.

* *Lots 30 and 233 are unbuildable unless the building pads are reconfigured in a manner acceptable to the fire chief.*

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The development potential of the preferred plan is shown in Table 2.1 and is keyed to the actual buildable area depicted on Figure 2.2 instead of the legal lot lines, so that a clear picture of the use of each acre is understood. When determining the use, development standards, and buildable area of each lot within Spring Trails, Figure 2.2 and its associated land use categories shall govern. If the alternative plan is utilized instead of the preferred plan, the plans contained in Appendix F may be utilized for the development of Spring Trails and all other provisions of this Specific Plan shall be in place.

This Specific Plan allows minor adjustments per the provisions of Section 6, *Administration and Implementation*, in response to unforeseen physical conditions that necessitate changes in final roadway alignments and widths, grading areas, buildable pad configurations, and land use boundaries.

Table 2.1 Preferred Plan Development Potential

Land Use	Acres [1, 2]	Maximum Density	Units [3]	Pop. [4]
Developed Area				
Residential	70.0	1 unit per lot	303	1,015
Private Lot (existing)	2.2	1 unit	1	3
Parks (public and private)	9.0			
Open Space–Homeowner Maintained	126.0			
Utilities [5]	1.2			
Roads (on-site)	33.1			
Subtotal	241.5		304	1,018
Undeveloped Area				
Open Space–Natural	111.3			
Total				
Total	352.8		304	1,018
Off-Site Access				
Roads/Grading (off-site)	23.7			

Notes:

[1] As discussed in Section 6, *Administration and Implementation*, variations to account for final roadway alignments and grading may result in a minor shifting of acres.

[2] Statistics are based upon buildable area depicted on Figure 2.2 instead of the legal lot area to give a true picture of the use of the land. See Figure 2.3, *Spring Trails Zoning Map*, for the zoning designations.

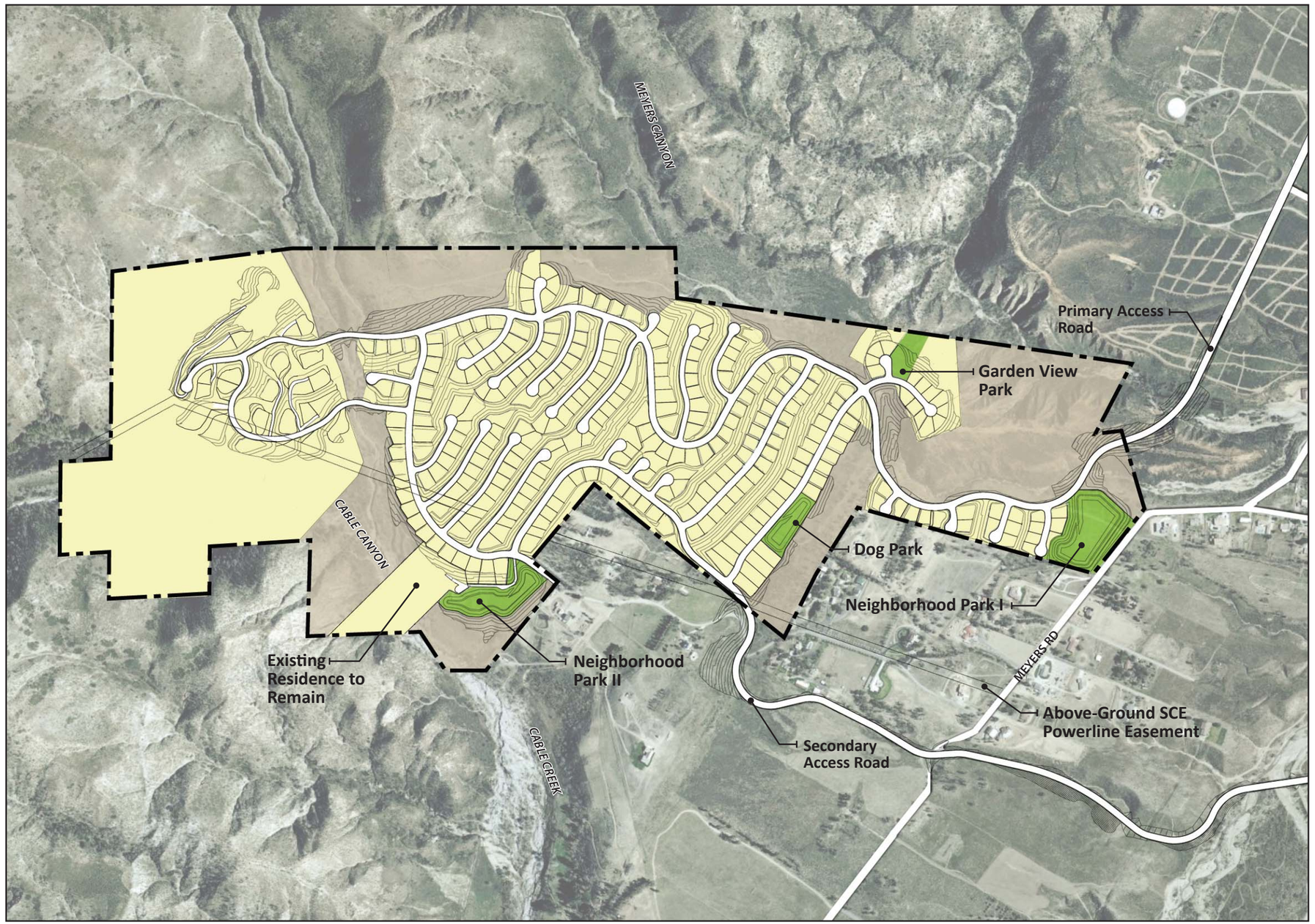
[3] Lots 30 and 233, as numbered on Tract Map 15576, are undevelopable unless the building pads are reconfigured in a manner that is acceptable to the Fire Chief. If they are not reconfigured accordingly, the total units developed will be 302.

[4] Population is based on 3.35 persons per unit (Table 2: E-5 City/County Population and Housing Estimates, 1/1/2007).

Zoning

As noted, there are a variety of lot sizes ranging from 18.3 acres to10,801 square feet. However, portions of some lots may not be built upon as they contain fault zones, graded internal slopes, steep external slopes, water tanks, permanent open space, or trail easements. The buildable area of each lot has been determined and is shown on Figure 2.2 (preferred plan) or Figure 2.2A (alternative plan). However, a zoning designation is required to be linked to legal lot lines, which does not provide a true picture of the use and buildable area of Spring Trails. Therefore, a zoning map has been prepared to satisfy the requirements of the law, though it is not the determining factor for the location of development in Spring Trails. Figure 2.3, *Zoning Map*, and Table 3.1 describe the zoning of each parcel. When determining the use, standards, and buildable area for any legal lot, Figure 2.2, *Development Plan*, or Figure 2.2A, *Alternative Development Plan*, shall govern.

Figure 2.3 Zoning Map



Legend

- Residential Estate
- Open Space
- Parks
- Site Boundary
- Parcel Lines

The Zoning Map is a depiction of the zoning designation of each lot. However, due to constraints such as fault zones and slope areas, the zoning does not provide a true picture of the use and buildable area of each lot. Therefore, when determining the use, standards, and buildable area for a lot, Figure 2.2, Development Plan, shall govern.

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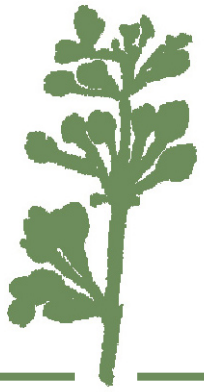
Section 3

DEVELOPMENT STANDARDS



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DEVELOPMENT STANDARDS

This section includes land use designations, permitted uses, and development standards that are intended to shape the physical form of Spring Trails. In addition, it includes the mobility plan, parks and open space plan, preliminary grading plan, and infrastructure plans.

Unless expressly stated, the Spring Trails Specific Plan development standards shall supersede the relevant provisions of the City of San Bernardino's Development Code. Any development regulation and guideline not addressed in this Specific Plan shall be subject to the City's adopted regulations in place at the time of the individual request.

Land Use Designations and Permitted Uses

Table 3.1, *Land Use and Zoning Categories*, provides a description of each land use and zoning category in Spring Trails. The uses allowed in each land use category are summarized in Table 3.2, *Permitted Uses*. This Specific Plan allows minor adjustments per the provisions of Section 6, *Administration and Implementation*. Minor adjustments include interpretations that facilitate the approval of unlisted uses that are similar to listed uses in nature and impact. The inclusion of any uses not expressly listed in Table 3.2 may be permitted subject to a determination by the Director of Community Development made pursuant to the Minor Amendments procedures set forth in Section 6 of this Specific Plan.

Table 3.1 Land Use and Zoning Categories

Land Use Category (Figure 2.2)	Description of Category	Zoning Category (Figure 2.3)
Residential Uses		
Residential	Accommodates single-family detached uses with a maximum density of 1 dwelling unit per lot.	Residential
Other Uses		
Parks	Accommodates public and private recreational amenities such as tot lots, sports courts and fields, picnic areas, joggers' exercise courses, dog play areas, community gardens, and recreational facilities. Parks may also double as detention basins.	Parks
Open Space-Natural (OS-N)	Accommodates the preservation of natural open space areas that are not graded or used for fuel modification areas.	Residential and Open Space
Open Space-Homeowner Maintained (OS-HM)	Accommodates open spaces that are used for internal and/or graded slopes, fuel modification areas, landscaped areas, and detention areas that do not double as parks.	Residential and Open Space
Utility (U)	Accommodates water tanks and other utilities for public benefit.	Residential
Roads	Accommodates on- and off-site streets.	Roads
The above-ground power line is a permitted use in the land use and zoning categories in the location depicted on Figure 2.2A contained in Appendix F.		

Table 3.2 Permitted Uses

Use	Res.	Parks	OC-C	U	OS-N
Residential Uses					
Community care facility (6 or fewer patients)	P	X	X	X	X
Congregate care, assisted living facilities, and nursing homes,	X	X	X	X	X
Day care center	X	X	X	X	X
Day care homes, family (6 or fewer children)	P	X	X	X	X
Day care homes, family (7 to 12 children)	C	X	X	X	X
Guest House	D	X	X	X	X
Patio covers and gazebos	D	X	X	X	X
Residential care facility	X	X	X	X	X
Second dwelling (granny) unit	D	X	X	X	X
Single-family detached dwellings and garages (attached and detached)	P	X	X	X	X
Recreational Uses					
Open spaces/parks	P	P	P	P	P
Play equipment	P	P	X	X	X
Swimming pool/spa	P	P	X	X	X
Tennis courts (lit and unlit)	D	D	X	X	X
Trails (including bicycles, equestrian, pedestrian)	P	P	P	P	P
Accessory Uses					
Antennae, vertical/satellite dish	P	X	X	C	X
Fences and walls	P	P	P	P	X
Recreational vehicle and boat storage	P	X	X	X	X
Storage structures (less than or equal to 120 sf)	P	X	X	X	X
Storage structures (greater than to 120 sf) and barns	D	X	X	X	X
Other Uses					
Homefinding center (temporary)	D	X	X	X	X
Private/public utility facilities	C	C	C	D	X
Wireless telecommunication facilities	X	C	C	C	X
Home Occupations					
Subject to (H) home occupation permit	H	X	X	X	X
Temporary Uses					
Subject to (T) temporary use permit	T	T	T	X	X

Notes:

- Permitted Use (P): Use allowed subject to the provisions applicable to that district.
- Development Permit (D): Use allowed subject to the approval of a minor discretionary entitlement, which may be granted under the provisions of Section 19.44 of the City of San Bernardino Development Code.
- Conditional Use Permit (C): Use allowed subject to approval of a major discretionary entitlement, which may be granted under the provisions of Section 19.36 of the City of San Bernardino Development Code.
- Prohibited Use (X): Use is not permitted.
- Home Occupation Permit (H): Use allowed per the provisions of this section and Chapter 19.54 of the Development Code.
- Temporary Use Permit (T): Use permitted per the provisions of this section and Chapter 19.70 of the Development Code.
- The above-ground power line is a permitted use in the land use and zoning categories in the location depicted on Figure 2.2A contained in Appendix F.

Development Standards

As discussed in Section 2, the buildable area of each lot does not necessarily match lot lines and the buildable area of each lot is depicted on Figure 2.2 or Figure 2.2A and Tract Map 15576. Therefore, the development standards in this section, unless specifically stated, relate to the buildable pad limits depicted on Figure 2.2 or Figure 2.2A and Tract Map 15576. Development standards are subdivided as follows:

- **Development standards, Tables 3.3 and 3.4**, provide standards for each land use category and include such provisions as building height and setback requirements.
- **General development standards** provide regulations that apply to most, if not all, land use designations within Spring Trails.

Table 3.3 Residential Development Standards

Lot Standards	
Density	1 unit per lot
Minimum lot size	10,800 sf
Building Pad Standards [1]	
Buildable pad location	As shown on Figure 2.2 and Tract Map 15576
Minimum pad width	70 ft
Minimum pad depth	100 ft
Maximum pad coverage	50%
Front setback for habitable structure	15 ft
Front setback for front-entry garage	20 ft
Front setback for side-entry garage	15 ft
Front setback for unenclosed porch	12 ft
Interior side setback for habitable structure	10 ft
Projections into interior side setback [2]	4 ft
Exterior side setback for habitable structure	10 ft
Projections into exterior side setback [2]	4 ft
Rear setback for habitable structure	15 ft
Projections into rear setback[2]	4 ft
Maximum height	35 ft
Maximum buildable pad coverage (main structure plus accessory structures > 120 sf)	50%
Accessory structures, patio covers, gazebos, barns, play equipment, and storage structures (> to 120 sf)	See pages 3-12 and 3-13
Fire Zone Setback	25–50 ft as depicted on Figures 3.17 and 3.18. Overrides all other setbacks.

Notes:

[1] All setbacks shall be measured from the buildable pad as depicted on Figure 2.2 and Tract Map 15576.

[2] Projections are architectural features that extend beyond the building face. Projections include features such as eaves, chimneys, bay windows, stairways, and other architectural detailing. California Building Code requirements take precedence over this requirement.

Table 3.4 Development Standards – Other Uses

Standard	Park	OS-C	OS-N	Utilities
Height of structure	25 ft	Not Allowed	Not Allowed	35 ft
Setback of structure from property lines	15 ft	Not Allowed	Not Allowed	10 ft

General Development Standards

The following General Development Standards apply to all uses within Spring Trails and may be supplemented by provisions of the project's CC&Rs.

Antennas

Per Chapter 19.20.030 (3), Antennas, Satellite Dishes and Telecommunication Facilities, of the Development Code, using the spirit and intent of the Spring Trails Specific Plan as a guide.

Cornice and Eave Projections

Per Chapter 19.20.030 (17), Projections into Setbacks, of the Development Code, using the spirit and intent of the Spring Trails Specific Plan as a guide. Cornices and eaves shall be designed according to the standards set forth in California Building Code Chapter 7A.

Detention/Drainage

Detention and drainage areas shall be permitted in all land use designations as necessary and on a case-by-case basis. When possible, these areas should be designed to blend in with the surrounding development, landscaped, and designed to accommodate uses that can be flooded, such as active/passive recreation and natural open space.

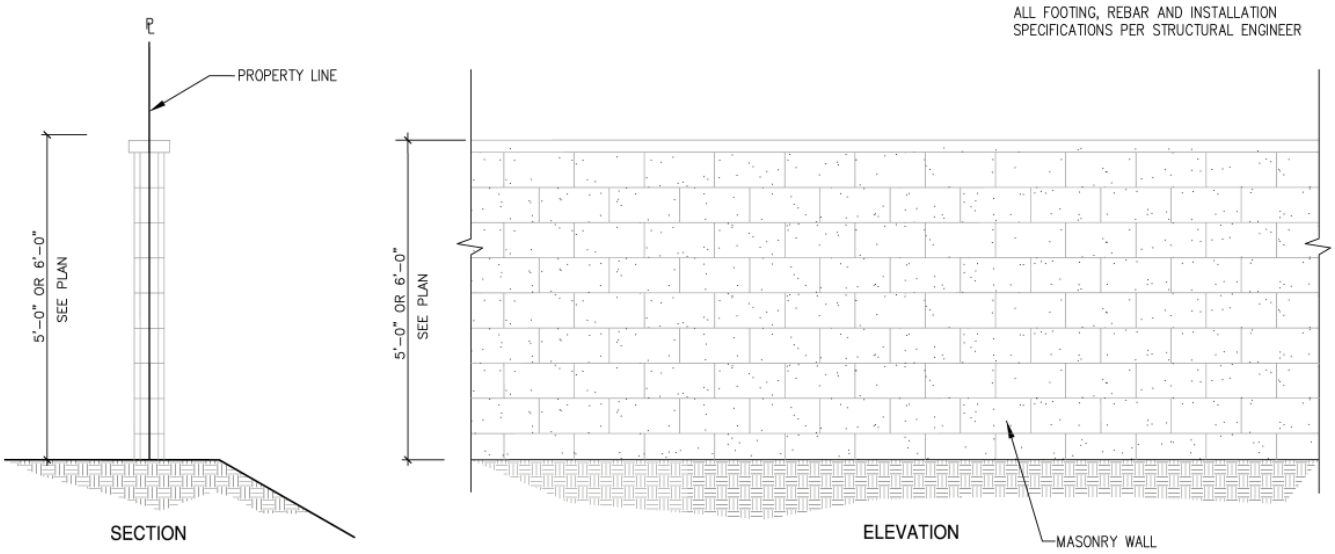
Fences and Walls

Per Section 19.20.030 (8), Fences and Walls, of the Development Code, using the spirit and intent of the Spring Trails Specific Plan as a guide. In addition, the following standards shall apply.

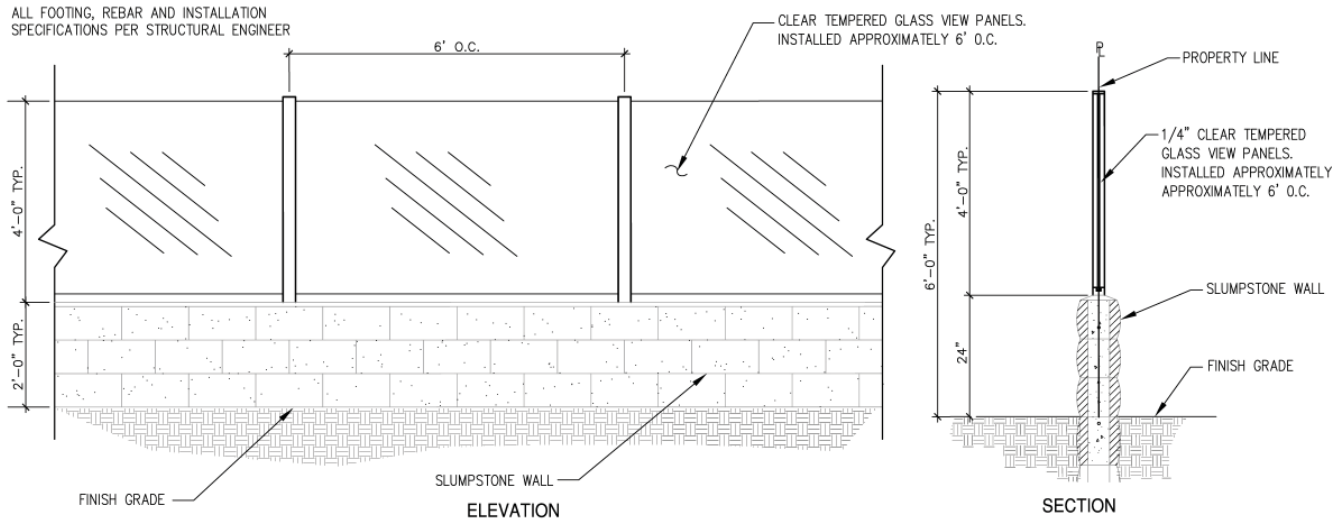
- The height of walls and fences shall be measured from the top of the highest adjacent grade unless adjacent to a public right-of-way, in which case the measurement shall be taken from the side of the public right-of-way.
- Rear or side yards. The maximum height of walls and fences in the rear and side yards shall be 6 feet.
- Front yard. The maximum height of walls and fences located between the front property line and the nearest building wall (either garage or habitable structure) shall be 3.5 feet. Thereafter, the provisions for walls in rear and side yards noted above shall apply.
- Walls and view fences shall be constructed as detailed in Figure 3.1, *Wall Details*, and as required by the Fire Protection Plan in Appendix C.

Figure 3.1: Wall Details

Block Wall



View Wall



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- Barbed and razor wire, plain exposed concrete block, electronic fencing, and chain link are not permitted. Chain link may be used on a temporary basis at construction sites. Vinyl-coated chain link may be used as a fencing material for outdoor park facilities such as tennis courts, subject to approval of a Development Permit, per Section 19.44 of the San Bernardino Development Code.

- All walls, fencing, or screening materials shall be maintained in a physical state consistent with the time of installation. Repair and/or replacement of damaged, defective, or severely weathered materials shall be completed immediately upon occurrence or within a minimum of 20 days of notification by the City.

- All walls and fences shall be constructed of noncombustible materials.

- All walls and fences in Spring Trails shall be designed and constructed to withstand 100 mile per hour winds or the standard in the City of San Bernardino Development Code in effect at the time of the building permit application.

- Pilasters, articulation, and/or permanent landscaping screening shall be incorporated into the design of walls or fences that exceed 25 feet in length.

Retaining Walls

- When a retaining wall is in the front yard:
  - The maximum retaining wall height may be 2 feet and may be directly topped with a maximum 18-inch wall or fence for a total height of 42 inches, or
  - The maximum retaining wall height may be 3 feet and, in this case, a maximum 3-foot-high wall or fence may be erected above the retaining wall with a minimum 3-foot landscaped setback from the back of the retaining wall.
- For retaining walls on the perimeter, side, or rear property lines:
  - The maximum height of any solid retaining wall shall be 8 feet as measured from the lowest adjacent grade. Retaining walls may only exceed 8 feet if: (1) they are not visible from public areas, or (2) they are visible from public areas and unique designs are incorporated to disguise or break up the mass of the retaining wall (e.g., offsets, landscape walls, unique materials, or public art).
- The maximum height of any fence or wall on top of a retaining wall on the perimeter, side, or rear property lines shall be as would otherwise be allowed if there was no retaining wall.

Garage Variation

To avoid the monotony of projects that employ the same garage placement (e.g., all front-entry garages), a variety of garage placements and orientations is required. Standard garage placement is a front-loaded garage set in from the front property line. Alternative garage orientation and placement are required on 33 percent of the units. Roll-up garage doors with automatic openers are required for all garages. The following are potential alternative garage placements:

- Side-entry garages
- Split garages
- Garages in courtyards or driveways with a porte cochere
- Straight-in garages in rear two-thirds of the lot

Garage Sales

Garage sales are permitted once every six months for a maximum period of 48 consecutive hours.

Glossary

See Appendix A of this Specific Plan for a definition of terms.

Hillside Management

Most foothills (areas of 15 percent average slope or greater) within Spring Trails have been preserved as open space. Development and use in the areas with an average slope of 15 percent or greater shall comply with Chapter 19.15 of the Development Code.

Home-Finding Center

Home-finding centers are long-term, temporary home sales facilities. They are permitted administratively with approval by the Community Development Department during review of tract maps. The duration, location, and required parking and landscaping shall be determined during this review. Upon closure, home-finding centers are required to revert to the underlying land use per the approved tract maps.

Home Occupations

Home occupations include a vocation such as lawyer, engineer, music teacher, or art teacher that is carried on solely by the occupant of the premises. Home occupations are allowed in any residence per the provisions of Chapter 19.54 of the Development Code provided all of the following provisions are met.

- There is no alteration in the residential character of the premises.
- All operations are carried on within the dwelling.
- No more than 15 percent of the dwelling is used to conduct a home occupation.
- No merchandise or articles are displayed for advertising purposes.
- No assistants are employed at the premises.
- The premises are not used as a point of sale or for walk-in trade.
- Any necessary permits or licenses from appropriate regulating agencies are obtained and fully complied with.
- All operations in connection with the home occupation are conducted so as to prevent the emanation of any dust, gas, smoke, noise, fumes, odors, vibrations, or electrical disturbances.

Landscaping

All setback areas fronting on or visible from a public street and all recreation/common open space areas shall be landscaped and permanently maintained in an attractive manner. Such landscaping shall primarily consist of turf, lawn, groundcovers, trees, shrubs, and other living plants. Artificial turf may be utilized on up to 10% of the front yard area or common areas within public view and up 100% in private yards behind solid walls. Permanent, 100 percent automatic irrigation facilities shall be provided in all landscaped areas as appropriate for the landscape type. Landscaping shall comply with the Landscape Zones Plant Palette (Table 3.6) and the fire protection plan in this section.

Lighting

The use of lighting within the community shall not be excessive and shall be consistent with the dark sky guidelines suggested by the International Dark Sky Association (www.darksky.org). A detailed lighting plan, including specifications and design standards, shall be submitted as part of the construction documents. The following policies shall apply to lighting in Spring Trails.

- Lighting shall be directed on the driveways and walkways and away from adjacent property.
- Walkway lighting shall be low-level fixtures (e.g., bollards), spaced to provide adequate walkway illumination, and shall not intrude into the residential dwelling units.

- Light standards shall be energy efficient and in scale with the height and use of the structures on-site.
- Light standards shall not exceed 15 feet above finish grade. The 15-foot height limit may be waived as deemed necessary by the City Engineer.
- Lighting shall be decorative, in keeping with the architectural theme of the facility served, and shall be located within landscape planter areas.
- All lighting, including security lighting, shall be directed away from adjoining properties and the public right-of-way.
- The level of lighting shall not exceed 0.5 foot-candle at any residential property line or at the perimeter of the developed areas adjacent to the areas designated as Open Space-Natural.
- A lighting plan shall be prepared for all public areas within Spring Trails. The lighting plan shall establish uniform lighting standards with regard to style, materials, and colors in order to ensure consistent design. The lighting plan shall be submitted to the City for review and approval.
- Game-court lighting is permitted on a case-by-case basis. Prior to installation, all game-court lighting shall be reviewed and approved by the City of San Bernardino and any other responsible governing agency. Court lighting fixtures shall not exceed 30 feet in height.
- Exterior lighting may be used to illuminate significant exterior features and landscaping.

Location of Accessory Structures

- A detached accessory structure less than 120 square feet and 6 feet in height and children's play equipment may be located in any rear or side yard provided necessary access is maintained.
- A detached accessory structure exceeding 120 square feet and/or 6 feet in height (e.g. barn, shed, guest house, etc…) are limited to a maximum of 35 feet in height, shall comply with the setbacks applicable to the main structure, shall not be closer than 10 feet to any other structure, shall not cause the maximum buildable pad coverage requirement to be exceeded. A detached accessory structure shall be compatible with the materials and architecture of the main dwelling of the property. In addition, such accessory structures shall not have openings facing a rear or side property line. This requirement may be waived by the Planning Commission based on findings that such buildings, if constructed on

the rear or side property lines, will not be detrimental to adjacent properties.

Location of Patio Covers and Patio Enclosures

Patio covers and patio enclosures, defined as nonhabitable space in the adopted California Building Code, may be attached to the rear and/or side of a residential structure provided that the minimum setbacks are maintained as measured to the posts and support members. Eaves may encroach two feet into the setback. Patio covers shall be consistent with Chapter 19.15 of the San Bernardino Development Code.

Nonconforming Uses

Per Chapter 19.62, Nonconforming Structures and Uses, of the Development Code, using the spirit and intent of the Spring Trails Specific Plan as a guide.

Parking and Loading Standards

Minimum Number of Parking Spaces

- Two enclosed garage spaces per unit.
- Public parks may use on-street parking

Parking Design and Use Provisions

- General provisions. Per Section 19.24.060, Design Standards, of the Development Code, using the spirit and intent of the Spring Trails Specific Plan as a guide.

- Driveways for single-family detached residential units. Driveways greater than 30 feet in length shall have maximum grade of 10 percent for a minimum distance of 20 feet from the garage. Driveways less than 30 feet in length shall have a maximum grade of 12 percent for a minimum distance of 20 feet from the garage. No portion of a driveway shall exceed a grade of 15 percent, unless approved by the Fire Chief and City Engineer.

- Handicapped parking. Per Section 19.24.050, Handicapped Parking Requirements, of the Development Code.

- Recreational vehicles (RVs). The parking or storing of recreational vehicles, dismounted campers, camper shells, boats, trailers, or similar recreational items on streets and lawns, landscaped areas, or other unpaved surfaces within the front yard is prohibited.

Product Variation

Spring Trails will be attractive and visually interesting. Accordingly, single-family residential neighborhoods will include a variety of product types and design styles.

- There should be a minimum of three different material and color palettes. No two single-family detached homes with identical color or materials palettes shall be adjacent to or directly across the street from one another.
- There shall be a minimum of three elevation/facade designs. No two homes with identical elevation/façade designs shall be adjacent to or directly across the street from one another.
- There shall be a minimum of three primary roof materials and roof designs. No two homes with identical roof designs and materials shall be adjacent to or directly across the street from one another.

Public Utility Lines

Per Section 19.30.110, Underground Utilities, of the Development Code.

Satellite Dishes

Per Section 19.20.030(3), Antennas, Satellite Dishes and Telecommunications Facilities, of the Development Code.

Screening

- All utility connections shall be coordinated with the development of the site and should not be exposed, except where deemed appropriate or necessary by the City.
- Utility equipment, such as surface-mounted transformers, pedestal-mounted terminal boxes and meter cabinets, and sprinkler manifolds, may be placed above ground provided they are screened from view inside the building or enclosed structure, or by landscaping, parapet wall, or other architectural element. All vent pipes and similar devices that are attached to the building shall be painted to match the building. All roof-access ladders shall be located inside structures.
- All roof-mounted equipment, such as mechanical equipment, tanks, and ducts, shall be screened on all sides from street-level public view and neighboring residences by landscaping, parapet wall, decorative enclosure, or other architectural element. Equipment screening shall be designed and painted to match the building and shall be equal to the maximum height of the equipment.

- All storage, including cartons, containers, materials, or trash, shall be shielded from view within a building or area enclosed by a solid fence or wall not less than six feet in height.
- Ground-mounted equipment, including heating and air conditioning units and trash receptacles, shall be completely screened from the view of surrounding properties through the use of screen walls, landscaping, or other methods.
- Exposed gutters, downspouts, vents, louvers, and other similar elements shall be painted to match the surface to which they are attached, unless the elements are incorporated as part of the design element of the site.

Second Dwelling Units

Per Section 19.04.030 (P), Second Dwelling Unit Housing Design Standards, of the Development Code.

Signs

Per Section 19.22, Sign Regulations, of the Development Code. Specifically, the regulations governing signs in residential districts for Neighborhood Identification on Table 22.01 shall apply to Spring Trails.

Street Access

Per Section 19.20.030(1), Access, of the Development Code.

Trash Collection

Trash in Spring Trails will be serviced by individual collection with the following provisions:

- Collection vehicles must be able to provide service without backing up.
- 25 feet of overhead clearance is required at collection points.
- All homes serviced using individual containers shall have a minimum of 44 square feet (4' x 11') of designated space for each container and the space for the storage of three containers. The container storage space does not have to be contiguous. The approved site plan must identify the designated container storage area.
- All containers must be stored in a space easily accessible for the resident that is screened from view from the street.

- The conditions, covenants, and restrictions shall include detailed responsibilities of each homeowner for trash container drop-off and pick-up, container spacing, as well as penalties for noncompliance.
- All individual containers must be returned within 24 hours of collection.

Mobility Plan

Spring Trails is designed with an efficient multimodal circulation system that provides safe and efficient internal and external connectivity. The Mobility Plan, as detailed below, describes the network of streets and multiuse trails within Spring Trails that provide a range of options for vehicular, pedestrian, equestrian, and bicycle mobility.

Vehicular Circulation

As shown in Figure 3.2, *Circulation Plan*, the Spring Trails Specific Plan consists of a hierarchy of streets, described below. Primary access to Spring Trails will be provided at the southeast corner of the project site via a street extending from Little League Drive to the project site. Secondary access to Spring Trails will be via a street extending from the western edge of the project site to a frontage road along Interstate 215. All necessary public streets, both on-and off-site, shall be improved by the developer and dedicated to the City. The typical street cross-sections and plan views are illustrated in Figures 3.3 through 3.8.

Street Types

Primary Access Road

The primary access road provides the main access for residents and guests to enter and leave Spring Trails. A typical cross-section and plan view are illustrated in Figure 3.3.

Secondary Access Road

The secondary access road is intended as an alternative street for local traffic to access arterial streets outside the project site. A typical cross-section and plan view are illustrated in Figure 3.4.

Secondary Access Road – Special Segment

This designation identifies the segment of the Secondary Access Road that contains curves and grading and where it is desirous to reduce vehicular speeds to safe levels. To reinforce posted speed limits, the applicant will install design treatments, such as landscaping, medians, or pavement changes, which provide visual cues to drivers to reduce speed. The design treatments shall be approved by the City Engineer prior to construction of the Secondary Access Road.

Primary Local Street

The primary local street provides access to residences within Spring Trails. A typical cross-section and plan view are illustrated in Figure 3.5.

Secondary Local Street

A secondary local street serves residential estate lots in the northern part of Spring Trails. A typical cross-section and plan view are illustrated in Figure 3.6.

Cul-de-Sac I

Streets designated as cul-de-sac I connect to the local streets and provide access to homes on both sides of the street. A typical cross-section and plan view are illustrated in Figure 3.7.

Cul-de-Sac II

Streets designated as cul-de-sac II connect to the local streets and provide access to homes on only one side of the street. A typical cross-section and plan view are illustrated in Figure 3.8.

Secondary Road - Meyers Road Intersection Options

Local residents expressed a desire to prevent project-related traffic from accessing the eastern side of Meyers Road and negatively impacting their quality of life. In response, the intersection of Meyers Road and the Secondary Access Road shall be designed to either prevent or discourage access to Meyers Road. The final design will be determined by the City Engineer in consultation with local residents.

As shown in Figure 3.9, *Meyers Road Options*, there are two proposed options for the treatment of the intersection of Meyers Road and the Secondary Access Road.

- Option 1 – Cul-De-Sac the east side of Meyers Road at the intersection with the Secondary Access Road. In this option, Meyers Road is disconnected via a cul-de-sac on the eastern side of Meyers Road. An emergency access road and gate allow emergency access to residents on the eastern side of the Secondary Access Road. On the western side of the Secondary Access Road, full access to and from Meyers Road is maintained.
- Option 2 – Restrict left turn movements from the Secondary Access Road to Meyers Road. In this option, the intersection of the Meyers and Secondary Access Roads are realigned and offset and a raised median prevents left-hand turning movements from the Secondary Access Road onto eastbound Meyers Road yet still allows full turn movements from Meyers Road to the Secondary Access Road. The

ability to make a left-hand turn movement onto westbound Meyers Road is maintained in this option.

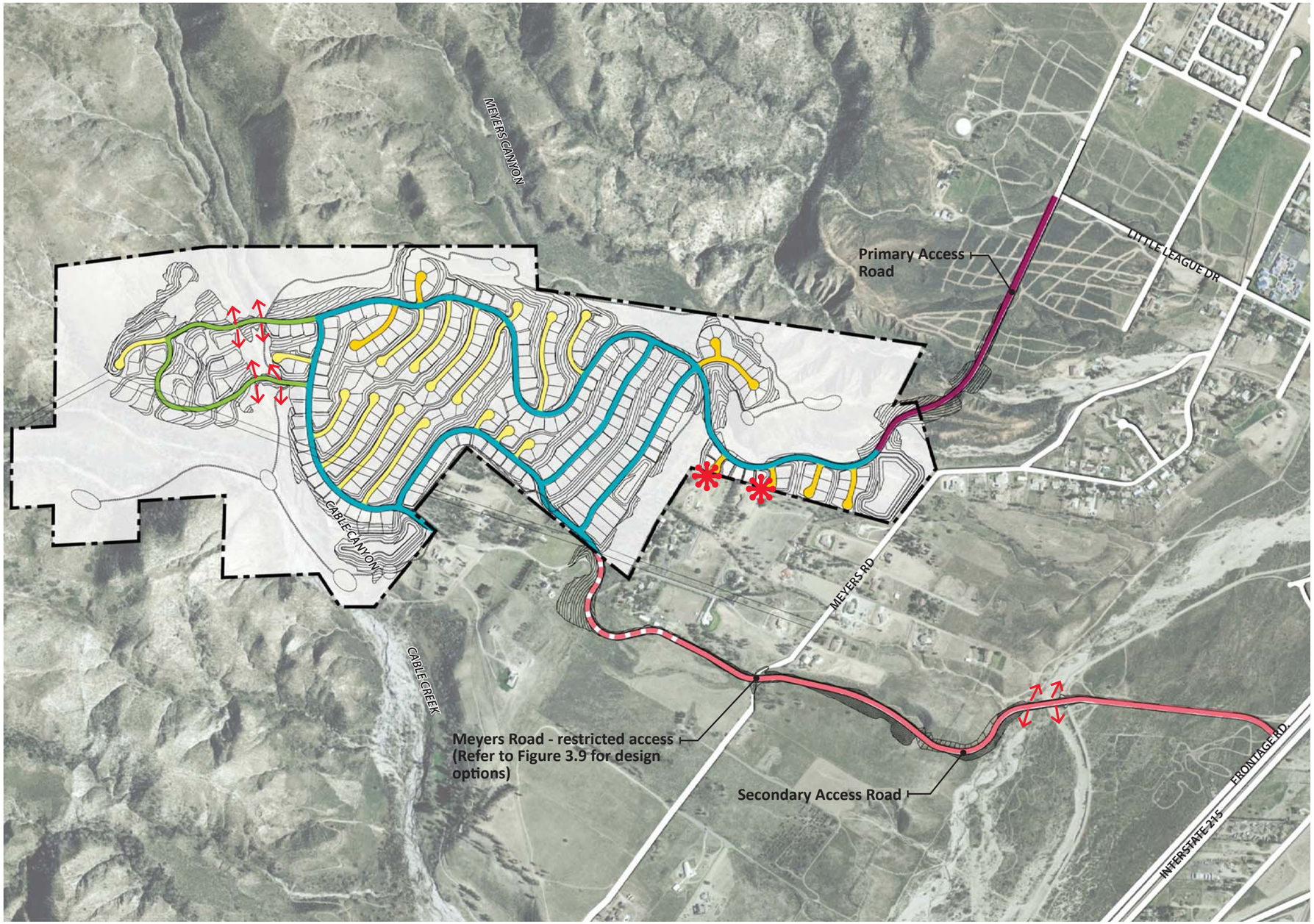
Off-Site Access Points

In the locations depicted on Figure 3.2 as Off-Site Access Points, driveways shall be provided to allow access to adjacent properties.

Off-Site Improvements

Little League Drive will be extended to the project site and, north Meyers Road, will be improved to City standards. Other necessary off-site improvements, such as the Palm Avenue/I-215 and Glen Helen Parkway improvements, are part of the City's Master Facility Plan and will be funded through developer impact fees.

Figure 3.2 Circulation Plan



Legend

- Primary Access Road (50' ROW)
- Secondary Access Road (50' ROW)
- Secondary Access Road - Special Segment (50' ROW)
- Primary Local Road I (50' ROW)
- Secondary Local Road (40' ROW)
- Cul-de-sac I (46' ROW)
- Cul-de-sac II (40' ROW)
- Off-Site Access Points
- Wildlife Crossing Location
  (Refer to Page 3-74 for standards and guidelines related to wildlife corridors and crossings)

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Figure 3.3 Primary Access Road

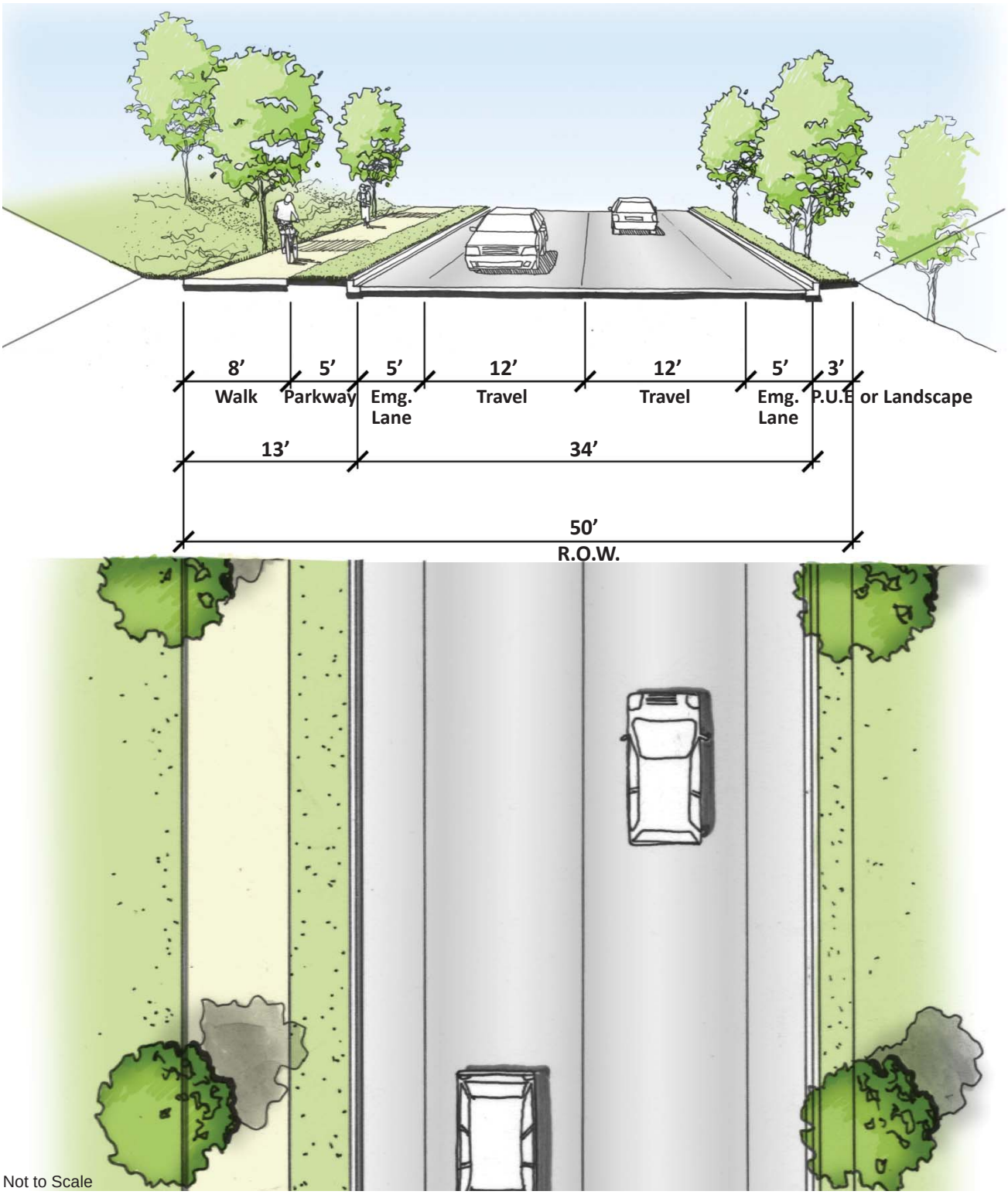

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Figure 3.4 Secondary Access Road

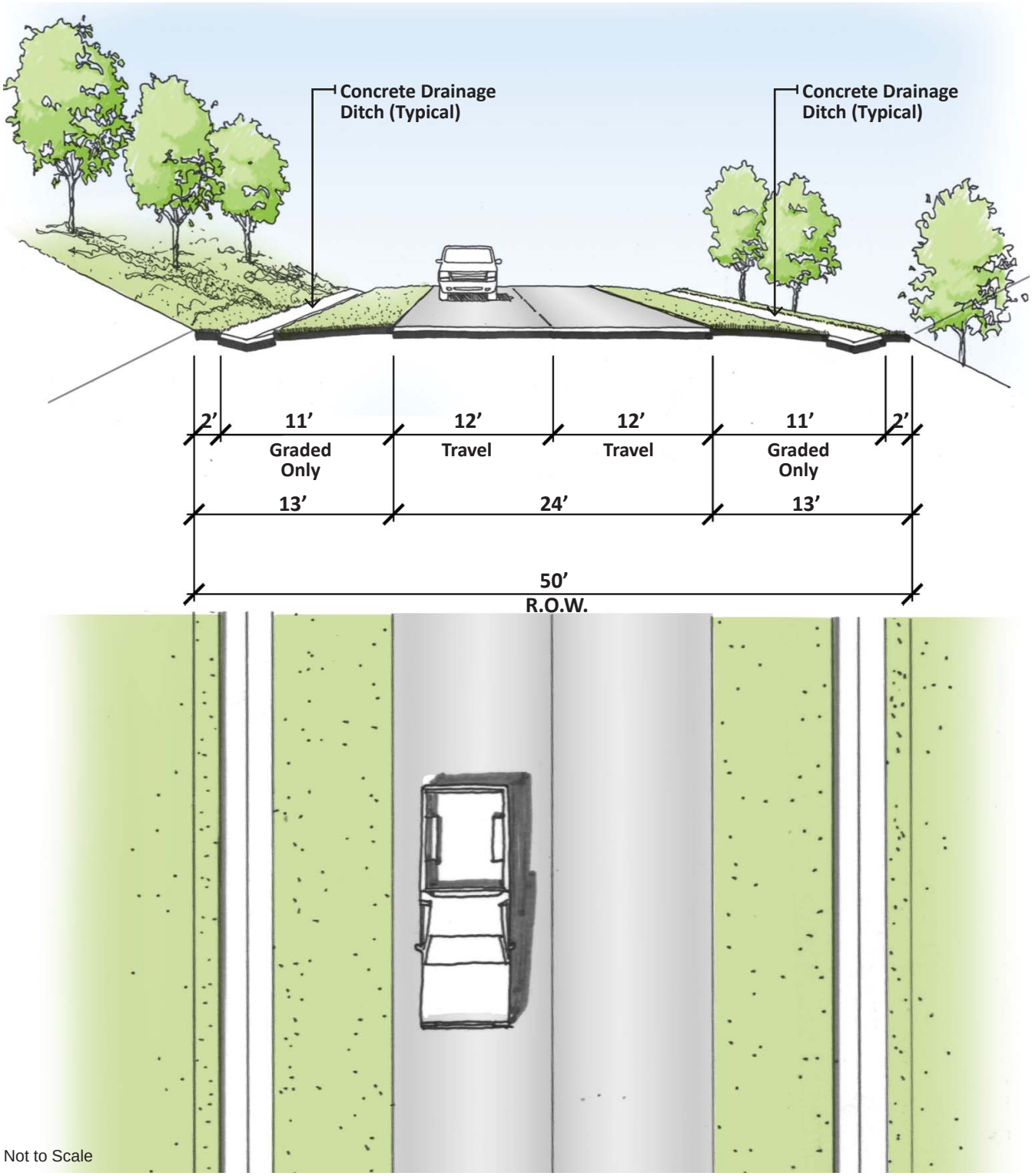

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Figure 3.5 Primary Local Street

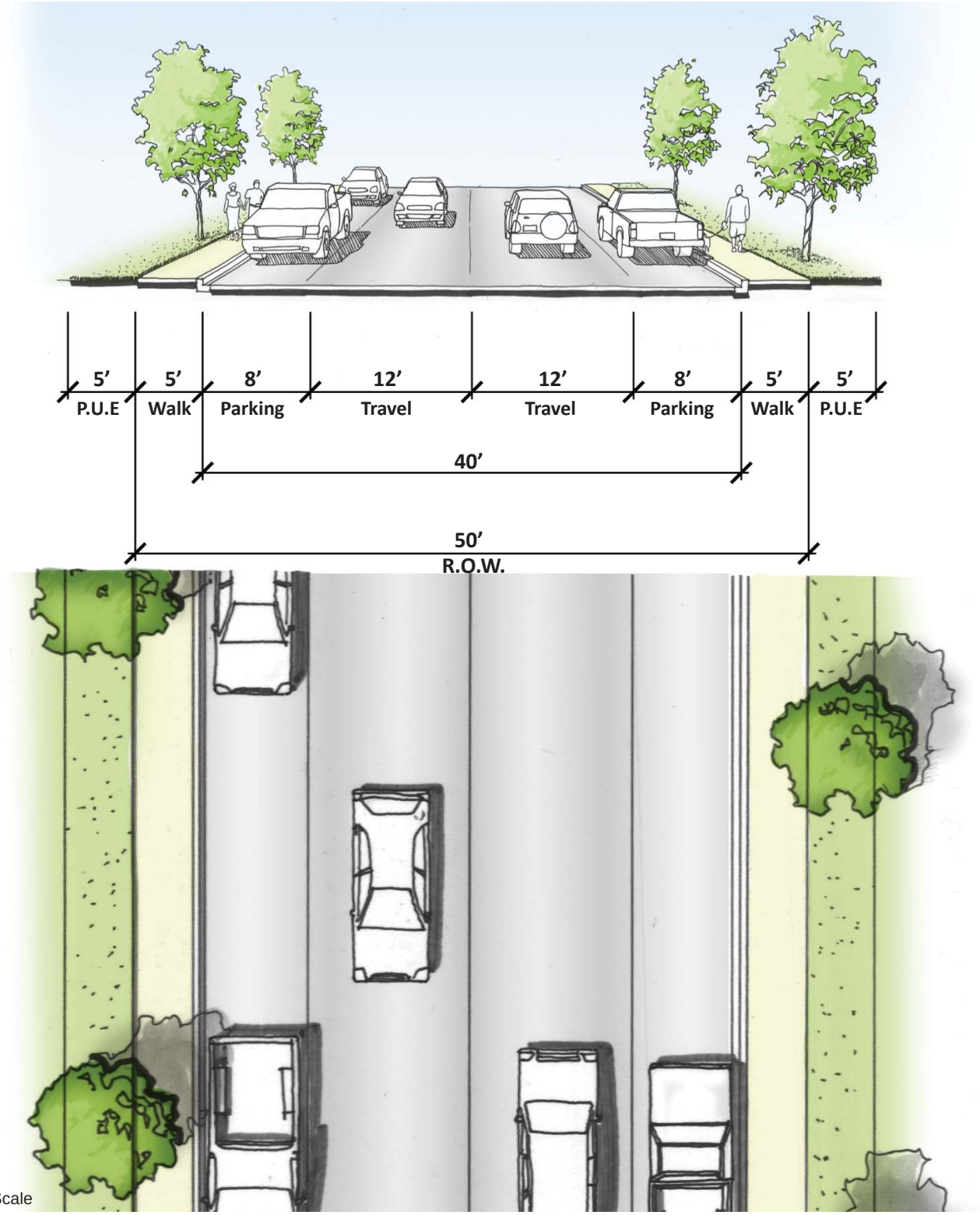

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Figure 3.6 Secondary Local Street

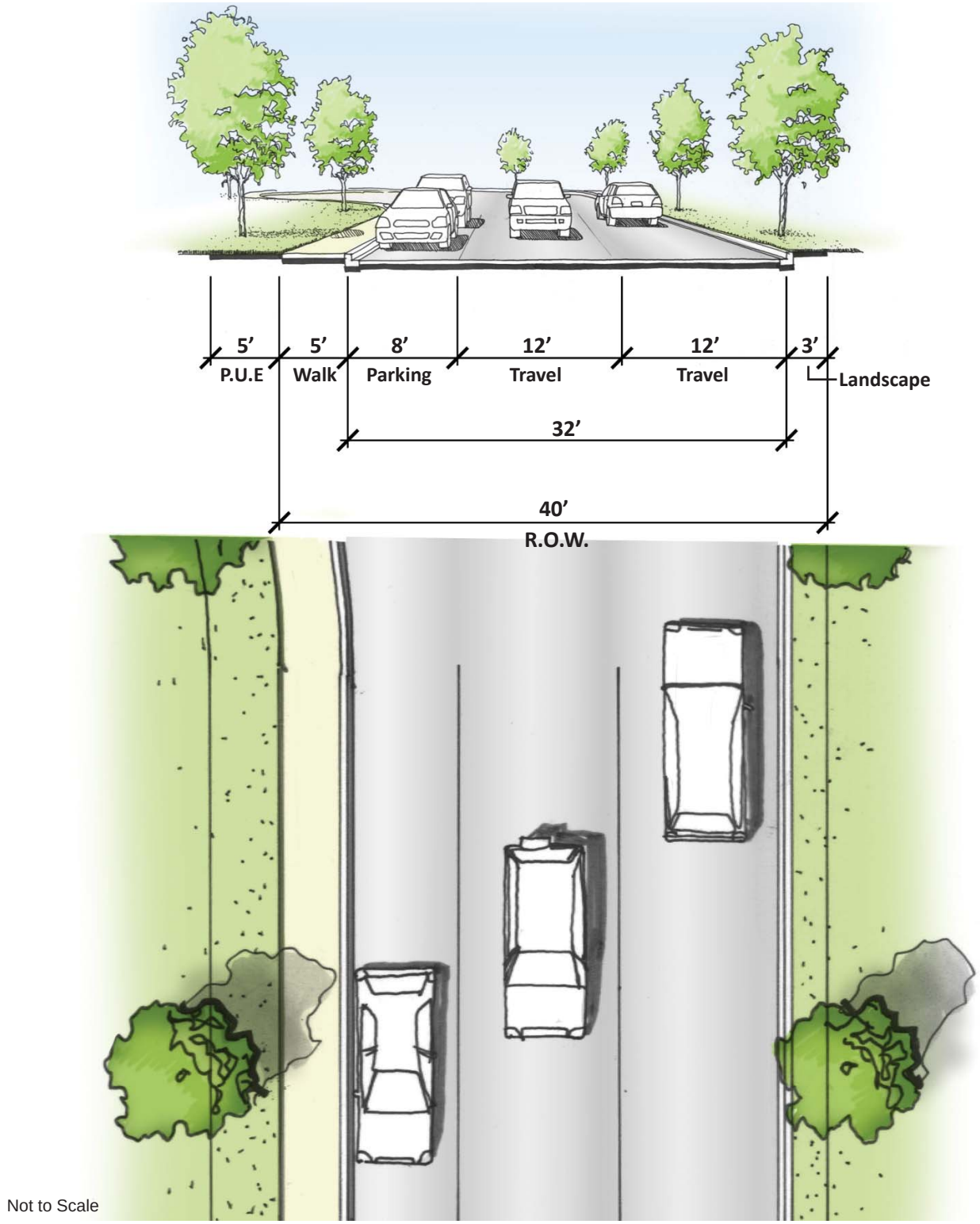

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Figure 3.7 Cul-de-sac I

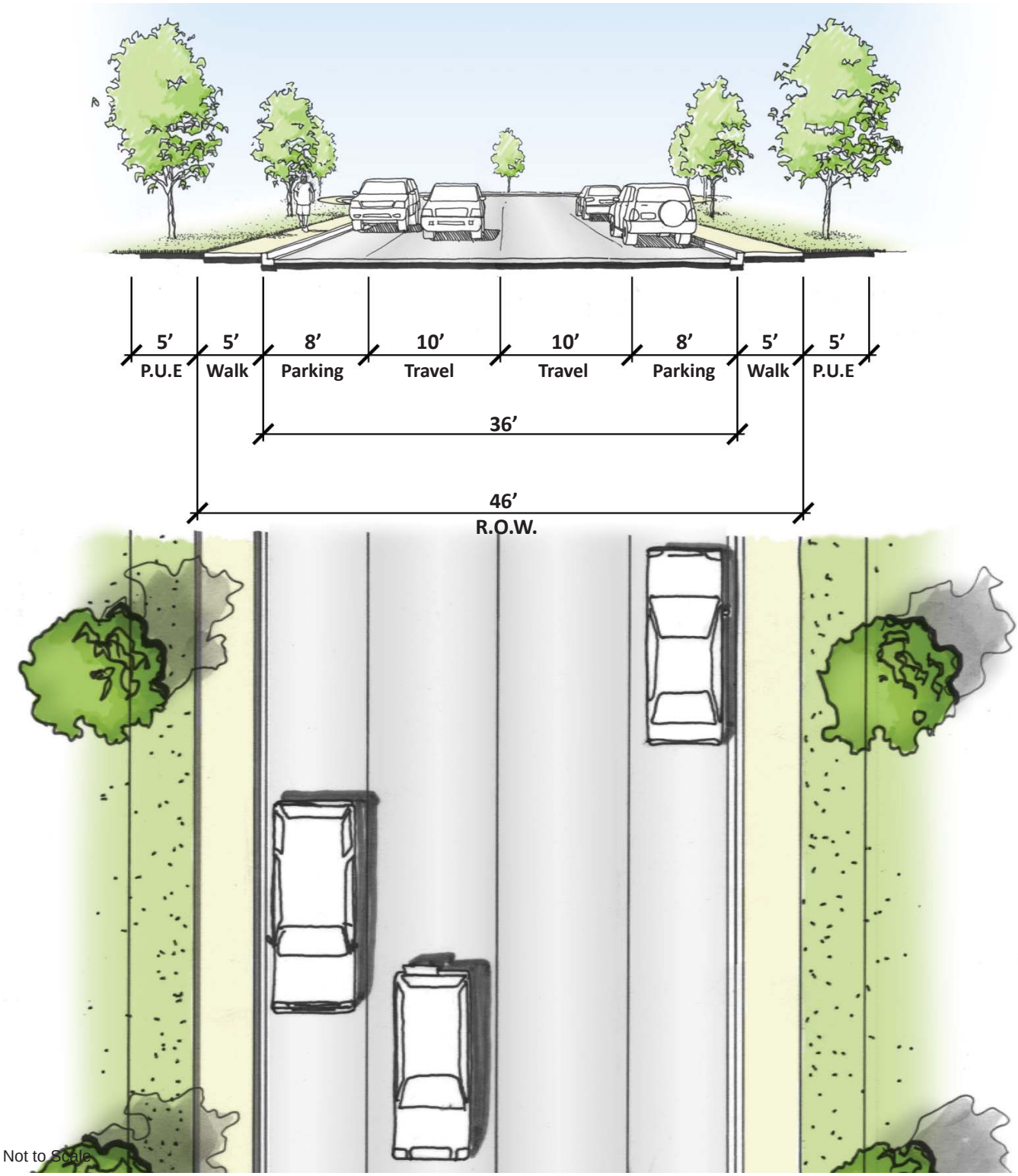

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Figure 3.8 Cul-de-sac II

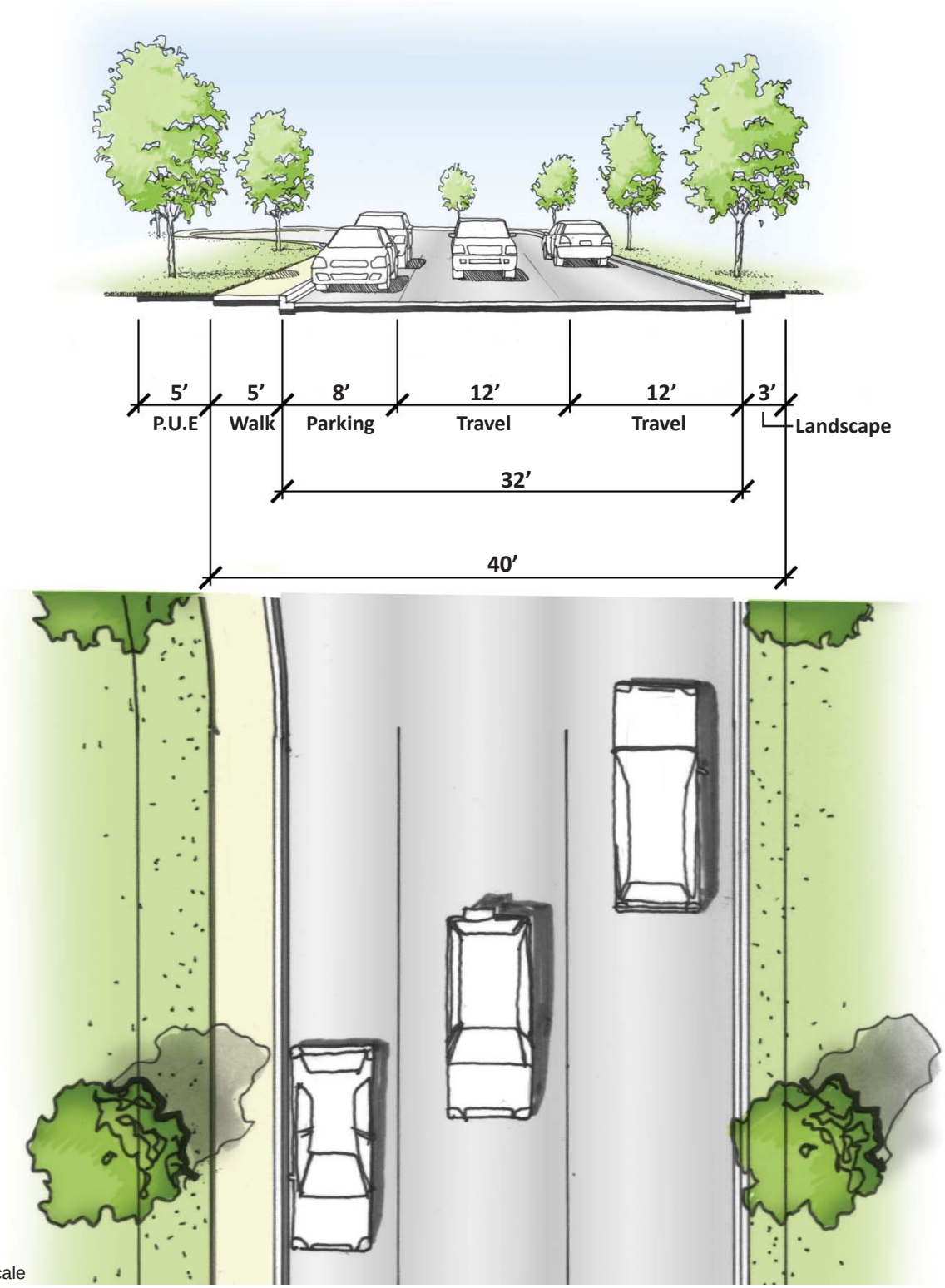

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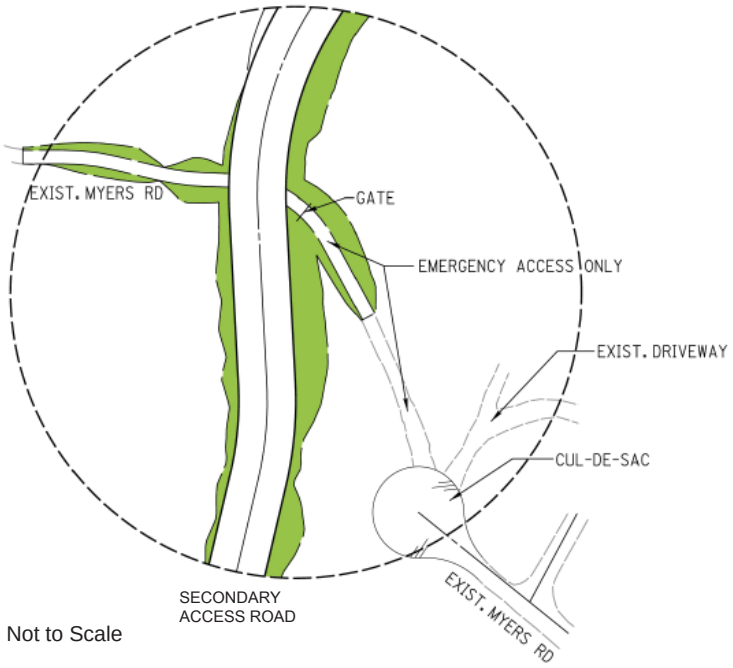
Figure 3.9 Meyers Road Options

Option 1: Cul-de-sac at Meyers Road



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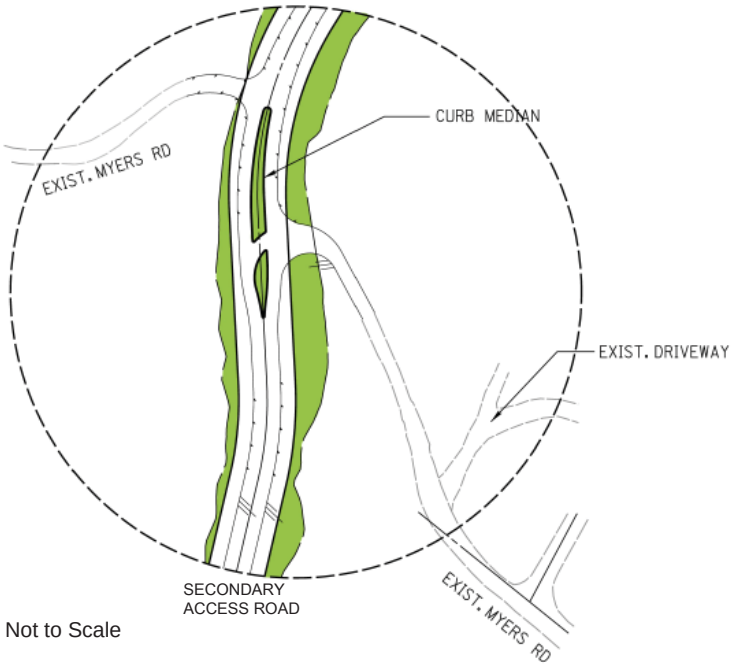
- Option installs a cul-de-sac on Meyers Road east of secondary access road
- Meyers Road will no longer be a through road
- Emergency only access will be provided between secondary access road and Meyers Road
- A gate will be installed on emergency access from secondary access road

Option 2: Restricted Left Turn from Secondary Access Road to Meyers Road



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- Option installs a curbed median on secondary access road
- Left turn from southbound secondary access road to eastbound Meyers Road blocked by curbed median
- Full turn movements from Meyers Road to secondary access road is provided
- Creates a split intersection of Myers Road and secondary access road

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Trails, Parks, and Open Spaces

As shown on Figure 3.10, *Trails, Parks, and Open Space Plan*, the Spring Trails Specific Plan provides parks and open space that serve multiple functions: as recreational opportunities, as buffers, as visual landmarks, and as an interconnecting system of trails. The parks and open space are easily accessible to every resident in Spring Trails. Parks are located to ensure that all homes are within three-quarters of a mile of a park and are interconnected by a comprehensive system of trails.

Maximum buildout of the Spring Trails Specific Plan would accommodate 307 units and a population of approximately 1,028 residents. Based on the City's standard of 5 acres of parkland per 1,000 residents, full buildout of the Specific Plan would result in the need to provide 5.14 acres of parkland or an equivalent fee in lieu of dedicated parkland.

Spring Trails provides approximately 246.3 total acres of public and private parkland, open space, and trails, as summarized in Table 3.5 and further described below. The 9.0 acres of usable public and private parks exceed the City requirements. If permitted by SCE, a park and/or equestrian/pedestrian trail may be located under the power lines; however, they are not assumed in the buildout of the preferred plan or for purposes of park credits. If SCE permits use of this easement, then the usable open space would increase by 0.9 acres.

Table 3.5 Open Space, Parks, and Recreation Facilities Summary

Parks/Recreation Facilities	Acres
Private Parks	2.0
Public Parks	7.0
Open Space-Natural	111.3
Open Space-Homeowner Maintained	126.0
Total	**246.3**

Trails

A diverse and comprehensive trails system is an integral part of Spring Trails. The 3.8 mile long, interconnected trail system will allow residents to walk or hike to neighborhood parks and within open space. The varied designs and scenic locations of planned trails will encourage trail use, help to reduce automobile use within the community, and promote healthier lifestyles. The trail system is also expected to connect to future and existing regional and City trails. All trail connections will be planned in coordination with the Parks and Recreation Department and the Community Development Department.

Appropriate access and use restrictions should be determined prior to construction of any trail connections.

Examples of the types of trails and pedestrian paths envisioned in Spring Trails.

The planned trail system consists of a community trail, equestrian/pedestrian trails, and hiking trails, as shown on Figure 3.10, *Trails, Parks, and Open Space Plan*, and described below.

Community Trail

The community trail is an 8-foot-wide trail surfaced with decomposed granite or other appropriate surface and located within the primary access road right-of-way. It is intended for pedestrian and bicycle use. See Figure 3.3, *Primary Access Road*, for a conceptual cross-section of the 8-foot wide community trail.

Equestrian/Pedestrian Trails

Equestrian/pedestrian trails are 12-foot-wide trails surfaced with decomposed granite or other appropriate surface. Equestrian/pedestrian trails will include observation points at scenic vistas. Access control fencing may be provided if needed for public safety. See Figure 3.11 for a conceptual cross-section of this trail.

Hiking Trails

As shown on Figure 3.9, hiking trails are conceptual and represent the need to provide off-street connections in certain locations; however, the exact alignment is not predetermined in the Specific Plan and will be established with the approved tract map. Hiking trails will generally be a minimum of 4 feet wide. See Figure 3.12 for a conceptual cross-section of the hiking trail.

Trailheads

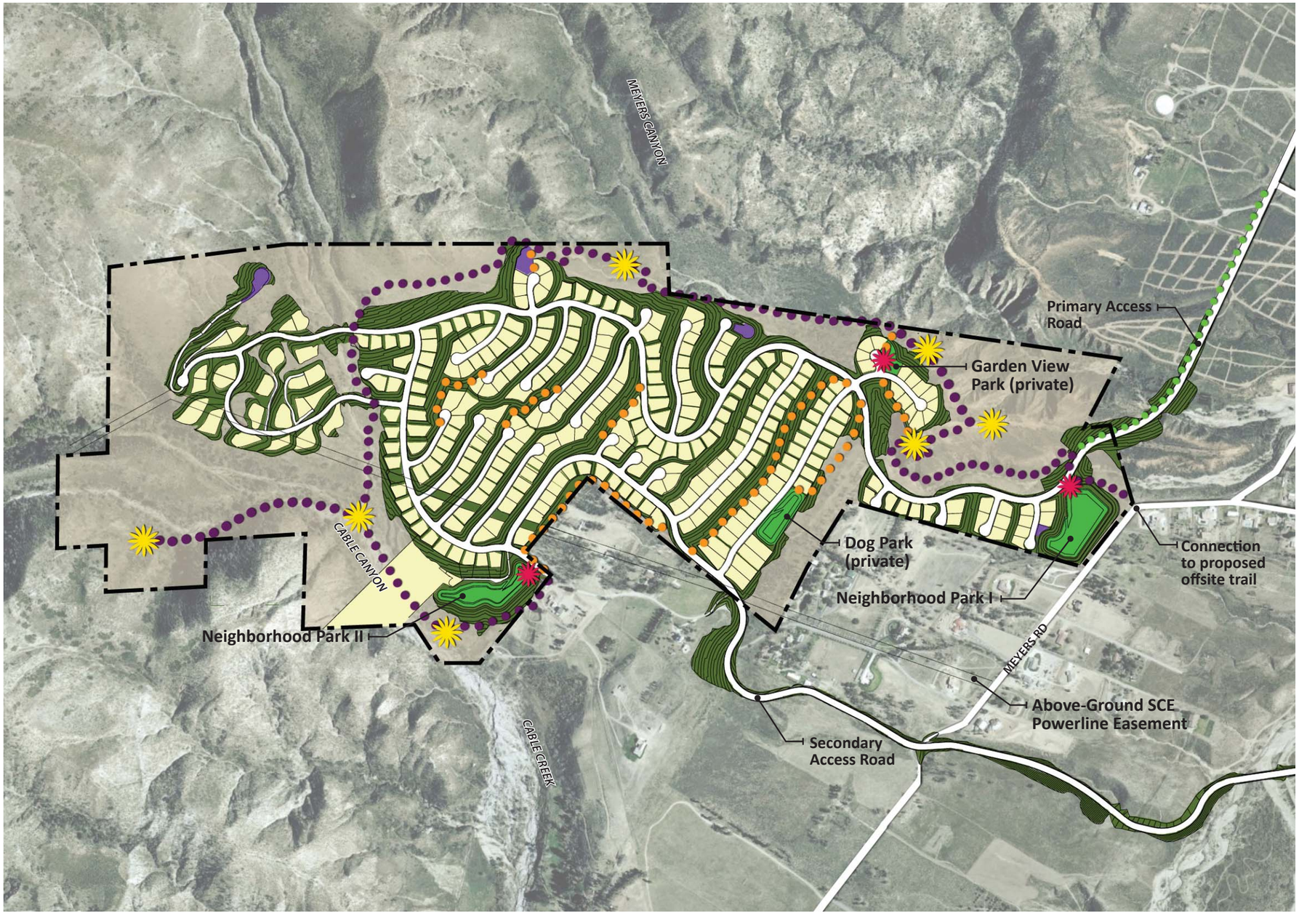
Trailheads occur at Neighborhood Parks I and II and Garden View Park, and are identified on Figure 3.10, *Trails, Parks, and Open Space Plan*. Trailheads shall have maps of the trail system and signs to advise people of rules and regulations, trail etiquette, and permitted trail uses.

Examples of the types of pedestrian amenities envisioned in Spring Trails.

Observation Points

Observation points are areas with spectacular views of the surrounding natural open space elements. Observation points are strategically located along the multipurpose and equestrian trails, as shown on Figure 3.10, *Trails, Parks and Open Space Plan.* Observation points should include benches, trash receptacles, shade structures, hitching posts, and educational kiosks describing local geology and habitat. If access to water is readily available, drinking fountains and dog comfort stations should also be provided.

Figure 3.10 Trails, Parks, and Open Space Plan



Legend

- Residential
- Open Space
- Parks
- Graded Slopes
- Utility
- 12-foot Equestrian/Pedestrian Trail
- 8-foot Community Trail (On-Street)
- 4-foot Hiking Trail
- Planned Trail (offsite)
- Observation Point
- Trailhead

If permitted by SCE, a park and/or equestrian/pedestrian trail may be located under the power lines.

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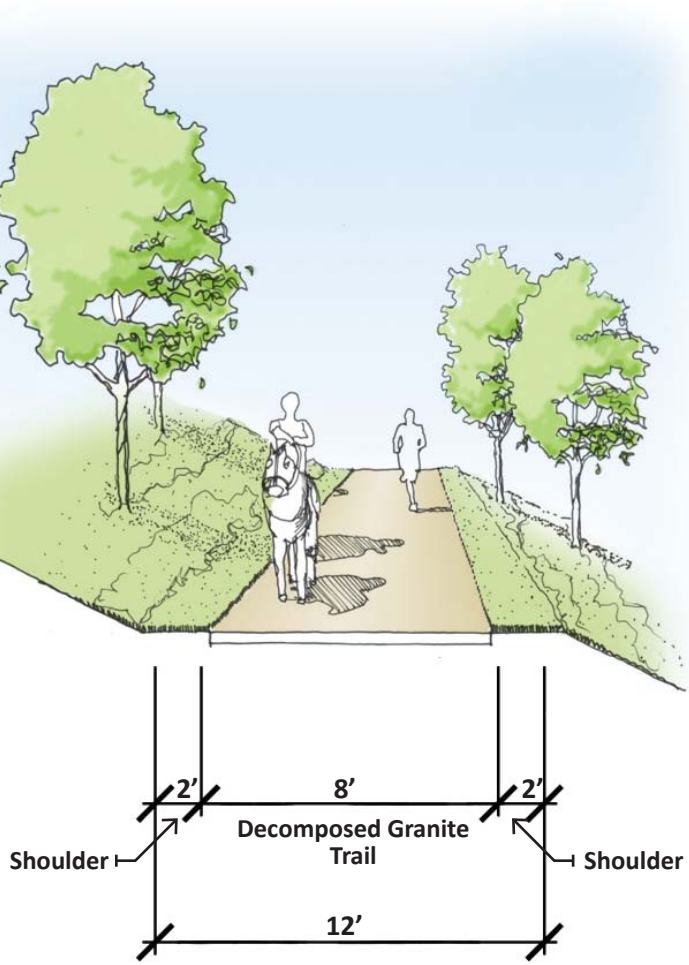
Figure 3.11 Equestrian/Pedestrian Trail Conceptual Cross-Section



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Note: This illustration is conceptual in nature and is intended to show the range of facilities accommodated within the feature and potential arrangement of improvements. The exact size, configuration, and level/type of the improvements will be determined during the grading process.

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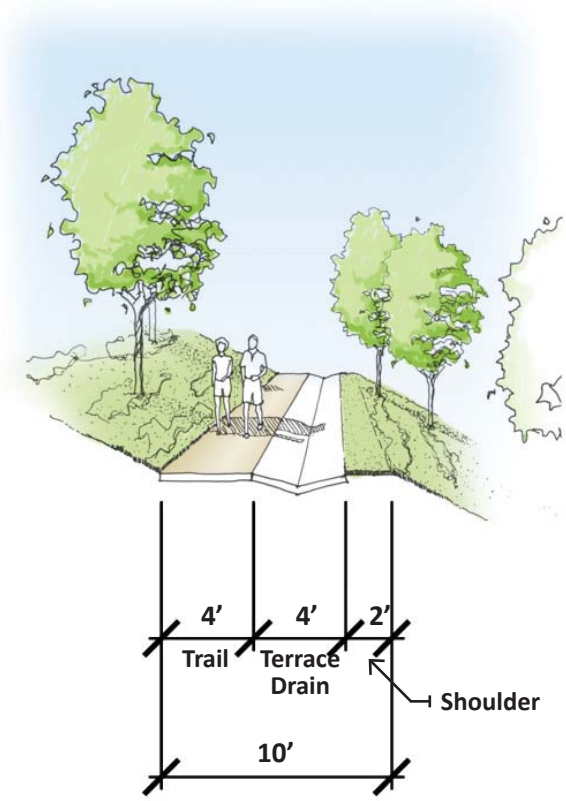
Figure 3.12 Hiking Trail Conceptual Cross-Section



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Note: This illustration is conceptual in nature and is intended to show the range of facilities accommodated within the feature and potential arrangement of improvements. The exact size, configuration, and level/type of the improvements will be determined during the grading process.

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Parks

Neighborhood Parks. Neighborhood parks are public parks that offer a localized opportunity for outdoor recreation in Spring Trails. The two neighborhood parks in Spring Trails are dual-use parks that also serve as water detention basins. Conceptual illustratives of each of the two neighborhood parks are shown in Figure 3.13, *Neighborhood Park I Conceptual Site Plan,* and Figure 3.14, *Neighborhood Park II Conceptual Site Plan.* Specific recreational amenities depicted in Figures 3.13 through 3.16 are representational and will be determined in the final park plan approved by the City. Additional amenities may include but are not limited to: gathering areas that provide active and passive recreation for the adjacent residents, shade structures, and tot lots.

Dog Park. This private, 1.6-acre park is conceptually envisioned to consist of a completely enclosed play area for dogs and an adjacent unenclosed family picnic area that includes view benches and a group picnic structure. A conceptual illustrative of the park is shown on Figure 3.15, *Dog Park Conceptual Site Plan.* Specific recreational amenities depicted in Figure 3.15 are representational and will be determined in the final park plan approved by the City. In the final design, this park may not include a dog park facility. If a dog park is developed, the dog play area shall be secured by a combination tubular steel fence with decorative pilasters along the perimeter of the dog play area facing the local street. A chain-link fence shall secure the play area around the remainder of the boundary.

Garden View Park. Garden View Park is a 0.4-acre private park with a thematic garden, an observation point, and a tot lot. A conceptual illustrative of Garden View Park is shown in Figure 3.16, *Garden View Park Conceptual Site Plan.* Specific recreational amenities depicted in Figure 3.16 are representational and will be determined in the final park plan approved by the City. Additional amenities may include but are not limited to: an outdoor fireplace, water feature, picnic benches, and gazebo.

Examples of the types of recreational amenities envisioned in Spring Trails.

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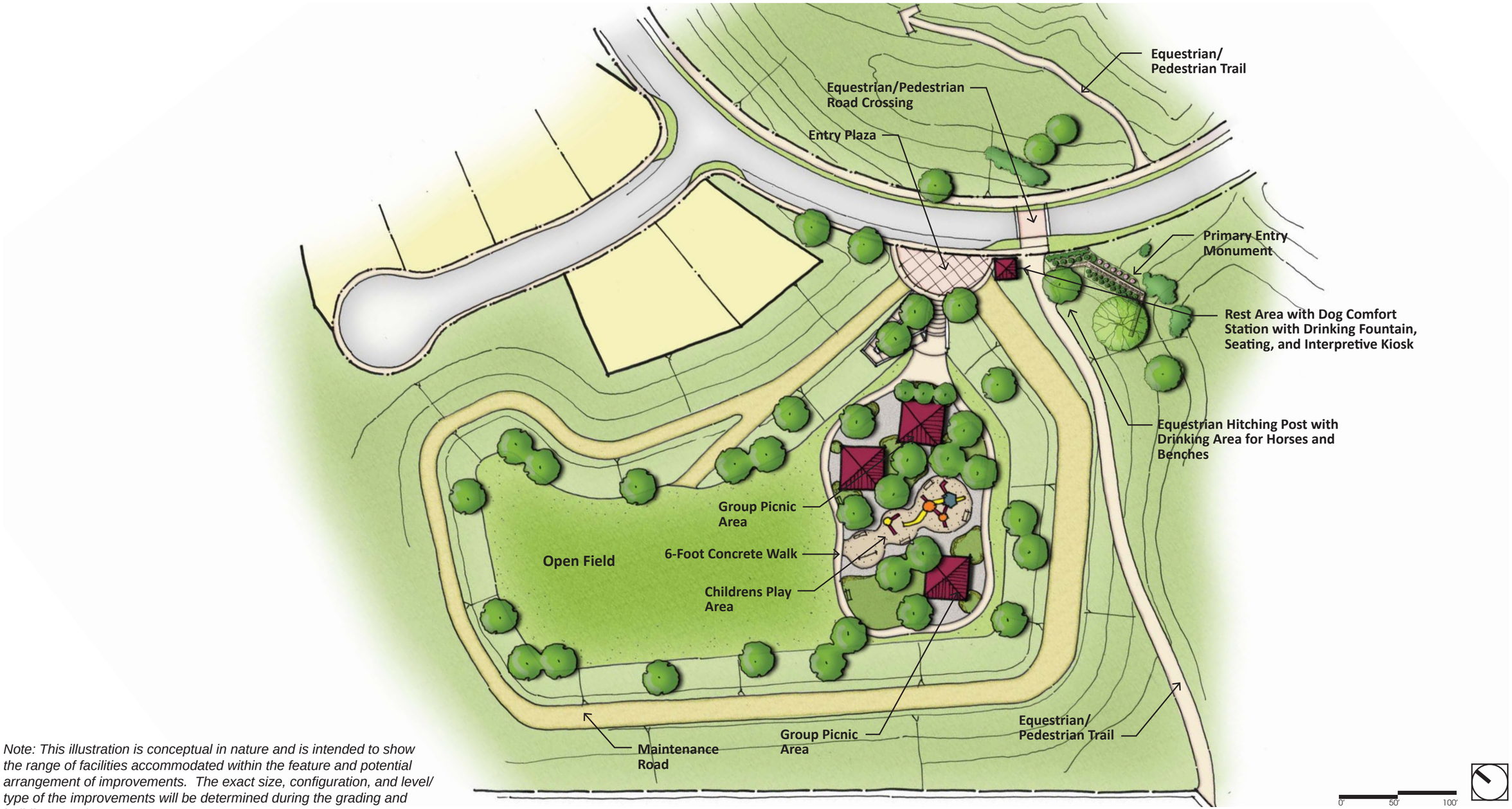
Figure 3.13 Neighborhood Park I Conceptual Site Plan



Note: This illustration is conceptual in nature and is intended to show the range of facilities accommodated within the feature and potential arrangement of improvements. The exact size, configuration, and level/ type of the improvements will be determined during the grading and building permit process.

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Figure 3.14 Neighborhood Park II Conceptual Site Plan

Note: This illustration is conceptual in nature and is intended to show the range of facilities accommodated within the feature and potential arrangement of improvements. The exact size, configuration, and level/ type of the improvements will be determined during the grading and building permit process.

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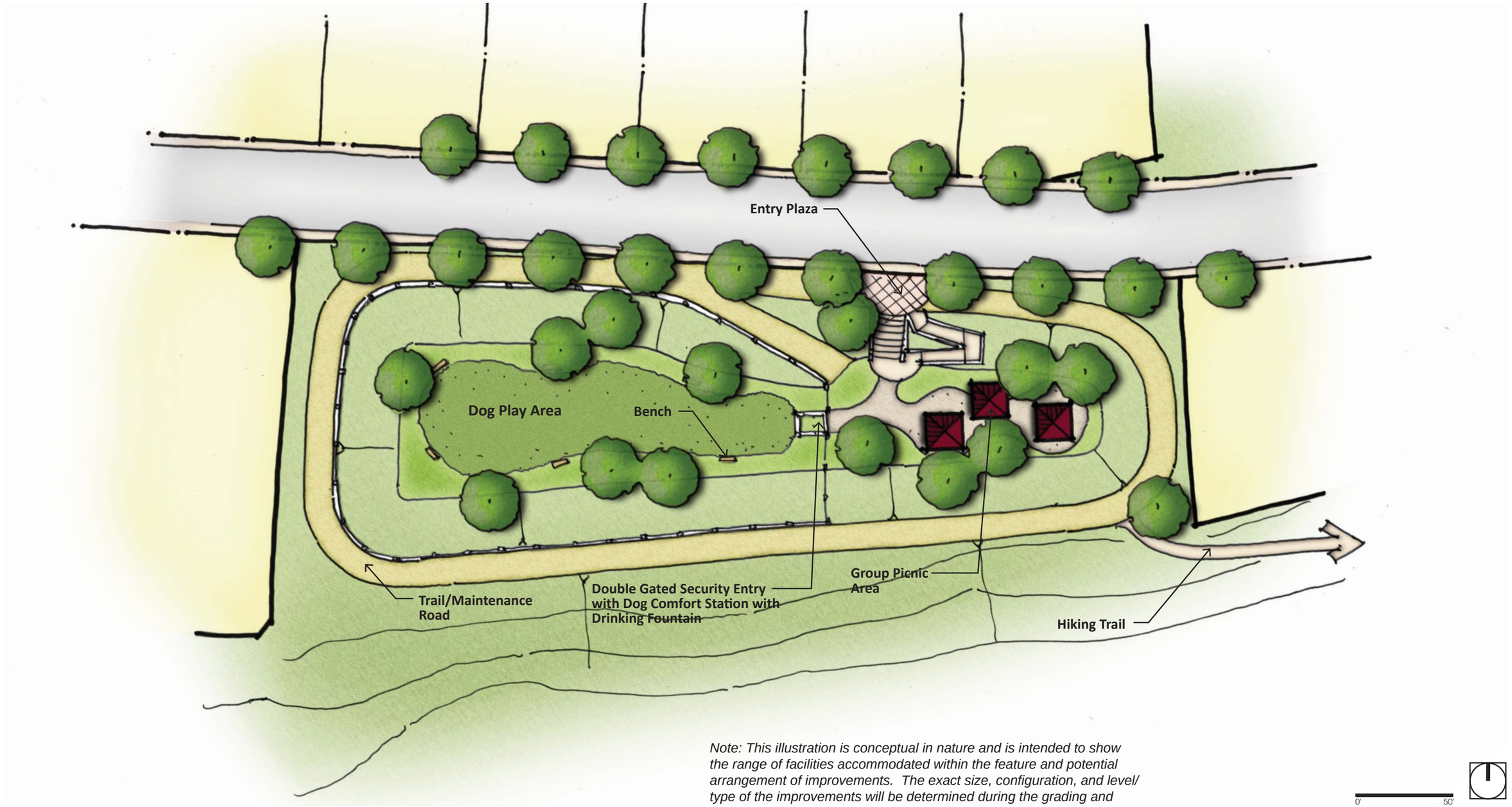
Figure 3.15 Dog Park Conceptual Site Plan



Note: This illustration is conceptual in nature and is intended to show the range of facilities accommodated within the feature and potential arrangement of improvements. The exact size, configuration, and level/type of the improvements will be determined during the grading and building permit process.

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Figure 3.16 Garden View Park Conceptual Site Plan

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Fire Protection Plan

Spring Trails is in an area that is designated as a very high fire hazard area. To protect lives and property, an extensive fire protection plan has been developed as part of the Spring Trails Specific Plan. The objective of the fire protection plan is to assist the developers, builders, homeowners, and special districts/associations to understand and comply with the approved features of the development. The fire protection plan will help the San Bernardino City Fire Department (SBFD) provide fire, rescue, and EMS services to Spring Trails in an effective and efficient manner. The fire protection plan includes:

- Fire Risk Assessment
- Fuel Modification Zones
- Vegetation Management Guidelines
- Allowed and Undesirable Plant Palettes
- Planting Maintenance and Spacing Guidelines
- Construction Phasing Management Plan
- Infrastructure/Structural Construction Features and Requirements
- Compliance Matrix listing all of the building and development standards to be applied to the project

The fire protection plan was prepared in accordance with the requirements in various codes in the City of San Bernardino Municipal Code, including:

- Chapter 15.10. Foothill Fire Zone Building Standards
- Chapter 15.16. Amended Fire Code
- Chapter 19.15. Foothill Fire Zone Overlay District
- Chapter 19.17. Hillside Management Overlay District
- Chapter 19.30. Subdivision Regulations

This section provides a summary of the fire protection plan, which is contained in Appendix C. Since the Hillside Management Overlay zone does not apply, the Conditional Use Permit called for in Section 19.17.050 of the Development Code is not required prior to construction. Instead, a Development Permit is required prior to construction to ensure consistency with the Fire Protection Plan.

Fuel Modification Zones

One of the most basic components of fire protection is to change and reduce the fuel that allows a fire to burn. Simply put—if there is no fuel, there is no fire. In Spring Trails, there are three zones, called fuel modification zones, where

Lots 30 and 233 Fire Protection Criteria

Development of Lots 30 and 233 shall only occur when the following conditions are met and if approved by the Fire Chief.

- The total fuel modification distance for lots 30 and 233 shall be a minimum of 170 feet.
- The fuel modification shall consist of:
  - Zone A-an irrigated landscape zone within the Spring Trails property.
  - Zone B-an irrigated landscape zone within the Spring Trails property between Zone A and the project boundary allowing only non-combustible construction.
  - Zone A-an irrigated landscape between the residential structure and the wildland interface. Zone C shall extend between zone B and offsite to the required minimum distances noted below. Zone C may be a temporary off-site fuel modification zone until the adjoining property is developed. Until the adjacent property is developed, an easement will be required for maintenance of zone C. If the adjoining property is developed prior to the development of the Spring Trails, then the off-site fuel modification will not be required for Lots 30 and 233.
- For Lot 30, Zone A shall have a minimum/maximum distance of 20 feet, Zone B shall have a minimum distance of 50 feet and a maximum distance of 111 feet, and Zone C shall have a minimum distance of 40 feet and a maximum distance of 100 feet (a total of 15,469 square feet off-site Zone C).
- For lot 233, Zone A shall have a minimum/maximum distance of 20 feet, Zone B shall have a minimum distance of 68 feet and a maximum distance of 139 feet in width, and Zone C shall have a minimum distance of 43 feet and a maximum distance of 80 feet (a total of approximately 20,706 square feet off-site Zone C).

the type, spacing, irrigation, and maintenance of landscaping are strictly controlled. The fuel modification zones will keep the flames far enough away from structures that, in combination with other efforts, the buildings will not ignite. The locations of fuel modification zones are shown on Figures 3.17 and 3.18. Cross-sections of the fuel modification zones are shown on Figures 3.19 through 3.26. Descriptions of the fuel modification zones are detailed below.

Lots 30 and 233 are currently considered unbuildable and shall be used as part of fuel modification zone B. However, these lots may be made to be buildable if the provisions in the adjacent text box are followed and if approved by the Fire Chief. Lot 307 contains an existing home and fuel modification on lot 307 shall be maintained by the existing homeowner.

Fuel Modification Zone A. This zone provides a 20- to 35-foot defensible space for fire suppression forces and protects structures from radiant and convective heat. Fuel modification zone A includes these requirements:

- Fuel modification zone A shall be as shown on Figures 3.17, 3.18 and 3.26, and in no case shall fuel modification zone A be less than 20 feet.
- Fuel modification zone A shall be located on a level graded area at the top or base of a slope between zone B and the structure.
- Fuel modification zone A shall be maintained by the homeowner and/or LLMD.
- Combustible construction is not allowed.
- Automatic irrigation systems are required to maintain healthy vegetation with high moisture content.
- Irrigation shall be maintained outside the drip line of native oak trees.
- Plant material shall be selected from Table 3.6, *Landscape Zones Plant Palette*.
- Complete removal of fire-prone plant species and minimal allowance for retention of selected native vegetation as required in Table 3.7, *Plant Removal List*.
- The first 20 feet from the structure shall consist of well-irrigated, well-spaced, approved fire-resistant groundcover, shrubs, or lawn.
- Approved trees must be properly located, spaced, and limbed up to one-third their height or six feet from the ground.

- Fire-resistant plants and shrubs shall be kept to a maximum height of 18 inches.
- Shrubs or plants shall not be planted under trees.
- Grasses must be kept to less than four inches high. Groundcover must be low profile and kept to less than six inches high.
- Pruning of foliage to reduce fuel load and vertical continuity, and the removal of plant litter and dead wood are required as necessary.
- Vegetation is not allowed within 10 feet of chimneys, and tree canopies are not allowed within 10 feet of structures.
- Chipped biomass or wood bark shall not be permitted within 30 feet of structures.
- Special considerations are permitted for rare and endangered species, geologic hazards, tree ordinances, or other conflicting restrictions and shall be reviewed and approved by the Fire Chief.
- Required maintenance includes ongoing removal and/or thinning of combustible material, replacement of dead/dying fire-resistant planting, maintenance of the operational integrity, programming of irrigation systems, and regular pruning.

Fuel Modification Zone B. This zone provides 50 to 200 feet of irrigated landscaped areas to help reduce combustible fuels. Fuel modification zone B includes the following requirements:

- Fuel modification zone B shall be as shown on Figures 3.17, 3.18, and 3.26 and in no case shall fuel modification zone B be less than 50 feet.
- Fuel modification zone B shall be maintained by LLMD.
- Combustible construction is not allowed.
- Landscape plans shall delineate that portion of the fuel modification area that will be permanently irrigated.
- Plant material selection, irrigation system design, and the landscape maintenance management plan shall sensitively address water conservation practices and include methods for erosion control to protect against slope failure.
- All irrigation shall be kept a minimum of 20 feet from the drip line of any existing native Quercus (oak) species.

- Plant material shall be selected from Table 3.6, *Landscape Zones Plant Palette*.
- Complete removal of fire-prone plant species and minimal allowance for retention of selected native vegetation as required in Table 3.7, *Plant Removal List*.
- Ground cover shall be maintained at a height not to exceed 18 inches.
- Native grasses shall be allowed to seed and shall be cut after annual seeding to a maximum height of eight inches.
- Irrigation shall be designed to supplement native vegetation and establish/maintain planted natives and ornamentals.
- Trees and tree-form shrubs (shrubs that naturally exceed four feet in height) shall be spaced and pruned in conformance with the requirements in Figure 3.26.
- Tree-form shrubs less than four feet in height and other shrubs shall be spaced so they do not create an excessive fuel mass and can maintained in accordance with specified spacing, as indicated on Figure 3.26.
- Sensitive and/or protected species shall be identified on the fuel modification plans and tagged in the field for further disposition.
- Landscaping shall be in accordance with the planting guidelines and spacing standards as specified in Appendix C.
- Special considerations are permitted for rare and endangered species, geologic hazards, tree ordinances, or other conflicting restrictions and shall be reviewed and approved by the Fire Chief.

Fuel Modification Zone C. This zone provides a nonirrigated 50 percent thinning zone with removal of all dead and dying vegetation and undesirable species. Zone C is 40 to 185 feet in width surrounding the developed areas. Thinning zones are utilized to reduce the fuel load of wildland fires. Fuel modification zone C includes the following requirements:

- Fuel modification zone C shall be as shown on Figures 3.17, 3.18, and 3.26.
- Removal of all dead and dying vegetation, with all fuels reduced to a maximum of 8 to 12 inches in height.
- Fuel modification zone C shall be maintained by an LLMD.

- To maintain proper coverage, native grasses shall be allowed to go to seed. Native grasses shall be cut after annual seeding. Cut heights shall not exceed eight inches.
- Any plants selected for planting in this zone will be chosen from the approved plant list in Table 3.6, *Landscape Zones Plant Palette,* for the setback, irrigated, or thinning zone.
- Complete removal of fire-prone plant species and minimal allowance for retention of selected native vegetation as required in Table 3.7, *Plant Removal List*.
- Special considerations are permitted for rare and endangered species, geologic hazards, tree ordinances, or other conflicting restrictions and shall be reviewed and approved by the Fire Chief.
- Reduce fuel loading by reducing the fuel in each remaining shrub or tree without substantial decrease in the canopy cover or removal of tree holding root systems.
- Removal is required of all low-hanging tree foliage within three times the height of the understory shrubs or 10 feet, whichever is greater.
- Sensitive and/or protected species shall be identified on the fuel modification plans and tagged in the field for further disposition.
- Trees and tree-form shrubs (shrubs that naturally exceed four feet in height) shall be spaced and pruned in conformance with the requirements shown in Figure 3.26.
- Tree-form shrubs less than four feet in height and other shrubs shall be spaced so they do not create an excessive fuel mass and can maintained in accordance with specified spacing as indicated on Figure 3.26.
- Maintain sufficient cover to prevent erosion without requiring planting.

Fuel Modification Plant Palette Zone. Plant material within the fuel modification plant palette zone must be on the approved Spring Trails Fuel Modification Plant Palette in Table 3.6, *Landscape Zones Plant Palette*. No plant material from Table 3.7, *Plant Removal List,* shall be allowed in any fuel modification zone. This area shall be irrigated and must be maintained per the maintenance standards set forth in the fuel modification plan in Appendix C.

Irrigated Manufactured Slopes. This area identifies manufactured slopes beyond or in the vicinity of the fuel modification zones and is intended to reduce the fuel load of a manufactured slope.

- Plant material shall be selected from Table 3.6, *Landscape Zones Plant Palette*.
- Shall be maintained on a year round basis by LLMD.

Roadside Brush Clearance. This area requires removal of all undesired plant species and thinning of at least 50 percent of all existing vegetation 10 to 20 feet from curb face. Any plant material installed must be fully irrigated and from Table 3.6, *Landscape Zones Plant Palette*. This area will be maintained by the existing homeowner or LLMD.

Brush Clearance. Brush clearance includes areas around project water tanks and shall consist of removal of all dead and dying shrubs, and all plant material from Table 3.7, *Plant Removal List*. This will be maintained by the LLMD.

Building Setback. Buildings not on the wildland interface/fuel modification zones shall be set back 25 to 50 feet from the adjacent property lines or any natural area adjacent to the homes. This zone shall have no combustible construction within it.

Additional Fuel Modification Requirements. The following shall be required for the completion and maintenance of all fuel modification zones.

- The fuel modification zones shall be identified on the ground, with the markers identified as detailed in Appendix C.
- Prior to issuance of building permits in each sequence of Phase 2 (see Section 6 for the phasing plan), the fuel modification zones shall be completed to the levels deemed necessary by the Fire Chief.
- Prior to issuance of certificate of occupancy for the first building in each sequence of Phase 2, the fuel modification zones shall be installed and completed per the fire protection plan and inspected and approved by the Fire Chief.
- Prior to conveyance to the HOA of the maintenance responsibilities for the fuel modification zones, a meeting will be held with the SBFD Fire Inspector, landscape design professional, landscape installation contractor, HOA representative, and LLMD representative to discuss the requirements and responsibilities for each fuel modification zone and the fire protection plan.
- The fuel modification zones shall be maintained as originally installed and approved.

Figure 3.17 Fire Protection Plan (Northern Project Area)

NOTES: Tree and shrub locations depicted within the fuel modification zones are not exact and are only intended to convey the tree and shrub spacing requirements contained in this Fire Protection Plan. Refer to Figure 3.26 for "Tree and Tree-form Shrub Pruning and Spacing for New Plantings and Thinning Zones."

NOT TO SCALE

A 100 scale (36"x60") version of this figure is provided in Appendix C.

Construction Feature Legend

Enhanced Construction Zone: All structures on lots within 200' of the fuel modification edge shall receive enhanced construction on all four (4) sides per San Bernardino Municipal Code Chapter 15.10.

Roofing, Venting, and Rain Gutter Requirements: All structures on lots within the project outside 200' from the fuel modification edge shall receive enhanced construction on all four (4) sides per California Building Code Chapter 7A Phase II regarding roofing, venting, and rain gutters only.

Lots 30 and 233: Lots 30 and 233 are currently non-buildable and no development on these lots shall occur unless either the off-site fuel modification is provided with easements for maintenance of if the adjoining property is developed and the off-site fuel modification zone C is not required.

Symbol Legend

Access Point: Fuel modification walk in access point (a non-combustible gate will ony be provided where necessary). 350' minimum distance between access points.

Side Yard Maintenance Access Point: Fuel modification walk in access point on sideyards of homeowners lot 12" in width (A non-combustible gate to be provided at the front yard fence and the rear yard fence. 250' minimum distance between access points.

Identification Marker: Permanent identification markers shall be constructed to identify the limits of applicable fuel modification zones. Marker design shall be 2" dia. x 8'-0" long galvanized pipe. Embed minimum 2'-6" into solid ground. Stencil top 6" with a letter 'B' or 'C'. Expose pipe 2'-0" above vegetation minimum.

Refer to Figures X.X thru X.X for fuel modification sections

Fuel Modification Zones Legend

Zone A (Flat) – Non-Combustible Construction: 20'-0" - 35'-0" setback zone for non-combustible construction only. Zone A shall be maintained by the Homeowner or LLMD.

Zone B – Wet Zone (100% Removal Undesirable Plant Species): First 50'-0" –200'-0" from Zone A. Zone B shall be permanently irrigated, fully landscaped with approved drought tolerant, deep rooted, moisture retentive material. This zone shall be planted with container shrub material and hydroseeded per SBFD approved plant list. Handseeding of bare areas may need to be performed six months after hydroseeding establishment period. Zone B area shall be maintained by LLMD.

Zone C – Dry Zone (50% Thinning Native Shrubs): 40'-0" – 185'-0" Zone C shall be a non-irrigated area. Removal of all flammable undesirable species, specimen and trees shall be retained as directed by the owner's representative but must be thinned a minimum of 50% including removal of all low hanging foliage within (3x) three times the height of the understory shrubs or (10) - ten feet, whichever is greater, along with dead or broken branches. All accumuated plant debris on the ground shall be removed. Zone C area shall be maintained by LLMD

Roadside Brush Clearance: Removal of all undesired plant species and thinning of at least 50% of all vegetation within 20'-0" of curb.

Fuel Modification Plant Palette: Plant material must be on approved plant palette. Plant material on the Plant Removal List is not allowed in this zone. This zone shall be irrigated and be maintained by the LLMD.

Brush Clearance: 50% brush clearance shall consist of removal of all dead and dying shrubs and all plant material on the Plant Removal List located around water tanks.

Irrigated Manufactured Slope: Planted and irrigated manufactured slope, maintained on a year round basis.

Building Setback: 25' - 50' building setback. No combustible construction allowed. Planting material must be from the Fuel Modification Plant Palette.

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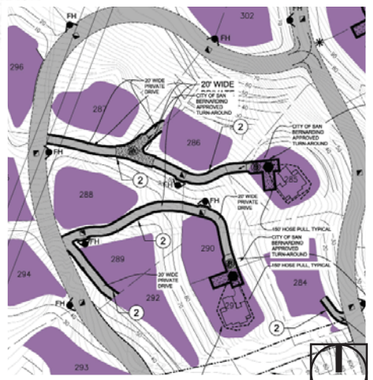
Figure 3.18 Fire Protection Plan (Southern Project Area)

NOTES: Tree and shrub locations depicted within the fuel modification zones are not exact and are only intended to convey the tree and shrub spacing requirements contained in this Fire Protection Plan. Refer to Figure 3.26 for "Tree and Tree-form Shrub Pruning and Spacing for New Plantings and Thinning Zones."

A 100 scale (36"x60") version of this figure is provided in Appendix C.

ENLARGEMENT 'B'
see Figure 3.17



ENLARGEMENT 'A'
see Figure 3.17

Construction Feature Legend

Enhanced Construction Zone: All structures on lots within 200' of the fuel modification edge shall receive enhanced construction on all four (4) sides per San Bernardino Municipal Code Chapter 15.10.

Roofing, Venting, and Rain Gutter Requirements: All structures on lots within the project outside 200' from the fuel modification edge shall receive enhanced construction on all four (4) sides per California Building Code Chapter 7A Phase II regarding roofing, venting, and rain gutters only.

Lots 30 and 233: Lots 30 and 233 are currently non-buildable and no development on these lots shall occur unless either the off-site fuel modification is provided with easements for maintenance of if the adjoining property is developed and the off-site fuel modification zone C is not required.

Symbol Legend

Access Point: Fuel modification walk in access point (a non-combustible gate will ony be provided where necessary). 350' minimum distance between access points.

Side Yard Maintenance Access Point: Fuel modification walk in access point on sideyards of homeowners lot 12" in width (A non-combustible gate to be provided at the front yard fence and the rear yard fence. 250' minimum distance between access points.

Identification Marker: Permanent identification markers shall be constructed to identify the limits of applicable fuel modification zones. Marker design shall be 2" dia. x 8'-0" long galvanized pipe. Embed minimum 2'-6" into solid ground. Stencil top 6" with a letter 'B' or 'C'. Expose pipe 2'-0" above vegetation minimum.

Refer to Figures X.X thru X.X for fuel modification sections

Fuel Modification Zones Legend

Zone A (Flat) – Non-Combustible Construction: 20'-0" - 35'-0" setback zone for non-combustible construction only. Zone A shall be maintained by the Homeowner or LLMD.

Zone B – Wet Zone (100% Removal Undesirable Plant Species): First 50'-0" –200'-0" from Zone A. Zone B shall be permanently irrigated, fully landscaped with approved drought tolerant, deep rooted, moisture retentive material. This zone shall be planted with container shrub material and hydroseeded per SBFD approved plant list. Handseeding of bare areas may need to be performed six months after hydroseeding establishment period. Zone B area shall be maintained by LLMD.

Zone C – Dry Zone (50% Thinning Native Shrubs): 40'-0" – 185'-0" Zone C shall be a non-irrigated area. Removal of all flammable undesirable species, specimen and trees shall be retained as directed by the owner's representative but must be thinned a minimum of 50% including removal of all low hanging foliage within (3x) three times the height of the understory shrubs or (10) - ten feet, whichever is greater, along with dead or broken branches. All accumuated plant debris on the ground shall be removed. Zone C area shall be maintained by LLMD

Roadside Brush Clearance: Removal of all undesired plant species and thinning of at least 50% of all vegetation within 20'-0" of curb.

Fuel Modification Plant Palette: Plant material must be on approved plant palette. Plant material on the Plant Removal List is not allowed in this zone. This zone shall be irrigated and be maintained by the LLMD.

Brush Clearance: 50% brush clearance shall consist of removal of all dead and dying shrubs and all plant material on the Plant Removal List located around water tanks.

Irrigated Manufactured Slope: Planted and irrigated manufactured slope, maintained on a year round basis.

Building Setback: 25' - 50' building setback. No combustible construction allowed. Planting material must be from the Fuel Modification Plant Palette.

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Figure 3.19 Fuel Modification Section 1-1

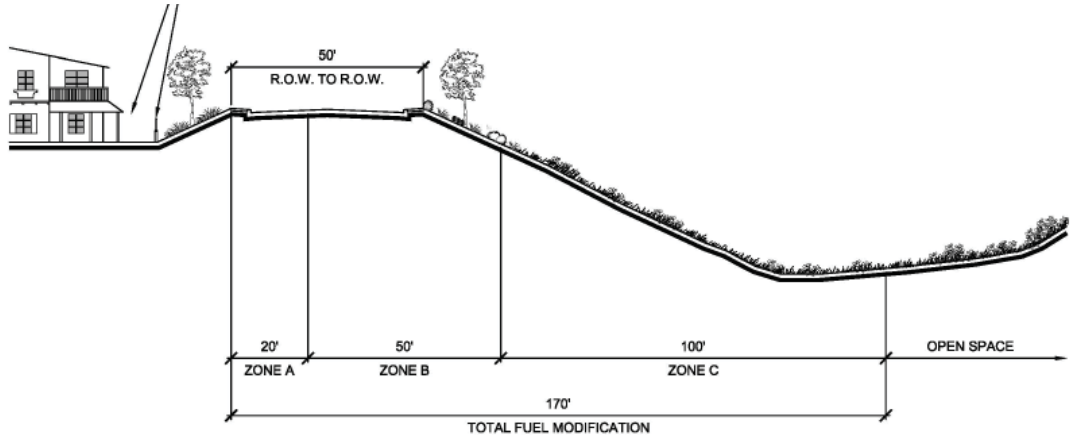

Figure 3.20 Fuel Modification Section 2-2

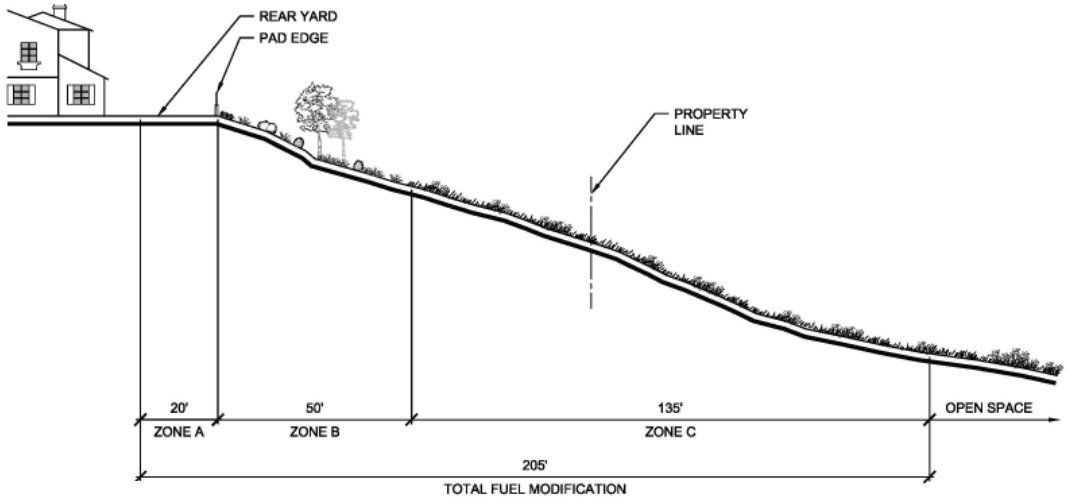

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Figure 3.21 Fuel Modification Section 3-3

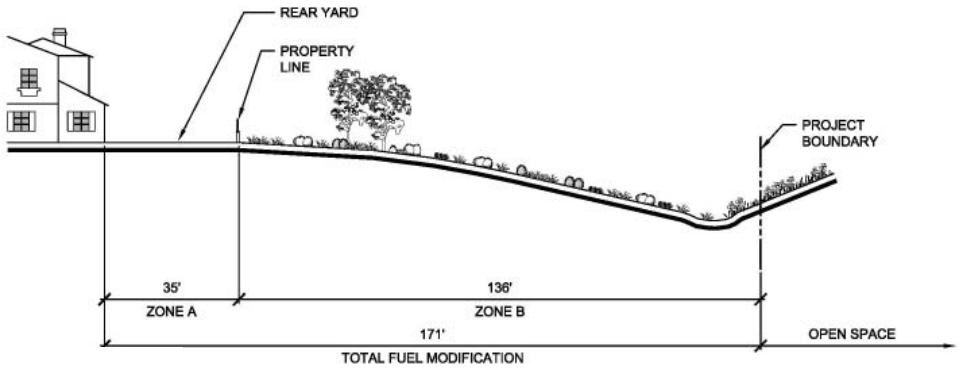

Figure 3.22 Fuel Modification Section 4-4

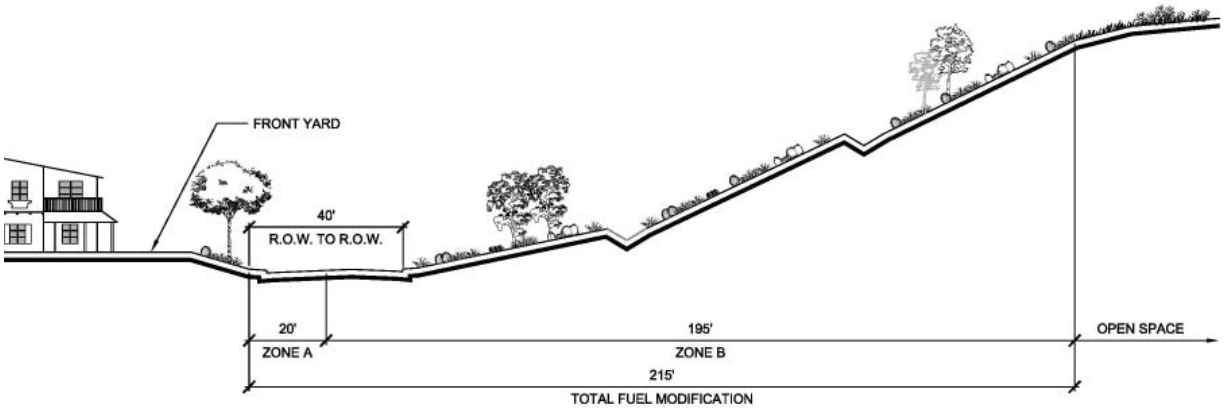

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Figure 3.23 Fuel Modification Section 5-5

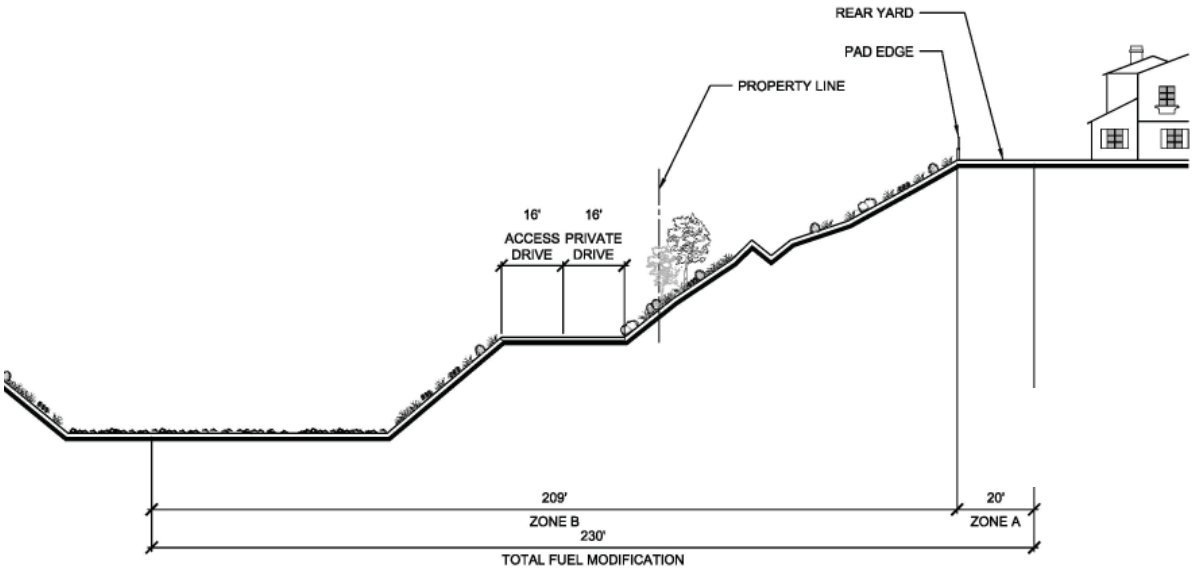

Figure 3.24 Fuel Modification Section 6-6

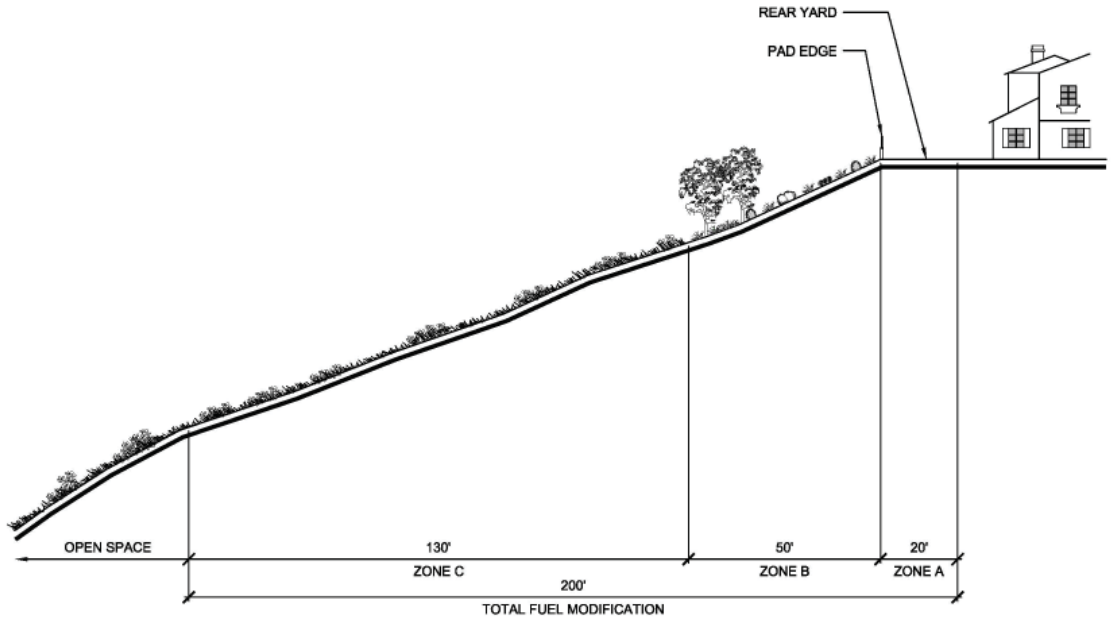

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Figure 3.25 Fuel Modification Section 7-7

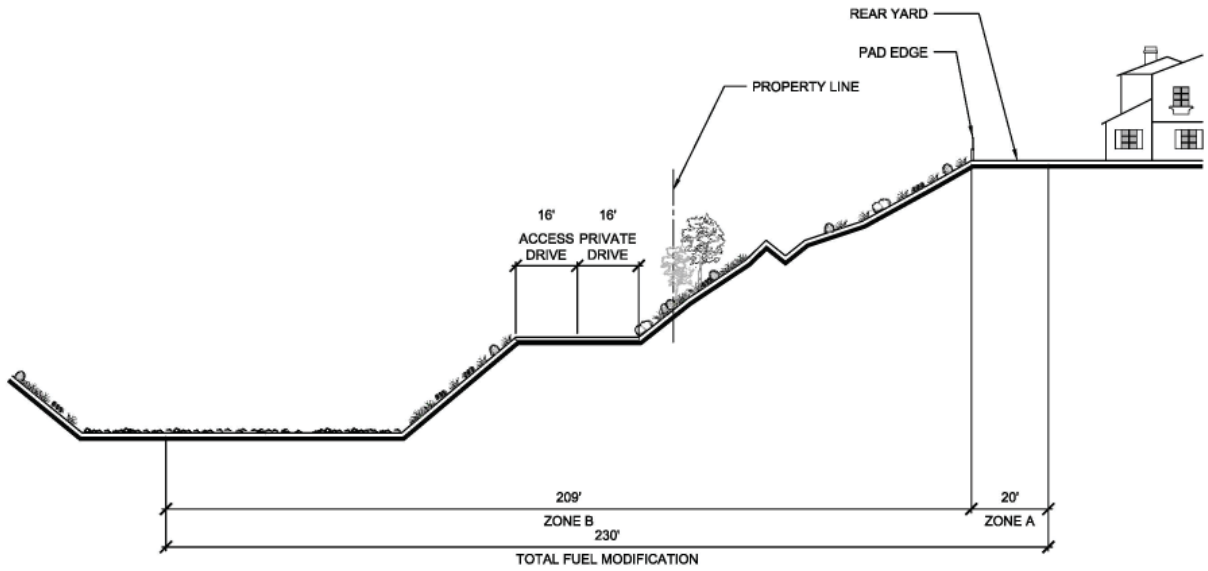

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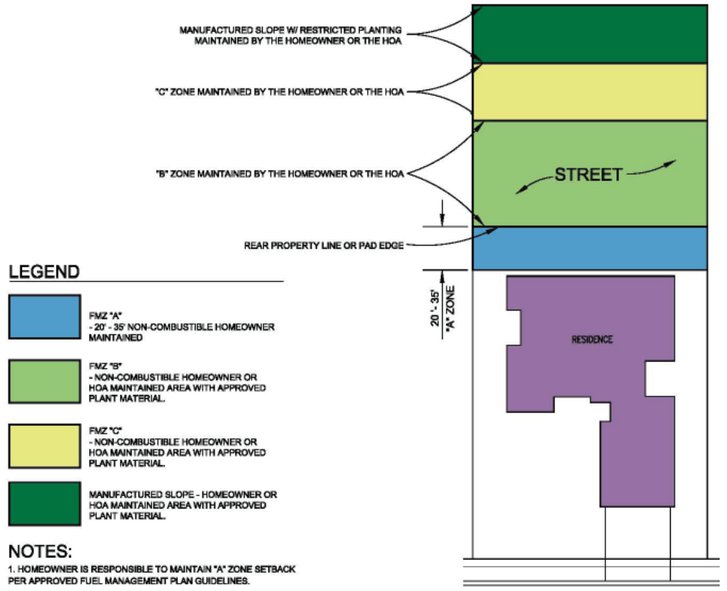
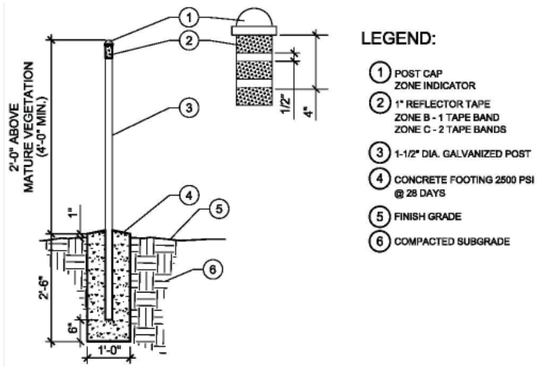
Figure 3.26 Fire Protection Plan Details

TYPICAL FUEL MODIFICATION AND CONSTRUCTION



IDENTIFICATION MARKER DETAIL



CONSTRUCTION REQUIREMENTS

The requirments of this Chapter shall be applicable tp those properties located in Foothill Fire Zones A, B, or C as defined in Chapter 19.15. (Ord. MC - 1163, 1-20-04; Ord. MC - 1162, 1-05-04; Ord. MC - 960, 3-4-96)

A. 1. All exterior elements, including, but not limited to walls, overhangs, garage doors, fences, fascias, ect., shall be free from exposed wood (e.g. minimum ⅞" stucco protection). (A+B, and C where abuts wildlands)

Exception: Entry doors, windows, and door and window jambs.

2. Vinyl window frame assemblies shall be prohibited, except when they have the following characteristics:

a) Frames and sash are comprised of vinyl material with welded corners;
b) Metal reinforcement is the interlock area;
c) Glazed with insulated glass or tempered;
d) Frame and sash profiles are certified in AAMA Lineal Certification Program (verified with either an AAMA product label or Certified Products Directory); and
e) Certified and labeled to ANSIA/AAMA/NWWDA 101/I.S.2-97 for structural requirements.
f) Except when needed to meet the requirements of the California Energy Code at Title 24, Part 6 of the California Code regulations.

B. All glazing shall be double-paned and meet California Building Code requirements. (A+B+C)

C. No attic vent shall be placed facing the foothills/wildland. (A+B, and C where abuts wildlands) All vents shall be covered with ⅛ inch mesh corrosion-resistant metal screen or the approved material that offers equivalent protection.

D. Roof mounted turbine vents shall not be permitted. (A+B+C)

E. All roof coverings shall be of non-wood materials with at least a Class A or B fire retardant rating. (A+B+C)

F. The open ends of high-profile tile roofs shall be capped with non-ignitable material to prevent birds' nests or other combustible material from accumulating. (A+B+C)

G. All new residential structures (exccept those rebuilt due to damage or destruction from any one common fire or other catastrophe) shall be provided with automatic fire sprinklers. If the floor area of an existing dwelling is increased more than 60%, the entire dwelling must be retrofitted to meet this requirement. The design and installation shall be approved by the City Fire Department. (A+B, and C where abuts wildlands) (Ord. MC-960, 3-4-96)

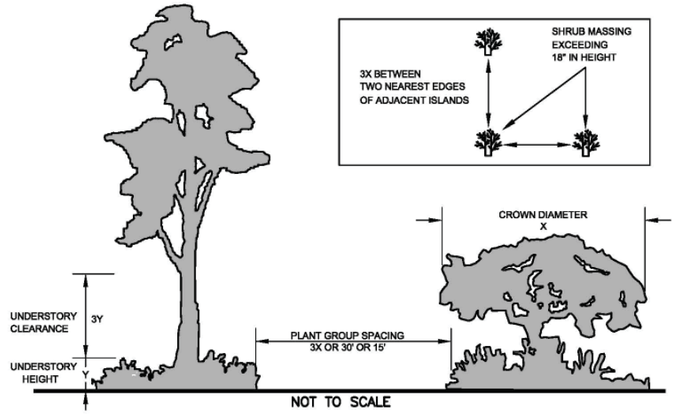
H. Insulation. Paper-faced insulation shall be prohibited in attics or ventilated spaces.

FUEL MODIFICATION PLANT PALLETTE (refer to Figures 3.17 and 3.18)

TREES

Scientific Name	Common Name
Alnus rhombifolia	White Alder
Eriobotrya japonica	Loquat
Heteromles arbutifolia	Toyon
Juglans californica	California Black Walnut
Lagerstromeia indica 'Tuskogee'	Crape Myrtle, Multi Trunk
Lagerstromeia indica 'Watermelon red'	Crape Myrtle, Multi Trunk
Lagerstromeia indica 'Samuel Sommer"	Crape Myrtle, Multi Trunk
Pistacia chinensis	Chinese Pistache
Platanus racemosa	California Sycamore
Quercus agrifolia	Coast Live Oak
Quercus ilex	Holly Oak
Quercus kelloggii	California Oak
Quercus suber	Cork Oak
Rhus lancea	African Sumac
Ulmus parvifolia	Chinese Evergreen Elm

TREE AND TREE-FORM SHRUB PRUNING AND SPACING FOR NEW PLANTINGS AND THINNING ZONES



1. UNDERSTORY CLEARANCE. NEW AND EXISTING TREES AND TREE-FORM SHRUBS (NATURALLY REACHING 4' AND TALLER), WHICH ARE BEING RETAINED WITH THE APPROVAL OF THE AGENCY HAVING JURISDICTION, SHALL BE PRUNED TO PROVIDE CLEARANCE OF THREE TIMES THE HEIGHT OF THE UNDERSTORY PLANT MATERIAL OR 10 FEET, WHICHEVER IS GREATER (SEE FIGURE ABOVE). NEW TREES AND TREE-FORM SHRUBS MAY COMPLY WITH THE LESSER IF SUFFICIENT HEIGHT IS NOT AVAILABLE TO ACHIEVE 10 FEET. DEAD AND EXCESSIVELY TWIGGY GROWTH SHALL BE REMOVED.

2. PLANT GROUP SPACING.
   A. TREES AND TREE-FORM SHRUBS SHALL BE SINGLE SPECIMENS OR IN A MAXIMUM GROUPING OF THREE PLANTS. GROUPINGS SHALL BE SEPARATE BY A DISTANCE OF THREE TIMES THE DIAMETER OF THE LARGEST INDIVIDUAL MATURE CROWN OR 15 FEET, WHICHEVER IS GREATER (SEE FIGURE ABOVE).

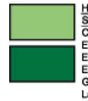
   B. TREE SHALL BE SINGLE SPECIMENS OR IN A MAXIMUM GROUPING OF THREE PLANTS. GROUPING SHALL OTHER LIMITED GROUPING ARRANGEMENTS AND SPACING MAY BE ACCEPTABLE IF APPROVED BY SBFD SEPARATED BY DISTANCE OF THREE TIMES THE DIAMETER OF THE LARGEST INDIVIDUAL MATURE CROWN OR 30 FEET, WHICHEVER IS GREATER (SEE FIGURE ABOVE). OTHER LIMITED GROUPING ARRANGEMENTS AND SPACING MAY BE ACCEPTABLE IF APPROVED BY SBFD

   C. PLANT SPECIMENS LISTED IN THE SBFD "APPROVED PLANT PALETTE-QUALIFICATION STATEMENTS FOR SELECT PLANT SPECIES" SHALL COMPLY WITH PLANT GROUPINGS AND SPACING REQUIREMENTS SPECIFIED IN THOSE RESTRICTIONS.

Scientific Name	Common Name
Photinia fraseri	Red Tip Photinia
Pennisetum setaceum 'Little Bunny'	Dwarf Red Fescue
Pittosporum tobira	Tobira
Prunus caroliniana 'Bright n Tight'	Flowering Plum
Pyracantha species	Firethorn
Rhaphiolepis indica 'Dancer'	Indian Hawthorn
Rhus integrifolia	Lemonade Berry
Rhus ovata	Sugar Bush
Ribes indecorum	White-flowered Currant
Romneya coulteri	Matilija Poppy
Rosmarinus officinalis	Rosemary
Trachelospermum jasminoides	Star Jasmine
Trichostema lanatum	Wholly Blue Curls
Viburnum japonicum	Japanese Viburnum
Xylosma congestum	Shiny Xylosma

GROUDCOVERS

Scientific Name	Common Name
Baccharis pilularis	Twin Peaks #2
Bougainvillia 'Oh la la'	Bougainvillia
Ceanothus griseus horizontalis	Yankee Point
Frankenia salina	Alkali Heath
Hypericum calycinum	St. John's Wart
Lantana sp.	Lantana
Lonicera japonica 'Halliana'	Hall's Honeysuckle
Myoporum parvifolium 'Pink'	Pink Myoporum
Myoporum "pacificum"	Myoporum
Pelargonium peltatum	Ivy Geranium
Sisyrinchium bellum	Blue Eyed Grass
Trachelospermum jasminodes	Star Jasmine



VINES

Scientific Name	Common Name
Ficus pumilia	Creeping Fig
Gelsemium sempervirens	Carolina Jessamine
Parthenocissus tricuspidata	Boston Ivy

HYDROSEED MIX

Scientific Name	Common Name
Clarkia bottae	Farewell To Spring
Eschscholzia californica	California Poppy
Encelia californica	California Encelia
Eriophyllum confertiflorum	No Common Name
Gnaphalium californicum	California Everlasting
Lasthenia californica	Dwarf Goldfields
Lupinus bicolor	Lupine
Mimulus aurantiacus	Bush Monkeyflower
Nemophila menziesii	Baby Blue Eyes
Plantago erecta	Dwarf Plantain

NOTE:
GROUNDCOVER NOT TO EXCEED 18" IN HEIGHT PER CITY OF SAN BERNARDINO STANDARDS.

firesafe PLANNING SOLUTIONS

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Building Construction/Protection Systems

By themselves, the setbacks, materials, and methods stipulated in the fuel modification zones are not enough to prevent structures from igniting. Airborne embers can ignite fires great distances from the flames themselves. Many homes actually burn from the inside out due to embers blowing into attic vents or under barrel tiles. Therefore, structures in Spring Trails shall adhere to the following standards:

- All structures shall be equipped with automatic fire sprinklers built per the specifications of the SBFD.
- Roof coverings shall be a minimum Class A roof assembly.
- All structures within 200 feet of a fuel modification edge, as shown on Figures 3.17 and 3.18, shall receive enhanced construction on all four sides of the structure per California Building Code, Chapter 7A. In addition, the following requirements from San Bernardino Municipal Code Chapter 15.10 shall apply:
  - Fencing, fascias, patios, exterior trim, and other exterior elements shall be of approved noncombustible or ignition-resistant material.
  - Vinyl window frame assemblies shall have the following characteristics:
    - Frames shall have welded corners and metal reinforcement in the interlock area,
    - Dual-paned insulated glazed units with at least one pane of tempered glass,
    - Frame and sash profiles are certified in AAMA Lineal Certification Program (verified by an AAMA product label or a Certified Products Directory),
    - Certified and labeled to ANSI/AAMA/NWWDA 101/I.S.2-97 for structural requirements.
  - Attic and underfloor vents shall be protected by corrosion-resistant noncombustible wire mesh with maximum 1/8-inch openings or provide equivalent protection. Attic vents shall not face wildlands.
  - Roof-mounted turbine vents shall not be permitted.
  - All roof coverings shall be of nonwood materials with at least a Class A fire-retardant rating.
  - Paper-faced insulation shall be prohibited in attics or ventilated spaces.
  - There shall be four exterior hose bibs per house.
- All structures within Spring Trails but outside of the area 200 feet from a fuel modification zone edge, as shown on Figures 3.17 and 3.18, shall receive Enhanced Construction on all four sides of the structure per

California Building Code, Chapter 7A, Phase II, regarding roofing, venting, and rain gutters only.

Ongoing Education

In addition to the built-in fuel modification zones and construction techniques, the active participation of the homeowners is necessary to adequately protect Spring Trails. Accordingly, the following shall be required:

- The fire threat, fuel modification zone requirements, maintenance responsibilities, protection plans, approved plant palette, list of unacceptable plants, preventative measures, and evacuation routes shall be disclosed to potential homebuyers prior to the sale of any residence and readily available to homeowners upon request.
- The HOA shall sponsor annual clinics conducted by fire professionals to educate residents on the fire threat, fuel modification zone requirements, maintenance responsibilities, protection plans, landscaping requirements, preventative measures, and evacuation routes.

Safety Plan

Postfire/Flood Recovery Plan

Hillsides that have burned as a result of wildfires may be subject to debris flows, which can fill downstream drainage corridors, debris basins, and flood control channels beyond their capacity. Accordingly, the following shall be required:

- Prior to issuance of building permits, a postfire/flood recovery plan shall be in place to address the maintenance of drainage facilities and debris removal after a significant fire or flooding event. The recovery plan shall be developed with input from the City of San Bernardino, San Bernardino County Flood Control District, and the Spring Trails landscape maintenance district and/or homeowners association.

Seismic/Geologic Safety

Spring Trails is in the San Andreas Fault zone and includes three traces of the San Andreas Fault, which runs in an east–west direction through the northern and southern portions of the project site (see Figure 1.3). These faults were precisely located through detailed geologic investigations (see the EIR appendices) to establish safe structural setback limits.

Due to the potential seismic and geologic hazards, proposed development in Spring Trails is subject to the following:

- All structures in Spring Trails shall be required to meet or exceed the applicable seismic design standards of the California Building Standards Code, which correspond to the level of seismic risk in a given location.
- Construction of habitable buildings shall not occur over or within 50 feet of any known active fault or as required by the geotechnical analyses.
- No water reservoir or booster pump station shall be constructed within 15 feet of an active fault.
- Grading for building pads and roads shall conform to specifications of the geologist, based on a soils study and final geotechnical study.
- Flexible materials and joints shall be used for infrastructure (e.g., roads, sewer and water lines) located across known faults.
- Flexible pipe fittings shall be used to avoid gas or water leaks. Flexible fittings are more resistant to breakage.
- The final project grading plan shall be reviewed by the City geologist.

Wildlife Corridors

As described in Chapter 1, Spring Trails contains two important corridors for wildlife movement: 1) the unnamed tributary of Cable Creek that flows in an east-to-west direction in the northern third of the project site (northern corridor); and 2) the outwash of Cable Creek adjacent to the Interstate 215 freeway (southern corridor).

The northern corridor is crossed by an access roadway in two locations and the secondary access road crosses the southern corridor. As shown in Figure 3.27, Spring Trails preserves these corridors as natural drainageways, open space, and wildlife movement, even under the roadway crossings. Accordingly, the following requirements apply the corridors:

Northern Corridor

- As shown on Figure 3.27, the northern corridor shall be a minimum 100 foot wide open space corridor with a minimum of 50 feet separation between the nearest development pad and the centerline of the creek.
- Native vegetation within this corridor must be maintained to the maximum extent allowed by the Fire Protection Plan
- Riparian vegetation that provides high-quality foraging opportunities, cover, and other habitat values shall be the preferred vegetation type, unless specifically prohibited by the Fire Protection Plan.
- The corridor shall be maintained free of fences, walls, or other obstructions.
- Any lighting associated with the project in this area, including street lights and residential lights, shall be of the minimum output required and shall be down-shielded to prevent excessive light bleed into adjacent areas.
- Any road crossings, bridges, culverts, etc. shall be constructed with soft bottoms with an openness ratio of at least 0.9 (openness ratio=height x width/length).
- Additional recommendations, as outlined in the report entitled A Linkage Design for the San Gabriel-San Bernardino Connection (South Coast Missing Linkages Project, 2004), may be incorporated as agreed upon by the City Engineer and applicant.

Southern Corridor

- Any bridge, culvert, or other road crossing structure shall be designed in such a manner as to allow for the natural drainage flow through/under

the structure and downstream of the structure, as conditioned by the U.S. Fish and Wildlife Service during the Section 7 permitting process.

- Any road crossings, bridges, culverts, etc. shall be constructed with soft bottoms with an openness ratio of at least 0.9 (openness ratio=height x width/length).
- Additional recommendations as outlined in the report entitled A Linkage Design for the San Gabriel-San Bernardino Connection (South Coast Missing Linkages Project, 2004) may be incorporated as agreed upon by the City Engineer and applicant.

These measures shall be incorporated into site development plans, and must be reviewed and approved prior to the issuance of grading permits. These requirements shall be implemented to the satisfaction of the Community Development Director.

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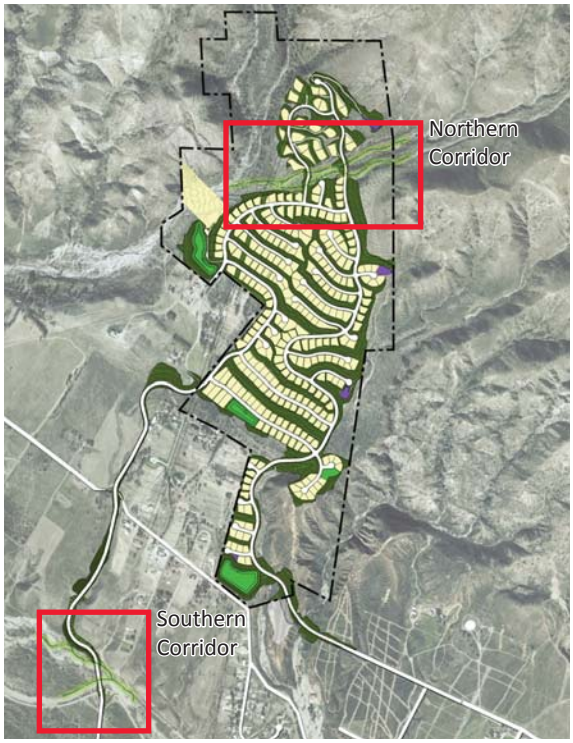
Figure 3.27 Wildlife Corridors

Northern Corridor

Southern Corridor

Location Map



Legend

- Wildlife Road Crossing
- Wildlife Corridor (100' minimum width)

Refer to Page 3-74 for standards and guidelines related to wildlife corridors and crossings.

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Landscape Plan

Landscape Theme

The Spring Trails landscape has been designed to reflect the natural beauty of the surrounding environment and elements of sustainability. Plant materials have been chosen based on the area's environmental conditions and fire protection needs, as well as the aesthetics they will bring to the community. The landscape is designed to enhance the walkability of the community by leading residents to parks and open space. The landscape design guidelines for Spring Trails are intended to guide the project developer by describing the design intent for the landscape features and amenities of Spring Trails. The landscape design concept is intended to create elements of design continuity to reinforce a "sense of place" for the community as a whole.

Examples of the types of the variety of landscaping that can be found in Spring Trails.

Landscape Zones

The intent of designating landscape zones is to seamlessly and naturally blend the community landscape with the surrounding natural environment. Plant material proposed for each landscape zone is consistent with the landscape zones plant palette described in Table 3.6. The designated landscape zones are shown in Figure 3.28, *Landscape Zones*, and are described below.

Natural Open Space Zone

The natural open space zone contains a mixture of Riversidean sage scrub, chaparral, nonnative grassland, and several riparian and woodland communities. This area is generally located in the perimeter areas of Spring Trails outside of the fuel modification zones and will be preserved. If any intentional or unintentional grading occurs within this zone, the development contractor shall restore this zone to its original state.

Transition Open Space Zone

The transition open space zone is primarily located on the perimeter, ungraded slopes of the development footprint and provides an interface between natural open space areas and the more formal landscape of the residential neighborhoods. The transition open space zone is intended to be planted in such a manner as to blend into the ungraded natural areas. This zone is in fuel modification zone C and plant materials in the transition open space zone shall be on the approved fuel modification plant palette found in Table 3.6.

Refined Open Space Zone

The refined open space zone generally consists of open space areas within Spring Trails and includes natural and manufactured slopes and the SCE power line easement. Portions of the refined open space zone are in fuel modification

zones A and B, and plant materials in the refined open space zone shall be on the approved Landscape Zones Plant Palette in Table 3.6.

Theme Zone

The theme zone occurs in parks and along streets in Spring Trails. The streetscape plant palette should provide a unifying theme and a sense of permanence. It is also intended that the landscape features within this zone, such as entry monuments, also provide character supportive to the landscape theme of Spring Trails, setting the tone and establishing the uniqueness of the community.

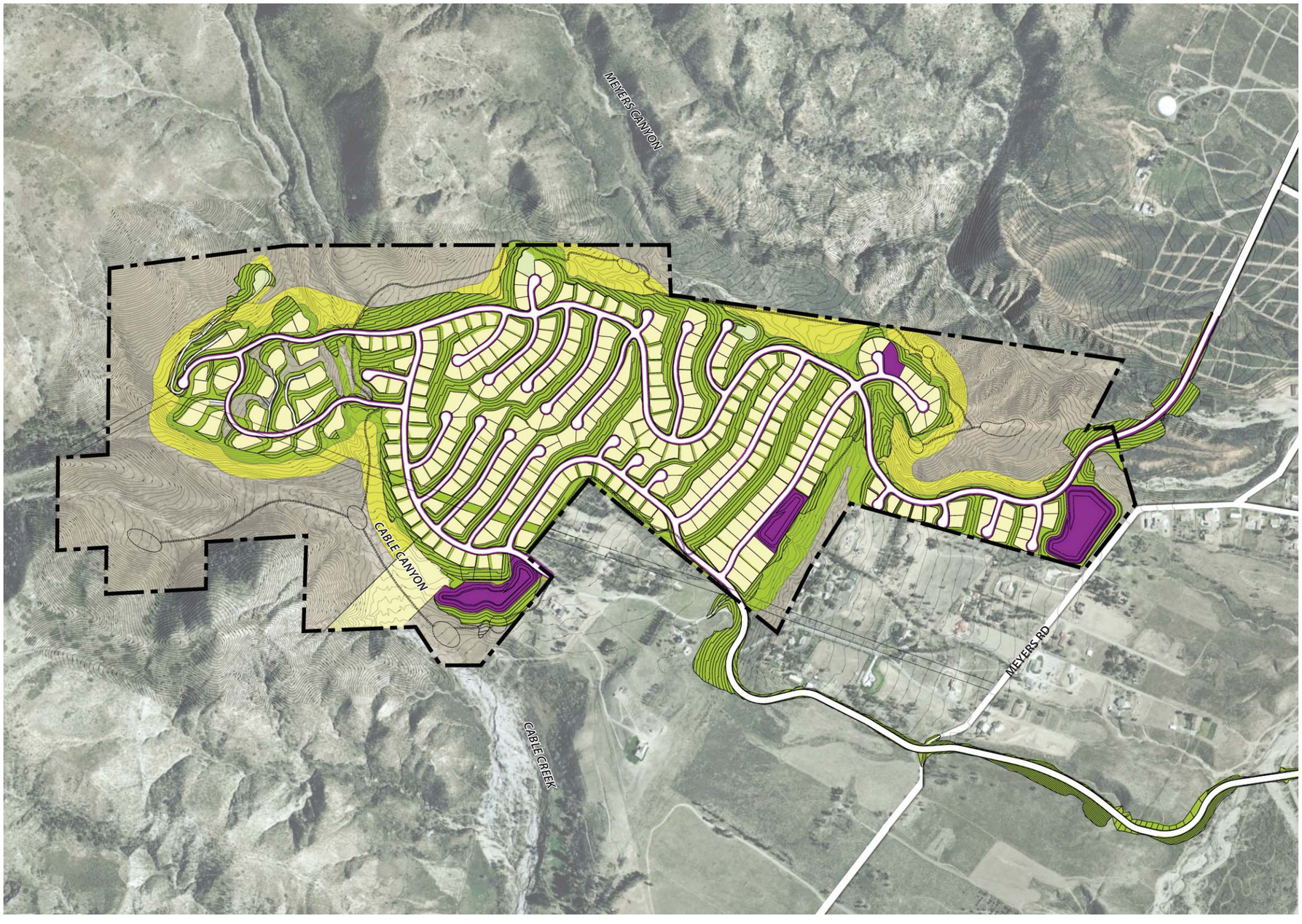
Landscape Plant Palette

The plant palette presented in Table 3.6 contains plant species appropriate for each landscape zone in Spring Trails (refer to Figure 3.28, *Landscape Zones*). All plant materials presented in Table 3.6 are approved for use within the fuel modification zones of Spring Trails. Proposed plant materials and their location shall be consistent with the Spring Trails Fuel Modification Plan described in Section 3 and contained in Appendix C.

Landscape Zones Plant Palette

The plant palette presented in Table 3.6 shall be used as the landscape selection along streets, parks, and in developed and controlled open space areas. All plant materials contained in Table 3.6 are approved for use within the fuel modification zones in Spring Trails.

Figure 3.28 Landscape Zones



Legend

- Residential
- Natural Open Space Zone
- Transition Open Space Zone
- Refined Open Space Zone
- Theme Zone

NOT TO SCALE

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Table 3.6 Landscape Zones Plant Palette

Botanical Names	Common Names	Transition Open Space Zone	Refined Open Space Zone	Theme Zone	Notes
Trees					
Acer macrophyllum	Big Leaf Maple	p	p	p	o
Alnus cordata	Italian Alder		p	p	W
Alnus rhombifolia	White Alder		p	p	o
Arbutus unedo	Strawberry Tree		p	p	W
Beaucarnea recurvata	Bottle Palm		p	p	W
Ceratonia siliqua	Carob		p	p	W
Cercis occidentalis	Western Redbud		p	p	W
Citrus species	Citrus		p	p	W
Eriobotrya japonica	Loquat	p	p	p	N
Erythrina species	Coral Tree		p	p	W
Feijoa sellowiana	Pineapple Guava	p	p	p	N
Ginkgo biloba	Maidenhair Tree		p	p	W
Juglans californica	California Black Walnut	p	p	p	N
Lagerstroemia indica	Crape Myrtle		p	p	W
Lagunaria patersonii	Primrose Tree		p	p	W
Liquidambar styraciflua	American Sweet Gum		p	p	W n
Liriodendron tulipfera	Tulip Tree		p	p	W
Lyonothamnus floribundus ssp. *asplenifolius*	Fernleaf Ironwood		p	p	W
Macadamia integrifolia	Macadamia Nut		p	p	W
Maytenus boaria	Mayten Tree		p	p	W
Metrosideros excelsus	New Zealand Christmas Tree		p	p	N
Parkinsonia aculeata	Mexican Palo Verde			p	X
Pistacia chinesis	Chinese Pistache		p	p	W
Pittosporum tobira	Tobira		p	p	n
Pittosporum undulatum	Victorian Box			p	X
Plantanus racemosa	California Sycamore	p	p	p	W
Popolus fremontii	Western Cottonwood	p	p	p	o
Prunus caroliniana	Carolina Cherry Laurel			p	X
Prunus lyonii	Catalina Cherry			p	X
Punica granatum	Pomegranate		p	p	N
Quercus agrifolia	Coast Live Oak	p	p	p	o
Quercus engelmannii	Engelmann Oak			p	X
Quercus ilex	Holly Oak		p	p	W
Quercus kelloggii	California Oak	p	p	p	N
Quercus suber	Cork Oak		p	p	X

Table 3.6 Landscape Zones Plant Palette

Botanical Names	Common Names	Transition Open Space Zone	Refined Open Space Zone	Theme Zone	Notes
Rhus lancea	African Sumac		p	p	N
Sambucus mexicana	Mexican Elderberry	p	p	p	o
Stenicarpus sinuatus	Firewheel Tree		p	p	W
Umbellularia californica	California Laurel	p	p	p	o
Shrubs					
Abelia x grandiflora	Glossy Abelia		p	p	W
Acacia redolens 'Desert Carpet'	Desert Carpet	p		p	n
Achillea millefolium	Common Yarrow	p	p	p	X
Achillea tomentosa	Woolly Yarrow	p	p	p	W
Aloe arborescens	Tree Aloe		p	p	N
Alogyne huegeii	Blue Hibiscus		p	p	W
Amorpha fruticosa	Western False Indigobush	p	p	p	o
Antirrhinum nuttalianum ssp.	no common name	p	p	p	o
Arctostaphylos glandulosa ssp.	Eastwood Manzanita	p	p	p	o
Arctostaphylos hookeri 'Monterey Carpet'	Monterey Carpet Manzanita		p	p	W
Arctostaphylos pungens	no common name		p	p	N
Arctostaphylos refugioensis	Refugio Manzanita		p	p	N
Arctostaphylos x 'Greensphere'	Greensphere Manzanita		p	p	W
Atriplex canescens	Four-Wing Saltbush			p	X
Atriplex lentiformis ssp. *breweri*	Brewer Saltbush			p	X
Baccharis emoyi	Emory Baccharis	p	p	p	o
Baccharis salicifolia	Mulefat	p	p	p	o
Bacharis pilularis ssp. *consanguinea*	Chaparral Bloom	p	p	p	W o
Bougainvillea spectabilis	Bougainvillea		p	p	N n
Brickellia californica	no common name	p	p	p	o
Camissonia cheiranthifiloa	Beach Evening Primrose	p	p	p	o
Carpenteria californica	Bush Anemone		p	p	W
Ceanothus gloriosus 'Point Reyes'	Point Reyes Ceanothus		p	p	W
Ceanothus griseus 'Louis Edmunds'	Louis Edmunds Ceanothus		p	p	W
Ceanothus griseus var. horizontalis	Carmel Creeper Ceanothus		p	p	W
Ceanothus griseus var. horizontalis	Yankee Point Ceanothus		p	p	W
Ceanothus megarcarpus	Big Pod Ceanothus	p	p	p	o
Ceanothus prostratus	Squaw Carpet Ceanothus		p	p	W
Ceanothus spinosus	Green Bark Ceanothus	p	p	p	o

Table 3.6 Landscape Zones Plant Palette

Botanical Names	Common Names	Transition Open Space Zone	Refined Open Space Zone	Theme Zone	Notes
Ceanothus verrucosus	Wart-Stem Ceanothus		p	p	W
Cistus hybridus	White Rockrose		p	p	W
Cistus incanus	no common name		p	p	W
Cistus incanus ssp. *Corsicus*	no common name		p	p	W
Cistus salviifolius	Sageleaf Rockrose		p	p	W
Cistus x purpureus	Orchid Rockrose		p	p	W
Cneoridium dumosum	Bushrue	p	p	p	o
Comarostaphylis diversifolia	Summer Holly		p	p	W o
Convolvulus cneorum	Bush Morning Glory		p	p	N
Coprosma pumila	Prostrate Coprosma		p	p	W
Cotoneaster aprneyi	no common name		p	p	W
Cotoneaster buxifolius	no common name		p	p	W
Crassula ovata	Jade Tree			p	X
Dendromecon rigida	Bush Poppy	p	p	p	o
Dodonaea viscosa	Hopseed Bush		p	p	N
Echium candians	Pride of Maderia		p	p	W
Elaeagnus pungens	Silverberry		p	p	W
Encelia californica	California Encelia	p	p		o
Epilobium canum [Zauschneria californica]	Hoary California Fuschia	p	p	p	o *
Eriodictycon crassifolium	Thick Leaf Yerba Santa	p	p	p	o
Eriodictycon trichocalyx	Yerba Santa	p	p	p	o
Eriophyllum confertiflorum	no common name	p	p		W o
Escallonia species	Several varieties		p	p	N
Fremontondendron californicum	California Flannelbush		p	p	W
Galvezia speciosa	Bush Snapdragon		p	p	W
Garrya ellipta	Silktassel		p	p	W
Grevillea 'Noellii'	Grevillea	p	p	p	
Grewia occidentalis	Starflower		p	p	W
Hakea suaveolens	Sweet Hakea		p	p	N n
Hardenbergia comptoniana	Lilac Vine		p	p	W
Helianthemum scoparium	Rush Rose	p	p	p	o
Heteromeles arbutifolia	Toyon	p	p	p	o n
Hypericum calycimum	Aaron's Beard			p	X
Isocoma menziesii	Coastal Goldenbush	p	p	p	o
Isomeris arborea	Bladderpod	p	p	p	o
Keckiella antirrhinoides	Yellow Bush Penstemon	p	p	p	o
Keckiella cordifolia	Heart Leaved Penstemon	p	p	p	o

Table 3.6 Landscape Zones Plant Palette

Botanical Names	Common Names	Transition Open Space Zone	Refined Open Space Zone	Theme Zone	Notes
Keckiella ternata	Blue Stemmed Bush Penstemon	p	p	p	o
Lantana camara cultivars	Yellow Sage		p	p	W
Lantana montevidensis	Trailing Lantana		p	p	W
Lavandula dentata	French Lavender		p	p	W
Lavandula stoechas 'Otto Quast'	Spanish Lavender		p	p	
Leptospermum laevigatum	Australian Tea Tree		p	p	W
Leucophyllum frutescens	Texas Ranger		p	p	W
Ligustrum japonicum	Texas privet		p	p	N
Limonium perezii	Sea Lavender			p	X
Lonicera japonica 'Halliana'	Hall's Japanese Honeysuckle			p	X
Lonicera subspicata	Wild Honeysuckle	p	p	p	o
Lotus scoparius	Deerweed	p	p	p	o
Mahonia aquifolium 'Golden Abundance'	Golden Abundance Oregon Grape	p	p	p	W
Mahonia nevenii	Nevin Mahonia		p	p	W
Malacothamnus fasciculatus	Chapparal Mallow	p	p	p	o
Melaleuca nesophila	Pink Melaleuca		p	p	W
Myoporum debile	no common name		p	p	N
Myoporum insulare	Boobyalla		p	p	W
Nerium oleander	Oleander			p	X
Nolina cismontana	Chapparal Nolina	p	p	p	o
Nolina species	Mexican Grasstree		p	p	N
Osmanthus fragrans	Sweet Olive		p	p	W
Penstemon species	Beard Tongue			p	X
Photinia fraseria	no common name		p	p	W
Plumbago auritulata	Plumbago Cape		p	p	W
Portulacaria afra	Elephant's Food			p	X
Potentilla glandulosa	Sticky Cinquefoil	p	p	p	o
Prunus caroliniana 'Bright 'n Tight'	Flowering Plum		p	p	W
Prunus ilicifolia ssp. *Ilicifolia*	Holly Leafed Cherry	p	p	p	o
Puya species	Puya		p	p	W
Pyracantha species	Firethorn	p	p		W
Quercus berberdifolia	California Scrub Oak	p	p	p	o n *
Quercus dumosa	Coastal Scrub Oak	p	p	p	o n *
Rhamnus alaternus	Italian Buckthorn			p	X
Rhamnus californica	California Coffee Berry	p	p	p	o
Rhamnus crocea	Redberry	p	p	p	o

Table 3.6 Landscape Zones Plant Palette

Botanical Names	Common Names	Transition Open Space Zone	Refined Open Space Zone	Theme Zone	Notes
Rhamnus crocea ssp. *Ilicifolia*	Hollyleaf Redberry	p	p	p	o
Rhaphiolepis species	Indian Hawthorne		p	p	N
Rhus integrifolia	Lemonade Berry	p	p	p	o
Rhus ovata	Sugarbush	p	p	p	o n
Ribes aureum	Golden Currant	p	p	p	o
Ribes indecorum	White Flowering Currant	p	p	p	o
Ribes speciosum	Fuschia Flowering Goosebberry	p	p	p	o
Ribes viburnifolium	Evergreen currant		p	p	W
Romneya coulteri	Matilija Poppy	p	p	p	o *
Romneya coulteri 'White Cloud'	White Cloud Matilija Poppy			p	X
Rosmarinus officinalis	Rosemary		p	p	W n
Salvia greggii	Autums Sage		p	p	W n
Santolina virens	Green Lavender Cotton		p	p	W
Solanum douglasii	Douglas Nightshade	p	p	p	o
Symphoricarpos mollis	Creeping Snowberry	p	p	p	o
Tecoma stans [Stenolobium stans]	Yellow Bells		p	p	W
Trachelospermum jasminoides	Star Jasmine	p	p	p	N
Trichosstems lanatum	Woolly Blue Curls	p	p	p	o
Viburnum japonicum	Japanese Viburnum		p	p	n
Westringia fruticosa	no common name		p	p	W
Xylosma congestum	Shiny Xylosma		p	p	W
Yucca species	Yucca			p	X
Yucca whipplei	Yucca	p	p	p	o
Groundcover					
Aeonium decorum	Aeonium			p	X
Aeonium simsii	no common name			p	X
Agave victoriae-reginae	no common name		p	p	N
Ajuga reptans	Carpet Bugle			p	X
Aloe aristata	no common name		p	p	N
Aloe brevifoli	no common name		p	p	N
Aptenia cordifolia x 'Red Apple'	Red Apple Aptenia			p	X
Arctostaphylos 'Pacific Mist'	Pacific Mist Manzanita		p	p	W
Arctostaphylos edmundsii	Little Sur Manzanita		p	p	W
Arctostaphylos uva-ursi	Bearberry		p	p	W
Artemisia caucasica	Caucasian Artesmisia		p	p	N
Baccharis pilularis var. *pilularis*	Twin Peaks #2'			p	X
Baileya Multiradiata	Desert Marigold		p	p	N

Table 3.6 Landscape Zones Plant Palette

Botanical Names	Common Names	Transition Open Space Zone	Refined Open Space Zone	Theme Zone	Notes
Bougainvillea 'Oh la la'	Bougainvillea		p	p	n
Carissa macrocarpa	Green Carpet Natal Plum		p	p	N
Carpobrotus chilensis	Sea Fig Ice Plant			p	X
Ceanothus griseus horizontalis	Yankee Point		p	p	W
Cerastium tomentosum	Snow-in-Summer		p	p	W
Chrysanthemum leucanthemum	Oxeye Daisy			p	X
Cistus crispus	no common name		p	p	W
Coprosma kirkii	Creeping Coprosma		p	p	W
Corea pulchella	Australian Fuscia		p	p	N
Coreopsis lanceolata	Coreopsis		p	p	W
Cotoneaster congestus 'Likiang'	Likiang Cotoneaster		p	p	W
Cotoneaster horizontalis	Rock Cotoneaster		p	p	W
Crassula lactea	no common name			p	X
Crassula multicava	no common name			p	X
Crassula tetragona	no common name			p	X
Croton californicus	California Croton	p	p	p	W o
Delosperma 'Alba'	White trailing Ice Plant			p	X
Drosanthemum floribundum	Rosea Ice Plant			p	X
Drosanthemum hispidum	no common name			p	X
Drosanthemum speciosus	Dewflower			p	X
Euonymus fortunei	Winter Creeper Euonymus		p	p	N
Festuca ovina 'Glauca'	Sheep Fescue		p	p	n
Ficus pumilla	Creeping Fig	p	p	p	n
Fragaria chiloensis	Wild Strawberry/Sand Strawberry		p	p	N
Frankenia salina	Alkali Heath	p	p	p	o
Gaillardia x grandiflora	Blanketflower			p	X
Gazania hybrids	South African Daisy			p	X
Gazania rigens leucolaena	Training Gazania			p	X
Gelsemium sempervirens	Carolina Jessamine	p	p	p	n
Grindelia stricta	Gum Plant	p	p	p	o
Heliathemum mutabile	Sunrose		p	p	N
Heliotropium curassavicum	Salt Heliotrope	p	p	p	o
Helix canariensis	English Ivy			p	X
Iberis sempervirens	Edging Candytuft		p	p	N
Iberis umbellatum	Globe Candytuft		p	p	N
Iva hayesiana	Poverty Weed		p	p	W
Lampranthus filicaulis	Redondo Creeper			p	X
Lampranthus spectabilis	Trailing Ice Plant			p	X

Table 3.6 Landscape Zones Plant Palette

Botanical Names	Common Names	Transition Open Space Zone	Refined Open Space Zone	Theme Zone	Notes
Lamprathus aurantiacus	Bush Ice Plant			p	X
Leymus condensatus	Giant Wild Rye	p		p	o
Limonium pectinatum	no common name			p	X
Lotus corniculatus	Bird's Foot Trefoil			p	X
Malephora luteola	Training Ice Plant			p	X
Myoporum 'Pacificum'	no common name		p	p	W
Myoporum parvilfolium	no common name		p	p	W
Nassella (stipa) lepidra	Foothill Needlegrass	p	p	p	o
Nassella (stipa) pulchra	Purple Needlegrass	p	p	p	o
Oenothera belandieri	Mexican Evening Primrose		p	p	W
Ophiopogon japonicus	Mondo Grass			p	X
Osteospermum fruticosum	Training African Daisy			p	X
Parthenocissus tricuspidata	Boston Ivy		p	p	W
Pelargonium peltatum	Ivy Geranium		p	p	W
Pennisetum setaceum 'Little Bunny'	Little Bunny Fountain Grass		p	p	W
Plantago sempervirens	Evergreen Plantain			p	X
Potentilla tabernaemontanii	Spring Cinquefoil			p	X
Salvia sonomensis	Creeping Sage		p	p	W n
Santolina chamaecyparissus	Lavender Cotton		p	p	W
Sedum acre	Goldmoss Sedum			p	X
Sedum album	Green Stonecrop			p	X
Sedum confusum	no common name			p	X
Sedum lineare	no common name			p	X
Sedum x rubrotinctum	Pork and Beans			p	X
Senecio serpens	no common name			p	X
Sisyrinchium bellum	Blue Eyed Grass	p	p	p	o
Tecomaria capensis	Cape Honeysuckle			p	X
Teucarium chamedrys	Germander		p	p	N
Thymus serpyllum	Lemon Thyme		p	p	N
Trifolium fragerum 'O'Connor's'	O'Connor's Legume			p	X
Trifolium hirtum 'Hyron'	Hyron Rose Clover			p	X
Verbena peruviana	no common name		p	p	N
Verbena species	Verbena			p	X
Vinca minor	Dwarf Periwinkle			p	X

Table 3.6 Landscape Zones Plant Palette

Botanical Names	Common Names	Transition Open Space Zone	Refined Open Space Zone	Theme Zone	Notes
Vines					
Distinctis buccinatoria	Blood-Red Trumpet Vine		p	p	N
Vitis girdiana	Desert Wild Grape	p	p	p	o
Hydroseed Mix					
Clarkia bottae	Showy Fairwell to Spring	p	p	p	o
Collinsia heterophyllia	Chinese Houses	p	p	p	o
Coreopsis californica	California Coreopsis	p	p	p	o
Eriastrum sapphirinum	Mojave Woolly Star	p	p	p	o
Gnaphalium californicum	California Everlasting	p	p		o
Lasthenia californica	Dwarf Goldfields	p	p	p	o
Lupinus arizonicus	Desert Lupine		p	p	W
Lupinus benthamii	Spider Lupine		p	p	W
Lupinus sparsiflorus	Loosely Flowered Annual Lupine/Coulter's Lupine	p	p	p	o
Nemophilia menziesii	Baby Blue Eyes	p	p	p	o
Plantago erecta	California Plantain	p	p		o
Plantago insularis	Woolly Plantain	p	p	p	**
Cactus					
Opuntia littoralis	Prickly Pear	p	p	p	o *
Opuntia oricola	Oracle Cactus	p	p	p	o *
Opuntia prolifera	Coast Cholla	p	p	p	o *
Flower					
Eschscholzia californica	California Poppy	p	p	p	W o
Lupinus bicolor	Sky Lupine	p	p	p	o
Mimulus species	Monkeyflower	p	p	p	o *
Oenothera hookeri	California Evening Primrose		p	p	N
Grass					
Bromus carinatus	California Brome		p	p	W o
Vulpia myuros 'Zorro'	Zorro Annual Fescue			p	X
Herb					
Dichelostemma capitatum	Blue Dicks	p	p	p	o
Eschscholzia mexicana	Mexican Poppy			p	X
Palms					
Brahea armata	Mexican Blue Palm/Blue Hesper Palm		p	p	N n
Brahea brandegeei	San Jose Hesper Palm		p	p	N n
Brahea edulis	Guadalupe Palm		p	p	N n

Table 3.6 Landscape Zones Plant Palette

Botanical Names	Common Names	Transition Open Space Zone	Refined Open Space Zone	Theme Zone	Notes
Perennials					
Ambrosia chammissonis	Beach Bur-Sage	p	p	p	o
Anigozanthus flavidus	Kangaroo Paw		p	p	W
Artemisia pycnocephala	Beach Sagewort			p	X
Gilia leptantha	Showy Gilia		p	p	W
Gilia tricolor	Bird's Eyes		p	p	W
Gilia capitata	Globe Gilia	p	p	p	o
Hesperaloe parviflora	Red Yucca		p	p	W
Juncus acutus	Spiny Rush	p	p	p	o
Kniphofia uvaria	Red Hot Poker		p	p	W
Lotus hermannii	Northern Woolly Lotus	p	p	p	o
Mirabilis californica	Wishbone Bush	p	p	p	o
Oenothera speciosa	Show Evening Primrose		p	p	W
Satureja chandleri	San Miguel Savory	p	p	p	o
Scirpis scutus	Hard Stem Bulrush	p	p	p	o
Scirpus californicus	California Bulrush	p	p	p	o
Solanum xantii	Purple Nightshade	p	p	p	o
Strelitzia nicolai	Giant Bird of Paradise		p	p	W
Strelitzia reginae	Bird of Paradise		p	p	W
Verbena lasiostachys	Western Vervain	p	p	p	o
Xannithorrhoea species	Grass Tree		p	p	W
Succulents					
Agave attenuata	Century Plant		p	p	W
Agave shawii	Shaw's Century Plant		p	p	W
Aloe vera	Medicinal Aloe		p	p	W
Dudleya lanceolata	Lance-leaved Dudleya	p	p	p	o
Dudleya pulverulenta	Chalk Dudleya	p	p	p	o

p = Permitted

x = Plant species prohibited in wet and dry fuel modification zones adjacent to wildlands. Acceptable on all other fuel modification locations and zones.

W= Plant species appropriate for use in wet fuel modification zones adjacent to wildlands. Acceptable in all other wet and irrigated dry (manufactured slopes) fuel modification locations and zones.

o= Plant species native to local area. Acceptable in all fuel modification wet and dry zones in all locations.

N= Plant species acceptable on a limited basis (maximum 30% of the area) in wet fuel modification zones *adjacent to wild lands*. Acceptable on all other fuel modification zones.

*= If locally collected.

**= Not native but can be used in all zones.

n= Plant species acceptable on a limited use basis. Refer to qualification requirements following plant palette.

Qualification Statements for Select Plant Species

- **Acacia redolens desert carpet.** May be used in the upper half of fuel modification zone B. The plants may be planted at 8-foot on-center, maximum spacing in meandering zones not to exceed a mature width of 24 feet or a mature height of 24 inches.

- **Bougainvillea spectabilis (procumbent varieties).** Procumbent to mounding varieties may be used in the middle levels of fuel modification zone B. The plants may be planted in clusters at 6-foot on-center spacing, not to exceed eight plants per cluster. Mature spacing between individual plants or clusters shall be 30 feet minimum.

- **Brahea armata.** Additional information may be required as directed by the Fire Department.

- **Brahea brandegeel.** Additional information may be required as directed by the Fire Department.

- **Brahea edulis.** May be used in upper and middle levels of fuel modification zone B. The plants shall be used as single specimens with mature spacing between palms of 20 feet minimum.

- **Hakea suaveolens.** May be used in the middle levels of fuel modification zone B. The plants shall be used as single specimens with mature spacing between plants of 30 feet minimum.

- **Heteromeles arbutifolia.** May be used in the middle to lower levels of fuel modification zone B. The plants may be planted in clusters of up to three plants per cluster. Mature spacing between individual plants or clusters shall be 30 feet minimum.

- **Liquidambar styraciflua.** May be used in the middle levels of fuel modification zone B. The plant shall be used as single specimens with mature spacing between trees of 30 feet minimum.

- **Quercus berberdifolia.** Additional information may be required as directed by the Fire Department.

- **Quercus dumosa.** May be used in the middle to lower levels of fuel modification zone B. The plants may be planted in clusters of up to three plants per cluster. Mature spacing between individual plants or clusters shall be 30 feet minimum.

- **Rhus ovata.** May be used in the middle to lower levels of fuel modification zone B of inland areas only. The plants may be planted in clusters of up to 3 plants per cluster. Mature spacing between individual plants or clusters shall be 30 feet minimum.

- **Rosmarinus officinalis.** Additional information may be required as directed by the Fire Department.

- **Salvia greggii.** Additional information may be required as directed by the Fire Department.
- **Salvia sonomensis.** May be used in the middle to upper levels of fuel modification zone B. The plants may be planted in clusters of up to three plants per cluster. Mature spacing between individual plants or clusters shall be 15 feet minimum.

Plant Removal List

The plant materials contained in Table 3.7 are prohibited in Spring Trails and shall be removed from all fuel modification zones and developed areas.

Table 3.7 Plant Removal List

Botanical Names	Common Names
The following plant species shall be removed from all fuel modification zones:	
Adenostoma fasciculatum	Wild Turnip, Yellow Mustard
Adenostoma sparsifolium	Red Shanks
Anthemix cotula	Mayweed
Artemisia californica	California Sagebrush
Brassica nigra	Black Mustard
Brassica rapa	Chamise
Cardaria draba	Noary Cress, Perennial Peppergrass
Centaurea solstitals	Yellow Star Thistle
Cirsium vulgare	Wild Artichoke
Conyza canadensis	Horseweed
Cortaderia selloana	Pampas Grass
Cupressus sp.	Cypress
Cyanra cardunculus	Artichoke Thistle
Datura wrightii	Jimsonweed
Eriognum fasciculatum	Common Buckwheat
Eucalyptus sp.	Eucalyptus
Foeniculum vulgare	Fennel
Heterothaca grandiflora	Telegraph Plant
Juniperus sp.	Juniper
Lactuca serriola	Prickly Lettuce
Malosma laurina	Laurel sumac
Nicotiana bigelevil	Indian Tobacco
Nicotana glauca	Tree Tobacco
Pinus sp.	Pine
Salvia mellifera	Black sage
Salsola australis	Russian Thistle/Tumlewood
Silybum marianum	Milk Thistle
Ricinus connunis	Castor Bean Plant
Urtica urens	Burning Needle

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Infrastructure and Utility Plan

Grading and Infrastructure Plans

Introduction

This section details the on-/off-site plans for the grading, potable water, drainage, and sewer systems necessary to accommodate buildout of Spring Trails.

Grading Plan

Spring Trails has been responsibly designed to fit into the existing landscape, at the same time meeting the intent of the City of San Bernardino Hillside Management Overlay Zone. The Conceptual Grading Plan for Spring Trails is illustrated in Figure 3.29, *Conceptual Grading Plan*.

The total area that is proposed for grading is 216.7 acres, which includes 193 acres on-site and 23.7 acres off-site. On-site grading encompasses roughly 2.7 million cubic yards and will balance on-site. The primary access street will require approximately 171,000 cubic yards of cut and 55,000 cubic yards of fill, which necessitates exporting approximately 116,000 cubic yards. The secondary access street will require 244,000 cubic yards of cut and 109,000 cubic yards of fill, which necessitates exporting approximately 135,000 cubic yards. These earthwork quantities are preliminary and do not account for shrinking, bulking and or removals.

Development within Spring Trails avoids steep hillside areas and clusters development in the lower foothill areas. This has the following benefits in terms of grading impacts:

- Minimizes hillside grading and scarring that would be visible from public rights-of-way.
- Preserves the Cable Canyon and Meyers Canyon drainage courses in their natural conditions and minimizes impacts on natural topography.
- Maintains significant natural drainage courses within the proposed development area to enhance water quality.

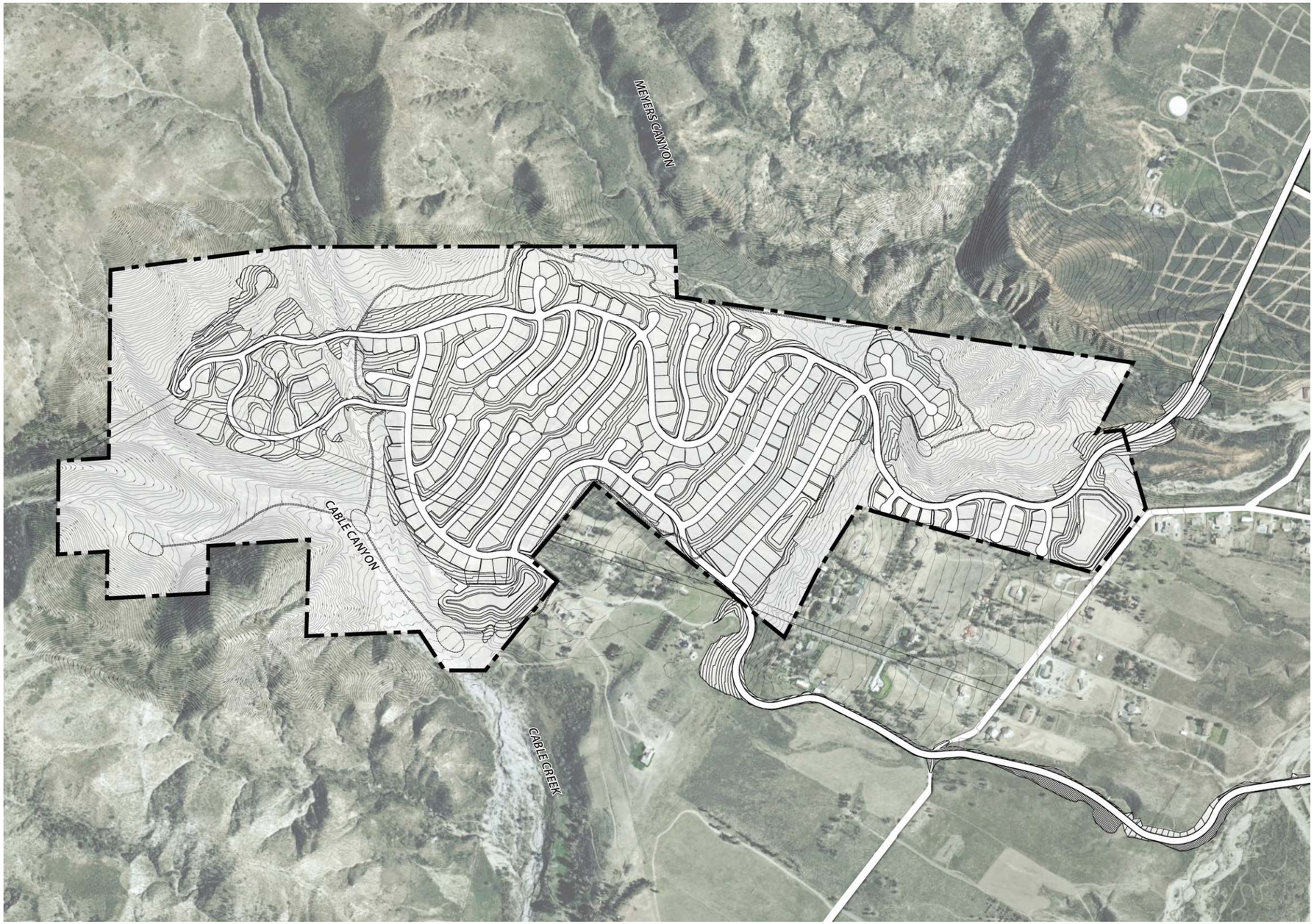
The overall goals of the site-specific grading guidelines are to minimize the height of visible slopes, provide for more natural-appearing manufactured slopes, minimize grading quantities, minimize slope maintenance and water consumption, and provide for stable slopes and building pads. All preliminary and final grading plans shall be prepared in accordance with the Uniform

Building Code and Title 15 of the City of San Bernardino Municipal Code, except as modified herein and approved by the City Engineer.

General Guidelines

- Minimize grading where possible.
- Avoid grading in areas where slopes exceed an average of 15 percent, to the greatest extent possible.
- Where a cut or fill slope is privately owned and is adjacent to a lot line, the lot line should be located at the top of the slope. In some cases the property line may be located at the bottom of a slope where the property line extends to a road or the property line may be located in the middle of a slope at a drainage bench to prevent cross-lot drainage.
- Terrace drains and benches shall be added where slope height exceeds 30 feet, in accordance with the Uniform Building Code. In some instances, benches should be widened to provide for dual use as a recreation trail.
- Existing significant drainage courses shall be maintained as much as possible.
- Final grading design shall adhere to the final soils report recommendations.
- Grading shall be performed under the supervision of a registered soils engineer.
- Final grading plans shall be prepared and certified by a registered civil engineer and registered geotechnical engineer in the State of California Board of Professional Registration and approved by the City Engineer.
- Prepare and process a stormwater pollution prevention plan (SWPPP) prior to grading.
- Preserve the natural terrain as much as possible by focusing development in the development footprint shown on Figure 2.1.

Figure 3.29 Conceptual Grading Plan



Legend

2170 Proposed Contour

2170 Existing Contour

2:1 Slope

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- Retaining walls may be used to minimize slope heights, especially in areas that are not visible from public rights-of-way.
- Earth retention systems, where slopes can be planted to blend with the natural terrain, should be used where possible.
- All cut-and-fill slopes shall be revegetated to control erosion.

Water Plan

The City of San Bernardino Municipal Water Department (SBMWD) will provide water services to Spring Trails and currently provides service to pressure zones ranging from 1,249 feet to 2,300 feet. Spring Trails lies between the 2,300 to 3,000-foot pressure zones. The nearest existing reservoir is the Meyers Canyon Reservoir, which is within the 2,100-foot pressure zone but is not adequate for buildout of Spring Trails or Verdemont Heights. Therefore, water will be supplied to Spring Trails from lower elevations by a combination of expanding and improving the off-site water system and the provision of on-site reservoirs and transmission lines.

As shown on Figures 3.30A and B, *Conceptual Water Plan*, off-site improvements include the creation/improvement of a series of pump stations and transmission lines in Verdemont Heights. In addition, SBMWD has identified the need for additional reservoirs.

Based upon the projected buildout of Spring Trails, the maximum daily demand is 568 gallons per minute (gpm). The on-site water facilities necessary to serve the total water demands of Spring Trails include three reservoirs in the 2,500, 2,700, and 3,000-elevation pressure zones as well as transmission lines traversing the project. The storage requirements for each pressure zone are detailed on Table 3.8. In addition, the water system serving Spring Trails and the locations of the reservoirs are shown on Figures 3.30A and B.

The water facilities for Spring Trails were sized per SBMWD guidelines and to meet maximum demand in addition to fire flow requirements (see Table 3.9). Pumping stations shall be designed with 100 percent redundancy in the event that one or more of the pumping units fails, and shall be equipped with on-site generators that can operate in a blackout or emergency condition.

Table 3.8 On-Site Water Storage Facilities

Pressure Zone	2,300	2,500	2,700	3,000
Units	**11**	**24**	**137**	**135**
Maximum Daily Demand (gpm)	20 gpm	44 gpm	254 gpm	250 gpm
Emergency Storage[1]	28,800 glns	63,360 glns	365,760 glns	360,000 glns
Operational Storage[2]	7,200 glns	15,840 glns	91,440 glns	90,000 glns
Fire Flow Storage[3]	360,000 glns	360,000 glns	360,000 glns	360,000 glns
Total Storage Required	396,000 glns	439,200 glns	817,200 glns	810,000 glns
Storage Provided [4]	4,000,000 glns	2,500,000 glns	900,000 glns	900,000 glns

glns = gallons; gpm = gallons per minute

[1] Equivalent to one full day of maximum demand

[2] Equivalent to 25% of one full day of maximum demand

[3] Fire flow required of 1,500 gpm for four-hour duration

[4] Includes on and off-site reservoirs serving the Spring Trials (2007 SBMWD Master Plan)

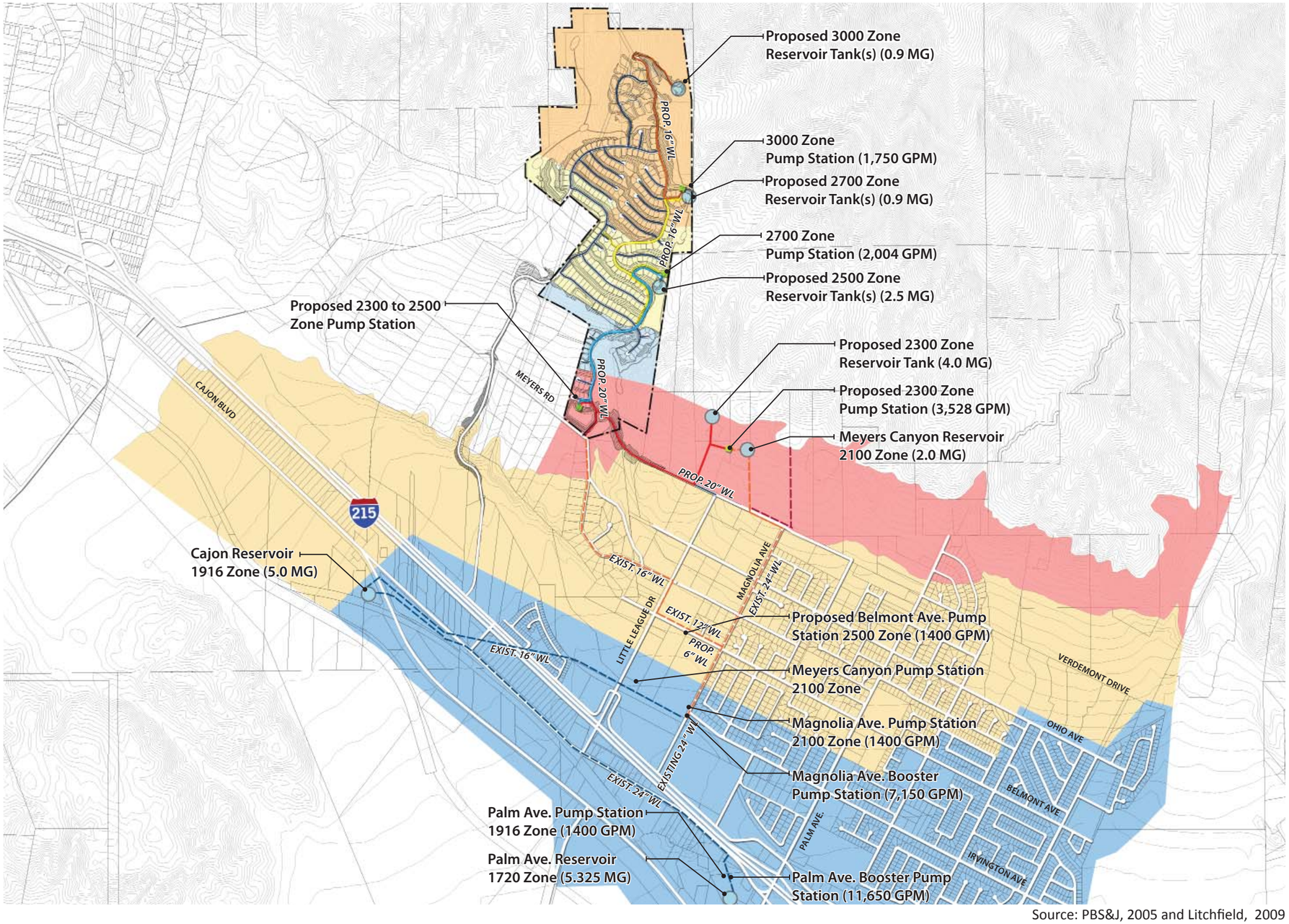
Table 3.9 On-Site Water Pumping Requirements

Pressure Zone	2,300	2,500	2,700	3,000
Units	**11**	**24**	**137**	**135**
Maximum Daily Demand (gpm)	20 gpm	44 gpm	254 gpm	250 gpm
Fire Flow Requirement	1,500 gpm	1,500 gpm	1,500 gpm	1,500 gpm
Total Capacity	2,048 gpm	2,004 gpm	1,750 gpm	NA

Hp = horsepower

The details of all water facilities, their sizing, and hydraulic analysis can be found in the CDM report (October 17, 2003) and Dexter Wilson report (December 30, 2003) in the EIR appendices.

Figure 3.30A Conceptual Water Plan



Legend

- Future 3000 Zone WL
- Proposed 2700 Zone WL
- Proposed 2400 Zone WL
- Proposed 2100 Zone WL
- Proposed 1916 Zone WL
- Existing and Proposed 2300 Zone WL
- Existing 2100 Zone WL
- Existing 1916 Zone WL
- 3000 Pressure Zone (135 units)
- 2700 Pressure Zone (137 units)
- 2500 Pressure Zone (24 units)
- 2300 Pressure Zone (11 units)
- 2100 Pressure Zone
- 1916 Pressure Zone

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Source: PBS&J, 2005 and Litchfield, 2009

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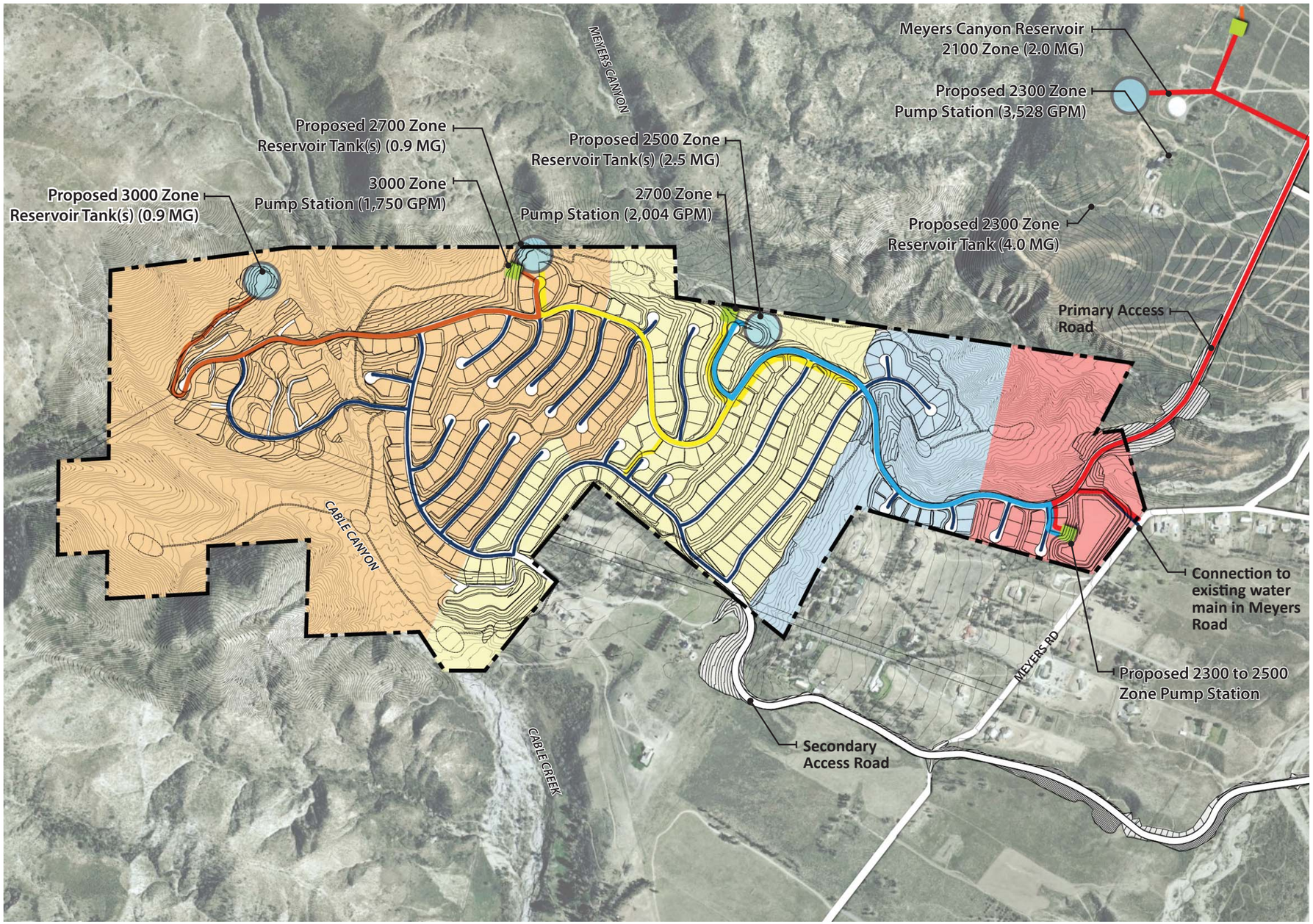
Figure 3.30B Conceptual Water Plan



Legend

- Proposed Internal Water Main
- Future 3000 Zone WL
- Proposed 2700 Zone WL
- Proposed 2500 Zone WL
- Proposed 2300 Zone WL
- Existing 2100 Zone WL
- 3000 Pressure Zone (136 units)
- 2700 Pressure Zone (138 units)
- 2500 Pressure Zone (24 units)
- 2300 Pressure Zone (11 units)
- Pump Station
- Reservoir Tank

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Drainage Plan

Existing Conditions

The drainage area to which Spring Trails belongs flows into Cable Canyon, then into Cable Creek, then into the Devil Creek Diversion Channel, then into the Lytle Creek Wash, and eventually into the Santa Ana River. On the site itself, there are four major drainage patterns affecting Spring Trails, as shown on Figure 1.5:

- **Drainage area A.** A 2,030-acre drainage area (148.9 acres on-site and 1,881 acres off-site) that includes the west and east forks of Cable Canyon, and an unnamed blue-line stream that drains into the project from the east in a southwesterly direction. The west fork flows south through the property and meets the east fork flowing from the east. The east fork enters the property from the east as two drainages, which merge approximately 600 feet west of the eastern property boundary.
- **Drainage area B.** A 63.7-acre watershed (51.6 acres on-site and 12.1 acres off-site) comprised of surface flow drainage that flows southwesterly through the center of the site and ultimately into Cable Creek.
- **Drainage area C.** A 198.2-acre watershed (128.4 acres on-site and 69.8 acres off-site) that consists of off-site surface flows and a defined drainage course that run onto the site and exit through the southern part of the project.
- **Drainage area D.** A 341.6-acre drainage area (21.8 acres on-site and 319.8 acres off-site) that includes drainage from Meyers Canyon.

Proposed Drainage Facilities

The proposed drainage improvements are shown on Figure 3.31, *Conceptual Drainage Plan*. The drainage concept for Spring Trails is designed to either maintain natural drainage courses or capture both on- and off-site stormwater flows and route them through a series of catch basin inlets and storm drain systems, which convey water to three on-site detention basins where it is treated and discharged at a controlled rate into Cable Canyon. The following is a description of the proposed drainage facilities for each drainage area discussed above:

- **Drainage area A.** Runoff in drainage area A is handled from a combination of undisturbed watercourses, detention basins, rain gardens, and media filtration systems.
  - The significant drainageways in the northern part of Spring Trails remain virtually untouched. The two forks of Cable Canyon will

remain undisturbed through the Spring Trails site while the unnamed tributary, which enters the property from the east as two drainages, remains undisturbed except for those portions flowing through culverts under two streets.

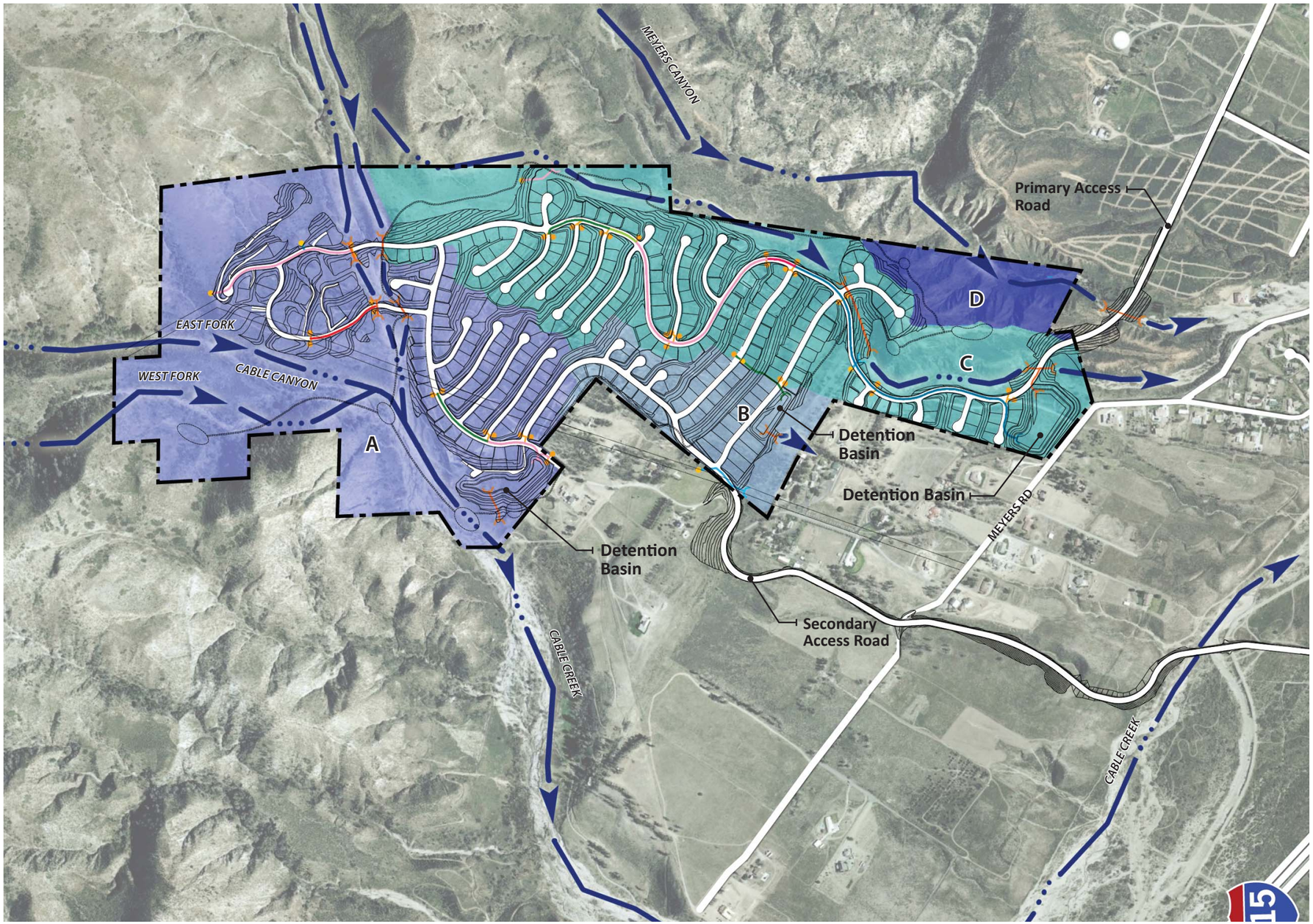
- Drainage from a 35.6-acre developed area is routed into detention basin A, which is on the western edge of the site and discharges into Cable Canyon.
- The flows from the areas north of Cable Canyon are not routed into a detention basin; instead, each residential lot will be designed with a rain garden to treat the flows on the residential lot. Media filtration devices will be used to treat the flows on the streets prior to discharging into Cable Creek. In all, 39.3 acres in the northern portion of the project, including 15.1 acres of off-site drainage, are handled in this manner.

- **Drainage area B.** Drainage area B is divided into two areas that handle flows from a developed area and an undeveloped area.
  - Drainage from a 21.8-acre, on-site, developed area is routed into detention basin B, which is located on the southwestern edge of the site and discharges into a natural flow line and ultimately into Cable Canyon.
  - Drainage from an undeveloped 17.5-acre area, which includes both on- and off-site lands, flows under a new street and is discharged into an existing flow line south of the site and ultimately into Cable Canyon.

- **Drainage area C.** Drainage area C is a 209.8-acre area that includes both on- and off-site lands.
  - Drainage from a 96.8-acre, on-site, developed area drains into detention basin C, which is located in the southwestern corner of the project and eventually discharges into an unnamed flow line west of Meyers Creek and into Cable Creek.
  - Drainage from a 107.8-acre undeveloped, on- and off-site area flows south through a culvert under the primary access street.

- **Drainage area D.** Drainage area D is made up of Meyers Canyon and its tributary areas along the southeastern edge of the site. This drainage area consists of a total of 339.3 on- and off-site acres (319.8 off-site acres and 19.5 undeveloped on-site acres). Drainage from this area flows through a culvert under the primary access street and eventually into Cable Creek.

Figure 3.31 Conceptual Drainage Plan



Legend

- 24-inch RCP
- 30-inch RCP
- 36-inch RCP
- 42-inch RCP
- 48-inch RCP
- 60-inch RCP
- Other RCP
- RCB Culvert
- Catch Basin with Lateral
- Drainage Area A
- Drainage Area B
- Drainage Area C
- Drainage Area D

RCP Reinforced Concrete Pipe
RCB Reinforced Concrete Box

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The proposed storm drain system for Spring Trails will reduce the risk of flooding within the project through the following:

- The drainage system and detention basins will reduce stormwater runoff from the site to levels at or below those that existed prior to the project.
- The proposed storm drain system will be able to convey the on- and off-site flow to downstream discharge points.
- Construction of the storm drain system will ensure the conveyance of the 100-year runoff away from the project site, and the conveyance of off-site flow through the site to existing natural channels, thereby eliminating flooding hazards.

Drainage outlets, energy dissipaters, extended detention basins, rain gardens, media filtration units, and other drainage facilities will be designed to control urban runoff pollutants caused by the development of the project. In addition, site designs that reduce urban runoff and pollutant transport by minimizing impervious surfaces and maximizing on-site infiltration have been incorporated into the project. A Water Quality Management Plan (WQMP) that includes best management practices (BMPs) has been prepared for Spring Trails in accordance with the Santa Ana Regional Water Quality Control Board. The WQMP can be found in the EIR appendices.

Spring Trails will include BMPs designed to reduce the volume, rate, and amount of stormwater runoff that must be treated, and reduce the potential for urban runoff and pollutants to come into contact with one another. Some of the BMPs that may be incorporated into Spring Trails include:

- Infiltrating roof runoff into landscaped areas.
- Rain gardens.
- Media filtration units for street flows that are not treated by a detention basin.
- Hydrodynamic separation and pollutant screening.
- Efficient irrigation systems and landscape maintenance.
- Common-area litter control.
- Sweeping of public and private streets and parking lots.
- Drainage facility inspection and maintenance.
- Municipal Separate Storm Sewer System (MS4) stenciling and signage.

- Protection of slopes and channels with riprap, landscaping, and other appropriate methods.

As described in Section 2, Cable Canyon and Meyers Canyon are identified as 100-year flood zones. The 100-year flood levels are constrained to the deep channels of the creeks and development is located to avoid these areas and minimize road crossings.

Sewer Plan

The Spring Trails project lies within the City of San Bernardino sanitary sewer service area. A sewer capacity study was conducted by Rick Engineering (see EIR Appendices) that concluded that the existing sewer system has the capacity to accommodate the development of Spring Trails.

A general layout of the sewer system is shown on Figure 3.32, *Conceptual Sewer Plan*. Spring Trails will connect to the City's existing 10-inch sewer line in Little League Drive, which then connects to a major interceptor system to the south and is eventually treated in the San Bernardino Water Reclamation Plant. The only offsite improvement that may be required is North Little League Drive, which may upgraded from an 8" to a 10" line depending upon the ultimate slope as determined in final engineering.

The sewer facilities will be designed and constructed in accordance with the City of San Bernardino standards and specifications and in accordance with the *Standard Specifications for Public Works Construction* (latest edition). The sewer mains will be located in public street rights-of-way where possible. If not, they will be constructed within dedicated public utility easements. The sewer system will be dedicated to and maintained by the City of San Bernardino.

Dry Utilities

Spring Trails will be served with electric, gas, water, sewer, solid waste collection, telephone cable, and Internet (data) from companies serving the City of San Bernardino, as shown in Table 3.10.

Table 3.10 Utility Providers

Utility	Provider
Electricity	Southern California Edison
Gas	Southern California Gas Company
Water	San Bernardino Municipal Water Department
Sewer	San Bernardino Public Works Department
Solid Waste Collection	City of San Bernardino Refuse & Recycling Division
Telephone	Verizon
Cable	Charter Communications

SCE owns three 112 kv transmission lines that run north–south along the western boundary of Spring Trails. SCE also has an access easement over the project site to service these transmission lines. The easement will be relocated to accommodate the transmission lines underground within the project. This design will be finalized during the final engineering stages of the project approvals.

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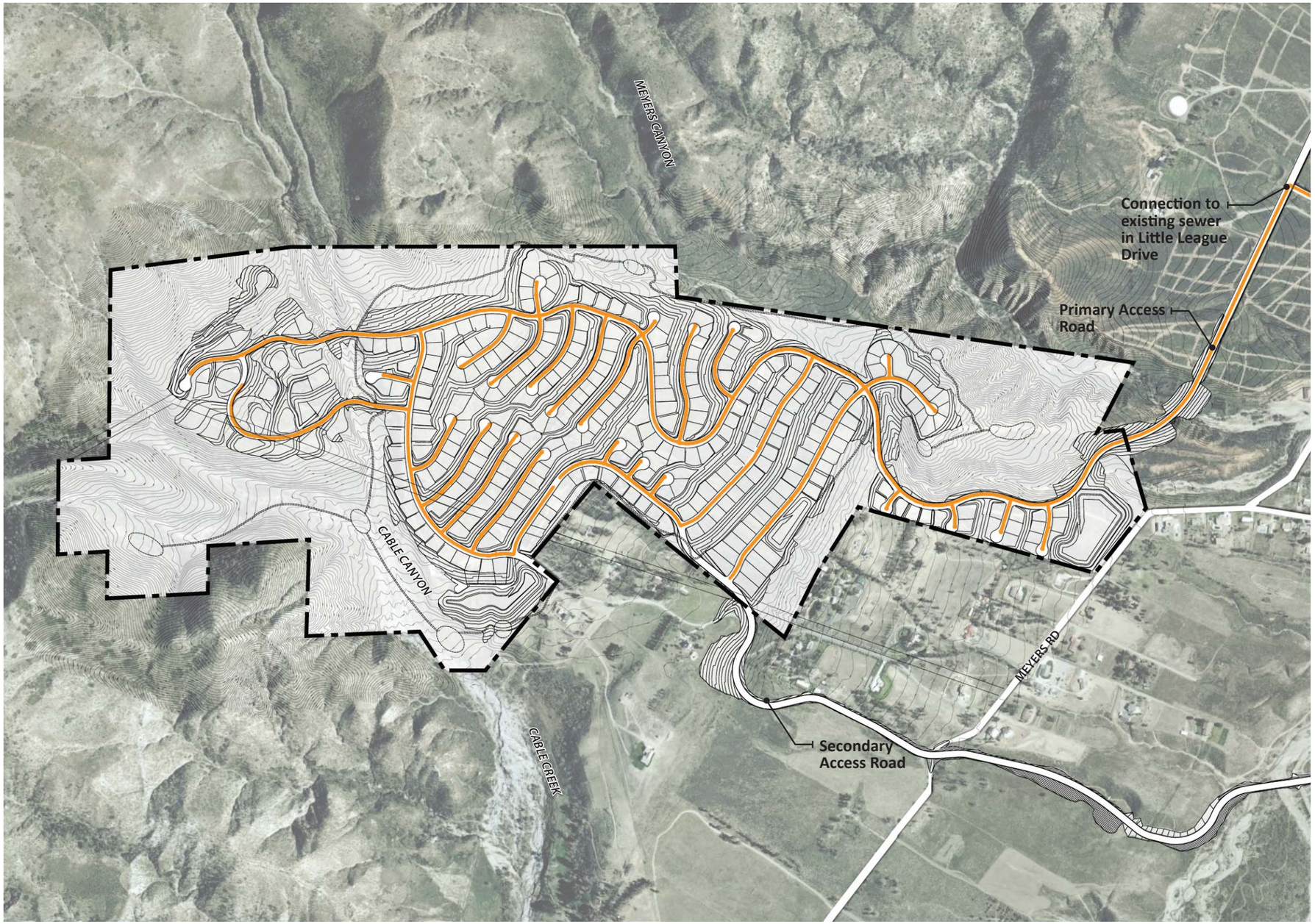
Figure 3.32 Conceptual Sewer Plan



Legend

Proposed Sewer Main

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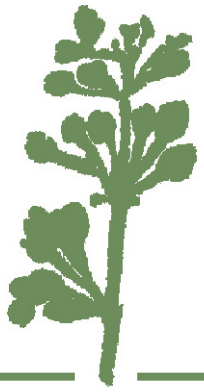
Section 4

DESIGN GUIDELINES



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DESIGN GUIDELINES

Introduction

The Spring Trails Design Guidelines provide general criteria for architecture, landscaping, entry monumentation, walls and fences, and other design elements in order to ensure a high quality development and strong community character. The overall goal of these Design Guidelines is to create an attractive and distinct community within the City of San Bernardino and adhere to Verdemont Area Plan policies in the General Plan.

These guidelines are intended to:

- Provide guidance to builders, engineers, architects, landscape architects, and other professionals in order to obtain high quality design.
- Provide the City of San Bernardino with the necessary assurances that the Spring Trails community will be developed in accordance with a certain quality and character as set forth in this document.
- Integrate areas of development with open space areas in a manner that provides a natural transition between the two elements.

The Design Guidelines are intended to be flexible and work in concert with the Development Standards contained in Section 3. Variation and customization within the context of the guidelines is encouraged in order to achieve individually distinctive neighborhoods complemented by recreational amenities. These guidelines shall be followed in the design and buildout of the community—they shall not be viewed as voluntary. These guidelines shall be implemented through the review of development plans through the building permit process.

Examples of the quality of residential design expected in Spring Trails.

Format

The Design Guidelines are arranged to first address aspects at the community-wide level and then at the residential level. The community-wide design guidelines address the layout and design of the entire community including common landscape and streetscape treatment. At the residential level, the guidelines address details such as orientation, massing, and architectural treatment.

Community-Wide Design Guidelines

Entry monuments should use natural materials.

Community-wide guidelines apply to Spring Trails as a whole. They are intended to create a strong community identity through the use of consistent streetscape, entry monumentation, landscaping, and lighting elements. The landscape design concept and plant palette for Spring Trails can be found in Section 3.

Entries and Monuments

The character of the community entries should be simple and restrained according to an identifiable hierarchy within Spring Trails. Entries are intended to enhance the community architectural theme and provide community identity.

The entry treatments described below provide the desired quality of the entry monument types. The exact design, configuration, and content of each will be determined in detailed site plans with detailed landscape plans.

Primary Entry Monument

The primary entry monument is the most prominent in Spring Trails and represents the most significant design treatment. The primary entry monument will be located off the primary entry road near Neighborhood Park I. The landscaping at the primary entry, in concert with the signage, lighting, and hardscape elements, will form the scenic gateway into Spring Trails.

The primary entry monument should incorporate distinctive signage, attractive landscaping, and distinguishing elements. These may consist of a stone veneer wall and landscaping that includes a large specimen tree. Please see Figure 4.1 for the primary entry monument concept.

Secondary Entry Monument

In addition to the primary entry monument, Spring Trails will feature a smaller monument located where the secondary entry road intersects the western project boundary.

The secondary entry monument should consist of a small-scale pilaster monument within a distinctive landscaped area. The secondary entry should reflect the character and materials of the primary entry monument using trees, shrubs, groundcover, signage, and lighting. Refer to Figure 4.2 for a secondary entry monument concept.

Figure 4-1: Primary Entry Concept

Plan View

Location Map

Note: This illustration is conceptual in nature and is intended to show the range of facilities accommodated within the feature and potential arrangement of improvements. The exact size, configuration, and level/type of the improvements will be determined during the grading and building permit process.

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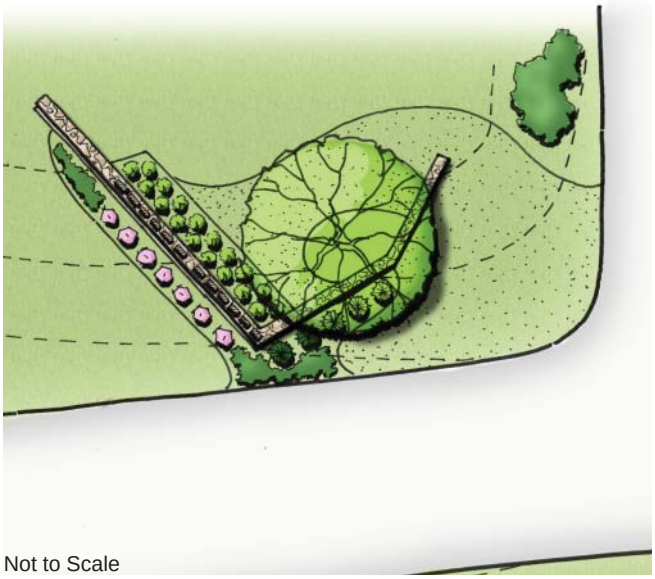
Figure 4-2: Secondary Entry Concept

Plan View



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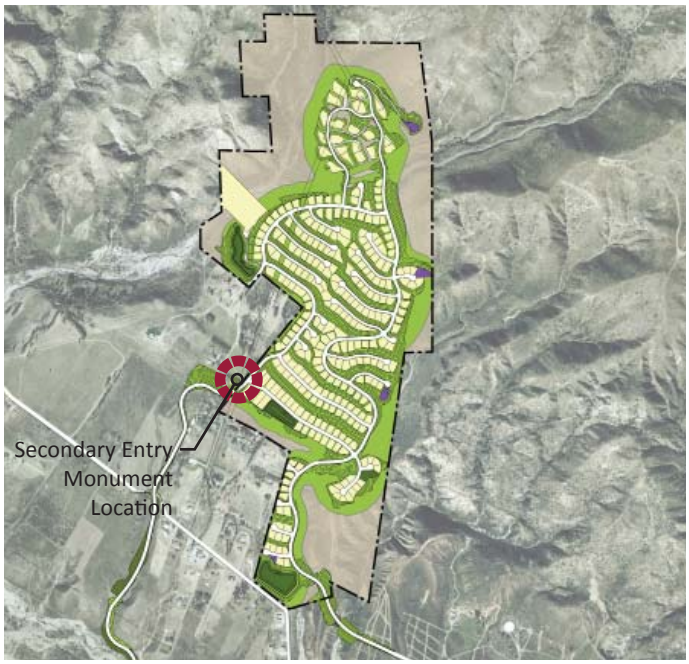
Location Map



Note: This illustration is conceptual in nature and is intended to show the range of facilities accommodated within the feature and potential arrangement of improvements. The exact size, configuration, and level/type of the improvements will be determined during the grading and building permit process.

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Landscaping

Landscape within Spring Trails will be planted with combinations of evergreen and deciduous canopy trees with flowering evergreen shrubs and groundcovers. It is intended that the landscape provide a theme and continuity throughout Spring Trails, enhance desirable views, screen undesirable views, beautify and control erosion of graded slopes exposed to public views, preserve existing landscape material (whenever possible), and enhance interfaces between graded and natural open space areas. Landscaping for streets within Spring Trails is discussed in the Landscape Plan section of Section 3.

- Streetscape elements, such as landscaping, lighting, street furniture, and signage, should create an attractive, consistent, and cohesive community image.
- Streetscape elements, such as lighting, landscaping, and street furniture, should complement the surrounding architectural styles.
- Special patterned paving should be provided at important intersections and trail crossings within the Specific Plan area.
- All landscaping shall comply with the approved trees, shrubs, and groundcovers listed in Table 3.6, *Landscape Zones Plant Palette.*
- Landscaping along major streets and at project entries should be tasteful and consistent to create an attractive and cohesive community identity. Formal plantings of nonnative species may be used at key entries and intersections to highlight these areas.
- Water usage should be minimized through the planting of native and low-water species and the utilization of water-efficient and drip irrigation systems.

Landscaping plays a critical role in the character of a development and must be thoughtfully integrated into a community.

Walls and Fences

Walls and fences will predominantly be located around the perimeter boundaries of individual residences where they interface with open spaces, streets, parks, or off-site land uses. Excessive use of walls and fencing can impair the aesthetic quality of Spring Trails and, therefore, shall be carefully designed to complement the setting and community theme.

- Solid walls and fences should not dominate the street scene. They should only be used when necessary for noise attenuation, privacy, and shielding of incompatible adjacent uses.

Perimeter walls (top) and view fencing (bottom) should blend in with the surrounding landscape and architecture.

Examples of the types of thematic fencing and gates that should be used in Spring Trails.

- Wall faces that are visible to the public should be constructed of attractive materials and finished with architectural detailing or articulation. The incorporation of high quality materials and surface articulation are strongly encouraged. Walls and/or wall surfaces not visible to the public do not need the same high level of detail.
- Pilasters should be incorporated into wall design, especially at entries and important community intersections. Pilaster placement shall conform to the City of San Bernardino Municipal Code.
- Trees, vines, and landscaping should be used to soften the visual appearance of the walls.
- Where solid walls are necessary, split-face block, stone, or materials with similar visual qualities should be used.
- Long, monotonous walls are to be avoided. Walls should be modulated with breaks, recesses, and offsets, especially at entries and important intersections. Long walls should be made more attractive and visually interesting through the incorporation of surface articulation and pilasters.
- View fences provide a visually attractive alternative to solid walls and fences. They allow for safety and privacy while preserving views and creating a more visually appealing neighborhood. View fences should be used instead of solid walls when feasible, especially when facing onto parks and trails.
- View fences should incorporate visually attractive materials such as tubular steel, decorative metal, and/or stone (or faux-stone). If the site conditions permit, the first two to three feet of a combination view fence shall be a concrete block wall, with the base portion of the wall being split-face block, stone, or materials with similar visual qualities.
- Thematic fencing (e.g., split-rail fencing constructed of woodcrete or vinyl) should be used as a separation between decomposed granite paths adjacent to streets or as safety barriers. The exact location of the fencing shall be approved during the final tract process in coordination with the Parks and Recreation Department and the Community Development Department.
    - Fencing should be three to four feet high, depending on slope and site conditions.
    - To accommodate wildlife movement and avoid its excessive use, fencing is not necessary along trails in the areas designated Open Space (natural or homeowner maintained) and should

only be used to provide separation between streets, properties, sensitive habitat, or parks.
- An appropriate substitute (plants, rocks, etc…) may be used instead of fencing.
- Entrances to the trails should be designed with a gate or feature to restrict access to motorized vehicles to essential emergency or maintenance vehicles.

Lighting

Lighting within Spring Trails is intended to help define vehicular and pedestrian circulation patterns, provide safe pedestrian movement, distinguish community entries and activity areas, and contribute to the overall landscape theme of the community. The goal is to provide a sense of place by varying fixtures and illumination levels.

Examples of the types of lighting in Spring Trails.

- Attractive and consistent lighting elements should be provided along streets within the neighborhood. The height, brightness, and spacing of the lighting elements should be appropriate to the scale and speed of the street.
- Lighting fixtures should be compatible with the architectural styles of surrounding buildings and yet consistent throughout the community.
- Entry areas (both pedestrian and vehicular) and highly used recreation areas shall be creatively lit to develop a sense of place and arrival.
- All exterior lights shall be shielded and focused to minimize spill light into the night sky or adjacent properties.
- The lighting concept of the entry monuments is to illuminate the sign graphics and gently wash the site elements, walls, and pilasters with light.
- Lighting standards should be consistent with City safety and illumination requirements for rural areas.
- Wall-mounted lighting fixtures shall be selected according to the individual style of the building.
- Exterior lighting on homes should be set to automatic timers.
- Provide low-contrast lighting and use low-voltage fixtures and energy-efficient bulbs, such as compact fluorescent (CFL) and light-emitting diode (LED) bulbs.

- Refer to Section 5, *Sustainability*, for additional standards and guidelines pertaining to lighting within Spring Trails.
- Refer to the Residential Design Guidelines for design guidelines pertaining to lighting fixtures placed on homes.

Parks

- Recreation and open space areas should be designed to accommodate the needs of different ages and abilities.
- Canopy trees should be used to provide shade. Informal groupings create visual interest and are encouraged.
- Ample outdoor furniture should be provided. This furniture should match the surrounding architectural styles, materials, and colors.
- A combination of hard and soft paving may be used depending on the function of the recreational amenity.
- Active areas may utilize turf, grasses, and ornamental plantings. Passive areas should primarily be composed of drought-tolerant species.

Common Recreation Facilities

Common recreation facilities may include picnic shelters, barbecue areas, or other such amenities and facilities, as appropriate to the community. Because common facilities act as key character elements in neighborhoods, the following should be considered when designing such facilities:

- Structures should exhibit a high level of quality and attention to detail on all visible sides of the structure.
- All architectural and community elements, such as street furnishings, benches, and lighting standards, should be consistent with the selected overall architectural character of the community.

Graded Slopes

- Where feasible, grading shall be minimized by following the natural ground contours.
- Human-made landforms shall be graded to avoid unnaturally sharp or straight edges and planes. The top and toe of graded slopes shall be rounded to avoid harsh, machine-made appearance.
- Significant natural vegetation should be retained and incorporated into the project whenever feasible.

- All graded slopes shall be stabilized and planted with the approved trees, shrubs, and groundcovers listed in Table 3.6, *Landscape Zones Plant Palette*.

Residential Design Guidelines

Creating street scenes that function aesthetically and have visual interest is a primary community objective. The following basic elements and criteria are intended to develop variations in appearance and a sense of individuality for each home. Neighborhoods that have nearly identical homes and streets without variation in product placement and form are not allowed.

Building Level Guidelines

Architectural Style

- The massing, character, and detailing of the architectural styles should be as authentic to the selected styles as possible. However, contemporary adaptation of traditional vernacular styles is acceptable.
- The choice of architectural expression must be derived primarily from the respective building typology (e.g., row towns, courtyard buildings, single-family homes). Architectural styles should be accurate and appropriate for the building typology. Refer to the Architectural Styles section at the end of this section.
- Use architectural elements that form an integral part of the building and avoid ornamentation and features that appear to be cheap and tacked on.

Building Orientation

- Use residential entrances to activate the street, and utilize elements such as canopies, porches, stoops, trellises, and courtyards as transitional spaces between the private and public realms.
- Orient buildings to face streets, parks, and open spaces/trails. This orientation will create more attractive, safe, and pedestrian-friendly streetscapes and public spaces.

Variety and Aesthetic Quality

- A variety of single-story heights and profiles should be provided while stepping back second-story massing where appropriate.

- Each residence should include at least one significant single-story element on an exposed front or side elevation, such as:
  - Front or wraparound porch (minimum 6 feet deep and 10 feet wide)
  - Roofed porte-cochere
  - Single-story living space in conjunction with a second-story recess of at least 5 feet
  - Pop-out gable element, enclosed or open

- Adjacent homes of the same architectural style should not have identical elevations or colors. Rather, a rich variety of architectural styles, elevations, colors, and detailing is encouraged.

- Porches, detailed entries, and stoops add to the character of a neighborhood and should be incorporated. These features should be varied along the street to create visual interest. If possible, these features should project forward of a front-entry garage door.

- Entry features, such as gates, trellises, arches, and arbors should be employed to add visual interest and variety within the neighborhood.

- Variation in floor plans, unit types, roof forms, colors, and materials adds character and visual interest to a neighborhood. Two identical units may not be placed adjacent to each other.

- Exercise creativity and individual expression in conceiving and interpreting architectural form.

- Apply massing breaks, such as eroded building corners and entry courts, to promote visibility and allow block transparency. Create variety in building mass by providing adequate vertical and horizontal offsets.

Environmental Considerations

- Where possible, building articulation and form should be expressive of and driven by environmental and site conditions such as solar orientation, views, noise, prevailing winds, and local climate. Plan forms that employ features such as courtyards, plazas, and patios are encouraged.

- Builders are encouraged to incorporate sustainable design features. Refer to Section 5, *Sustainability*, for more detailed guidelines.

Enhanced Architectural Treatment

- Neighborhood quality is enhanced by adding a home plan designed specifically for a corner condition, or by enhancing an interior lot plan

for use on the corner, with additional architectural elements and/or details found on the front elevation.

- Buildings plotted at corner locations become important design features. These areas are focal points in the streetscape and as such should be places for architectural elements such as articulation, corner glazing, color, and material accents.
- All corner homes should include wrapping materials and continued articulation around to the side façade. All material changes shall occur on an inside corner such as a porch, fireplace, niche, bay window, etc., or coincide with an architectural element that conceals the material change.

Roofs

- Roof forms of each home should be appropriate to the architectural style.
- A variety of roof forms is encouraged to provide visual interest to the neighborhood and to avoid a monotonous roofline.
- Roofs should exhibit variety between different plans by using front-to-rear and side-to-side gabled and hipped roofs and/or by the introduction of single-story elements.
- Overly complex and distracting roof forms are discouraged.
- High-quality composition, concrete, or clay tiles should be used in conjunction with the style of the home.
- Roof materials, colors, and treatments should correspond to the individual character or style of the home or building and should be compatible with the overall look of the neighborhood.
- Skylights and roof vents are prohibited on sloped roofs facing public streets.

Garages

- The front elevation should focus on the home, not the garage.
- Garage wall planes on front elevations should be recessed.
- Garage door surrounds should be articulated with trellises, trim, enhanced materials, or other methods to help minimize the architectural impact of the garage door.

- Garage door appearance should be varied by using door patterns, colors, and windows appropriate to individual architectural styles.
- The installation of elements such as an attached trellis beneath a single-story garage roof fascia and/or trims above the garage door header, or landscaped pockets along driveways is encouraged.

Colors and Materials

- Each elevation should have a minimum of three colors; four is preferred. For example, one field color, one trim color, and two accent colors. This helps to establish variation among architectural styles and products within a neighborhood and community.
- Each neighborhood shall have a minimum of three different roof colors and profiles.
- Individual single-family homes shall not have identical color schemes adjacent to one another.
- Hue variation in adjacent homes shall be provided to create diversity within the neighborhood.
- Use materials, colors, and details to enrich building character and emphasize human scale by employing rich, durable, and high quality finishes at the street level.
- Materials shall be fire resistant per the fire protection plan in Section 3.
- Accent materials should be used to enhance and reinforce the architectural style and composition of individual homes and should provide variety in the street scene. Selective use of appropriate materials, color, and placement can provide maximum impact while imparting a sense of unique character to each home.
- Natural stone, approved manufactured or cultured stone, painted or natural brick, precast concrete, ceramic tile, slump block, and fire-resistant horizontal or vertical wood siding or approved manufactured siding (e.g., cementitious board) are encouraged.
- Culmination of accent materials shall terminate at inside corners or coincide with an edge or architectural element to conceal changes in material. Where views are limited or edges concealed by an architectural element, accent materials should terminate at privacy wall conditions.

Doors, Windows, and Entries

- Doors shall be protected by a deep recess, porch, or other covered element.
- The home entry should be considered a focal point when designing the front elevation.
- Proportions and alignment shall be appropriate to individual architectural styles.
- Highly reflective glazing is prohibited.
- Recessed windows shall be a minimum of two inches in depth.
- Recessed windows are encouraged to be 12 inches or greater in depth if appropriate based on architectural style.
- Style-appropriate grates, shutters, and tile surrounds are encouraged.
- Direct alignment of windows between homes shall be avoided to ensure privacy.
- Provide articulation and rhythm of windows, doors, and balcony openings, using a variety of devices such as canopies, awnings, or railings.
- The placement of windows should be designed to work with interior uses and to provide "eyes on the street."

Rakes and Eaves

- Where appropriate to individual style, larger eave overhangs are encouraged to provide opportunities for shading and relief.
- When exposed, rafter tails shall be a minimum of four inches and painted or stained.

Articulation and Detailing

- Articulate elements such as roof overhangs, canopies, and parapets to add interest to building silhouettes.
- Varied architectural detailing and projections should be used to accentuate specific features and ensure a visually pleasing and varied experience. Architectural projections may include elements such as cantilevered massing, secondary roof changes, and bay windows.

- The second-story portion of all elevations of homes shall include a variety of window treatments, single-story elements, roof projections, etc.
- Architectural trim applied to all elevations is encouraged for consistency with the front elevation and architectural style.

Balconies

- Balconies are encouraged for both aesthetic and practical purposes. They are useful in breaking up large wall planes, offsetting floors, providing shade, creating visual interest, and adding human scale to a building.
- Balconies should be designed as integral elements with details, eaves, supports, and railings consistent with the architectural style and other elements of the building design.
- Balconies should be partially recessed into the mass of the building or serve as a projecting element.

Exterior Lighting Fixtures

- Where fixtures are not an important focal point, light sources shall be concealed and concentrated.
- Lighting used on walls and walkways shall focus light downward and provide appropriate down-casting hardware to minimize glare.
- Ambient light shall be cast downward to reduce the impact on the neighborhood.
- Surface-mounted lights shall not be permitted in garage door soffits.
- Wall-mounted lighting fixtures shall be selected according to the individual style of the home or building.

Screening

- Storage and maintenance areas and other ancillary uses shall be screened from public view whenever reasonably possible.
- Accessory structures, such as storage areas, refuse receptacles, mechanical equipment, parking structures, backflow preventers, loading docks, security fences, and similar uses can seriously detract from the visual quality of an area. Therefore, care must be taken to minimize the visual impact of these uses through site design and visual shielding. When possible, these uses should be located away from roadways and public views, behind buildings, or in enclosed structures. Effective

shielding methods include landscaping, berms, walls and fences, and ornamental screening.

- Accessory structures should be designed to look like a continuation or extension of the primary structure. They should have architectural detailing and landscaping similar to the primary structure.
- Any equipment mounted on the roofs shall be screened to minimize its visibility from the street.

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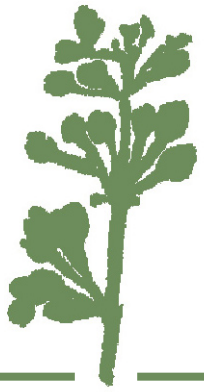
Section 5

SUSTAINABILITY



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SUSTAINABILITY

Intent and Application

The 1987 Bruntland Report of the United Nations World Commission on Environment and Development defines sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." A goal of Spring Trails is to create a sustainable and resource-efficient community.

These guidelines establish a framework that is to be used to evaluate how proposed developments meet the objectives for sustainable development. Future developers must demonstrate compliance with these guidelines through the development review process and proposals will be evaluated based upon compliance with those measures labeled "required" and the incorporation of any measures labeled "suggested" in this section.

An additional resource, the Sustainability Resource Guide, which is a list of providers and entities that offer green building and sustainability programs, is provided at the end of this section.

Green Infrastructure

Green infrastructure integrates natural systems and capitalizes on opportunities for creating multipurpose systems, thereby using land and resources more efficiently. Implementing green infrastructure and related methods for watershed management improves water quality, conserves water, and reduces runoff volumes, peak flows, and durations. In addition to these direct benefits to the watershed, implementing such methods also benefits the quality and availability of biological habitat, provides energy conservation by reducing the heat trapping and impervious areas of typical land development, and can be aesthetically pleasing.

Preserve natural drainage courses to minimize stormwater runoff and provide opportunities for pedestrian and recreational amenities.

- Required – Divert runoff into detention basins to allow water recharge, reduce drainage runoff, and control the rate of storm flows from the site.
- Suggested – Collect rainwater on-site through the use of stormwater management practices such as the incorporation of infiltration basins and bioswales.

Collect water in bioswales to provide a cost-effective alternative to traditional stormwater drainage systems and serve as landscaping buffers.

- Suggested – Grade property to divert stormwater flow to permeable areas, following natural drainage contours to the greatest extent possible.
- Suggested – Where applicable, create curb cuts to allow stormwater flows to drain to permeable or landscaped areas.
- Suggested – Where possible, use pervious or open-grid paving for driveways, walkways, plazas, and parking areas. Implement small-scale design features, such as "Hollywood" or dual-track driveways.
- Suggested – Use pervious paving materials wherever possible to reduce the negative effects of stormwater runoff and to facilitate groundwater recharge.
- Suggested – Utilize bioswales, particularly with native or drought-tolerant grasses, to collect and filter water runoff.

Landscaping

*Utilize drought tolerant landscaping such as the California buckwheat (*Eriogonum fasciculatum*).*

Sustainable landscaping practices help promote water conservation, reduce water demand, and control water and irrigation costs. Efficient irrigation techniques help reduce water demand while sustainable landscape design can lead to the reduction of the heat-island effect (the absorption of solar heat in paved surfaces), improved environmental habitat, and reduced overall maintenance and replacement cost.

- Required – Install high efficiency, xeriscape irrigation systems to reduce the amount of water devoted to landscaped areas, such as drip and bubbler irrigation and low-angle, low-flow nozzles on sprayheads.
- Required – Install and correctly program automated irrigation systems to reduce water use.
- Required – Install properly programmed EvapoTranspiration-based controllers on homeowners' properties. These are weather based controllers with greater efficiency. In addition, supply homeowners with information on how to properly program their controller using the Metropolitan Water District's guidelines as a reference.
- Required – Install moisture sensors and other similar irrigation technology to ensure that landscaping is watered only as needed.
- Required – Plant selection shall be based on species that are drought tolerant, heat resistant, and hardy. Native plant material should also be closely examined and considered for most landscape areas.

- Required – Prohibit the use of large turf areas in landscaping by substituting water-conserving native groundcovers or perennial grasses, shrubs, and trees.
- Suggested – Trails shall be constructed of pervious materials such as earth or decomposed granite.
- Required – Group plants with similar water requirements together, a technique known as hydrozoning. A plant reference is available from the California Department of Water Resources.
- Suggested – Mulch planting beds and apply compost and environmentally friendly fertilizers to promote healthy topsoil, maximize plant growth, and reduce plant replacement. This also reduces the need for longer or more frequent irrigation run times.

Permeable paving materials allow water and air to filter through to the ground underneath, reducing stormwater runoff and associated need for standard drainage infrastructure.

Building-Level Sustainability

The following are sustainable building practices and techniques that provide safe and healthy living environments.

Building Materials

- Suggested – Use 20 percent locally manufactured and produced building materials, defined as materials manufactured or produced within 500 miles of the project.
- Suggested – Strive to use rapidly renewable or recycled building materials and products for at least 5 percent of the total value of materials. Flooring alternatives like bamboo, wheatboard, and cork are rapidly renewable materials. Linoleum, exposed concrete, and recycled-content ceramic tiles are also desirable materials.
- Suggested – Encourage the installation of insulation with at least 75 percent recycled content, such as cellulose, newspaper, or recycled cotton.

Operable windows allow natural air flow through interiors, reducing energy needed for cooling.

Indoor/Outdoor Air Quality

- Required – Use only flooring and insulation products that are low emitters of volatile organic compounds (VOC) and formaldehyde.
- Required – Use only low- and zero-VOC paints, finishes, adhesives, caulks, and other substances to improve indoor air quality and reduce the harmful health effects of off-gassing.

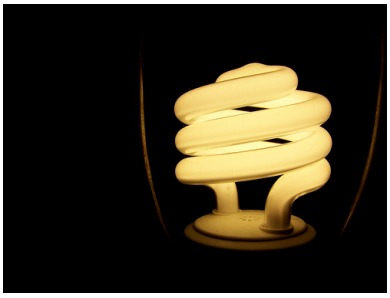
- Required – In compliance with Air Quality Management District Rule 445, new homes are prohibited from permanently installing wood-burning devices unless: they are Environmental Protection Agency (EPA) Phase II-Certified, pellet-fueled, masonry heaters; meet US EPA emission standards, or are dedicated gaseous-fueled fireplaces.

Lighting

Reduce light pollution (top) by installing lighting fixtures that direct light downward or only where it is needed (bottom).

- Required – Use shielded fixtures, avoiding overhead lighting of areas such as walkways.
- Required – Provide low-contrast lighting and use low-voltage fixtures and energy-efficient bulbs, such as compact fluorescent and light emitting diode bulbs.
- Required – Use automated occupancy sensors in nonresidential buildings that automatically shut off lights when rooms are unoccupied.

Building Envelope



Energy-efficient lighting products, such as this compact fluorescent bulb, use 75 percent less energy and last 10 times longer than standard incandescent bulbs.

- Required – Install radiant barriers to reduce summer heat gain and winter heat loss.
- Required – Use natural ventilation techniques, such as operable windows, to take advantage of airflow for cooling interiors, reducing the amount of energy needed for cooling.
- Suggested – As practical, design taller windows that start close to the ceiling to optimize daylighting of interiors.
- Suggested – Consider installing light shelves, architectural features that bounce light farther into interiors, to optimize daylighting.
- Suggested – Consider the use of "cool roofs," which are painted with a highly reflective coating or employ light-colored materials, or "green roofs," vegetated areas on roofs that contain plants in engineered soil, to cool building interiors and increase stormwater retention.
- Required – Install water- and energy-saving fixtures and appliances, such as showerheads, toilets, washing machines, clothes dryers, refrigerators, and dishwashers certified as Energy Star compliant.
- Suggested – Install recirculating hot water systems to reduce the need to heat water, or tankless water heaters that heat water as needed instead of storing hot water in tanks, thus reducing standby energy use.
- Required – Utilize a minimum insulation value of R30 in ceilings.
- Required – Install programmable thermostats in all units.

Resource Conservation

Actions that increase water and energy efficiency and conserve resources offer tremendous cost savings to both builders and future residents. A substantial reduction in energy use can be achieved through techniques such as building design that maximize shading and insulation; high performance heating, ventilation, and air conditioning (HVAC) systems; and use of natural daylighting. The use of high-performance appliances and irrigation systems that minimize water and energy use can substantially impact the amount of resources that flow into and out of the community.

By taking into account solar orientation of the building, overhangs and other devices placed on the exterior of buildings reduce direct sunlight into interiors, lowering heat gain and the amount of energy needed for cooling.

Water

- Required – Install only low-water-consumption, Energy Star–compliant appliances and fixtures.
- Required – Install only sensor-operated faucets in nonresidential buildings.
- Suggested – Install dual flush or other toilets using less than 1.6 gallons per flush.
- Suggested – Install waterless urinals in nonresidential buildings.
- Suggested – Install faucets and showerheads using 2.5 gallons per minute or less.
- Required – Use water-saving landscaping techniques, such as drip irrigation systems and drought-tolerant plant species. (For a more detailed list of water-saving techniques and practices, see the Landscaping section of this section.)

Energy

- Required – Install only energy-efficient windows, such as models with spectrally selective low-e glass and with wood, vinyl, or fiberglass frames.
- Required – Incorporate building materials that take advantage of heat storage or thermal mass to reduce energy needed for heating and cooling interiors. Materials such as concrete, masonry, and wallboard store heat absorbed during the day and slowly release it throughout the evening, thereby moderating indoor temperatures over a 24-hour period.
- Suggested – Encourage participation in energy-efficiency rebate programs offered by utility providers and government agencies.

Heating, Ventilation and Air Conditioning

- Required – Design and install HVAC systems according to the standards provided by the Air Conditioning Contractors of America handbooks or other comparable high-performance HVAC standards.
- Required – Install sealed-combustion/sealed-duct furnaces and water heaters for increased efficiency and indoor air quality.
- Required – Install only EnergyStar–qualified ceiling fans to circulate air, improve comfort, and reduce the demand on heating and cooling systems.

Sustainability Resource Guide

Table 5.1 presents a consolidated list of available programs, resources, and potential funding sources to assist in implementing the sustainability guidelines presented in this section. Since the programs and efforts of the various agencies and providers that serve the Spring Trails community may change over time, it is encouraged to check with the relevant entity for current programming and incentives.

Table 5.1 Sustainability Resource Guide

Provider	Program	Description	For More Information
Energy			
Southern California Edison (SCE)	Sustainable Communities Program	For multiple-building and/or mixed-use projects. Provides design assistance, training, education, and financial incentives relating to energy efficiency, demand response, and self-generation.	www.sce.com
SCE and Southern California Gas Company	Savings By Design	For nonresidential projects. Provides design assistance, energy analysis, and financial incentives.	www.socalgas.com/business
Southern California Gas Company	Advanced Home Program (Part of ENERGY STAR New Homes Program)	For residential projects. Offers financial incentives through either a performance-based or measure-based approach.	www.socalgas.com/ construction/ahp/ www.sce.com/ RebatesandSavings/
California Energy Commission	New Solar Homes Partnership (NSHP)	For new residential construction. Financial incentives for production homes with solar panels that exceed Title 24 by 15% as a standard feature.	www.gosolarcalifornia.ca.gov /nshp
Infrastructure			
No current programs; see policies and strategies outlined earlier in this section.			
Fuscoe Engineering and City of Irvine Redevelopment Dept.	Sustainable Travelways Guidelines	Guidelines for street development created in partnership with the Orange County Fire Authority for the Great Park Community.	www.cityofirvine.org/depts/ cd/redevelopment/
Water and Wastewater			
Metropolitan Water District	California Friendly Homes; California Friendly Landscape	General provisions and design standards for residential landscaping.	www.bewaterwise.com
Building Level			
US Green Building Council	Leadership in Energy and Environmental Design (LEED)	Sustainable community and building-level rating system.	www.usgbc.org
US Department of Energy	Energy Star	Certifies homes and products for energy efficiency.	www.energystar.gov

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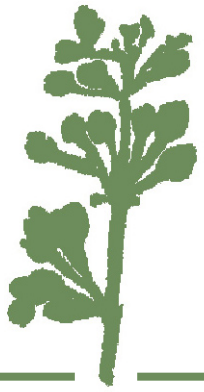
Section 6

IMPLEMENTATION



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ADMINISTRATION AND IMPLEMENTATION

California Government Code Section 65451(a)(4) requires that specific plans contain a "program of implementation measures, including regulations, programs, public works projects, and financing measures." This section sets forth the procedures needed to administer and implement the Spring Trails Specific Plan.

Alternative Plan

As noted, the preferred plan assumes that the SCE power lines will remain in place and above ground, thereby precluding the development of three residential lots. However, the property owner is seeking permission from SCE to place the power lines underground or relocate them. If successful, it would allow the development of 307 single-family detached units (306 new units and 1 existing residence). The plan for this possibility is included in Appendix F as an alternative, has been analyzed in the EIR, and is identical to the preferred plan except for the number of units and the SCE power line easement. If the alternative plan is utilized instead of the preferred plan, then the plans and development potential contained in Appendix F shall be utilized. All other provisions of this Specific Plan shall remain in effect and shall apply to the alternative plan.

Administering the Plan

The Spring Trails Specific Plan shall comply with all procedural requirements cited in the City of San Bernardino Development Code, Chapter 19.64, Specific Plans. Whenever the regulations contained in this Specific Plan conflict with the regulations of the City of San Bernardino Development Code, the provisions of this Specific Plan shall take precedence.

Responsibility

Following approval of this Specific Plan by the Mayor and Common Council of the City of San Bernardino, the City's Director of Community Development shall be responsible for administering the provisions of the Spring Trails Specific Plan in accordance with the provisions of this Specific Plan, the State of California Government Code, and the Subdivision Map Act. All necessary

permits and approvals shall be processed through the City's permit and application processes as noted in Article IV, *Administration*, of the City of San Bernardino Development Code.

Applicability

All development in the Specific Plan area shall comply with the requirements and standards set forth in this document. Where there are conflicts between the following standards and those found in the City of San Bernardino Development Code, the standards contained in this document shall apply. The provisions of the City of San Bernardino Development Code shall apply to any area of site development, administration, review procedures, environmental review, landscaping requirements, and parking regulations not expressly addressed by this Specific Plan document.

Interpretations

When there is a question or ambiguity regarding the interpretation of any provision of this Specific Plan, the Director of Community Development has the authority to interpret the intent of such provision. In interpreting this Specific Plan, the City's Director of Community Development shall give consideration to the Vision of this Specific Plan while ensuring that development can proceed in accordance with the terms of this Specific Plan and the approved tentative map.

The Director of Community Development may, at his/her discretion, refer interpretations to the Planning Commission for consideration and action. Such a referral shall be accompanied by specific details, information, and analyses that tie the information to the Director's decision. The Planning Commission shall make similar findings in conjunction with its decision. The Planning Commission action may be appealed to the Mayor and Common Council. All interpretations made by the Director of Community Development may be appealed to the Planning Commission in accordance with the appeal procedures set forth in the Chapter 19.52 of the City of San Bernardino Development Code.

Specific Plan Amendment

Modifications to the Specific Plan text and/or exhibits may be necessary during the development of the project. Depending on the nature of the proposed Specific Plan amendment, additional environmental analysis may be required, pursuant to the California Environmental Quality Act. Any modifications to the Specific Plan shall occur in accordance with the amendment process described

in this section. These amendments, should they occur, are divided into major and minor amendments.

Major Amendments

If, after making written findings, an amendment is deemed major by the Director of Community Development, it will be processed in the same manner as the original Specific Plan, as directed by Chapter 19.64, Specific Plans, of the City of San Bernardino Development Code.

Minor Amendments

Minor amendments include simple modifications to text or exhibits that do not: change the meaning, intent, or materially alter the nature or scope of the Specific Plan; increase the maximum allowable density; or exceed the total units of the Specific Plan. Minor amendments include, without limitation, minor changes in locations of streets, public improvements, or infrastructure; minor changes in the configuration or size of parcels; minor modification of land use boundaries to conform with street alignments or easements; and interpretations that facilitate the approval of unlisted uses that are similar in nature and impact to listed uses.

Minor amendments to the Spring Trails Specific Plan require approval of the Director of Community Development. Minor amendments may be accomplished per the procedures contained in Chapter 19.60, Minor Modifications, of the San Bernardino Development Code. Any determination or action taken by the Director may only be appealed to the Planning Commission. In a similar manner, any action taken by the Planning Commission may be appealed to the Mayor and Common Council. Any determination or action taken by the City Engineer may only be appealed directly to the Mayor and Common Council. All appeals shall be reviewed and processed according to the procedures set forth in Chapter 19.52, Hearings and Appeals, of the City of San Bernardino Development Code.

Severability

If any section, subsection, sentence, clause, or phrase of this Specific Plan, or future amendments or additions hereto, is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this plan.

Phasing, Capital Improvements, and Maintenance

Infrastructure Improvements

Within Spring Trails, the developer(s) will be responsible for constructing/ funding their fair share of required on- and off-site infrastructure improvements. All infrastructure improvements will be developed in conjunction with the roadway improvements.

Development Phasing

Phase 1

- Off-site grading and improvement of the primary and secondary access roads.
- Off-site backbone utilities (water, sewer, drainage, dry utility line extensions to site, and necessary improvements)
- Approximately 200 acres of the Spring Trails site will be rough graded for development of residential lots, roadways, trails, detention basins and parks.
- Detention basins improved
- All on-site roadways roads will be undercut with the rough grading

Phase 2

- Residential development will sequence from the south to the north. Infrastructure, roadways, fuel modification zones, parks, and landscaping necessary to serve development will be phased accordingly.
- Improvements will generally follow the sequence of the water improvements, which are divided into the following pressure zones:
  - On-site 2500 pressure zone improvements, including the transmission line and reservoir, prior to issuance of residential building permits in this zone.
  - On-site 2700 pressure zone improvements, including the pump station, transmission line, and reservoir, and replacement of the existing 16-inch water line in Meyers Road, prior to issuance of residential building permits in this zone.
  - On-site 3000 pressure zone improvements, including the pump station, transmission line, and reservoir, prior to issuance of residential building permits in this zone.

- Main gateway/entry features prior to or concurrent with the issuance of residential building permits in the 2700 pressure zone.
- Trails, parks, and common area landscaping in each pressure zone will occur prior to or concurrent with the issuance of residential building permits for that pressure zone.
- Fuel modification zones necessary to support physical development in each pressure zone will occur as noted in the Fire Protection Plan.
- Sewer, storm drain, dry utilities, and roadway paving will be sequenced with improvements in each water pressure zone.

It should be emphasized that the phasing program described in this section is a projection based on a judgment of future planning and market factors. Therefore, it is not to be taken as a compulsory development sequence. Development area sequencing may change as the result of future conditions that neither the City nor the developer has knowledge of as of the date of this submittal. However, the basic standards will not change and compliance is required regardless of shifts in the composition of each development phase. The developers of property in Spring Trails will be required to comply with all grading, drainage, and road improvements as specified in the Specific Plan.

Maintenance

Table 6.1 describes maintenance responsibilities in Spring Trails.

Table 6.1 Maintenance Plan

Type	Developed By	Maintained By	Owned By
Streetscape			
Primary and Secondary Entry Roads	Master Developer	City	City
Primary and Secondary Local Roads and cul-de-sacs	Master Developer	City	City
Entry Features/Landscaping	Master Developer	HOA	HOA
Street Lighting	Master Developer	City	LLMD/HOA/City
Community Walls and Fences	Master Developer	HOA	HOA
Interior Neighborhood Walls and Fences	Guest Builder	Homeowner	Homeowner
Parks and Open Space			
Private Parks	Master Developer	HOA/LLMD	HOA/LLMD
Public Parks	Master Developer	HOA/LLMD	City
Trails	Master Developer	HOA/LLMD	City
Detention Basins	Master Developer	HOA/LLMD	HOA/LLMD
Cable Creek and Meyers Open Space Areas	Master Developer	HOA/LLMD	City
Fuel Modification Zone A	Master Developer	LLMD/Homeowner	Homeowner
Fuel Modification Zones B and C	Master Developer	LLMD	HOA/Homeowner
Infrastructure			
Water Systems (on- and off-site)	Master Developer	City	City
Nonpotable Water Systems	Master Developer	City	City
Sewer Systems (on- and off-site)	Master Developer	City	City
Drainage Systems (on- and off-site)	Master Developer	City /SBCFC	City /SBCFC

LLMD = Landscape and Lighting District or special maintenance district
HOA = Homeowners' Association (Master or Neighborhood)
SBCFC = San Bernardino County Flood Control
Note: Certain facilities and improvements may be subject to reimbursement agreements.

Master Homeowners Associations

Common areas identified within the Specific Plan shall be owned and maintained by a permanent private maintenance organization. These areas may include common recreation areas, open space, circulation systems, landscaped easements, landscaped areas at entryways and roadways, paseos, and amenities such as the clubhouse.

Neighborhood Homeowners Associations

In certain residential areas of the project, smaller homeowners associations may be created to provide maintenance for common areas and facilities that only benefit residents in the immediate area.

Open Space and Parks

Open space and parks not directly associated with a particular neighborhood shall be the responsibility of a landscape and lighting district or a public facilities maintenance district.

Project Roadways

All public roadways shall be incorporated into the City's system of roads for operation and maintenance. All private roads shall be owned and maintained by either the master homeowners' association or a neighborhood association.

Financing Strategies

The financing of construction, operation, and maintenance of public improvements and facilities will include a combination of mechanisms. However, the developer shall ultimately be responsible for all fair-share costs associated with implementing the project, including but not limited to the costs of providing infrastructure and complying with all mitigation measures, conditions of approval, and other requirements of the project.

Various financing strategies may be used to fund the public facility improvements specified by the Specific Plan. Financing may involve a combination of impact fees and exactions, special assessment districts, landscaping and lighting districts, community facilities districts, and other mechanisms as agreed to by the developer and City. In addition, the developer may utilize options such as a maintenance district or privatization of streets, parks, and related facilities, in order to address the costs of ongoing maintenance and repairs.

The City and developer will cooperate to ensure that the public facilities are built in accordance with all requirements of the Specific Plan. Development agreements and conditions of approval may be used to facilitate this process.

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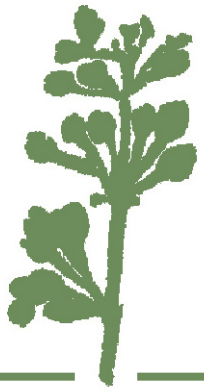
APPENDICES



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Appendix

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APPENDIX A: GLOSSARY

Accessory use: A use incidental and subordinate to the principle use of a lot or building located on that lot.

Acres, gross: The entire acreage of a site. Gross acreage is calculated to the centerline of proposed bounding streets and to the edge of the right-of-way of existing or dedicated streets.

Acres, net: The portion of a site that can actually be built on. The following are not included in the net acreage of a site: public or private road rights-of-way, public open space, and publicly owned floodways.

Bikeways: A term that encompasses bicycle lanes, bicycle paths, and bicycle routes.

Buildable Area/Buildable Pad: For purposes of this Specific Plan, refers to the area where a structure may be erected on a lot. The buildable area/pad does not necessarily coincide with the legal lot lines and accounts for graded slope areas, fault zones, and fuel modification zones where building is not permitted.

Buildout: Development of land to its full potential or theoretical capacity as permitted under current or proposed planning or zoning designations.

Density, residential: A measurement of the number of permanent residential dwelling units per acre of land. Densities specified may be expressed in units per gross acre or per net developable acre. (See "Acres, gross" and "Developable acres, net.")

Developable acres, net: The portion of a site that can be developed and is assumed for the purpose of density calculations. This area would include the building pad but not public or private road rights-of-way and flood control channels.

Developable land: Land that is suitable for structures and can be developed without hazards to, disruption of, or significant impact on natural resource areas.

Dwelling unit: A room or group of rooms (including sleeping, eating, cooking, and sanitation facilities, but not more than one kitchen), that constitutes an independent housekeeping unit, occupied or intended for occupancy by one household on a long-term basis.

Family: (1) Two or more persons related by birth, marriage, or adoption (Census Bureau); (2) An individual or a group of persons living together who constitute a bona fide single-family housekeeping unit in a dwelling unit, not including a fraternity, sorority, club, or other group of persons occupying a hotel, lodging house, or institution of any kind (State of California).

Granny flat: See "Second unit."

Household: All those persons (related or unrelated), who occupy a single housing unit. (See "Family.")

Housing unit: The place of permanent or customary abode of a person or family. A housing unit may be a single-family dwelling, a multifamily dwelling, a condominium, a modular home, a mobile home, a cooperative, or any other residential unit considered real property under state law. A housing unit has, at least, cooking facilities, a bathroom, and a place to sleep. It also is a dwelling that cannot be moved without substantial damage or unreasonable cost. (See "Dwelling unit," "Family," and "Household.")

Intensity, building: For residential uses, the actual number or the allowable range of dwelling units per net or gross acre.

Land use classification: A system for classifying and designating the appropriate use of properties.

Median: The dividing area, either paved or landscaped, between opposing lanes of traffic on a roadway.

Neighborhood: A grouping of residential, commercial, service, and recreational uses that are related by their orientation, design, or access points.

Nonconforming use: A lawful use of a building or land, or any part thereof, existing at the time of the adoption of this title that does not conform to the regulations for the district in which it is located as set forth in this title.

Open space land: Any parcel or area of land or water that is essentially unimproved and devoted to an open space use for the purposes of (1) the preservation of natural resources, (2) the managed production of resources, (3) outdoor recreation, or (4) public health and safety.

Parcel: A lot in single ownership or under single control, usually considered a unit for purposes of development.

Parkland: Land that is publicly owned or controlled for the purpose of providing parks, recreation, or open space for public use.

Parking area, public: An open area, excluding a street or other public way, used for the parking of automobiles and available to the public, whether for free or for compensation.

Parks: Open space lands for the primary purpose of recreation.

Parkway: A piece of land between the rear of a curb and the front of a sidewalk usually used for planting low ground cover and/or street trees, also known as a "planter strip."

Recreation, active: A type of recreation or activity that requires the use of organized play areas including, but not limited to, softball, baseball, football, and soccer fields; tennis and basketball courts; and various forms of children's play equipment.

Recreation, passive: Type of recreation or activity that does not require the use of organized play areas and includes multipurpose trails and picnic areas.

Right-of-way: A strip of land occupied or intended to be occupied by certain transportation and public use facilities, such as roads, railroads, and utility lines.

Second unit: A self-contained living unit either attached to or detached from the primary residential unit on a single lot. A "granny flat" is one type of second unit intended for the elderly.

Street, collector: A relatively low speed (25–30 mph), relatively low volume (5,000–20,000 average daily trips) street that provides circulation within and between neighborhoods. Collectors usually serve short trips and are intended for collecting trips from local streets and distributing them to the arterial network.

Street, local: A low-speed (15–25 mph), low-volume (less than 5,000 average daily trips) street that provides circulation within neighborhoods. Local streets provide direct access to fronting properties and are not intended for through-traffic. Local streets are typically not shown on the Circulation Plan, Map, or Diagram.

Street, private/private road: Privately owned (and usually privately maintained) motor vehicle access that is not dedicated as a public street. Typically the owner posts a sign indicating that the street is private property and limits traffic in some fashion. For density calculation purposes, private roads are excluded when establishing the total acreage of the site.

Streets, through: Streets that extend continuously between other major streets in the community.

Structure: Anything constructed or erected that requires a location on the ground (excluding swimming pools, fences, and walls used as fences).

Subdivision: The division of a tract of land into defined lots, either improved or unimproved, which can be separately conveyed by sale or lease, and which can be altered or developed. "Subdivision" includes a condominium project as defined in Section 1350 of the California Civil Code and a community apartment project as defined in Section 11004 of the Business and Professions Code.

Zoning: The division of a city or county by legislative regulations into areas, or zones, that specify allowable uses for real property and size restrictions for buildings within these areas; a program that implements policies of the General Plan.

APPENDIX B: GENERAL PLAN CONSISTENCY ANALYSIS

The San Bernardino General Plan, adopted in November 2005, sets the long-term strategy for City. The General Plan Vision states:

> *… developing an adequate and diverse supply of quality housing is one of our primary goals. Current and future residents need a balanced supply of housing, providing opportunities for first time homebuyers, students, estates, those in need of or choosing multi-family units, and individuals seeking single family homes.*
>
> *However, we do not want sterile living arrangements; instead, we offer safe and attractive neighborhoods with quality homes and a range of recreational amenities. We want to create a place where San Bernardino's homeowners and renters take pride in their surroundings and contribute to the beautification and upkeep of our community. We desire a place where we can own our homes, raise our families, and then retire in our community.*

This appendix provides an analysis of how the Spring Trails Specific Plan directly implements this vision and the goals of the City of San Bernardino General Plan. Please note that not every goal or policy of the General Plan is addressed as this analysis is focused only on the relevant goals and policies.

Land Use

General Plan Goals and Policies

Goal 2.1: Preserve and enhance San Bernardino's unique neighborhoods. (Land Use)

Policy 2.1.1 Actively enforce development standards, design guidelines, and policies to preserve and enhance the character of San Bernardino's neighborhoods. (LU-1)

Policy 2.1.2 Require that new development with potentially adverse impacts on existing neighborhoods or residents such as noise, traffic, emissions, and storm water runoff, be located and designed so that quality of life and safety in existing neighborhoods are preserved. (LU-1)

Goal 2.2: Promote development that integrates with and minimizes impacts on surrounding land uses. (Land Use)

Policy 2.2.1 Ensure compatibility between land uses and quality design through adherence to the standards and regulations in the Development Code and policies and guidelines in the Community Design Element. (LU-1)

Policy 2.2.2 Require new uses to provide mitigation or buffers between existing uses where potential adverse impacts could occur, including, as appropriate, decorative walls, landscape setbacks, restricted vehicular access, enclosure of parking structures to prevent sound transmission, and control of lighting and ambient illumination. (LU-1)

Policy 2.2.4 Hillside development and development adjacent to natural areas shall be designed and landscaped to preserve natural features and habitat and protect structures from the threats from natural disasters, such as wildfires and floods. (LU-1)

Goal 2.3: Create and enhance dynamic, recognizable places for San Bernardino's residents, employees, and visitors. (Land Use)

Policy 2.3.3 Entries into the City and distinct neighborhoods should be well defined or highlighted to help define boundaries and act as landmarks. (CD-1 and CD-3)

Goal 2.5 Enhance the aesthetic quality of land uses and structures in San Bernardino.

Policy 2.5.4 Require that all new structures achieve a high level of architectural design and provide a careful attention to detail. (LU-1)

Policy 2.5.6 Require that new developments be designed to complement and not devalue the physical characteristics of the surrounding environment, including consideration of (site specific design considerations of the surrounding environment - remaining items omitted)

Goal 2.6 Control development and the use of land to minimize adverse impacts on significant natural, historic, cultural, habitat, and hillside resources.

Policy 2.6.1 Hillside development and development adjacent to natural areas shall be designed and sited to maintain the character of the City's significant open spaces and historic and cultural landmarks. (LU-1)

Goal 2.7 Provide for the development and maintenance of public infrastructure and services to support existing and future residents, businesses, recreation, and other uses.

Policy 2.7.1 Enhance and expand drainage, sewer, and water supply/storage facilities to serve new development and intensification of existing lands. (U-1)

Policy 2.7.2 Work with the San Bernardino Valley Municipal Water District to create additional water storage capacity and take advantage of the abundant water supplies. (U-1)

Policy 2.7.5 Require that development be contingent upon the ability of public infrastructure to provide sufficient capacity to accommodate its demands and mitigate its impacts. (LU-1)

Goal 2.8Protect the life and property of residents, businesses, and visitors to the City of San Bernardino from crime and the hazards of flood, fire, seismic risk, and liquefaction.

Policy 2.8.1 Ensure that all structures comply with seismic safety provisions and building codes. (LU-1)

Policy 2.8.2 Ensure that design and development standards appropriately address the hazards posed by wildfires and wind, with particular focus on the varying degrees of these threats in the foothills, valleys, ridges, and the southern and western flanks of the San Bernardino Mountains. (LU-1 and A-1)

Specific Plan Response

Upon annexation into the City, the entire Spring Trails site was designated as Residential Estate, and as appropriate based on slope studies, the Foothill Fire Zone, on both the City's General Plan and Zoning maps. The Residential Estate designation permits one dwelling unit per acre. Through the Spring Trials Specific Plan, development was clustered into the most appropriate areas so that, when taken individually, certain lots exceeded the one unit per acre density limit yet on a gross basis still complied with the overall density restrictions of the Residential Estate land use designation.

Spring Trails is a 352.8-acre residential development in the foothills of the San Bernardino Mountains. Spring Trails accommodates 304 residences (307 residences in the alternative plan) situated in several neighborhoods, which are separated by open space corridors, drainage ways, and sloped areas and

interconnected by a series of trails and roadways. The development footprint of Spring Trails is focused on the gently sloping alluvial benches between canyons, steep hillsides, and the Cable Canyon and Meyers Canyon drainageways. Development is focused onto approximately 242 acres, or 68 percent of the total site, and includes 9 acres of parks and 125.1 acres of internal slopes and fuel modification zones. The remaining 32 percent of Spring Trails (111.3 acres) is preserved as natural open space.

The following elements of the Specific Plan promote the land use goals of the General Plan:

- Providing approximately 111 acres of permanent open space.
- Carefully weaving Spring Trails into its physical surroundings by clustering development on the gentle slopes; avoiding steep slopes, ridgelines, and physical hazards; and preserving significant drainage ways.
- Including guidelines and standards that address unique entries, tailored landscaping, and detailed design factors that will help make Spring Trails a unique neighborhood in San Bernardino.
- Providing two points of access that directly connect to collector roads and avoid existing neighborhoods: the primary access connecting to Little League Drive and a new secondary access road connecting to Frontage Road. The secondary access road is designed to restrict non-resident access onto Meyers Road.
- Providing two points of access for existing off-site residences and preserving an existing on-site residence.
- Maintaining the significant natural drainage courses on the property and capturing on-and off-site stormwater flows and routing them through a series of catch basin inlets and storm drain systems that convey water to three on-site detention basins where it is treated and discharged at a controlled rate into Cable Canyon. The drainage system and detention basins will reduce stormwater runoff from the site to levels below those that existed prior to the project.
- Minimizing the impacts of light intrusion and spillover. CSUSB is contemplating building an observatory on the nearby Badger Hill. To help preserve a dark nighttime sky, this Specific Plan includes controls on the type and design of lighting.
- Providing unique entries to create a recognizable identity and sense of arrival.

- Proving design guidelines and development standards that will result in distinctively designed residences set among a system of unified lighting, streetscape, landscape, and parks.

- Working with SBMWD to supply water to Spring Trails. Water from lower elevations by a combination of expanding and improving the off-site water system and the provision of on-site reservoirs and transmission lines.

- Requiring the developer(s) to be responsible for constructing/funding their fair share of required on- and off-site infrastructure improvements, such as water lines, sewers, storm drains, recycled-water lines, and streets.

- Addressing the significant natural features on the site such as the San Andreas Fault system and natural drainage courses that cut through the project and protecting against wildland fires as detailed in the Safety responses below.

Verdemont Heights Area Plan

General Plan Goals and Policies

Goal 2.1: Preserve and enhance San Bernardino's unique neighborhoods. (Land Use)

Policy 2.11 Create an identifiable and unique village that includes distinct residential neighborhoods and a full array of services and activities to meet the needs of residents of the area.

Policy 2.11.1Enhance the three distinct subareas that comprise Verdemont Heights:

a. Verdemont Estates, which is located in the northwestern portion of the area west of Little League Drive, has a rural character and consists of the larger lot residential uses.

2.11.2 Develop a trail system in Verdemont Heights and along Cable Creek that provide a complete access system and provides direct access to Verdemont Plaza.

2.11.4 As shown on Figure LU-6, develop an integrated corridor enhancement system, including landscaping and signage, which are unique to Verdemont Heights. The following policies shall direct the development of corridors within Verdemont Heights:

2.11.6 Ensure that new developments either provide their fair share of recreational facilities based upon the City's parkland requirements or appropriate in-lieu fees.

Specific Plan Response

Spring Trails is in keeping with the rural character of the northwestern portion of Verdemont Heights with an average lot size of 29,000 square feet. The largest lots are on the upper elevations of the site and the largest lot measures 18.3 acres. The smallest lots are on the lower elevations and the smallest lot measures 10,801 square feet. The residences are separated by open space corridors, drainage ways, and sloped areas and interconnected by a series of trails and roadways. Development is focused onto approximately 242 acres, or 68 percent of the total site, and includes 9 acres of parks and 125.1 acres of internal slopes and fuel modification zones. The remaining 32 percent of Spring Trails (111.3 acres) is preserved as natural open space.

Maximum buildout of the Spring Trails Specific Plan would accommodate approximately 1,028 residents. Based on the City's standard of 5 acres of parkland per 1,000 residents, full buildout of the Specific Plan would result in the need to provide 5.14 acres of parkland or an equivalent fee in lieu of dedicated parkland. Spring Trails provides approximately 245.4 total acres of public and private parkland, open space, and trails and the 9.0 acres of usable public and private parks exceed City requirements. In addition, there are 3.8 miles of trails that provide access to the surrounding natural open spaces.

The following elements of the Specific Plan promote the land use goals of the General Plan:

- Including guidelines and standards that address unique entries, tailored landscaping, and detailed design factors that will help make Spring Trails a unique neighborhood in San Bernardino.

- Providing unique entries to create a recognizable identity and sense of arrival.

Circulation

General Plan Goals and Policies

Goal 6.1: Provide a well-maintained street system. (Circulation)

Goal 6.2: Maintain efficient traffic operations on City streets. (Circulation)

Policy 6.2.2 Design each roadway with sufficient capacity to accommodate anticipated traffic based on intensity of projected and planned land use in the City and the region while maintaining a peak hour level of service (LOS) "C" or better.

Policy 6.2.5 Design roadways, monitor traffic flow, and employ traffic control measures (e.g. signalization, access control, exclusive right and left turn-turn lanes, lane striping, and signage) to ensure City streets and roads continue to function safely within our Level of Service standards.

Goal 6.3: Provide a safe circulation system. (Circulation)

Policy 6.3.4 Require appropriate right-of-way dedications of all new developments to facilitate construction of roadways shown on the Circulation Plan. (LU-1)

Policy 6.3.6 Locate new development and their access points in such a way that traffic is not encouraged to utilize local residential streets and alleys. (LU-1)

Policy 6.3.7 Require that adequate access be provided to all developments in the City including secondary access to facilitate emergency access and egress (LU-1).

Specific Plan Response

Spring Trails consists of a hierarchy of streets, including collector and local roads, which provides a comprehensive and connected street network and is designed to the specifications of the City of San Bernardino. Access to the project site will be provided via a new roadway extending from Little League Drive, and a new road extending south and connecting to the frontage road along I-215. These access points directly connect to collector roads and avoid existing neighborhoods: the primary access connecting to Little League Drive and a new secondary access road connecting to Frontage Road. The secondary access road is designed to restrict non-resident access onto Meyers Road. Spring Trails also provides two points of access for existing off-site residences.

Spring Trails also includes a system of bicycle and pedestrian trails that interconnect all neighborhoods and provide connections to the surrounding areas and region. In addition, several natural drainage ways and sloped areas are used as open space corridors and pathways.

Housing

General Plan Goals and Policies

Goal 3.1: Facilitate the development of a variety of types of housing to meet the needs of all income levels in the City of Sand Bernardino. (Housing)

Policy 3.1.1 Accommodate the production of new housing units on currently vacant or underutilized land at densities and standards designated in the Land Use Element of the General Plan.

Specific Plan Response

Spring Trails accommodates 304 single-family detached housing units (307 units in the alternative plan) that appeal to families, those looking to move up, and CSUSB faculty. The proximity of Spring Trails to the University may help attract teachers to the community and strengthen the ties between the City and University.

Prior to approval of this Specific Plan, Spring Trails was designated as Residential Estate on the General Plan Map. The Residential Estate designation permits one dwelling unit per acre and would accommodate a maximum of 352 units. Policies 2.2.4 and 2.6.1 of the City of San Bernardino General Plan as well as provisions in the Development Code allow for the clustering of development within the density limits permitted by the underlying Residential Estate land use category. Spring Trails was designed to cluster development into the most appropriate locations. As a result, individual lots within Spring Trials may be smaller than the lot sizes called for in the City of San Bernardino General Plan and individual lots may exceed the density limit called for in the City's General Plan; however, on a gross basis, the specific plan complies with the density restrictions of the Residential Estate land use designation (304 units on 353 acres or 307 units in the alternative plan).

Community Design

General Plan Goals and Policies

Goal 2.5: Enhance the aesthetic quality of land uses and structures in San Bernardino. (Land Use)

Goal 5.3: Recognize unique features in individual districts and neighborhoods and develop a program to create unifying design themes to identify areas throughout the City. (Community Design)

Policy 5.3.2 Distinct neighborhood identities should be achieved by applying streetscape and landscape design, entry treatments, and architectural detailing standards, which are tailored to each particular area and also incorporate citywide design features.

Policy 5.3.4 Enhance and encourage neighborhood or street identity with theme landscaping or trees, entry statements, enhanced school or community facility identification, and a unified range of architectural detailing.

Goal 5.4: Ensure individual projects are well designed and maintained. (Community Design)

Goal 5.5: Develop attractive, safe, and comfortable single-family neighborhoods. (Community Design)

Policy 5.5.4 Setback garages from the street and minimize street frontage devoted to driveways and vehicular access.

Policy 5.5.6 Ensure a variety of architectural styles, massing, floor plans, façade treatment, and elevations to create visual interest.

Policy 5.5.7 In residential tract developments, a diversity of floor plans, garage orientation, setbacks, styles, building materials,

Goal 12.8: Preserve natural features that are characteristic of San Bernardino's image. (Natural Resources and Conservation)

Specific Plan Response

The overall goal of the Specific Plan is to create an attractive and distinct community within the City of San Bernardino. The Spring Trails Specific Plan provides development standards and criteria for architecture, landscaping, entry monumentation, walls and fences, and other design elements in order to ensure a high quality development and strong community character.

In addition, Spring Trails is designed to enhance the aesthetic quality of San Bernardino through:

- The compact design of Spring Trails limits the development footprint so that open lands are maximized; natural drainage ways are maintained and incorporated into the design of the project as open space amenities and landscaping; and hazards are avoided or mitigated.
- Standards that require a variety of garage placements and setbacks, product types, colors, and materials.

- Unique entries that create a recognizable identity and sense of arrival.
- Avoiding development on ridgelines and steep slopes so that views of the mountains are not impacted.
- An interconnected system of open spaces that serve multiple purposes as drainage courses, pedestrian pathways, recreational and visual amenities, and separations between neighborhoods.
- Distinctively designed residences set among a system of unified lighting, streetscape, landscape, and parks.

Maintenance assessment district(s) will be responsible for maintaining the long-term aesthetic quality of Spring Trails. Maintenance responsibilities may be divided between a Master Homeowners Association, Neighborhood Associations, Landscape and Lighting Maintenance District(s), and/or other maintenance mechanisms.

Utilities and Public Services

General Plan Goals and Policies

Goal 2.7: Provide for the development and maintenance of public infrastructure and services to support existing and future residents, businesses, recreation, and other uses. (Land Use)

Goal 9.1: Provide a system of wastewater collection and treatment facilities that will adequately convey and treat wastewater generated by existing and future development on the City's service area. (Utilities)

Policy 9.1.3 Require new development to connect to a master planned sanitary sewer system in accordance with the Department of Public Works' "Sewer Policy and Procedures". Where construction of master planned facilities is not feasible, the Mayor and Common Council may permit the construction of interim facilities sufficient to serve the present and short-term future needs.

Goal 9.3: Provide water supply, transmission, distribution, storage, and treatment facilities to meet present and future water demands in a timely and cost effective manner. (Utilities)

Policy 9.3.1 Provide for the construction of upgraded and expanded water supply, transmission, distribution, storage, and treatment facilities to support existing and new development. (LU-1 and U-4)

Goal 9.4: Provide appropriate storm drain and flood control facilities where necessary. (Utilities)

Policy 9.4.5 Implement flood control improvements that maintain the integrity of significant riparian and other environmental habitats.

Policy 9.4.6 Minimize the disturbance of natural water bodies and natural drainage systems. (LU-1)

Policy 9.4.8 Minimize the amount of impervious surfaces in conjunction with new development. (LU-1)

Policy 9.4.10 Ensure compliance with the Federal Clean Water Act requirements for National Pollutant Discharge Elimination System (NPDES) permits, including requiring the development of Water Quality Management Plans, Erosion and Sediment Control Plans, and Storm Water Pollution Prevention Plans for all qualifying public and private development and significant redevelopment in the City. (LU-1)

Goal 9.5: Provide adequate and orderly system for the collection and disposal of solid waste to meet the demands of new and existing development in the City. (Utilities)

Goal 9.6: Ensure an adequate, safe, and orderly supply of electrical energy is available to support existing and future land uses within the City on a project level. (Utilities)

Goal 9.7: Ensure an adequate supply of natural gas is available to support existing and future land uses within the City at a project level. (Utilities)

Goal 9.8: Ensure the operation and maintenance of telecommunications systems to support existing and future land uses within the City. (Utilities)

Goal 9.10: Ensure that the costs of infrastructure improvements are borne by those who benefit. (Utilities)

Specific Plan Response

Spring Trails has been designed with a careful attention to the provision of services and infrastructure. According to initial studies, there is adequate supply, capacity, and facilities to accommodate the buildout of Spring Trails.

Dry Utilities. Spring Trails will be served with electric, gas, solid waste collection, telephone cable, and Internet (data) from companies serving the City of San Bernardino. The utility providers, including the Gas Company, Southern California Edison, Verizon, and Charter Communications, have indicated the ability to provide service to Spring Trails.

Water. The City of San Bernardino Municipal Water Department (SBMWD) will provide water services to Spring Trails. Water will be supplied to Spring Trails from lower elevations by a combination of expanding and improving the

off-site water system and the provision of on-site reservoirs and transmission lines. Detailed water system improvement plan and supply analysis have been prepared and demonstrate that adequate water supply and service are available to accommodate the buildout of Spring Trails.

Drainage. Spring Trails maintains the significant drainage courses on-site to carry most of the off-site water through the site to existing drainage facilities. The drainage concept for Spring Trails is designed to either maintain natural drainage courses or capture both on-and off-site stormwater flows and route them through a series of catch basin inlets and storm drain systems that convey water to three on-site detention basins where it is treated and discharged at a controlled rate into Cable Canyon. The drainage system and detention basins will reduce stormwater runoff from the site to levels below those that existed prior to the project. Spring Trails will be required to comply with and obtain necessary NPDES and SWPPP permits.

Sewer. The Spring Trails project lies within the City of San Bernardino sanitary sewer service area. Spring Trails will connect to the City's existing 10-inch sewer line that ends at Little League Drive and Meyers Road, which is then connected to the south to a major interceptor system and is eventually treated in the San Bernardino Water Reclamation Plant. Existing capacity is available in the sewer system to serve the buildout population within the City. The sewer facilities will be designed and constructed in accordance with the City of San Bernardino standards and specifications and in accordance with the *Standard Specifications for Public Works Construction* (latest edition).

In addition, the infrastructure that crosses earthquake faults is designed to handle earthquakes and surface ruptures.

Within Spring Trails, the developer(s) will be responsible for constructing/ funding their fair share of required on- and off-site infrastructure improvements, such as water lines, sewers, storm drains, recycled-water lines, and streets. All infrastructure improvements will be developed in conjunction with the roadway improvements.

Parks, Trails, and Open Space

General Plan Goals and Policies

Goal 8.1: Improve the quality of life in San Bernardino by providing adequate parks and recreation facilities and services to meet the needs of our residents. (Parks, Recreation, and Trails)

Goal 8.2: Design and maintain our parks and recreation facilities to maximize safety, function, beauty, and efficiency. (Parks, Recreation, and Trails)

Goal 8.3: Develop a well-designed system of interconnected multi-purpose trails, bikeways, and pedestrian paths. (Parks, Recreation, and Trails)

Policy 8.3.9 Separate bikeway and trail systems from traffic and roadways wherever possible. (PRT-1)

Policy 8.3.10 Provide clear separation of hikers, joggers, and equestrians where possible. (PRT-1)

Goal 8.4Provide adequate funding for parkland and trails acquisition, improvements, maintenance, and programs.

Policy 8.4.2 Continue to require developers of residential subdivisions to provide fee contributions based on the valuation of the units to fund parkland acquisition and improvements. (LU-1)

Policy 8.4.4 Continue and expand mechanisms by which the City may accept gifts and dedications of parks, trails, open space, and facilities. (PRT-2)

Specific Plan Response

Maximum buildout of the Spring Trails Specific Plan would accommodate approximately 1,028 residents. Based on the City's standard of 5 acres of parkland per 1,000 residents, full buildout of the Specific Plan would result in the need to provide 5.14 acres of parkland or an equivalent fee in lieu of dedicated parkland. Spring Trails provides approximately 245.4 total acres of public and private parkland, open space, and trails and the 9.0 acres of usable public and private parks exceed City requirements. In addition, there are 3.8 miles of trails that provide access to the surrounding natural open spaces

Spring Trails will be integrated and linked both internally and with surrounding uses via 3.8 miles of multi-purpose trails as well as on-street bike lanes. The open spaces and parks will be maintained by homeowners associations and/or lighting and landscape maintenance district.

Safety

General Plan Goals and Policies

Goal 2.8: Protect the life and property of residents, businesses, and visitors to the City of San Bernardino from crime and the hazards of flood, fire, seismic risk, and liquefaction. (Land Use)

Goal 7.1: Protect the residents of San Bernardino from criminal activity and reduce the incidence of crime. (Public Facilities and Services)

Goal 7.2: Protect the residents and structures of San Bernardino from the hazards of fire. (Public Facilities and Services)

Policy 7.2.6 Require that all buildings subject to City jurisdiction adhere to fire safety codes. (LU-1)

Goal 10.6: Protect the lives and properties of residents and visitors of the City from flood hazards. (Safety)

Goal 10.5 Reduce urban run-off from new and existing development.

Policy 10.5.1 Ensure compliance with the Federal Clean Water Act requirements for National Pollutant Discharge Elimination System (NPDES) permits, including developing and requiring the development of Water Quality Management Plans for all new development and significant redevelopment in the City. (LU-1)

Policy 10.5.2 Continue to implement an urban runoff reduction program consistent with regional and federal requirements, which includes requiring and encouraging the following:

- *Increase permeable areas to allow more percolation of runoff into the ground;*
- *Use natural drainage, detention ponds or infiltration pits to collect runoff;*
- *Divert and catch runoff using swales, berms, green strip filters, gravel beds and French drains;*
- *Install rain gutters and orient them towards permeable surfaces;*
- *Construct property grades to divert flow to permeable areas;*
- *Use subsurface areas for storm runoff either for reuse or to enable release of runoff at predetermined times or rates to minimize peak discharge into storm drains;*
- *Use porous materials, wherever possible, for construction of driveways, walkways and parking lots; and*
- *Divert runoff away from material and waste storage areas and pollution-laden surfaces such as parking lots. (LU-1)*

Policy 10.5.4 Require new development and significant redevelopment to utilize site preparation, grading and foundation designs that provide erosion control to prevent sedimentation and contamination of waterways. (LU-1)

Goal 10.7: Protect life, essential lifelines, and property from damage resulting from seismic activity. (Safety)

Goal 10.8 Prevent the loss of life, serious injuries, and major disruption caused by the collapse of or severe damage to vulnerable buildings in an earthquake.

Policy 10.8.2 Require that lifelines crossing a fault be designed to resist the occurrence of fault rupture.

Goal 10.9: Minimize exposure to and risks from geologic activities. (Safety)

Goal 10.10: Protect people and property from the adverse impacts of winds. (Safety)

Goal 10.11: Protect people and property from urban and wildland fire hazards. (Safety)

Specific Plan Response

Spring Trails contains several significant natural features that have made safety a special concern in the design of the community. Significantly, the San Andreas Fault system runs through the project, natural drainage courses cut through the project, and wildland fire is a threat.

Seismic Safety. Spring Trails includes three traces of the San Andreas Fault, which runs in an east–west direction through the northern and southern portions of the project site. These faults were precisely located through detailed geologic investigations to establish safe structural setback limits. Development in Spring Trails is sited to avoid the fault and comply with the Alquist-Priolo requirements. Development is required to comply with the latest building codes, which are designed to resist damage from seismic shaking. In addition, as noted in Section 3, *Development Standards*, the infrastructure that crosses earthquake faults must be designed to handle earthquakes and surface ruptures and the detailed structural plans will be approved in the grading, infrastructure, and building permit process as appropriate. In particular, this Specific Plan requires that:

- All structures in Spring Trails shall be required to meet or exceed the applicable seismic design standards of the California Building Standards Code, which correspond to the level of seismic risk in a given location.
- Construction of habitable buildings shall not occur over or within 50 feet of any known active fault or as required by the geotechnical analyses.
- No water reservoir or booster pump station shall be constructed within 15 feet of an active fault.
- Grading for building pads and roads shall conform to specifications of the geologist, based on a soils study and final geotechnical study.

- Flexible materials and joints shall be used for infrastructure (e.g., roads, sewer and water lines) located across known faults.
- Flexible pipe fittings shall be used to avoid gas or water leaks. Flexible fittings are more resistant to breakage.
- The final project grading plan shall be reviewed by the City geologist.

Drainage and Flooding. Because Spring Trails sits on an alluvial plain on the slopes of the San Bernardino Mountains, flooding and drainage is a critical factor. On a regional perspective, the drainage area of which Spring Trails belongs flows east into Cable Canyon, then into Cable Creek, and eventually into the Santa Ana River. The site itself consists of four major drainage patterns:

- Drainage area A. A 2,030-acre drainage area (148.9 acres on-site and 1,881 acres off-site) that includes the west and east forks of Cable Canyon, which flow south through the northeastern corner of the property and meet a tributary flowing from the east.
- Drainage area B. A 63.7-acre watershed (51.6 acres on-site and 12.1 acres off-site) comprises surface flow drainage that flows southwesterly through the center of the site and ultimately into Cable Canyon.
- Drainage area C. A 198.2-acre watershed (128.4 acres on-site and 69.8 acres off-site) that consists of off-site surface flows and a defined drainage course that run onto the site and exit through the southeastern part of the project.
- Drainage area D. A 341.6-acre drainage area (21.8 acres on-site and 319.8 acres off-site) that includes Meyers Creek.

Spring Trails is designed to either maintain natural drainage courses or capture both on-and off-site stormwater flows and route them through a series of catch basin inlets and storm drain systems that convey water to three on-site detention basins where it is treated and discharged at a controlled rate into Cable Canyon. The drainage system and detention basins will reduce stormwater runoff from the site to levels below those that existed prior to the project. Spring Trails will be required to comply with and obtain necessary NPDES and SWPPP permits.

Portions of Cable Canyon and Meyers Canyon are identified as 100-year flood zones, which are constrained to the deep channels of the creeks, and development is located to avoid these areas and minimize road crossings.

Wildland Fire. Because of the adjacent San Bernardino National Forest, steep slopes, and high winds, the Spring Trails area is at risk from wildland fires. To ensure the safety of lives and property, a detailed fire analysis was conducted and an extensive fire protection plan was developed for Spring Trails that will

protect development from wildland fires. Significant provisions of the fire protection plan include:

- The protection of structures through the use of noncombustible exterior building materials, restriction on the use of cornice and eave vents, fire sprinklers, and compliance with the most current fire codes.
- Greater levels of structure protection on the perimeters of the project.
- Placement of streets on the perimeter of the project to provide a firebreak and a first line of defense against fires.
- Adequate access and maneuverability for fire protection vehicles.
- Careful placement of fire hydrants and design of structures to facilitate fire suppression efforts and fire hose access.
- Strict landscape and use zones, called fuel modification zones, which include private yards and extend approximately 170 to 230 feet from structures. Within the fuel modification zones, there are restrictions on the type, spacing, irrigation, and maintenance of landscaping.
- Clear disclosure to potential homebuyers of the fire threat, preventative measures, and individual responsibilities.
- Clear delineation of and maintenance responsibilities for the fuel modification zones.
- Aggressive program to educate residents on the fire threat, landscaping requirements, and maintenance responsibilities.

High Winds. The City of San Bernardino experiences periods of high winds, especially in the Cajon Pass and at the bottom of canyons. Spring Trails is included in the City's designated High Wind Area, which has certain appropriate building standards. Development in Spring Trails is required to comply with the building standards for this area and will be designed and oriented to avoid the creation of wind tunnels that concentrate gusts in corridors.

Environmental Sensitivity

General Plan Goals and Policies

Goal 2.6: Control development and the use of land to minimize adverse impacts on significant natural, historic, cultural, habitat, and hillside resources. (Land Use)

Goal 10.4: Minimize the threat of surface and subsurface water contamination and promote restoration of healthful groundwater resources. (Safety)

Goal 10.5: Reduce urban run-off from new and existing development. (Safety)

Goal 12.1: Conserve and enhance San Bernardino's biological resources. (Natural Resources and Conservation)

Goal 12.2: Protect riparian corridors to provide habitat for fish and wildlife. (Natural Resources and Conservation)

Goal 12.3: Establish open space corridors between and to protected wildlands. (Natural Resources and Conservation)

Policy 12.2.3 Pursue voluntary open space or conservation easements to protect sensitive species or their habitats. (NR-1)

Goal 12.5: Promote air quality that is compatible with the health, well-being, and enjoyment of life. (Natural Resources and Conservation)

Goal 12.6: Reduce the amount of vehicular emissions in San Bernardino. (Natural Resources and Conservation)

Goal 13.1: Conserve scarce energy resources. (Energy and Water Conservation)

Goal 13.2: Manage and protect the quality of the City's surface waters and ground water basins. (Energy and Water Conservation)

Specific Plan Response

The Spring Trails Specific Plan includes guidelines that address sustainable and green building practices for the individual building as well as overall community design. The sustainability guidelines address the use of active and passive energy and resource conservation measures—such as efficient landscaping and building designs—and utilization of other green building techniques/materials. The land plan for Spring Trails is based on this commitment. In particular, development is focused on 70 percent of the total site, avoiding significant drainage corridors, fault zones, steep slopes, and ridgelines.

Another critical sustainability issue is water and watershed management. Spring Trails includes the following elements to address the critical issues of water conservation, water quality, and watershed management:

- The compact design limits the development footprint; open lands that can absorb runoff are maximized.
- Natural drainage ways are maintained and incorporated into the design of the project as open space amenities.
- Landscaping and irrigation materials and methods are designed to increase efficiency and minimize water demand.
- Efficient, water-conserving technologies, such as low-flow toilets, are used.
- Drainage outlets, bioswales, and other permeable surfaces will be designed to control urban runoff pollutants caused by the development of the project.

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APPENDIX C: FIRE PROTECTION PLAN

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Insert 36"x60" Fire Protection Plan Sheet 1 – To be provided in final version

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Insert 36"x60" Fire Protection Plan Sheet 2 – To be provided in final version

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Insert 36"x60" Fire Protection Plan Sheet 3 – To be provided in final version

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Insert 36"x60" Fire Protection Plan Sheet 4 – To be provided in final version

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APPENDIX D: FOOTHILL FIRE ZONES OVERLAY DISTRICT CONFORMANCE

This section outlines Spring Trails' compliance with the standards contained in the City of San Bernardino's Foothill Fire Zones Overlay District. Spring Trails is located within the City's FF (Foothill Fire Zones Overlay) District. The overlay district identifies 3 foothill fire zones that have different degrees of hazard. The foothill fire zones are: A-Extreme Hazard, B-High Hazard, and C-Moderate Hazard. Development within Spring Trails is within Fire Zone C. The following table describes Spring Trails' compliance with the standards contained in the FF District (Section 19.15.040).

FF District Standards

Section	FF District Standard	Spring Trails Compliance
1. Access and Circulation		
1.A.	Local hillside street standards shall be used to minimize grading and erosion potential while providing adequate access for vehicles, including emergency vehicles. The right-of-way shall be 48.5 feet with 40 feet of paved width and parking on both sides and a sidewalk on 1 side. (A + B)	Cul-de-sacs with homes fronting on both sides have a right-of-way of 46 feet with parking on both sides and a paved width of 36 feet. Cul-de-sacs with homes fronting on only one side have a right-of-way of 40 feet with parking on one side and a paved width of 32 feet. All other streets have a right-of-way of 50 feet, except as noted in 1.B. below.
1.B.	Streets shall have a paved width of 32 feet with parking and sidewalk on 1 side of the street only and right-of-way of 40.5 feet, subject to review and recommendation by the Fire Chief and the City Engineer, with approval by the Commission. (A + B)	Secondary local roads have a right-of-way of 40 feet with parking and sidewalk on one side of the street and a paved width of 32 feet.
1.C.	Subdivisions shall be designed to allow emergency vehicle access to wildland areas behind structures. This is to be accomplished in either of 2 ways:	

Appendix

Section	FF District Standard	Spring Trails Compliance
	1. Provide a perimeter street along the entire wildland side of development or	Spring Trails provides a perimeter road along portions of the eastern side of the development.
	2. Provide a fuel-modified area, a minimum of 150 feet in depth from the rear of the structure, adjacent to the subdivision and connected to the interior street by flat 12 foot minimum access ways placed no more that 350 feet apart. If designed as a gated easement, access ways may be part of a side yard. (A + B + C where abuts wildland)	Spring Trails also provides a minimum 170-foot-deep fuel-modified area from the rear of structures that are adjacent to wildland areas.
1.D.	No dead-end streets are permitted. Temporary cul-de-sacs are required.	Spring Trails does not have dead-end streets.
1.E.	All permanent cul-de-sac turnarounds and curves shall be designed with a minimum radius of 40 feet to the curb face. No parking shall be allowed on the bulb of a cul-de-sac. (A + B + C)	Cul-de-sacs within Spring Trails are designed with a minimum radius of 40 feet and no parking will be allowed on the bulb of the cul-de-sac.
1F.	Cul-de-sacs to a maximum of 750 feet in length may be permitted with a maximum of 30 dwelling units, and to a maximum of 1,000 feet in length with a maximum of 20 dwelling units. (A + B)	The cul-de-sacs comply with this requirement. The maximum proposed cul-de-sac length is 885 feet with 9 D.U.
1.G.	Driveways to residential garages of more than 30 feet in length shall extend for a minimum distance of 20 feet from the garage, on a maximum grade of 5%. Driveways less than 30 feet in length shall have a maximum grade of 8% for a minimum distance of 20 feet from the garage. No portion of a driveway shall exceed a grade of 15%, unless approved by the Fire Chief and City Engineer. Driveways shall be designed so that the algebraic difference in grades will not cause a vehicle to drag or hang-up. (A+B+C)	Driveways greater than 30 feet in length shall have maximum grade of 10% for a minimum distance of 20 feet from the garage. Driveways less than 30 feet in length shall have a maximum grade of 12% for a minimum distance of 20 feet from the garage. Any variance would require approval from the Fire Chief and/or City Engineer.
1.H.	Hillside collector and arterial streets shall not exceed 8% grade. Hillside residential streets shall not exceed 15% grade. Grades of streets shall be as provided in this subsection, unless otherwise approved in writing by the Public	Primary local roads with a 50-foot right-of-way are designed with a maximum grade of 12%.

Section	FF District Standard	Spring Trails Compliance
	Services, Fire, and Public Works Departments. (A+B+C)	
1.I.	A tentative tract or parcel map shall provide for at least 2 different standard means of ingress and egress which provide safe, alternate traffic routes subject to approval by the Fire Department. The two separate means of access shall be provided pursuant to Section 19.30.200 of this Development Code. (A+B+C)	Spring Trails provides two points of access to the development.
2. Site and Street Identification		
2.A.	Non-combustible and reflective street markers shall be visible for 100 feet pursuant to City standards. (A+B+C)	Spring Trails will include noncombustible, reflective street markers that will be visible for 100 feet.
2.B.	Non-combustible building addresses of contrasting colors shall be placed on the structure fronting the street. Four inch high (residential) and 5 inch high (commercial) lettering and numbers visible at least 100 feet are required. (A+B+C)	Spring Trails will provide noncombustible building addresses of contrasting colors on structures fronting the street.
3. Roadside Vegetation		
3.	All vegetation shall be maintained and all dead plant material shall be removed for a distance of 10 feet from curbline. (A+B+C)	All vegetation within Spring Trails will be maintained by either the Master Homeowners Association or Landscape and Lighting Maintenance District.
4. Water Supply		
4.A.	Static water sources such as fire hydrants and wells shall have clear access on each side of at least 15 feet. (A+B+C)	Static water sources within Spring Trails will have clear access on each side of at least 15 feet.
4.B.	A minimum of 2 private spigots facing the foothills/wildlands shall be required for each structure. (A+B+C)	A minimum of 2 private spigots facing the foothills/wildlands will be provided on each structure within Spring Trails.
4.C.	Fire hydrants shall be identified with approved blue reflecting street markers. (A+B+C)	Fire hydrants will be identified with approved blue reflecting street markers within Spring Trails.

Section	FF District Standard	Spring Trails Compliance
4.D.	Each cul-de-sac greater than 300 feet in length shall have a minimum of 1 hydrant. (A+B+C)	Cul-de-sacs within Spring Trails over 300 feet in length will have at least one fire hydrant.
4.E.	Minimum fire flow shall be 1,000 gallons per minute. (A+B+C)	Spring Trails will provide a minimum fire flow of 1,000 gallons per minute.
5. Erosion Control		
5.A.	All fills shall be compacted. (A+B+C)	All fills within Spring Trails will be compacted.
5.B.	For all new projects, erosion and drainage control plans must be prepared by a licensed civil engineer, and be approved prior to permit issuance. (A+B+C)	Erosion and drainage control plans have been prepared by a licensed civil engineer.
5.C.	The faces at all cut and fill slopes shall be planted with a ground cover approved by the City Engineer. This planting shall be done as soon as practicable and prior to final inspection. Planting of any slope less than 5 feet in vertical height, or a cut slope not subject to erosion due to the erosion-resistant character of the materials, may be waived by the City Engineer. An automatic irrigation system shall be installed for planted slopes in excess of 15 feet in vertical height, unless recommended otherwise in the preliminary soils report or waived by the City Engineer. If required by the City Engineer, a recommendation for types of planting materials shall be obtained from a Landscape Architect. The Landscape Architect shall, prior to final inspection, provide the City Engineer with a statement that the planting has been done in compliance with recommendations approved by the City Engineer. (A+B+C)	The faces of all cut-and-fill slopes within Spring Trails will be planted with ground cover approved by the City Engineer. An automatic irrigation system will be installed for planted slopes in excess of 15 feet in vertical height, unless recommended otherwise in the preliminary soils report or waived by the City Engineer. The Landscape Architect will provide the City Engineer with a statement that the planting has been done in compliance with recommendations approved by the City Engineer.
5.D.	Erosion landscaping plans shall incorporate the use of fire resistant vegetation. (A+B+C)	All erosion landscaping plans within Spring Trails will use fire-resistant vegetation.
5.E.	All parties performing grading operations, under a grading permit issued by the City Engineer, shall take	All parties performing grading operations within Spring Trails will take

Section	FF District Standard	Spring Trails Compliance
	reasonable preventive measures, such as sprinkling by water truck, hydroseeding with temporary irrigation, dust palliatives, and/or wind fences as directed by the City Engineer, to avoid earth or other materials from the premises being deposited on adjacent streets or properties, by the action of storm waters or wind, by spillage from conveyance vehicles or by other causes. Earth or other materials which are deposited on adjacent streets or properties shall be completely removed by the permittee as soon as practical, but in any event within 24 hours after receipt of written notice from the City Engineer to remove the earth or materials, or within such additional time as may be allowed by written notice from the City Engineer. In the event that any party performing grading shall fail to comply with these requirements, the City Engineer shall have the authority to engage the services of a contractor to remove the earth or other materials. All charges incurred for the services of the contractor shall be paid to the City by the permittee prior to acceptance of the grading. (A+B+C)	reasonable preventive measures to avoid earth or other materials from the premises being deposited on adjacent streets or properties. Earth or other materials that are deposited on adjacent streets or properties will be completely removed by the permittee as soon as practical, but in any event, within 24 hours after receipt of written notice from the City Engineer, or within additional time as allowed by written notice from the City Engineer.
6. Construction and Development Design		
6.A.	Building standards governing the use of materials and construction methods for structures contained within the Foothill Fire Zones shall be in accordance with the San Bernardino Municipal Code Section 15.10.	Materials and construction methods for structures within Spring Trails will be in accordance with the San Bernardino Municipal Code.
6.B.	A slope analysis shall be filed with all discretionary applications for all projects in Fire Zones A & B consistent with the Hillside Management section of the General Plan and Section 19.17.080(2) of this Development Code. (A+B)	A slope analysis has been prepared and is included as part of the Spring Trails Specific Plan.
6.C.	Structures shall be located only where the upgraded slope is 50% or less. If the	No structure within Spring Trails is adjacent to a slope

Section	FF District Standard	Spring Trails Compliance
	building pad is adjacent to a slope which is greater than 50% and is greater than 30 feet in height, a minimum pad setback of 30 feet from the edge of the slope is required. The setback may be less than 30 feet only when the entire slope, or 100 feet adjacent to the building pad, whichever is less, is landscaped with fire resistant vegetation and maintained by an automatic irrigation system. (A+B)	greater than 50%.
6.D.	All proposed property lines shall be placed at the top of slopes, except where the original parcel's exterior boundary line does not extend to the top of the slope. (A+B+C)	In some cases the property line may be located at the bottom of a slope where the property line extends to a road or the property line may be located in the middle of a slope at a drainage bench to prevent cross-lot drainage.
6.E.	Development on existing slopes exceeding 30% or greater may occur if in conformance with all applicable ordinances, statutes and California Environmental Quality Act review. (A)	This condition does not apply in Spring Trails.
6.F.	Structures shall be permitted in narrow canyon mouths or ridge saddles, only if approved by the City Engineer and Fire Department. (A+B)	This condition does not apply in Spring Trails.
6.G.	All new structures requiring permits, including accessory structures, guest housing or second units shall conform to all applicable fire zone standards. (A+B+C)	All structures within Spring Trails will conform to all applicable fire zone standards.
6.H.	Excluding openings, all exterior elements, including walls, garage doors, fences, etc., shall be free of exposed wood (as defined in Chapter 15.10). (A+B, and C where abuts wildlands.)	All exterior elements, including walls, garage doors, fences, etc., will be free of exposed wood, as provided for in the Spring Trails Fire Protection Plan.
6.I.	The minimum distance between structures shall be 60 feet in Zone A and 30 feet in Zone B, unless otherwise approved by the Fire Chief with Concurrence by the Development Review Committee. (A+B)	Development within Spring Trails occurs on slopes less than 15% (Zone C); therefore, this standard does not apply.

Section	FF District Standard	Spring Trails Compliance
6.J.	A fuel-modification plan or a reasonable equivalent alternative as approved by the Fire Chief is required. The plan shall include a "wet zone" of a minimum depth of 50 feet of irrigated landscaping behind any required setback and "thinning zones" of a minimum depth of 100 feet of drought tolerant, low volume vegetation, adjacent to any natural area behind structures and provisions for maintenance. A fire model shall be prepared pursuant to Section 19.30.200(6)(D)(3). (A+B, and C where abuts wildlands.)	The Spring Trails Fire Protection Plan includes a fuel-modification plan that includes "wet zones" and "thinning zones" as required by this standard. A fire model has been prepared and submitted to the San Bernardino Fire Department.

Section	FF District Standard	Spring Trails Compliance
6.K.	Retrofitting of any element is required when more than 25% replacement of that element occurs; i.e., roofing, fencing. (A+B+C)	This condition does not apply in Spring Trails. However, future retrofitting of any element will be required when more than 25% replacement of that element occurs: i.e., roofing, fencing.
7. Miscellaneous		
7.A.	All future transfers of property shall disclose to the purchaser at the time of purchase agreement and the close of escrow the high fire hazard designation applicable to the property. (A+B+C)	All future transfers of property within Spring Trails will be required to disclose to the purchaser at the time of purchase agreement and the close of escrow the high fire hazard designation applicable to the property.
7.B.	Firebreak fuel modification zones shall be maintained, when required, through homeowner associations, assessment districts or other means. (A+B+C)	Firebreak fuel modification zones within Spring Trails will be maintained by either the Master Homeowners Association or Landscape and Lighting Maintenance District.

APPENDIX E: TENTATIVE TRACT MAP

Appendix

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APPENDIX F: ALTERNATIVE PLAN

If the SCE power lines can be located underground or relocated, then the Alternative Development Plan contained in these appendices may be utilized for the development of Spring Trails. All other provisions of this Specific Plan shall remain in effect and shall apply to the alternative plan.

The alternative plan for Spring Trails is the same as the preferred plan in every respect except it is assumed that the above-ground power lines can be relocated or located underground and the number of developable residential lots can increase by three (from 304 to 307) as shown on Figure 2.2A, *Alternative Development Plan*. In the alternative, the power lines would be above ground north of Cable Creek and then either be relocated or located underground south of Cable Creek. The northern portion of the power line easement is designated as residential on Figure 2.2A; however, development is not permitted within the power line easement.

Zoning

A zoning designation is linked to legal lot lines but does not provide a true picture of the buildable area of Spring Trails as portions of many lots contain fault zones, graded internal slopes, steep external slopes, water tanks, permanent open space, trail easements, or above-ground power lines and may not be built upon. Figure 2.3A, *Alternative Zoning Map*, has been prepared to satisfy zoning law but is not the determining factor for the location of development in Spring Trails. If the alternative plan is utilized, Figure 2.2A, *Alternative Development Plan*, shall govern when determining the use, standards, and buildable area for any legal lot.

Table 2.1A Alternative Plan Development Potential

Land Use	Acres [1, 2]	Maximum Density	Units [3]	Pop. [4]
Developed Area				
Residential	70.9	1 unit per lot	306	1,025
Private Lot (existing)	2.2	1 unit	1	3
Parks (public and private)	9.0			
Open Space–Homeowner Maintained	125.1			
Utilities	1.2			
Roads (on-site)	33.1			
Subtotal	241.5		307	1,028
Undeveloped Area				
Open Space–Natural	111.3			
Total				
Total	352.8		307	1,028
Off-Site Access				
Roads/Grading (off-site)	23.7			

Notes:

[1] As discussed in Section 6, *Administration and Implementation*, variations to account for final roadway alignments and grading may result in a minor shifting of acres.

[2] Statistics are based upon buildable area depicted on Figure 2.2A instead of the legal lot area to give a true picture of the use of the land. See Figure 2.3A, *Alternative Zoning Map*, for the zoning designations.

[3] Lots 30 and 233, as numbered on Tract Map 15576, are undevelopable unless the building pads are reconfigured in a manner that is acceptable to the Fire Chief. If they are not reconfigured accordingly, the total units developed will be 305.

[4] Population is based on 3.35 persons per unit (Table 2: E-5 City/County Population and Housing Estimates, 1/1/2007).

Open Space

The Alternative Trails, Parks, and Open Space Plan, Figure 3.10A, is identical to the open space and parks plan shown on Figure 3.10 in the Specific Plan except that the power line easement is assumed to be relocated and those portions designated as the Open Space-Homeowner Maintained category on Figure 3.10 developed as residential. Therefore, in the alternative plan, there is a reduction of .9 acres of Open Space- Homeowner Maintained land; however, the amount of open space that is assumed to be usable park land is not changed from the preferred plan.

In the alternative plan, Spring Trails provides approximately 245.4 total acres of public and private parkland, open space, and trails, as summarized in Table 3.5A below.

Table 3.5A Open Space, Parks, and Recreation Facilities Summary

Parks/Recreation Facilities	Acres
Private Parks	2.0
Public Parks	7.0
Open Space-Natural	111.3
Open Space- Homeowner Maintained	125.1
Total	**245.4**

Landscape Theme

The landscape theme in the alternative plan is identical to that for the preferred plan except that, with the location of the power lines, the area under the power lines is developed as residential and is no longer identified as a refined landscape zone. As discussed in Chapter 3, Development Standards, the refined open space zone generally consists of natural and manufactured slopes and the plant palette presented in Table 3.6 contains plant species appropriate for each landscape zone.

Other Refinements

There may be other minor revisions to the grading plan and the placement of utility lines that may accompany the alternative plan. These will addressed through the grading plan and tract map process and must be in substantial conformance with the alternative plan.

Appendix

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Figure 2.2A Alternative Development Plan

Legend

- Residential Developable Areas
- Open Space - Natural
- Open Space – Homeowner Maintained
- Parks
- Utility
- Road

Notes:

1. This Alternative Development Plan will be utilized if the SCE powerlines can be located underground.

2. The Alternative Development Plan is a true representation of the use of land irrespective of legal lot lines and shows the areas where buildings may be located, graded slope areas, parks, roadways, and open space areas. The development potential shown in Table 2.1A is keyed to this figure.

3. When determining the use, development standards, and buildable area of each lot within Spring Trails, this Figure and its associated land use categories shall govern.

4. This Figure represents the intended alternative development pattern of Spring Trails and minor adjustments to roadway alignments and widths, grading areas, buildable pad confi gurations, and land use boundaries may be made per the provisions of Chapter 6, Administration and Implementation.

✱ *Lots 30 and 233 are unbuildable unless the building pads are reconfi gured in a manner acceptable to the fire chief.*

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Appendix

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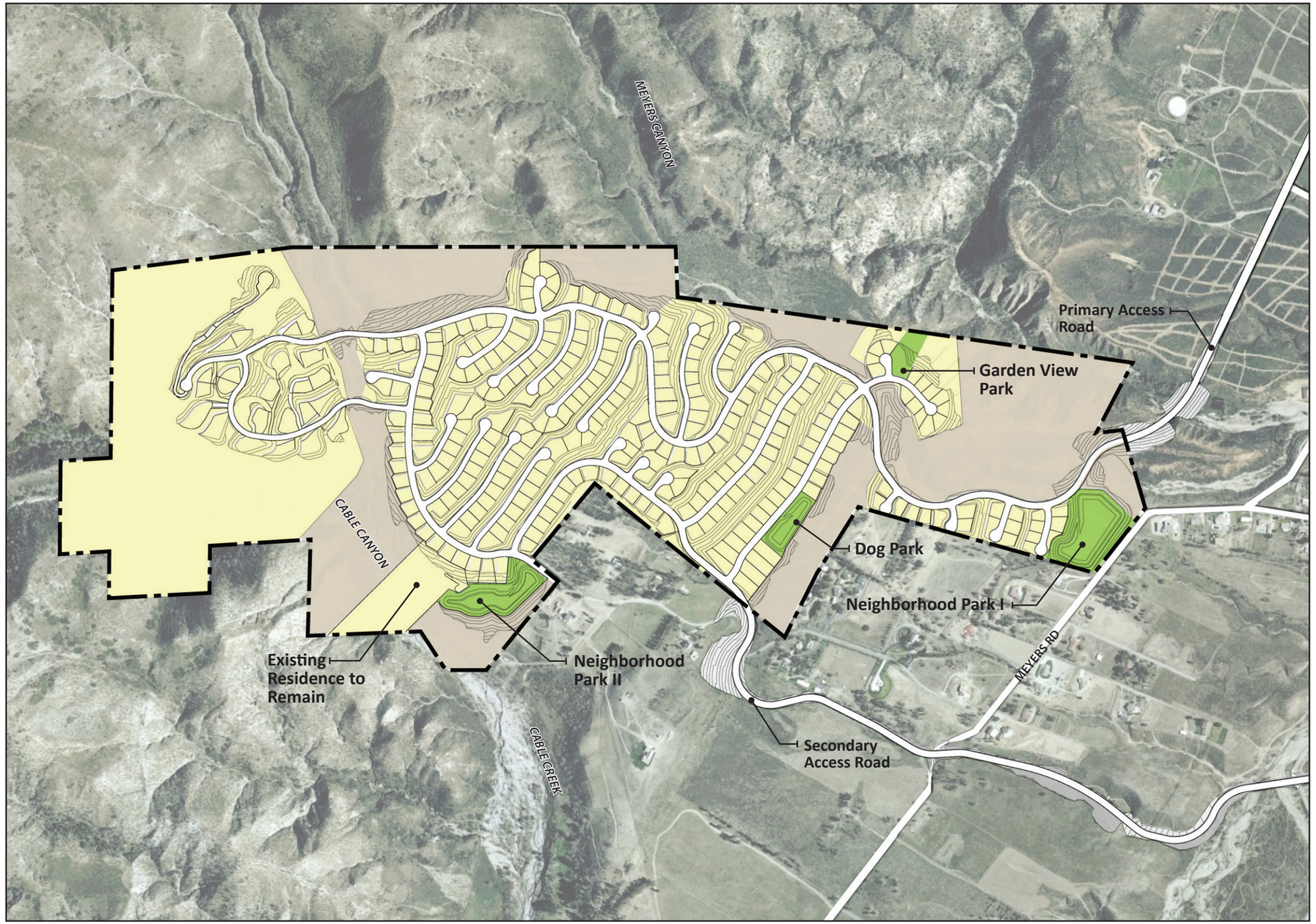
Figure 2.3A Alternative Zoning Map



Legend

- Residential Estate
- Open Space
- Parks
- Site Boundary
- Parcel Lines

The Alternative Zoning Map is a depiction of the zoning designation of each lot. However, due to constraints such as fault zones and slope areas, the zoning does not provide a true picture of the use and buildable area of each lot. Therefore, when determining the use, standards, and buildable area for a lot, Figure 2.2A, Alternative Development Plan, shall govern.

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Figure 3.10A Alternative Trails, Parks, and Open Space Plan

Legend

- Residential
- Open Space
- Parks
- Graded Slopes
- Utility
- 12-foot Equestrian/Pedestrian Trail
- 8-foot Community Trail (On-Street)
- 4-foot Hiking Trail
- Planned Trail (offsite)
- Observation Point
- Trailhead

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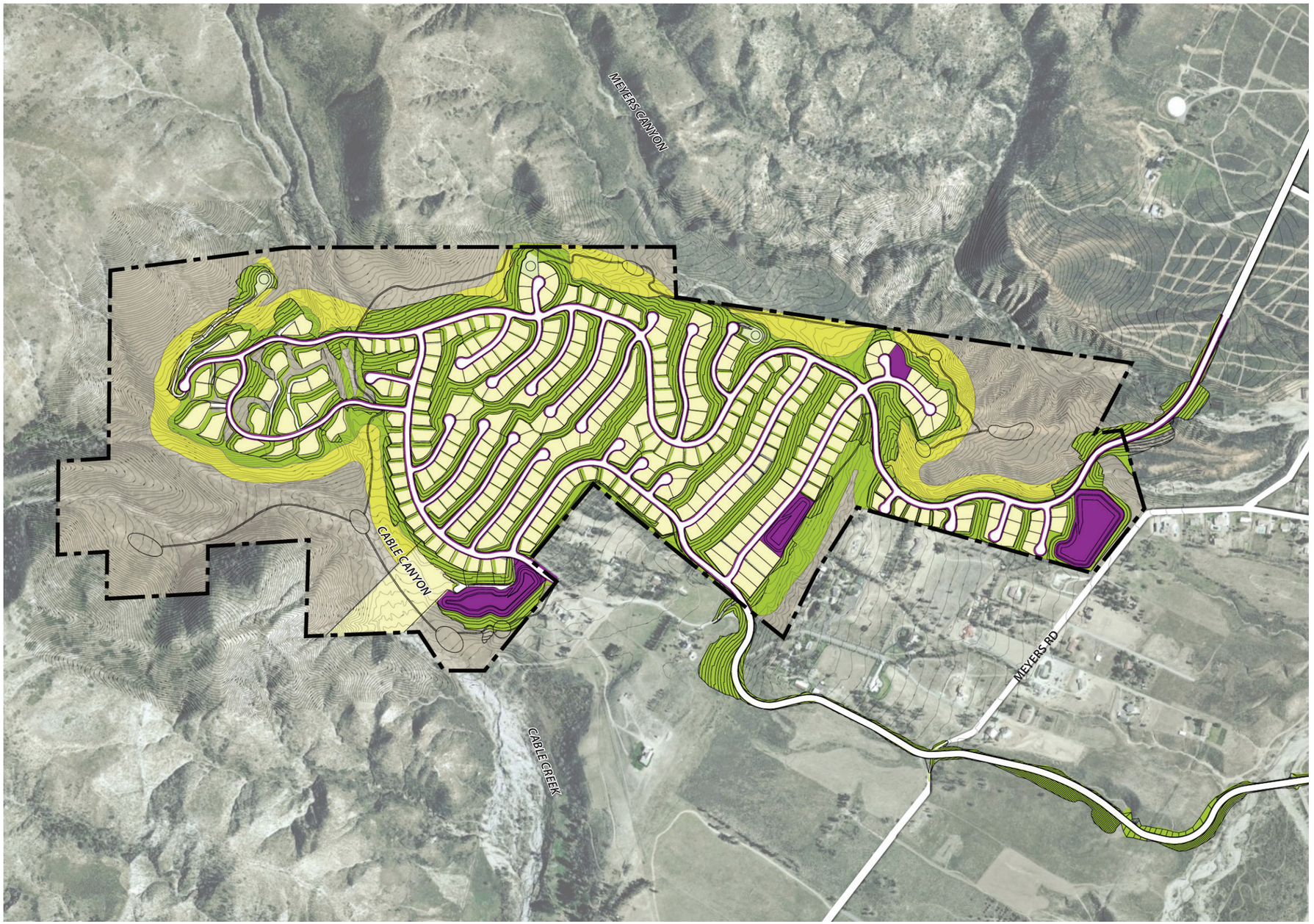
Figure 3.28A Alternative Landscape Zones



Legend

- Residential
- Natural Open Space Zone
- Transition Open Space Zone
- Refined Open Space Zone
- Theme Zone

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Appendix

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2013-34

Recorded in Official Records, County of San Bernardino

4/01/2013
11:00 AM
BN

DENNIS DRAEGER
ASSESSOR – RECORDER – CLERK

P Counter

Doc#: 2013-0131751

Titles: 1 Pages: 39

Fees	0.00
Taxes	0.00
Other	0.00
PAID	$0.00

RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO:

The City of San Bernardino
300 North "D" Street, 2nd Floor
San Bernardino, CA 92418
Attn: City Clerk

APNs:

Exempt from Recording Fees pursuant to Government Code Section 27383

SPRING TRAILS DEVELOPMENT AGREEMENT

between

THE CITY OF SAN BERNARDINO,
a California charter law city and municipal corporation

and

MONTECITO EQUITIES, LTD.
a California limited partnership

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SPRING TRAILS
DEVELOPMENT AGREEMENT

This Spring Trails Development Agreement ("**Agreement**") is entered into between the City of San Bernardino, a California charter law city and municipal corporation ("**San Bernardino**"), and Montecito Equities, Ltd., a California limited partnership (hereinafter "**Montecito**"). This Agreement is dated as of February 19, 2013 for reference only. This Agreement will not become effective until the "**Effective Date**" (defined below). San Bernardino and Montecito are entering into this Agreement in reliance on the facts set forth in the Recitals, below.

RECITALS

A. San Bernardino is authorized under Government Code Section 65864, et seq. and City Municipal Code Chapter 19.40 (collectively, "**Development Agreement Law**") to enter into binding development agreements with persons having legal or equitable interests in real property for the development of that property.

B. Montecito owns or has an equitable interest in real property consisting of the approximately three hundred fifty-three (353) acres of land ("**Property**") described in attached **Exhibit A** and depicted in attached **Exhibit B** ("**Site Plan**"). Although the Property is presently located in the unincorporated territory of San Bernardino County, California ("**County**"), it is or will become the subject of an application under Government Code Section 56000, *et seq.* before the San Bernardino County Local Agency Formation Commission ("**LAFCO**"), to annex the Property into San Bernardino's municipal limits ("**Annexation Proceedings**").

C. Montecito applied to San Bernardino for approval and enactment of this Agreement as the primary governing instrument for the development and use of the Property. San Bernardino's Planning Commission ("**Planning Commission**") and Common Council ("**Common Council**") have conducted public hearings and have found that this Agreement is consistent with San Bernardino's General Plan ("**General Plan**"), including the General Plan Land Use Element.

D. On February 19, 2013, the Common Council adopted its Resolution No. 2013-34 ("**Enacting Resolution**"), which approved this Agreement. The Enacting Resolution became effective on the date of its adoption.

E. By adopting the Enacting Resolution, the Common Council elected to exercise its governmental powers with regard to the Development of the Property at the present time rather than later. This Agreement binds San Bernardino and future Common Councils and limits the Common Council's future exercise of its police powers. This Agreement has been extensively reviewed by the Planning Commission and the Common Council, both of which found it to be fair, just and reasonable and in the best interests of San Bernardino's citizens and the health, safety and welfare of the public.

F. San Bernardino has complied with all California Environmental Quality Act (California Public Resources Code Section 21000, et seq.) ("**CEQA**") requirements with respect

to the approval of this Agreement and of the Project, through the Common Council's certification of that certain Environmental Impact Report # SCH No. 2009111086 ("**EIR**").

G. Developer proposes to subdivide and develop the Property as a phased residential development project in accordance with the following Development Approvals:

1. General Plan Amendment No. 02-09, approved by Resolution No. 2013-34, on Feb 19, 2013.

2. Specific Plan No. SP10-01, approved by Resolution No. 2013-34, on Feb 19, 2013.

3. Tentative Tract Map 15576 (SUB No. 02-09) ("**Tract Map**"), approved by Resolution No. 2013-34, on Feb 19, 2013.

H. San Bernardino has placed certain conditions on its approval of the Tract Map (collectively, "**Conditions of Approval**"), including (but not limited to) requirements that Montecito:

1. Dedicate to San Bernardino (or its designee) rights-of-way for water main lines and related facilities ("**Water Line Easements**"), easements for the construction and operation of water tank sites ("**Tank Easements**") and rights-of-way for sewer main lines and related facilities ("**Sewer Line Easements**").

2. Construct water lines and related facilities, including water tanks ("**Water Lines**") within the easements shown in the Tract Map and dedicate them to San Bernardino.

3. Construct sewer main lines and related facilities ("**Sewer Lines**") within the easements shown in the Tract Map and dedicate them to San Bernardino.

4. Improve seven (7) acres of the Property as shown on the Tract Map with public park improvements ("**Public Park Facilities**") and dedicate the land and improvements to San Bernardino.

I. The Sewer Line Easements and Sewer Lines all benefit properties (collectively, "**Sewer Benefited Properties**") in addition to the Property. The Sewer Benefited Properties are depicted on attached **Exhibit E**. The Sewer Line Easements and the Sewer Lines are referred to in this Agreement as the "**Sewer Facilities**".

J. San Bernardino and Montecito acknowledge that Montecito's obligation to improve and dedicate the Public Park Facilities may exceed the Project's fair share obligation for public park and recreational facilities as provided by the Land Use Regulations and state law. The Public Park Facilities benefit properties (collectively, "**Park Benefited Properties**") in addition to the Property. The Park Benefited Properties are depicted on the attached **Exhibit F**.

K. All of San Bernardino's prior actions and approvals with regard to this Agreement complied with all applicable legal requirements related to notice, public hearings, findings, votes, and other procedural matters.

L. The development of the Property in accordance with this Agreement will provide substantial benefits to San Bernardino. This Agreement eliminates uncertainty in planning and provides for the orderly development of the Property, ensures the progressive installation of necessary public improvements to serve the Project, and serves the purposes of the Development Agreement Law.

M. In order to assure the vesting of its legal rights to develop the Property in accordance with this Agreement, Montecito has previously incurred and in the future will incur costs substantially exceeding those which it would incur in the absence of this Agreement .

1. DEFINITIONS AND EXHIBITS.

1.1. Definitions. The following initially capitalized terms used in this Agreement have the following meanings:

A. "**Access Property(ies)**" has the meaning ascribed to the term in Section 3.8.B.

B. "**Agreement**" means this Development Agreement.

C. "**Annexation Proceedings**" has the meaning ascribed to the term in Recital B.

D. "**Annual Monitoring Report**" has the meaning ascribed to the term in Section 6.1.

E. "**CEQA**" has the meaning ascribed to the term in Recital F.

F. "**Certificate of Agreement Compliance**" or "**Certificate**" has the meaning ascribed to the term in Section 6.5.

G. "**Common Council**" means the Common Council of the City of San Bernardino.

H. "**Conditions of Approval**" has the meaning ascribed to the term in Recital H.

I. "**County**" has the meaning ascribed to the term in Recital B.

J. "**Dedicate**" or "**Dedication**" means Montecito's offering the public improvement in question for acceptance by San Bernardino into its system of public improvements, all in accordance with San Bernardino's reasonable and customary policies and procedures for the acceptance of publicly-dedicated improvements.

K. "**Development**" means the subdivision and improvement of the Property for the purposes of constructing or reconstructing the structures, improvements and facilities comprising the Project, including grading; the construction of infrastructure and public and private facilities related to the Project, whether located within or outside the Property; the

construction of buildings and structures; and the installation of landscaping. "**Development**" does not include the maintenance of any building, structure, improvement or facility after its construction and completion.

L. "**Development Agreement Law**" has the meaning ascribed to the term in Recital A.

M. "**Development Approvals**" mean all approvals, permits and other entitlements applicable to the Development of the Property, including: specific plans and specific plan amendments; tentative and final subdivision and parcel maps; conditional use permits, public use permits and site plans; zoning; variances; and grading and building permits.

N. "**Development Exactions**" mean any exaction (other than a Development Impact Fee) imposed by San Bernardino in connection with a Development Approval or in connection with the granting of any right, privilege or approval pertaining to the Development of the Property, including requirements for land dedication or for public construction.

O. "**Development Impact Fee**" means a monetary payment authorized by Government Code Section 66001, et seq., whether imposed legislatively on a broad class of development projects or on an ad hoc basis to a specific development project.

P. "**Development Plan**" means the Existing Development Approvals and the Existing Land Use Regulations applicable to Development of the Property. If any Existing Development Approvals by their terms supersede any Existing Land Use Regulations, then "**Development Plan**" means the superseding Existing Development Approvals.

Q. "**Director**" has the meaning ascribed to the term in Section 3.4.

R. "**Dwelling Units**" mean single-family residential dwelling units, including detached and attached dwelling units.

S. "**Effective Date**" means the date which is the later of:

1. The date on which the Enacting Resolution is no longer subject to referendum or judicial challenge; or

2. The date on which the Annexation Proceedings are complete and not subject to further administrative or judicial challenge.

T. "**EIR**" has the meaning ascribed to the term in Recital F.

U. "**Enacting Resolution**" has the meaning ascribed to the term in Recital D.

V. "**Excess Public Park Facilities Credit**" has the meaning ascribed to the term in Section 4.8.

W. "**Excess Sewer Facilities Credit**" has the meaning ascribed to the term in Section 4.5.

X. "**Existing Development Approvals**" mean all Development Approvals approved or issued by San Bernardino prior to or the same day as the effective date of the Enacting Resolution, including the Development Approvals described in Recital G.

Y. "**Existing Land Use Regulations**" mean all Land Use Regulations in effect on the effective date of the Enacting Resolution, including the Land Use Regulations listed on the attached **Exhibit C**.

Z. "**Fair Share Park Obligation**" has the meaning ascribed to the term in Section 4.8.A.

AA. "**General Plan**" has the meaning ascribed to the term in Recital C.

BB. "**LAFCO**" has the meaning ascribed to the term in Recital B.

CC. "**Land Use Regulations**" mean all of San Bernardino's ordinances, resolutions, codes, rules, regulations and official written policies governing land development, including those governing: the permitted use of land; the density or intensity of use; subdivision requirements, the maximum height and size of proposed buildings; the reservation or dedication of land for public purposes; and the design, improvement and construction standards and specifications applicable to the development of property, all as may be modified or supplemented by the Existing Development Approvals. "Land Use Regulations" do not include any ordinance, resolution, code, rule, regulation or official policy governing: the conduct of businesses, professions, and occupations; taxes and assessments; the granting of encroachment permits and the conveyance of rights and interests that provide for the use of or the entry upon public property; or the exercise of the power of eminent domain.

DD. "**Lot**" means any legally subdivided lot of the Property which is intended for residential or commercial uses.

EE. "**Minor Exception**" or "**Minor Modification**" have the meanings ascribed to the terms in Section 3.4.

FF. "**Montecito**" means Montecito Equities, Ltd., a California limited partnership, its successors and assigns.

GG. "**Mortgagee**" means a mortgagee of a mortgage, a beneficiary under a deed of trust, or any other security-device lender, and their successors and assigns.

HH. "**Notice**" has the meaning ascribed to the term in Section 2.7.A.

II. "**Park Benefited Properties**" has the meaning ascribed to the term in Recital J.

JJ. "**Park Fair Share Contribution**" has the meaning ascribed to the term in Section 4.8.D.

KK. "**Party**" means either San Bernardino or Montecito, individually. "**Parties**" mean San Bernardino and Montecito, collectively.

LL. "**Person**" means and refers to any association, corporation, governmental entity or agency, individual, joint venture, joint-stock company, limited liability company, partnership, trust, unincorporated organization, or other entity of any kind, including San Bernardino and Montecito.

MM. "**Planning Commission**" has the meaning ascribed to the term in Recital C.

NN. "**Project**" means the Development of the Property as contemplated by the Development Plan, as the Development Plan may be further defined, enhanced or modified in accordance with this Agreement.

OO. "**Property**" means the real property described on **Exhibit A** and depicted on **Exhibit B**.

PP. "**Public Park Facilities**" has the meaning ascribed to the term in Recital H.

QQ. "**Public Park Facilities Costs**" has the meaning ascribed to the term in Section 4.8.

RR. "**Qualifying Conditions**" has the meaning ascribed to the term in Section 3.8.C.

SS. "**Reservations of Authority**" mean the rights reserved to San Bernardino under Section 3.5.

TT. "**San Bernardino**" means the City of San Bernardino, a California charter law city and municipal corporation, its successors and assigns.

UU. "**Sewer Lines**" has the meaning ascribed to the term in Recital H.

VV. "**Sewer Line Costs**" has the meaning ascribed to the term in Section 4.3.

WW. "**Sewer Line Easements**" has the meaning ascribed to the term in Recital H.

XX. "**Site Plan**" has the meaning ascribed to the term in Recital B.

YY. "**Special District**" has the meaning ascribed to the term in Section 5.1.

ZZ. "**Subsequent Development Approvals**" mean all Development Approvals approved by San Bernardino subsequent to its approval of this Agreement.

AAA. "**Subsequent Land Use Regulations**" mean all Land Use Regulations adopted and effective after the effective date of the Enacting Resolution.

BBB. "**Term**" has the meaning ascribed to the term in Section 2.3.

CCC. "**Tract Map**" has the meaning ascribed to the term in Recital G.

DDD. "**Transfer**" has the meaning ascribed to the term in Section 2.4.A.

EEE. "**Transferee**" has the meaning ascribed to the term in Section 2.4.A.

FFF. "**Transferor**" has the meaning ascribed to the term in Section 2.4.A.

GGG. "**Sewer Fees**" has the meaning ascribed to the term in Section 4.6.

HHH. "**Sewer Benefited Properties**" has the meaning ascribed to the term in Recital I.

III. "**Sewer Facilities**" has the meaning ascribed to the term in Recital I.

JJJ. "**Sewer Facilities Costs**" has the meaning ascribed to the term in Section 4.5.

KKK. "**Sewer Fair Share Contribution**" has the meaning ascribed to the term in Section 4.5.

1.2. Exhibits. The following documents are attached to a part of this Agreement:

Exhibit A	Legal Description of Property
Exhibit B	Site Plan
Exhibit C	Partial Listing of Existing Land Use Regulations
Exhibit D	Estimate of Sewer Line Construction Costs
Exhibit E	Depiction of Sewer Benefited Properties
Exhibit F	Depiction of Park Benefited Property

2. GENERAL PROVISIONS.

2.1. Binding Effect of Agreement. The Property is made subject to this Agreement and the Development of the Property may be carried out in accordance with this Agreement. The benefits and burdens of this Agreement touch and concern the Property and bind Montecito and all future owners of all or any portion of the Property.

2.2. Ownership. Montecito represents to San Bernardino that Montecito is either the owner of fee simple title to the Property or has an equitable interest in the Property.

2.3. Term. The term ("**Term**") of this Agreement will commence on the Effective Date and will expire on the twenty-fifth (25th) anniversary of the Effective Date, unless terminated sooner by operation of some other provision of this Agreement.

2.4. Assignment.

A. Right to Assign. Montecito may sell, transfer or assign (collectively, "**Transfer**") the Property in whole or in part (provided that no partial Transfer may violate the Subdivision Map Act, Government Code Section 66410, et seq.) to any Person at any time. As used in this Section 2.4, the term "**Transferor**" means the person or entity (including Montecito) making the Transfer and the term "**Transferee**" means the Transfer recipient. Any Transfer must be made in strict compliance with all of the following conditions:

1. No Transfer of any right or interest in this Agreement may be made unless made together with the Transfer of all or a part of the Property.

2. Within thirty (30) days after a Transfer, the Transferor must notify San Bernardino in writing of the Transfer and provide San Bernardino with a copy of an agreement executed by the Transferee by which the Transferee expressly and unconditionally assumes all the Transferor's duties and obligations under this Agreement with respect to the portion of the Property transferred.

3. If San Bernardino holds security given by the Transferor with respect to any obligation being assigned to the Transferee, then the Transferee must provide San Bernardino with security to secure performance of the obligations assigned to the Transferee, which may not exceed the amount of the security previously provided to San Bernardino by the Transferor to secure the performance of the same obligations.

B. Subsequent Assignment. Any subsequent Transfer after an initial Transfer may be made only in accordance with this Section 2.4.

C. Automatic Termination of Agreement With Respect to Individual Improved Lot Upon Completion of Construction and Sale or Lease to Public. This Section 2.4 does not apply to any improved Lot that has been finally subdivided and which is sold or leased for a period of at least one (1) year. Any Lot satisfying the foregoing requirements will automatically be released from this Agreement concurrently with the sale or lease.

2.5. Voluntary Amendment or Cancellation of Agreement. This Agreement may be voluntarily amended or cancelled in whole or in part only with the written consent of San Bernardino and all Persons holding fee title to that portion of the Property to which the amendment or cancellation will apply. The amendment or cancellation process must comply with Government Code Section 65868. This Section 2.5 does not limit the operation of Government Code Section 65869.5.

2.6. Termination.

A. This Agreement will automatically terminate upon the occurrence of any of the following events:

1. Expiration of the Term.

2. Entry of a final judgment setting aside, voiding or annulling the adoption of the Enacting Resolution.

3. Adoption of a referendum measure overriding or repealing the Enacting Resolution.

4. Completion of the Project, as evidenced by the issuance of all required occupancy permits and San Bernardino's (or other applicable public agency's) acceptance of all required public dedications.

5. Upon the applicable Party's election to terminate this Agreement under Section 8.4 and Section 8.5. If the terminating Party under Section 8.5 does not own the entirety of the Property, then the termination will apply only to that portion of the Property owned by the terminating Party.

B. To the extent that the conditions set forth in Section 4.3 through Section 4.8, inclusive, for credit, reimbursement and similar matters continue to exist, San Bernardino's obligations under such sections will survive the termination of this Agreement for any reason.

2.7. Notices.

A. As used in this Agreement, the term "**Notice**" means any request, demand, approval, statement, report, acceptance, consent, waiver, appointment or other required or permitted communication.

B. All Notices must be in writing and will be considered given:

1. When delivered in person to the recipient named below.

2. On the date of delivery shown on the return receipt, after deposit in the United States mail in a sealed envelope, postage prepaid, as either registered or certified mail, return receipt requested.

3. On the date of delivery shown in the records of a reputable delivery service (*e.g.* UPS or Federal Express).

C. All Notices must be addressed as follows:

If to San Bernardino:	If to Montecito:
City of San Bernardino	Montecito Equities, Ltd.
300 North "D" Street, 2nd Floor	100 Pacifica, Suite 345
San Bernardino, CA 92418	Irvine, CA 92618
Attn: City Manager	Attn: Thomas G. Wilkinson

with a copy to:	with a copy to:
City of San Bernardino 300 North "D" Street, 6th Floor San Bernardino, CA 92418 Attn: City Attorney	Gresham Savage Nolan & Tilden, APC 550 E. Hospitality Lane, Suite 300 San Bernardino, CA 92408-4205 Attn: Mark A. Ostoich and Kevin K. Randolph

D. Either Party may, by Notice given at any time, require subsequent Notices to be given to another Person or to a different address, or both. Notices given before receipt of Notice of change of address will not be invalidated by the change.

E. Transferees will be entitled to Notices sent by San Bernardino which pertain to that portion of the Property owned by the Transferee.

3. DEVELOPMENT OF THE PROPERTY.

3.1. Vested Right to Develop. Subject to the terms of this Agreement, Montecito has the legally vested right to develop the Property in accordance with the Development Plan. The Project is subject to any Subsequent Development Approvals required to complete the Project. The permitted uses, the density and intensity of use, the maximum height and size of proposed buildings, the design, improvement, and construction standards applicable to Development of the Property and Development Exactions with respect to the Property are those set forth in the Development Plan.

3.2. Effect of Agreement on Land Use Regulations. Except as otherwise allowed by the Reservations of Authority, San Bernardino's rules, regulations and official policies governing the Development of the Property will be the Existing Land Use Regulations.

3.3. Timing of Development. Nothing in this Agreement is a covenant to develop or construct the Project. The Parties acknowledge that Montecito cannot predict if, when or the rate at which phases of the Project will be developed. Such decisions depend upon numerous factors that are not within Montecito's control, such as market demand, interest rates, absorption, completion and other similar factors. The California Supreme Court held in Pardee Construction Co. v. City of Camarillo (1984) 37 Cal.3d 465, that the failure of the litigants in that case to provide for the timing of development resulted in a later adopted initiative restricting the timing of development to prevail over the litigants' agreement. The Parties intend to cure that deficiency by providing that Montecito has the right to develop the Project in the order, at the rate and at the times that Montecito, in its sole and absolute discretion, determines to be appropriate, subject only to any Development Plan timing or phasing requirements.

3.4. Changes and Amendments to Existing Development Approvals. The Parties acknowledge that the passage of time may demonstrate that changes to this Agreement are necessary or appropriate. If the Parties determine that changes are necessary or appropriate, then they will, unless otherwise required by law, implement those changes through operating memoranda. These memoranda will be approved on behalf of San Bernardino as follows:

A. By the Community Development Director ("**Director**") in the case of minor changes which would qualify as either a "**Minor Exception**" under Municipal Code Chapter 19.58 or a "**Minor Modification**" under Municipal Code Chapter 19.60 and in any other case where the Director is authorized by this Agreement to act.

B. By the Planning Commission in the case of changes related to land use or development standards which are not subject to clause (A).

C. By the Common Council in the case of any other changes not subject to clause (A) or (B) above, or if otherwise legally required.

D. The Director will determine whether a proposed change is subject to approval by the Director, the Planning Commission or the Common Council, as the case may be. Each operating memorandum will become part of this Agreement after its execution by all required Persons.

3.5. Reservations of Authority.

A. Any contrary provision in this Agreement notwithstanding, the following, but only the following, Subsequent Land Use Regulations will apply to the Development of the Property:

1. Procedural regulations relating to hearing bodies, petitions, applications, Notices, findings, records, hearings, reports, recommendations, appeals and any other procedural matter.

2. Regulations governing construction standards and specifications, including San Bernardino's Building Code, Plumbing Code, Mechanical Code, Electrical Code, Fire Code and Grading Code, that are applied uniformly to all development projects in San Bernardino similar to the Project.

3. Regulations which do not conflict with the Development Plan and which are reasonably necessary to protect the public health and safety of the residents of the Project or the immediate community. To the greatest extent possible, these regulations must be applied and construed to provide Montecito with all of the rights and assurances provided under this Agreement. Any regulation, whether adopted by initiative or otherwise, limiting the rate or timing of Development of the Property will conflict with the Development Plan and will not be applicable to Development of the Property.

4. Regulations that conflict with the Development Plan if Montecito has given its written consent to those regulations.

B. The Parties acknowledge that San Bernardino is restricted in its authority to limit its police powers by contract. This Agreement will be construed, contrary to its stated terms if necessary, to reserve to San Bernardino all those police powers that cannot be restricted by contract.

3.6. Subsequent Development Approvals. When acting on Subsequent Development Approvals, San Bernardino may apply only the Existing Land Use Regulations and those Subsequent Land Use Regulations that are permitted under the Reservations of Authority. Any Subsequent Development Approval will be automatically vested under this Agreement. Without limiting the effect of the foregoing, the Parties acknowledge that San Bernardino has certain standards regarding final maps and that such standards can become difficult to meet in a hillside development. As and when Montecito processes any final map for approval by San Bernardino, the San Bernardino City Engineer is hereby authorized to cooperate with Montecito in applying such standards in a way that both achieves the goals of the Subdivision Map Act and is fair and reasonable to Montecito.

3.7. Modification or Suspension by State or Federal Law. If a State or Federal law or regulation which is enacted after the Effective Date prevents the Parties' compliance with any of this Agreement's provisions, then that provision will be modified or suspended to the extent and for the time necessary to achieve compliance with the conflicting State or Federal law. This Agreement's remaining provisions will continue unaffected. The Parties will amend this Agreement to preserve, to the greatest extent possible, the benefits that would arise to the Parties under this Agreement, but for the conflicting State or Federal law. Upon the repeal of the conflicting State or Federal law or upon the occurrence of any circumstance that removes their effect upon this Agreement, this Agreement's provisions will be automatically restored to their full original effect and any amendment that the Parties may have entered into under this Section 3.7 will terminate.

3.8. Provision of Real Property Interests by San Bernardino.

A. Except as provided in clause (B) and clause (C), below, if the Development Exactions require Montecito to construct any public improvement on property not owned by it, then Government Code Section 66462.5 will control the Parties' rights and obligations with respect to that public improvement.

B. Clause (A) above notwithstanding, Montecito is either under contract to purchase or pursing permits for use with respect to portions of the following property (or interest in property) within San Bernardino's municipal limits and on which a public improvement to provide primary or secondary access to the Project will be constructed ("**Access Property(ies)**"):

- Ronald Martin (APN 348-111-11)
- Muscupiabe Ranch, LLC (APN 348-101-77)
- San Bernardino Municipal Water Department (APN 348-101-76)
- San Bernardino County Flood Control District (Cable Creek)
- Property formerly known as the Bice Property, which is now owned by the successor to the City of San Bernardino Economic Development Agency

Montecito hereby waives the provisions of Government Code Section 66462.5 with respect to the foregoing Access Properties.

With respect to the foregoing Access Properties, Montecito and San Bernardino agree that San Bernardino will have no obligation to either approve a final tract map implementing the Tract Map or assist in any material way in connection with the acquisition of an Access Property; however, San Bernardino will provide reasonable, non-financial assistance in connection with Montecito's attempts to acquire any Access Property which is held by a public agency. In addition, in no event will any condition of approval related to a public improvement to be located on an Access Property be deemed waived as a result of the application of Government Code Section 66462.5.

C. In addition, clause (A) above notwithstanding, on the condition that the qualifying conditions described in clauses (1) through (3) below ("**Qualifying Conditions**") are satisfied with regard to the Access Properties owned by Gloria Evans (APN 348-111-28) and Michael and Laura Kelley (APN 348-111-27) and located outside San Bernardino's municipal limits, Montecito hereby waives the provisions of Government Code Section 66462.5 with respect to such Property Interests. The Qualifying Conditions with respect to such Property Interests are as follows:

(1) The public improvement is required in order to provide secondary access to the Project and is to be located on property not owned by Montecito or under its control.

(2) The public improvement will be located on property outside San Bernardino's municipal limits.

(3) Despite reasonable good faith efforts, San Bernardino has been unable to secure those approvals needed to permit San Bernardino to exercise its powers of condemnation with respect to the property on which the public improvement will be located, from the governmental agency with jurisdiction over such property.

D. Notwithstanding anything to the contrary contained herein, Montecito will acquire either a fee or permanent easement interest in all the Access Properties no later than the fifth (5^{th}) anniversary of the Effective Date.

3.9. Third Party Permits and Approvals and Utilities. The Parties acknowledge that this Agreement does not bind third party governmental and non-governmental agencies which are not under San Bernardino's control. San Bernardino will use its best efforts to assist Montecito in obtaining all third party governmental and non-governmental agencies' permits and approvals which are necessary for the Development of the Property, including:

A. Permits, approvals and rights of way which are required for the installation of public improvements, driveways and utility connections and utility services such as electrical, gas, water, sewer, storm drain, telephone and cable television; and

B. Other permits and approvals which may be issued by third party government agencies such as the California Department of Transportation and the South Coast

Air Quality Management District. In addition, at Montecito's request, San Bernardino will assist Montecito in negotiating with third-party government agencies and non-government agencies with respect to disputes concerning processing fees and development impact fees levied by those third party government agencies and non-government agencies.

C. The Parties acknowledge that in connection with the installation of utility facilities which will be owned by private utility companies, it may lower the overall project cost for the utility installation project to be a San Bernardino project. In the event Montecito requests San Bernardino to undertake such a utility installation project, San Bernardino's City Engineer is hereby authorized to do so; provided, however, that Montecito bears San Bernardino's entire direct and indirect cost of the same.

3.10. Tentative Tract Map Extension. As authorized by Government Code Section 66452.6, the Tract Map and any other tentative subdivision or parcel map approved in connection with Development of the Property will be effective for a period equal to the longer of:

A. Eight (8) years from the date of San Bernardino's approval of the tentative subdivision or parcel map; or

B. The expiration or earlier termination of the Term.

4. PUBLIC BENEFITS.

4.1. Development Impact Fees.

A. Amount and Components of Fee. Subject to Section 4.6, Montecito will pay all Development Impact Fees and other fees and charges imposed by San Bernardino and applicable to Development of the Property, the submission and revision of Development Approvals applications, and inspection of Project improvements. Montecito will pay the Development Impact Fees and other fees and charges in the amount and when required under the then-current applicable San Bernardino ordinance or resolution. The Project is subject to future increases in Development Impact Fees.

4.2. Additional Permits and Approvals. The only Subsequent Development Approvals required for Development of the Property in accordance with the Development Plan are:

A. Design approvals required by the Municipal Code for the structures to be built on the Property;

B. Building permits; and

C. Certificates of occupancy or other equivalent permits.

Upon Montecito's request, San Bernardino will accept and diligently process applications for the foregoing permits and approvals and will promptly make all required inspections.

4.3. Construction of Sewer Lines and Sewer Line Costs.

A. If Montecito implements the Project, then in accordance with the Conditions of Approval, Montecito will construct the Sewer Lines and dedicate them to San Bernardino upon completion as required by this Section A. The Sewer Lines will be completed in a good, workmanlike, and commercially reasonable manner, with the standard of diligence and care normally used by duly qualified persons performing comparable work. As used in this Agreement, the term "**Sewer Line Costs**" means the actual third party costs and expenses incurred by Montecito in connection with the design, engineering, construction, installation and testing of the Sewer Lines, and includes the cost of the temporary and permanent real property interests reasonably necessary in connection with the foregoing activities (all of the foregoing, collectively "**Sewer Line Costs**"). A non-binding budgetary estimate of the Sewer Line Costs is attached as **Exhibit D**.

B. Following their completion, Montecito will dedicate the the Sewer Lines to San Bernardino or its designee and San Bernardino will accept the Dedication within ninety (90) days following Montecito's offer. At the time of Dedication, Montecito will provide San Bernardino with a detailed accounting of the total Sewer Line Costs, together with reasonable supporting documentation.

4.4. [Reserved].

4.5. Excess Sewer Facilities Credit.

A. As used in this Agreement, the term "**Sewer Facilities Costs**" means an amount equal to the Sewer Line Costs (determined in accordance with Section 4.3). As used in this Agreement, the term "**Excess Sewer Facilities Credit**" means an amount equal to fifteen percent (15%) of the Sewer Facilities Costs. Montecito will be credited and reimbursed the Excess Sewer Facilities Credit as set forth in Section 4.6 and Section 4.7.

B. Immediately following the determination of the total Sewer Line Costs as described in Section 4.3, the parties will calculate the Sewer Facilities Costs and San Bernardino will allocate the Excess Sewer Facilities Credit among the Sewer Benefited Properties on a percentage basis, calculated based on San Bernardino's reasonable determination of the benefit received from the Sewer Facilities by each Sewer Benefited Property (each such allocation being a "**Sewer Fair Share Contribution**"). The aggregate of the Sewer Fair Share Contributions of the Sewer Benefited Properties must equal one hundred percent (100%) of the Excess Sewer Facilities Credit.

C. San Bernardino acknowledges that the credits and reimbursement paid to Montecito in accordance with Section 4.6 and Section 4.7 are considered payment for costs normally borne by the public, as described in Labor Code Section 1720(c)(3). San Bernardino has no direct financial obligation to Montecito with respect to the Excess Sewer Facilities Credit other than to provide the credits and facilitate the reimbursement described in Section 4.6 and Section 4.7.

4.6. Sewer Fees Credit. San Bernardino may impose on the Project certain Development Impact Fees related to sewer facilities or to sewer capacity rights necessary to

provide sanitary sewer services to the Project (collectively, "**Sewer Fees**"). Rather than pay the applicable Sewer Fees at the time that they would otherwise be payable under the Land Use Regulations, and until the Excess Sewer Facilities Credit has been fully credited or reimbursed to Montecito, Montecito may apply a portion of the then-current Excess Sewer Facilities Credit in lieu of paying an equivalent amount of Sewer Fees. The then-current amount of the Excess Sewer Facilities Credit will be reduced by the amount of the credited Sewer Fees.

4.7. Reimbursement from Developers of Sewer Benefited Properties. Until the Excess Sewer Facilities Credit has been fully credited or reimbursed to Montecito under Section 4.6 or this Section 4.7, as a condition to the issuance of any approval or entitlement for the development of a Sewer Benefited Property, San Bernardino will require that the developer of that Sewer Benefited Property pay to Montecito the applicable Sewer Fair Share Contribution of the Sewer Benefited Property. The then-current balance of the Excess Sewer Facilities Credit will be reduced by the amount paid to Montecito.

4.8. Credit and Reimbursement for Excess Public Park Facilities Dedication.

A. Pursuant to City Development Code Section 19.30.320, San Bernardino has imposed a Development Exaction against the Project for purposes of providing public parks and recreational amenities. Provided that Montecito implements the Project, this Development Exaction requires Montecito to dedicate and improve Public Park Facilities on the Property which exceed the Project's "fair share" obligation for public park facilities as established by the San Bernardino Development Code and state law (**"Fair Share Park Obligation"**).

B. As used in this Agreement, the term "**Public Park Facilities Costs**" means the aggregate of the actual third party costs and expenses incurred by Montecito in connection with the acquisition, design, engineering, construction and installation of the Public Park Facilities, and includes the cost of the temporary and permanent real property interests reasonably necessary in connection with the foregoing activities. The term "**Excess Public Park Facilities Credit**" means the total Public Park Facilities Costs in excess of the dollar value of the Project's Fair Share Park Obligation, as determined in good faith by the City.

C. Following their completion, Montecito will dedicate the Public Park Facilities to San Bernardino and San Bernardino will accept the Public Park Facilities within ninety (90) days following Montecito's offer. At the time of the Dedication, Montecito will provide San Bernardino with a detailed accounting of total Public Park Facilities Costs, together with reasonable supporting documentation.

D. San Bernardino will allocate the Excess Public Park Facilities Credit among the Park Benefited Properties on a percentage basis, calculated based on San Bernardino's reasonable determination of the benefit received from the Public Park Facilities by each Park Benefited Property (each such allocation being a "**Park Fair Share Contribution**"). The aggregate of the Park Fair Share Contributions of the Park Benefited Properties must equal one hundred percent (100%) of the Excess Public Park Facilities Credit.

E. As a condition to the issuance of any approval or entitlement for the development of a Park Benefited Property, San Bernardino will require that the developer of that

Park Benefited Property pay to Montecito the applicable Park Fair Share Contribution of the Park Benefited Property.

F. San Bernardino acknowledges that the reimbursement paid to Montecito in accordance with this Section 4.8 is considered payment for costs normally borne by the public, as described in Labor Code Section 1720(c)(3). San Bernardino has no direct financial obligation to Montecito with respect to the Excess Public Park Facilities Credit other than the reimbursement described in this Section 4.8.

5. PUBLIC FINANCING.

5.1. Financing. Upon a Party's written request, the other Party will cooperate in the formation of a special assessment district, community facilities district or alternate financing mechanism (collectively, a "**Special District**") to pay for the construction or maintenance of those public improvements required by the Development Plan, including school facilities. Montecito will be reimbursed from the proceeds of any debt financing issued by a Special District to the extent that Montecito spends funds for the construction and/or maintenance and operation of public improvements. Tax rates or assessments of the Special District may not exceed San Bernardino's adopted policies regarding public financing districts. This Section 5.1 is not a commitment by San Bernardino to adopt a resolution of formation to form a Special District. Montecito acknowledges that the adoption and approval of a resolution of formation is a legislative act within San Bernardino's unencumbered discretion. Likewise, Montecito is not obligated to approve the formation of a Special District and Montecito reserves all of its legal rights in that regard.

6. REVIEW FOR COMPLIANCE.

6.1. Periodic Review. As required by San Bernardino Municipal Code Section 19.40.070, the Director will review this Agreement annually, on or before each anniversary of the Effective Date. The purpose of the review will be to ascertain Montecito's good faith compliance with the terms of this Agreement. Montecito will submit an annual monitoring report ("**Annual Monitoring Report**") in a form prepared and approved by the Director within thirty (30) days after the Director's written request. The Annual Monitoring Report must be accompanied by the then-current annual review and administration fee set by resolution of the Common Council.

A. The Common Council may order a special review of Montecito's compliance with this Agreement at any time. The Director will conduct the special review.

6.2. Procedure.

A. During either a periodic review or a special review, Montecito will be required to demonstrate good faith compliance with the terms of this Agreement.

B. Upon completion of a periodic review or a special review, the Director will submit a report to the Common Council setting forth the evidence concerning Montecito's good faith compliance with this Agreement.

C. If the Common Council finds on the basis of substantial evidence that Montecito has complied in good faith with this Agreement, then the review will be concluded.

D. If the Common Council makes a preliminary finding on the basis of substantial evidence that Montecito has not complied in good faith with this Agreement, then the Common Council may modify or terminate this Agreement in accordance with Section 6.3 and Section 6.4. Prior to proceeding under Section 6.3 and Section 6.4, San Bernardino must provide Montecito with Notice and opportunity to cure as provided under Section 8.4.

6.3. Proceedings for Modification or Termination. If Montecito fails to cure, or to commence to cure, as applicable, the matters constituting the basis for the Common Council's preliminary finding under Section 6.2.D as required by Section 8.4, then San Bernardino may proceed to modify or terminate this Agreement following the procedures set forth in this Section 6.3 and in Section 6.4. San Bernardino must hold a noticed public hearing concerning the modification or termination and provide Montecito with Notice of the hearing. The Notice must include the following:

A. The time and the place of hearing, which must be no less than thirty (30) days following the date of Notice;

B. The specific action, whether amendment or termination, which San Bernardino proposes to take; and

C. Such other information as is reasonably necessary to inform Montecito of the nature of the proceeding and the alleged facts supporting San Bernardino's preliminary finding under Section 6.2.D.

6.4. Hearing on Modification or Termination. At the time and place set for the public hearing on modification or termination, Montecito must be given an opportunity to be heard and present witnesses and evidence on its behalf. If, at the conclusion of the public hearing, the Common Council finds, based upon substantial evidence, that Montecito has not complied in good faith with this Agreement, then the Common Council may terminate or modify this Agreement and impose any conditions it determines as are reasonably necessary to protect San Bernardino's interests. The Common Council's decision will be administratively final and subject to judicial review under Code of Civil Procedure Section 1094.5.

6.5. Certificate of Agreement Compliance. If at the conclusion of a special or periodic review Montecito is found to be in compliance with this Agreement, then San Bernardino will issue a "**Certificate of Agreement Compliance**" ("**Certificate**") to Montecito stating that, after the most recent periodic or special review, this Agreement remains in effect and Montecito is not in default of this Agreement. The Certificate must be in recordable form, contain information necessary to communicate constructive record Notice of the finding of compliance, state whether the Certificate is issued after a periodic or special review, and state the anticipated date of the next periodic review. Montecito may record the Certificate with the San Bernardino County Recorder.

6.6. No Cross-Defaults. San Bernardino acknowledges that Montecito may Transfer all or portions of the Property to other Persons in accordance with Section 2.4. San Bernardino

further acknowledges that title to all or portions of the Property may become vested in Mortgagees or a Mortgagee's successor as a result of foreclosure, or the acceptance of a deed in lieu of foreclosure, by a Mortgagee. San Bernardino agrees that defaults under this Agreement by an owner of a portion of the Property will not be a default as to any other portion of the Property. In other words, a default by Montecito with respect to its obligations pertaining to that portion of the Property retained by Montecito following a Transfer will not constitute a default as to any Person other than Montecito or permit San Bernardino to exercise any remedy under this Agreement or otherwise with respect to any other portion of the Property other than that portion owned by Montecito. Similarly, a default by a Transferee with respect to its obligations pertaining to the portion of the Property owned by that Transferee will not constitute Montecito's default or permit San Bernardino to exercise any remedy under this Agreement or otherwise as to any portion of the Property other than the portion owned by the defaulting Transferee. San Bernardino agrees that, if more than one Person holds title to the Property, then the rights and obligations of the Persons holding title to the Property are the distinct and several obligations of each Person.

7. PREVAILING WAGES.

7.1. Public Works Determination. Montecito is aware of California Labor Code Section 1770, et seq., which requires the payment of prevailing wage rates and the performance of other obligations if it is determined that any of the works of construction required or permitted by this Agreement constitute public works paid for in whole or in part with public funds. It is Montecito's sole responsibility to determine whether the work required or permitted by this Agreement is subject to Labor Code Section 1770, et seq.

8. DEFAULT AND REMEDIES.

8.1. Remedies in General. The Parties acknowledge that neither Party would have entered into this Agreement if it were to be liable for monetary damages under this Agreement. In general, and subject to those procedural prerequisites required under the Development Agreement Law or this Agreement, each of the Parties may pursue any remedy at law or equity available for the breach of this Agreement, except that neither Party will be liable in monetary damages (other than attorneys fees under Section 12.22) to the other Party, or to any successor in interest of that Party, or to any other Person. Each Party covenants not to sue for monetary damages or claim any monetary damages related to any of the following:

A. Any breach of this Agreement or for any cause of action that arises out of this Agreement; or

B. Any taking, impairment or restriction of any right or interest arising under this Agreement; or

C. Any dispute regarding the application or interpretation of this Agreement.

8.2. Specific Performance. The Parties acknowledge that specific performance and other non-monetary relief are particularly appropriate remedies for the enforcement of this Agreement for the following reasons:

A. Money damages are unavailable against the Parties.

B. Due to the size, nature and scope of the Project, it may not be practical or possible to restore the Property to its natural condition once Montecito has begun to implement this Agreement. After such time, Montecito may be precluded from other options it may have had with regard to the Property. Moreover, Montecito has invested significant time and resources in the planning and processing of the Project. Montecito will be investing even more time and resources in implementing the Project in reliance upon this Agreement and it is not possible to determine the sum of money that would adequately compensate Montecito if San Bernardino were to breach its obligations.

8.3. Release. Except for the right to recover attorneys fees under Section 12.22, Montecito, for itself, its successors and assignees, releases San Bernardino, its officials, officers, agents and employees from any and all monetary claims, demands, actions, or suits of any kind or nature arising out of any liability, known or unknown, present or future, including, any claim or liability based upon Article I, Section 19 of the California Constitution, the Fifth Amendment of the United States Constitution, or any other law or ordinance that seeks to impose any monetary liability whatsoever upon San Bernardino because it entered into this Agreement or because of the terms of this Agreement.

8.4. San Bernardino's Termination of Agreement or Exercise of Other Remedies Upon Montecito's Default. Subject to its strict compliance with Sections 6.3 and 6.4, San Bernardino may terminate or modify this Agreement upon Montecito's failure to perform any material duty or obligation under this Agreement. San Bernardino may terminate or modify this Agreement or exercise its other remedies only after providing written Notice of default to Montecito setting forth the nature of the default and the actions, if any, required to cure the default and only if Montecito has failed to take the actions and materially cure the default within sixty (60) days after its receipt of the Notice. If a default is of a type that cannot be cured within sixty (60) days but can be cured within a longer time, then Montecito must within sixty (60) days commence the actions necessary to cure the default and thereafter diligently proceed to materially cure the default.

8.5. Montecito's Termination of Agreement or Exercise of Other Remedies Upon San Bernardino's Default. Montecito may terminate this Agreement or exercise its other remedies upon San Bernardino's failure to perform any material duty or obligation under this Agreement. Montecito may terminate this Agreement or exercise its other remedies only after providing written Notice of default to San Bernardino setting forth the nature of the default and the actions, if any, required by San Bernardino to cure the default and only if San Bernardino has failed to take such actions and materially cure the default within sixty (60) days after its receipt of the Notice. If a default is of a type that cannot be cured within sixty (60) days but can be cured within a longer time, then San Bernardino must within sixty (60) days commence the actions necessary to cure the default and thereafter diligently proceed to materially cure the default.

9. THIRD PARTY LITIGATION.

9.1. Third Party Litigation Concerning Agreement. Montecito will indemnify and defend San Bernardino and its agents, officials, officers, independent contractors, subcontractors,

and employees against any claim, action or proceeding to attack, set aside, void, or annul the approval of this Agreement or of any Subsequent Development Approval. San Bernardino must promptly notify Montecito of any claim, action or proceeding which is subject to this Section 9.1 and San Bernardino must cooperate in the defense. San Bernardino may, in its discretion and at its sole cost, participate in the defense of any claim, action or proceeding. This Section 9.1 will survive the expiration or termination of this Agreement.

10. MORTGAGEES.

10.1. Mortgagee Protection. This Agreement does not prevent or limit Montecito, in its sole discretion, from encumbering the Property or any portion or any improvement thereon with any mortgage, deed of trust or other security device. San Bernardino acknowledges that a Mortgagee may require Agreement interpretations and modifications. San Bernardino will meet with Montecito and the Mortgagee's representatives to negotiate in good faith with regard to any requested interpretation or modification. San Bernardino may not unreasonably withhold its consent to any requested interpretation or modification if the interpretation or modification is consistent with this Agreement. All Mortgagees will be entitled to the following rights and privileges:

A. Montecito's breach of this Agreement will not defeat, render invalid, diminish or impair the lien of any mortgage made in good faith and for value.

B. Upon a Mortgagee's written request, San Bernardino will provide a copy of any Notice of default given to Montecito concurrently with the Notice to Montecito. The Mortgagee will have the right, but not the obligation, to cure the default within any remaining cure period allowed Montecito under this Agreement.

C. Any Mortgagee who comes into possession of the Property or any portion of it pursuant to foreclosure of the Mortgagee's security instrument or its acceptance of a deed in lieu of foreclosure will take the Property or portion subject to this Agreement. Any other provision of this Agreement to the contrary notwithstanding, no Mortgagee will have any obligation to perform any of Montecito's obligations or to guarantee their performance. However, if any of Montecito's obligation are conditions precedent to San Bernardino's obligations, then Montecito's obligations will continue to be conditions precedent to San Bernardino's performance of its obligations.

11. REDEVELOPMENT AREA.

San Bernardino warrants that the Property is not currently located within a San Bernardino redevelopment project area. San Bernardino further warrants that the Property and the Project are not obligated to provide affordable housing or otherwise fund the development of affordable housing under the Community Redevelopment Law (Health and Safety Code Section 33000 et seq.) or under any other law.

12. MISCELLANEOUS PROVISIONS.

12.1. Recordation of Agreement. This Agreement and any amendment or cancellation of it will be recorded with the San Bernardino County Recorder by the City Clerk in accordance with Government Code Section 65868.5.

12.2. Entire Agreement. This Agreement contains the entire understanding and agreement of the Parties. There are no oral or written representations, understandings or ancillary covenants, undertakings or agreements that are not contained or expressly referred to in this Agreement. Parol evidence will not be admissible to interpret this Agreement.

12.3. Estoppel Certificates. Within ten (10) days following a Party's written request, and at not cost to the requesting Party, the other Party will certify in writing that, to its actual current knowledge:

A. This Agreement is in full force and effect and is binding upon the certifying Party.

B. This Agreement has not been amended or modified, except as expressly described in the estoppel certificate.

C. The requesting Party is not in default of its obligations under this Agreement, and that there have been no events that with the passage of time, the giving of notice, or both, would constitute the requesting Party's default under this Agreement, except as expressly described in the estoppel certificate.

12.4. Severability. Every provision of this Agreement is a separate and independent covenant. If any provision is, or the application of the provision in certain circumstances is, to any extent, found to be invalid or unenforceable for any reason whatsoever, then the remainder of this Agreement, or the application of that provision to circumstances other than those to which it is invalid or unenforceable, will not be affected. The Parties will negotiate in good faith any amendments or operating memoranda necessary to cure any invalidity or unenforceability.

12.5. Interpretation and Governing Law. This Agreement and any dispute concerning it will be governed and interpreted in accordance with California's procedural and substantive laws, without regard to its conflicts of laws principles. This Agreement will be construed as a whole according to its fair language and common meaning. The rule of construction that ambiguities in a document are to be resolved against the drafting party may not be employed in interpreting this Agreement. Each Party acknowledges that it was represented by counsel in this Agreement's negotiation and preparation.

12.6. Section Headings. All section headings and subheadings are inserted for convenience only and do not affect this Agreement's construction or interpretation.

12.7. Singular and Plural. The singular of any word includes the plural.

12.8. "Including." Unless the context requires otherwise, the term "including" means "including, but not limited to."

12.9. Time of Essence. Time is of the essence as to the performance of any obligation as to which time is an element.

12.10. Calendar Periods. All references to "years", "quarters", "months" and "days" are references to calendar years, quarters, months and days.

12.11. Waiver. A Party's failure on any one or more occasions to insist upon strict compliance by the other Party, or a Party's failure on any one or more occasions to exercise its rights upon the other Party's default, is not a waiver of that Party's right to demand strict compliance by the other Party on any future occasion.

12.12. No Third Party Beneficiaries. This Agreement is entered into for the sole protection and benefit of the Parties and their successors and assigns. Except as provided in Section 10, no other person or entity has any right of action based upon this Agreement.

12.13. Municipal Code. All Municipal Code references are references to the Municipal Code as it exists on the Effective Date or at the time of inquiry, whichever is less restrictive or requires a lesser level of performance.

12.14. Permitted Delays. Neither Party will be in default of an obligation if that Party's inability to perform or delay in performing that obligation is caused by matters which are not within the performing Party's reasonable control, including: casualty; acts of God; civil commotion; war; insurrection; riots; strikes; walkouts; picketing or other labor disputes; market factors; unavoidable shortages of materials or supplies; damages to work in progress by reason of fire, flood, earthquake or other casualty; litigation which prohibits or delays any aspect of the Development; initiatives or referenda; moratoria; acts or the failure to act of any other government agency (except that San Bernardino's acts or its failure to act will not excuse its performance); unanticipated restrictions which are imposed or mandated by government or non-government agencies; and the enactment of conflicting State or Federal laws, regulations or judicial decisions.

12.15. Mutual Covenants. The covenants contained herein are mutual covenants and are conditions to the concurrent or subsequent performance by the benefitted Party.

12.16. Successors in Interest. The burdens of this Agreement are binding upon, and the benefits of this Agreement inure to, the Parties' permitted successors in interest. All provisions are enforceable as equitable servitudes and constitute covenants running with the land. Each covenant to do or refrain from doing some act with regard to the Development of the Property:

A. Is for the benefit of and is a burden upon all portions of the Property.

B. Runs with the Property and all portions.

C. Is binding upon each Party and its successors in interest during the term of that Party's or its successors' ownership of the Property or any portion.

12.17. Counterparts. This Agreement will be executed in three (3) counterparts, which will be construed together and have the same effect as if the Parties had executed the same instrument.

12.18. Jurisdiction and Venue. All legal actions and proceedings to enforce or interpret this Agreement must be filed and tried in San Bernardino Superior Court or other legally appropriate court and venue.

12.19. Project as a Private Undertaking. The Project is a private development and neither Party is acting as the agent of the other in any respect. Each Party is an independent contracting entity with respect to this Agreement. No partnership, joint venture or other association of any kind is formed by this Agreement. The only relationship between San Bernardino and Montecito is that of a government entity regulating the development of private property by a private party.

12.20. Further Actions and Instruments. Each Party must cooperate with the other and provide reasonable assistance to the other in the performance of the other Party's obligations. Upon a Party's request, the other Party must promptly execute (with notary acknowledgment if required) those instruments, and take any reasonable actions, necessary to evidence or consummate the transactions expressly described, or which are a logical extension of the transactions described, in this Agreement.

12.21. Eminent Domain. No provision of this Agreement expands, limits or restricts San Bernardino's exercise of its eminent domain powers.

12.22. Attorneys' Fees. If either Party files any action or brings any action or proceeding against the other pertaining to the interpretation or enforcement of this Agreement, then the prevailing Party will recover as an element of its costs of suit and not as damages its costs of suit, expert fees, consultant costs, and reasonable attorneys' fees as fixed by the Court. "Reasonable attorneys' fees" include the fully burdened salaries and expenses of the lawyers employed in the San Bernardino City Attorney's office.

12.23. Authority to Execute. Each natural person executing this Agreement on behalf of a Party represents that he or she has the authority to execute this Agreement on behalf of that Party and that he or she has the authority to bind that Party to this Agreement.

[***Signature pages follow***]

SIGNATURE PAGE
TO
SPRING TRAILS
DEVELOPMENT AGREEMENT

"SAN BERNARDINO"

The City of San Bernardino, a California charter law city and municipal corporation

By: _____
Patrick J. Morris, Mayor

ATTEST:

_____
Georgeann Hanna, City Clerk

APPROVED AS TO FORM:
James F. Penman, City Attorney

By: _____

STATE OF CALIFORNIA

COUNTY OF San Bernardino

On February 28, 2013, before me, Valerie R. Montoya, Notary Public, personally appeared Patrick J. Morris, proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____
Signature of Notary Public

VALERIE R. MONTOYA
Commission # 1985357
Notary Public - California
San Bernardino County
My Comm. Expires Aug 2, 2016

25

SIGNATURE PAGE
TO
SPRING TRAILS
DEVELOPMENT AGREEMENT

"MONTECITO"

Montecito Equities, Ltd., a California limited partnership

By: _____
Name: YU-YING LIN
Title: Manager

STATE OF CALIFORNIA

COUNTY OF Orange

On 03/13/2013, ~~2011~~, before me, JuliaKung, Notary Public, personally appeared Yu YingLin, proved to me on the basis of satisfactory evidence) to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(~~ies~~), and that by his/her/their signature(~~s~~) on the instrument the person(~~s~~), or entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____
~~Signature of Notary Public~~

JULIA KUNG
Commission # 1927807
Notary Public - California
Orange County
My Comm. Expires Mar 5, 2015

26

EXHIBIT A
TO
SPRING TRAILS
DEVELOPMENT AGREEMENT

Legal Description of Property

DIVISION I:

PARCEL A:

PARCEL 4 OF PARCEL MAP NO. 3809, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 44 OF PARCEL MAPS, PAGE 20, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL B:

PARCEL 4 OF PARCEL MAP NO. 3810, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 34 OF PARCEL MAPS, PAGE 92, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL C:

A NON-EXCLUSIVE EASEMENT FOR PRIVATE ROAD PURPOSES OVER AND ACROSS A STRIP OF LAND, 60 FEET IN WIDTH, SHOWN AS MARTIN RANCH ROAD ON PARCEL MAP NO. 3540 IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 31 OF PARCEL MAPS, PAGE 84, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

SAID EASEMENT IS APPURTENANT TO PARCELS A AND B ABOVE.

DIVISION II:

PARCEL 1:

THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER, AND THE EAST ONE-HALF OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER, AND THE SOUTH ONE-HALF OF THE SOUTHEAST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SECTION 26, TOWNSHIP 2 NORTH, RANGE 5 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF THE SURVEY OF SAID LAND APPROVED JUNE 24, 1898, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 2:

LOTS 1 AND 2, THE NORTHEAST ONE-QUARTER OF THE SOUTHEAST ONE-QUARTER AND THE SOUTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SECTION 26,

TOWNSHIP 2 NORTH, RANGE 5 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF THE SURVEY OF SAID LAND APPROVED JUNE 24, 1898, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 3:

ALL THAT PORTION THE TOWN OR IRVINGTON AND THE LANDS OF IRVINGTON LAND AND WATER COMPANY, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, ACCORDING TO THE MAP THEREOF RECORDED IN BOOK 3 OF MAPS, PAGE 9, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST WESTERLY CORNER OF LOT 79 AS SHOWN ON SAID MAP WHICH POINT IS ALSO THE MOST WESTERLY CORNER OF LOT 19 OF MEYERS AND BARCLAY SUBDIVISION OF A PORTION OF THE MUSCUPIABE RANCHO, ACCORDING TO MAP THEREOF, RECORDED IN BOOK 2 OF MAPS, PAGE 32, RECORDS OF SAN BERNARDINO COUNTY;

THENCE NORTH 40° 50' EAST ALONG THE NORTHWESTERLY LINE OF SAID LOT 19 WHICH IS ALSO THE NORTHWESTERLY BOUNDARY OF LOT 79 AS DELINEATED ON THE AFORESAID MAP RECORDED IN BOOK 3 OF MAPS, PAGE 9, TO THE NORTHERLY BOUNDARY OF THE MUSCUPIABE RANCHO, AS SHOWN ON MAP OF SURVEY MADE BY GEORGE H. PERRIN, APPROVED BY THE UNITED STATES SURVEYOR GENERAL FOR CALIFORNIA ON JUNE 24, 1898;

THENCE SOUTHEASTERLY ALONG THE BOUNDARY OF THE MUSCUPIABE RANCHO AS ESTABLISHED BY SAID SURVEY MAP TO AN ANGLE POINT IN SAID BOUNDARY LINE;

THENCE CONTINUING ALONG SUCH BOUNDARY OF SAID RANCHO MUSCUPIABE IN A SOUTHERLY DIRECTION TO A POINT ON THE SOUTHERLY LINE OF SAID LOT 79;

THENCE FOLLOWING THE BOUNDARY OF SAID LOT 79 IN A NORTHWESTERLY DIRECTION TO AN ANGLE POINT;

THENCE NORTHERLY ALONG THE WESTERLY LINE OF SAID LOT 79 TO AN ANGLE POINT, WHICH IS ALSO A POINT ON THE SOUTHWESTERLY LINE OF LOT 19 OF THE AFORESAID MEYERS AND BARCLAY SUBDIVISION OF A PORTION OF THE MUSCUPIABE RANCHO;

THENCE NORTHWESTERLY TO THE POINT OF BEGINNING.

PARCEL 4:

LOT "A" AS SHOWN ON THE PLAT OF A RESUBDIVISION OF A PORTION OF MEYER AND BARCLAY TRACT, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS PER PLAT RECORDED IN BOOK 12 OF MAPS, PAGE 18, RECORDS OF SAID COUNTY.

EXCEPTING THEREFROM 5 ACRES IN THE SOUTHEAST CORNER OF SAID LOT, AS CONVEYED TO ROBERT B. MEYER BY DEED RECORDED IN BOOK 173, PAGE 156 OF DEEDS, RECORDS OF SAID COUNTY.

PARCEL 5:

LOT "C" AS SHOWN ON THE PLAT OF A RESUBDIVISION OF A PORTION OF MEYER AND BARCLAY TRACT, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS PER PLAT RECORDED IN BOOK 13 OF MAPS, PAGE 32, RECORDS OF SAID COUNTY.

EXHIBIT B
TO
SPRING TRAILS
DEVELOPMENT AGREEMENT

Site Plan

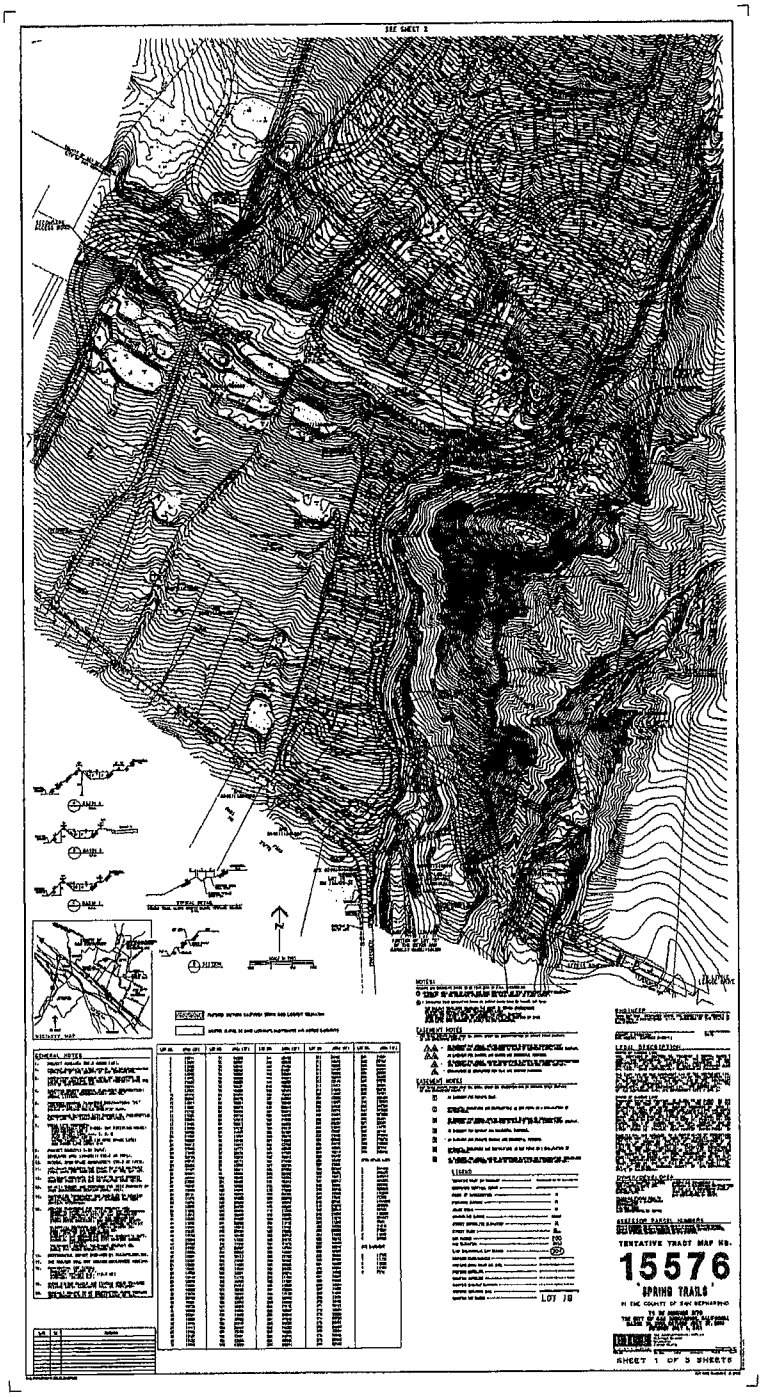

SEE SHEET 2
TENTATIVE TRACT MAP NO.
15576
SPRING TRAILS
SHEET 1 OF 3 SHEETS

Exhibit B

SEE SHEET 1
TENTATIVE TRACT MAP NO.
15576
" SPRING TRAILS "
SHEET 2 OF 3 SHEETS

Exhibit B

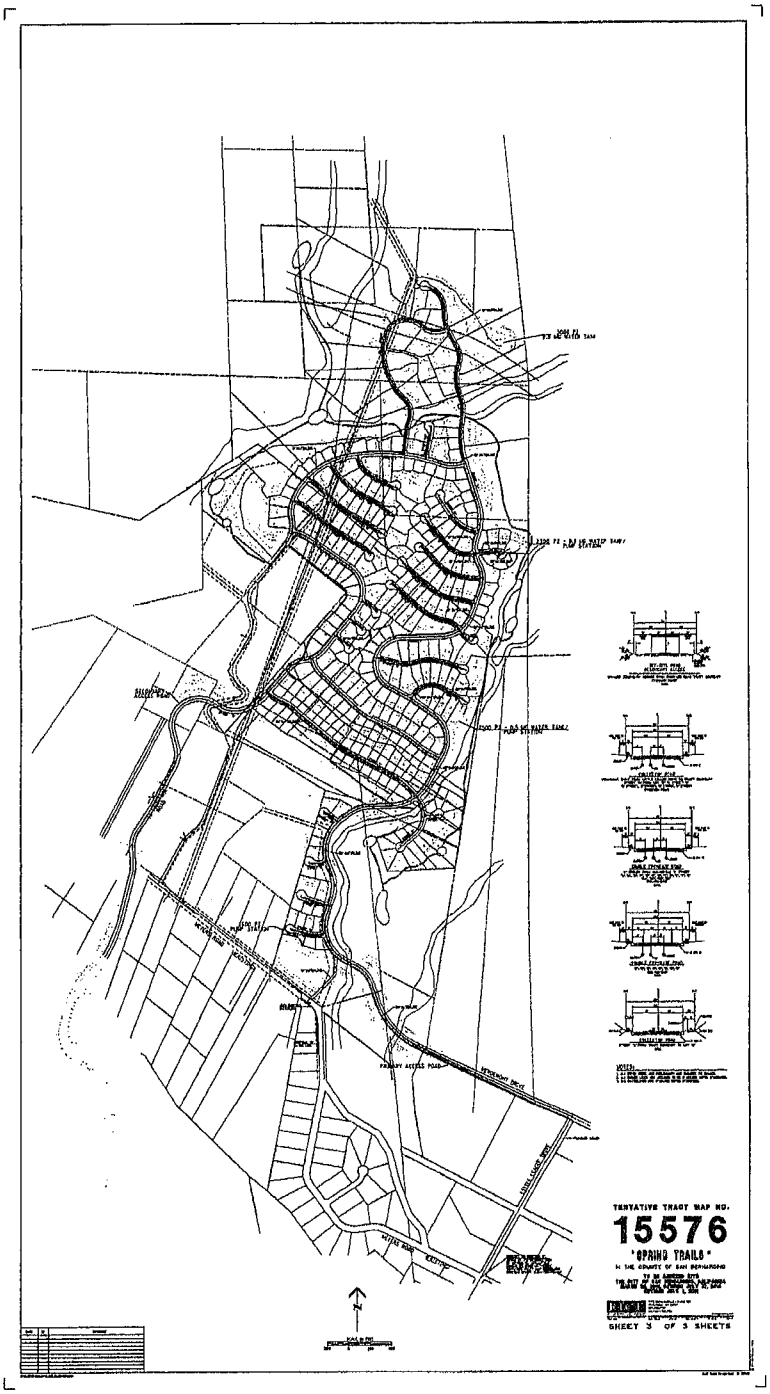

TENTATIVE TRACT MAP NO.
15576
"SPRING TRAILS"
SHEET 3 OF 3 SHEETS

Exhibit B

A COMPLETE COPY OF THIS EXHIBIT IS ON FILE

WITH THE CLERK OF THE CITY OF SAN BERNARDINO

EXHIBIT C
TO
SPRING TRAILS
DEVELOPMENT AGREEMENT

Partial Listing of Existing Land Use Regulations

- City of San Bernardino General Plan.
  - Verdemont Heights Area Plan.
- Spring Trails Specific Plan.
  - San Bernardino Foothill Fire Zone development standards.
  - Land use and zoning categories, including residential uses and other uses such as parks, open space – natural, open space – homeowner maintained, utility and roads.
  - Permitted uses, including residential uses, recreational uses, accessory uses and temporary uses.
  - General and specific development standards.
- To the extent not addressed in the Spring Trails Specific Plan, the City of San Bernardino Municipal Code.

EXHIBIT D
TO
SPRING TRAILS
DEVELOPMENT AGREEMENT

Estimate of Sewer Line Construction Costs

Estimated sewer line construction cost (including related facilities)	$1,300,000

EXHIBIT E
TO
SPRING TRAILS
DEVELOPMENT AGREEMENT

Depiction of Sewer Benefited Properties

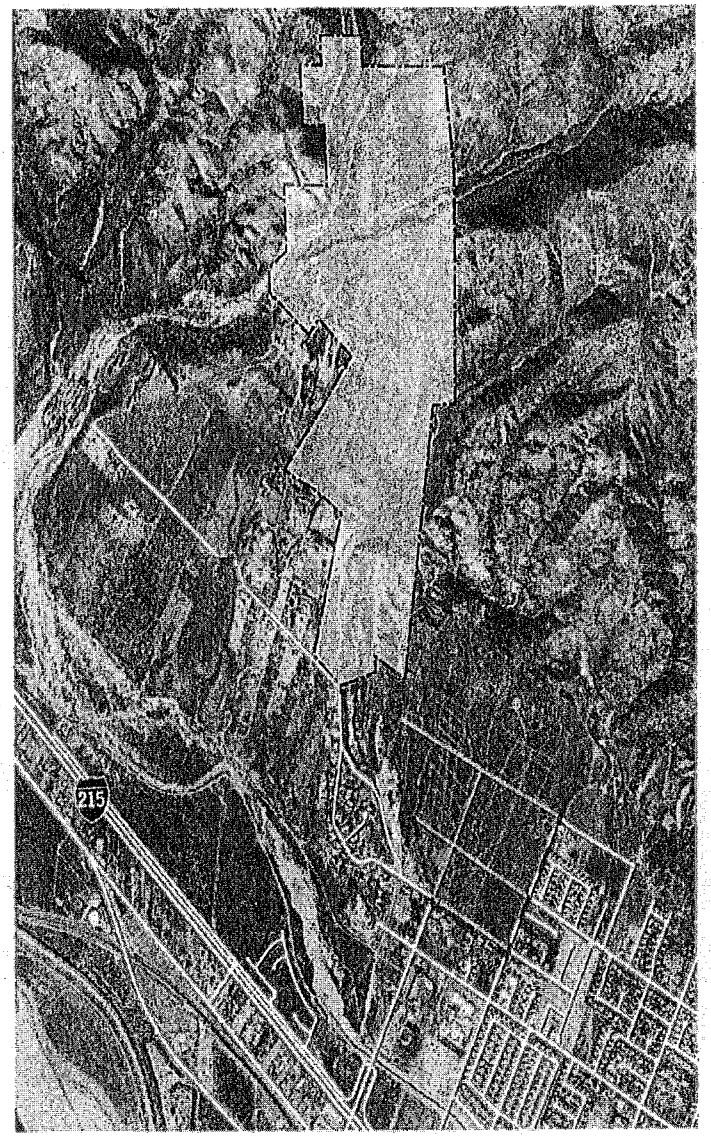
A COMPLETE COPY OF THIS EXHIBIT IS ON FILE

WITH THE CLERK OF THE CITY OF SAN BERNARDINO

EXHIBIT E
TO
SPRING TRAILS
DEVELOPMENT AGREEMENT

Depiction of Sewer Benefited Properties

Sewer Benefit Area



SPRING TRAILS

EXHIBIT F
TO
SPRING TRAILS
DEVELOPMENT AGREEMENT

Depiction of Park Benefited Properties

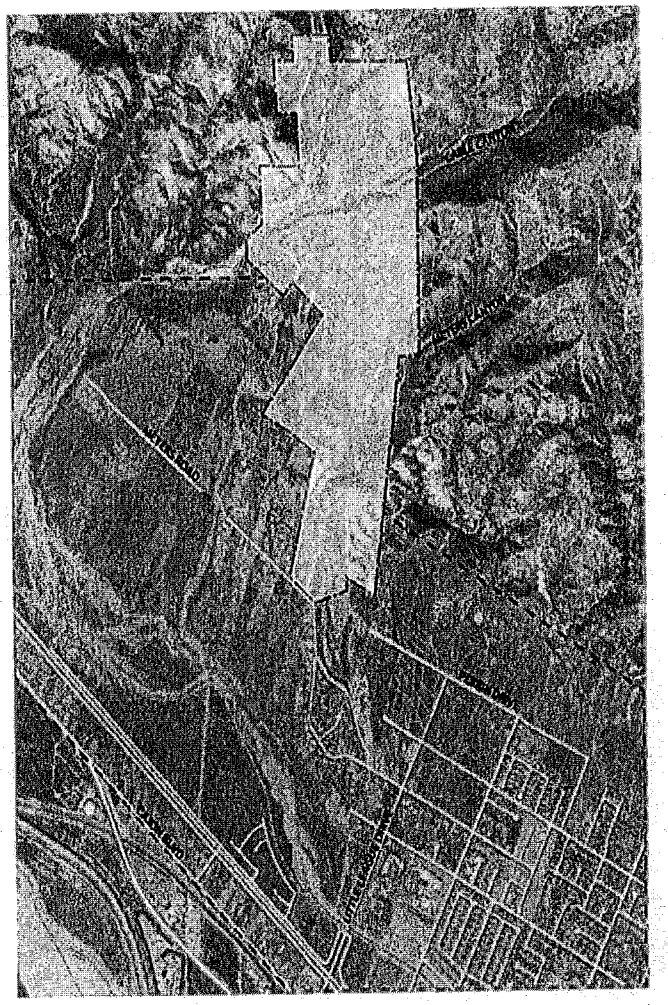
A COMPLETE COPY OF THIS EXHIBIT IS ON FILE

WITH THE CLERK OF THE CITY OF SAN BERNARDINO

EXHIBIT F
TO
SPRING TRAILS
DEVELOPMENT AGREEMENT

Depiction of Park Benefited Properties

Park Benefit Area



SPRING TRAILS

TOM DODSON & ASSOCIATES

Mailing Address: **PO Box 2307, San Bernardino, CA 92406-2307**
Physical Address: **2150 N. Arrowhead Avenue, San Bernardino, CA 92405**
Tel: (909) 882-3612 ✦ Fax: (909) 882-7015 ✦ Email: tda@tdaenv.com

September 8, 2025

Mr. Samuel Martinez
Executive Officer
Local Agency Formation Commission
1601 E. 3rd Street, Suite 102
San Bernardino, CA 92415-0490

Dear Sam:

LAFCO 3274 consists of a request by the City of San Bernardino (City) for a Reorganization to include Annexation to the City and Detachment from County Service Area 70 (Spring Trails Specific Plan Project). The proposed Reorganization area consists of approximately 350 acres located generally east of Devore and northeasterly of the I-215 Freeway. The property and current City of San Bernardino boundary is shown on the attached graphic of the project area. The Reorganization area is within the City of San Bernardino northern Sphere of Influence. If the Commission approves LAFCO 3274, the project site can be developed under the Spring Trails Specific Plan which currently proposes 215 new residential lots.

The City of prepared an Environmental Impact Report (EIR, SCH No. 2009111086) and certified the Final EIR on February 19, 2013 for this project to comply with the California Environmental Quality Act (CEQA) and State CEQA Guidelines. This document concluded that implementation of the proposed residential development in accordance with the adopted Specific Plan would result in significant adverse environmental impacts to the environment even after implementation of a number of mitigation measures that all fall within the City's jurisdiction. Because the EIR identified unavoidable significant adverse environmental impacts, the City adopted a Facts, Findings, and Statement of Overriding Considerations weighing the project benefits with the identified adverse environmental impacts. LAFCO was identified as one of the Responsible Agencies under CEQA for this proposed Reorganization.

As a CEQA Responsible Agency, LAFCO is required to rely upon the EIR certified by the City of San Bernardino in 2013. One of the requirements for utilizing a certified EIR by a Responsible Agency is to verify that the original document is still adequate for use when the agency considers the EIR for the action evaluated in the EIR. In this case the Reorganization is an essential step in the final approval process for implementing the residential development entitled by the Spring Trails Specific Plan. State CEQA Guidelines Section 15162 allows an original document to be used by a Responsible Agency under the following conditions:

Under Section 15162, a subsequent EIR or negative declaration is required only when:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the EIR due to the involvement of any new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the negative declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

I have reviewed the original EIR to determine whether any substantial changes have occurred during the intervening twelve (12) years that would result in any new significant impacts or greater impacts than identified in this document. In fact, one major change in the project would substantially reduce all impacts of the proposed project. The original project would have resulted in 242 acres of development and 111 acres of open space. The total number of residential units approved by the City was 307. Due to additional geology and soil data obtained subsequent to the EIR's certification, the project design was revised with City concurrence. The current design will allow about 199 acres to be developed and an estimated 154 acres will be retained in open space and other non-residential uses. The total number of residential units now proposed is 215. This substantial reduction in the number of units, plus positive changes in air emission reductions and overall project footprint provide assurance that the project that would be allowed to proceed after annexation will have less overall impact than the originally approved project. Therefore, I recommend that the Commission rely upon the City's EIR as adequate for LAFCO's Responsible Agency CEQA environmental determination. Further, I am recommending that the Commission consider the certified EIR as a CEQA Responsible Agency as the appropriate CEQA environmental determination for LAFCO 3274.

Based on a review of LAFCO 3274 and the pertinent sections of CEQA and the State CEQA Guidelines, I believe it is appropriate for the Commission's CEQA environmental determination to cite the City's EIR as adequate documentation in accordance with the Commission's CEQA Responsible Agency status. The Notice of Determination for the project was filed on February 19, 2013. Based on a field review of the site and review of the environmental issues in the City's document, no substantial changes in circumstances have occurred since its adoption that would require additional environmental documentation or review. Under this situation, I recommend that the Commission take the following steps if it chooses to approve LAFCO 3274, acting as a CEQA Responsible Agency:

1. Indicate that the Commission staff and environmental consultant have independently reviewed the City's EIR and found them adequate for the City's proposed Reorganization.

2. The Commission needs to indicate that it has considered the EIR and environmental effects, as outlined in the EIR, prior to reaching a decision on the project and finds the information substantiating the EIR adequate for approval of the Reorganization.

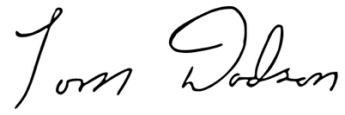
3. The Commission should indicate that it does not intend to adopt alternatives or mitigation measures for this project. Mitigation measures were required for this project and they will remain the responsibility of the City to implement.

4. Adopt the Facts, Findings and Statement of Overriding Considerations.

5. File a Notice of Determination with the County Clerk of the Board as a CEQA Responsible Agency.

If you have any questions regarding these recommendations, please feel free to give me a call.

Sincerely,



Tom Dodson

Attachments:
- Facts, Findings and Statement of Overriding Consideration
- List of Environmental Documents

Facts and Findings and Statement of Overriding Considerations for the *Spring Trails Specific Plan*

August 2019

Updated
9/8/25

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CANDIDATE FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS REGARDING ENVIRONMENTAL EFFECTS FROM APPROVAL OF LAFCO 3274, REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (SPRING TRAILS SPECIFIC PLAN PROJECT)

I. INTRODUCTION

The San Bernardino County Local Agency Formation Commission (LAFCO or Commission), in approving LAFCO 3274 for a Reorganization to include Annexation to the City of San Bernardino ("City") and Detachment from County Service Area 70 (Spring Trails Specific Plan Project), makes the findings described below and adopts the statement of overriding considerations presented at the end of these findings. The total area encompassed within the proposed Sphere expansion is estimated to be about 350 acres.

The Commission makes the Findings described below in connection with the City's approval of the Spring Trails Specific Plan ("Project" or "Spring Trails"). The current Project proposes development of 215 single-family lots, in addition to a single existing residence, within a 350-acre site situated within an unincorporated area of the foothills of the San Bernardino Mountains.

The Environmental Impact Report ("EIR") was prepared by the City acting as lead agency pursuant to the California Environmental Quality Act ("CEQA"). In considering LAFCO 3274, the Commission will be acting as a CEQA Responsible Agency. Hereafter, the Notice of Preparation, Notice of Availability, Draft EIR, Technical Studies, Final EIR containing Responses to Comments and textual revisions to the Draft EIR, and the Mitigation Monitoring and Reporting Program will be referred to collectively herein as the "EIR" unless otherwise specified. These Findings are based on the entire record before the Commission, including the EIR. The Commission adopts the facts and analyses in the EIR, which are summarized below for convenience. The omission of some detail or aspect of the EIR does not mean that it has been rejected by the Commission.

I. PROJECT SUMMARY

A. Site Location.

The Project is located within unincorporated San Bernardino County on the northern edge of the City of San Bernardino and in the foothills of the San Bernardino Mountains. The site is approximately 1.5 miles east of the unincorporated community of Devore and the junction of Interstate 215 (I-215) and I-15. The Project is bounded by the San Bernardino National Forest on three sides, and the Verdemont community of unincorporated San Bernardino County on the southern side. The Project is approximately one-third mile northwest of the intersection of Meyers Road and Little League Drive. Primary access is from a new roadway extending from Little League Drive, and secondary access will be provided by a new road extending south and connecting to the

frontage road along I-215. Freeway access is from the Palm Avenue interchange and the Glen Helen Parkway/Devore Road interchange.

B. **Project Description.**

The Project site (specifically 349.36 acres, or approximately 350 acres) is within the City of San Bernardino's unincorporated sphere of influence ("SOI") and will be annexed into the City. LAFCO 3274 consists of a request by the City of San Bernardino (City) for a Reorganization to include Annexation to the City and Detachment from County Service Area 70 (Spring Trails Specific Plan Project). There has been one major change in the project that would substantially reduce all impacts of the proposed project relative to the forecast in the EIR. The original project would have resulted in 242 acres of development and 111 acres of open space. The total number of residential units approved by the City was 307. Due to additional geology and soil data obtained subsequent to the EIR's certification, the project design was revised. The current design will allow about 199 acres to be developed and an estimated 154 acres will be retained in open space and other non-residential uses. The total number of residential units now proposed is 215. This substantial reduction in the number of units, plus positive changes in air emission reductions and overall project footprint provide assurance that the project that would be allowed to proceed after Reorganization will have less overall impact than the originally approved project.

Under the current "Preferred Development Plan", the Spring Trails Specific Plan will accommodate 215 single-family detached units, set among neighborhoods separated by open space corridors, drainage ways, roadways, and sloped areas. A system of pathways will connect the residences with neighborhood parks and natural open spaces. Development will be focused onto approximately 199 acres, or about 56 percent of the total site, and will include 154 acres of open space, parks and internal slopes and fuel modification zones.

The Preferred Development Plan assumes that the Southern California Edison ("SCE") overhead electric lines that traverse the western portion of the Project site would remain above-ground. Underneath the central portion of the electric line easement, the land use is designated as Open Space-Controlled. The northern portion of the electric line easement is designated as residential; however, development is not permitted within the electric line easement.

The average lot size in Spring Trails is 29,000 square feet. The largest lots are on the northern portion and upper elevations of the site, and the largest lot measures 18.3 acres. The smallest lots are on the lower elevations and southern portion of the project, and the smallest lot measures 10,801 square feet. In many instances the legal lots extend beyond the buildable area and include graded slopes, fuel modification zones, steep slopes, and open spaces. Approximately 199 acres of the total site would be improved for the onsite development of residential lots, roadways, trails, detention basins, fuel modification zones, and parks. An additional 23.7 acres would be graded and improved for offsite access, including 4.2 acres for the primary access road and 19.5 acres for the secondary access road.

Alternative (Underground Electric Lines) Development Plan

In the event that it becomes feasible or necessary to do so, an "Alternative Development Plan" is proposed, which is identical to the Preferred Development Plan in every respect, except for the electric lines would be relocated underground. The Alternative Development Plan contains 215 single-family detached units.

Access Roads and Circulation

Primary access to Spring Trails would be provided by a new road extending from the southeastern corner of the site and connecting to Little League Drive. Secondary access is planned via a new road extending from the southwestern corner of the site to the frontage road along I-215. Except for emergency access, the intersection of the secondary access road with Meyers Road is designed with barriers to prevent vehicular access onto Meyers Road. Circulation within Spring Trails will be provided by a loop road and a series of cul-de-sacs. Necessary public streets, both on- and off-site, would be improved by the developer and dedicated to the City. All roadways would be two-way travel—one lane in each direction—with varying treatments for parkways, sidewalks, and parking. The roadway types are:

- **Primary Access Road (50 ft. Right-of-Way (ROW))** would provide the main access for residents and guests to enter and leave Spring Trails;

- **Secondary Access Roadway (50 ft. ROW)** is intended as an alternative street for local traffic to access arterial streets outside the project site. General public would not be able to access Meyers Road from the Secondary Access Road through the use of a barrier. Emergency vehicles would only be allowed to access Meyers Road from the Secondary Access Road.

- **Primary Local Street (50 ft. ROW)** would provide primary internal access within Spring Trails.

- **Secondary Local Road (40 ft. ROW)** would provide resident access in the northern portion of the project and include parallel parking on one side of the street.

- **Cul-de-Sac I (46 ft. ROW)** would connect to the local streets and provide access to homes on both sides of the street.

- **Cul-de-Sac II (40 ft. ROW)** would connect to the local streets and provide access to homes on only one side of the street.

Trails and Open Space

A total of 154 acres of the 350-acre site is planned as open space, including natural open space, controlled open space, and parks. Two neighborhood parks would be public, serve the dual

function as detention basins, and include shade structures and tot lots. One private park is proposed to include a thematic garden, observation point, a tot lot, and other amenities such as an outdoor fireplace, water feature, picnic benches, and gazebo. A private, enclosed dog park is also proposed. Under the Preferred Development Plan with overhead electric lines, 126 acres is planned as open space, with an additional 0.9 acres of open space to accommodate the SCE easement for the overhead electric lines. The land underneath the central portion of the SCE easement is designated as Open Space-Controlled. If permitted by SCE, a park and/or trail may be located under this portion of the electric lines as a permitted use; however, they are not assumed in the buildout of the Preferred Development Plan.

A diverse system of interconnected trails would include a community trail (8-foot-wide trail within street ROW) for pedestrian and bicycle use; equestrian/pedestrian trail (12-foot-wide trail surfaced with decomposed granite or similar surface and connecting with existing offsite trail); and 4-foot-wide hiking trails.

Storm Drainage

There are four major drainage areas within the Spring Trails Project site. Upon development, some natural drainage courses onsite would be maintained, and some on- and off-site flows would be captured and routed through a series of catch basin inlets and storm drain systems. Captured stormwater would be conveyed to three onsite detention basins where it would be treated and discharged at a controlled rate into Cable Canyon. The drainage plan has been designed to ensure conveyance of the 100-year storm. Best Management Practices ("BMPs") for water quality treatment would include the extended detention basins and media filtration devices. These improvements would be designed and constructed in accordance with the City of San Bernardino and the San Bernardino County Flood Control District standards.

Water Supply System

The City of San Bernardino Municipal Water Department would provide water service to Spring Trails, and currently provides service to pressure zones ranging from 1,249 feet to 2,100 feet. The nearest existing reservoir is the Meyers Canyon Reservoir, which is within the 2,100-foot pressure zone, but is not adequate for buildout of Spring Trails or Verdemont. Therefore, water would be supplied to Spring Trails from lower elevations by a combination of expanding and improving the offsite water system and the provision of onsite reservoirs and transmission lines. Offsite improvements would include the creation/improvement of a series of pump stations and transmission lines within the Verdemont community. In addition, three onsite reservoirs are proposed to meet the need for 2,300-, 2,500-, 2,700-, and 3,000-foot elevation pressure zones. Based upon the projected buildout of Spring Trails, total projected water demands are:

- Average Daily Demand – 328 gallons per minute (gpm), reduced by about 30% due to current number of units
- Maximum Daily Demand – 568 gpm, reduced by about 30% due to current number of units
- Maximum Peak Hour Demand – 1,136 gpm, reduced by about 30% due to current number of units

The water facilities for Spring Trails have been sized to meet maximum demand in addition to fire flow requirements. Fire flow capacity is designed to provide 1,500 gpm for four hours. Pumping stations would be designed with 100 percent redundancy in the event that one or more of the pumping units fails, and would be equipped with onsite generators that can operate in a blackout or emergency condition. The pipelines that connect pump stations to the reservoirs would be a maximum of 20 inches in diameter. All looping lines would be 12 inches in diameter, and other distribution pipelines would be 8 inches in diameter.

Sewer Collection

The City of San Bernardino Municipal Water Department would provide wastewater collection and treatment services to the Spring Trails Project, which lies within its sanitary sewer service area. Spring Trails would connect to the City's existing 10-inch sewer line, which ends at Little League Drive and Meyers Road, then connects to the south to a major interceptor system, and is eventually treated in the San Bernardino Water Reclamation Plant. Existing capacity is available in the sewer system to serve the buildout population within the City. The sewer facilities would be designed and constructed in accordance with the City of San Bernardino Municipal Water Department standards and specifications and in accordance with the *Standard Specifications for Public Works Construction* (latest edition). The sewer mains would be located in public street rights-of-way where possible. If not, they would be constructed within dedicated public utility easements. The sewer system would be dedicated to and maintained by the City of San Bernardino Municipal Water Department.

Fuel Modification and Fire Protection

The entire Project site is within a Very High Hazard Severity Zone as designated by the California Department of Forestry and Fire Protection ("CAL FIRE"). Once annexed to the City of San Bernardino, the Project site would also be subject to the City's Development Code and established Foothill Fire Zones Overlay District (Development Code Chapter 19.15). The overlay district designates three zones within the wildland interface:

- Fire Zone A (Extreme hazard), characterized by slopes over 30 percent
- Fire Zone B (High Hazard), characterized by slopes 15–30 percent
- Fire Zone C (Moderate Hazard), characterized by slopes less than 15 percent

The Project site has approximately 121 acres in Fire Zone A, 112 acres in Fire Zone B, and 119 acres in Fire Zone C. The Overlay District specifies development standards relating to access and circulation, site and street identification, roadside vegetation, water supply, erosion control, construction and development design, and miscellaneous items. The entire Project site is already within the San Bernardino County Fire Protection District, its Valley Service Zone, and its Zone FP-5, which is the fire service provider for the City. Any remaining references to the City Fire Department in this document should instead reference the San Bernardino County Fire Protection District.

One of the components of the wildland fire defense systems for Spring Trails would be the implementation of fuel modification zones. The proposed plan includes the following defined fuel modification zones:

- *Fuel Modification Zone A (flat) - Noncombustible Construction:* 20- to 35-foot setback zone for noncombustible construction only. Fuel Modification Zone A shall be maintained by the homeowner or the HOA. At no time would the Fuel Modification Zone A be less than 20 feet.

- *Fuel Modification Zone B - Wet Zone (100 percent removal of undesirable plant species):* First 50 to 200 feet from Fuel Modification Zone A. Fuel Modification Zone B shall be permanently irrigated, fully landscaped with approved drought-tolerant, deep-rooted, moisture-retentive material as container shrub material, or hydroseeded per SBFD Approved Plant List. Fuel Modification Zone B area shall be maintained by the homeowner, HOA, or landscape maintenance district ("LMD") as appropriate.

- *Fuel Modification Zone C - Dry Zone (50 percent thinning of the acceptable existing plant material):* 40 to 185 feet. Fuel Modification Zone C shall be a non-irrigated area. Removal of all flammable undesirable species. Specimen trees shall be retained as directed by the owner's representative but must be thinned a minimum of 50 percent, including removal of all low hanging foliage within three times the height of the understory shrubs or 10 feet, whichever is greater, along with dead or broken branches. All accumulated plant debris on the ground shall be removed. Fuel Modification Zone C area shall be maintained by the LMD.

  This Project does not contain any 30 percent thinning "D" fuel modification zones.

General Project Phasing and Schedule

It is anticipated in the DEIR that the Project will be phased, with complete buildout anticipated to occur within approximately three years of the start of construction. This phasing, however, is based on a judgment of future planning and market factors, and therefore is subject to change. The Project, however, would be developed in the following sequence:

Phase 1 (approximately one year)

- Offsite grading and improvement of the primary and secondary access roads;
- Offsite backbone utilities (water, sewer, drainage, etc.);
- Onsite backbone utilities;
- Rough grading of Spring Trails Project site (approximately 200 acres) for development of residential lots, roadways, trails, detention basins, and parks; and
- Detention basins improved.

Phase 2 (approximately 2.5 years)

- Residential development would sequence from the south and continue northward. Infrastructure, roadways, fuel modification zones, parks, and landscaping necessary to serve residential development would be phased accordingly;
- Improvements in this phase would generally follow the sequence of water improvements, which are divided into three pressure zones;
- Sewer, storm drain, dry utilities, and roadway paving would be sequenced with improvements in each water pressure zone;
- Trails, parks, and common area landscaping in each pressure zone would occur prior to or concurrent with issuance of residential building permits for that pressure zone; and
- Fuel modification zones necessary to support the development in each zone would occur as noted in the Fire Protection Plan.

In accordance with Section 8.54.070 of the City of San Bernardino's Municipal Code, construction would be limited to the hours between 7:00 AM and 8:00 PM.

Estimated Earthwork

Based on preliminary estimates, the earthwork for the Project site itself is anticipated to balance. The primary and secondary access roads, however, would require substantial cut, and the net export requirement for the Project is 251,000 cubic yards (cy). Based on an estimated 14 cy capacity per haul truck, an estimated 17,929 truck trips would be required to export soil to complete the access roads. This is estimated to occur over an approximately three-month period, and therefore, based on a six-day week, would require approximately 249 truck trips per day.

Development Agreement

A Development Agreement was proposed as part of the Project approvals. The Development Agreement includes certain Project conditions that benefit the Project, as well as local and regional benefits. These conditions include:

- Dedication to the City of San Bernardino right-of-way for water main lines and related facilities, easements for the construction and operation of water tank sites, and right-of-way for sewer main lines and related facilities;

- Construction of water lines and related facilities including water tanks within the easement shown in the Tract Map for the Project site and dedication of those facilities to the City; and

- Construction of sewer main lines and related facilities within the easements shown in the Tract Map and dedication of those facilities to the City.

In exchange, the Development Agreement provides for vested development rights for the Project and reimbursement of those costs that exceed the fair share of the Project for the improvements.

C. **Actions Covered by the EIR**

The following requested discretionary actions are necessary to allow for implementation of the Project:

- **City of San Bernardino Mayor and Common Council:**
    - Approve General Plan Amendment (GPA-02-09), including pre-annexation of the Project site;
    - Approve Development Code Amendment (DCA 12-10) to add the Spring Trails Specific Plan to the list of Special Purpose Districts in the Development Code;
    - Zone the annexed site as Specific Plan (consistent with existing pre-zoning);
    - Adopt Spring Trails Specific Plan;
    - Approve Tentative Tract Map (TTM 15576);
    - Approve Development Agreement;
    - Approve Project-specific Water Quality Management Plan;
    - Issue Grading Permits and Building Permits;
    - A Development Permit will be required for the design of the single-family units.

As a side note, the Hillside Management Overlay zone set forth in Chapter 19.17 of the City of San Bernardino Municipal Code does not apply in this matter as the Specific Plan sets forth a fire protection plan that is in accordance with the City's Municipal Code. Thus, the Conditional Use Permit called for in Section 19.17.050 of the Development Code is not required prior to construction. Instead, a Development Permit is required prior to construction to evaluate the project design against the Specific Plan and other regulations, and to ensure consistency with the Fire Protection Plan.

- **Local Agency Formation Commission ("LAFCO"):**
    - Approve LAFCO 3274 for a Reorganization to include Annexation to the City and Detachment from County Service Area 70 (Spring Trails Specific Plan Project).
- **U.S. Army Corps of Engineers:**
    - Issuance of a Section 404 permit under the federal Clean Water Act.

- **Regional Water Control Board:**
    - Water Quality Certification under Section 401 of the Clean Water Act;
    - National Pollution Discharge Eliminations System permit under Section 402 of the Clean Water Act
- **California Department of Fish and Wildlife:**
    - Streambed Alteration Agreement
- **California Public Utilities Commission/Southern California Edison**
    - Review of the Project with regard to the SCE transmission line easement and maintenance right-of-way through the Project site.

D. **Project Objectives**

The Project objectives are as follows:

1. Develop a high-quality, low-density residential community that optimizes the unique characteristics of the project site, including maximizing view opportunities.
2. Assure adequate roadway access to the development while preserving the integrity of surrounding communities.
3. Enhance City trail facilities by expanding the system and integrating project-site trails with existing and proposed hiking, equestrian, and bicycle trails within the surrounding community.
4. Comply with policies for land use development within and adjacent to the San Bernardino National Forest.
5. Minimize the development footprint and maximize available open space areas.
6. Design a safe community cognizant of natural conditions, including wildland fires, flooding, and seismic hazards.
7. Minimize environmental impacts associated with construction of improvements and long-term operation of the new community.
8. Create an attractive, viable project, and realize a reasonable return on investment.

The Commission concurs with the preceding project description which includes revisions to the Project since it was approved in 2013.

II. ENVIRONMENTAL REVIEW AND PUBLIC PARTICIPATION

The City conducted an extensive review of this Project which included a Draft EIR and a Final EIR, including technical reports; along with a public review and comment period. The following is a summary of the City's environmental review of this Project:

- On November 24, 2009, the City circulated an Initial Study ("IS") and Notice of Preparation ("NOP") identifying the environmental issues to be analyzed in the Project's EIR to the State Clearinghouse, responsible agencies, and other interested parties. The NOP (Appendix A to the Draft EIR) identified potential environmental impacts related to: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation/Traffic, Utilities and Service Systems, and was the basis for the determination that an EIR should be prepared for the Project.

- The NOP public review period was 30 days. The City accepted a number of written comments from various State, regional and local agencies. The City considered these comments when determining the final scope of the EIR's analysis. The scope of the issues identified in the comments related to each of the impact areas which are analyzed within the EIR, as listed above, with several comments concentrated on fire hazards.

- The Draft EIR was distributed for public review and the City filed a Notice of Availability ("NOA") with the State Clearinghouse on July 29, 2011, commencing the 45-day review period.

- The City received a total of 12 comment letters from public agencies and 41comment letters from residents. The City prepared specific responses to all comments. The responses to comments are included in the Final EIR.

- Notice of the Common Council hearing to consider the Project was provided in the following newspapers of general and/or regional circulation: the San Bernardino Sun on February 8, 2013.

- On February 19, 2013, the Common Council held a public hearing to consider the Project and staff recommendations. The Common Council, after considering written comments and public testimony on the EIR, determined that no new information was presented that would require recirculation of the EIR. Following public testimony, submission of additional written comments, and staff recommendations, the Common Council voted to certify the EIR, adopt these Findings, and approve the Project, including: Certification of the Environmental Impact Report; approval of General Plan Amendment (GPA-02-09); approval of the zoning designation for the Project site of Specific Plan; approval of the Spring Trails Specific Plan; approval of Tentative Tract Map (TTM 15576); approval of

the Development Agreement; and approval of the Project-specific Water Quality Management Plan.

The Commission has reviewed the Environmental Review and Public Participation summary and concurs that it is an accurate record of the review and participation events conducted by the City. The Commission was afforded an opportunity to participate in this review process as a CEQA Responsible Agency and is using the certified Final EIR for the LAFCO 3274 CEQA compliance process.

III. INDEPENDENT JUDGMENT FINDING

The City selected and retained the Planning Center as the environmental consultant to prepare the EIR. The Planning Center prepared the EIR under the supervision and direction of the City's planning staff.

Finding: The EIR for the Project reflected the City's independent judgment and in reviewing the Final EIR as a CEQA Responsible Agency, the Commission concurs with the findings and conclusions presented below. The Commission has exercised independent judgment regarding the EIR as a CEQA Responsible Agency in accordance with Public Resources Code Section 21082.1(c)(3).

A. General Finding On Mitigation Measures

In preparing the Conditions of Approval for this Project, City staff incorporated the mitigation measures recommended in the EIR as applicable to the Project. In the event that the Conditions of Approval do not use the exact wording of the mitigation measures recommended in the EIR, in each such instance, the adopted Conditions of Approval are intended to be identical or substantially similar to the recommended mitigation measure. Any minor revisions were made for the purpose of improving clarity or to better define the intended purpose by the City.

Finding: Unless specifically stated to the contrary in these findings, it is the City's intent to adopt all mitigation measures recommended by the Draft EIR which are applicable to the Project. If a measure has, through error, been omitted from the Conditions of Approval or from these Findings, and that measure is not specifically reflected in these Findings, that measure shall be deemed to be adopted pursuant to this paragraph. In addition, unless specifically stated to the contrary in these Findings, all Conditions of Approval repeating or rewording mitigation measures recommended in the EIR are intended to be substantially similar to the mitigation measures recommended in the EIR and are found to be equally effective in avoiding or lessening the identified environmental impact. In each instance, the Conditions of Approval contain the final wording for the mitigation measures. The Commission understands this General Finding and concurs with reliance on the Conditions of Approval as the final wording for EIR mitigation measures. Note that the Commission has no responsibility for implementing any project-related mitigation measures.

IV. ENVIRONMENTAL IMPACTS AND FINDINGS

City staff reports, the EIR, written and oral testimony at public meetings or hearings, these Facts, Findings and Statement of Overriding Considerations, and other information in the administrative record, serve as the basis for the Commission's environmental determination.

The detailed analysis of potentially significant environmental impacts and proposed mitigation measures for the Project is presented in Section 5 of the Draft EIR. Responses to comments from the public and from other government agencies on the Draft EIR are provided in Section 2 of the Final EIR.

The EIR evaluated seventeen (17) major environmental categories for potential impacts including: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation/Traffic, Utilities and Service Systems, Greenhouse Gas Emissions, and Forest Resources. Both Project-specific and cumulative impacts were evaluated. Of these 17 major environmental categories, the Commission concurs with the conclusions in the EIR that the issues and sub-issues discussed in Sections A and B below either are less than significant without mitigation, or can be mitigated to a less than significant level.

Unless otherwise indicated, the analysis of each of the impact areas contained in Sections A and B herein is applicable to both the Preferred Development Plan and the Alternative (Underground Electric Lines) Development Plan.

A. Impacts Identified as Less Than Significant Requiring No Mitigation.

The following issues were found in the EIR as having no potential to cause significant impacts, and therefore require no Project-specific mitigation. In the presentation below, each resource issue is identified and the potential for significant adverse environmental effects is discussed.

1. Aesthetics.

a. Substantial Adverse Effect on a Scenic Vista.

Potential Significant Impact: Whether the Project would have a substantial adverse effect on a scenic vista.

Finding: Impacts related to Aesthetics are discussed in detail at Section 5.1 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the potential for the Project to have a substantial adverse effect on a scenic vista is less than significant, and therefore, no mitigation is required.

Facts in Support of the Finding: According to the California Scenic Highway Mapping System of the California Department of Transportation, the Project site is not on or near a major state-designated scenic

highway. **(EIR at 5.1-4)**. Goal OS 5, Policy OS 5.3, of the County of San Bernardino General Plan designates I-15 from the junction with I-215 northeast to the Nevada state line, excepting all incorporated areas, as a County Scenic Route. The Project site is not visible when traveling northbound on the I-15. **(*Id.*)**. Changes to the landscape would occur during mass grading, completion of the first phases of home construction, and at full buildout. **(EIR at 5.1-14)**. Onsite grading and home construction would be most visible from commercial properties and to north- and southbound travelers along I-215 between Palm Avenue and Glen Helen Parkway. **(*Id.*)**. The EIR contains simulated photographs to demonstrate how the site may look during site grading, during the first phase of home construction and after Project completion while traveling north on I-215 at the Palm Avenue off-ramp; as well as how the Project site may appear during the initial grading phase, during the first phase of Project housing construction and after Project completion from prominent views from the southwest at Glen Helen Parkway and the railroad tracks south of Cajon Boulevard. **(See EIR Figures 5.1-3 to 5.1-8)**.

The simulated photographs contained in the EIR demonstrate how the view toward the site from the east-southeast would be virtually unchanged after Project completion. **(EIR at 5.1-15)**. The view of the Project site from the east-southeast is blocked by the hilly terrain. **(EIR Figure 5.1-9)**. Mass grading and single-family homes without landscaping would be plainly visible from these vantage points. However, due to the residential units' low scale, especially in comparison to steep hillsides, they would not interfere with the dominant view and backdrop of the San Bernardino Mountains. The project would not be out of scale with the existing viewshed and would not dominate the landscape. Rooflines would not encroach into the skyline or the dominant ridgelines. **(EIR at 5.1-15)**. Due to the Project's low density, the Specific Plan's design guidelines and design concepts, the large amount of open space preservation, and proposed landscaping, the homes would not dominate the views. **(*Id.*)**. Since the Project site contains slopes with a 15 percent or greater grade, the development guidelines of the HMOD would be followed, and have been incorporated into the Specific Plan Development Standards. The majority (76 percent) of the Project site on slopes of 15 percent or greater grade would be preserved as open space, and the remaining acres would follow HMOD development

standards. **(*Id.*)**. In the Preferred Development Scenario, the SCE electric lines would be visible from areas adjacent to the Project site, as they currently are. **(*Id.*)**. For these reasons, the potential for the Project to have a substantial adverse effect on a scenic vista is less than significant, and no mitigation is required.

b. Scenic Resources.

Potential Significant Impact: Whether the Project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Finding: Impacts related to Aesthetics are discussed in detail at Section 5.1 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the potential for the Project to substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway is less than significant, and therefore, no mitigation is required.

Facts in Support of the Finding: The County of San Bernardino General Plan designates I-15 as a County Scenic Route, from the junction with I-215 northeast to the Nevada state line, excepting all incorporated areas. Due to area topography, the freeway interchange elevation, and speed of travel, the Project site is not visible to motorists once they pass the I-215 interchange and head northbound on the I-15. **(EIR at 5.1-15)**. The interchange itself is approximately one mile long. Motorists traveling northbound at 65 miles per hour would be on the interchange for less than a minute, and may have a view of the Project site looking east for a few seconds before the Project site is behind them. **(*Id.*)**. Traveling southbound on the I-15, motorists do not see the northern portion of the Project site due to prominent ridgelines, nor do they see the southern portion of the Project site from the I-215 junction, because road contours and the northbound lanes of the I-15 and I-215 interchange and associated traffic interfere with views. **(*Id.*)**. The Project site is only visible from the northbound I-15 before the I-215 junction. This portion of I-15 is not designated a scenic highway. In the Preferred Development Scenario, the SCE electric lines would be visible from areas adjacent to the project site, as they currently are. **(*Id.*)**. For these reasons, the potential for the Project to substantially damage scenic resources is less than significant, and no mitigation is required.

c. Degradation of Visual Character.

Potential Significant Impact: Whether the Project would substantially degrade the existing visual character or quality of the site and its surroundings.

Finding: Impacts related to Aesthetics are discussed in detail at Section 5.1 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the potential for the Project to substantially degrade the existing visual character or quality of the site and its surroundings is less than significant, and therefore, no mitigation is required.

Facts in Support of the Finding: Implementation of the Project would alter existing landform and involve substantial grading. The visual character of the majority of the Project site would be changed from undeveloped open space to a low-density residential development. **(EIR at 5.1-14)**. The development footprint encompasses approximately 241.5 acres, or 68 percent of the total site, and includes areas for the onsite development of residential lots, roadways, trails, detention basins, fuel modification zones, and parks. Approximately 193.0 acres of the total site would be graded and improved. **(*Id.*)**. An additional 23.7 acres would be graded and improved for offsite access, including 4.2 acres for the primary access road and 19.5 acres for the secondary access road. The Project is designed to preserve significant watersheds, severely sloped areas, and seismic hazard areas and incorporate them into the land plan as open space. The Project's design accounts for the potential impacts of the hazards posed by seismic activity, flooding, and wildland fires. **(*Id.*)**.

The EIR contains simulated photographs to demonstrate how the site may look during site grading, during the first phase of home construction and after Project completion while traveling north on I-215 at the Palm Avenue off-ramp; as well as how the Project site may appear during the initial grading phase, during the first phase of Project housing construction and after Project completion from prominent views from the southwest at Glen Helen Parkway and the railroad tracks south of Cajon Boulevard. **(See EIR Figures 5.1-3 to 5.1-8)**.

The simulated photographs contained in the EIR demonstrate how the view toward the site from the east-southeast would be virtually unchanged after Project completion. **(EIR at 5.1-15)**. The view of the Project site

from the east-southeast is blocked by the hilly terrain. **(EIR Figure 5.1-9)**. Mass grading and single-family homes without landscaping would be plainly visible from these vantage points. However, due to the residential units' low scale, especially in comparison to steep hillsides, they would not interfere with the dominant view and backdrop of the San Bernardino Mountains. The Project would not be out of scale with the existing viewshed and would not dominate the landscape. Rooflines would not encroach into the skyline or the dominant ridgelines. **(EIR at 5.1-15)**. Due to the Project's low density, the Specific Plan's design guidelines and design concepts, the large amount of open space preservation, and proposed landscaping, the homes would not dominate the views. Since the Project site contains slopes with a 15 percent or greater grade, the development guidelines of the HMOD would be followed, and have been incorporated into the Specific Plan Development Standards. The majority (76 percent) of the Project site on slopes of 15 percent or greater grade would be preserved as open space, and the remaining acres would follow HMOD development standards. **(*Id.*)**. For these reasons, the potential for the Project to substantially degrade the visual character of the Project site or its surroundings is less than significant, and no mitigation is required.

d. Light and Glare.

Potential Significant Impact: Whether the Project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Finding: Impacts related to Aesthetics are discussed in detail at Section 5.1 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the potential for the Project to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area is less than significant, and therefore, no mitigation is required.

Facts in Support of the Finding: Additional lighting would be required to provide nighttime street, trail, and building illumination for the Project. Other sources of light include security lighting, nighttime traffic, and light associated with the nighttime use of the residences. In addition to the adjacent residential land uses, other light-sensitive land uses include the California State University at San Bernardino (CSUSB) observatory, currently being constructed on Little Badger Hill on the CSUSB campus, between three and four miles east of the Project site. **(EIR at**

5.1-15). Nighttime lighting has the potential to create light pollution, which occurs when lighting is directed upward and gets scattered by the atmosphere. To observatories, this light competes with starlight and interferes with the ability to see the night sky clearly. Observatories require atmospheric darkness so that the night sky can be viewed clearly. **(EIR at 5.1-16)**.

The use of lighting within the Spring Trails Project would be consistent with the dark sky guidelines suggested by the International Dark Sky Association (www.darksky.org) and with the City of San Bernardino Development Code. **(EIR at 5.1-11)**. A detailed lighting plan, including specifications and design standards, would be submitted as part of the construction documents. **(*Id.*)**. Pursuant to Section 19.20.03.014 of the City's Development Code and the design criteria in the Spring Trails Specific Plan, lights associated with the Project development would be shielded and directed toward the interior of the site. **(EIR at 5.1-1; 5.1-12).** Exterior lighting would be designed, arranged, directed, or shielded in such a manner as to contain direct illumination onsite, thereby preventing excess illumination and light spillover onto adjoining land uses and/or roadways and without adversely affecting day or nighttime views in the project area. **(EIR at 5.1-16)**. Lighting would be installed to accommodate safety and security, while minimizing impacts on surrounding residential areas and the CSUSB observatory. **(*Id.*)**. For these reasons, the potential for the Project to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area is less than significant, and no mitigation is required.

e. Cumulative Impacts.

Potential Significant Impact: Whether the Project would result in cumulatively significant visual/aesthetic impacts.

Finding: Impacts related to Aesthetics are discussed in detail at Section 5.1 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the potential for the Project to result in cumulatively significant visual/aesthetic impacts is less than significant, and therefore, no mitigation is required.

Facts in Support of the Finding: The adjacent developed communities and undeveloped parcels to the south and southwest are designated Residential Estate (RE) in the City of San Bernardino's General Plan. **(EIR at 5.1-16)**. Continued conversion of rural and

undeveloped lands to low-density residential suburban land uses would change the aesthetic character of the area. **(EIR at 5.1-3)**. This Project would incrementally contribute to both direct and indirect light and glare affecting the nighttime aesthetic character of the region. The entire Project site is currently prezoned by the City of San Bernardino as RE. In the context of the City's General Plan, the Verdemont area is residential in nature. The Project's features and detailed design criteria per the Specific Plan and the HMOD meet the City's goal to provide a variety of housing stock, including upscale homes. The Project clusters development to maintain undeveloped open space on approximately 30 percent of the site. **(EIR at 5.1-16)**. Eventually, as residential development occurs in the remaining undeveloped areas south and southwest of the Project site, the character of the Verdemont area would be changed into a more suburban community, as intended by the General Plan. By maintaining open space and preserving the dominant view and backdrop of the San Bernardino Mountains, the Project would protect the natural components that contribute to the scenic value of the area, including existing terrain, vegetation, and major ridgelines. **(*Id.*)**. For these reasons, the Project's contribution to cumulative impacts related to aesthetics will be less than significant, and no mitigation is required.

2. **Air Quality.**

a. Violate Air Quality Standard-Operations.

Potential Significant Impact: Whether the Project's long-term operations will violate any air quality standard or contribute to an existing or projected air quality violation.

Finding: Potential impacts of the Project on Air Quality are discussed in detail in Section 5.2 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project's long-term operations will not violate any air quality standard or contribute to an existing or projected air quality violation during operations, and therefore, no mitigation is required.

Facts in Support of the Finding: Project-related vehicle trips were obtained from the Project-specific traffic impact analysis. **(EIR Appendix K)**. Based on the trip generation rate in the traffic study, the Project would generate a total of 3,149 average daily trips ("ADT") at project buildout. **(EIR at 5.2-16).** Air pollutant emissions modeling is based on mobile- and stationary-source

emissions for each of the land uses. Based on computer modeling, the Project would result in an increase of air pollutant emissions for both mobile and stationary sources. However, Project-related emissions would not exceed the South Coast Air Quality Management District ("SCAQMD") regional emissions thresholds for the analyzed pollutants. **(EIR Table 5.2-8)**. Therefore, the Project would not cumulatively contribute to the O^3, PM_{10}, and $PM_{2.5}$ nonattainment designations of the South Coast Air Basin. Consequently, the proposed Project's operational air quality impact is considered less than significant. **(EIR at 5.2-16).** Therefore, because long-term operations of the Project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation; impacts are considered to be less than significant, and no mitigation is required.

b. Exposure of Sensitive Receptors-Operations.

Potential Significant Impact: Whether the Project's long-term operations will expose sensitive receptors to substantial pollutant concentrations.

Finding: Potential impacts of the Project on Air Quality are discussed in detail in Section 5.2 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that long-term Project operations will not expose sensitive receptors to substantial pollutant concentrations, and therefore, no mitigation is required.

Facts in Support of the Finding: Carbon monoxide (CO) hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue and are subject to reduced speeds. Typically, for an intersection to exhibit a significant CO concentration, it would operate at level of service ("LOS") E or worse. Based on the traffic impact analysis prepared for the Project **(EIR Appendix K)**, under future year With Project conditions, the following intersections are projected to operate at LOS E or worse before traffic improvements:

- Palm Avenue at I-215 freeway NB ramps (LOS E during AM peak hour and LOS F during PM peak hours for Year 2013); and
- Palm Avenue at I-215 freeway SB ramps (LOS F during AM peak hour for Year 2013). **(EIR at 5.2-25)**.

Intersections listed above for 2013 are most conducive to the formation of CO hot spots and were modeled during the worst-case peak hour of congestion. Because technological improvements in later-model cars have made significant emissions reductions in CO, background CO concentrations in the South Coast Air Basin and vehicle emissions would be lower in 2030 than in the Project buildout year, Year 2030 conditions were not modeled. Project-related traffic would not exceed any of the state one- or eight-hour CO ambient air quality standards ("AAQS") at the study area intersections at buildout year plus cumulative growth conditions. **(EIR Table 5.2-11)**. Consequently, sensitive receptors in the area would not be significantly affected by CO emissions generated by operation of the proposed Project, and localized air quality impacts related to mobile-source emissions would therefore be less than significant.

To estimate concentrations of air pollutants generated from operation of the Project at nearby existing and proposed sensitive receptors, the Project's maximum daily operational emissions were compared to the operational localized significance thresholds (LSTs). In accordance with SCAQMD methodology, only onsite stationary sources were included in the analysis. Project-related vehicles traveling on- and offsite are not included in the analysis. **(EIR 5.2-26)**. Project emissions would not exceed the LST screening level criteria for CO, NO_2, PM_{10}, or $PM_{2.5}$, and therefore operation of the Project would not expose offsite and onsite sensitive receptors to substantial pollutant concentrations. **(EIR Table 5.2-12)**. Therefore, on a localized level, the Project's potential to result in the exposure of sensitive receptors to substantial pollutant concentrations during long-term Project operations is less than significant, and no mitigation is required.

c. Cumulative Impacts-Operations.

Potential Significant Impact: Whether the Project will result in cumulatively significant operational air quality impacts.

Finding: Potential impacts of the Project on Air Quality are discussed in detail in Section 5.2 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the potential for the Project to result in cumulatively significant operational air quality impacts is less than significant, and therefore, no mitigation is required.

Facts in Support of the Finding: With respect to operational air quality emissions, any project that does not exceed or can be mitigated to less than the daily regional threshold values is not considered by the SCAQMD to be a substantial source of air pollution and does not add significantly to a cumulative impact. **(EIR at 5.2-27)**. Operation of the Project would not result in emissions in excess of the SCAQMD regional emissions thresholds for long-term operation for VOC, NOx, CO, PM_{10}, and $PM_{2.5}$. **(*Id.*)**. Therefore, the Project's contribution to cumulative operational air quality impacts would be less than significant, and no mitigation is required.

3. **Biological Resources.**

a. Cumulative Impacts.

Potential Significant Impact: Whether the Project will result in cumulatively significant impacts to Biological Resources.

Finding: Impacts related to Biological Resources are discussed in detail in Section 5.3 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the potential for the Project to result in cumulatively significant impacts to Biological Resources is less than significant, and therefore, no mitigation is required.

Facts in Support of the Finding: The Spring Trails Project site contains a number of unique and uncommon characteristics that provide for a wide diversity of plant and animal species, especially within the onsite riparian areas. **(EIR at 5.3-59)**. However, specific aspects of the Project's design, as well as the implementation of the required mitigation measures would successfully avoid or mitigate significant impacts to these resources. **(*Id.*)**. The most significant area of riparian habitat on the Project site is Cable Creek, and that area is outside of the Project footprint and would not be impacted by the Project. Additional Project design features and required mitigation would conserve and/or enhance existing onsite riparian features and wildlife corridors. **(*Id.*)**. Mitigation is also recommended that would require additional offsite conservation of riparian areas and other important habitats. While continued development within the greater San Bernardino region has decreased the amount of available high-quality habitat in the area, this Project does not cumulatively contribute to that decrease. **(*Id.*)**. The most important habitat values are maintained on the site, and certain aspects of the Project's design, such as the permanent

preservation of Cable Creek, actually provide long-term benefits to the region in terms of biological resource conservation. Based on each of these factors, it can be determined that the Project would not present a significant cumulative impact to biological resources. **(*Id.*)**. Therefore, cumulative impacts to biological resources will be less than significant, and no mitigation is required.

4. **Cultural Resources.**

a. Historic Resources.

Potential Significant Impact: Whether the Project would cause a substantial change in the significance of a historical resource as defined in Section 15064.5.

Finding: Impacts related to Cultural Resources are discussed in detail in Section 5.4 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not cause a substantial change in the significance of a historical resource, and therefore, no mitigation is required.

Facts in Support of the Finding: The Spring Trails Project area was assessed for historical resources during multiple surveys. During this assessment, no historical resources, as defined in Section 15064.5 of the CEQA Guidelines, were observed. **(EIR at 5.4-12)**. There are no structures, buildings, or other built environment resources with historical value in the project area. **(*Id.*)**. Therefore, there are no known historical resources on the Project site, and no mitigation is required.

b. Development in Sensitive Archaeological Area.

Potential Significant Impact: Whether the Project would be developed in a sensitive archeological area, as identified in the City's General Plan.

Finding: Impacts related to Cultural Resources are discussed in detail in Section 5.4 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not be developed in a sensitive archeological area as identified in the City's General Plan, and therefore, no mitigation is required.

Facts in Support of the Finding: The Project site is not located in an area of concern for archaeological resources, and is not located within an area of known resources or areas that could reasonably contain resources and which had demonstrable surface integrity as of November 1987. **(See EIR Figure 5.4-1)**. Therefore, no mitigation is required.

5. **Geology and Soils.**

a. Cut and Fill.

Potential Significant Impact: Whether the Project would involve earth movement (cut and/or fill).

Finding: Impacts related to Geology and Soils are discussed in detail at Section 5.5 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that while the Project would involve grading on about 216.7 acres of land, with roughly 3.1 million cubic yards of cut and 2.8 million cubic yards of fill, Project earth movement would not result in substantial adverse erosion or dust impacts and, therefore, no mitigation is required.

Facts in Support of the Finding: In addition to the specified amounts of cut and fill grading, the Project would involve roughly 251,000 cubic yards of soil export. **(See EIR Table 5.5-2)**. Project features are incorporated into the Spring Trails Specific Plan that would minimize soil erosion. **(EIR at 5.5-21)**. For example, all graded slopes shall be stabilized and planted with the approved trees, shrubs, and groundcovers listed in the *Landscape Zones Plant Palette*, Table 3.6 in the Specific Plan Design Guidelines. The Grading Plan in the Development Standards for the Spring Trails Specific Plan has been devised with overall goals, including minimizing grading quantities, minimizing slope maintenance and water consumption, and providing for stable slopes and building pads. **(*Id.*)**. Specific guidelines in the Grading Plan include: minimize grading where possible; avoid grading in areas where slopes exceed an average of 15 percent to the greatest extent possible; terrace drains and benches shall be added where slope height exceeds 30 feet, in accordance with the Uniform Building Code. **(*Id.*)**. In some instances, benches should be widened to provide for dual use as a recreation trail; existing significant drainage courses shall be maintained as much as possible; final grading design shall adhere to the final soils report recommendations; grading shall be performed under the supervision of a registered soils engineer; a storm water pollution prevention program ("SWPPP") must be prepared and processed prior to grading; natural terrain must be preserved as much as possible by focusing development in the development footprint; earth retention systems, where slopes can be planted to blend with the natural terrain, should be used where possible; and all cut-and-fill slopes shall be revegetated to control erosion. **(EIR at 5.5-22)**.

These guidelines would meet City and state development standards and soil stability would be maintained. In addition, the Safety Plan requires that Grading for building pads and roads shall conform to specifications of the geologist, based on a soils study and final geotechnical study. **(*Id.*)**. In addition to the Project guidelines and development standards described above, the Project would prepare and implement a SWPPP specifying BMPs for minimizing pollution of stormwater during project construction. Categories of BMPs that would be included in the SWPPP include erosion control BMPs that cover and/or bind soil to prevent soil from entering runoff; and sediment control BMPs, such as barriers, that intercept and filter out soil that has been detached and transported by flowing water. Implementation of BMPs specified in the SWPPP would help stabilize project site slopes while vegetation planted by the Project matures. **(*Id.*)**. After implementation of Project guidelines, Specific Plan development standards, and BMPs for erosion control and sediment control to be specified in the project's SWPPP, Project development is not expected to result in substantial erosion, and no mitigation is required.

b. Landslides, Mudslides or Subsidence.

Potential Significant Impact: Whether the Project site is subject to potential hazards from landslides, mudslides or subsidence.

Finding: Impacts related to Geology and Soils are discussed in detail at Section 5.5 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project site is not subject to potential hazards from landslides, mudslides or subsidence and, therefore, no mitigation is required.

Facts in Support of the Finding: The maximum gradient of the natural slopes on the site approach is 1.2:1 (horizontal:vertical). Proposed cut-and-fill slopes would be designed at grades of 2:1, with maximum slope heights of 80 feet. Such cut-and-fill slopes have been analyzed and found to be grossly stable. **(EIR at 5.5-24)**. Cut slopes that expose bedrock will tend to weather over time and would be planted with deep-rooted vegetation. No surface indications of slope instability or significant "out of slope" geologic bedding conditions were observed onsite, and no significant natural slope instability exists onsite. **(*Id.*)**. The site plan avoids the lower portions of Cable Canyon and Meyers Canyon, which could act as channels for mudflows. The site plan also avoids the steeper slopes near

the northern end of the site. All cut-and-fill slopes created by the Project would be vegetated, thereby controlling erosion and reducing mudflow hazard. There are no substantial groundwater or oil withdrawals in the area that could lead to subsidence, and the potential for ground subsidence is regarded as low. **(*Id.*)**. Therefore, no mitigation is required.

c. Expansive Soils.

Potential Significant Impact: Whether Project development would create substantial hazards arising from expansive soils.

Finding: Impacts related to Geology and Soils are discussed in detail at Section 5.5 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that Project development would not create substantial hazards arising from expansive soils and, therefore, no mitigation is required.

Facts in Support of the Finding: Expansive soils are generally characterized as having the ability to undergo significant volume change due to increases or decreases in the moisture content of the soil. **(EIR at 5.5-25)**. The Spring Trails site is predominated by relatively recent alluvial deposits (from the Holocene and Pleistocene age). These deposits have led to the existence of sands and sands with gravel in the upper layers (5 to 10 feet deep) and the gravelly sands (sand with silt, cobbles, and occasional boulders) of the lower layers (below 10 feet). **(*Id.*)**. These layers are generally medium dense to very dense throughout most of the site and have dry to moist conditions. The geotechnical analysis did not determine these soils to be prone to expansion. Therefore, the expansion potential of soils is low to very low. **(*Id.*)**. No specific geotechnical recommendations for expansive soils were made, and no mitigation is required.

d. Modification of Unique Geological Feature.

Potential Significant Impact: Whether Project development would modify a unique geological feature.

Finding: Impacts related to Geology and Soils are discussed in detail at Section 5.5 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that although the Project will be developed over the San Andreas Fault, the Project will not substantially change the physical and geological characteristics of the fault and, therefore, no mitigation is required.

Facts in Support of the Finding: The San Andreas Fault is considered to be a unique geological feature, and five splays of the San Andreas Fault occur on the site. **(EIR at 5.5-7).** The majority of the segment of Splay A on the Project site would remain open space, while the balance of the splay would be graded. Most of Splays B, C, and D would be graded, and most of Splay E would remain open space. **(EIR at 5.5-25)**. However, the grading on Splays A, B, C, D, and E would not substantially change the physical and geological characteristics of the fault, and therefore, no mitigation is required.

e. Unstable Soils.

Potential Significant Impact: Whether Project grading and construction would be conducted so as to result in substantial amounts of unstable soils.

Finding: Impacts related to Geology and Soils are discussed in detail at Section 5.5 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that Project grading and construction will not be conducted so as to result in substantial amounts of unstable soils and, therefore, no mitigation is required.

Facts in Support of the Finding: Project features are incorporated into the Spring Trails Specific Plan that would prevent grading and construction activities from creating substantial amounts of unstable soils. **(EIR at 5.5-25)**. Specifically, the following development standards in the Grading Plan and Safety Plan of the Spring Trails Specific Plan would aid in preventing the creation of substantial amounts of unstable soils: 1) final grading design shall adhere to the final soils report recommendations; 2) grading shall be performed under the supervision of a registered soils engineer; and 3) final grading plans shall be prepared and certified by a registered civil engineer and registered geotechnical engineer in the State of California Board of Professional Registration and approved by the City Engineer. **(*Id.*)**. Thus, impacts in this area will be less than significant, and no mitigation is required.

f. Hillside Management Overlay Zoning District.

Potential Significant Impact: Whether the Project would conflict with the provisions of the Hillside Management Overlay Zoning District ("HMOD").

Finding: Impacts related to Geology and Soils are discussed in detail at Section 5.5 of the Draft EIR. Based on the entire record, the Commission concurs with the City

finding that the Project's development standards will replace the provisions of the HMOD and, therefore, no mitigation is required.

Facts in Support of the Finding: Roughly 67 percent (133 acres) of the Project site is within the HMOD, which covers all areas with slopes of 15 percent or greater. **(EIR at 5.5-26)**. The HMOD contains development performance standards, including standards regarding soils and grading, geotechnical standards, and standards requiring that vegetation on slopes, including graded slopes, be preserved or reestablished. **(*Id.*)**. The Specific Plan for the Project contains hillside design and development standards that have been prepared to be site-specific for the proposed project and are consistent with the General Plan. The HMOD design guidelines would not be necessary. Thus, no mitigation is required.

g. Cumulative Impacts.

Potential Significant Impact: Whether the Project would result in cumulatively significant impacts to Geology and Soils.

Finding: Impacts related to Geology and Soils are discussed in detail at Section 5.5 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that Project will not result in cumulatively significant impacts to Geology and Soils and, therefore, no mitigation is required.

Facts in Support of the Finding: Impacts to geology and soils are specific to the geologic and soils conditions on a particular project site. Mitigation of geologic, seismic, and soil impacts of development projects would also be specific to each site. Compliance with modern building standards, such as the UBC and CBC, serves to reduce seismic-related risks. Therefore, no adverse cumulative impacts related to soils and geology are anticipated, and no mitigation is required. **(EIR at 5.5-26)**.

6. **Hazards and Hazardous Materials.**

a. Routine Transport, Use, and/or Disposal of Hazardous Materials.

Potential Significant Impact: Whether the Project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Finding: Impacts related to Hazards and Hazardous Materials are discussed in detail at Section 5.6 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the risk to the public or the environment through the routine transport, use, or disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment by the Project is less than significant and, therefore, no mitigation is required.

Facts in Support of the Finding: The proposed Project includes 304 single-family lots under the preferred development scenario (reduced to 215 lots), or 307 single-family lots under the alternative development scenario. These will consist of new single-family lots, and one existing single-family residence in the western portion of the site, bordering Cable Canyon Creek to the south. If the existing single-family home were to be demolished prior to Project construction, it may result in the need to transport and dispose of hazardous materials. **(EIR at 5.6-9)**. However, it is anticipated to remain during and after development of the Project, and therefore no demolition activities are anticipated. **(*Id.*)**. In general, the routine transport, use, or disposal of hazardous materials is associated with industrial land uses and not residential land uses. The Project would consist only of residential land uses with associated parks and open space. Construction and operation of the new single-family homes may include the use of hazardous substances such as paints, solvents, finishes, and cleaners, but these substances would not be substantially different from other household products. **(*Id.*)**. Additionally, the site has not been included on any state or federal lists of hazardous materials sites, so the development of the site would not necessitate the removal or cleanup of any hazardous materials. Therefore, it is not anticipated that construction or operation activities would involve inadvertent exposure to hazardous materials due to their removal from the site. **(*Id.*)**. The routine transport, use, and/or disposal of significant amounts of hazardous materials is not expected to occur during the construction or operation of this Project. **(*Id.*)**. Since there would not be any substantial amount of hazardous materials present on the Project site for a significant amount of time during Project construction or operation, there would also not be any foreseeable upset or release of hazardous materials, and therefore no mitigation is required.

b. Emergency Response or Evacuation Plan.

Potential Significant Impact: Whether the Project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Finding: Impacts related to Hazards and Hazardous Materials are discussed in detail at Section 5.6 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and, therefore, no mitigation is required.

Facts in Support of the Finding: The City has an emergency management plan and a hazard mitigation plan that outline the potential risks, hazards, and emergency situations that the City may face and the best methods for preventing or managing these situations. **(EIR at 5.6-10)**. The emergency management plan and the hazard mitigation plan, which have been developed in compliance with the Disaster Mitigation Act of 2000, are used by the City to reduce and eliminate the effects of natural and human-caused disasters. Spring Trails would follow the guidelines and regulations of the City's emergency and hazard mitigation plans. Since the site has high potential for fires, there is substantial need for fire emergency access. **(*Id.*)**. The Spring Trails Specific Plan includes measures that would allow the site to be accessible during fire emergencies and which can be applicable for other emergencies. These are outlined in the City's Foothill Fire Zone Overlay District requirements, and Spring Trails' compliance with these standards is substantiated in Appendix D of the Specific Plan. **(See EIR Table 5.14-7)**. In sum, the proposed Project would not conflict with the City's emergency planning, and therefore no mitigation is required.

c. Cumulative Impacts.

Potential Significant Impact: Whether the Project would result in cumulatively significant impacts related to Hazards and Hazardous Materials.

Finding: Impacts related to Hazards and Hazardous Materials are discussed in detail at Section 5.6 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project would not result in cumulatively significant impacts related to Hazards and Hazardous Materials and, therefore, no mitigation is required.

Facts in Support of the Finding: The assessment of potential cumulative impacts with regard to hazards and hazardous materials relates to the ability for impacts to occur offsite. **(EIR at 5.6-23)**. The hazardous materials study area considered for cumulative impacts consisted of (1) the area that could be affected by proposed Project activities, and (2) the areas affected by other projects where activities could directly or indirectly affect the presence or fate of hazardous materials on the proposed Project site. **(*Id.*)**. The land uses surrounding the Project site are either vacant or residential. There would be little chance for a hazardous materials release in the surrounding area that would cause cumulative impacts with the proposed Project. Cumulative analysis for fire and wind hazards is completed with similar parameters. **(*Id.*)**. Cumulative impacts could occur when adjacent projects, in combination with the proposed Project, would increase the number of people being exposed to fire and wind hazards. **(*Id.*)**. At this time no development is planned for the areas adjacent to the proposed Project; thus, no cumulative impacts would occur, and no mitigation is required.

7. **Hydrology/Water Quality**

a. Alter Existing Drainage Pattern.

Potential Significant Impact: Whether the Project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.

Finding: Impacts related to Hydrology and Water Quality are discussed in detail in Section 5.7 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that development of the Project will not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite, and therefore, no mitigation is required.

Facts in Support of the Finding: **Drainage from Offsite**: At Project completion, offsite drainage would enter the project site from the north and east. **(EIR at 5.7-16)**. Two drainage courses within Drainage Area A that flow into the site from the north are Cable Canyon West and East Forks. These two drainages, which merge onsite, would remain undisturbed and would exit the west side of the site as they do now. Four drainages would

enter the site from the east. The northerly two of these drainages are tributaries to Cable Canyon and are in Drainage Area A. **(EIR Figure 3-8)**. These two drainages would pass through a culvert under proposed Street "A", merge and continue flowing westerly, pass through a culvert under proposed Street "DD", then continue to the southwest before merging with the West and East forks of Cable Canyon. **(EIR at 5.7-16)**. This combined drainage then flows to the west and exits the site into Cable Creek. South of the Project site, the Cable Creek drainage would pass through culverts under the Secondary Access Road. The third drainage course that enters the site from the east would be collected in a proposed brow ditch north of proposed Street "O" and west of proposed Street "W". This drainage would then be conveyed around the water reservoir tank and discharged to an existing flow line. **(*Id.*)**. The last drainage course entering the site from the east consists of Meyers Canyon and tributary areas in Drainage Area D; Meyers Canyon enters the site near its southeast corner. A culvert crossing is proposed under the Primary Access Road (Street "A"). **(See EIR Figure 3-8)**.

Drainage from Onsite: Drainage from the site at Project completion would be conveyed in a series of storm drain systems that would route water into three Extended Detention Basins for treatment and detention. **(*Id.*)**. **(EIR Table 5.7-2 and Figure 3-8)**. Drainage Area A consists of Cable Canyon, including the west and east forks of Cable Canyon and tributary areas. **(EIR at 5.7-17)**. Drainage from the two northernmost residential areas, north of Cable Canyon, would not be routed into an extended detention basin, but routed instead into media filtration vaults where the water quality volume would be treated, after which the runoff would be discharged into Cable Canyon. Water quality volumes for each detention basin that would be built as part of the Project are listed in EIR Table 5.7-3. One of these areas is 17.3 acres, while the second is 22.0 acres. Basin "A" compensates for this discharge from the site into Cable Canyon by over-detaining runoff from other parts of Drainage Area A onsite. **(*Id.*)**. Drainage Area B, 45.5 acres in area, is divided into two subareas. Subarea 1 would be the developed area onsite of 21.8 acres that would be routed into basin "B" plus the 1.6-acre basin and 4.6 acres of open space downstream of the basin outlet. Subarea 2 would be 17.5 acres of onsite and offsite undeveloped area that would cross under Street "I" and then discharge into an existing flow line.

(EIR at 5.7-18). Drainage Area "C" consists of 209.8 acres, roughly 89.0 acres of which would be in the developed area onsite and would drain into basin "C". The remaining 107.8 acres would be onsite and offsite undeveloped areas that would be collected north of Street "H". **(*Id.*)**. Drainage Area "D" consists of 339.3 acres: 319.8 acres offsite and 19.5 onsite. Drainage from Area "D" would enter the site near the southeastern site boundary, flow through a culvert under the proposed Primary Access Road (Street "A"), and then exit the site. This drainage would not be directed into a detention basin or media filtration vault. Surface flows from the secondary access road will be conveyed into a 5-foot concrete drainage ditch located within a 13-foot graded shoulder on both sides of the road. The runoff will then be collected in storm drain inlets and conveyed through a storm drain underneath the secondary access road where it will be discharged into Cable Creek. **(*Id.*)**.

Detention Basin Capacities: Drainage volumes and rates from developed portions of the site would be increased compared to existing conditions due to the increase in impervious surfaces onsite. **(*Id.*)**. The three proposed detention basins would be local detention facilities maintained by the owner or homeowners association. The maximum capacity of each of the detention basins is designed to store onsite runoff from the drainage area tributary to the respective basin in order to lower the rate of outflow from the basin to the predevelopment rate in a 100-year, 24-hour storm. **(*Id.*)**. Each basin would also be equipped with water quality treatment features and would provide treatment for runoff. The total capacity and water quality treatment capacity of each of the three basins is listed in EIR Table 5.7-3. Emergency spillways are proposed for each of the three basins to convey the 1,000-year peak flow for the respective basin's tributary watershed. **(*Id.*)**.

Debris Flows and Culvert Sizes: The Project site is in the foothills of the San Bernardino Mountains. **(*Id.*)**. Therefore, large debris flows may occur in watersheds in the area, especially in years after a fire. Debris flows would increase the volume of material flowing down drainages. **(*Id.*)**. Culverts in the Project were designed to accommodate estimated debris flow volumes that would occur in a 100-year storm four years following a fire. **(EIR Table 5.7-4)**. Project drainage features would meet requirements of the San Bernardino County Hydrology Manual and would

limit runoff from the site at Project completion to existing levels. **(EIR at 5.7-19)**. In sum, impacts to existing drainage patterns will be less than significant, and no mitigation is required.

b. Groundwater Recharge.

Potential Significant Impact: Whether the Project would substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

Finding: Impacts related to Hydrology and Water Quality are discussed in detail in Section 5.7 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that development of the Project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level, and therefore, no mitigation is required.

Facts in Support of the Finding: Project development would increase impervious surfaces on the Project site. **(EIR at 5.7-19)**. The resulting increase in drainage from most of the developed parts of the site would be conveyed to three extended detention basins. **(*Id.*)**. Stormwater would infiltrate into underlying sediment through the bottoms of the basins. The Project would not include substantial infiltration zones except for the basins. The infiltration rate in the three basins would total roughly 2.01 cfs. **(*Id.*)**. At Project completion, onsite groundwater recharge of stormwater from a two-year, 24-hour storm would be reduced about 1.3 percent compared to recharge from the same size storm in existing conditions. **(*Id.*)**. Project development would not substantially reduce groundwater recharge from the site and therefore, no mitigation is required.

c. 100-Year Flood Hazard Area.

Potential Significant Impact: Whether the Project would place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map; or place within a 100-year flood

hazard area structures which would impede or redirect flood flows.

Finding: Potential impacts related to Hydrology and Water Quality are discussed in detail in Section 5.7 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that development of the Project will not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map; or place within a 100-year flood hazard area structures which would impede or redirect flood flows, and therefore, no mitigation is required.

Facts in Support of the Finding: The entire Project site is in FEMA flood hazard zone X, meaning that it is outside of both 100-year and 500-year flood plains. **(EIR at 5.7-19)**. Much of the Project site is on the lower slopes of the San Bernardino Mountains. Large debris flows may occur in local watersheds, especially in years after a fire. After Project development, debris flows originating upstream of the Project site may flow through drainages crossing the site; debris flows are not expected to originate onsite. Culverts where drainages on the site would cross under roadways have been designed to accommodate the increase in volume due to sediment that would occur in a debris flow. All proposed improvements, including building pads, roads, and reservoirs, would be outside of the area that would be flooded by debris flows during a 100-year storm. Project development is not expected to create substantial hazards to persons arising from debris flows. **(EIR at 5.7-27)**. Project development would not result in flood hazards to people or structures or redirect flood flows within a 100-year flood hazard area, and therefore, no mitigation is required.

d. <u>Violate Water Quality Standards or Waste Discharge Requirements</u>.

Potential Significant Impact: Whether the Project would violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality.

Finding: Impacts related to Hydrology and Water Quality are discussed in detail in Section 5.7 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that development of the Project will not violate any water quality standards or waste discharge requirements and will not otherwise substantially degrade water quality, and therefore, no mitigation is required.

Facts in Support of the Finding:

Construction: Potential sources of pollutants from construction activities on the site include exposed soil, construction materials, and construction equipment. **(EIR at 5.7-20)**. Project clearing, grading, excavation, and construction activities may impact water quality due to sheet erosion of exposed soils and subsequent deposition of particles and pollutants in drainage ways. **(*Id.*)**. Grading activities in particular lead to exposed areas of loose soil, as well as sediment stockpiles which are susceptible to uncontrolled sheet flow. The use of materials such as fuels, solvents, and paints also present a risk to surface water quality due to an increased potential for these materials and related pollutants to contaminate stormwater. Additionally, storage, refueling, and maintenance of construction equipment onsite result in the potential for fuels and other substances to contaminate stormwater. **(*Id.*)**.

Measures for reducing potential pollution from construction activities would include obtaining coverage under the General Construction Permit for discharges of stormwater runoff from the construction site. **(*Id.*)**. The General Construction Permit is the coverage issued by the State Water Resources Control Board ("SWRCB") that allows the discharges of stormwater to waters of the United States from construction projects. In order to get coverage under the General Construction Permit, the discharge should be in compliance with the National Pollutant Discharge Elimination System ("NPDES") and implement a Storm Water Sampling and Analysis Strategy for monitoring of construction site runoff. In order to obtain coverage under the General Construction Permit, the Project owner would be required to submit a Notice of Intent to the SWRCB to file for permit coverage, and prepare and implement a SWPPP onsite. A Notice of Intent must be filed, and the SWPPP must be prepared prior to commencement of soil-disturbing activities at the Project site. **(*Id.*)**. The SWPPP must contain a site map(s) showing the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography before and after construction, and drainage patterns across the Project. The SWPPP must list BMPs that would be used to protect stormwater runoff and describe the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program and a chemical monitoring program for "nonvisible" pollutants to be implemented if there is a failure of the BMPs. **(*Id.*)**. Typical

temporary BMPs that would be used during construction include good housekeeping practices and erosion and sediment control measures. Good housekeeping practices include street sweeping, waste disposal, vehicle and equipment maintenance, concrete washout area, materials storage, minimization of hazardous materials, and proper handling and storage of hazardous materials. **(*Id.*)**. Design standards for the BMPs are set forth by the County of Bernardino and the California Storm Water Management handbooks. Construction BMPs for this project would be selected, constructed, and maintained so as to comply with all applicable ordinances and guidance documents. **(EIR at 5.7-22)**. Upon implementation BMPs as specified in the project's SWPPP, Project construction would not result in substantial pollution of receiving waters, and therefore, no mitigation is required. **(*Id.*)**.

Operations: Pollutant sources that are expected to be generated by Project operation are sediment/turbidity, nutrients, trash and debris, oxygen-demanding substances, bacteria and viruses, oil and grease, and pesticides. **(*Id.*)**. With regard to the operational phase of the Project, site design, source control, and treatment control BMPs as dictated by County and City Stormwater management plans would be implemented. **(*Id.*)**. The residences surrounding the Project site are reliant upon well water for their potable water usage. In some cases, these wells are relatively shallow, with a water table of approximately 50 feet or more. Although historical farming uses and the related fertilizers and other amendments have not had an impact on the water table, BMPs would be used to reduce contaminants in runoff from the Project site, lessening any potential impacts to potable drinking water to nearby residences. **(EIR Tables 5.7-5 to 5.7-7)**. A Project-specific water quality management plan ("WQMP") **(EIR Appendix I1)** has been prepared for the Project, and specifies site design, source control, and treatment control BMPs as required by the San Bernardino County Stormwater Program Model Water Quality Management Plan Guidance. The site design BMPs, source control BMPs, and treatment control BMPs incorporated into the Project plans must address the potential pollutants from the Project. **(EIR at 5.7-24)**. The WQMP includes BMPs that would be implemented during both design and operation of the Project, and describes long-term operation and maintenance requirements for BMPs. **(EIR Table 5-7-7)**. The Project applicant would be responsible for carrying

out all BMP operations and maintenance activities. **(EIR at 5.7-25)**. Prior to building or grading permit closeout or the issuance of a certificate of occupancy or certificate of use, the applicant shall demonstrate: that all structural BMPs have been constructed and installed in conformance with approved plans and specifications; that the applicant is prepared to implement all nonstructural BMPs described in the approved Project-specific WQMP; and that an adequate number of copies of the approved Project-specific WQMP are available for the future owners/occupants. **(EIR at 5.7-26)**. After implementation of site design, source control, and treatment control BMPs, as specified in the Project's WQMP, Project operations would not cause substantial pollution of receiving waters, and no mitigation is required.

e. Create or Contribute Runoff Water.

Potential Significant Impact: Whether the Project would create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff, such as from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks, or other outdoor areas.

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Finding: Impacts related to Hydrology and Water Quality are discussed in detail in Section 5.7 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that development of the Project will not create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff, and therefore, no mitigation is required.

Facts in Support of the Finding: Design standards for BMPs are set forth by the County of San Bernardino and the California Storm Water Management handbooks, and construction BMPs for this Project would be selected, constructed, and maintained so as to comply with all applicable ordinances and guidance documents. Upon implementation BMPs as specified in the project's SWPPP, Project construction would not result in substantial pollution of receiving waters. **(EIR at 5.7-22)**. Site design, source control, and treatment control BMPs as dictated by the County and City Stormwater management plans would be implemented. The Project-specific WQMP would be required by the City of San Bernardino to address management of urban runoff from the Project site, and

specifically address site design, source control, and treatment control BMPs to minimize the impact of urban runoff from the Project. Site design BMPs would be used to control and filter runoff from residential uses for collection in detention basins located at strategic points on the Project site. **(*Id.*)**.

On- and offsite stormwater would be collected and routed through a series of catch basins, inlets, and storm drain systems that would convey water to three extended detention basins for water quality treatment and detention. These systems would be designed and constructed in accordance with the City of San Bernardino and the San Bernardino County Flood Control District standards. Properly engineered basins reduce infiltration issues by adsorbing common residential chemicals into basin linings. **(*Id.*)**. Successful implementation of the controls contained in the WQMP would reduce the amount of contaminants in surface flow and groundwater by controlling the contaminants at the source. **(EIR at 5.7-23)**. Accordingly, the potential for the Project to create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff is less than significant, and no mitigation is required.

f. Dam Failure.

Potential Significant Impact: Whether the Project would expose people or structures to a significant risk of injury, loss or death involving flooding, including flooding as a result of the failure of a levee or dam.

Finding: Impacts related to Hydrology and Water Quality are discussed in detail in Section 5.7 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that development of the Project will not expose people or structures to a significant risk of injury, loss or death involving flooding (including flooding as a result of the failure of a levee or dam), and therefore, no mitigation is required.

Facts in Support of the Finding: There are no dams or enclosed bodies of water upstream from the Project site that could pose a hazard of flooding to the site due to a seiche or the failure of a dam. **(EIR at 5.7-27)**. The Project would involve construction and operation of three reservoirs onsite. **(EIR Figure 3-9).** The reservoirs would have capacities of 900,000 gallons, 900,000 gallons, and 2,500,000 gallons. The reservoirs would be enclosed tanks, the design and construction of

which would comply with existing seismic safety regulations. **(EIR at 5.7-27)**. Accordingly, the risk of flooding is less than significant, and no mitigation is required.

g. Cumulative Impacts.

Potential Significant Impact: Whether the Project would result in cumulatively significant impacts related to Hydrology and Water Quality.

Finding: Impacts related to Hydrology and Water Quality are discussed in detail in Section 5.7 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that development of the Project will not result in cumulatively significant impacts related to Hydrology and Water Quality, and therefore, no mitigation is required.

Facts in Support of the Finding: Potential related projects are those development projects that would increase the amount of impervious surfaces and consequently cause increased runoff within the Santa Ana River Watershed. **(EIR at 5.7-27)**. Each related project would be required to include project features that would detain onsite any increase in runoff from 100-year storm events until after the storm. After the construction and operation of required drainage features within related projects, substantial cumulative impacts to the capacity of the storm drainage system in the region are not expected to occur. **(*Id.*)**. Given that the proposed Project would also be required to include drainage features so that the Project would not cause a net increase in runoff into the existing storm drainage system in the region, the Project is not anticipated to have a cumulatively considerable adverse impact on storm drainage capacity. Reach Four of the Santa Ana River, downstream from the vicinity of the Project site, is included on the 303(d) list as impaired by pathogens (bacteria and viruses). Therefore, pathogens are pollutants of concern in the vicinity of the Project site. **(*Id.*)**. Other projects in the Santa Ana Watershed can be expected to increase the amounts of contaminants that could enter stormwater. **(EIR at 5.7-28)**. However, other projects would be required to comply with the same NPDES regulations for minimizing water pollution as would the proposed project. Related projects would be required to prepare and implement SWPPPs and WQMPs, specifying BMPs that would be used to minimize contaminants discharged into receiving waters. After compliance with existing regulations, cumulative impacts to water quality are not expected to be substantial,

and the Project is not anticipated to have cumulatively considerable impacts on water quality. **(*Id.*)**. Thus, no mitigation is required.

8. **Land Use and Planning.**

a. Conflict with Land Use Plans.

Potential Significant Impact: Whether the Project would conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Finding: Impacts related to Land Use and Planning are discussed in detail at Section 5.8 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect, and therefore, no mitigation is required.

Facts in Support of the Finding: **General Plan/Specific Plan:** The Project would be consistent with the City of San Bernardino General Plan. **(EIR at 5.8-13)**. Under the existing General Plan designation of RE, the maximum density is one dwelling unit per acre. The Project would require a General Plan Amendment to change the existing land use designation to Residential Low (RL), allowing 3.1 dwelling units per acre, an increase of 2.1 dwelling units per acre. The Project would be annexed into the City of San Bernardino and zoned RE (consistent with existing prezoning). ***(Id.)***. The Project's overall density would be 0.87 dwelling units per acre. The density on the developed area (241.5 acres) would be 1.27 dwelling units per acre. **(EIR at 5.8-14)**. Development will be focused, or clustered, onto approximately 241.5 acres, or 68 percent of the total site, and includes 9 acres of parks and 125.1 acres of internal slopes and fuel modification zones. The remaining 32 percent of Spring Trails (111.3 acres) is preserved as natural open space. The average lot size in Spring Trails is 29,000 square feet. The largest lots are on the northern portion and upper elevations of the site, and the largest lot measures 18.3 acres. ***(Id.)***. The smallest lots are on the lower elevations and southern portion of the Project, and the smallest lot measures 10,801 square feet. In many instances, the legal lots will extend beyond the buildable area

and include graded slopes, fuel modification zones, steep slopes, and open spaces. ***(Id.)***.

The Preferred Development Plan is the same as the Alternative Development Plan in every respect except for the treatment of the land beneath the aboveground electric lines and the number of residential lots. ***(Id.)***. In this respect, the Preferred Development Plan differs from the Preferred Development Plan in that it would provide 126 acres of internal slopes and fuel modification zones, and 70 acres would be attributable to residential lots. The Preferred Development Plan contains 304 single-family detached units and the overall density over the 350-acre site would be 0.86 dwelling units per acre. The density on the developed area (241.5 acres) would be 1.26 dwelling units per acre. The Project would exceed County General Plan designation RL-5 of one dwelling unit per five acres. However, once annexed into the City of San Bernardino, the Project would be consistent with the General Plan and Development Code. ***(Id.)***.

Specific plans are required to be consistent with the goals and policies of the governing general plan. The Project implements and exemplifies the goals and policies of the City of San Bernardino General Plan. **(EIR Table 5.8-1)**. Future development within the Spring Trails Specific Plan area must be consistent with this Specific Plan. All projects that are found to be consistent with this Specific Plan will likewise be deemed consistent with the City's General Plan. ***(Id.)***.

San Bernardino County Association of Governments (SCAG): The proposed Project will be consistent with the applicable SCAG Regional Comprehensive Plan and Guide (RCPG) policies. Therefore, implementation of the Project would not result in significant land use impacts related to relevant SCAG policies, goals, and principles. **(EIR Table 5.8-2)**. Likewise, the Project will be consistent with the applicable goals of the SCAG Regional Transportation Plan ("RTP"), and implementation of the Project would not result in significant land use impacts related to relevant RTP goals. **(EIR Table 5.8-3)**. The Project will also be consistent with advisory SCAG Compass Growth Vision ("CGV") principles, and would not result in significant land use impacts related to the advisory CGV principles. **(EIR Table 5.8-4)**.

San Bernardino National Forest Land Management Plan ("SBNF"): The northern portion of the Project site (approximately 160 acres) is located within the boundaries of the SBNF. The upper 160 acres of the Project are private lands within the SBNF. Since the Project site is privately held, it is not subject to the Land Management Plan. However, all areas adjacent to the Project site, within the SBNF, are subject to the Land Management Plan. Public access by residents would be restricted and unlawful. **(EIR at 5.8-47)**.

Forest Service Roadless Area Conservation Plan: In 1999, the USFS proposed to prohibit road construction and reconstruction in inventoried roadless areas within the national forests. That portion of the SBNF surrounding the Project site (at the Project boundary), and continuing in the northwesterly direction is identified as an inventoried roadless area. However, the Project site is not within the inventoried roadless area, and is thus not subject to this plan. **(See EIR Figure 5.8-1)**.

City of San Bernardino Tree Ordinance: The development of the Project would remove up to 2,400 trees (220 native species, 2,170 eucalyptus, and 10 ornamental nonnative trees) from the Project site. The majority of the eucalyptus trees were planted as part of a eucalyptus plantation. The applicant would be required to replace the 220 native tree species with similar native species, as required by the City's tree ordinance. The required tree replacement has been incorporated as Project Mitigation Measure 3-13, which would ensure the project's compliance with the City's tree ordinance.

In sum, because the Project will not conflict with any land use plan, policy or regulation, impacts in this area are less than significant, and no mitigation is required.

b. Development Within Hillside Management Overlay District.

Potential Significant Impact: Whether development would occur within the Hillside Management Overlay District.

Finding: Impacts related to Land Use and Planning are discussed in detail at Section 5.8 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project's development standards will replace the provisions of the HMOD and, therefore, no mitigation is required.

Facts in Support of the Finding: The Project site would be subject to the HMOD since it would involve development in areas of 15 percent slope or greater. **(See EIR Figure 5.8-2)**. The overall goals of the site-specific grading guidelines are to minimize the height of visible slopes, provide for more natural-appearing manufactured slopes, minimize grading quantities, minimize slope maintenance and water consumption, and provide for stable slopes and building pads. **(EIR at 5.8-48)**. The total Project area that is proposed for grading is 216.7 acres, which includes 193.0 acres onsite and 23.7 acres offsite. Onsite grading encompasses roughly 2.7 million cubic yards and would balance onsite. (The primary access road would require approximately 171,000 cubic yards of cut and 55,000 cubic yards of fill, which necessitates exporting approximately 116,000 cubic yards. The secondary access street would require 244,000 cubic yards of cut and 109,000 cubic yards of fill, which necessitates exporting approximately 135,000 cubic yards. Total export equals 251,000 cubic yards. ***(Id.)***. Spring Trails has been responsibly designed to fit into the existing landscape, at the same time meeting the intent of the HMOD. Project development would avoid steep hillside areas and clusters development in the lower foothill areas. This has the following benefits in terms of grading impacts:

- Minimizes hillside grading and scarring that would be visible from public rights-of-way;
- Preserves the Cable Canyon and Meyers Canyon drainage courses in their natural conditions and minimizes impacts on natural topography;
- Maintains significant natural drainage courses within the proposed development area to enhance water quality. ***(Id.)***.

The Specific Plan for the Project contains hillside design and development standards that have been prepared to be site-specific for the proposed project and are consistent with the General Plan. The HMOD design guidelines would not be necessary. Thus, no mitigation is required.

c. Development Within Foothill Fire Zones.

Potential Significant Impact: Whether development would occur within Foothill Fire Zones A and B or C, as identified in the City's General Plan.

Finding: Impacts related to Land Use and Planning are discussed in detail at Section 5.8 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that although development of the Project will be within Foothill Fire Zones A and B and C, all development will comply with the Foothill Fire Overlay District standards and therefore, no mitigation is required.

Facts in Support of the Finding: The overlay district identifies 3 foothill fire zones: A, Extreme Hazard; B, High Hazard; and C, Moderate Hazard. Approximately one third of the site is in Fire Zone A, one third of the site is in Fire Zone B, and the remaining third is in Fire Zone C. **(EIR Figure 5.8-2)**. Areas in the Foothill Fire Zones are required to be developed with proper building separation, landscaping, and building materials; adequate emergency access and evacuation routes; and sufficient water resources. **(EIR at 5.8-48)**. To ensure the safety of property and lives, a detailed fire safety analysis was conducted by FireSafe Planning Solutions and a fire protection plan was prepared, which factored in wind patterns, fuel types (vegetation), topography, weather patterns, and historical burn patterns to determine the potential severity of wildfires and appropriate protection methods. **(EIR at 5.8-49)**. A comparison of the provisions of this Specific Plan with the Foothill Fire Overlay District is provided in Appendix D of the Specific Plan. The table in Appendix D shows the Project's compliance with the Foothill Fire Overlay District standards for access and circulation, site and street identification, roadside vegetation, water supply, erosion control, construction and development design, and other miscellaneous standards such as disclosure to property owners and responsible parties for fuel modification zone maintenance. Spring Trails is compliant with all standards laid out in the Foothill Fire Overlay District. **(*Id.*)**. The fire protection plan prepared by Fire Safe Planning Solutions was approved by the San Bernardino County Fire Department and incorporated into the Spring Trails Specific Plan. Accordingly, the potential for impacts related to development within Foothill Fire Zones is less than significant, and no mitigation is required.

d. Cumulative Impacts.

Potential Significant Impact: Whether the Project would result in cumulatively significant impacts related to Land Use and Planning.

Finding: Impacts related to Land Use and Planning are discussed in detail at Section 5.8 of the Draft EIR. Based on the entire record, the Commission concurs with the City

finding that the Project will not result in cumulatively significant impacts related to Land Use and Planning and therefore, no mitigation is required.

Facts in Support of the Finding: Development of the Project, in addition to other cumulative development, could cause City-wide land use and planning impacts. **(EIR at 5.8-49)**. However, upon adoption of the Spring Trails Specific Plan, the Project would be consistent with applicable plans, policies, and regulations of the San Bernardino General Plan, the City's zoning regulations, and SCAG's RCPG and RTP. **(*Id.*)**. Additionally, as with the proposed Project, other cumulative projects would also be subject to compliance with the local and regional plans reviewed in this section. **(*Id.*)**. Implementation of the cumulative projects would not combine with the proposed Project to result in cumulatively considerable land use impacts, and no mitigation is required.

9. **Mineral Resources.**

a. Loss of Mineral Resources.

Potential Significant Impact: Whether the Project would 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; or 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.

Finding: Impacts related to Mineral Resources are discussed in detail at Section 5.9 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not result in the loss of availability of any known mineral resource, and therefore, no mitigation is required.

Facts in Support of the Finding: Younger alluvium is present on the Project site, which may be suitable as construction aggregate, but is present onsite in limited amounts, mainly in Cable Canyon and Myers Canyon. **(See EIR Figure 5.5-1)**. Most of the site surface consists of older terrace deposits, which are not thought to be suitable as aggregate because the boulders and gravel in these deposits are moderately weathered and crumbly, suggesting they break down easily. **(EIR at 5.9-4)**. There are no mineral resource recovery sites designated in the City of San Bernardino General Plan on or near the Project site, and there are no existing mineral resource recovery operations on or next to the Project site. **(*Id.*)**. Accordingly,

impacts to mineral resources will be less than significant, and no mitigation is required.

10. **Noise.**

a. Substantial Permanent Increase in Ambient Noise.

Potential Significant Impact: Whether the Project would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project; specifically, whether based on the City of San Bernardino standard for maximum outdoor noise levels in residential areas, Project-related traffic would increase the CNEL at any noise-sensitive receptor by an audible amount, 3 dBA and ambient noise levels exceed 65 dBA.

Finding: Potential Noise impacts of the Project are discussed in detail at Section 5.10 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project, because Project-related traffic will not increase the CNEL at any noise-sensitive receptor by an audible amount, and therefore, no mitigation is required.

Facts in Support of the Finding: The operations phase of the Project would generate noise primarily associated with vehicular trips. **(EIR at 5.10-17)**. According to the Project's traffic impact analysis, the Project would generate 3,149 average daily trips (ADT), with 247 trips in the morning peak-hour and 333 trips in the evening peak hour. **(*Id.*)**. A 3 dB change in noise levels is considered to be the minimum change discernible to the human ear. **(*Id.*)**. Project-related traffic at buildout year 2013 would cause noise levels to increase by more than 3 dBA on the new access roads, along Little League Drive, and Belmont Avenue between Little League Drive and Magnolia Avenue. **(EIR Figure 5.10-6)**. However, ambient noise levels would not exceed 65 dBA CNEL under year 2013 with Project conditions along these roadways. A portion of the segment of Little League Drive south of Frontage Road would be within the 65 dBA CNEL ambient noise contour, however, there are no noise-sensitive receptors present. **(EIR at 5.10-18)**. Consequently, implementation of the Project would not cause a substantial permanent increase in ambient noise levels; noise impacts would be less than significant in year 2013, and no mitigation is required.

b. Noise Levels in Excess of Standards.

Potential Significant Impact: Whether the Project would result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; specifically, whether noise generated by buildout of the Project would result in stationary (non-transportation) noise that results in a noise nuisance at noise-sensitive receptors as determined in Chapter 8.54, *Noise Control*, of the City's Municipal Code; or result in interior noise levels in habitable noise-sensitive areas that exceed 45 dBA CNEL or exterior noise levels at single-family residential noise-sensitive areas exceed 65 dBA CNEL.

Finding: Potential Noise impacts of the Project are discussed in detail at Section 5.10 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not result in exposure of persons to or generation of noise levels in excess of any standard, and therefore, no mitigation is required.

Facts in Support of the Finding: Noise may have a significant impact if the Project constructs a noise-sensitive land use in an area that is incompatible due to excessive noise. **(EIR at 5.10-18)**. The City of San Bernardino has adopted a land use compatibility criterion for the siting of new noise-sensitive land uses within the City. **(See EIR Table 5.10-3)**. Per the City of San Bernardino General Plan, noise-impacted projects are defined as residential projects with noise levels that exceed the City's "Normally Acceptable" compatibility criteria. For residential projects, noise-impacted projects are those that are exposed to exterior noise levels of 65 dBA CNEL or greater. Noise-impacted projects are required by the City to include upgraded noise insulation features (e.g., windows, doors, attic baffling) that achieve an exterior-to-interior noise level of 45 dBA CNEL. **(EIR at 5.10-18)**. The majority of future ambient noise at the Project area would be generated by local roadway traffic. **(*Id.*)**. Noise-sensitive portions of the Project site include the interior of the residential dwelling units, and the exterior noise-sensitive areas of these uses. Traffic on the local roadways under Year 2013 With Project conditions would not generate noise levels that exceed the exterior noise level of 65 dBA CNEL. **(EIR Figure 5.10-5)**. Noise-sensitive uses would be exposed to exterior noise levels of 50 dBA CNEL and under. Pursuant to the California Building Code, noise-sensitive habitable rooms would be required to be designed to achieve

an interior noise standard of 45 dBA CNEL. In general, exterior-to-interior transmission loss from standard building construction results in a minimum attenuation of 24 dBA under windows-closed conditions and 12 dBA under windows-open conditions. **(EIR at 5.10-18)**. Therefore, interior noise levels would not exceed the interior noise standard of 45 dBA CNEL. Consequently, noise impacts at the onsite noise-sensitive receptors would be less than significant.

Residential uses would generate stationary noise sources on the Project site, including heating, ventilation, and air conditioning (HVAC) units from residential units, and noise from landscaping activities. **(EIR at 5.10-27)**. HVAC units and other equipment would be acoustically engineered with mufflers and barriers to ensure that no exceedance of the City's noise standards would occur. **(*Id.*)**. Consequently, proposed residential uses would not generate substantial noise, and impacts to nearby noise-sensitive receptors would be less than significant. Thus, no mitigation is required.

c. Groundborne Vibration.

Potential Significant Impact: Whether the Project would result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels; specifically, whether construction equipment would produce perceptible levels of vibration (78 VdB) during the daytime at offsite vibration-sensitive structures, or produce vibration that is strong enough to cause vibration-induced architectural damage based on the Federal Transit Administration (FTA), which is 0.2 in/sec for typical wood-framed buildings or 0.5 in/sec for reinforced concrete, steel, or timber structures.

Finding: Potential Noise impacts of the Project are discussed in detail at Section 5.10 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels, and therefore, no mitigation is required.

Facts in Support of the Finding: Construction operations can generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment. **(EIR at 5.10-27)**. Construction equipment can produce vibration from vehicle travel as well as grading and building activities. No pile driving, blasting, or other vibration-intensive activity would

be required in the construction effort. **(*Id.*)**. The highest levels of vibration would be experienced when a heavy piece of construction equipment is operating or passes in proximity to the nearby vibration-sensitive structures. Levels of vibration produced by construction equipment are evaluated against the FTA's significance threshold for vibration annoyance of 78 VdB for residential structures during the daytime. **(*Id.*)**. Although the maximum vibration levels associated with certain construction activities could be perceptible in certain instances, vibration events would be infrequent throughout the day, would occur during the least vibration-sensitive portions of the day, and equipment would be used for a short duration when working in close proximity to vibration-sensitive receptors. **(EIR at 5.10-28)**. Additionally, construction activities are typically distributed throughout a project site. Therefore, construction vibration is based on average vibration levels (levels that would be experienced by sensitive receptors the majority of the time) that exceed the FTA's criteria for vibration-induced annoyance at sensitive residences during the day of 78 VdB. While construction equipment could operate as close as 65 feet to the nearest offsite vibration-sensitive residential structures (onsite Secondary Access Road), most of the heavy construction equipment would operate at greater distances (average distance of 761 feet). **(*Id.*)**. Average vibration levels from construction of the Project would not exceed the FTA criteria for vibration annoyance at the surrounding residential uses or at the existing onsite residence. **(EIR Table 5.10-7)**. Consequently, impacts would be less than significant.

Development of the Project would require construction of two access roads into the project site from the existing arterials. **(EIR at 5.10-28)**. The primary access road would connect at the southeast entrance of the site and the secondary access road would connect to the southwest entrance of the project site. Roadway construction would include grading, foundation work, and asphalt paving that would extend beyond the Project site boundary into the surrounding properties. **(*Id.*)**. While construction equipment at the roadway construction areas could operate as close as 55 feet to the nearest offsite vibration-sensitive receptor, most of the heavy construction equipment would operate at greater distances. **(*Id.*)**. Average vibration levels from construction of the Project would not exceed the FTA criteria for vibration annoyance at the surrounding

residential uses. **(EIR at Table 5.10-8)**. Consequently, impacts would be less than significant.

The FTA criterion for vibration-induced architectural damage is 0.20 inch per second for the peak particle velocity ("PPV') for wood-framed structures. **(EIR at 5.10-29)**. Project-related construction vibration was evaluated for its potential to cause architectural damage in comparison to the FTA's architectural damage criteria for the closest offsite structure. Onsite construction activities associated with the Project would occur at distances that would result in PPV levels below the FTA's criteria for vibration-induced architectural damage at the nearest off- and onsite vibration-sensitive structures. **(EIR Table 5.10-9)**. Consequently, impacts would be less than significant at off- and onsite receptors. Similar to onsite construction activities, vibration levels from roadway-related construction activities would also result in PPV levels below the FTA's criteria for vibration-induced architectural damage at the nearest offsite vibration-sensitive structures. **(EIR Table 5.10-10)**. Consequently, impacts would be less than significant at offsite receptors, and no mitigation is required.

d. Cumulative Impacts.

Potential Significant Impact: Whether the Project would result in or contribute to a significant cumulative noise impact.

Finding: Potential Noise impacts of the Project are discussed in detail at Section 5.10 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not result in or contribute to a significant cumulative noise impact, and therefore, no mitigation is required.

Facts in Support of the Finding: Project-related cumulative noise impacts may occur if, under Project conditions, there is a substantial increase in overall cumulative noise (3 dBA or more), the Project contributes 0.1 dBA or more to the overall cumulative noise increase, and the ambient noise environment is above 65 dBA CNEL. **(EIR at 5.10-36)**. Buildout year 2013 conditions would not result in any cumulative noise impacts along the roadway segments within the study area. **(EIR Figures 5.10-5 to 5.10-7)**. Roadway segments where the ambient noise environment would be 65 dBA CNEL or higher, such as along Palm Avenue and I-215 corridor, would not result in cumulative noise increases of 3 dB or more under buildout year 2015 with project conditions. **(EIR at 5.10-36)**. For

roadway segments—such as the secondary access road from I-215 to the Project site and the primary access road from the Project site to Meyers Road—where cumulative noise would exceed 3 dB under buildout year 2013 conditions, ambient noise levels would not exceed 65 dBA CNEL. **(*Id.*)**. A small portion of the segment of Little League Drive south of Frontage Road would result in a 3 dB increase in cumulative noise under year 2013 With Project conditions. **(*Id.*)**. This would be within the 65 dBA CNEL noise contour, and the Project would contribute at least 0.1 dB to the overall cumulative noise increase. However, there are no noise-sensitive uses in this area. Consequently, the Project's contribution to cumulative noise would be less than significant, and Project impacts would not be cumulatively considerable for buildout Year 2015 conditions. **(*Id.*)**.

Potential noise impacts from Project-related traffic were evaluated to assess cumulative increases in the ambient noise environment in the vicinity of noise-sensitive receptors for horizon year 2030. **(*Id.*)**. By horizon year 2030, considerable growth in the San Bernardino area is anticipated. Therefore, future traffic growth within the City of San Bernardino in horizon year 2030, in addition to Project-related traffic growth, would also result in increases in the ambient noise levels within the City. The ambient noise along a portion of the primary access road—from Belmont Avenue to just north of Meyers Road—would exceed 65 dBA CNEL, cumulative noise would exceed 3 dB, and the Project would contribute at least 0.1 dB. **(EIR Figure 5.10-11)**. However, there are no existing noise-sensitive receptors within the vicinity of this particular portion of the roadway segment. Other roadway segments, such as Palm Avenue north of I-215, would be within ambient noise levels of 65 dBA CNEL or higher; however, cumulative noise would not exceed 3 dB. Consequently, the Project's contribution to cumulative noise would be less than significant and project impacts would not be cumulatively considerable for horizon year 2030 With-Project conditions. **(EIR at 5.10-37)**.

Unlike transportation noise sources, whose effects can extend well beyond the limits of the project site, stationary noise generated by a project only impacts sensitive receptors adjacent to the project site. **(*Id.*)**. As no significant stationary noise impacts from Project implementation were identified, and the City of San Bernardino restricts stationary noise generated on a property from creating a nuisance to other

noise-sensitive receptors, cumulative stationary-source noise generation would also be less than significant. **(*Id.*)**.

Like stationary-source noise, cumulative construction noise and vibration impacts are confined to a localized area of impact. Consequently, cumulative impacts would only occur if other projects are being constructed in the vicinity of the Project at the same time as the Project. **(*Id.*)**. Since there are no other planned projects in the vicinity of the Project area, there are no cumulative construction-related noise and vibration impacts. Accordingly, the potential for the Project to result in cumulative noise impacts is less than significant, and no mitigation is required.

11. **Population and Housing.**

a. Substantial Population Growth.

Potential Significant Impact: Whether the Project would induce substantial 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).

Finding: Impacts related to Population and Housing are discussed in detail at Section 5.11 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not induce substantial population growth either directly or indirectly, and therefore, no mitigation is required.

Facts in Support of the Finding: The Project would result in a slight population growth in the Project area, by directly introducing up to 304 new single-family residential units (reduced to 215 units, or 711 persons) into the City of San Bernardino. Using an average household size of 3.34 persons, the Project would add up to 1,015 new residents to the City of San Bernardino. **(FEIR at 3-12)**. The population for the City of San Bernardino in 2005 was 201,049 and is projected to increase to 265,515 in 2035. **(EIR Table 5.11-1)**. The City's General Plan currently designates the Project site as Residential Estate (RE), which allows for one dwelling unit per acre. However, the Project would require a General Plan Amendment to change the existing land use designation to Residential Low (RL), allowing 3.1 dwelling units per acre, an increase of 2.1 dwelling units per acre. **(EIR at 5.11-9)**. The City's projected buildout population under the existing land use designations is approximately 319,241 (General Plan 2005), which includes 276,264 persons in the City and 42,976

persons in the City's sphere of influence. The Project would increase the overall buildout population from 319,241 to 320,256, but more specifically, the projected population of 42,976 persons in the City's sphere of influence would increase to 43,991. The projected population increase that would be generated by the Project would represent approximately 0.32 percent of the buildout population forecast for the City of San Bernardino. Although the proposed land use designation would allow for 2.1 more dwelling units per acre than the existing general plan, the Project would only result in a nominal increase in the overall projected buildout population. **(*Id.*)**.

The City of San Bernardino is a jobs-rich community. According to SCAG, the total employment within the City will grow from 81,115 jobs in 2000 to 157,088 jobs in 2035, for a total increase of 75,973 jobs, representing 93.7 percent growth. This reflects an annual growth rate of approximately 2,171 jobs or 2.7 percent. Implementation of the Project would create short-term jobs during the construction phase; however, the Project itself would not provide any jobs. **(*Id.*)**. SCAG applies the jobs/housing ratio at the regional and sub-regional level as a tool for analyzing the fit between jobs, housing, and infrastructure. Although no ideal jobs/housing ratio is adopted in state, regional, or city policies, SCAG considers an area balanced when the jobs/housing ratio is 1.35; communities with more than 1.5 jobs per dwelling unit are considered jobs-rich. The Project would consist of 309 residential units and would not provide any jobs. **(*Id.*)**. By 2035, the City is projected to grow by 36.6 percent in housing, 32.1 percent in population, and 65.5 percent in employment. **(EIR Table 5.11-5)**. SCAG's forecast predicts a strong growth in employment, as the City's jobs/housing ratio was 1.65 in 2005 and is expected to increase to 2.00 by 2035. The projected 2035 jobs/housing ratio at Project buildout would be 1.99, or 0.01 less than the jobs/housing ratio at buildout without the Project. The Project would create a jobs/housing ratio that is slightly more balanced compared to the projected buildout in the area, improving the jobs/housing ratio within the City. **(EIR at 5.11-9)**. By buildout year 2035, the county is projected to grow by 71.4 percent in housing, 32.1 percent in population, and 65.5 percent in employment. In 2005, the jobs/housing ratio was 1.24 and is projected to increase to 1.29 in 2035, maintaining an overall balance between the number of jobs and number of households within the county. The Project would not

change the projected buildout ratio between jobs and housing in the county. **(EIR Table 5.11-5)**. As previously mentioned, there is some variation between the City's and SCAG forecasts because different growth rates were used to determine the projections. EIR Table 5.11-6 shows the job/housing ratio according to the City's projections in their General Plan. At Project buildout, the City predicts that their jobs/housing ratio would be 3.7. **(EIR at 5.11-10)**. Infrastructure improvements are required for the Project, and a primary access road would have to be constructed from the terminus of Little League Drive and extended west to the northeastern corner of the Project site, along with a secondary access road. These access roads would only accommodate the Project. The development of the Project would also require the construction of new stormwater drainage facilities and infrastructure, the construction of new pipelines on the Project site, and potentially an upgrade of the existing pipeline at Little League Drive. **(*Id.*)**. Additionally, there would be three proposed detention basins that would be maintained by the owner or homeowners association. This would improve the fire flow in the higher elevations of the Project site and its vicinity. **(EIR at 5.11-11)**. The Local Agency Formation Commission approved a sphere of influence expansion in September 1996 for the City, which placed the Project site and adjacent area within the City of San Bernardino's sphere of influence. Therefore, these improvements are consistent with planned growth for the City. **(*Id.*)**. To the extent that these improvements would accommodate growth that could not occur otherwise, they would be considered growth inducing. Since substantial growth is anticipated and planned for the City, surrounding growth accommodated by these improvements is not considered significant, and no mitigation is required.

b. Cumulative Impacts.

Potential Significant Impact: Whether the Project would result in or contribute to a cumulatively significant impact related to Population and Housing.

Finding: Impacts related to Population and Housing are discussed in detail at Section 5.11 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not result in or contribute to a cumulatively significant impact to Population and Housing, and therefore, no mitigation is required.

Facts in Support of the Finding: Implementation of the Project would contribute to the growth of the City of San Bernardino. **(EIR at 5.11-11)**. However, the Project's cumulative housing and population impact provides benefits for the jobs/housing ratio, regional housing goals that promote housing production, and state-mandated fair share housing programs. **(*Id.*)**. The Project provides the City with more housing, which decreases the job/housing ratio by 0.01 at the projected buildout in 2035, according to SCAG projections. According to the projections in the General Plan, the Project would not change the projected buildout ratio between jobs and housing in the City. As a result, the Project would not make a considerable contribution to cumulative growth impacts, and no mitigation is required.

12. **Public Services.**

a. Police Protection.

Potential Significant Impact: Whether the Project would result in a substantial adverse physical impact associated with the provisions 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 police protection services.

Finding: Impacts related to Public Services are discussed in detail at Section 5.12 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities for police protection services, and therefore, no mitigation is required.

Facts in Support of the Finding: Upon annexation of the Project site, the San Bernardino Police Department ("SBPD") would provide police services to the Project site. **(EIR at 5.12-9)**. This would expand SBPD's service area and would likely result in an increase in calls for SBPD services. Such an increase in calls would be expected to create a need for additional police staff. **(*Id.*)**. The City of San Bernardino's development impact fee for law enforcement is $597.74 per unit for detached single-family residential units. With a total of 304 units (reduced to 215 units), $181,712.96 would be charged to the Project developer as law enforcement development impact fees. **(*Id.*)**. These fees may be spent on facilities, equipment, or

vehicles, and will reduce any impacts to police protection services to a less than significant level. Accordingly, no mitigation is required.

b. School Services.

Potential Significant Impact: Whether the Project would result in a substantial adverse physical impact associated with the provisions 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 or other performance objectives for school services.

Finding: Impacts related to Public Services are discussed in detail at Section 5.12 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities for school services, and therefore, no mitigation is required.

Facts in Support of the Finding: The Project is estimated to generate roughly 101 additional students in the attendance area of North Verdemont Elementary School, 52 students in the attendance area of Cesar Chavez Middle School, and 59 students in the attendance area of Cajon High School. **(FEIR 3-23, Table 5.12-3)**. There is existing unused capacity at Cesar Chavez Middle School and Cajon High School to accommodate project-generated students. However, the unused capacity at North Verdemont Elementary School is 82 students, less than Project-generated elementary school students. **(*Id.*)**. The Project would create a potential need for teachers and support staff at the elementary, middle, and high school levels. In addition, the Project may create a need for additional elementary school classroom space, depending on population trends in the area. SBCUSD would charge the project Level 2 fees of $5.40 per square foot for single-family residential units. **(*Id.*)**. School fees levied by school districts under SB 50 are defined as comprising full mitigation for a project's impacts on public schools, and thus, no additional mitigation is required.

c. Library Services.

Potential Significant Impact: Whether the Project would result in a substantial adverse physical impact associated with the provisions 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 or other performance objectives for library services.

Finding: Impacts related to Public Services are discussed in detail at Section 5.12 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities for library services, and therefore, no mitigation is required.

Facts in Support of the Finding: The Project would include 304 single-family homes (reduced to 215 units) and would also involve the annexation of the Project site into the City of San Bernardino. **(EIR at 5.12-13)**. Upon annexation, the Project would be in the service area of the San Bernardino Public Library, and the Dorothy Inghram Branch Library would be the closest San Bernardino Public Library ("SBPL") facility. **(*Id.*)**. The average household size in the City of San Bernardino is roughly 3.34 persons. Therefore, the Project at completion would be expected to add roughly 1,015 (711 persons at 215 units) persons to the City. The Project would thus result in an increased demand for library service in the City. **(*Id.*)**. At a ratio of two volumes per resident, the Project would create a need for roughly 2,030 additional library items. **(*Id.*)**. The Project-generated increase in population would also create increased need for technology such as computers at the Inghram Branch Library, and would contribute to a need for additional staffing. **(*Id.*)**. The $596.63 per residential unit library facilities fee that the City would charge to the Project, would help the SBPL to meet the Project-related increase in demands for library services and reduce impacts to a less than significant level, and thus no mitigation is required.

d. Cumulative Impacts.

Potential Significant Impact: Whether the Project would result in a cumulatively significant impact to provision of public services.

Finding: Impacts related to Public Services are discussed in detail at Section 5.12 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not result in a cumulatively significant impact to provision of public services, and therefore, no mitigation is required.

Facts in Support of the Finding: **Fire Protection Services**: Cumulative impacts on fire services would occur if additional development is planned

for the surrounding area, increasing the need for Fire Station 232 to provide emergency service to the area. There is potential for cumulatively significant impacts to occur, requiring additional fire service facilities and personnel. The citywide population is expected to increase from 201,049 in 2005 to 265,515 in 2035, an increase of roughly 32.1 percent. Other developments in the City would be assessed Fire Protection Development Impact Fees, as would the Project. Such fees would help to reduce cumulative impacts to fire protection. **(EIR at 5.12-7)**.

Police Services: Cumulative impacts on police services would occur if additional development is planned for the surrounding area, increasing the need for police services to the area. At General Plan buildout the City of San Bernardino, including areas now in the sphere of influence, is projected to have a population of roughly 265,515, an increase of 64,466, or 32.1 percent, over the 2005 population of 201,049. Additional developments in the City would be charged law enforcement development impact fees, as would the Project. Such fees, which may be spent on facilities, equipment, and vehicles, would help reduce cumulative impacts to police protection. **(EIR at 5.12-9)**.

School Services: If there are other residential projects in the Verdemont area in addition to the Project, the District anticipates the need for more classrooms and staffing at the elementary school level. The District expects increases in staffing at the middle school and high school levels without facilities impacts. School fees levied on related projects pursuant to SB 50 would constitute mitigation for those projects' impacts on schools. **(EIR at 5.12-12)**.

Library Services: The City of San Bernardino estimates that the City's population will increase to about 265,515 by 2025, including the areas now in the City's sphere of influence, an increase of 64,466, or 32.1 percent, over the 2005 population of 201,149. The Project would account for roughly 1 percent of that population increase. Growth in the City will lead to increased demand for library services. **(EIR at 5.12-13)**. New or expanded library facilities will be needed, in addition to increases in materials, technology, and staffing. The SBPL is funded mostly through the City's General Fund. New developments built in the City will generate increased tax revenue, thus expanding the General Fund. Cumulative development therefore would not have a substantial adverse

impact on library services, and the Project's impacts on library services would not be cumulatively considerable. **(EIR at 5.12-14)**.

In sum, the Project's payment of development impact fees will reduce cumulative impacts to the provision of public services to less than significant levels, and no mitigation is required.

13. **Recreation.**

a. Recreational Facilities.

Potential Significant Impact: Whether the 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; or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Finding: Impacts related to Recreation are discussed in detail in Section 5.13 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project would not 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; or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment; and, therefore, no mitigation is required.

Facts in Support of the Finding: According to the Parks, Recreation, and Trails Element of the San Bernardino General Plan, five acres of parkland and/or recreations facilities per 1,000 population is required for residential development projects. **(EIR at 5.13-8)**. The maximum buildout of the Spring Trails Specific Plan would accommodate 304 units. Based on the City of San Bernardino's General Land Use Element, the 2008 average household size is 3.34 persons, and the Project would therefore generate a population of approximately 1,015 residents (303 units x 3.34 = 1,015, or 711 persons at 215 units). **(FEIR at 3-23)**. Based on the Quimby Act legislation allowing a maximum parkland dedication standard of 3 acres per 1,000 population, approximately 3.05 acres of parkland or equivalent fees or improvements would be required to serve the residents of the Project. Based on the City's General Plan performance standard for parks and recreation facilities (5 acres per 1,000 population), the Project would

generate the need for 5.01 acres of parkland. The Spring Trails Specific Plan would provide 246.3 acres of public and private parkland, open space, trails, and recreational amenities on the Project site. **(*Id.*)**. More specifically, 9.0 of the 246.3 acres would be designated public and private parks: 2.0 acres of private parks and 7.0 acres of public parks. Therefore, the Project would exceed the City requirements by 3.99 acres of parkland. Additionally, the Project responds to the City's Parks, Recreation, and Trails Element Goals 8.1 and 8.3 by providing parks and creating a trail system that would connect to future and existing regional and City trails. **(*Id.*)**. The parks and open space components would provide passive and active recreational opportunities. The exact number, precise location, configuration, type, and amount of amenities and facilities, and the size of the parks and open space areas would be established at the time of development of the tentative tract map(s) of the Project. **(*Id.*)**. The proposed parks and open space acreage of the Spring Trials Specific Plan would meet and exceed the amount of parkland and/or recreation facilities defined by the Quimby Act and the more conservative performance standard outlined in the City's General Plan. Therefore, the Project's parks and open space components would ensure that recreational facilities would be available to new residents of the Project. **(*Id.*)**. Since park needs would be met and exceeded onsite, it is not expected that the residents of the Project would, in any appreciable manner, need to use City or regionwide parks that are located offsite. Additionally, the proposed public parks, trails, and open space components would also serve residents of the existing and future surrounding communities. **(*Id.*)**. Thus, impacts related to recreational facilities are less than significant, and no mitigation is required.

b. Cumulative Impacts.

Potential Significant Impact: Whether the Project would result in cumulatively considerable impacts to the use, construction or expansion of recreational facilities.

Finding: Impacts related to Recreation are discussed in detail in Section 5.13 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project would not result in cumulatively considerable impacts to the use, construction or expansion of recreational facilities; and, therefore, no mitigation is required.

Facts in Support of the Finding: Buildout of the Spring Trails Specific Plan would accommodate 304 residential units, generating a total of 1,015 residents. **(FEIR at 3-23)**. According to the Parks, Recreation, and Trails Element, the City is currently deficient in park space and needs 787.6 acres of public parkland to provide for the projected population. The Project itself would generate a need for a total of 5.01 acres of parkland. **(*Id.*)**. However, the Project would provide 9 acres of public and private parkland and an additional 246.3 acres of open space, providing additional acreage beyond the park requirements and lessening the City's overall parkland needs. **(*Id.*)**. The Project will increase the cumulative acreage of parks in the City, improving the City's current deficiency of parkland. Additionally, the Spring Trails Specific Plan meets the goals of the Parks, Recreation, and Trails Element of the General Plan—encourage creation of a system of parks, bikeways, trails, and recreation facilities that serve residents needs and connect different neighborhoods to the City; and develop a system of open spaces, bikeways, and trails to connect individual neighborhoods into the fabric of the entire community. **(EIR at 5.13-9)**. Thus, the Project will not result in cumulatively considerable impacts to the use, construction or expansion of recreational facilities; and, therefore, no mitigation is required.

14. **Traffic Impacts.**

a. Hazards Due to Design Feature.

Potential Significant Impact: Whether the Project would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access.

Finding: Impacts related to Traffic and Circulation are discussed in detail in Section 5.14 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not substantially increase hazards due to a design feature or result in inadequate emergency access, and therefore, no mitigation is required.

Facts in Support of the Finding: The proposed Spring Trails Specific Plan would involve the development of single-family residences with a local roadway network of cul-de-sac right-of-ways, a main loop road, and two access roads. **(EIR at 5.14-44)**. These two access roads would connect the Project site to the existing

Meyers Road, Little League Drive, and Perrin Road. The access roads and onsite circulation would follow the design standards of the FF District that allow emergency access to the site, and would not create any dangerous conditions. **(*Id.*)**. Thus, impacts in this area are less than significant, and no mitigation is required.

b. Alternative Transportation.

Potential Significant Impact: Whether the Project would conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Finding: Impacts related to Traffic and Circulation are discussed in detail in Section 5.14 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will not conflict with adopted policies, plans, or programs supporting alternative transportation, and therefore, no mitigation is required.

Facts in Support of the Finding: The proposed roadway network of the Spring Trails project includes two access roads, a primary local street, a secondary local street, and two types of cul-de-sac streets. **(EIR at 5.14-44)**. There are no planned public transit uses for the site, but residents would have indirect access to the Omnitrans bus system (approximately two miles to bus stop). Private vehicles would most likely be the most common form of transportation used onsite since the site is not in the immediate vicinity of public transit stations. If bus or other public transit service were expanded in the area of the Project, the Project would not interfere with potential routes. **(EIR at 5.14-39)**. The Project's trail system would tie into area-wide trails that would help facilitate access to public transit, and would provide trails and routes for pedestrian, bicycle, and equestrian use. **(EIR at 5.14-44)**. Thus, impacts in this area are less than significant, and no mitigation is required.

15. **Utilities and Service Systems.**

a. Stormwater Drainage Facilities.

Potential Significant Impact: Whether the Project would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board; or require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Finding: Potential impacts related to Utilities and Service Systems are discussed in detail in Section 5.15 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board; or require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; and, therefore, no mitigation is required.

Facts in Support of the Finding: The development of the Project would require the construction of new stormwater drainage facilities and infrastructure. **(EIR at 5.15-21)**. For the most part, natural drainage patterns would be preserved with the development of the site. Major improvements would include three stormwater detention basins that would also serve as community parks. **(*Id.*)**. Two of these, in the western and southern portion of the site, near Meyers Road, would serve as neighborhood parks. The other, in the south-central portion of the site, would be a dog park. The water in these detention basins would be treated and then discharged at a controlled rate into Cable Canyon Creek. **(*Id.*)**. Other stormwater drainage facilities would consist of 24-inch to 96-inch reinforced concrete pipes that would be placed along the major looped road. Culverts would be constructed to maintain natural drainage patterns in each of the drainage areas (A, B, C, and D) where proposed roadways would otherwise obstruct the drainage flow. **(EIR Figure 3-9)**. Prior to site grading, a stormwater pollution prevention plan permit must be approved by the Santa Ana Regional Water Quality Control Board (RWQCB). A water quality management plan has also been prepared for the Spring Trails Specific Plan in accordance with the Santa Ana RWQCB. This plan includes BMPs to reduce the volume, rate, and amount of stormwater runoff that must be treated and reduce the potential for urban runoff and pollutants from coming into contact with one another. **(EIR at 5.15-21)**. Although the proposed development would necessitate the construction of new facilities and infrastructure, their construction would help to maintain the natural drainage patterns of the site and would control the stormwater runoff flow so that it would not exceed the capacities of Cable Canyon Creek leaving the site. Thus, impacts in this area are less than significant, and no mitigation is required.

b. Wastewater Treatment.

Potential Significant Impact: Whether the Project would result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Finding: Potential impacts related to Utilities and Service Systems are discussed in detail in Section 5.15 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments; and, therefore, no mitigation is required.

Facts in Support of the Finding: The Project would be served by the City's Public Works Department upon the annexation of the Project site. The design, construction, and conveyance capabilities of the sewer lines are the responsibility of the Project engineer and would be required to follow the Public Works Department sewer design policies and requirements. **(EIR at 5.15-21)**. The proposed sewer lines would connect to the eight-inch sewer line at the intersection of Meyers Road and Little League Drive. **(EIR Figure 3-12)**. A residential wastewater generation rate of 182 gpd per acre was used to determine the daily flow rates of the proposed Project. This rate is used for developments with residential densities of one unit per acre or less. The Sewer Capacity Analysis prepared for the Project found that the flow rate of the proposed project would reach 327,283.2 gallons per day (366.6 afy). **(EIR Appendix L)**. The Margaret H. Chandler Water Reclamation Plant ("WRP") has a projected wastewater flow of 35,828 afy in 2015 (31.985 mgd). **(EIR at 5.15-22)**. With a capacity of 33 mgd, the plant would have remaining capacity for 1.015 mgd. The Project's expected wastewater flow of 327,283.2 gpd is within the projected flow capacity of the WRP near opening year 2013 (35,828 afy in 2015). The onsite sewer lines would be eight inches in diameter, designed to accommodate a flow rate of 1.354 cubic feet per second (cfs) (203 gpm). The actual onsite flow would be 0.5064 cfs. **(*Id.*)**. The Sewer Capacity Study assessed the existing conditions of the sewer system that would be used by the Project and the capacity that would be required for proposed sewer lines. The report used the City of San Bernardino Public Works Sewer Policy and Procedures design criteria for sanitary sewers based on City sewer buildout conditions in year 2020. The City's Sewer Master

Plan is based on City buildout in 2020. **(*Id.*)**. The analysis of the existing sewer system found that four locations had a pipe flow over that of the design flow for the pipe section. These four locations were still below the full flow capacity of the sewer pipe sections. **(*Id.*)**. Since all pipeline sections are still within the full flow capacity, upgrades are not required. The existing sewer system would be able to accommodate the wastewater flow from the Project. However, the slope of the proposed pipeline in Verdemont Drive is not known. Depending on this slope, the pipeline would be either 8 or 10 inches in diameter. If a 10-inch pipeline is used, the existing pipeline at Little League Drive would need to be upgraded from 8 to 10 inches, since it is not recommended to have a 10-inch pipeline upstream of an 8-inch pipeline. **(*Id.*)**. The Project would require the construction of new pipelines on the Project site, most likely of 8- inch diameter, and potentially an upgrade of the existing pipeline at Little League Drive. The construction of new pipelines and pipeline improvements is designed within the road right-of-ways. **(*Id.*)**. Potential environmental impacts associated with these improvements were addressed in the EIR in conjunction with the assessment of the development footprint, and found to be less than significant. Accordingly, no mitigation is required.

c. Landfill Capacity.

Potential Significant Impact: Whether the Project would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or fail to comply with federal, state, and local statutes and regulations related to solid waste.

Finding: Potential impacts related to Utilities and Service Systems are discussed in detail in Section 5.15 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project would not be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or fail to comply with federal, state, and local statutes and regulations related to solid waste; and, therefore, no mitigation is required.

Facts in Support of the Finding: The proposed Spring Trails specific plan involves 304 residential units (reduced to 215 units) that would generate solid waste to be disposed at Mid-Valley and/or San Timoteo landfills. **(EIR at 5.15-26)**. The solid waste generated by each residential unit can be estimated at 12.23 pounds of household waste per dwelling unit per day. **(*Id.*)**. Based on

this estimation, the Project would generate approximately 1,357,040 lbs/year (678 tons of solid waste per year, or 1.85 tons per day). San Timoteo Landfill can receive a maximum of 1,000 tons per day until 2016. **(*Id.*)**. Since this closure date is not long after the buildout of the Project, the majority of the waste from the Project would go to the Mid-Valley landfill, which has a closure date of 2033. **(*Id.*)**. The Mid-Valley Landfill can receive up to 7,500 tons of waste per day, and the average daily waste flow is 2,790 tons. **(*Id.*)**. The daily waste flow plus the waste flow of the Project totals 2,791.88 tons per day, which would be under the permitted daily capacity of the landfill. **(*Id.*)**. The County and City of San Bernardino have recycling programs and incentives to reduce the amount of solid waste being transported to landfills. The waste reduction and pollution prevention programs of the City help both residents and businesses reduce waste and find recycling solutions. The City offers pick-up services for waste, green waste, and recycling for residents and businesses. Impacts related to solid waste generation would be less than significant. **(*Id.*)**.

The City of San Bernardino was in compliance with AB 939 in 2005 and 2006 based on the 50 percent waste diversion rate. (EIR Table 5.15-17). In 2007 and 2008, San Bernardino did not meet the per capita disposal rate targets, but these numbers do not necessarily indicate noncompliance. **(See EIR Table 5.15-18)**. The figures must be reviewed and approved by the board before they are used to determine the City's compliance with AB 939 (and SB 1016). These figures have not yet been approved by the board, and the effect Spring Trails would have on the City's ability to meet its diversion targets is speculative. **(EIR at 5.15-26)**. In worst-case conditions, the Project would decrease the amount of waste being diverted from landfills, and lessen the City's likelihood of compliance with AB 939. Residents living in Spring Trails would participate in City-sponsored waste and recycling collection programs. **(*Id.*)**. Residential waste flow generated during the operation of the Project would have to be incorporated into the City's calculations on how to meet the 50 percent diversion goal. Although it would increase the amount of waste that would need to be disposed of by the City, this increase is not expected to cause significant impacts. **(*Id.*)**. Construction material waste must also be reported to CalRecycle to indicate compliance with AB 939. Construction material waste would also need to be incorporated into the City's calculations to meet the 50

percent diversion goal; however, since there would not be demolition of existing structures involved with the construction activities, there would not be a substantial amount of waste to be discarded. **(EIR at 5.15-27)**. In sum, the Project would be adequately served by the Mid-Valley and San Timoteo Sanitary landfills and would comply with AB 939, and no mitigation is required.

d. Cumulative Impacts.

Potential Significant Impact: Whether the Project would result in cumulatively considerable impacts to Utilities and Service Systems.

Finding: Potential impacts related to Utilities and Service Systems are discussed in detail in Section 5.15 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project would not result in cumulatively considerable impacts to Utilities and Service Systems; and, therefore, no mitigation is required.

Facts in Support of the Finding: **Stormwater/Wastewater**: Cumulative impacts caused by the need to construct additional stormwater conveyance infrastructure could occur if Spring Trails were to use the same infrastructure as other developments. **(EIR at 5.15-23)**. The Spring Trails Project would discharge its treated stormwater into Cable Canyon Creek at a controlled rate. **(*Id.*)**. Impacts could occur if development north of or immediately adjacent to Spring Trails contributed stormwater runoff to the same drainage system as Spring Trails. Since Spring Trails is immediately surrounded by unincorporated San Bernardino County or San Bernardino National Forest, it is unlikely that development would occur in these areas. **(*Id.*)**. Additionally, any future developments would be required to ensure that there would not be any net peak increase in stormwater flow to the existing infrastructure. There would not be any cumulatively significant impacts related to the construction of stormwater facilities. **(*Id.*)**. The proposed Spring Trails Specific Plan would generate 63 afy of wastewater. This represents 0.18 percent of the total wastewater flow capacity of the WRP (35,828 afy). **(*Id.*)**. In combination with growth in the area, the Project would not have cumulatively significant impacts on wastewater infrastructure. The sewer study prepared for this report analyzed the Project's contribution to projected flow rates of the existing sewer system in 2020. The projected flow rates were acquired from the City's Sewer Master Plan for year 2020 and incorporates projected growth in the service area. **(*Id.*)**. Since the Project's wastewater flow

would not exceed the full capacity flows of the existing sewer system as projected in 2020, there would not be any cumulative impacts related to the need for additional sewer system improvements. **(*Id.*)**.

Solid waste: Solid waste planning in San Bernardino County is guided by the San Bernardino County Solid Waste Management Plan, which directs the actions of the San Bernardino County Solid Waste Advisory Committee. **(EIR at 5.15-27)**. The City of San Bernardino has a representative on this committee. The need for any additional landfills or transfer stations in the future must be incorporated into the solid waste management plan. The EIR for the San Bernardino General Plan Update estimates that, at buildout, the City would be generating 2,628 tons of solid waste per day (after diversion). **(*Id.*)**. The Mid-Valley landfill can receive up to 7,500 tons of solid waste per day through its closure date in 2033. Over 70 jurisdictions send solid waste to this landfill, and the total daily disposal averages 2,790 tons. **(*Id.*)**. Between 2005 and 2007, total tons disposed per year decreased from 855,135 to 762,729 tons. When the Project's disposal rate (1.89 tons per day) is included with the buildout disposal rate for the City (2,628 tons per day), the total is 2,629.89 tons per day, which is more than the current daily average for the landfill but less than the maximum capacity. **(*Id.*)**. The proposed Project would not significantly contribute to the projected solid waste flow from the City of San Bernardino or to the maximum daily permitted disposal rate for the Mid-Valley landfill, and thus, no mitigation is required.

16. **Greenhouse Gas Emissions.**

a. Conflict with Applicable Plan.

Potential Significant Impact: Whether the Project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Finding: Potential impacts from Greenhouse Gas Emissions are discussed in detail in Section 5.16 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project would not conflict with the California Air Resources Board's ("CARB") Scoping Plan; and, therefore, no mitigation is required.

Facts in Support of the Finding: The CARB Scoping Plan identifies that reducing GHG emissions to 1990 levels means "cutting approximately 30 percent from business-as-usual emissions levels projected for 2020, or about 15 percent from today's levels." **(EIR at 5.16-18)**. On a per capita basis, that means reducing our annual emissions of 14 tons of CO2e (13 MTons) for every man, woman, and child in California to about 10 tons (9 MTons) per person by 2020." A 30 percent per capita reduction, or approximately 4 MTons less GHG emissions per person, is necessary to achieve the emissions reduction of the Scoping Plan. **(*Id.*)**.

Traffic trips associated with new and redevelopment projects contribute indirect emissions of air pollutants. **(*Id.*)**. The most effective way to reduce emissions is through a substantial reduction in vehicle trips and trip lengths. While local and regional governments cannot directly regulate vehicles and vehicle emissions, they can implement land use regulations and strategies to reduce VMT. **(*Id.*)**. Such strategies can include better integration of land use and transportation planning to reduce trip lengths between residential areas to employment centers and amenities, and to promote greater public transit use and alternative modes of transportation. **(*Id.*)**. Strategies to implement such land use policy can either be incentive based, such as compliance with the SCS, or penalty based, such as indirect source review. Regional strategies include the Sustainable Communities Strategy ("SCS") for the SCAG region, and the Compass Blueprint 2% Strategy. **(EIR at 5.16-19)**.

Transportation contributes a large percentage of the state's GHG emissions and research shows that increasing a community's or development's density and accessibility to job centers are the two most significant factors for reducing VMT through design. **(*Id.*)**. Consistency with the SCS for the SCAG region would reduce VMT and trips within the region as a whole. Regional GHG emissions reduction targets and the SCS have not yet been established for the SCAG region. According to the 2008 Regional Comprehensive Plan (RCP), SCAG's Land Use and Housing Action Plan can be expected to result in a 10 percent reduction in VMT in 2035 when compared to current trends. In general, VMT serves as a proxy for jobs/housing balance, urban design, transit accessibility, and other urban form issues. **(*Id.*)**. The Compass Blueprint is a component of the Land Use and Housing element of the 2008 RCP in

achieving sustainable land uses and policies. The framework of the Compass Blueprint strategy focuses on four areas in achieving sustainable development: mobility, livability, prosperity, and sustainability. **(*Id.*)**. Key aspects of the Compass Blueprint in reducing VMT include developing housing near regional employment centers and amenities and encouraging transit-oriented development. The Project would be consistent with one aspect of the mobility element of the Compass Blueprint by locating residential development near an employment center (i.e., the City of San Bernardino). **(*Id.*)**. However, the Project is not a mixed-use development; it is a proposed master planned single-family residential development. Additionally, it would not be in proximity to amenities, as the majority of amenities would be approximately four miles or more from the Project site, nor would it be near readily accessible public transit, as the nearest transit stop would be approximately over a mile to the east. **(*Id.*)**.

Energy use and related activities for buildings is the second largest contributor to California's GHG emissions. **(*Id.*)**. Energy efficiency and conservation measures are identified as a best performance standard for development projects. In general, there are two strategies for reducing GHG emissions from the Electricity sector: 1) reducing the amount of energy consumed; and 2) reducing the GHG emissions resulting from electricity production. **(*Id.*)**. The Project would have little control over the latter, and the CEC has determined that the success of reducing GHG emissions from electricity production depends largely on the success of California's renewable-energy and energy-efficiency programs. Consequently, GHG emissions reductions can be achieved through the design and construction of new green buildings, because green buildings offer a comprehensive approach to reducing GHG emissions across multiple sectors (Energy Use, Water, Waste, and Transportation). **(*Id.*)**. Water use also requires significant amounts of energy. Approximately one-fifth of the electricity and a third of the non–power plant natural gas consumed in the state are associated with water use. Measures to increase water use efficiency and reduce water demand would reduce electricity demand from the Water sector, therefore reducing GHG emissions. **(*Id.*)**.

The California Water Resources Control Board has prepared a draft "20X2020" Water Conservation Plan that outlines the state's strategies to achieve a 20 percent reduction in per

capita urban water use statewide by 2020. **(EIR at 5.16-20)**. The Scoping Plan considers using the green building framework as a mechanism that enables GHG reductions in other sectors. In July 2008, the California Building Standards Commission adopted the Green Building Standards Code that includes mandatory features for residential structures and voluntary standards for nonresidential structures. **(*Id.*)**. As of January 1, 2010, all new structures would be constructed to achieve the performance standards of the 2008 Building and Energy Efficiency Standards, which are approximately 15 percent more energy efficient than the 2005 Building and Energy Efficiency Standards. **(*Id.*)**. The new standards also require improvements in water efficiency for plumbing fixtures and a target of 50 percent landscape water conservation reduction. While the current code is voluntary for nonresidential structures, the Commission is in the process of developing mandatory provisions in the 2010 edition of the California Green Building Standards Code. Transportation, energy efficiency, and water reductions measures implemented by the state as outlined in CARB's Scoping Plan would reduce Project-related GHG emissions. **(*Id.*)**. Implementation of transportation, water, and energy efficiency measures of CARB's Scoping Plan would reduce emissions by 39 percent, or 3,863 MTons of GHG in year 2020 from BAU. (EIR Table 5.16-7). The Project would be consistent with the statewide emissions reduction strategies outlined in the Scoping Plan. **(*Id.*)**. Therefore, impacts associated with consistency with plans to reduce GHG emissions are considered less than significant, and no mitigation is required.

17. **Forest Resources.**

a. Conflict with Applicable Plan.

Potential Significant Impact: Whether the Project would 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)).

Finding: Potential impacts from the Project on Forest Resources are discussed in detail in Section 5.17 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project site is not considered timberland or zoned

timber production. Although resources within the Project site qualify as forest land per California Resources Code Section 12220 would be impacted by Project implementation, this impact is less than significant and, therefore, no mitigation is required.

Facts in Support of the Finding: The drainages in the northern (Cable Creek) and southern portions (Meyers Creek) of the Project site contain native tree species that exhibit the characteristics of forest lands. Implementation of the Project would develop single-family residences and result in the removal of 220 native species trees on the project site. Therefore, the Project could conflict with Project site's ability to continue to be designated as forest land. **(EIR at 5.17-4)**.

The Project site was previously been used for agriculture, and a previous landowner grew eucalyptus trees to be used as windrows for crop protection, with a secondary use as firewood. **(*Id.*)**. Despite the presence of the eucalyptus trees, the site does not include timberland as defined by PRC Section 4526, which would require the project site to be capable of growing "a crop of trees of any commercial species used to produce lumber and other forest products." **(*Id.*)**. Per Section 895.1 of Title 14 of the California Code of Regulations ("CCR"), "commercial species" is defined as "those species found in group A and those in group B that are found on lands where the species in group A are now growing naturally or have grown naturally in the recorded past." **(EIR at 5.17-4)**. The commercial species list for the Southern Forest District is shown at EIR Table 5.17-1. Although eucalyptus trees are included in group B, the Project site does not have any naturally occurring trees of species that are included in group A. **(EIR Table 5.3-3)**. Therefore, per this definition, the Project site does not meet the definition of timberland. Implementation of the Project would not conflict with or cause a rezoning of any designated timberland areas. **(EIR at 5.17-5)**. The Project site is in the Verdemont community of unincorporated San Bernardino County and in the City of San Bernardino's sphere of influence ("SOI"). **(*Id.*)**. The Project site is not currently zoned for timberland production per CPRC 51104. The site is currently subject to County of San Bernardino's General Plan and Zoning Code. As shown in Figure 4.6 of the County's General Plan, "Land Use Designations," the northern portion of the site, approximately 160 acres, is designated as private unincorporated land within the San Bernardino National Forest. **(*Id.*)**. The southern portion of

the site, approximately 190.6 acres, is designated Rural Living (RL- 5), which allows up to one dwelling unit per five acres. Since the Project site is within the City of San Bernardino's SOI, the entire project site is currently prezoned by the City as Residential Estate (RE), allowing one dwelling unit per acre. Therefore, implementation of the Project would not conflict with or cause a rezoning of any timberland production zone. **(*Id.*)**. Impacts would be less than significant, and no mitigation is required.

B. **Potentially Significant Impacts Which Can Be Mitigated Below a Level of Significance and Mitigation Measures.**

1. **Biological Resources.**

a. Candidate, Sensitive or Special Status Species.

Potential Significant Impact: The EIR evaluated and concluded that the Project could have a substantial adverse effect, either directly or through habitat modifications, on 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.

Finding: Impacts related to Biological Resources are discussed in detail at Section 5.3 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that development of the proposed Project would involve the loss or modification of approximately 265.2 acres of natural habitat and the wildlife species. These activities could potentially impact special stats plant and animal species, critical habitat designated by the Fish and Wildlife Service; and indirect impacts to sensitive plant and animal habitats could also occur. However, these impacts can be mitigated to a less-than-significant level through implementation of Mitigation Measures 3-1 to 3-5 and 3-13. These Mitigation Measures are adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

3-1 Prior to the issuance of grading permits, preconstruction surveys within the proposed impact areas for Plummer's mariposa lily shall be conducted in the appropriate blooming period by a qualified biologist. The appropriate blooming period is defined as occurring within the months of April, May, and June, or as indicated by positive verification of blooming at a documented reference location. Surveys must only be conducted during a year of at least average precipitation, as determined by official precipitation records. The surveys should positively identify and quantify all individuals on or in the immediate vicinity of the proposed impact areas. Any individuals confirmed within the project impact area shall be considered for possible salvage and relocation into suitable receptor sites

located onsite within preserved areas, if feasible. Any individuals confirmed in the immediate vicinity of a proposed impact area shall be flagged and appropriately fenced off from construction zones to prevent inadvertent impacts. Individuals confirmed within areas proposed for preservation onsite shall be properly recorded and avoided during any revegetation or other efforts anticipated in the long-term during project operation. All observations shall be accurately reported to the California Natural Diversity Database, the California Native Plant Survey, the Consortium of California Herbarium, and/or other herbarium or sensitive species databases as determined by the qualified biologist. This measure shall be implemented to the satisfaction of the Community Development Director.

3-2 To mitigate for impacts to unoccupied critical habitat of the federally endangered San Bernardino kangaroo rat, the project applicant shall acquire offsite permanent mitigation lands of like habitat quality as determined by the US Fish and Wildlife Service (USFWS) during the Section 7 consultation process. Mitigation lands must be acquired prior to the issuance of grading permits, and shall incorporate appropriate long-term management provisions such as deed restrictions, endowments, and/or other management mechanisms to provide for the long-term conservation of the habitat. Potential properties include, but are not limited to, those managed by San Bernardino County Special Districts located in the Glen Helen, Rialto, and Rancho Cucamonga areas. Mitigation lands shall be acquired at a replacement ratio of 1:1 (one acre replaced for every one acre impacted). This measure does not preclude the imposition of additional mitigation requirements that may be initiated by the USFWS during the Section 7 consultation process. This measure shall be implemented to the satisfaction of the Community Development Director.

3-3 To mitigate for potential impacts to hydrological processes and subsequent degradation of habitat for the federally endangered San Bernardino kangaroo rat and other sensitive species, all roadway crossings or other improvements proposed within critical habitat for the species shall be designed in such a manner as to not substantially alter the natural flow regimes through impacted sensitive habitat areas. These designs shall include, but shall not necessarily be limited to, the installation of appropriate culverts and stream crossings that allow for natural flow and uninhibited downstream hydrological processes. Design of these improvements shall be undertaken in consultation with the US Fish and Wildlife Service and other responsible agencies. This measure shall be implemented to the satisfaction of the Community Development Director prior to the issuance of grading permits.

3-4 Any hiking and equestrian trails or other facilities developed within Cable Creek or other riparian areas on the site shall be designed to comply with provisions in the General Plan. These requirements shall include, but not necessarily be limited to: 1) no ground disturbance may take place within 50 feet of the ordinary high-water mark of the associated stream channel; 2) erosion, sedimentation, and runoff from the proposed improvements must be minimized by the implementation of appropriate best management practices, the installation of appropriate runoff diversions, and/or the planting of native vegetation; 3) Vegetation removal will be minimized to the maximum extent possible; and 4) appropriate signage shall be installed in at least five locations alongside these facilities to educate users as to the importance of riparian ecosystems, the species that rely upon them, and the

importance of avoiding unnecessary impacts and disturbance. This measure shall be implemented to the satisfaction of the Community Development Director. [This measure also provides mitigation for Impact 5.3-4 as related to impacts to wildlife corridors. See Mitigation Measure 3-9]

3-5 The applicant shall prepare a signage and a buyer awareness program to be implemented to inform homeowners of the proximity to sensitive wildlife areas. The purpose of this program shall be to (1) prevent wildlife from being attracted to the housing development and (2) prevent household pets from preying on and harassing the local sensitive species. Materials and literature provided to the residents shall address the implications and dangers of living adjacent to natural open space areas. To prevent wildlife from being attracted to the project site, the materials shall provide information on homeowner's benefits and responsibilities associated with living close to natural wildlife habitats. Specific responsibilities of homeowners shall be described in these materials and be included in the Homeowners Association (HOA) Covenants, Codes, & Restrictions (CC&R). These measures shall include, but not necessarily be limited to, the following:

- *The storage and disposal of ALL food or refuse that is edible by or attractive to wildlife shall be placed in Wildlife-Resistant Refuse Enclosures and Containers. These containers shall meet applicable standards of testing by the Living With Wildlife Foundation and be bear resistant for 60 minutes so long as they are able to meet the City of San Bernardino's Refuse and Recycling Division's restrictions for pick-up and onsite sizing. Examples of Wildlife-Resistant Refuse Enclosures and Containers are provided by the Living with Wildlife Foundation (http://www.lwwf.org/).*

    - *The project applicant shall coordinate with the City of San Bernardino Refuse and Recycling Division to ensure all refuse facilities conform to their sizing and pick-up requirements. All refuse containers shall be designed to be consistent with the City of San Bernardino Refuse and Recycling Division restrictions.*

- *With the exception of birdfeeders, no person shall intentionally feed or knowingly leave or store any refuse, food product, pet food, or other product edible by wildlife on any premises in a manner which would constitute a lure, attraction, or enticement of wildlife on property within the development*

    - *Birdfeeders must be suspended on a cable or other device so as to be inaccessible to bears and other wildlife, and the area below the feeders must be kept free from seed debris. If a wild animal gains access to a birdfeeder, the condition allowing access must be corrected or the birdfeeder removed.*

- *To limit the amount of time refuse is on the curb, trash should be set out and brought back inside between specified hours on pick-up day (to be detailed in the proposed or future HOA CC&Rs).*

To prevent the disturbance of wildlife (and sensitive species) by domestic pets, the program shall inform residents of the impacts their pets have on local animals. Cat-owners shall be informed of measures to keep their pets within their property boundaries and dog-owners shall keep their dogs on a leash while outside (except within designated dog parks). These measures would also serve to lessen the likelihood of domestic pets being preyed upon by wild predators.

The buyer awareness materials will be included in a sales disclosure statement and in the Homeowners Association (HOA) CC&Rs. A copy of the buyer awareness materials shall be approved by the Community Development Director and available to residents upon request.

3-13 Significant tree resources that are removed from the site during project development shall be replaced at a 1:1 ratio or at the exchange ratios specific below. Significant tree resources are defined as any native or nonnative ornamental tree—excluding species of the Eucalyptus genus—that is healthy, structurally sound, and over 20 feet in height. For California black walnut (Juglans californica var. californica), all specimens of the species shall be regarded as significant, regardless of size or height. Prior to the issuance of grading permits, a certified arborist shall conduct an inventory of all significant trees within the development footprint. This inventory shall be used to determine the number and types of significant trees that will be impacted and the subsequent replacement quantities. The number of replacement trees shall be, at a minimum, 220 trees. Should the aforementioned inventory determine that a greater number of significant trees will be impacted, then that quantity shall be used in determining replacement quantities. For purposes of replacement ratios, the following exchange ratios shall be used: 1) one 36-inch box tree is equivalent to one replacement tree; 2) five 15-gallon trees are equivalent to one replacement tree; 3) 10 five-gallon trees are equivalent to one replacement tree; and 4) 15 one-gallon trees are equivalent to one replacement tree.

During the development of the project, the project applicant shall incorporate the recommendations as set forth in the project arborist report (Integrated Urban Forestry 1998). A certified arborist shall be retained at the developer's expense to oversee the implementation of these requirements and to specify other requirements as deemed appropriate. The measures to be followed include, but are not limited to, specified protocols for the following: 1) the removal of nonnative trees from the site; 2) the removal and transplantation, when feasible, of structurally sound and healthy native trees to other areas of the project site; 3) the installation of tree protection barriers on all trees to be preserved that are within the reach of vehicles and equipment; 4) tree protection training of construction personnel by a certified arborist; 5) irrigation of trees where the natural water supply is interrupted or diminished or where protected trees may require additional water to endure construction-induced stresses; 6) subsequent replacement of any trees that are damaged or have not survived transplantation and relocation; and 7) implementation of the tree replacement plan, as outlined in the first paragraph of this measure. This measure shall be implemented to the satisfaction of the Community Development Director.

Facts in Support of the Finding: Approximately 100 to 300 Plummer's mariposa lily plants and approximately 350 to 600 individual California black walnut trees of varying ages would be impacted by Project development. Both are listed as sensitive by the California Native Plant Society ("CNPS"). Impacts to USFWS-designated critical habitat for San Bernardino kangaroo rat ("SBKR") would also occur, as would impacts to Los Angeles pocket mouse. Potential impacts to least Bell's vireo ("LBV") and southwestern willow flycatcher ("SWF") are also present. **(EIR at 5.3-45)**. No plant species listed as either threatened or endangered under the Federal Endangered Species Act ("FESA") or the California Endangered Species Act ("CESA") is known to occur on the Project site. This finding is based on numerous focused surveys and habitat assessments conducted on the site since 1998. Since no federal- or state-listed species occurs on the site, there would be no impact to these species from Project development. **(*Id.*)**. Although numerous biological inventories have been conducted on the Project site over the past ten years and the site's biological resources values have been well established, the applicant is aware that habitat assessments and focused surveys need to be updated. As such, pre-clearance surveys will be conducted for each of the federally and state listed species that have a potential to occur onsite, including sensitive plant surveys following the CDFG's November 2009 guidance for special status native plant populations and natural communities.

Special Status Plant Species: Two plant species listed as sensitive by the CNPS have been documented to occur on the Project site. **(EIR at 5.3-45)**. Plummer's mariposa lily has been previously observed within unconfirmed areas of the Project site during at least two surveys. There is suitable habitat on the site and it can be assumed that the species is present. It is not known, however, if the recorded occurrences were in an area of the site that is proposed for development. **(EIR at 5.3-46)**. Potential impacts to this non-listed CNPS List 1B.2 species is not anticipated to be significant due to the relative abundance of this species on a regional scale. According to the CNPS listing guidelines, this species is known from 21 to 80 occurrences throughout its range, interpreted as anywhere between 3,000 to 10,000 individuals, or 10,000 to 50,000 occupied acres. The Project would result in the removal of an estimated 100 to 300 individuals. This represents a small portion of the total known population and any impacts would not jeopardize the

existence of this species or elevate its sensitivity or listing status under the CNPS, California Natural Diversity Database ("CNDDB"), global and state heritage rankings, the FESA, or CESA. **(*Id.*)**. Despite the fact that Plummer's mariposa lily is not specifically protected under state law, mitigation imposed during the Section 1602 permitting process would likely be required at some level for this species. For this reason, Mitigation Measure 3-1 will be incorporated to identify specimens that are located within the Project impact area. These specimens should be avoided or relocated as feasible. Adherence to these requirements would lessen the Project's impact in this regard to less than significant levels. **(*Id.*)**.

California black walnut is also present on the site, and potential impacts to this nonlisted CNPS List 4.2 species are not anticipated to be significant due to the relative abundance of this species on a regional scale. **(*Id.*)**. According to the CNPS listing guidelines, this species is known from at least 21 to 80 occurrences throughout its range, which is interpreted as anywhere between 3,000 to 10,000 individuals that are known, or 10,000 to 50,000 occupied acres. The Project would result in the removal of approximately 350 to 600 individuals of varying ages. This represents a small portion of the total known population. **(*Id.*)**. These impacts would not jeopardize the existence of this species or elevate its sensitivity or status under the CNPS, CNDDB global and state heritage rankings, the FESA, or CESA. While California black walnut is not specifically protected under state law, mitigation initiated during the Section 1602 permitting process would likely be required at some level for this species. For this reason, Mitigation Measure 3-13 is required to salvage and relocate healthy specimens, and/or to plant new specimens within areas to be preserved onsite, which would lessen the Project's impact in this regard to less than significant levels.

Special Status Wildlife Species: Numerous small mammal trapping sessions have been conducted on the Project site over the last 11 years, but none of the survey efforts have revealed the presence of any federal- or state-listed small mammal species. **(*Id.*)**. Even though portions of the site are within designated critical habitat for SBKR, it appears that the species is absent from the site. This is likely due to the separation of the site from existing SBKR populations by the I-215 freeway, other roadways, a railroad, and residential

and commercial development. The Riverside Alluvial Fan Sage Scrub ("RAFSS") habitat on the site is suitable for SBKR, but there appears to be lack of effective linkage with adjacent populations. Regardless, since portions of the site are within designated critical habitat for the species, consultation with the USFWS under Section 7 of FESA would be required. Mitigation requirements derived from this consultation would serve to lessen the Project's potential impacts to SBKR. **(*Id.*)**. In anticipation of those agency requirements, Mitigation Measures 3-2 and 3-3 are required to reduce the Project's impacts in this regard to less than significant levels, by requiring the adoption of BMPs to avoid direct and indirect impacts to remaining habitat areas, and also imposes specific design requirements to lessen additional impacts to offsite areas and to provide for the continued movement of animals through the area. Mitigation Measure 3-1 also requires the purchase and permanent preservation of offsite mitigation lands and/or the payment of in-lieu fees, and that the applicant demonstrate that suitable mitigation lands have been identified and are available for acquisition. **(EIR at 5.3-47)**. Mitigation ratios for offsite habitat purchases are typically based on a number of factors, including the quality of the habitat to be replaced and whether or not the impacted area is actually occupied by the species in question. In the case of this Project, the onsite RAFSS habitat that would support SBKR is of good quality, but has been determined through repeated surveys to not be occupied by SBKR. Accordingly, the prescribed mitigation for the loss of unoccupied SBKR critical habitat for this project is set at a ratio 1:1 (one acre replaced for every one acre impacted). The Project applicant has identified several hundred acres of potential mitigation lands containing suitable RAFSS habitat along the alluvial fans of the San Bernardino Mountains. These lands are available for purchase and dedication to an appropriate conservation management organization. This dedication and management would ensure the long-term conservation status of this sensitive habitat type in the San Bernardino Valley. It can therefore be concluded that the prescribed mitigation is feasible, and would mitigate the Project's impacts in this regard to less than significant levels. **(*Id.*)**.

Two California Species of Special Concern ("SSCs") are known to occur on the Project site. Both San Diego pocket mouse and Los Angeles pocket mouse have been captured during each of the survey efforts on the site. Potential

impacts to San Diego pocket mouse are not typically considered significant under CEQA because this species is widespread and abundant on a local and regional level. **(*Id.*)**. Impacts to Los Angeles pocket mouse, however, could be considered potentially significant since the preferred habitat of the species is narrow and the species is not known to be locally or regionally abundant. The status of SSC, however, does not afford any specific legal protections, and therefore this impact can be considered less than significant. Nevertheless, the potential adverse impact to Los Angeles pocket mouse could be of concern to regulatory agencies such as CDFG. **(*Id.*)**. It is likely that CDFG would impose some level of mitigation during the Section 1602 permitting process to account for this impact. Because Los Angeles pocket mouse generally occurs in the same area as the SBKR's designated critical habitat, mitigation required by the USFWS during the Section 7 process and as discussed in the paragraphs above would serve as mitigation for Los Angeles pocket mouse as well. For that reason, mitigation specific to Los Angeles pocket mouse is not recommended. Rather, it is recommended that Mitigation Measures 3-2 and 3-3 for SBKR be implemented in order to lessen the Project's impact to both SBKR and Los Angeles pocket mouse to less than significant levels. **(*Id.*)**.

Birds: Based on repeated negative findings for coastal California gnatcatcher ("CAGN") during numerous survey efforts, as well as the site's recent exclusion from designated critical habitat, it is reasonable to assume that the species does not occur upon the Project site. **(*Id.*)**. The riparian areas within Cable Creek provide suitable habitat for the SWF, though focused surveys conducted in 2007 returned negative findings. However, LBV was observed along Cable Creek in 2007. It is therefore possible that the species could be present farther east of this location within Cable Creek. **(EIR at 5.3-48)**. Individual Take Permits ("ITPs") will be acquired to offset potential impacts to LBV, which is a federally and state listed species. Separate ITPs will be acquired from CDFG, through a 2081 ITP application, and from USFWS, through a Section 7 consultation. Mitigation under these permits will be adequately funded and will ensure that the Project does not jeopardize the continued existence of the species. Direct development of the riparian areas of Cable Creek is not proposed as part of the Project's development. No homes or other structures would be located within the riparian areas that would be most likely to contain LBV and

SWF. However, the ITP will also provide BMPs to avoid indirect impacts to the species. An evaluation of the adequacy of the existing CEQA documentation to cover any unanticipated minimization and mitigation measures included in the final ITPs will be made when the permits are issued. If additional CEQA documentation is required for review by CDFG to comply with its duties as a Responsible Agency under CEQA, the subsequent documentation will be prepared at that time.

In addition, the hiking/equestrian trail that is planned for this area could impact LBV and SWF if they are present and if the trail is not designed thoughtfully with the aim of avoiding impacts to these species. **(*Id.*)**. For that reason, Mitigation Measure 3-4 will be incorporated to assure that the trail's design, construction, and use would not impact the creek bottom in a manner that could create a significant impact to these species. Implementation of Mitigation Measure 3-4 would reduce the level of this potentially significant impact to less than significant levels. **(*Id.*)**.

Reptiles and Amphibians: No federal- or state-listed reptile species has ever been observed on the Project site, and none is expected to occur. **(*Id.*)**. With regard to amphibians, habitat assessments conducted over the last 11 years have concluded that marginally suitable habitat for arroyo southwestern toad and mountain yellow-legged frog is present along Cable Creek. Neither of these species, however, has been detected during both general habitat assessment surveys or focused surveys conducted in the area. **(*Id.*)**. Based on these findings, it is likely that neither species is present on the Project site. Furthermore, direct development of the riparian stretches of Cable Creek is not proposed as part of the Project's development. Mitigation Measure 3-4 for the proposed hiking/equestrian trail would also lessen the Project's potential impacts in this regard to less than significant levels. **(*Id.*)**.

Indirect Impacts to Special Status Species: Since the Project site would be surrounded on three sides by existing wild areas that are known to provide suitable habitat for a number of animal species, it can be assumed that wild animals would continue to be present in these adjacent wild areas following Project development. **(*Id.*)**. These animals would come into contact with the proposed development at the wildland-urban interface ("WUI") and in surrounding areas. The introduction of domestic animals would also

potentially impact sensitive wildlife species in the area, as well as more common wildlife species. Domestic cats, for instance, are particularly adept at preying on wild animals such as birds, small mammals, and reptiles. Domestic cats tend to be several times as abundant in WUI areas as all other mid-sized wild predators combined, including bobcats and foxes. In some contexts, cat predation may supersede habitat loss as a primary threat to birds' survival. Other domestic animals, such as unrestrained dogs, can harass wildlife and can thus deny wild animals from using otherwise suitable habitat. **(EIR at 5.3-49)**. However, implementation of Mitigation Measure 3-5 will reduce this potentially significant impact to less than significant levels.

b. Riparian Plant or Other Sensitive Natural Communities.

Potential Significant Impact: The EIR evaluated and concluded that the Project could have a substantial adverse effect on a 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.

Finding: Impacts related to Biological Resources are discussed in detail at Section 5.3 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that development of the Project would result in impacts to six riparian plant communities totaling 26.4 acres. Also, 168.4 acres of Riversidean sage scrub, a sensitive nonriparian plant community, would be impacted, as well as portions of the Project site within USFWS-designated habitat for the SBKR. This impact is potentially significant, but can be mitigated to a less-than-significant level through implementation of Mitigation Measures 3-6 to 3-8. These Mitigation Measures are adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

3-6 *To mitigate impacts to 168.4 acres of Riversidean sage scrub (RSS) and 26.4 acres of riparian plant communities, the project applicant shall do one of the following, or a combination thereof, prior to the issuance of grading permits: 1) acquire offsite permanent mitigation lands of like habitat as determined by the California Department of Fish and Game (CDFG); and/or 2) pay appropriate in-lieu fees to an appropriate permanent mitigation land bank as determined by CDFG. Mitigation lands must be acquired prior to the issuance of grading permits, and shall incorporate appropriate long-term management provisions, such as deed restrictions, endowments, and/or other management mechanisms to provide for the long-term conservation of the habitat. Potential properties include, but are not limited to, those managed by San Bernardino County Special Districts located in the Glen Helen, Rialto, and Rancho Cucamonga areas. Mitigation lands for riparian habitat shall be acquired at a replacement ratio of 1:1 (one acre replaced for every one*

acre impacted). Mitigation lands for RSS shall be acquired at a replacement ration of 1:3 (one acre replaced for every three acres impacted). This measure shall be implemented to the satisfaction of the Community Development Director.

3-7 All real property sold within the development shall contain within the real estate contract appropriate Covenants, Codes, and Restrictions (CC&Rs) to require only the use of approved plants on any and all parcels within the development. Approved plants are defined as those listed in the Fire Protection Plan (Firesafe Planning Solutions 2008) and incorporated into the Spring Trails Specific Plan. All plants classified as "invasive" or "noxious" by the US Department of Agriculture Natural Resource Conservation Service (NRCS) shall be specifically prohibited from use in any part of the development, unless specifically authorized within the Fire Protection Plan or the Specific Plan. Enforcement shall be instituted through the project's Homeowner's Association (HOA) and specific enforcement measures shall be provided within the HOA's charter. Enforcement measures may include, but not necessarily be limited to, the imposition of fines, liens, property-owner reimbursed removal of unauthorized plants, and/or other mechanisms. This measure must be implemented prior to the sale of the first residential lot and shall be implemented to the satisfaction of the Community Development Director.

3-8 Prior to the issuance of grading permits, the developer or his designee shall submit to the City a noxious weed control plan prepared by a qualified specialist that shall be implemented during construction of the project. The plan shall contain specific measures to be adopted to lessen or eliminate the inadvertent introduction of noxious weeds onto the site or surrounding areas. At a minimum, the plan shall incorporate each of the following requirements: 1) all construction equipment used on the site shall be thoroughly washed prior to transport to the project site; 2) cleaning and washing of equipment includes washing and/or steam cleaning of tires, undercarriages, frames, and other parts of the equipment where mud, dirt, and other debris could be located; 3) offsite cleaning areas shall be clearly identified; and 4) straw bales and other erosion control products shall be certified as "weed free". The plan shall be reviewed by a qualified third party with expertise in the field of noxious weed control. Other control measures may be added by that specialist as deemed appropriate. Following approval of the plan, the plan shall be implemented throughout the construction phase of the project and overseen by a qualified specialist at monthly intervals. During monitoring, the specialist shall have the authority to require corrective measures to assure the success of the plan. This measure shall be implemented to the satisfaction of the Community Development Director.

Facts in Support of the Finding: The Project would result in impacts to Riversidean Sage Scrub (RSS) and six riparian plant communities. The Project could also have indirect impacts on surrounding undeveloped lands. Portions of the site are located within USFWS-designated critical habitat for the SBKR. **(EIR at 5.3-49)**. The seven riparian plant communities found on the Project site are considered sensitive plant communities by CDFG, USFWS, and CNPS. Six of these communities would be impacted by the Project. In addition, the RSS found

on the site is considered a sensitive plant community, even though it is not a riparian community. **(EIR Table 5.3-5)**.

Riversidean Sage Scrub: The Project would remove nearly all of the 168.4 acres of the RSS located on the site. CDFG regards RSS as a sensitive community. Therefore, the loss of 168.4 acres of RSS would be a significant impact. If the Project site contained listed species that were dependent upon RSS for their continued viability, then the RSS on the site could be considered of high value and the mitigation required would therefore be greater. **(EIR at 5.3-49).** However, no listed species dependent upon RSS have been detected on the site. This conclusion is based on over 11 years of general habitat assessment work and numerous focused surveys. While a number of California Species of Special Concern (SSC) have been observed within the RSS areas of the site, these species are not afforded specific legal protection as are formally listed species. **(EIR at 5.3-50).** Further, RSS remains relatively abundant throughout San Bernardino and Riverside Counties, with many thousands of acres still remaining. Notwithstanding, the loss of 168.4 acres of RSS habitat is expected to displace or adversely impact some of the SSC that could occur on the Project site. However, the applicant will purchase and permanently protect RSS habitat that is biologically equivalent or superior to the 168.4 acres of onsite RSS habitat, and will provide suitable habitat for many of these species. **(Final EIR at 3-5)**. Specifically, Mitigation Measure 3-6 provides for the purchase of offsite mitigation lands and/or the payment of in lieu fees to appropriately offset the Project's impact to RSS. **(*Id.*)**. Mitigation Measure 3-6 also requires that the applicant demonstrate that suitable mitigation lands have been identified and are available for acquisition, either through direct purchase or the payment of fees. The Project applicant has identified several hundred acres of potential mitigation lands containing suitable RSS habitat along the alluvial fans of the San Bernardino and San Gabriel Mountains. These lands are available for purchase and dedication to an appropriate conservation management organization. **(*Id.*)**. This dedication and management would ensure the long-term conservation status of this sensitive habitat type in the San Bernardino Valley. It can therefore be concluded that the prescribed mitigation is feasible, and would thus mitigate the Project's impacts in this regard to less than significant levels.

Riparian Plant Communities: Seven riparian plant communities are present on the site, and six of these would be impacted by Project development. **(EIR Table 5.3-5)**. The 25.4 acres of southern sycamore-alder riparian woodland ("SSARW") present on the site are located along the upper reaches of Cable Creek and are outside of the Project footprint. Therefore, they would not be impacted by the proposed development. **(EIR at 5.3-50).** Each of the remaining six communities, totaling 26.4 acres, that would be impacted by the project represent valuable habitat and are considered high priority for conservation by CDFG, USFWS, and CNPS. Loss of these communities would represent a significant impact. Riversidean alluvial fan sage scrub is one of these riparian communities. **(*Id.*)**. Besides the direct impacts associated with Project development, indirect impacts to offsite areas of RAFSS could also result from downstream impacts to the community from the secondary access road proposed across Cable Creek. The roadway could interrupt the stream flows and the occasional scourings that are required to maintain the long-term viability of RAFSS. If these processes are interrupted, RAFSS typically begins to convert to other community types that do not offer the same habitat characteristics. **(*Id.*)**. This is especially relevant since the secondary access road areas are located in USFWS-designated critical habitat for SBKR. SBKR require the fluvial conditions that are present in properly functioning RAFFS habitat, so both RAFSS and SBKR are related in the type of conditions they require for their long-term viability. Therefore, the possible indirect loss of additional RAFSS habitat would represent a further significant impact.

Based on the Project's anticipated direct and indirect impacts on Corps, RWQCB, and CDFG jurisdictional areas, the Project applicant would be required to acquire a number of wetland disturbance permits prior to Project implementation. These permits would include a Section 404 permit from the Corps, a Section 401 permit from the RWQCB, and a Section 1602 permit from CDFG. **(*Id.*)**. In addition, consultation with the USFWS under Section 7 of the FESA would be required, because portions of the Project site are within unoccupied critical habitat for SBKR. Each of these agencies would impose mitigation measures to offset the loss of jurisdictional and habitat areas. In anticipation of these agency requirements, mitigation is recommended in this EIR to reduce the Project's impacts in this regard to less than significant levels. **(*Id.*)**. Mitigation Measure 3-6 includes

measures relating to the adoption of BMPs to avoid direct and indirect impacts to remaining riparian areas and Project design requirements to lessen impacts to offsite areas, and also requires the purchase of offsite mitigation lands and/or the payment of in-lieu fees. The mitigation further requires that the applicant demonstrate that suitable mitigation lands have been identified and are available for acquisition, either through direct purchase or the payment of fees. **(EIR at 5.3-51)**. The Project applicant has identified areas of potential mitigation lands containing suitable riparian habitat along the alluvial fans and foothills of the San Bernardino and San Gabriel Mountains. These lands are available for purchase and dedication to an appropriate conservation management organization. This dedication and management would ensure the long-term conservation status of these sensitive habitat types in the San Bernardino Valley. **(*Id.*)**. It can therefore be concluded that Mitigation Measure 3-6 is feasible, and would mitigate the Project's impacts to riparian habitats to less than significant levels. Mitigation for impacts to RAFSS habitat has already been discussed above in regards to mitigation for unoccupied critical habitat for SBKR. Since the unoccupied SBKR habitat that would be impacted by the Project is composed exclusively of RAFFS, Mitigation Measure 3-2 (which is prescribed for unoccupied SBKR habitat) would also serve to mitigate for impacts to RAFFS. **(*Id.*)**. It can therefore be concluded that impacts on the Project site associated with RAFFS would be mitigated to less than significant levels.

Invasive Plant Impacts: The Project site represents good quality habitat and a diverse mosaic of plant communities, and is unusual for its relative lack of invasive plant species. **(EIR at 5.3-51)**. Unlike other areas along the front range of the San Bernardino Mountains, the Project site has not converted to large areas of nonnative grassland. Only 11.4 acres of the Project site, or about 3 percent, has converted to this community type. The areas immediately surrounding the site, particularly in the San Bernardino National Forest, are also relatively unaffected by type conversion. The placement of a residential community into an area of native vegetation represents a potential impact to these surrounding natural areas. Nonnative species can be inadvertently introduced into native habitats in a number of ways, including: 1) the use of invasive species within the landscaping palette; 2) After construction has finished, residents can unknowingly introduce invasive species by using them for landscaping

purposes on their properties, or 3) seeds or other invasive plant parts can be inadvertently imported onto the site during construction activities. **(*Id.*)**. The first of these potential impacts can be avoided or mitigated through the selection of an appropriate plant palette that does not include species identified as invasive or otherwise undesirable. The proposed plant palette for the Project contains no federal- or state-listed invasive plants. **(See EIR Appendix G)**. One species within the proposed plant palette (*Aptenia cordifolia*) was determined to be potentially invasive based on the list contained in *Invasive Plants of California Wildlands* (Bossard et al. 2000). However, the palette specifically prohibits the use of *Aptenia cordifolia* in areas adjacent to wildlands. Rather, planned uses for the species are restricted to interior portions of the site. Since the species spreads vegetatively rather than through seed dispersal, use of the species within interior portions of the development would pose minimal risk in regards to establishment within wildland areas. **(EIR at 5.3-52)**. Mitigation Measure 3-7 will be incorporated to place restrictions on homeowners through the use the covenants, codes, and restrictions, which will be regulated through the homeowner's association to prohibit the use of known invasive plants. **(*Id.*)**. By restricting the use of recognized invasive species by homeowners, the inadvertent introduction of invasive species can be avoided. Mitigation Measure 3-8 will impose controls on activities during the construction process that could result in the transport of invasive species onto the site on vehicles and construction equipment, including the thorough washing of vehicles and equipment before they reach the site. Straw bales, erosion control products, and other potential invasive plant nexuses must be certified "weed free", in addition to a number of other requirements. **(*Id.*)**. Implementation of Mitigation Measures 3-7 to 3-8 will reduce impacts in this area to less than significant levels.

c. Jurisdictional Areas and Riparian Habitats.

Potential Significant Impact: The EIR evaluated and concluded that the Project could have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Finding: Impacts related to Biological Resources are discussed in detail at Section 5.3 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the potential for the Project to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means is potentially significant, but can be mitigated to a less-than-significant level through implementation of Mitigation Measures 3-3, 3-6 and 3-11. These Mitigation Measures are adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

3-3 To mitigate for potential impacts to hydrological processes and subsequent degradation of habitat for the federally endangered San Bernardino kangaroo rat and other sensitive species, all roadway crossings or other improvements proposed within critical habitat for the species shall be designed in such a manner as to not substantially alter the natural flow regimes through impacted sensitive habitat areas. These designs shall include, but shall not necessarily be limited to, the installation of appropriate culverts and stream crossings that allow for natural flow and uninhibited downstream hydrological processes. Design of these improvements shall be undertaken in consultation with the US Fish and Wildlife Service and other responsible agencies. This measure shall be implemented to the satisfaction of the Community Development Director prior to the issuance of grading permits.

3-6 To mitigate impacts to 168.4 acres of Riversidean sage scrub (RSS) and 26.4 acres of riparian plant communities, the project applicant shall do one of the following, or a combination thereof, prior to the issuance of grading permits: 1) acquire offsite permanent mitigation lands of like habitat as determined by the California Department of Fish and Game (CDFG); and/or 2) pay appropriate in-lieu fees to an appropriate permanent mitigation land bank as determined by CDFG. Mitigation lands must be acquired prior to the issuance of grading permits, and shall incorporate appropriate long-term management provisions, such as deed restrictions, endowments, and/or other management mechanisms to provide for the long-term conservation of the habitat. Potential properties include, but are not limited to, those managed by San Bernardino County Special Districts located in the Glen Helen, Rialto, and Rancho Cucamonga areas. Mitigation lands for riparian habitat shall be acquired at a replacement ratio of 1:1 (one acre replaced for every one acre impacted). Mitigation lands for RSS shall be acquired at a replacement ration of 1:3 (one acre replaced for every three acres impacted). This measure shall be implemented to the satisfaction of the Community Development Director.

3-11 Two known wildlife corridors are present on the project site and may be impacted by the proposed project unless mitigation is incorporated: 1) the unnamed tributary of Cable Creek that flows in an east-to-west direction in the northern third of the project site (referred to here as the Northern Corridor); and 2) the outwash of Cable Creek adjacent to the Interstate 215 freeway that is proposed to be crossed by the secondary access road (referred to here as the Southern Corridor). For these corridors, the following must occur:

Northern Corridor: *1) Native vegetation within this corridor must be restored, enhanced and maintained to the maximum extent allowed by the Fire Protection Plan; 2) riparian vegetation that provides high-quality foraging opportunities, cover, and other habitat values shall be the preferred vegetation type in this area, unless specifically prohibited by the Fire Protection Plan; 3) this area shall be the preferred location for the planting of replacement native trees as outlined in the tree replacement requirements of Mitigation Measure 3-11, unless specifically prohibited by the Fire Protection Plan; 4) the corridor shall be maintained free of fences, walls, or other obstructions; 5) any lighting associated with the project in this area, including street lights and residential lights, shall be of the minimum output required and shall be down-shielded to prevent excessive light bleed into adjacent areas; 6) any road crossings, bridges, culverts, etc., shall be constructed with soft bottoms with an openness ratio of at least 0.9 (openness ratio=height x width/length); and 7) additional recommendations as outlined in the report entitled "A Linkage Design for the San Gabriel-San Bernardino Connection" (South Coast Missing Linkages Project 2004) may be incorporated as feasible and appropriate.*

Southern Corridor: *1) Any bridge, culvert, or other road crossing structure shall be designed in such a manner as to allow for the maintenance of natural flow through the structure and downstream of the structure, as conditioned by the US Fish and Wildlife Service during the Section 7 permitting process; 2) any road crossings, bridges, culverts, etc., shall be constructed with soft bottoms with an openness ratio of at least 0.9 (openness ratio=height x width/length); and 3) additional recommendations as outlined in the report entitled "A Linkage Design for the San Gabriel-San Bernardino Connection" (South Coast Missing Linkages Project 2004) may be incorporated as feasible and appropriate.*

These measures shall be incorporated into site development plans and must be reviewed and approved prior to the issuance of grading permits. This measure does not preclude the requirement of additional mitigation that may be initiated by the US Fish and Wildlife Service, the US Army Corps of Engineers, the Regional Water Quality Control Board, or the California Department of Fish and Game during the regulatory permitting process. This measure shall be implemented to the satisfaction of the Community Development Director.

Facts in Support of the Finding: The Project would impact areas under the jurisdiction of the Corps, RWQCB, and CDFG. The Project applicant would be required to apply for relevant regulatory permits related to such impacts. The jurisdictional delineations prepared for the Project site determined that 15.85 acres are subject to U.S. Army Corps jurisdiction, and 26.65 acres are subject to CDFG jurisdiction. Impacts to U.S. Army Corps jurisdictional waters are limited to 10.56 acres, and 12.76 acres of CDFG jurisdictional areas. (EIR Appendix D8). Approximately 6.2 acres of the identified jurisdictional areas are in a potential seasonal wetland in the southern third of the site near the San Andreas Fault **(EIR Figure 5.3-3)**, which is accounted for in all of the above acreage

calculations. All 6.2 acres will be lost due to development of the Project. **(**These 6.2 acres of seasonal wetland was identified as a "problem area" because while hydrophytic vegetation and wetland hydrology were present, no apparent hydric soil indicators were present during the delineation. The approximate boundary or this potential seasonal wetland was therefore delineated based primarily on vegetation and hydrology criterion. A subsequent study of the seasonal wetland system will be conducted prior to the permitting process to verify that the feature is indeed a wetland system and to provide the additional data needed on current condition and function of the wetlands for determining wetland mitigation. With the completion of the draft 401 permit, the applicant will confer with the Water Quality Control Board regarding the adequacy of the existing CEQA documentation, and if warranted, subsequent CEQA documentation will be prepared. **(Id.)**.

The wetlands quantities listed consider all of the identified jurisdictional areas located within the Project development footprint and consider all grading and slopes proposed for development. **(EIR at 5.3-52)**. The Project applicant would be required to acquire a number of wetlands permits prior to Project implementation. These permits would include a Section 404 permit from the Corps, a Section 401 permit from the RWQCB, and a Section 1602 permit from CDFG. A Habitat Mitigation and Monitoring Plan will be prepared as part of the Section 404 permit. **(EIR at 5.3-53)**. Since the Project would impact more than 0.5 acres of Corps jurisdictional areas, the Project would be required to obtain a Section 404 Individual Permit rather than apply for clearance under the Nationwide Permit. Consultations with the USFWS under Section 7 of the ESA would also be required, as portions of the Project site are within critical habitat for SBKR. Each of these agencies would impose mitigation measures to offset the loss of jurisdictional and habitat areas. **(EIR at 5.3-53)**. In anticipation of those agency requirements, Mitigation Measures 3-3, 3-6 and 3-11 are recommended to reduce the Project's impacts in this regard to less than significant levels. **(*Id.*)**. The mitigation requires the adoption of BMPs to avoid direct and indirect impacts to remaining habitat areas, and also imposes specific design requirements to lessen additional impacts to offsite areas and to provide for the continued movement of animals through the area. The mitigation also requires the purchase of offsite mitigation lands and/or the payment of in-lieu fees.

Finally, the mitigation also requires that the applicant demonstrate that suitable mitigation lands have been identified and are available for acquisition. **(*Id.*)**. The Project applicant has identified areas of potential riparian mitigation lands containing suitable riparian habitat along the alluvial fans and foothills of the San Bernardino and San Gabriel Mountains. These lands are available for purchase and dedication to an appropriate conservation management organization. This dedication and management would ensure the long-term conservation status of these sensitive habitat types in the San Bernardino Valley. **(*Id.*)**. All mitigation for impacts to CDFG jurisdictional water will be biologically equivalent or superior in terms of value and function to offset the impacts to CDFG jurisdictional water including seasonal wetland, drainages and springs. The final requirements for mitigation will result from the 1602 Streambed Alteration Permit application process. As stated above, the City and the applicant will confer with CDFG once a draft 1602 permit is available, regarding the adequacy of the CEQA evaluation and to determine if additional CEQA documentation is needed. It can therefore be concluded that Mitigation Measures 3-3, 3-6 and 3-11 are feasible, and would thus mitigate the Project's impacts to federally-protected wetlands and riparian habitats to less than significant levels.

d. Wildlife Corridors.

Potential Significant Impact: The EIR evaluated and concluded that the Project could interfere substantially with the movement of a 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.

Finding: Impacts related to Biological Resources are discussed in detail at Section 5.3 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the potential for the Project to affect wildlife movement and wildlife nursery sites is potentially significant, but can be mitigated to a less-than-significant level through implementation of Mitigation Measures 3-9 to 3-12. Raptor foraging habitat and nesting birds would not be affected. These Mitigation Measures are adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

3-9 Implementation of Mitigation Measure 3-4 to mitigate potential impacts to sensitive species in Cable Creek shall also be applied to Impact 5.3-4.

3-10 With regard to the protection of nesting birds, one of the following must occur: 1) Construction should occur outside of the avian nesting season (approximately February 15 through August 31); or 2) If construction must occur during the nesting season, then a preconstruction nesting bird survey of the site shall be conducted by a qualified biologist no more than 14 days prior to construction activities. If active nests are found onsite, then they must be avoided by an appropriate buffer until any young birds have fledged and the nest has completed its cycle, as determined by a qualified biologist. If construction occurs outside of the avian nesting period, then construction may commence without further impediment, commensurate with other regulatory and mitigation requirements. This measure shall be implemented to the satisfaction of the Community Development Director.

3-11 Two known wildlife corridors are present on the project site and may be impacted by the proposed project unless mitigation is incorporated: 1) the unnamed tributary of Cable Creek that flows in an east-to-west direction in the northern third of the project site (referred to here as the Northern Corridor); and 2) the outwash of Cable Creek adjacent to the Interstate 215 freeway that is proposed to be crossed by the secondary access road (referred to here as the Southern Corridor). For these corridors, the following must occur:

***Northern Corridor:** 1) Native vegetation within this corridor must be restored, enhanced and maintained to the maximum extent allowed by the Fire Protection Plan; 2) riparian vegetation that provides high-quality foraging opportunities, cover, and other habitat values shall be the preferred vegetation type in this area, unless specifically prohibited by the Fire Protection Plan; 3) this area shall be the preferred location for the planting of replacement native trees as outlined in the tree replacement requirements of Mitigation Measure 3-11, unless specifically prohibited by the Fire Protection Plan; 4) the corridor shall be maintained free of fences, walls, or other obstructions; 5) any lighting associated with the project in this area, including street lights and residential lights, shall be of the minimum output required and shall be down-shielded to prevent excessive light bleed into adjacent areas; 6) any road crossings, bridges, culverts, etc., shall be constructed with soft bottoms with an openness ratio of at least 0.9 (openness ratio=height x width/length); and 7) additional recommendations as outlined in the report entitled "A Linkage Design for the San Gabriel-San Bernardino Connection" (South Coast Missing Linkages Project 2004) may be incorporated as feasible and appropriate.*

***Southern Corridor:** 1) Any bridge, culvert, or other road crossing structure shall be designed in such a manner as to allow for the maintenance of natural flow through the structure and downstream of the structure, as conditioned by the US Fish and Wildlife Service during the Section 7 permitting process; 2) any road crossings, bridges, culverts, etc., shall be constructed with soft bottoms with an openness ratio of at least 0.9 (openness ratio=height x width/length); and 3) additional recommendations as outlined in the report entitled "A Linkage Design for the San Gabriel-San Bernardino Connection" (South Coast Missing Linkages Project 2004) may be incorporated as feasible and appropriate.*

These measures shall be incorporated into site development plans and must be reviewed and approved prior to the issuance of grading permits. This measure does not preclude the requirement of additional mitigation that may be initiated by the US Fish and Wildlife

Service, the US Army Corps of Engineers, the Regional Water Quality Control Board, or the California Department of Fish and Game during the regulatory permitting process. This measure shall be implemented to the satisfaction of the Community Development Director.

Facts in Support of the Finding: The Project would result in impacts to an area that is used by a number of species for nursery sites, foraging, and movement. The Project site also provides habitat for nesting birds and marginally suitable habitat for foraging raptors. **(EIR at 5.3-53)**. There is substantial evidence to indicate that the Project site serves as a corridor for a wide variety of wildlife species. Such areas are usually considered significant when they are determined to be of regional importance or otherwise contribute to regional conservation goals. The Project site can be considered to be composed of two principal parts in regard to wildlife movement. The first component is Cable Creek, which serves as an obvious corridor since it contains perennial water, adequate cover and food resources, and allows for the unimpeded movement of animals between higher and lower elevations. The riparian areas of Cable Creek are not planned for development, so the use of this corridor by wildlife would not be significantly impacted as a result of the proposed Project. **(*Id.*)**. The exception to this is at the southern end of the site, where the outwash of Cable Creek would be crossed by the secondary access road. This roadway and associated culverts and drainage improvements could create a barrier to wildlife where currently no barrier exists. However, the roadway would be relatively narrow and can be designed in such a manner so that wildlife movement is not substantially impeded. In addition, the roadway would be constructed in USFWS-designated critical habitat for SBKR. **(*Id.*)**. Furthermore, as part of the consultation process, USFWS would impose mitigation aimed at reducing the impact of the roadway on SBKR. These requirements would likely result in a positive benefit for other wildlife species as well. Therefore, mitigation required as part of this process would reduce the Project's impact to wildlife movement within Cable Creek to less than significant levels. **(EIR at 5.3-54)**.

In anticipation of these agency requirements, Mitigation Measures 3-9 and 3-12 will be incorporated to reduce the Project's impacts in this regard to less than significant levels, and include specific design requirements aimed at allowing the unrestricted movement of wildlife within the lower portion of Cable Creek. **(*Id.*)**. With implementation of these

measures, the Project's impact in regard to the secondary access road crossing at Cable Creek would be less than significant. The second component relating to wildlife movement deals with wildlife movement across the site in an east-to- west direction and vice-versa. While the Cable Creek corridor on the western side of the site provides movement along a relatively narrow corridor in a north-to-south direction, the Project site itself provides lateral movements through a much wider area and across the base of the mountain front. **(*Id.*)**. This impact could be considered significant, because the Project would effectively create a substantial barrier to wildlife movement across a large area. This potential impact can be mitigated by retaining and/or improving existing areas on the Project site that are conducive to wildlife movement. The large tributary that crosses the northern third of the site provides the most effective avenue for wildlife movement across the site. **(EIR Figure 5.3-2).** This is due to the fact that the areas on both sides of the property at this point are essentially natural in composition and therefore allow animals to move across the site without having to navigate substantial human-made barriers. The tributary also affords movement into and out of Cable Creek and thus to areas both to the north and south of the site. Other portions of the Project area, especially the southern two-thirds of the site, do not offer these benefits. Those areas are somewhat blocked on the west by existing development, and they do not contain streams or other features that would be attractive to wildlife in terms of movement. **(EIR at 5.3-54)**. Retaining and/or improving this corridor would represent the greatest benefit to wildlife in terms of lateral movement across the site. The tributary offers specific characteristics, such as cover and foraging resources which make it especially suitable for wildlife movement. **(*Id.*)**.

In response to EIR comments received from CDFG, a barrier will also be constructed that will isolate Cable Creek from the development of the Project, and ensure that the biological integrity of Cable Creek as riparian habitat and a wildlife corridor is maintained. Care will be taken in selecting the barrier in an effort to preclude creating an attractive nuisance that could attract domestic dogs and cats and other small mammals that constitute a food source for top predators. **(EIR at 5.3-61)**. The barrier will be installed at the outer limits of the California Walnut Woodland that surrounds Cable Creek at its interface with the RSS Habitat on the

hillsides above the canyon bottom. This will provide a buffer of approximately 300 feet inside the barrier fence that will be located on either side of Cable Creek. This combination of a barrier and buffer should protect the natural resources associated with the use of Cable Creek as well as the wildlife movement corridor that found in association with Cable Creek. The applicant also evaluated the possibility of not developing north of Cable Creek and constructing a barrier on the south side of Cable Creek, isolating the riparian, RSS and chaparral habitats north of Cable Creek from the development. However, this would result in the loss of 24 estate lots from the development, and would not be economically viable as the result of the substantial infrastructure that is required for the development of the site, The project requires substantial infrastructure costs in terms of utilities, fire suppression, and roadways, in addition to the amenities included in the overall Specific Plan. Specifically, the project must acquire and develop both primary and secondary access roads, water tanks for fire suppression, utilities including water, sewer and electricity, as well as include fire protection and fire barriers at substantial cost to the project. These costs are in addition to mitigation requirements and the acquisition of mitigation lands. The infrastructure requirements create a substantial burden on the project and decrease the "per lot" ratio of return substantially with the elimination of each lot. Elimination of the 24 lots does not reduce the overall burdens of infrastructure costs and mitigation requirements for the Project, but reduces the rate of return by 9%.

In sum, with implementation of the barrier and Mitigation Measures 3-9 to 3-12, the Project's impact to wildlife corridors would be less than significant.

Wildlife Nursery Sites: There is substantial evidence to indicate that the site provides habitat that is suitable for use as a wildlife nursery site. **(*Id.*)**. Based on a number of observations over the years, the use of the site as a nursery site by mule deer is reasonably well established. Other species may utilize the site for this purpose as well, but this has not been observed or confirmed. Regardless, development of the Project site would disallow its continued use as a nursery site by mule deer. In determining whether or not the loss of this nursery site would constitute a significant impact, the species making use of the site must be considered. If a sensitive or listed species were known to

use the area as a nursery site, then the loss of the site would be more problematic than if it were used by more common species. For this site, no sensitive or listed species has been observed using the site for nursery purposes. Mule deer are the only species that have been positively confirmed to use the area for this purpose, though it is likely that a number of other species, such as small mammals and birds, use the site for this purpose as well. None of these species, however, is a listed or sensitive species. **(EIR at 5.3-55)**. Mule deer is a common species that is not regionally or locally threatened or endangered. The species occurs in great quantities throughout the region and western North America. Statewide, CDFG considers mule deer to be common and abundant. In 2008, CDFG issued 237,083 deer hunting tags statewide and an estimated 29,612 animals were harvested. In Deer Hunt Zone D14, (the CDFG management zone in which the Project is located), CDFG and USFS consider mule deer populations to be stable or slightly declining. It is therefore reasonable to conclude that mule deer populations within the San Bernardino Mountains will be stable or perhaps even increase over the next several years. **(*Id.*)**. CDFG manages mule deer through a number of means, the most well-known of which is hunting. Hunting is used as a tool to control species populations and to avoid overstocking within particular areas. The proposed Project site is located within CDFG Deer Hunt Zone D14, which is a zone that covers all of the San Bernardino Mountains portion of the SBNF as well as some peripheral areas. For at least the last decade, CDFG has maintained a hunt tag quota of 3,000 for Zone D14. This overall stability in CDFG's management of mule deer in the San Bernardino Mountains is consistent with the agency's determination that the mule deer population in the area is relatively stable. **(*Id.*)**. Considering the overall abundance and the relative stability of mule deer populations in the area, it is reasonable to conclude that the loss of the nursery area on the Project site would be unlikely to result in anything but a negligible decline in the overall population of mule deer in the region, or even in this portion of the San Bernardino Mountains. The Project site is surrounded on three sides by the SBNF, which provides substantial open space opportunities for use as alternative nursery sites by mule deer. In addition, the Project would continue to maintain Cable Creek as an undisturbed perennial water source and wildlife corridor. Since a lack of perennial water is a major limiting factor in the maintenance of mule deer populations, the conservation of this

watercourse would provide a substantial benefit to mule deer. Accordingly, the loss of this nursery site for mule deer would be less than significant. However, to avoid direct impacts to mule deer during the fawning season, Mitigation Measure 3-12 is recommended to lessen the potential for impacts to mule deer during initial grubbing and vegetation clearing, and includes specific requirements for scheduling vegetation clearing outside of the mule deer fawning season. **(*Id.*)**.

Nesting Birds: The Project site provides suitable habitat for a wide variety of nesting bird species. **(EIR at 5.3-56)**. Breeding season typically runs from mid-February through late August. Ideally, ground-disturbing activities should take place outside of the breeding season, and doing so would reduce the Project's impact to nesting birds to less than significant levels. **(*Id.*)**. If this is not possible and it is necessary to conduct ground-disturbing activities during the breeding season, then appropriate pre-construction surveys should be initiated in accordance with Mitigation Measure 3-10 to determine the presence or absence of nesting birds prior to construction. **(*Id.*)**. Compliance with Mitigation Measure 3-10 would reduce the Project's impact to less than significant.

Raptor Foraging Habitat: The Project site lacks expansive grassland habitat and is for the most part dominated by dense Riversidean sage scrub and chaparral. **(*Id.*)**. These habitats do not provide particularly favorable conditions for foraging raptors due to the lack of prey visibility. It is estimated that suitable raptor foraging habitat is restricted to 12.5 acres of open grassland habitat. It can therefore be concluded that the site provides only marginally suitable foraging habitat for raptors and that these species would be more likely to rely on other areas for the majority of their foraging. Accordingly, the Project would not result in a significant impact to raptor foraging habitat. **(EIR at 5.3-56)**.

e. Conflict with Local Policy, Ordinance or Habitat Conservation Plan.

Potential Significant Impact: The EIR evaluated and concluded that the Project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or conflict with the provisions of an adopted habitat Conservation Plan, Natural Community

Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Finding: Impacts related to Biological Resources are discussed in detail at Section 5.3 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the potential for the Project to conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or to conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan is potentially significant, but can be mitigated to a less-than-significant level through implementation of Mitigation Measures 3-13 to 3-14. These Mitigation Measures are adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

3-13 Significant tree resources that are removed from the site during project development shall be replaced at a 1:1 ratio or at the exchange ratios specific below. Significant tree resources are defined as any native or nonnative ornamental tree—excluding species of the Eucalyptus genus—that is healthy, structurally sound, and over 20 feet in height. For California black walnut (Juglans californica var. californica), all specimens of the species shall be regarded as significant, regardless of size or height. Prior to the issuance of grading permits, a certified arborist shall conduct an inventory of all significant trees within the development footprint. This inventory shall be used to determine the number and types of significant trees that will be impacted and the subsequent replacement quantities. The number of replacement trees shall be, at a minimum, 220 trees. Should the aforementioned inventory determine that a greater number of significant trees will be impacted, then that quantity shall be used in determining replacement quantities. For purposes of replacement ratios, the following exchange ratios shall be used: 1) one 36-inch box tree is equivalent to one replacement tree; 2) five 15-gallon trees are equivalent to one replacement tree; 3) 10 five-gallon trees are equivalent to one replacement tree; and 4) 15 one-gallon trees are equivalent to one replacement tree.

During the development of the project, the project applicant shall incorporate the recommendations as set forth in the project arborist report (Integrated Urban Forestry 1998). A certified arborist shall be retained at the developer's expense to oversee the implementation of these requirements and to specify other requirements as deemed appropriate. The measures to be followed include, but are not limited to, specified protocols for the following: 1) the removal of nonnative trees from the site; 2) the removal and transplantation, when feasible, of structurally sound and healthy native trees to other areas of the project site; 3) the installation of tree protection barriers on all trees to be preserved that are within the reach of vehicles and equipment; 4) tree protection training of construction personnel by a certified arborist; 5) irrigation of trees where the natural water supply is interrupted or diminished or where protected trees may require additional water to endure construction-induced stresses; 6) subsequent replacement of any trees that are damaged or have not survived transplantation and relocation; and 7) implementation

of the tree replacement plan, as outlined in the first paragraph of this measure. This measure shall be implemented to the satisfaction of the Community Development Director.

3-14 Prior to the commencement of ground-disturbing activities, the developer shall retain the services of qualified specialists, approved by the City, to oversee the long-term effectiveness of the biological resources mitigation required in this EIR. When appropriate, the services of these specialists may be combined so long as the person(s) so employed possess the requisite training and skills necessary to effectively carry out their duties to professional standards. Those specialists shall conduct reviews of the project site for a minimum of five years, as measured from the day of beginning of initial ground disturbance. Reviews shall be conducted, as applicable, on a monthly basis for the first year following initiation, on a quarterly basis during the second and third years, and on an annual basis during the fourth and fifth years. The intensity of monitoring may be increased or the monitoring period extended if the City or relevant Responsible Agency (i.e., CDFG, USFWS, RWQCB, etc.) determines that conditions on the ground warrant such action. The qualified specialists to be retained and the nature of their duties are as follows:

Biologist: A qualified biologist shall monitor the effectiveness of Mitigation Measures 3-1, 3-2, 3-4, 3-6, 3-10, 3-11, 3-12, and 3-14.

Noxious/Invasive Plant Control Specialist: A person who is qualified in the field of noxious plant management and control shall monitor the effectiveness of Mitigation Measures 3-7 and 3-8.

Arborist: A certified arborist shall monitor the effectiveness of Mitigation Measure 3-13.

Hydrologist/Stormwater Control Specialist: A qualified hydrologist and/or stormwater control specialist shall monitor the effectiveness of Mitigation Measures 3-3, 3-4, and 3-6.

Following each monitoring session, these specialists shall file brief reports with the Community Development Director concerning the effectiveness of the prescribed mitigation. The specialist shall identify and call out any corrective actions required to assure that the purposes of the mitigation are being effectively pursued. The developer shall comply with any corrective measures so prescribed. Monitoring may cease if the qualified specialist determines that the terms of the mitigation have been satisfactorily implemented and that further monitoring is no longer required. This measure shall be implemented to the satisfaction of the Community Development Director.

Facts in Support of the Finding: The City of San Bernardino has adopted a tree ordinance that regulates the removal and replacement of native and nonnative trees that are impacted by development. City General Plan policies and goals would also apply to the site. **(EIR at 5.3-56)**. Development of the Project would result in the removal of approximately 2,400 trees. The majority of native trees are located within and around Cable Creek or in

the northern portion of the site, and are not within the development footprint. **(See EIR Table 5.3-3; Figure 5.1-1)**. These trees would not be impacted by the Project. Of the approximately 2,400 trees within the development footprint, only about 220 of these (less than 1 percent) are native species, mostly walnut and sycamore. Impacts to California Walnut Woodland will be limited to 2.1 acres as the Project is currently proposed, and there are sufficient acres of California Walnut Woodland in the area to adequately mitigate for the loss of the 2.1 acres of this sensitive habitat. The majority of the trees requiring removal are part of a remnant eucalyptus plantation (approximately 2,170 trees). The remaining nonnative trees that would be removed consist of approximately 10 ornamental nonnative trees. **(EIR at 5.3-56)**. Eucalyptus presents a specific problem for this site because they are nonnative and present a severe fire hazard. A great many of the trees are in poor condition and were classified as hazard trees in the arborist reports within the EIR. Eucalyptus trees are extremely flammable and in many areas are considered nuisance species. The Fire Protection Plan prepared for the Project mandates that all eucalyptus on the site be removed. These trees were originally planted as part of a cultivated eucalyptus plantation, primarily for the purpose of fuel wood production. Since tree plantations are specifically exempted from the mitigation requirements of the City of San Bernardino Tree Ordinance, replacement of these trees is not required. **(EIR at 5.3-57)**. While eucalyptus can provide suitable nesting locations for raptors and other birds, their marginal biological value must be weighed against the hazards they present to public safety and their ability to carry wildfire to developed areas and surrounding wildlands. Based on these considerations, the removal of the eucalyptus on the Project site can be considered an overall benefit to the area, and therefore a less than significant impact.

Conversely, native trees provide specific natural resource value in that they provide nesting habitat for raptors and cover and foraging habitat for other avian species, and they are important components of the natural ecosystem. **(*Id*.)** The trees are also aesthetically pleasing and therefore constitute an important resource in this regard. The City's Tree Ordinance requires that "significant" trees be mitigated. In determining what constitutes a significant tree, the initial arborist report prepared for the site determined that healthy, structurally sound, native and ornamental trees over 20 feet

in height be considered significant. Approximately 220 trees on the site met these criteria during the 1998 tree inventory. The removal of these trees during Project development would be considered a potentially significant impact, and thus subject to the mitigation requirements of the City's Tree Ordinance. **(*Id.*)** Since the initial inventory of trees on the site is over 12 years old and the exact count of significant trees may have changed, Mitigation Measure 3-13 is incorporated to require an updated inventory of tree resources within the Project footprint. Mitigation Measure 3-13 requires that specific management recommendations contained in the arborist reports be implemented. These recommendations include protocols for removal and relocation of native trees, tree protection during construction, and the preservation of specific trees on the Project site. Performance measures are provided to mandate replacement ratios and the types and sizes of specimens required to meet the terms of the mitigation. Specifically, all trees will be replaced at a 1:1 ratio, with a minimum of 220 trees replaced. All tree replacement will be done in compliance with recommendations set forth in the two arborist reports prepared for the Project, and as directed by the City's Heritage Tree Ordinance. Measures are also included to mandate improvements to tree resources in specific areas of the site. **(*Id.*)** Implementation of Mitigation Measure 3-13 would comply with the City of San Bernardino Tree Ordinance and would reduce the Project's impacts in this regard to less than significant levels.

City of San Bernardino General Plan: The City's General Plan provides a number of goals and policies directed toward the conservation of biological resources. The goals and policies generally center around three principal areas: 1) General conservation goals and special requirements for development within Biological Resource Management Areas ("BRMAs") (Goal 12.1); 2) Protection of riparian areas (Goal 12.2); and 3) The conservation of open space and other priority areas (Goal 12.3).

General Plan Goal 12.1 contains policies that require developments to be designed in a manner that is sensitive to unique biological resources, and it also prescribes specific conditions for developments proposed within BRMAs. According to Figure NRC-2 of the General Plan, the project site is located within a BRMA. To be consistent with the General Plan, projects in BRMAs must submit biological

resource assessments and other information that identifies the proposed project's impacts on sensitive biological resources. **(EIR at 5.3-57)**. The Spring Trails Project site has been the subject of numerous technical studies over the last decade. As such, the Project is consistent with this requirement. Projects within BRMAs are required to identify mitigation measures to eliminate significant adverse impacts to sensitive biological resources. **(*Id.*)**. As discussed above, a number of mitigation measures have been identified for the Project, and upon implementation of these measures no significant impacts remain. Therefore, the Project is consistent in this regard as well. Projects within BRMAs are required to define a plan to monitor the effectiveness of prescribed mitigation. The establishment of such a monitoring program is prescribed as Mitigation Measure 3-14 for this Project, which includes requirements for annual surveys for a minimum of five years after project development, actions to be taken if certain performance measures are not met, and methods for overseeing the monitoring program. **(EIR at 5.3-58)**. With implementation of Mitigation Measure 3-14, the Project is consistent with this policy of the General Plan. Finally, the policies within Goal 12.1 require that projects consider and discuss the restoration of significant habitats. While the General Plan is not particularly clear on this issue, it appears that the intent of the policy is to provide for the restoration of habitats that have been degraded or otherwise historically altered through human activity. This policy does not particularly apply to this Project, since the bulk of the habitat on the site is intact and is not degraded. **(*Id.*)**. Regardless of the policy's intent, the Project as designed and mitigated would improve specific areas of habitat within the Project area. Most notably, the mitigation prescribed for wildlife corridor conservation also includes requirements to improve habitats in those areas. Improvements include the planting and maintenance of additional native vegetation to enhance wildlife foraging and movement areas. In addition, the most significant habitat on the Project site, the riparian areas of Cable Creek, would be preserved and would not be impacted by the Project's development. Finally, the Project applicant would be required to purchase offsite mitigation lands or pay in-lieu fees for the permanent preservation of sensitive wildlife habitat within the region. **(*Id.*)**. Based on these considerations, it is thus reasonable to conclude that the Project meets and exceeds the overall goals of the policy.

General Plan Goal 12.2 contains policies that pertain to the conservation of riparian resources. The goal also contains directives on what activities are specifically allowed to occur within riparian areas. **(*Id.*)**. The General Plan specifies that development and grading within 50 feet of riparian corridors is prohibited unless no feasible alternative exists. In the case of the Spring Trails Project, the riparian corridor of Cable Creek lies outside of the Project footprint. **(*Id.*)**. In regard to the hiking and equestrian trail that is planned for this area, Mitigation Measure 3-4 (discussed above) imposes specific restrictions on the trail's proximity to the creek as well as other design requirements to protect riparian resources. Two other riparian corridors on the site would be spanned by roadways. However, Mitigation Measure 3-11 for these bridges and/or culverts will minimize impacts to riparian areas, and requires the enhancement of the large area of riparian vegetation that crosses the northern third of the site. These enhancements would allow for the onsite conservation of this area and provide opportunities for wildlife movement within this corridor. **(*Id.*)**. Based on each of these mitigation requirements, together with other Project design features, the Project would be in compliance with all General Plan policies relating to the conservation of riparian areas.

General Plan Goal 12.3 provides directives as to types of habitats that are considered a high priority for long-term preservation. The goal specifically calls out the City's desire to preserve the riparian corridor of Cable Creek. Since the Project would permanently conserve the Cable Creek corridor, the Project is consistent with the General Plan in this regard. **(*Id.*)**. The plan also specifies other high priority habitat types, including endangered species habitat, alluvial scrub vegetation, riparian vegetation, and native walnut woodlands. The Spring Trails Project would provide for the conservation of each of these resource types, either through onsite conservation and/or enhancement, or through the purchase and dedication of offsite mitigation lands. **(EIR at 5.3-59)**. Therefore, it can be determined that the Project is consistent with the General Plan in this regard. In sum, incorporation of Mitigation Measures 3-13 to 3-14 will reduce impacts in this area to less than significant levels.

2. **Cultural Resources.**

a. Archeological Resources.

Potential Significant Impact: The EIR evaluated and concluded that the Project could cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5.

Finding: Impacts related to Cultural Resources are discussed in detail at Section 5.4 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant but can be mitigated to a less than significant level through the implementation of Mitigation Measures 4-1 to 4-3. These mitigation measures are adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

4-1 Preconstruction archaeological testing by a qualified archaeologist is required to evaluate the significance of historic Cable Canyon Ranch. A qualified archaeologist must be present for grubbing, devegetation, and demolition of the spring, remnant stone structure, and fence to protect resources that may be revealed by these activities. Subsequent to vegetation removal but before construction, the archaeologist will perform controlled mechanical excavation inside and outside the house area to locate features present below the ground surface. Once located, the archaeologist should develop a formal treatment plan (plan of work including research questions to be answered and containing an agreement with an accredited repository). Excavation of subsurface features can include additional mechanical excavation or hand excavation as warranted by the features. Discovery of features and recovery of archaeological materials will require extensive sampling, documentation, laboratory work, identification, analysis, and interpretation. The final report should include formal evaluation and significance assessment of each feature and the project catalog and be filed with the City, the San Bernardino Archaeological Information Center, and the repository (San Bernardino County Museum recommended). The site records should also be updated.

4-2 If testing determines that the Cable Canyon Ranch complex meets significance criteria, then preconstruction archaeological data recovery excavations by a qualified archaeologist is required to mitigate the adverse impacts of construction on historic Cable Canyon Ranch. The archaeologist should develop a formal data recovery plan (plan of work including research questions to be answered and containing an agreement with an accredited repository). Excavation of subsurface features can include additional mechanical excavation or hand excavation as warranted by the features. Discovery of features and recovery of archaeological materials will require extensive sampling, documentation, laboratory work, identification, analysis, and interpretation. The final report should include the project catalog and be filed with the City, the San Bernardino Archaeological Information Center, and the repository (San Bernardino County Museum recommended). The site records should also be updated.

4-3 Construction grading in and around the Cable Canyon Ranch complex must be monitored by a qualified archaeologist to ensure that any subsurface features or refuse deposits that were not located during previous phases of archaeological work are found and evaluated. The City should refuse to issue a final occupancy permit until all mitigation is demonstrated to have been performed, including curation of the project documents and artifacts.

Facts in Support of the Finding: Eight (8) historical archeological resources were recorded within the Project area. **(EIR at 5.4-12)**. A spring reported to have associated water features was noted in earlier surveys, but obscured by vegetation in recent surveys. Most of the resources do not meet significance criteria under CEQA. **(EIR Table 5.4-1)**. However, some sites have potential to have subsurface components that would yield information new to history. These sites require further investigation. Should those investigations yield CRHR-eligible archaeological materials, then destruction of those resources as a result of Project construction would be a significant impact. The potentially significant resources are expected subsurface privies and trash features associated with Cable Canyon Ranch, in addition to both surface and possibly subsurface water features associated with the Cable Canyon Ranch spring. **(EIR at 5.4-12)**. Mitigation through archaeological data recovery as prescribed by Mitigation Measures 4-1 to 4-3 would reduce impacts in this area to less than significant.

b. Paleontological Resources of Unique Geological Feature.

Potential Significant Impact: The EIR evaluated and concluded that the Project could directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

Finding: Impacts related to Cultural Resources are discussed in detail at Section 5.4 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant but can be mitigated to a less than significant level through the implementation of Mitigation Measure 4-4. This mitigation measure is adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

4-4 Cultural resources sensitivity training is required for all earth-moving personnel. This training will review the types of archaeological and paleontological resources that might be found, along with laws for the protection of resources. In the event of an unanticipated discovery, all work must halt within a 30-foot radius of the find. Work may not continue until the find has been evaluated by a qualified archaeologist or paleontologist, depending

on the nature of the discovery. All discoveries require scientific samples and documentation, including a final report.

Facts in Support of the Finding: According to the Cogstone Study **(EIR Appendix E)**, there are several sedimentary formations that are old enough to contain the remains of extinct Pleistocene animals; however, these sediments are so coarse that they are not conducive to the preservation of significant fossil resources. **(EIR at 5.4-13)**. Additionally, the survey found no signs of any paleontological resources within the Project area. However, an unanticipated discovery of paleontological resources during grading and excavation of the site could occur and result in paleontological resource impacts if not mitigated. Therefore, Mitigation Measure 4-4 will be incorporated to require cultural resources training for all earth-moving personnel, and will reduce impacts in this area to a less than significant level.

c. Disturbance of Human Remains.

Potential Significant Impact: The EIR evaluated and concluded that the Project could disturb human remains, including those interred outside of formal cemeteries.

Finding: Impacts related to Cultural Resources are discussed in detail at Section 5.4 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant but can be mitigated to a less than significant level through the implementation of Mitigation Measures 4-5 and 4-6. These mitigation measures are adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

4-5 The applicant shall implement one of the mitigation measures outlined below to address anomalies found at the presumed location of the Meyers Family Cemetery. The applicant shall consult with the Meyers family descendants in the selection of the appropriate mitigation options for the Meyers Family Cemetery in conjunction with the proposed development. It shall be a high priority to implement an option that most closely meets the desires of the family to the extent feasible under the final approved development and grading plans. In the event the final development and grading permits do not require grading or other disturbance of the anomaly sites, one of the following mitigation measures shall be implemented:

1. The burial site anomalies/remains shall remain undisturbed. This can be accomplished either by complete avoidance of the project area or alternatively by "capping" the site. Capping the site would involve scraping existing vegetation and

providing up to two feet of compacted fill material over the site. No activity under this option shall excavate lower than one foot below grade to remove existing vegetation or soil. Replacement vegetation may be placed for future open space such as a park. Plans to cap the site shall be prepared and reviewed/approved by a certified archaeologist prior to the disturbance of the cemetery site surface. In addition, a covenant in the deed shall restrict any future excavation within 25 feet of the anomalies.

2. *The applicant shall coordinate with the Meyers family to facilitate excavation of the anomalies to determine if they represent coffins and, if so, to coordinate reburial at a private or public cemetery to be determined by the family. Under this option, preconstruction archaeological testing by a qualified archaeologist is required. The archaeological testing must consist of mechanical excavation of overburden and hand excavation near the anomalies to determine if they represent coffins. The excavation shall occur under the supervision of a certified archaeologist and a Meyers family representative. If the anomalies are demonstrated not to contain coffins, no further work will be required. If coffins are present, the family shall determine the desired deposition. This may include transfer of the undisturbed coffins for reburial or option 3 below. The applicant shall be responsible for the transport of relocating the remains for the family. If desired by the family, the applicant shall also be responsible for funding a family memorial plaque near to the original burial site. In the event the site is not avoided as part of the final development and grading permits, and testing demonstrates that coffins are, in fact, present, the applicant shall implement option 2 or option 3 below:*

3. *A qualified archaeologist shall develop a formal treatment plan (plan of work including research questions to be answered). The excavation team shall include a qualified osteologist. Excavation may include mechanical excavation of overburden and hand excavation of human skeletal materials. The treatment plan should include an agreement with the Meyers family as to the disposition of any human skeletal remains. A final report shall include formal evaluation and the project catalog and be filed with the City and the San Bernardino Archaeological Information Center. The site record should also be updated.*

4-6 If human remains are discovered at any time, the applicant shall follow guidelines addressed in California Health and Safety Code Section 7050.5. This requires that work in the vicinity must halt and the county coroner must be notified immediately. If the remains are determined to be Native American, the coroner will contact the Native American Heritage Commission. All discoveries require verification and documentation, including a final report.

Facts in Support of the Finding: The Native American Heritage Commission was contacted, and no sacred land was identified on the Project site. **(EIR at 5.4-13)**. However, the Meyer Family Cemetery site has been located using geophysical investigation, and two

graves appear to be present. It is unknown whether the rectangular areas represent intact graves or removal excavations. Human skeletal remains are considered significant under CEQA for potential to yield information new to history, and the Project site requires further investigation. **(*Id.*)**. Should those investigations yield CRHR-eligible archaeological materials, any destruction of those resources as a result of Project construction would be a significant impact. Thus, mitigation through archaeological data recovery as prescribed by Mitigation Measures 4-5 and 4-6 will be incorporated in order to reduce impacts to less than significant.

d. Cumulative Impacts.

Potential Significant Impact: The EIR evaluated and concluded that the Project could result in cumulative impacts to Cultural Resources.

Finding: Impacts related to Cultural Resources are discussed in detail at Section 5.4 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant but can be mitigated to a less than significant level through the implementation of Mitigation Measures 4-1 to 4-6, as discussed above. These mitigation measures are adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing potentially significant cumulative impacts to a less than significant level:

Facts in Support of the Finding: Future construction projects in the City of San Bernardino are required to undergo environmental review. **(EIR at 5.4-14)**. If there is a potential for significant impacts on cultural or paleontological resources, an investigation would be required to determine the nature and extent of the resources and identify appropriate mitigation measures. **(*Id.*)**. Neither the Project nor cumulative development in accordance with the City's General Plan is expected to result in significant impacts to cultural or paleontological resources, provided site-specific surveys and test and evaluation excavations are conducted to determine whether the resources are unique archaeological or historical resources and appropriate mitigation is implemented prior to grading. **(*Id.*)**. Implementation of the appropriate mitigation measures would reduce cumulative impacts to a less than significant level.

3. **Geology and Soils.**

a. Exposure of People or Structures to Potential Adverse Effects.

Potential Significant Impact: The EIR evaluated and concluded that the Project could expose people or structures to potential adverse effects from rupture of a known earthquake fault, strong ground shaking, or seismic-related ground failure such as liquefaction and settlement.

Finding: Impacts related to Geology and Soils are discussed in detail at Section 5.5 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant, but can be mitigated to a less than significant level through the implementation of Mitigation Measures 5-1 to 5-3. These mitigation measures are adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

5-1 Prior to recordation of final maps, additional fault studies shall be conducted to the satisfaction of the geotechnical consultant of record on the project and the City Engineer. These studies shall include:

1. Trenching across Splay E to locate the splay and gauge its activity in order to determine the required width of setbacks from the splay.

2. A trench across Splay A in the western part of the site to confirm the location of the splay in that part of the site and to aid in determining the width of required setbacks from the splay.

3. A trench between Splays A and B in the central part of the site. If the geotechnical consultant recommends expanded or modified setbacks from faults based on the findings of such additional studies, then the project will be required to comply with such setbacks, and any lots that would not be developable according to the development standards of the Specific Plan will be eliminated prior to recordation of TTM 15576 or the associated phase of TTM 15576.

5-2 Prior to recordation of final maps, a detailed design-level geotechnical investigation report shall be prepared and submitted with engineering grading plans to further evaluate liquefaction, seismic settlement, lateral spreading, subsidence, collapsible soils, corrosive soils, slope stability including earthquake-induced landslides, and other geotechnical constraints and provide site-specific recommendations to address such conditions, if determined necessary. The geotechnical reports shall be prepared and signed/stamped by a Registered Civil Engineer specializing in geotechnical engineering and a Certified Engineering Geologist. The project will be required to comply with any recommendations that are made in the report of such investigation.

5-3 For each phase of the project, at the completion of grading and before project construction begins, final geotechnical testing for corrosive soils and expansive soils shall be conducted. A final geotechnical report for the relevant phase shall be prepared and signed/stamped by a Registered Civil Engineer specializing in geotechnical engineering and a Certified Engineering Geologist. Such report shall contain recommendations to address corrosive soils and expansive soils, as determined necessary. The project will be required to comply with any recommendations that are made in the report of such investigation.

Facts in Support of the Finding: Five splays, or lineaments, of the San Andreas Fault have been identified onsite. Four of these splays are within Alquist-Priolo Fault Zones. **(EIR 5.5-22)**. Fault trenching studies onsite found evidence that three lineaments, A, B, and C, are active splays of the fault. The onsite segments of Lineaments A, B, and C are within an Alquist-Priolo Earthquake Fault Zone that covers much of the southern half of the site. The fourth lineament, lineament E, is within a second Alquist-Priolo Earthquake Fault Zone near the northwest corner of the site and part of the fifth lineament, lineament D, partially runs through the eastern edge of the Project site, not in an Alquist-Priolo Fault Zone. **(EIR Figure 5.5-3)**. Lineaments E and D are not thought to be active fault splays. Setbacks extending 50 feet from each side of the three active lineaments have been designated so that no structures would be built in the setbacks. Pursuant to Mitigation Measure 5-1, additional investigation will be conducted to confirm findings in the geotechnical studies prepared for the Project, and trenching on the western part of Lineament A where trenching studies were not done previously in 1995. In addition, setbacks recommended by the Project geotechnical consultant would be incorporated into the project design; compliance with such recommendations would be required conditions of approval by the City of San Bernardino.

The San Andreas Fault passes through the Project site, and several other faults in the region could potentially generate strong ground shaking at the site. **(EIR at 5.5-23)**. The intensity of ground shaking used for the purpose of structural design is derived from the California Building Code ("CBC"), which contains seismic safety requirements for structures that will be adhered to for this Project. Seismic safety provisions in the CBC are developed with the intent that most structures would remain standing during and after an earthquake so that occupants would be able to evacuate, although many structures would be expected to be

substantially damaged in a strong earthquake and would require repairs before they would be habitable again. **(*Id.*)**.

The potential for liquefaction on most of the Project site is considered to be low due to older alluvial/colluvial soils underlying the bulk of the site, plus the depth of groundwater, which is thought to be more than 50 feet below ground surface under most of the site. **(*Id.*)** There are two limited areas of the site that are or may be susceptible to liquefaction: the lower parts of the Cable Canyon and Meyers Canyon drainages in the southern part of the site; and an isolated part of the eastern part of the site along the northeast side of the San Andreas Fault, where groundwater was found at 20 feet bgs in two borings. **(*Id.*)** The site plan almost entirely avoids placing homes over recent alluvium in the Cable Canyon and Meyers Canyon drainages. The geotechnical feasibility study for the Project recommends removal of loose or soft earth materials and undocumented fill to a depth of two to five feet below existing grades or two feet below the bottom of proposed footing depths, whichever is greater. **(EIR at 5.5-24)**. Deeper removals are anticipated in isolated areas of the site, including the areas susceptible to liquefaction. Additionally, the Project site is not within a liquefaction hazard zone identified in the City of San Bernardino's General Plan. **(*Id.*)**

The subsurface soils under most of the site are relatively dense and thus are not expected to be prone to substantial seismic settlement. **(*Id.*)** Near-surface soils may be settlement prone; however, near-surface soils under the sites of homes, roads, and other improvements would be removed and replaced with compacted fill. Seismic settlement may pose a hazard where loose soils have been found near the San Andreas Fault. **(*Id.*)** However, development in this area would be limited to nonstructural improvements, and settlement-prone soils may be overexcavated to limit seismic settlement. In sum, incorporation of Mitigation Measures 5-1 to 5-3 will reduce impacts from rupture of a known earthquake fault, strong ground shaking, or seismic-related ground failure such as liquefaction and settlement to less than significant levels.

4. **Hazards and Hazardous Materials.**

a. Risk of Fire.

Potential Significant Impact: The EIR evaluated and concluded that the Project could result in exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to the urbanized areas or where residences are intermixed with wildlands.

Finding: Impacts related to Hazards and Hazardous Materials are discussed in detail at Section 5.6 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant, because the Project site is in a very high fire hazard zone and could expose structures and/or residents to fire danger. Two lots (Lots 30 and 233) would not have sufficient space for fuel modification. However, this impact can be mitigated to a less than significant level through the implementation of Mitigation Measures 6-1 to 6-7. These mitigation measures are adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

6-1 The Fire Protection Plan shall be approved by the City of San Bernardino Fire Department (now County Fire) prior to commencement of grading. The Fire Marshal shall have the authority to modify, increase, or reduce the necessary size and location of any of the recommended Fire Management Zones and setbacks, based on a lot-by-lot inspection at time of grading. A minimum of 170 feet of fuel modification plus enhanced structural treatments listed in the Fire Protection Plan are needed to provide a safe buffer between the wildland and the structures.

6-2 Prior to introduction of combustible materials on any lot, the developer or builder shall clear all flammable vegetation, including weeds to four inches in height or below (leave enough site. The builder shall maintain each site in this condition until the homeowner takes responsibility and installs irrigation and fire-resistive landscaping as approved by the Homeowners Association. All landscaping must be in compliance with the guidelines in the approved Fire Protection Plan. All manufactured slopes, internal common areas, and open spaces shall comply with the criteria set forth in the Fire Protection Plan and shall not have any vegetation of the type prohibited in this plan (undesirable plant list).

6-3 The Homeowners Association shall assure that all fuel modification on private lots is in accordance with the requirements in the plan.

6-4 An annual inspection of the property for compliance with the approved plan shall be done by the Homeowners Association with a written letter of compliance sent to the San Bernardino Fire Department. Every five years, an approved Wildland Fire Protection consultant funded by the HOA shall inspect the site and a report shall be submitted to the San Bernardino Fire Department.

Onsite Roadway Vegetation

6-5 Vegetation shall be modified and/or cleared, either by the Landscape Maintenance District or the Homeowners Association on each side of any onsite road in accordance with the approved Fire Protection Plan.

SCE Easement

6-6 If the project is built with the Southern California Edison 115 kV transmission lines remaining aboveground, all flammable vegetation within the SCE overhead electric line easement shall be removed, on an ongoing basis, except for that needed for erosion control and soil stability.

Lots 30 and 233

6-7 Development of Lots 30 and 233 shall only occur when the following conditions are met. No development shall occur without the review and approval of the San Bernardino Fire Chief.

- *The onsite fuel modification shall consist of irrigated "Zone A" and "Zone B" that will remain within the Spring Trails property. An irrigated "Zone A" shall be a non-combustible setback zone within the pad area between the residential structure and the wildland urban interface area, traditionally the furthest portion of the pad. "Zone B" shall be a landscaped irrigated zone beyond "Zone A" and terminating at the project boundary, with non-combustible construction which will act as a "heat-sink" from an impending wild fire. "Zone C" shall extend offsite as fuel modification. "Zone C" will be a temporary off-site fuel modification until the adjoining property is, or will be, developed. If this is the scenario, an easement will be required for maintenance of the "Zone C." If the adjoining property is developed prior to the development of the Spring Trails project, then the off-site fuel modification will not be required for Lots 30 and 233. The total fuel modification distance for lots 30 and 233 will be a minimum of 170 feet.*

- *For Lot 30, Zone A shall have a minimum/maximum distance of 20 feet, Zone B shall have a minimum distance of 88 feet and a maximum distance of 113 feet, and Zone C shall have a minimum distance of 37 feet and a maximum distance of 62 feet (a total of 15,469 square feet).*

- *For lot 233, Zone A shall have a minimum/maximum distance of 20 feet, Zone B shall have a minimum distance of 68 feet and a maximum distance of 112 feet in width, and Zone C shall have a minimum distance of 43 feet and a maximum distance of 80 feet (a total of approximately 20,706 square feet).*

Facts in Support of the Finding: The high fire risk associated with the natural features and conditions of the site causes the proposed development to be at a high fire risk and the impacts would be potentially significant. **(EIR at 5.6-14)**. The entire Spring Trails Project site is in a very high fire hazard severity zone as identified in the California Fire Plan. **(EIR at 5.6-10)**. The City's General Plan also identifies areas of very high and high fire hazards in the areas immediately adjacent to the Project site. Since the Project site has not yet been annexed to the City, the portions of the fire hazard zones that would lie across the Project site are not indicated in the General Plan. **(*Id.*)** Periodic wildfire is a normal part of the environment in those areas along the front of the San Bernardino and San Gabriel mountains and in the adjacent San Bernardino National Forest, which surround the northern, western, and eastern portions of the site. **(*Id.*)**

A fire risk analysis for the Project was performed **(EIR Appendix G)**, which concluded that due to the steep terrain, highly flammable chaparral vegetation of the foothills of the San Bernardino Mountains, and exposure to high-velocity winds, the site has high susceptibility to fire. **(EIR at 5.6-10)**. Construction of the Project would expose future residents and structures to potentially dangerous wildfire(s) from the wildland to the northeast, northwest, and/or the southwest. The northeast exposure is a mix of chaparral and a few larger trees with a topography that is primarily upslope from the structures, with only a small amount level or downslope. This area is at risk for fire mainly when a northeast (Santa Ana) wind passes. The topography and fuel would otherwise drive fires away from the Project area. **(*Id.*)** The southeast exposure also consists of mixed chaparral. However, it has no real northern aspects to the topography that would increase fuel loading, and also has no wind shelter. **(EIR at 5.6-11)**. Additionally, this area does not tend to have the old-growth, closed-canopy fuel type found in the other areas adjacent to the Project site. Areas within this exposure immediately to the east of the project site that may contain fuels are either in the drainage bottom or would be graded and replanted with appropriate vegetation. Fuels that would remain after Project development would be mostly in the downstream drainage of Meyers Canyon and outside of the fuel modification zones that would be created. **(*Id.*)** A northeast wind event would take fire away from the structures in this area. The only potential wind-driven fire in this area that would pose a significant risk would be from a

heat-generated onshore wind. While these winds may prevail in this area, they tend to be less intense and generally higher in moisture content. The southwest exposure runs across a combination of developed and open, undeveloped land. Fires originating offsite in this area would be fueled by mixed native/nonnative grass and shrublands. The fire would approach the Project site from the southwest and could spread and intensify if it reached the tree canopies under future conditions if vegetation is not managed. **(*Id.*)** Compliance with current City standards for weed abatement and brush clearance should keep this area safe. The southwest exposure only presents fire issues during a southwest wind event, which, like the southeast exposure, tends to be less intense and generally higher in moisture content. The northwest exposure is the most significant risk to the Project. During a northeast wind, the Cable Creek drainage and Cable Canyon Creek will channel winds and fire down to the area below the Project site. **(*Id.*)** This drainage is deep and full of native and nonnative vegetation that has survived through all of the recorded fire history because it tends to receive natural irrigation year-round. However, the vegetation on the sides of the drainage is primarily northern mixed chaparral and Riversidian sage scrub, both of which provide substantial fuel beds. **(*Id.*)** In addition to the topography and vegetation of the area, two prevailing wind events common to the area also contribute to the fire risk. The Santa Ana winds and winds produced by the thermal heating in the Mojave Desert would both be channeled by canyons in the area, increasing and concentrating the effects of these winds. **(*Id.*)**

Fire risk factors were modeled to predict possible wildland fire behavior that could occur at the Project site based on characteristic features, including topography, vegetation, and weather. **(EIR at 5.6-11)**. The worst-case scenario is a fire with Santa Ana winds reaching 70 miles per hour and a combination of dead and live fuels that would cause the hottest, fastest-moving fire. **(EIR Tables 5.6-1; 5.6-2)**. The maximum anticipated flame lengths would be approximately 100.3 feet. **(*Id.*)** This type of fire occurs in the fall in chaparral vegetation, with approximately 16 tons per acre, at 6 to 10 feet in depth, producing 8,000 British thermal units per pound (BTU/lb) of fuel. Additionally, under worst-case scenario conditions, fire would spread at a rate of 40 feet per second (27.2 miles per hour), and spotting distances would reach approximately 1.4 miles. **(EIR at 5.6-12)**.

Fuel Modification Plan: The Project site has a combination of high risk (number of ignitions), high hazard (intensity of fire), and high value (proposed development), requiring significant mitigation measures in order to reduce fire risk. **(*Id.*)** A fuel modification zone would be required to reduce impacts of fire on the Project. Fuel modification areas are designed to gradually reduce fire intensity and flame lengths from advancing fire by placing thinning zones, restricted vegetation zones, and irrigated zones adjacent to each other on the perimeter of all structures and adjacent open space areas. **(*Id.*)** Three fuel modification zones have been established within the fuel modification area:

- *Fuel Modification Zone A (flat): Noncombustible construction* This applies to the 20 to 35 feet of the flat area setback zone near noncombustible construction only. Fuel Modification Zone A should be maintained by the homeowner or the HOA. At no time should the Fuel Modification Zone A be less than 20 feet.

- *Fuel Modification Zone B (wet zone): 100 percent removal of undesirable plant species.* This applies to the first 50 to 200 feet from Fuel Modification Zone A. Fuel Modification Zone B shall be permanently irrigated; fully landscaped with approved drought-tolerant, deep-rooted, moisture-retentive material such as container shrub material; or hydroseeded per a plant list approved by the SBFD. All undesirable plants must be removed. A complete list of undesirable plant species is supplied in the *Spring Trails Fire Protection Plan*. Hand-seeding of bare areas may need to be performed six months after the hydroseeding establishment period. Fuel Modification Zone B would be maintained by the homeowner, HOA, or landscape maintenance district (LMD) as appropriate.

- *Fuel Modification Zone C (dry zone): 50 percent thinning of native shrubs.* The area 40 to 185 feet from a structure would be Fuel Modification Zone C. This zone would be a non-irrigated area and would require the removal of all flammable undesirable species as listed in the *Spring Trails Fire Protection Plan*. Specimen trees should be retained as directed by the owner's representative but must be thinned a minimum of 50 percent. This zone also requires the removal of all low-

hanging foliage within three times the height of the understory shrubs or 10 feet, whichever is greater, along with dead or broken branches. All accumulated plant debris on the ground would be removed. Fuel Modification Zone C area should be maintained by the LMD.

(See EIR Figures 5.6-1; Figure 5.6-2).

Additionally, buildings not on the wildland interface/fuel modification zones would be set back from the adjacent property lines or any natural area adjacent to the homes by a 25- to 50-foot building setback. This zone would have no combustible construction allowed within it. **(EIR at 5.6-13)**.

Systems Approach: The concept behind this and most other fuel modification plans is to create a fuel modification zone in which the fire is systematically deprived of available fuel to reduce the size of the flame and the amount of heat that would be generated. **(*Id*.)** The maximum flame length of 100 feet is achieved at the junction of the wildland and Fuel Modification Zone C. For this reason, Fuel Modification Zone C is a minimum of 100 feet in width (measured on the flat plane not less than 100 feet regardless of the slope). Fuel Modification Zone C would have 50 percent of the available fuel that was in the wildland. **(*Id*.)** It would also have little to no dead materials or fine fuels. This would reduce flame lengths to a manageable size. When the flame front arrives at the junction of Fuel Modification Zones B and C, it should be reduced by 50 percent. Fuel Modification Zone B is a minimum of 50 feet in width and it is irrigated. The combination of the distance and the heat sink effect of the moist vegetation should keep flames from reaching the Fuel Modification Zone A/B junction. In the event that they do, however, a minimum 20-foot setback zone (Fuel Modification Zone A) is established with no combustible construction being allowed in this fuel modification zone at any time. Additionally, advanced construction features would be used to prevent convection or radiant heat from igniting the structure. **(*Id*.)** In areas where fuels, topography, slope, and aspect align, additional depth has been added to the fuel modification zones. This occurs on the upper portions of the project, where vegetation is below the structures, and on the east side of the project, where canyon winds may be channeled and thus intensified. **(*Id*.)** The final area for an increased fuel modification zone is on the east

side of the project, located on the only cul-de-sac where total alignment can occur. **(EIR at 5.6-14; Figures 5.6-1; 5.6-2)**.

Construction Phasing Management Plan: All vegetation management would be done on private lots prior to work beginning on those lots and prior to any combustible construction materials being brought onsite. **(EIR at 5.6-14)**. Vegetation management in all common areas, parks, construction sites, medians, planters, roadsides, etc., would be done as required in this plan at the start of the construction phase and continued throughout the Project. **(*Id.*)** Adequate fuel breaks acceptable to the San Bernardino Fire Department would be created around all grading, materials storage areas, laydown areas, site work, and other construction activities in areas adjacent to the vegetation. **(*Id.*)**

Public Education: In addition to the built-in fuel modification zones and construction techniques, the active participation of the homeowners is necessary to adequately protect Spring Trails. **(*Id.*)** Accordingly, the Specific Plan requires the following:

- The fire threat, fuel modification zone requirements, maintenance responsibilities, protection plans, approved plant palette, list of unacceptable plants, preventative measures, and evacuation routes shall be disclosed to potential homebuyers prior to the sale of any residence and readily available to homeowners upon request. **(*Id.*)**

The HOA would sponsor annual clinics conducted by fire professionals to educate residents on the fire threat, fuel modification zone requirements, maintenance responsibilities, protection plans, landscaping requirements, preventative measures, and evacuation routes. **(*Id.*)**

With the implementation of Mitigation Measures 6-1 to 6-7, impacts from wildfire risk will be reduced to less than significant.

b. <u>High Winds</u>.

Potential Significant Impact: The EIR evaluated and concluded that the Project could result in exposure of people or structures to a significant risk of loss, injury, or death involving high winds.

Finding: Impacts related to Hazards and Hazardous Materials are discussed in detail at Section 5.6 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant, because the Project site is in a very high fire hazard zone and could expose structures and/or residents to fire danger. Two lots (Lots 30 and 233) would not have sufficient space for fuel modification. However, this impact can be mitigated to a less than significant level through the implementation of Mitigation Measures 6-8 and 6-9. These mitigation measures are adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

6-8 The development of Spring Trails shall follow development guidelines outlined in the San Bernardino General Plan for high wind areas (Policies 10.10.1 through 10.10.8). The building plans must be approved by the building official.

- *Policy 10.10.1: Ensure that buildings are constructed and sited to withstand wind hazards.*
- *Policy 10.10.2: Require that development in the High Wind Hazard Area, as designated in Figure S-8 [of the San Bernardino General Plan], be designed and constructed to withstand extreme wind velocities.*
- *Policy 10.10.3: Periodically review the structural design requirements for wind in the Building Code to reflect wind conditions and property damage experienced as well as advances to current construction technology.*
- *Policy 10.10.4: Require that structures be sited to prevent adverse funneling of wind onsite and on adjacent properties.*
- *Policy 10.10.5: Require that multi-story residential, commercial, and industrial buildings be designed to prevent wind tunnel effects around their base and in passageways.*
- *Policy 10.10.6: Construct public infrastructure (lighting poles, street lights, bridges, etc.) to withstand extreme wind velocities in High Wind Hazard areas.*
- *Policy 10.10.7: Maintain police, fire, medical, and other pertinent programs to respond to wind-caused emergencies.*
- *Policy 10.10.8: Initiate a review of the wind hazard potential as it applies to various parts of the City and, if merited, tailor the design standards accordingly.*

6-9 Implementation of Mitigation Measure 2-1 (Section 5-2, Air Quality) would reduce construction-related wind-blown dust impacts.

Facts in Support of the Finding: The Project would construct residential homes in an area exposed to high winds. Although the City of San Bernardino General Plan has not officially designated the Project site in the High Wind Area because they are not within the City limits, its location falls in line with areas along the foothills that have been designated in this area. **(EIR at 5.6-14)**. Areas exposed to high winds can potentially experience health and safety issues related, but not limited, to air

quality, soil erosion, motor-vehicle accidents due to decreased visibility, wind-driven property damage, and exacerbation of fire hazards. **(*Id.*)** Project-related construction activities, particularly during site preparation such as grading, could potentially expose soils to wind erosion. This creates potential for windblown dust and soil to migrate offsite, adversely affecting adjacent properties during periods of high wind conditions. Furthermore, windblown dust, particularly during Santa Ana wind conditions, could reduce visibility along I-215, a heavily traveled highway approximately 0.7 mile southwest of the site, affecting travel and increasing the probability of motor-vehicle accidents. In addition to reduced visibility, high winds could also result in property damage and harm to surrounding residences from wind-driven debris picked up from loose onsite construction materials. **(*Id.*)** Winds would not only have the potential to impact the surrounding area during Project development, but also the proposed residences and land uses onsite. **(EIR at 5.6-21)**. Winds have been measured and have the potential to reach in excess of 90 to 100 miles per hour. Winds at these speeds could potentially cause damage to the homes and land uses proposed on the Project site. Damage could be caused to roofs, fences, windows, and landscaping. Moreover, high winds are a main contributing factor for the high fire risk hazard in the area. **(*Id.*)** Santa Ana wind conditions significantly increase the fire hazard in the area when combined with the fuels present due to the low moisture content and low relative humidity. **(*Id.*)** Implementation of Mitigation Measures 6-8 and 6-9 will reduce impacts related to high winds to less than significant levels.

c. Hazardous Emissions.

Potential Significant Impact: The EIR evaluated and concluded that if the Project is built within the Southern California Edison 115 kV transmission lines remaining aboveground, the lines would potentially expose construction workers and residents to hazards of electric shock and/or electric and magnetic fields.

Finding: Impacts related to Hazards and Hazardous Materials are discussed in detail at Section 5.6 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant, but can be mitigated to a less than significant level through the implementation of Mitigation Measure 6-10. This mitigation measure is adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as

specified therein, thereby reducing this potentially significant impact to a less than significant level:

6-10 If the project is built with the Southern California Edison 115 kV transmission lines remaining aboveground, the development plans shall be drawn to accommodate SCE safety measures including:

- *Operators of construction equipment with overhead lift capability, cranes, backhoes, and similar equipment shall abide by state safety clearances and undergo SCE-approved safety training, as needed, before operating the equipment onsite.*

- *Near residences, a safety strip meeting SCE standards shall be required beside the SCE right-of-way.*

- *Easements shall be employed as needed to prevent damage to the towers, shield residents from harm, and guarantee SCE maintenance access.*

Facts in Support of the Finding: The Preferred Development Plan assumes that the SCE overhead electric lines that traverse the western portion of the site would be located above-ground. **(FEIR Figure 3-8)**. While consideration that the overhead electric lines may be undergrounded in considered in the Alternative Development Plan, undergrounding the size of SCE lines in question here is not currently feasible. The Preferred plan accommodates the lines above ground as proposed for the site. **(FEIR Figure 3-8 and 3-8a)**. The Preferred Development Plan for Spring Trails is the same as the alternative plan in every respect, except for the treatment of the land beneath the aboveground electric lines and the number of residential lots. **(Figure 3-8 and 3-8a)**. In the Preferred Development Plan, underneath the central portion of the electric line easement, the land use is designated as Open Space-Controlled. The northern portion of the electric line easement is designated as residential; however, development is not permitted within the electric line easement. **(*Id.*)**. The SCE easement will be landscaped in accordance with the approved Fire Protection Plan for Spring Trails. If permitted by SCE, a park and/or equestrian/pedestrian trail may be located under the electric lines as a permitted use; however, they are not assumed in the design of the Preferred Development Plan. **(*Id.*)**. The Preferred Development Plan and the Alternative Development Plan with underground electric lines presents potential hazards related to proximity to future residential uses:

- Although SCE makes provision for earthquakes in the design and construction of overhead transmission lines, extreme seismic shaking and earth rupture on the San Andreas fault may snap lines or topple towers, resulting in live power to the ground.

- During construction, accidental contact with the towers or wires is possible.

- Resident youths may be tempted to play on or climb the towers.

- Residents may be exposed to electric and magnetic fields (EMF). **(*Id.*)**.

These lines would pose both construction and operational risks to workers or residents on the site. Contact with the wires by an elevated excavator arm, raised bucket, or other equipment designed for overhead work would have potentially fatal consequences. There is also the risk that residents may be tempted to climb on or vandalize the supporting towers. Though slight, the risk of electrical shock because of such activity does exist. Worker and residents would also be susceptible to electromagnetic fields (EMFs) because of the location of the lines on the project site. The Alternative Project proposes to relocate the 115 kV lines underground prior to site development; therefore, the risks associated with electrical shock and physical contact with the lines would be eliminated. If the 115kV lines cannot be relocated underground, then the Project would be built to accommodate the overhead electric lines, as described above. **(FEIR at 3.3, Figure 3-8 and 3-8a)**. The concern with proximity to electric transmission lines is exposure of residents to electric and magnetic fields (EMFs). Since EMF emission is not reduced when transmission lines are undergrounded, this would be a concern in both development scenarios. **(*Id.*)**. Over the past 30 years researchers have studied the potential effects of EMF exposure both nationally and internationally in an effort to determine whether EMF exposure is carcinogenic. EMFs are everywhere in modern society, and there is no evidence that living near electric transmission lines is any more detrimental to human health than living in a modern house. **(*Id.*)**. Notwithstanding, Mitigation Measure 6-10 will be incorporated to ensure that impacts related to the potential

presence of overhead electric lines will be less than significant.

5. **Land Use and Planning.**

a. Conflict with Habitat Conservation Plan.

Potential Significant Impact: The EIR evaluated and concluded that the Project could conflict with the adopted U.S. Fish and Wildlife Service San Bernardino Kangaroo Rat Critical Habitat.

Finding: Impacts related to Land Use and Planning are discussed in detail at Section 5.8 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant but can be mitigated to a less than significant level through the implementation of Mitigation Measure 3-2. This mitigation measure is adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

3-2 To mitigate for impacts to unoccupied critical habitat of the federally endangered San Bernardino kangaroo rat, the project applicant shall acquire offsite permanent mitigation lands of like habitat quality as determined by the US Fish and Wildlife Service (USFWS) during the Section 7 consultation process. Mitigation lands must be acquired prior to the issuance of grading permits, and shall incorporate appropriate long-term management provisions such as deed restrictions, endowments, and/or other management mechanisms to provide for the long-term conservation of the habitat. Potential properties include, but are not limited to, those managed by San Bernardino County Special Districts located in the Glen Helen, Rialto, and Rancho Cucamonga areas. Mitigation lands shall be acquired at a replacement ratio of 1:1 (one acre replaced for every one acre impacted). This measure does not preclude the imposition of additional mitigation requirements that may be initiated by the USFWS during the Section 7 consultation process. This measure shall be implemented to the satisfaction of the Community Development Director.

Facts in Support of the Finding: Approximately 3.9 acres of habitat for this federally endangered species would be modified, which conflicts with the policies of the USFWS-designated critical habitat. **(EIR at 5.8-47)**. No San Bernardino kangaroo rats have been observed on the Project site, but development of the area must follow the policies of the habitat plan. Portions of the secondary access road alignment at the southern end of the site are located within USFWS-designated critical habitat for the San Bernardino kangaroo rat **(see EIR Figure 5.3-4)**. Even though repeated surveys in the area have been negative for the presence of the San Bernardino kangaroo rat, the presence of critical habitat requires consultation with the USFWS under Section 7 of Federal Endangered Species Act.

The USFWS would impose mitigation to offset these impacts. **(EIR at 5.8-47)**. In anticipation of those agency-imposed requirements, and as discussed previously, Mitigation Measure 3-2 has been incorporated into the Project to reduce the Project's impacts in this regard to less than significant levels.

6. **Public Services.**

a. Fire Protection and Emergency Services.

Potential Significant Impact: The EIR evaluated and concluded that development of the Project could result in a substantial adverse physical impact associated with the provisions 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 fire protection services.

Finding: Impacts to Public Services are discussed in detail at Section 5.12 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant, as the Project will introduce 304 residences (reduced to 215 residences) and about 711 residents into a very high fire hazard severity zone in the San Bernardino County Fire services area, thereby increasing the requirement for fire protection facilities and personnel. However, this impact can be mitigated to a less than significant level through implementation of Mitigation Measure 12-1. This mitigation measure is adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

12-1 Prior to issuance of building permits, the developer shall participate on a fair-share basis in funding the continued operation and maintenance of the Verdemont Fire Station. A one-time fair-share contribution equivalent to the Community Facilities District Number 1033 "in-lieu fee" established by Resolution Number 2004-107 of the Mayor and Common Council would mitigate the long-term impact of the project on emergency services of the Fire Department. As an alternative, an irrevocable agreement to annex the project site to Community Facilities District Number 1033 would satisfy this obligation.

Facts in Support of the Finding: The Project would include 304 homes (reduced to 215 units), four parks, and roadways for site and internal access to the roughly 350-acre Project site. The Project is expected to add about 711 residents to the site. **(EIR at 5.12-3)**. Therefore, Project development is expected to result in an increase in calls for San Bernardino Fire Department ("SBFD," now

County Fire Department) fire and emergency medical services. At Project completion, SBFD response time to emergency calls to the farthest part of the site from the Verdemont Fire Station is expected to be 12 to 13 minutes. This is seven to eight minutes more than the standard SBFD response time of five minutes. After a reduction in staff from four to three firefighters, staffing at the station was recently restored to four firefighters. The addition of the Spring Trails development to the area served by the Verdemont Fire Station may result in increased demand on emergency fire services. **(*Id.*)**. To offset the additional demand caused by new development projects, the City requires a fair-share contribution from new developments to help fund ongoing operation and maintenance of the Verdemont Fire Station. **(EIR at 5.12-4)**. The response force (three fire engines, one aerial ladder truck, and a chief officer with a minimum of fifteen personnel) needed to effectively combat a structure fire would need to be capable of being assembled at points within the Project site. County Fire Station 2 in Devore (3.75 miles from project entrance). Station 2 has daily staffing of three full-time firefighters supplemented by a company of paid call firefighters as needed, and is equipped with one type 1 (structure) engine, one type 3 (wildland) engine, and one type 5 patrol vehicle. **(*Id.*)**. The third engine and aerial ladder truck to complete an effective response would come from a station farther away: from Fire Station 227 at 282 West 40th Street (6.75 miles from Project entrance). Either would come with a minimum of three firefighters. The aerial ladder truck, with four firefighters, would come from Fire Station 224 located at 2641 E Street (7.85 miles from Project entrance. **(EIR Figure 5.12-1)**. A fire battalion chief would also be dispatched.

In the event of a major wildfire on or threatening the site, additional firefighting resources would be brought to the area. Other City and or County fire stations would respond as needed. **(EIR at 5.12-4)**. The SBFD has five type 3 (wildland) engines, which are deployed at Fire Stations 226, 227, 228, and 323. The three closest fire stations to this Project have wildland engines. In addition, there is a county/CAL FIRE station nearby in Lytle Creek (Fire Station 20) and a new county fire station will be built as part of a new development in the southern Lytle Creek area, south of the Glen Helen Regional Park in Devore. **(*Id.*)**. The new station is dependent on development in the area and may be delayed with changes in the housing market. Vegetation

fires result in a multiagency response, which would include CAL FIRE and the USFS. A fire protection/fuel modification plan has been required for the Project. **(EIR Appendix G)**. The fire plan is designed to reduce the risks related to the high fire potential of the site. Topography, vegetative, weather, and structural components were used to analyze the setting and provide measures for reducing risks. It also meets the fire safety standards of the Foothill Fire Zone Overlay District (FF District) Standards (Chapter 15.10 of the San Bernardino Municipal Code), Building Safety Enhancement Area Building Standards (Chapter 15.11 Municipal Code), City of San Bernardino Development Code (Chapter 19.15), and City Fire Code (Chapter 15.16). The fire protection plan divides the Project site into three zones, Fuel Modification Zone A (flat, noncombustible construction), Fuel Modification Zone B (wet zone, 100 percent removal of undesirable plant species), and Fuel Modification Zone C (dry zone, 50 percent thinning of the native shrubs). **(EIR Figures 5.6-1and 5.6-2)**. The fire protection plan also includes vegetation management guidelines, the allowed and undesirable plant palettes, planting maintenance and spacing guidelines, a construction management plan, infrastructure/structural construction features and requirements, and a compliance matrix to be used by the developer, residents, and the homeowners association of Spring Trails to reduce fire risks. The minimum fire flow required for this project is 1,500 gallons per minute (gpm) at 20 pounds per square inch (psi) pressure for a minimum duration of four hours. Fire hydrants are required at a spacing of no more than 300 feet. **(EIR at 5.12-4)**. Water for fire flow would be provided by expanding and improving the offsite water system, and by onsite reservoirs and transmission lines. **(EIR Figures 3-10 and 3-11)**. The Project would use infrastructure at pressure zones at elevations of 2,100 feet, 2,300 feet, 2,500 feet, 2,700 feet, and 3,000 feet. The Project site falls in the 2,300, 2,500, 2,700, and 3,000 zones. Fire-flow storage required for each of the three onsite pressure zones is 360,000 gallons. **(EIR at 5.12-7)**. Project water system improvements would be sized to provide required fire flow in addition to meeting project water demands. Pumping stations would be designed with 100 percent redundancy in the event that one or more of the pumping units fails, and equipped with onsite generators that can operate in a blackout or emergency condition. **(*Id.*)**. Implementation of Mitigation Measure 12-

1 will reduce impacts to fire protection and emergency services to a less than significant level.

7. **Traffic and Circulation.**

a. Substantial Increase in Traffic.

Potential Significant Impact: The EIR evaluated and concluded that development of the Project could cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

Finding: Impacts to Traffic and Circulation are discussed in detail at Section 5.8 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant, because the Project would generate 3,149 average daily trips, 247 morning peak hour, and 333 evening peak hour trips to the Project area, thereby contributing to existing and future unacceptable levels of service at the Palm Avenue/I-215 ramps intersections and at the Palm Avenue/Kendall Drive intersection. However, these impacts can be mitigated to a less than significant level through implementation of Mitigation Measures 14-1 to 14-4. These mitigation measures are adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

14-1 If at the time combustible materials are placed on the project site the Palm Avenue/Kendall Drive intersection has not been improved, the project shall be responsible for funding and constructing the dual westbound left turn lane intersection improvements at Palm Avenue/ Kendall Drive. All improvements to this intersection must be completed to the satisfaction of the Director of Public Works/Civil Engineering prior to issuance of occupancy permits.

14-2 The easterly (primary) project access road between Little League Drive and the project site shall be constructed and paved to meet the City of San Bernardino Fire Department's minimum standards prior to placement of combustible materials on the project site. The access road shall be designed and constructed to meet the City of San Bernardino Public Works/Engineering Division's design standards prior to issuance of occupancy permits. Concurrently, the segment of Little League Drive north of Meyers Road shall be improved to Public Works Department design standards.

14-3 The westerly (secondary) project access road shall be constructed and paved to meet the City of San Bernardino Fire Department's minimum standards prior to placement of combustible materials on the project site. The access road shall be designed and constructed to meet the City of San Bernardino Public Works/Engineering Division's design standards prior to the issuance of occupancy permits.

14-4 Prior to the issuance of grading permits, the project applicant shall prepare a construction traffic plan that shall be approved by the City of San Bernardino Public Works/Engineering Division. The construction traffic plan shall:

- *Prohibit project construction traffic from using the Kendall Drive/Palm Avenue intersection during the morning peak hour (7:00 AM and 9:00 AM) and the evening peak hour (4:00 PM and 6:00 PM)*
- *Establish truck haul routes on the appropriate transportation facilities.*
- *Provide Traffic Control Plans (for detours and temporary road closures) that meet the minimum Caltrans, City, and County criteria.*
- *Minimize offsite road closures during the peak hours.*
- *Keep all construction-related traffic onsite at all times.*

Facts in Support of the Finding: The City of San Bernardino has an acceptable intersection Level of Service ("LOS") standard of D or better. All area intersections are currently operating at an acceptable LOS. **(EIR Table 5.14-2)**.

Operational Phase: Spring Trails would include the development of 304 single-family detached houses (reduced to 215 units), with the final phase of construction to be completed by year 2013. **(EIR at 5.14-42)**. The analysis in this report quantifies the impacts of 329 single-family units, and therefore slightly overstates the actual impact anticipated for the 304-unit (now 215-unit) single-family residential development. The traffic generated by Spring Trails would increase the number of trips on local roadways and freeways, thereby worsening the LOS on these systems. **(*Id.*)**. The following intersections would operate at unacceptable levels of service during AM and PM peak hours:

- I-215 northbound ramps and Palm Avenue;
- I-215 southbound ramps and Palm Avenue;
- Palm Avenue and Kendall Drive

Without roadway improvements, these Project area intersections would have unacceptable levels of service (E or worse). **(EIR at 5.14-43)**. However, interchange improvements to the Palm Avenue and I-215 ramps intersection are included in the SANBAG Nexus Study funded by the City of San Bernardino Regional Circulation

System Fee. **(*Id.*)**. These improvements would improve the LOS to B during morning peak hour traffic on the northbound ramp, to D during evening peak hour traffic on the northbound ramp, and to C during both morning and evening peak hour traffic on southbound ramps. Development impact fees paid by the Project applicant would contribute to the Regional Circulation System Fee. Improvements to the Palm Avenue/Kendall Drive intersection are not included in a City plan or program. **(*Id.*)**. If the necessary improvements to this intersection are not in place at the time the Spring Trails Project is completed, a significant impact would result.

Construction Phase: Construction traffic would contribute to deficiencies at the Palm Avenue/I-215 northbound and southbound ramps intersections during morning and evening peak hours (7:00 to 9:00 AM and 4:00 to 6:00 PM respectively), resulting in a significant impact. **(*Id.*)**. However, implementation of Mitigation Measures 14-1 to 14-4 will reduce impacts to less than significant during both the operational and construction phases of the Project.

8. **Utilities and Service Systems.**

a. Construction of New Water or Wastewater Treatment Facilities.

Potential Significant Impact: The EIR evaluated and concluded that development of the Project would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; and would not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed.

Finding: Impacts to Utilities and Service Systems are discussed in detail at Section 5.15 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant, because the Project would use 529 acre-feet of water per year ("AFY"), 79 AFY more than the 2005 Urban Water Management Plan ("UWMP") projections, thus increasing water demand on the San Bernardino Basin, and requiring the construction of additional water distribution infrastructure, including reservoirs, pump stations, and water mainlines that are not part of a Capital Improvements Plan. Note that water demand and wastewater generation will be less than discussed in this finding based on reducing the size of the project from 307 units to 215 units. However, these impacts can be mitigated to a less than significant level through implementation of Mitigation

Measure 15-1. This mitigation measure is adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

15-1 Completion of the Phase II Verdemont water delivery infrastructure improvements shall be verified by the SBMWD prior to issuance of occupancy permits for Spring Trails. The offsite improvements as shown in Table 5.15-13, include the east reservoir, east pump station, and east 20-inch transmission main. The project applicant shall contribute fair-share funding for the improvements through development impact fees or through an alternate financial arrangement with the SBMWD. A funding and phasing program for the improvements shall be in-place (e.g., Capital Improvements Program) or negotiated with the project applicant prior to issuance of building permits.

Facts in Support of the Finding: Although the Project site would be designated as Residential Low in the General Plan, water demand for the Project site is based on average density over the entire Project site area (350 acres). Considering the overall Spring Trails development of 304 residential dwelling units on 350 acres of land (note this has been reduced to 215 units at this time), the average parcel size for the entire development is estimated at 0.87 units per acre. **(EIR at 5.15-12)**. Proposed development plans indicate that individual parcels would range in size from 10,000 to over 600,000 square feet, averaging 27,337 square feet or 0.62 acres. Hence, this development would fall under the Residential Estate category with an average water demand of 0.93 gpm per acre. **(*Id.*)**. Based on a total development of 353 acres, rather than 85 percent buildout under the existing General Plan, the average annual water demand is estimated at 328 gpm, or 529 afy. (EIR Table 5.15-10). The assumptions made by the City's General Plan for residential land uses of the Project site were used in determining water demand in the 2005 UWMP. **(EIR Table 5.15-8)**. The UWMP assumes a demand of 450 afy for the Project site. The projected water demands of the Spring Trails Project are higher by 79 afy (17.5 percent). **(EIR Table 5.15-11)**. The two projected water demands assume that buildout of the site under either the Spring Trails or General Plan projection would occur at the same time. **(EIR at 5.15-13)**. Maximum daily demand flows can be used to determine the amount of onsite water storage needed for the Project. During days of high demand and peak hours, the water demand for the site would increase. Between average days and high demand days, the gpm rate would increase by a factor of 1.73, resulting in a total rate of 568 gpm on high demand days. Between high

demand days and peak hours, the gpm rate would increase by a factor of 2, resulting in a peak hour demand rate of 1,136 gpm. **(*Id.*)**.

Spring Trails would require the construction of new water supply infrastructure. SBMWD has begun planning for infrastructure expansion in the Verdemont area that would accommodate Spring Trails. This expansion, the Verdemont infrastructure improvements, would occur in two phases and is needed to serve the 2,300- foot pressure zone. These improvements were analyzed for environmental impacts in 2007. A mitigated negative declaration was approved by the SBMWD Board of Water Commissioners in April of 2007. Funding for these improvements was approved by the City, is included in SBMWD's Capital Improvements Program, and is incorporated into the 2009–2010 City budget. **(EIR at 5.15-14)**.

The second phase for the Verdemont infrastructure improvements would connect the 2,100-foot pressure zone to the 2,300-foot pressure zone and is necessary to bring water supply to the Spring Trails site. These improvements would be required for supplying water and maintaining appropriate water storage for the Spring Trails project. Currently, there is no funding planned for these improvements. **(EIR at 5.15-15)**. In addition to the proposed Verdemont infrastructure improvements, the Spring Trails plan includes onsite infrastructure improvements to be completed by the developer. **(EIR Figure 3-10)**. The onsite improvements would need to be constructed and funded by the developer prior to the development of the site. **(EIR at 5.15-15)**. The pipelines within the development are considered distribution lines for all practical purposes. The pipelines that connect pump stations to the reservoirs would be a minimum of 20 inches in diameter. **(*Id.*)**. All looping lines would be 12 inches in diameter and other distribution pipelines would be 8 inches in diameter. The Phase I and Phase II improvements would need to be included in the SBMWD Capital Improvements Plan (CIP) and incorporated into the City's budget. Phase I improvements were included in the 2009–2010 City Budget, but the Phase II improvements were not. **(*Id.*)**. Funding for the offsite improvements in the CIP would come from developer impact fees, which would be paid in part (fair share) by the developer. The existing and planned infrastructure would have enough capacity to support the Project. **(*Id.*)**.

Fire flow for Spring Trails would need to meet a requirement of 1,500 gpm with a four-hour duration, as indicated by the San Bernardino Fire Department. SBMWD would be able to meet this demand once the proposed infrastructure in the 2,300-foot zone is completed. The same pipelines that would supply the site with domestic water would also be used for fire suppression through connections with fire hydrants. **(EIR at 5.15-16)**.

2009 was the third consecutive drought year for California, and the impacts were seen through changes to water allocations of SWP water. **(*Id.*)**. In April 2011, CDWR increased water allocations to 80 percent of the requested amounts. SBVMWD, the SWP contractor for the San Bernardino Valley, is included on this list of contractors and should receive 82,080 acre-feet in 2011, 80 percent of its entitlement. Projected SWP reliability throughout future years is uncertain. **(*Id.*)**. Ultimate contract amounts total 4.2 million afy, but yearly deliveries are only a fraction of this amount. SBMWD and other water agencies reliant on some portion of SWP water should reduce their dependence on this source of water and focus on alternative technologies, conservation efforts, and storage activities to guarantee water supply in the future. The BHG Basin is the most important source of water for the SBMWD. Approximately 1.5 million acre-feet of groundwater in the basin is extractable. **(*Id.*)**. In 2008, the cumulative change in groundwater storage since 1934 was a negative 354,595 acre-feet. **(EIR Table 5.15-2)**. The last year the basin had a positive cumulative change was 1998 (74,083 afy). The increasing urban growth in the San Bernardino Valley would only create a greater demand on the BHG Basin water supply; water levels are most likely to continue dropping unless greater conservation efforts are enforced. **(EIR at 5.15-17)**.

Spring Trails Specific Plan includes a number of design guidelines and practices that would improve onsite water conservation. **(*Id.*)**. Some of these guidelines and practices include:

- Required diversion of stormwater runoff into onsite detention basins to enable recharge;

- Recommended collection of rainwater and additional stormwater runoff by diverting runoff to pervious surfaces or bioswales to reduce unnecessary runoff;
- Required use of high efficiency, xeriscape irrigation systems to reduce the amount of water devoted to landscaped areas;
- Includes bubbler irrigation and low-angle, low-flow nozzles on spray heads;
- Required installation of properly programmed EvapoTranspiration-based controllers on homeowners' properties with the appropriate information for the homeowners;
- Required installation of motion sensors and other similar irrigation technology to ensure that landscaping is watered only as needed;
- Required planting of plant species that are drought tolerant, heat resistant, and hardy;
- Prohibition of the use of large turf areas in landscaping by substituting water-conserving native groundcovers or perennial grasses, shrubs, and trees;
- Recommended construction of trails with pervious materials such as earth or decomposed granite;
- Required grouping of plants with similar water requirements together, a technique known as hydrozoning;
- Recommended mulching of planting beds and apply compost and environmentally friendly fertilizers to promote healthy topsoil, maximize plant growth, reduce plant replacement, and reduce the need for longer or more frequent irrigation run times.

The following practices are recommended for buildings:

- Required installation of water-efficient faucets and appliances in residences;
- Required installation of sensor-operated faucets in nonresidential buildings;
- Recommended use of toilets that use less than 1.6 gallons per flush, waterless urinals in nonresidential buildings, and faucets and showerheads that use less than 2.5 gallons per minute.

The implementation of these practices would help to reduce the amount of water by reducing the water used by each residence and through controlling water loss in public areas

by using water-smart landscaping and reclamation techniques. **(EIR at 5.15-18).**

In sum, the required funding by the Applicant of the Phase II Verdemont infrastructure improvements prior to issuance of occupancy permits, as required by Mitigation Measure 15-1, will reduce impacts in this area to less than significant.

9. **Forest Resources.**

a. Loss of Forest Land.

Potential Significant Impact: The EIR evaluated and concluded that development of the Project would result in the loss of forest land or conversion of forest land to non-forest use; or involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use.

Finding: Impacts to Forest Resources are discussed in detail at Section 5.17 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that this impact is potentially significant, because the Project would remove 220 native trees, requiring replacement of trees per the City's tree ordinance. However, these impacts can be mitigated to a less than significant level through implementation of Mitigation Measure 3-13 for Biological Resources, as described above. This mitigation measure is adopted and incorporated into the Mitigation Monitoring and Reporting Program for the Project, and will be implemented as specified therein, thereby reducing this potentially significant impact to a less than significant level:

Facts in Support of the Finding: Implementation of the Project would involve the removal of approximately 2,400 trees within the development footprint. Approximately 220 of these are native species and 2,170 are eucalyptus. **(EIR at 5.17-5)**. The areas of Cable Creek, Cable Canyon, and Meyer Creek contain the majority of native trees and are considered forest land. **(EIR Table 5.3-3)**. However, the Project would be required to comply with the City's Tree Ordinance, which would require replacement of any removed native trees. **(EIR at 5.17-5)**. Native species of trees within this affected area would have the potential to be impacted by development from direct removal of forest resources and indirectly from forest resources removed as a result of fuel modification activities. Areas within Fuel Modification Zone B would require removal of all undesirable plant species, while areas within Zone A would require a 50 percent thinning of native species. **(EIR at 5.17-6)**. The City's Tree Ordinance requires that "significant"

trees be mitigated. In determining what constitutes a significant tree, the initial arborist report prepared for the Project determined that healthy, structurally sound native and ornamental trees over 20 feet in height would be considered significant. **(*Id.*)**. Approximately 220 trees on the site met these criteria during the 1998 tree inventory. Thus, the removal of these trees during Project development would be considered a potentially significant impact and thus subject to the requirements of the City's Tree Ordinance. To ensure that removed native trees are adequately replaced and to comply with the City's Tree Ordinance, impacts to forest resources are considered potentially significant without incorporation of Mitigation Measure 3-13. **(*Id.*)**.

Eucalyptus trees present a particular problem for this site because they are nonnative and a severe fire hazard. **(*Id.*)**. Eucalyptus can also be considered an invasive species. They were formerly included on List A of invasive species by the California Exotic Pest Plant Council (CalEPPC). List A of the Exotic Pest Plants of Greatest Ecological Concern in California consists of the most invasive wildland pest plants, documented as aggressive invaders that displace natives and disrupt natural habitats. The list highlights the nonnative plants that are serious problems in wildlands such as national forests. **(*Id.*)**. The Project site shares its northern border with the San Bernardino National Forests and the eucalyptus trees are a potential threat to native plant communities in the national forest. The 1999 CalEPPC exotic pest plant list was updated by the California Invasive Plant Council in 2006, and the status of blue gum eucalyptus changed to "moderate." The USDA Forest Service identifies the blue gum eucalyptus as highly flammable and recommends the tree not be planted near homes and other structures. **(*Id.*)**. Lastly, Section 12220(g) of the PRC defines "forest land" as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. **(EIR at 5.17-7)**. The land where the eucalyptus trees are currently located cannot be identified as forest land because it cannot and has not supported 10 percent native tree cover. Furthermore, Section 4793(f) of the PRC defines "forest land conservation measures" as measures designed to protect, maintain, or enhance the forest resource system, including soil and watershed values, diversity of forest species, and

protection of a forest stand from fire. **(*Id.*)**. These measures include thinning, shaded fuel breaks, and other land treatments or forest resource improvement projects consistent with PRC Section 4794. Based on these considerations, the removal of the eucalyptus from the Project site can be considered an overall benefit in protecting the adjacent native forest stands from fire and in maintaining a diversity of native species; therefore, it is a less than significant impact to forest resources. With incorporation of Mitigation Measure 3-13, impacts to native trees will also be less than significant.

C. **Impacts Analyzed in the EIR and Determined to be Significant and Unavoidable.**

With the implementation of all available and feasible mitigation measures recommended in the EIR, the following adverse impacts of the Project stated below are considered to be significant and unavoidable, based upon information in the EIR and in the administrative record. These impacts are considered significant and unavoidable despite the imposed mitigation measures, which will reduce impacts to the extent feasible.

1. **Air Quality.**

a. Conflict With Air Quality Plan-Construction.

Potentially Significant Impact: The EIR concluded that the Project will conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan ("AQMP") because construction-related air pollutant emissions would exceed the SCAQMD regional and local emission thresholds.

Finding: Impacts related to Air Quality are discussed in detail in Section 5.2 of the Draft EIR. Mitigation measures applied for short-term construction activities of the Project would lessen impacts from construction-related air pollutant emissions. However, based on the entire record, the Commission concurs with the City finding that this conflict with the SCAQMD Air Quality Management Plan is potentially significant and cannot be reduced to a less-than-significant level through implementation of mitigation measures. Accordingly, the potential for the Project to conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan remains significant and unavoidable. The following mitigation measures will mitigate impacts to Air Quality to the extent feasible:

2-1 Ongoing during grading and construction, the construction contractor shall implement the following measures in addition to the existing requirements for fugitive dust control under South Coast Air Quality Management District Rule 403 to further reduce PM_{10} and $PM_{2.5}$

emissions. To assure compliance, the City shall verify that these measures have been implemented during normal construction site inspections:

- *During all grading activities, the construction contractor shall reestablish ground cover on the construction site through seeding and watering as quickly as possible. This would achieve a minimum control efficiency for PM_{10} of 5 percent.*

- *During all construction activities, the construction contractor shall sweep streets with Rule 1186–compliant, PM_{10}-efficient vacuum units on a daily basis if silt is carried over to adjacent public thoroughfares or occurs as a result of hauling.*

- *During active debris removal and grading, the construction contractor shall suspend grading operations when wind speeds exceed 25 miles per hour. This would achieve an emissions control efficiency of 98 percent for PM_{10} under worst-case wind conditions.*

- *During all construction activities, the construction contractor shall maintain a minimum 24-inch freeboard on trucks hauling dirt, sand, soil, or other loose materials and tarp materials with a fabric cover or other suitable means. This would achieve a control efficiency for PM_{10} of 91 percent.*

- *During all construction activities, the construction contractor shall water exposed ground surfaces and disturbed areas a minimum of every three hours on the construction site and a minimum of three times per day. This would achieve an emissions reduction control efficiency for PM_{10} of 61 percent.*

- *During active debris removal, the construction contractor shall apply water to disturbed soils at the end of each day. This would achieve an emissions control efficiency for PM_{10} of 10 percent.*

- *During all construction activities, the construction contractor shall limit onsite vehicle speeds on unpaved roads to no more than 15 miles per hour. This would achieve a control efficiency for PM_{10} of 57 percent.*

- *The construction contractor shall apply chemical soil stabilizers to reduce wind erosion. This would achieve a control efficiency of up to 80 percent.*

2-2 During all grading activities, the daily area disturbed shall be limited to a maximum of 35 acres.

2-3 Ongoing during grading and construction, the construction contractor shall implement the following measures to further reduce construction exhaust emissions of NOx. To assure compliance, the City shall verify that these measures have been implemented during normal construction site inspections:

- *The Project Applicant shall specify in the construction bid that construction contractors are required to use construction equipment rated by the United States Environmental Protection Agency as having Tier 3 or higher exhaust emission limits for equipment over 50 horsepower. A list of construction equipment by type and model year shall be maintained by the construction contractor onsite.*

- *The construction contractor shall ensure that all construction equipment is properly serviced and maintained to the manufacturer's standards to reduce operational emissions.*

- *The construction contractor shall limit nonessential idling of construction equipment to no more than five consecutive minutes.*

Facts in Support of the Finding: There are two key indicators of a project's consistency with an AQMP: 1) Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or interim emission reductions in the AQMP; and 2) Whether the project would exceed the assumptions in the AQMP. The AQMP strategy is, in part, based on projections from local general plans. **(EIR at 5.2-12)**. Long-term emissions from the Project would not exceed the SCAQMD thresholds for regional emissions **(EIR Table 5.2-8)** and would therefore not contribute to an increase in frequency or severity of air quality violations and delay attainment of the AAQS or interim emission reductions in the AQMP. Therefore, the Project's operation-related emissions result in a less than significant air quality impact. Thus, the Project would be consistent with the AQMP under the first indicator with regard to long-term emissions. **(*Id.*)**. However, with respect to short-term emissions, this Project would not be consistent with the AQMP under the first indicator, because short-term construction emissions of NO_X, PM_{10}, and $PM_{2.5}$ associated with the project would exceed the SCAQMD regional and localized significance thresholds, which are the basis for determining if a project would cumulatively contribute to the regional nonattainment designations of the South Coast Air Basin. **(See EIR Table 5.2-7)**. The South Coast Air Basin is designated by the state and EPA as nonattainment for O^3, PM_{10}, and $PM_{2.5}$. **(EIR at 5.2-12)**. The Project would be considered consistent with the AQMP under the second indicator, because the proposed development under the Spring Trails Specific Plan is consistent with the City of San Bernardino General Plan, and thus would not exceed the assumptions in the AQMP, which is based in part, on local general plan projections. **(EIR at**

5.2-14). However, since both indicators would not be met, both Project and cumulative level impacts are considered significant and unavoidable, due to the Project's inconsistency with the AQMP.

b. Cumulatively Considerable Increase of Criteria Pollutant-Construction.

Potentially Significant Impact: The EIR concluded that the Project's construction activities will result in a cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.

Finding: Impacts related to Air Quality are discussed in detail in Section 5.2 of the Draft EIR. Specifically, the Project will generate short-term emissions that exceed SCAQMD's regional significance thresholds for NOx, PM_{10}, and $PM_{2.5}$, and would significantly contribute to the nonattainment designations of the South Coast Air Basin for ozone and particulate matter (PM_{10} and $PM_{2.5}$). Fugitive dust mitigation measures applied for short-term construction activities of the Project would lessen impacts from construction-related air pollutant emissions. However, based on the entire record, the Commission concurs with the City finding that this impact cannot be reduced to a less-than-significant level through implementation of mitigation measures. Accordingly, the potential for the Project to result in a cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment remains significant and unavoidable. Mitigation Measures 2-1 to 2-3 (listed above) will mitigate Air Quality impacts related to criteria pollutants to the extent feasible.

Facts in Support of the Finding: Construction activities produce combustion emissions from various sources, such as onsite heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Grading activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from soil-disturbing activities. **(EIR at 5.2-15)**. Exhaust emissions from construction activities onsite would vary daily as construction activity levels change. Construction activities associated with new development occurring in the Project area would temporarily increase localized PM_{10}, $PM_{2.5}$, VOC, NOx, and CO concentrations in the Project vicinity and regional emissions within the South Coast Air Basin. **(*Id.*)**. The primary source of construction-related CO, SOx, VOC, and NOx emissions is gasoline- and diesel-powered heavy-duty mobile construction equipment. Primary sources of PM_{10} and $PM_{2.5}$ emissions would be clearing activities, excavation and grading operations,

construction vehicle traffic on unpaved ground, and wind blowing over exposed earth surfaces. In addition, architectural coating operations can also generate substantial VOC emissions. Project-related construction air pollutant emissions would occur from construction of the Project. Emissions from construction activities were calculated on a daily basis and were compared to the SCAQMD's maximum daily regional emissions thresholds, which revealed that grading activities would result in air pollutant emissions that exceed the SCAQMD regional significance thresholds for NOx, PM_{10}, and $PM_{2.5}$. **(EIR Table 5.2-7)**. All other analyzed pollutants were found to be less than the SCAQMD's significance thresholds. The primary source of NOx emissions would be from construction equipment exhaust during grading operations. NOx is a precursor to both the formation of O^3 and particulate matter (PM_{10} and $PM_{2.5}$). The primary sources of PM_{10} and $PM_{2.5}$ would be fugitive dust during grading and clearing during these operations. Emissions of PM_{10} and $PM_{2.5}$ that exceed the SCAQMD's regional significance threshold would significantly contribute to the particulate matter (PM_{10} and $PM_{2.5}$) nonattainment designations of the South Coast Air Basin. Consequently, emissions of NOx, PM_{10}, and $PM_{2.5}$ that exceed the SCAQMD regional significance thresholds would significantly contribute to the O^3 and particulate matter (PM_{10} and $PM_{2.5}$) nonattainment designations of the South Coast Air Basin. **(EIR at 5.2-15)**. Both Project and cumulative level impacts would be significant relative to the Project's consistency with the SCAQMD's regional significance thresholds for NOx, PM_{10}, and $PM_{2.5}$, and the Project's contribution to the nonattainment designations of the South Coast Air Basin for ozone and particulate matter (PM_{10} and $PM_{2.5}$).

Mitigation Measures 2-1 and 2-2 would reduce PM_{10} and $PM_{2.5}$ emissions from Project-related construction activities to below the SCAQMD regional thresholds. Similarly, Mitigation Measure 2-3 would reduce NOx emissions during construction activities by approximately 31 percent or approximately 149 pounds per day. **(EIR at 5.2-30)**. However, NOx emissions from Project-related construction activities would continue to exceed the SCAQMD regional thresholds. **(EIR Table 5.2-13)**. Consequently, Project and cumulative level impacts would remain significant and unavoidable.

c. Exposure of Sensitive Receptors-Construction.

Potential Significant Impact: The EIR concluded that the Project's construction activities will expose sensitive receptors to substantial pollutant concentrations.

Finding: Impacts related to Air Quality are discussed in detail in Section 5.2 of the Draft EIR. Specifically, the Project's construction activities could expose offsite sensitive receptors to substantial pollutant concentrations of PM_{10} and could expose the existing onsite receptor to substantial pollutant concentrations of both PM_{10} and $PM_{2.5.}$ Based on the entire record, the Commission concurs with the City finding that this impact cannot be reduced to a less-than-significant level through implementation of mitigation measures. Accordingly, the potential for the Project's construction activities to expose sensitive receptors to substantial pollutant concentrations remains significant and unavoidable. Mitigation Measures 2-1 to 2-3 (listed above) will reduce the concentration of air pollutants at nearby sensitive land uses to the extent feasible.

Facts in Support of the Finding: Project emissions would exceed the screening level criteria for LSTs of NOx, PM_{10} and $PM_{2.5}$ during Project-related grading activities. **(EIR Table 5.2-9)**. The maximum emissions of CO from Project-related construction activities would not exceed the LST screening level criterion, and would therefore not result in substantial CO pollutant concentrations at nearby sensitive receptors. **(EIR at 5.2-16)**.

Because emissions of NOX, $PM_{10,}$ and $PM_{2.5}$ would exceed the LST screening level criteria for a five-acre site during grading operations, concentrations generated by Project-related construction activities during grading were modeled at nearby sensitive receptors surrounding the site. **(EIR at 5.2-17)**. The maximum concentrations for NOx, $PM_{10,}$ and $PM_{2.5}$ would occur during the overlap of mass grading and trenching operations. **(See EIR Figures 5.2-1 through 5.2-3)**. The highest concentration of NOx offsite is 120 μg/m3. **(EIR Figure 5.2-1)**. However, the offsite areas that would be exposed to this concentration level do not have any sensitive receptors. **(EIR at 5.2-18)**. This concentration, when converted to parts per million (ppm), would result in a concentration level of approximately 0.1 ppm. At the highest concentration, construction-related emissions of NOx would not exceed the LST of 0.18 ppm. Additionally, areas with elevated NOx concentrations would occur primarily in the southern portion of the Project site and therefore the existing onsite residence would not be exposed to elevated levels of

NOx. Therefore, Project-related construction activities would not expose off- and onsite sensitive receptors to substantial pollutant concentrations of NOx. **(*Id.*)**.

The concentration of $PM_{2.5}$ would be below the LSTs at the surrounding offsite receptors, but would exceed the LSTs at the existing onsite receptor. **(EIR Figure 5.2-3)**. In addition, construction activities would generate substantial concentrations of PM_{10} at the existing onsite residence and the surrounding offsite receptors. **(EIR Figure 5.2-2)**. Consequently, the Project would expose sensitive receptors to substantial concentrations of PM_{10} and $PM_{2.5}$ during grading activities, with Project level impacts being potentially significant.

Mitigation Measures 2-1 through 2-3 would reduce regional construction emissions and therefore reduce localized concentrations of air pollutant emissions during construction activities. With the implementation of mitigation, construction emissions of NOX would be reduced to below the LST screening level criteria; however, PM_{10} and $PM_{2.5}$ would continue to exceed the LST screening level criteria. **(EIR Table 5.2-14)**. Implementation of Mitigation Measures 2-1 and 2-2 would reduce the concentration of PM_{10} and $PM_{2.5}$ at the existing sensitive receptors. **(EIR Figures 5.2-4 and 5.2-5)**. The concentration of $PM_{2.5}$ would fall below the AAQS, and therefore localized air quality impacts from construction-related $PM_{2.5}$ would be reduced to less than significant. The concentration of PM_{10} would also be reduced to below the AAQS at the offsite receptors. However, concentrations of PM_{10} would continue to exceed the AAQS at the existing onsite receptor. Consequently, even with incorporation of mitigation measures, PM_{10} generated during grading activities would continue to exceed the AAQS, and therefore generate substantial concentrations of air pollutants at sensitive receptors, resulting in a significant and unavoidable Project-level impact for PM_{10}.

d. Cumulative Impacts-Construction.

Potential Significant Impact: The EIR concluded that the Project's contribution to cumulative construction-related air quality impacts would be significant.

Finding: Impacts related to Air Quality are discussed in detail in Section 5.2 of the Draft EIR. Specifically, the Project's contribution to cumulative construction-related air

quality impacts would be significant. Based on the entire record, the Commission concurs with the City finding that this impact cannot be reduced to a less-than-significant level through implementation of mitigation measures. Accordingly, the potential for the Project to contribute to cumulative construction-related air quality impacts remains significant and unavoidable. Mitigation Measures 2-1 to 2-3 (listed above) will reduce the concentration of air pollutants at nearby sensitive land uses to the extent feasible.

Facts in Support of the Finding: The South Coast Air Basin is in nonattainment for O^3 and particulate matter (PM_{10} and $PM_{2.5}$). **(EIR at 5.2-27)**. Construction of cumulative Projects will further degrade the regional and local air quality. Air quality will be temporarily impacted during construction activities. Mitigation Measures 2-1 to 2-3 would assist in mitigating these cumulative impacts, and can be applied to all similar cumulative projects. However, even with the implementation of mitigation measures, Project-related construction emissions would still exceed the SCAQMD significance thresholds for NOx, PM_{10} and $PM_{2.5}$, and cumulative emissions would result in greater exceedances. Therefore, the Project's contribution to cumulative construction-related air quality impacts will remain significant and unavoidable. **(*Id.*)**.

2. **Noise.**

a. Substantial Temporary or Periodic Increase in Ambient Noise.

Significant Unavoidable Impact: The EIR concluded that the Project will cause a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Finding: Impacts related to Noise are discussed in detail in Section 5.10 of the Draft EIR. Mitigation measures applied for construction activities of the Project would lessen noise impacts. However, based on the entire record, the Commission concurs with the City finding that construction activities will substantially elevate the ambient noise environment at noise-sensitive uses for a substantial period of time, and cannot be reduced to a less-than-significant level through implementation of mitigation measures. Accordingly, the potential for the Project to cause a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project remains significant and unavoidable. The following mitigation measures will mitigate construction noise impacts to the extent feasible:

10-1 The construction contractor shall properly maintain and tune all construction equipment to minimize noise emissions.

10-2 The construction contractor shall fit all equipment with properly operating mufflers, air intake silencers, and engine shrouds no less effective than as originally equipped by the manufacturer.

10-3 The construction contractor shall locate all stationary noise sources (e.g., generators, compressors, staging areas) as far from offsite residential receptor locations as is feasible.

10-4 Construction activities, including haul trucks and deliveries, shall be limited to between 7:00 AM to 7:00 PM Monday through Saturdays, except on federal holidays.

10-5 The project applicant shall post a sign, clearly visible onsite, with a contact name and telephone number of the project applicant's authorized representative to respond in the event of a noise complaint.

10-6 The construction contractor shall install temporary sound blankets at least six feet in height along the boundaries of the onsite residence.

Facts in Support of the Finding: Two types of short-term noise impacts could occur during construction: First, the transport of workers and movement of materials to and from the site could incrementally increase noise levels along local access roads; and/or short-term noise impacts could occur during site preparation, grading, and/or physical construction. **(EIR at 5.10-30)**. Mitigation Measures 10-1 through 10-6 would reduce noise generated by construction activities to the extent feasible. However, due to the number of soil haul trips that would be required, amount of heavy construction equipment needed, and duration of construction activities, this impact would remain significant and unavoidable. **(*Id.*)**.

The transport of workers and equipment to the construction site would incrementally increase noise levels along site access roadways. Even though there would be a relatively high single-event noise exposure potential with passing trucks, the expected number of workers and trucks is small relative to the background traffic. Truck trips would be spread throughout the workday. **(*Id.*)**. Therefore, these impacts are less than significant at noise receptors along the construction routes. However, the number of truck trips associated with soil haul operations would be high, and would increase the number of trucks on the local roadways during construction of the access roads due to amount of soil that would be transported. While truck trips associated with

soil haul operations would last for only a three-month period, as shown in the table, soil haul trips would substantially increase the ambient noise environment along the roadway. **(EIR Table 5.10-11).** Consequently, truck trips associated with soil haul operations would result in significant noise impacts for the noise-sensitive uses along the roadway during grading activities. **(EIR at 5.10-30)**.

Onsite project-related construction noise would generate noise levels ranging from 45 dBA Leq to 91 dBA Leq at the surrounding noise-sensitive receptors and between 73 dBA Leq to 80 dBA Leq at the existing onsite residence. **(EIR Table 5.10-12)**. Average noise levels would be lower than maximum noise levels, and would range from 38 dBA Leq to 70 dBA Leq at the nearby offsite noise-sensitive receptors and 53 dBA Leq to 60 dBA Leq at the existing onsite residence. **(EIR Table 5.10-13)**. Roadway-related construction noise would generate noise levels ranging from 50 dBA Leq to 88 dBA Leq at the surrounding noise-sensitive receptors. **(EIR Table 5.10-14)**. Average noise levels of each construction phase would be lower than maximum noise levels, and would range from 45 dBA Leq to 65 dBA Leq at the nearby noise-sensitive receptors. **(EIR Table 5.10-15)**. Construction activities would elevate ambient noise levels during the daytime at the residences surrounding the Project site and the proposed access roadways. **(EIR at 5.10-35)**. The City allows for noise from construction activities, but limits it to the least noise-sensitive portions of the day. The Project would comply with the City's Municipal Code, as specified in Section 8.54.070. Construction activities would not occur in the evening or late-night hours when people are more sensitive to noise. **(*Id.*)**. While maximum construction-generated noise would substantially increase the ambient noise environment, average construction-generated noise levels (i.e., noise levels that would be experienced by noise-sensitive receptors the majority of the time) would be much lower. Construction of the offsite portions of the access roads would last approximately three to six months; however, overall project-related construction activities would take approximately three years to complete. **(*Id.*)**. Because of the extended duration of construction activities and intensity of noise produced from heavy construction equipment running continuously, project-related construction activities would result in significant noise impacts at the surrounding existing residential uses.

3. **Traffic.**

a. Exceed Level of Service Standard.

Significant Unavoidable Impact: The EIR concluded that the Project will exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

Finding: Impacts related to Traffic are discussed in detail in Section 5.14 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that Project-related trip generation in combination with existing and proposed cumulative development would result in designated roads and/or highways exceeding the San Bernardino Association of Governments' Congestion Management Plan ("CMP") service standards. No funding program is currently available for the proposed Caltrans/SANBAG I-215 and I-15 freeway mainline improvements, and no mitigation measures are available to reduce this impact. Accordingly, the potential for the Project to exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways remains significant and unavoidable.

Facts in Support of the Finding: The traffic analysis for Spring Trails was completed in accordance with the definition of deficiency of the San Bernardino County CMP. **(EIR at 5.14-43)**. For freeway facilities, the definition of deficiency is based on maintaining a level of service standard of LOS E or better, except where an existing LOS F is already identified. There are two roadways identified in the CMP that would be impacted by project traffic:

- I-215 freeway
- I-15 freeway

Four segments of these two freeways are expected to have an LOS of F during morning peak hours with or without the Project in year 2035, and six segments are expected to have an LOS of F during evening peak hours with or without the Project in year 2035. **(EIR Table 5.14-5)**. All of these segments, except the northbound and southbound segments of I-15 between Sierra Avenue and Glen Helen Parkway, are included in the Caltrans improvement plans for the Devore interchange. **(EIR at 5.14-43).** With improvements, four of these freeway segments would operate at acceptable levels. However, the following freeway segments would continue

to operate at an unacceptable LOS for year 2035 with improvements:

- The I-215 freeway segment between Palm Avenue and Devore Road (northbound and southbound);
- The I-215 freeway segment between Devore Road and I-15 (northbound) • The I-15 freeway segment between Glen Helen Parkway and Sierra Avenue (northbound and southbound); and
- The I-15 freeway segment between I-215 and Glen Helen Parkway (northbound) **(EIR Table 5.14-8)**.

Spring Trails would generate traffic that would contribute to the unacceptable levels of service on these freeway segments. Additionally, mainline improvements to the I-15 and I-215 in the Project area are not included in a fee program at this time. **(EIR at 5.14-44)**. As a result, these impacts are significant and unavoidable, and cannot be mitigated.

b. Cumulative Impacts.

Significant Unavoidable Impact: The EIR concluded that the Project will result in cumulatively significant traffic impacts.

Finding: Impacts related to Traffic are discussed in detail in Section 5.14 of the Draft EIR. Based on the entire record, the Commission concurs with the City finding that the Project will result in cumulatively significant traffic impacts. No funding program is currently available for the proposed Caltrans/SANBAG I-215 and I-15 freeway mainline improvements which would mitigate this impact, which will remain significant and unavoidable.

Facts in Support of the Finding: The Project would result in both Project-specific and cumulative potentially significant traffic impacts. **(EIR at 5.14-44)**. The local roadways would experience growth in average daily trips as a result of not only this Project, but other growth in the area. Recommended intersection and freeway segment improvements would improve cumulative traffic conditions based upon the East Valley Traffic Model and Project-specific projections. **(*Id.*)**. However, since some of these improvements are not funded at this time, cumulative impacts would be significant and unavoidable.

4. **Greenhouse Gas Emissions.**

a. Generation of Greenhouse Gas Emissions.

Significant Unavoidable Impact: The EIR concluded that the Project will generate greenhouse gas ("GHG") emissions, either directly or indirectly, that may have a significant impact on the environment.

Finding: Impacts related to GHG emissions are discussed in detail in Section 5.16 of the Draft EIR. Mitigation measures applied during both construction and operations of the Project would reduce GHG emissions to the extent feasible. However, based on the entire record, the Commission concurs with the City finding that Project-related GHG emissions would significantly cumulatively contribute to global climate change in California, and that this impact cannot be reduced to a less-than-significant level through implementation of mitigation measures. Accordingly, the potential for the Project to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment remains significant and unavoidable. The following mitigation measures will mitigate impacts from GHG emissions to the extent feasible:

Construction

16-1 Applicants for new developments in Spring Trails shall submit evidence to the satisfaction of the Development Services Director that the project uses recycled materials for at least 5 percent of construction materials. Recycled materials may include salvaged, reused, and recycled content materials. Recycled and/or salvaged building materials shall be shown on building plans submitted to the City.

16-2 Applicants for new developments in Spring Trails shall submit evidence to the satisfaction of the Development Services Director that the project uses 20 percent locally manufactured and produced building materials, which are defined as materials manufactured or produced within 500 miles of the project.

16-3 Prior to the issuance of building permits, applicants for Spring Trails shall prepare a construction waste management plan to reduce construction debris and material by diverting at least 50 percent of the total of all project-related nonhazardous construction and debris from landfills to recycling or reuse operations (based on the C&D requirements of Section 6-3.602 of the City of Ontario Municipal Code). The construction waste management plan shall identify the amount of construction debris by type that would be generated and the maximum weight of each material type that can feasibly be diverted from landfills.

16-4 Applicants for new developments in Spring Trails shall submit evidence to the satisfaction of the Development Services Director that the project uses insulation with at least 75 percent recycled content, such as cellulose, newspaper, or recycled cotton.

16-5 Applicants for new development proposals in Spring Trails shall require the construction contractor to provide carpooling for workers to and from the work site on days that construction activities require 200 or more workers. These requirements shall be demonstrated to the Development Services Director prior to the issuance of grading permits and shall be noted on the grading plan cover sheet and discussed at all pregrade meetings.

Operation

Energy Efficiency

16-6 Prior to the issuance of a building permit, residential development plans shall be required to demonstrate that the overall project exceeds 2008 Building and Energy Efficiency Standards (Title 24) for energy efficiency by 15 percent. Design strategies to meet this standard may include maximizing solar orientation for daylighting and passive heating/cooling, installing appropriate shading devices and landscaping, and utilizing natural ventilation. Other techniques include installing insulation (high R value) and radiant heat barriers, compact fluorescent and/or light emitting diode bulbs, low-e window glazing or double-paned windows, energy-efficient appliances (e.g., Energy Star appliances), cool roofs, and cool pavement.

16-7 Applicants shall provide all homeowners with information regarding energy-efficiency rebate programs offered by utility providers and government agencies.

Water Conservation and Efficiency

16-8 Applicants for new developments in Spring Trails shall submit evidence to the satisfaction of the Development Services Director that all toilets, urinals, sinks, showers, and other water fixtures installed onsite shall be ultra-low-flow water fixtures that exceed the Uniform Plumbing Code. Examples are: 1.28 average gallons per flush high efficiency toilets, 2 gallon per minute (gpm) efficient bathroom faucets, 2.2 gpm efficient kitchen faucets, and 2.2 gpm efficient shower heads.

16-9 Mulch planting beds and apply compost and environmentally friendly fertilizers to promote healthy topsoil, maximize plant growth, and reduce plant replacement in the Spring Trails community parks and landscaping. This also reduces the need for longer or more frequent irrigation run times.

Forest Resources

3-12 Significant tree resources that are removed from the site during project development shall be replaced at a 1:1 ratio or at the exchange ratios specified below. Significant tree resources are defined as any native or nonnative ornamental tree—excluding species of the Eucalyptus genus—that is healthy, structurally sound, and over 20 feet in height. Prior to the issuance of grading permits, a certified arborist shall conduct an inventory of all significant trees within the development footprint. This inventory shall be used to determine the number and types of significant trees that will be impacted and the subsequent replacement quantities. The number of replacement trees

shall be, at a minimum, 220 trees. Should the aforementioned inventory determine that a greater number of significant trees will be impacted, then that quantity shall be used in determining replacement quantities. The following exchange ratios shall be used: 1) one 36-inch box tree is equivalent to one replacement tree; 2) five 15-gallon trees are equivalent to one replacement tree; 3) ten 5-gallon trees are equivalent to one replacement tree; and 4) fifteen one-gallon trees are equivalent to one replacement tree.

During the development of the project, the project applicant shall incorporate the recommendations as set forth in the project arborist report (Integrated Urban Forestry 1998). A certified arborist shall be retained at the developer's expense to oversee the implementation of these requirements and to specify other requirements as deemed appropriate. The measures to be followed include, but are not limited to, specified protocols for the following: 1) the removal of nonnative trees from the site; 2) the removal and transplantation, when feasible, of structurally sound and healthy native trees to other areas of the project site; 3) the installation of tree protection barriers on all trees to be preserved that are within the reach of vehicles and equipment; 4) tree protection training of construction personnel by a certified arborist; 5) irrigation of trees where the natural water supply is interrupted or diminished or where protected trees may require additional water to endure construction-induced stresses; 6) subsequent replacement of any trees that are damaged or have not survived transplantation and relocation; and 7) implementation of the tree replacement plan, as outlined in the first paragraph of this measure. This measure shall be implemented to the satisfaction of the Development Services Director.

Facts in Support of the Finding: The proposed Project is not a regionally significant project pursuant to SCAG's Intergovernmental Review criteria and the CEQA Guidelines. The development contemplated by the Spring Trails Specific Plan would contribute to global climate change through direct emissions of GHG from onsite area sources, offsite energy production required for onsite activities and water use, and vehicle trips generated by the Project. **(EIR at 5.16-10)**. Construction activities would consume fuel and result in the generation of GHG emissions. Construction of the Project is anticipated to commence year 2012, until the anticipated completion year 2015. Construction-related GHG emissions would cease upon completion of the construction phase of individual development projects. Emissions from construction activities were calculated on an annual basis based on the construction phasing and equipment list provided by the applicant. **(EIR Table 3-4)**. Construction emissions associated with the Project are amortized based on a 30-year project lifetime and included in the Project's GHG emissions inventory. **(EIR Table 5.16-3)**. Fossil fuels used by construction equipment would generate GHG emissions. To reduce these, California has adopted a low carbon fuel

standard. The low carbon fuel standard would reduce the carbon content of fuel of both gasoline and diesel fuel, thereby reducing GHG emissions from fuel from construction equipment by 10 percent. **(EIR at 5.16-11)**. The standard went into effect in year 2010 and requires transportation fuel sold in California to have a 10 percent reduction in average carbon intensity by year 2020. The compliance path of the 10 percent reduction target would be incremental and would be "back-loaded"—that is, more reductions would be required in the last five years than the first five years. **(*Id.*)**. Construction activities would commence after 2010 and would therefore incrementally benefit from this statewide GHG reduction requirement. However, due to the scale of the development activities associated with the Project, emissions would be potentially cumulatively significant without implementation of mitigation measures to reduce carbon emissions. **(*Id.*)**.

Approximately 220 native trees within the boundaries of the Project site meet the definition of forest resource. The loss of these forest resources would remove carbon sinks as the forest land is converted to new development associated with the Spring Trails Specific Plan. **(*Id.*)**. Trees and other vegetation remove CO2 emissions through the photosynthesis process by uptake of CO2 and emission of oxygen. The current inventory (2002–2004) in California shows forests as a carbon sink of 4.7 MM Tons of CO2e. However, carbon sequestration has declined since 1990 and BAU for 2020 assumes no net emissions from forest resources. **(*Id.*)**. Loss of forest resources to development increases GHG emissions levels as less carbon is sequestered (i.e., stored as plant material). Additionally, wildfires also contribute to GHG emissions. Removal of the 220 native trees would result in a loss of forest resources and therefore a loss of potential carbon sequestration. These trees are required to be replaced in accordance with the City's Municipal Code Section 19.28.090. Mitigation Measure 5.3-11 requires that these trees are replaced at a 1:1 ratio (or at the exchange ratios specified in the mitigation measure). Because the trees would be replaced, the carbon sequestration loss from these forest resources is considered nominal and no significant impact would occur; this sector is not included in the GHG emissions inventory. **(EIR at 5.6-12).**

For the operations phase, the Project's GHG emissions are separated into emission sources for the applicable GHG emissions Sectors established by CARB. **(*Id.*)**. Transportation Sector emissions are produced from vehicular travel to and from the Project site. Electricity Sector sources are indirect GHG emissions from the energy (purchased energy and energy from water use) that is produced offsite. Recycling and Waste Sector includes emissions associated with waste disposal generated by the Project. **(*Id.*)**. Area sources (Commercial and Residential Sector emissions sources) are owned or controlled by the project (e.g., natural gas combustion, boilers, and furnaces) and produced onsite. The emissions estimates for the Project do not take into account the GHG emission reductions associated with changes to the Building and Energy Efficiency standards, California Appliance Energy Efficiency regulations, California Renewable Energy Portfolio standard, California low carbon-content fuel legislation, changes in the Corporate Average Fuel Economy (CAFE) standards (Pavley), and other early action measures in the Scoping Plan to reduce GHG emissions. **(EIR Table 5.16-4)**. Hence, the emissions inventory represents the project's BAU emission scenario. The largest source of emissions is from the Transportation Sector. While development patterns can influence travel behavior and travel modes, these emissions are indirect sources of GHG, not directly controlled by applicants for new development in the proposed Spring Trails Specific Plan. **(EIR at 5.6-12).** Project-related Electricity Sector emissions (water and purchased energy) represent the second largest proportion of emissions associated with the project due to the anticipated average square footage of the single-family dwellings units that would be developed on each lot. Average lot size would be approximately 27,337 square feet (0.6 acre), with the largest lot at 13.9 acres and the smallest lot at 10,800 square feet (0.2 acre). **(*Id.*)**. These two sectors are followed by area sources associated with the Commercial and Residential Sector and Recycling and Waste. These direct sources of emissions can be controlled by new development by ensuring that structures are built efficiently to reduce demand on energy use, that nonpotable/recycled water is used where available to reduce demand of potable water use, and that recycling is available onsite to decrease the amount of waste sent to landfills. **(*Id.*)**.

The Project would generate a net increase of approximately 9,748 MTons of GHG per year or 9.4 MTons per service population based on a net increase of 1,035 people. **(EIR Table 5.16-4)**. There is currently no threshold adopted by SCAQMD for development projects that defines at which point GHG emissions generated by a project becomes significant. However, SCAQMD's Working Group for a GHG Significance Threshold has proposed a threshold of 3,000 MTons. Consequently, the total increase in GHG emissions onsite from the Project is considered to be substantial in the absence of mitigation. In order to determine whether GHG emissions associated with the Project are significant, a consistency analysis with transportation and nontransportation GHG reduction strategies was conducted. **(EIR at 5.16-13).**

Almost half of the increase in GHG emissions due to the Project is from transportation sources. The Project is inconsistent with several transportation strategies aimed at reducing vehicle miles traveled (VMT) by incorporating mixed-use or locating within ½ mile of services and transit. **(EIR Table 5.16-5)**. Therefore, the Project's transportation sources are considered to substantially contribute to GHG emissions in California. The Project's non-transportation sector GHG emissions would potentially significantly contribute to the State's GHG emissions inventory. **(EIR Table 5.16-4)**. Even with implementation of mitigation, this impact will remain significant and unavoidable.

D. Additional Topics Required by CEQA.

1. Significant Irreversible Environmental Effects.

CEQA mandates that any significant irreversible environmental changes that would be involved in the Project be addressed as part of the EIR process. (CEQA Guidelines 15126(c)). An impact would fall into this category if: the project would involve a large commitment of nonrenewable resources; the primary and secondary impacts of the project would generally commit future generations to similar uses; the project involves uses in which irreversible damage could result from any potential environmental incidents associated with the project; or the proposed consumption of resources is not justified.

In the case of the proposed Project, implementation would involve a long-term irreversible change to the existing environmental conditions, resulting in the following significant irreversible environmental effects:

- Implementation of the Project would include construction activities that would entail the commitment of nonrenewable and/or slowly renewable energy resources, human resources, and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, and water.

- An increased commitment of social services and public maintenance services (e.g., police, fire, schools, libraries, and sewer and water services) would also be required. The energy 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.

- An increase in Project-related vehicle trips would accompany Project-related population growth. Over the long term, emissions associated with such vehicle trips would continue to contribute to the South Coast Air Basin's nonattainment designation for ozone (O3) and particulate matter (PM2.5 and PM10).

- Project-generated vehicle trips would increase emissions of greenhouse gases (GHG) to levels that are above the California Air Resource Board thresholds for both buildout year 2013 and future year 2030. Vehicle-related GHG emissions would cause significant and unavoidable impacts.

The Commission concurs with the preceding findings regarding Significant Irreversible Environmental Effects.

2. **Growth Inducing Impacts.**

CEQA requires a discussion of ways in which a project could be growth-inducing. The CEQA Guidelines, specifically Section 15126.2(d), identify a project as growth-inducing if it fosters economic or population growth, or the construction of additional housing either directly (such as by proposing new homes and businesses, or indirectly (such as through extension of roads or other infrastructure) in the surrounding environment. Impacts related to growth inducement would also be realized if a project provides infrastructure or service capacity which accommodates growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

The Spring Trails Project would be built in an area that presently does not have any public infrastructure such as water and wastewater pipelines; onsite roads; or electrical, natural gas, or telecommunication utilities. The 304-unit residential development plan (now reduced to 215 units) would require the expansion of these public infrastructure services. The surrounding community of Devore has limited infrastructure to support the expansion of these services. For example, the water and wastewater infrastructure must be expanded in the community of Devore before it can be expanded to the Spring Trails site. Roadway improvements, electrical service, natural gas service, and telecommunication systems must be expanded in the area connecting the project to existing development as well.

The expansion of onsite infrastructure for Spring Trails would not itself induce growth in the area, since it would be used solely by residences in Spring Trails, but the expansion of infrastructure in the community of Devore may cause indirect growth. Additional development in Devore could be supported by the expansion of infrastructure in this area, allowing for development that would not otherwise be supported. The expansion of infrastructure in Devore is being completed to serve the Spring Trails development and other development in the area, so the Project is not the sole reason for the expansion. However, the approval of the Spring Trails development would guarantee the completion of all required infrastructure improvements in the surrounding area and on the Project site, since these expansions are necessary for project operation.

The public services that would serve the Spring Trails Project, including police, fire protection, school, and library services, would require varying degrees of expansion. The San Bernardino County Fire Protection District (County Fire) would service the site during a fire emergency. The nearest fire station (232) would increase its staffing levels from three to four to service the site. Any expansion of police services would be financed through the law enforcement developer fees charged to the Project applicant. According to the San Bernardino Police Department, the Spring Trails Project would cause a slight increase in police service calls.

The Project is anticipated to generate 101 elementary school students, 52 middle school students and 59 high school students, based upon the estimated population growth resulting from the additional residential units. (FEIR at pg. 3-22). The Project will be required to pay school impact fees to the San Bernardino City Unified School District pursuant to Education Code Section 17620 and Government Code Section 65995 to offset the additional students entering the District. Payment of fees to a school district, under Senate Bill 50, is considered full mitigation for a project's impacts on public schools. (DEIR at 5.12-12). Furthermore, the nearest high school (Cajon High School) and the nearest middle school to the Project (Cesar Chavez Middle School) have more than sufficient additional capacity for any new students generated by the Project. It should be noted that the nearest high school (North Verdemont Elementary School) has capacity for an additional 82 students. (DEIR at 5.12-11).

The Project will also be required to pay additional fees for library services. The Project will add an estimated 711 persons upon full build-out. (FEIR at3-23). A library system is considered adequate if the system can provide two volumes per persons. Because the library system is well established, with the additional population anticipated from the Project, the library would only be required to add an additional 26 items to remain adequate. The City's Library Facilities Fee of $596.63 per residential unit is sufficient to supply the additional items and maintain a less than significant impact on libraries (DEIR at 5.12-13).

The fees that are required to be paid as part of the Project are sufficient to meet Project demands and any additional impacts that are placed on services, including the services of fire, police, library, and school facilities. The fees would be applied to all existing and future development in the area and thus benefit not just the Project, but the overall community through expanded and increased services. The increase in services for the area may encourage other development in the area and act as an inducement to future growth.

Spring Trails includes residential development that would provide housing for employees of the San Bernardino area. The City of San Bernardino is considered to be jobs-rich, with a projected jobs-to-housing balance of 2.00 in 2035 (without project). Jobs in the City of San Bernardino are expected to grow from 81,115 jobs in 2000 to 157,088 jobs in 2035. With the proposed Project, the jobs-to-housing balance would be 1.99 in 2035. This would create a more balanced jobs-to-housing ratio. The Project would not create a need for additional housing, nor would it create a demand for jobs.

The approval of Spring Trails would require the approval of discretionary actions that may set precedents for future projects with similar characteristics. Spring Trails would require approval of: A General Plan Amendment (GPA–02-09) to approve the annexation of the site and change the site's land use designation; a Development Code Amendment (DCA 12-10) to recognize the Spring Trails Specific Plan as a Special Purpose District; a Specific Plan (SP 10-01); a Tentative Tract Map (TTM 15576); and a Development Agreement with the City. The approval of these actions changes the existing restrictions on growth set by the general plan and zoning laws, which may encourage growth of a similar manner in the areas surrounding Spring Trails or other undeveloped areas near or in the City of San Bernardino.

If additional development were allowed in the vicinity of the project, it would cause additional environmental impacts. However, future projects would need to complete environmental review, and discretionary approval would need to be given to projects following review by the Common Council. Spring Trails would not change the existing protocol for project approval, and would not provide precedents or make it more likely for other projects to gain approval of similar applications.

Based on the foregoing, the Project should not result in unforeseen nor unmitigable growth-inducing impacts. The Commission concurs with the preceding findings regarding Growth Inducing Impacts.

E. **Project Alternatives**.

Section 21100 of the Public Resources Code and Section 15126 of the State CEQA Guidelines require an EIR to identify and discuss a No Project/No Development Alternative as well as a reasonable range of alternatives to the proposed Project that would feasibly attain most of the basic Project objectives, and would avoid or substantially lessen any of the significant environmental impacts.

"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" (*CEQA Guidelines*, Section 15021(d)).

The EIR analyzed the following four (4) alternatives to the Project as proposed, and evaluated these alternatives for their ability to meet the Project's objectives as described in Section II.D above. The No Project alternative is presented consistent with the requirements of the CEQA Guidelines §15126.6. The remaining alternatives were selected based on their ability to fulfill the

basic Project Objectives and their capability for reducing significant impacts of the proposal. Alternatives selected for evaluation are described below.

1. **No Project/No Development Alternative.**

For the purposes of the DEIR Alternatives Analysis, the No Project Alternative is considered to be equivalent to a "No Build" scenario. That is, if the Project or some similar development proposal is not implemented on the subject site, there are no other known or probable scenarios for the subject property, in which case the site would likely remain in its current state for the foreseeable future, and no discretionary approvals would be required.

The No Project/No Development Alternative would preserve the existing physical conditions of the Project site. It assumes there would be no development of any type nor would development occur under existing land use designation parameters. This alternative would preserve the site for open space and would preclude the development of the site under the City or County General Plan land use designations. The low-density residential development and Spring Trails Specific Plan would not be implemented, and supporting infrastructure (i.e., roads and utility infrastructure) would not be built. With this alternative, the site would remain open for future land use proposals.

The No Project/No Development Alternative would avoid impacts related to air quality, biological resources, cultural resources, geological resources, greenhouse gas emissions, hazards (wind, hazardous materials), hydrology and water quality, land use and planning, noise, public services, transportation and traffic, and utilities and service systems. Compared to the proposed Project, impacts would be similar for mineral resources. It would not reduce impacts to hazards directly related to fire since the site would remain undeveloped. The groves of eucalyptus trees represent a high fire hazard for the site. This project would not extend water improvements to the project site that would benefit firefighting for the site and also benefit surrounding residences. Overall, this alternative would reduce environmental impacts relative to the proposed Project and would reduce the following significant impacts of the proposed Project to less than significant:

- Air Quality (construction-related pollutant emissions)
- Greenhouse Gas Emissions (traffic-related greenhouse gas emissions)
- Noise (construction-related noise near sensitive receptors)
- Transportation and Traffic (project's contribution to CMP freeway segment unacceptable level of service)

The No Project/No Development Alternative would not achieve the Project Objective of developing the Site as envisioned by the City's 2005 General Plan (Objective 1). The site is designated for residential development and is included in the City's General Plan Housing Element. The City has a limited base of available high-quality, low density residential development based upon a review of the MLS listings for the City as well as under General Plan designation areas for low density residential development. Such high-quality, low density housing is desirable to attract and retain top quality candidates for positions at the University and other institutions. According to the City of San Bernardino Housing Element Adopted June 20, 2011, approximately one-third of the City's housing stock is between 30 and 49 years old, with an

additional 35.3 percent over 50 years old. (Pages 3-25 and 3-26). Only 2,720 housing units were constructed between the years of 2000-2005, during the height of the housing boom. (Housing Element Adopted June 20, 2011, Table H-12). The household composition of the City shows that 82% of the City's households are moderate to very-low income, while only 18% are above moderate income. (Id. Chart 4, pg. 3-17). There are few other proposed single-family residential developments within the City at this time and thus the proposed Project will fill a residential need within the City as is envisioned within the City's General Plan. Such a need is identified generally in Housing Element policy 3.1.1, which states: "Provide adequate sites to accommodate the production of a variety of housing types through land use designation, zoning, specific plans, and overlay districts." The Verdemont Heights Area Plan, found on page 2-75 of the General Plan Land Use Element and in which this Project site is located, further discusses strategy to meet the Housing Element policy 3.1.1, identifying in strategy 4 on page 2-83 to "Promote the development of higher end housing."

Nor would the alternative provide any of the amenities of the proposed Project, and thus would not be able to meet Objectives 2, 3, 4 and 5. Housing Element policy 3.1.1 further encourages the development of a variety of housing, including high-quality, low-density housing, stating: "Provide adequate sites to accommodate the production of a variety of housing types through land use designation, zoning, specific plans, and overlay districts." City does not have a large variety of high-quality, low-density housing and the proposed project would provide additional variety as anticipated in the Housing Element Policy 3.1.1. The Verdemont Heights Area Plan, found on page 2-75 of the General Plan Land Use Element and in which this Project site is located, further discusses strategy to meet the Housing Element policy 3.1.1, identifying in strategy 4 on page 2-83 to "Promote the development of higher end housing."

In addition, the site in its current state does not provide access for community recreational uses and does not provide access to hiking or equestrian trails, despite its proximity to the San Bernardino National Forest. The Proposed Project provides additional recreational opportunities for the community, such as public and private parks, equestrian trails, and hiking trails.

Project Objectives 2, 4, 5, 6, and 8 would be met under the No Project/No Development Alternative. Although the No Project/No Development Alternative would not include the construction of roadways, it would not interfere with the existing roadway system in the area and would essentially meet Objective 2 because it would not interfere with the surrounding community. The No Project/No Development Alternative would be consistent with land use policies of the surrounding San Bernardino National Forest (Objective 5). Since the Project site would be undeveloped, it would not be required to meet land use development policies of the SBNF, and it would be consistent with SBNF land use plans. Since the No Project/No Development Alternative precludes development of the site, it would not create a development footprint and would maintain open space, allowing it to meet Objective 6. Objective 7 would also be met, because the No Project/No Development Alternative would avoid all significant environmental impacts of construction and long-term improvements of the proposed Project.

Finding: Based on the entire record, the Commission concurs with the City finding that the No Project/No Development Alternative would not fully meet the basic Project

Objectives. Accordingly, the Commission concurs with the City rejection of the No Project/No Development Alternative.

2. **No Project/Existing County General Plan Alternative.**

Under the No Project/Existing County General Plan Alternative, the Project site would not be annexed to the City of San Bernardino, and it would be developed in accordance with the land use designations and related overlay constraints included in the County of San Bernardino General Plan and Zoning Ordinance. The general plan (2007) designates the southern portion of the project site (approximately 190.6 acres) as Residential Estate (RL-5), with a minimum lot size of five acres, and the northern portion (approximately 160 acres) as private unincorporated land in the San Bernardino National Forest.

Site grading and home construction would be limited to the RL-5 portion of the site (the approximately 190.6-acre southern half). With a minimum lot size of five acres, a maximum of 38 homes could be developed, resulting in a gross density of 0.20 units/acres for the 190.6 acres. Earthwork would be substantially reduced for this alternative. Only a portion of each five-acre lot for each residential unit developed under the County General Plan would be graded. The size of the graded area would depend on the individual house size and amount of driveway/access road needed to serve the house.

This alternative assumes that primary access would be provided from the existing Meyers Road, and secondary or emergency access could be provided by Martin Ranch Road. The development of new roads would not be required to provide access to the 38 homes. Development would most likely be concentrated within the area of fewest constraints, primarily the area characterized with slopes less than 15 percent.

The No Project/Existing County General Plan Alternative would comply with County development restrictions, including zoning overlay areas for Fire Safety, Geological Hazards, and Open Space. According to the San Bernardino County Hazards Overlay Map, the southern portion of the project site is within Fire Safety Area 3 (FS3), which covers areas generally south of FS1 (the northern portion of the site, which is within the San Bernardino National Forest) and areas within the wildland-urban interface. As outlined in Section 82.13.030, "Fire Safety Areas," of the San Bernardino County Municipal Code, FS1 includes areas in the mountains and valley foothills. It includes all the land generally within the San Bernardino National Forest boundary and is characterized by areas with moderate and steep terrain and moderate to heavy fuel loading, contributing to high fire hazard conditions. FS3 includes lands just to the south of the mountain FS1 area. These lands are primarily within the wildland-urban interface of the Valley Region and consist of varying terrain, from relatively flat to steeply sloping hillside areas. Development in FS3 is prone to wildfire primarily because of its proximity to FS1 zones. FS3 areas are also subject to Santa Ana wind conditions that have the potential to dramatically spread wildland fires. The Geological Hazards Overlay Zone map also shows the site in landslide and earthquake fault zones.

The No Project/Existing General Plan Alternative would reduce impacts related to air quality, biological resources, cultural resources, geological resources, greenhouse gas emissions, hazards, hydrology and water quality, noise, public services, transportation and traffic, and utilities

and service systems (solid waste and wastewater). Compared to the proposed Project, impacts would be similar, although slightly reduced, for land use and planning, mineral resources, and population and housing. Utility and service impacts directly related to population-based demand factors (water supply, solid waste generation, and wastewater generation) would be substantially reduced for this alternative in comparison to the proposed Project. The infrastructure to serve the project site under the No Project/Existing County General Plan Alternative would not be guaranteed, however, as the City would not have jurisdiction over the site. The 38 units under this alternative, however, would be unlikely able to amortize the major infrastructure upgrades—particularly for domestic water delivery and storage—that would be required to adequately provide water and fire flow requirements to the Project. (DEIR 7.5.18, page 7-17).

Similarly, it would not provide the benefit to other area residents associated with these improvements under the proposed Project. Overall, this alternative would reduce environmental impacts relative to the proposed Project and would reduce the following significant impacts of the proposed Project to less than significant:

- Air Quality (construction-related pollutant emissions)
- Greenhouse Gas Emissions (traffic-related greenhouse gas emissions)
- Transportation and Traffic (project's contribution to CMP freeway segment unacceptable level of service)

The No Project/Existing General Plan Alternative, the City could not ensure that the Project would achieve Objective 1 as it would have no control or oversight over the development of the lots. The Project site is located within the City's sphere of influence and is designated in the City's 2005 General Plan as Residential Estates that entail lots of 1 acre per residence. If the site is constructed under the County General Plan, it would not be annexed to the City and would be consistent with the County land use designation consisting of 5-acre residential lots. A Specific Plan would not be required for the build-out of the 38 lots and therefore the design criteria and guidelines included in the Specific Plan setting forth strict guidelines to ensure "high quality design" (Specific Plan, page 4-1) would not be implemented as part of the Project. Nor would the landscaping, sidewalk and other criteria that are implemented as part of the Specific Plan to "integrate areas of development with open space areas in a manner that provides a natural transition between the two elements" (*Id.*) be required under the County Code.

The Proposed Project includes 304 lots (now reduced to 215 lots) that will average one acre per lot throughout the development by clustering the lots and ensuring substantial open space is preserved. The extent to which the No Project/Existing General Plan Alternative could achieve Objectives Nos. 2, 3 and 4 would be largely dependent on the potential financial return on 38 homes and the ability to fund amenities (including hiking, equestrian, and bicycles trails) and required infrastructure to assure a high-quality development. The additional requirements for parks found within the City's Code would not be required, and hiking, equestrian and bicycle trails would not be required under the County's General Plan and thus may not be considered as part of the overall development.

The cost to construct Project access roadways, site grading, and infrastructure and building construction would be partially financed through or balanced by the property sales on the Project

site. It is uncertain whether Objective 8 could be achieved and a reasonable return on investment achieved. Since the No Project/Existing General Plan Alternative would have fewer residential units, the total construction and operation costs may not be offset by the property sales, and this Project Objective would not be met. The inclusion of fewer amenities would offset some of the cost for roadways, water, sewer, fire control and other required improvements for the Project, but would lessen the benefit of the Project to the surrounding community. Furthermore, the City would not benefit from the development through the collection of Development Impact Fees, Library Fees, and infrastructure improvements that would be paid under the proposed Project. Instead, the County would be the recipient of any such fees and the beneficiary of any property tax increases resulting from the improvements. It is also unlikely that Objective 2 could be achieved under the No Project/Existing General Plan Alternative, because the description and analysis above assumed that this alternative would be served by existing Project-area access roads. Access via Meyers Road is opposed by the surrounding community, and would be perceived as not preserving the integrity of the Verdemont community.

Project objective Nos. 4 through 7 could be achieved under the No Project/Existing General Plan Alternative. Development would be avoided in the San Bernardino National Forest and increase the buffer between forest-owned land and developed areas relative to the proposed Project. It would maximize open space and would be designed to respect natural conditions, including wildland fires, flooding, and seismic hazards (Objectives 5 and 6). Construction-related measures to mitigate noise and air quality impacts as well as long-term operational mitigation measures of the proposed Project could be assumed to also apply to this alternative, thereby achieving Project Objective No. 7.

Finding: Based on the entire record, the Commission concurs with the City finding that the No Project/Existing General Plan Alternative would not fully meet the basic Project Objectives. The Commission concurs with the City and therefore rejects the No Project/Existing General Plan Alternative.

3. **Alternative Site Plan.**

A conceptual Alternative Site Plan was developed to evaluate the potential to modify the proposed Project to minimize or eliminate the significant impacts of the project (construction-related air quality and noise impacts). Since this alternative also reduces the number of housing units, it was also intended to reduce long-term operational, significant unavoidable greenhouse gas emission (GHG) impacts. The approach taken to reduce these impacts was to prepare a concept that would reduce the size of the area graded and the corresponding volume of earthwork. Based on the opportunity to reduce the development footprint, another objective of this alternative was to minimize other environmental impacts to the extent possible.

This conceptual site design would have a total onsite development footprint of 137.6 acres (123.8 graded acres and 13.8 acres of fuel modification area), a reduction of 43 percent from the proposed Project's onsite development area of 241.5 acres. Assuming the same development density as the proposed Project (1.27 du/ac), this alternative would yield 175 single-family homes. This results in a slightly greater percentage of a 46% overall reduction in the number of houses.

Onsite circulation would remain essentially the same, with the exception of some road adjustments on the western portion of the site and the removal of one of two roads that connect the northern quarter of the site with the reservoir tank. Project access would remain the same as with the proposed project. The primary access road would enter the site on the southeast as an extension of Verdemont Drive, and the secondary access road would enter the site from the southwest and connect to the frontage road along I-215.

The Alternative Site Plan would reduce, but not eliminate the short-term air quality and noise impacts. It would have similar greenhouse gas emission impacts as the proposed Project, and would be inconsistent with the transportation strategies of reducing VMT. Cultural Resources, Hazards and Hazardous Materials, Land Use and Planning, Mineral Resources, and Population and Housing impacts would also be similar. All other impacts (aesthetics, biological resources, geology and soils, hydrology and water quality, public services, recreation, transportation and traffic, utilities and service systems, and forest resources) would be lessened in comparison to the proposed Project.

The Alternative Site Plan has the potential to attain most of the proposed Project's objectives, but would not fully realize the anticipated development of infrastructure and high-quality housing needs of the City.

The 43% reduction in the number of units and reduction in overall project scope would impact the ability to achieve Project objectives 2, 3 and 8 as the overall construction of infrastructure and payment of fees would also be reduced by the same approximate percentage. The current project design includes an approximate 30% reduction of units due to further evaluation of fault hazards on the site. From the economic standpoint of the City, the proposed Project, as opposed to the alternative, will pay substantial fees that will benefit the City, including Development Impact Fees, School Fees, Library Fees permitting fees, public services fees, and related development fees that provide additional benefit both to the community by increasing the funding and services available, but also to the City. For example, the Project will be required to pay additional fees to support police services in the amount of $183,506.18 and to pay library fees in the amount of $181,375.52, The Project provides additional property taxes that will also contribute to public services. These fees are outlined in the findings and further identified in the EIR. The Project will also provide the opportunity for construction jobs in the community for a substantial period of time, depending on how quickly the proposed Project is built out.

The 43% reduction in units also makes it infeasible from the developer's standpoint to create an attractive, viable project and realize a reasonable return on investment as stated in Objective 8. The developer has indicated that the 30% reduction in the number of units can result in a sustainable project over the long-term. Although the overall fees that will be paid to the City will be reduced, the Project still requires substantial infrastructure costs in terms of utilities, fire suppression, and roadways, in addition to the amenities included in the overall Specific Plan. Under this Alternative, the cost per residence increases substantially with the reduction in the overall number of units, resulting in a 37% increase in cost per unit to construct while the potential sale price for each unit would remain steady. With fewer units, the cost to provide and construct infrastructure in addition to the proposed residential units would not be balanced by project revenues. The Project as proposed includes major infrastructure improvements, including the

construction of two offsite access roads, extension of domestic water service and three water reservoirs, and extension of sewer service to the site. These infrastructure improvements are necessary in order to implement and adequately manage the wildfire managements plan and buffer areas, as well as to service the proposed residential units under both this Alternative as well as the proposed Project. Both the proposed Project and the Alternative Site Plan would also include and require costly mitigation programs, including a comprehensive tree replacement program. These costs are not reduced proportionately with the reduction of the number of units as the infrastructure is still necessary for the remaining development. The financial viability of this alternative is infeasible considering these costs.

Finding: Based on the entire record, the Commission concurs with the City finding that the Alternative Site Plan Alternative would not fully meet the basic Project Objectives. The Commission concurs with the City and therefore rejects the Alternative Site Plan Alternative.

4. **Reduced Daily Grading Alternative.**

The Reduced Daily Grading Alternative was defined and evaluated for its potential to reduce air quality impacts. The air quality impacts of the proposed project pertain to the emission of NOX from construction activities at a local and regional level. The primary source of NOX emissions is vehicle emissions, particularly heavy construction equipment. The Reduced Daily Grading Alternative assumes that both the number of acres graded per day and the number of construction vehicles onsite per day would be reduced by 75 percent. This would make the grading phase approximately four times as long as would be under the proposed Project.

The Reduced Daily Grading Alternative would grade the project site over a period of 12 months rather than 3 months. The 12-month schedule would likely be extended even more due to rainy season interruptions. All of the listed equipment would be reduced from eight to two, with the exception of the water trucks. Site development after grading would be the same as the proposed Project, and other project characteristics would be the same. The total number of units built would be 304 (now reduced to 215 units), and site access and circulation would be the same as under the proposed Project.

The Reduced Daily Grading Alternative would substantially reduce construction-related air quality impacts. Daily NO_X emissions would be reduced from 740 to 181 pounds per day, but would still exceed the significance threshold of 100 pounds per day. Impacts to noise and traffic during construction would be worsened by the Reduced Daily Grading Alternative because of the extended construction period. Hydrology and water quality impacts would also be worse, because sediment runoff would increase during the longer construction period. Other construction-related impacts would be similar to the proposed Project, and long-term operational impacts would be the same as for the proposed Project.

The Reduced Daily Grading Alternative would implement the same proposed site plan and Specific Plan as the proposed Project, and would attain most the proposed Project objectives. Extending the construction grading activities over a year, however, could jeopardize the economic viability of the Project and a reasonable return on investment for both the City and the developer

(Objective 8). This Alternative would require a greater dedication of the City's resources to verify permit requirements for a longer period of time. The payment of development fees would also be extended as such fees would only be required as certain stages of development would be met. Furthermore, the number of jobs for construction workers would decrease. From the developer's standpoint, the length of time necessary to complete the grading would greatly exceed any cost savings as well as limit the number of jobs created as a result of the project build-out as the grading schedule, equipment mix, and workers included in the proposed Project description are based on typical construction activities. The extended schedule would likely result in costly inefficiencies. Under the mitigation requirements for the Project, timing of grading and construction affects the potential biological impacts resulting from the project, as is identified in the EIR.

Where construction schedules must be drawn out, other phases must be delayed and the potential for repeated studies and other requirements increases. This increases costs to both the City and the developer as greater resources from both will be required, makes effective construction phasing and planning difficult, and the extended construction period would also limit the Project's ability to minimize environmental impacts associated with construction of improvements (Objective 7).

Finding: Based on the entire record, the Commission concurs with the City finding that the Reduced Daily Grading Alternative would not fully meet the basic Project Objectives. The Commission concurs with the City and therefore rejects the Reduced Daily Grading Alternative.

5. **Environmentally Superior Alternative.**

Section 15126.6(e)(2) of the State *CEQA Guidelines* requires the identification of the environmentally superior alternative. The No Project/No Development and the No Project/Existing General Plan alternatives would be the environmentally superior alternatives of the Project alternatives evaluated. The elimination or substantial reduction of units developed and natural area disturbed would reduce environmental impacts. Neither of these alternatives would result in any significant, unavoidable impacts.

The State *CEQA Guidelines* also require the identification of another environmentally superior alternative if the No Project Alternative is the environmentally superior alternative. Of the remaining project alternatives, Alternative 3 – Alternative Site Plan Alternative is considered environmentally superior. The Commission concurs with this finding and given the reduction in total units to 215 units, the project that can be developed, if LAFCO 3274 is approved, would be consistent with this finding.

The Alternative Site Plan Alternative would eliminate 129 lots and reduce site development by 43%. This would, in turn, reduce each of the significant, unavoidable impacts identified for the project as proposed, including short-term, construction-related air quality and noise impacts and long-term greenhouse gas emission impacts. The overall reduction of the development footprint and anticipated reduction in earthwork quantities would reduce, but not eliminate the significant air quality and noise impacts. Although it would reduce greenhouse gas emissions by approximately 43 percent, it would still emit a substantial amount of greenhouse gases and would

have similar impacts. The Alternative Site Plan would be able to meet the majority of the project objectives. The Alternative Site Plan would also reduce a number of impacts, but not all, that were identified as potentially significant in this DEIR but have been reduced to less than significant. Specifically, the Alternative Site Plan would reduce aesthetic, biological, geology and soils, hydrology and water quality, public services, recreation, transportation and traffic, utilities, and forest resource impacts. However, the Alternative Site Plan Alternative is not financially feasible based upon the additional burden placed upon the Project to develop infrastructure, including water and sewer capacity, to provide protective measures, water towers, buffer zones and infrastructure for wildfire protection, and the implementation of recreational and trail uses. The cost per residence increases substantially with the reduction in the overall number of units, resulting in a 37% increase in cost per unit to construct while the potential sale price for each unit would remain steady. With fewer units, the cost to provide and construct infrastructure in addition to the proposed residential units would not be balanced by project revenues. These features benefit the community as a whole and provide protection from fire, floods and landslides to existing residents. They add substantial cost to the project that the Alternative Site Plan Alternative does not support economically.

F. **Statement of Overriding Considerations.**

The San Bernardino County Local Agency Formation Commission adopts this Statement of Overriding Considerations with respect to the significant unavoidable impacts associated with adoption of the Project as addressed in the EIR, specifically:

1) Air Quality;
2) Noise;
3) Traffic and Transportation; and
4) Greenhouse Gas Emissions.

This section of the findings specifically addresses the requirement of Section 15093 of the CEQA Guidelines, which requires the lead agency to balance the benefits of a proposed project against its unavoidable significant impacts, and to determine whether the impacts are acceptably overridden by the Project benefits. If the Commission finds that the previously stated major project benefits outweigh the unavoidable significant adverse environmental impacts noted above, the Commission may, nonetheless, approve the Project. Each of the separate benefits are hereby determined to be, in itself, and independent of other Project benefits, basis for overriding all unavoidable environmental impacts identified in the EIR and these findings.

The City's findings, concurred in by the Commission, set forth in the preceding sections identified all of the adverse environmental impacts and feasible mitigation measures which can reduce impacts to less than significant levels where feasible, or to the lowest feasible levels where significant impacts remain. The findings have also analyzed three alternatives to determine whether there are reasonable or feasible alternatives to the proposed action, or whether they might reduce or eliminate the significant adverse impacts of the Project. The EIR presents evidence that implementing the development of the Project will cause significant adverse impacts which cannot be substantially mitigated to non-significant levels. These significant impacts have been outlined above, and the Commission makes the following finding:

Finding: Having considered the unavoidable adverse impacts of the Project, the Commission hereby determines that all feasible mitigation has been adopted to reduce or avoid the potentially significant impacts identified in the EIR, and that no additional feasible mitigation is available to further reduce significant impacts. Further, the Commission finds that economic, social and other considerations of the Project related to provision of housing outweigh the unavoidable adverse impacts described above. The reason for accepting these remaining unmitigated impacts are described below. In making this finding, the Commission has balanced the benefits of the Project against its unavoidable environmental impacts, and has indicated its willingness to accept those effects.

The Commission further finds that the Project's benefits are substantial and override each unavoidable impact of the Project. These benefits include substantial infrastructure that the Project will directly and indirectly, through funding mechanisms, provide. These benefits include the following, which are laid out in greater detail in the findings:

- The water supply system for the area will be augmented to provide water to the new residents, but will also provide improved service to those existing residents in the area currently on City water.
- Three onsite reservoirs will be constructed to provide better service and fire protection to the area.
- Offsite improvements to the water supply system include a series of pump stations and transmission lines within the Verdemont community.
- Improved fuel modification zones will provide protection to both the proposed community as well as to the existing structures in the area.
- Project would be required to pay development impacts fees for law enforcement, schools, library, fire, traffic and other related fees that will supplement the City's funds and provide the necessary public services to the Project.
- Traffic improvements, including dual left turn lanes at the intersection of Palm Avenue and Kendall Drive.

In particular, the Project scope includes substantial infrastructure improvements for water storage and delivery systems that will not only serve the Project itself, but also benefit the larger community. The additional water storage and delivery systems will provide for more effective wildfire controls for existing residents as well as the proposed Project given the additional safety and setback measures that are incorporated into the Project. The water infrastructure will also provide a source potable water for existing residents as well as a water source for firefighting personnel in the event of a wildfire. The Project components related to fire hazards and safety, including construction, buffer zones, and other features will also provide additional benefits to those residents already located in the area as a means of preventing the spread of any wildfires through the area.

Storm drainage improvements will also provide additional benefits related to the existing flood and erosion conditions prevalent in the area. The area and existing residents have faced historical issues with flooding, landslides and wildfires which will be substantially improved with the implementation of the proposed Project. Funding mechanisms and impact fees that will be

generated as part of the project will assist in roadway improvements and as well general fund contributions through property tax that can assist in funding necessary police, fire and safety services for the area.

From an economic standpoint, the project will pay substantial fees that will benefit the City, including Development Impact Fees, School Fees, Library Fees permitting fees, public services fees, and related development fees that provide additional benefit both to the community by increasing the funding and services available, but also to the City. For example, the Project will be required to pay additional fees to support police services in the amount of $183,506.18 and to pay library fees in the amount of $181,375.52, The Project provides additional property taxes that will also contribute to public services. These fees are outlined in the findings and further identified in the EIR. The Project will also provide the opportunity for construction jobs in the community for a substantial period of time, depending on how quickly the proposed Project is built out. The Project provides additional social benefits to the community and City as well. The Project will dedicate more than 245 acres of permanent open space, including natural open space, controlled open space and parks, on site. The parks that are proposed as part of the Project will include shade structures, tot lots, gardens, observation points, and other related features and offer opportunities for the community that are not currently present in the area. The Project also provides an interconnected trail system that would include community trails for bicycle and pedestrian use, equestrian trails, and hiking trails. These proposed trails would substantially increase the recreational opportunities currently available in the City.

Furthermore, the City has a limited base of available high-quality, low density residential development based upon a review of the MLS listings for the City as well as under General Plan designation areas for low density residential development. Such high-quality, low density housing is desirable to attract and retain top quality candidates for positions at the University and other institutions. According to the City of San Bernardino Housing Element Adopted June 20, 2011, approximately one-third of the City's housing stock is between 30 and 49 years old, with an additional 35.3 percent over 50 years old. (Pages 3-25 and 3-26). Only 2,720 housing units were constructed between the years of 2000-2005, during the height of the housing boom. (Housing Element Adopted June 20, 2011, Table H-12). The household composition of the City shows that 82% of the City's households are moderate to very-low income, while only 18% are above Moderate income. (*Id.* Chart 4, pg. 3-17). There are few other proposed developments within the City at this time and thus the proposed Project will fill a residential need within the City as is envisioned within the City's General Plan. Such a need is identified generally in Housing Element policy 3.1.1, which states: "Provide adequate sites to accommodate the production of a variety of housing types through land use designation, zoning, specific plans, and overlay districts." The Verdemont Heights Area Plan, found on page 2-75 of the General Plan Land Use Element and in which this Project site is located, further discusses strategy to meet the Housing Element policy 3.1.1, identifying in strategy 4 on page 2-83 to "Promote the development of higher end housing."

Additional benefits are as follows:

1. **Findings Related to Traffic and Transportation Impacts.**

a. Increased Traffic.

There are two roadways identified in the CMP that would be impacted by Project traffic: I-215 freeway and I-15 freeway. Four segments of these two freeways are expected to have an LOS of F during morning peak hours with or without the project in year 2035, and six segments are expected to have an LOS of F during evening peak hours with or without the Project in year 2035. All of these segments, except the northbound and southbound segments of I-15 between Sierra Avenue and Glen Helen Parkway, are included in the Caltrans improvement plans for the Devore interchange.

With improvements, two of these freeway segments would operate at acceptable levels. However, six freeway segments would continue to operate at an unacceptable LOS for year 2035:

- The I-215 freeway segment between Palm Avenue and Devore Road (northbound and southbound)
- The I-215 freeway segment between Devore Road and I-15 (northbound)
- The I-15 freeway segment between Glen Helen Parkway and Sierra Avenue (northbound and southbound).
- The I-15 freeway segment between I-215 and Glen Helen Parkway (northbound).

Spring Trails would generate traffic that would contribute to the unacceptable levels of service on these freeway segments. Additionally, mainline improvements to the I-15 and I-215 in the Project area are not included in a fee program at this time. There are no feasible mitigation measures to reduce the significant impacts, which will remain significant and unavoidable. However, benefits obtained from the Project are sufficient to justify approval of the Project. These impacts are overridden by the Project benefits described in Section II.D of this document, as well as the local and regional benefits that will be realized under the Development Agreement, described in Section II.B of this document. The Commission concurs with the preceding findings.

b. Cumulative Impacts.

Development of the Project will contribute incrementally to Traffic and Transportation impacts that are cumulatively considerable, significant, and unavoidable when considered within the context of traffic that will be generated by other known or probable developments, as discussed above. This is a cumulatively considerable impact that cannot be mitigated to a less than significant level. However, benefits obtained from the Project are sufficient to justify approval of the Project, and these impacts are overridden by Project benefits described in Sections II.B and II.D of this document. The Commission concurs with the preceding finding.

2. **Findings Related to Air Quality Impacts.**

a. Construction Emissions.

The Project is not consistent with the applicable air quality management plan because construction-related air pollutant emissions would exceed the SCAQMD's regional and localized emission thresholds. Mitigation measures used to control construction and operational emissions would reduce Project and cumulative level impacts, but they would remain significant and unavoidable.

Construction activities associated with the proposed Project would generate short-term emissions that exceed SCAQMD'S regional significance thresholds for NOx, PM_{10}, and $PM_{2.5}$, and would significantly contribute to the nonattainment designations of the South Coast Air Basin for ozone and particulate matter (PM_{10} and $PM_{2.5}$). Construction activities associated with grading operations could expose sensitive receptors to substantial pollutant concentrations of PM_{10} at the existing onsite residence and the surrounding offsite residences. Mitigation measures would reduce the Project's construction-related impacts, but the project- and cumulative-level impacts would remain significant and unavoidable.

However, benefits obtained from the Project are sufficient to justify approval of the Project, and these impacts are overridden by Project benefits described in Sections II.B and II.D of this document. The Commission concurs with the preceding finding.

b. Cumulative Impacts.

The South Coast Air Basin is in nonattainment for O^3 and particulate matter (PM_{10} and $PM_{2.5}$). Construction of cumulative projects will further degrade the regional and local air quality. Air quality will be temporarily impacted during construction activities. Even with the implementation of mitigation measures, Project-related construction emissions would still exceed the SCAQMD significance thresholds for NOx, PM_{10} and $PM_{2.5}$, and cumulative emissions would result in greater exceedances. These are cumulatively considerable air quality impacts which cannot be mitigated to a less-than-significant level. However, benefits obtained from the Project are sufficient to justify approval of the Project, and these impacts are overridden by the Project benefits described in Sections II.B and II.D of this document. The Commission concurs with the preceding finding.

3. **Findings Related to Noise Impacts.**

Project-related construction activities would result in temporary noise increases at the existing onsite residence and surrounding noise-sensitive receptors due to the length of the construction period, that is, approximately three years. Mitigation would reduce the Project's impact on local sensitive receptors, but this impact would remain significant and unavoidable. However, benefits obtained from the Project are sufficient to justify approval of the Project, and these impacts are overridden by the Project benefits described in Sections II.B and II.D of this document. The Commission concurs with the preceding finding.

4. **Findings Related to Greenhouse Gas Emissions.**

Project-related construction activities would generate 5,660 metric tons (MTon) of CO2e and operational activity would generate about 9,559 MTons of CO2e. Mitigation measures would reduce GHG emissions from construction activities, area sources, energy use, and waste and recycling activities to levels that are less than significant; however, the vehicle GHG emissions would not be reduced to less-than-significant levels, and Project-generated vehicle emissions of GHG would create significant and unavoidable impacts. However, benefits obtained from the Project are sufficient to justify approval of the Project, and these impacts are overridden by the Project benefits described in Sections II.B and II.D of this document. The Commission concurs with the preceding finding.

California Public Resource Code 21002 provides: "In the event specific economic, social and other conditions make infeasible such Project alternatives or such mitigation measures, individual projects can be approved in spite of one or more significant effects thereof." Section 21002.1(c) provides: "In the event that economic, social, or other conditions make it infeasible to mitigate one or more significant effects of a project on the environment, the project may nonetheless be approved or carried out at the discretion of a public agency…" Finally, California Administrative Code, Title 4, 15093 (a) states: "If the benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable.'"

The Project benefits include substantial infrastructure that the Project will directly and indirectly, through funding mechanisms, provide. In particular, the Project scope includes substantial infrastructure improvements for water storage and delivery systems that will not only serve the Project itself, but also benefit the larger community. The additional water storage and delivery systems will provide for more effective wildfire controls for existing residents as well as the proposed Project given the additional safety and setback measures that are incorporated into the Project. The water infrastructure will also provide a source potable water for existing residents as well as a water source for firefighting personnel in the event of a wildfire. The Project components related to fire hazards and safety, including construction, buffer zones, and other features will also provide additional benefits to those residents already located in the area as a means of preventing the spread of any wildfires through the area.

Storm drainage improvements will also provide additional benefits related to the existing flood and erosion conditions prevalent in the area. The area and existing residents have face historical issues with flooding, landslides and wildfires which will be substantially improved with the implementation of the proposed Project. Funding mechanisms and impact fees that will be generated as part of the project will assist in roadway improvements and as well general fund contributions through property tax that can assist in funding necessary police, fire and safety services for the area.

The proposed Project will also provide additional recreational sources for the community, creating hiking, equestrian and biking trails throughout the site and connecting an area that currently does not offer such sources of recreation to the residents of the City.

Furthermore, a base of high-quality low-density residential development is important for the ability of the City's institutions to hire and retain top quality candidates for positions at the University and other institutions. There are few other proposed developments within the City at this time and thus the proposed Project will fill a residential need within the City as is envisioned within the City's General Plan.

In addition to the safety, recreational, social and housing features that the project will provide, the Project will offer employment during the construction phases and provide revenue from the additional property taxes that the Project will generate. The Project will be required to pay additional fees to support police services in the amount of $183,506.18, pay schools fees, pay library fees in the amount of $181,375.52, improvement existing roadways and provide additional access points that otherwise may not occur, as well as pay other City development fees. The payment of fees and additional services benefit both the Project and the surrounding community.

As the CEQA Responsible Agency for the proposed Project, the Commission has reviewed the Project description and the Project alternatives as presented in the EIR, and fully understands the Project and Project alternatives proposed for development. Further, the Commission finds that all potential adverse environmental impacts and all feasible mitigation measures to reduce the impacts from the Project have been identified in the Draft EIR, the Final EIR and public testimony. The Commission also finds that a reasonable range of alternatives was considered in the EIR and this document, Section IV.E above, and finds that approval of LAFCO 3274 is appropriate.

The City has identified economic and social benefits, important policy objectives and local and regional benefits that will result from approval of the Development Agreement, as discussed in Sections II.B and II.D above, which result from implementing the Project. The Commission concurs with this finding. The Commission has balanced these substantial social and economic benefits against the unavoidable significant adverse effects of the Project. The Commission finds that the substantial social and economic benefits that will result from the Project override the unavoidable environmental effects of the Project.

V. APPROVING THE PROJECT

Based on the entire record before the San Bernardino County Local Agency Formation Commission, including the Findings and all written and evidence presented, the Commission hereby approves LAFCO 3274 with the finding that the City will implement all the mitigation measures and the Mitigation Monitoring and Reporting Program.

VI. REGARDING STAFF DIRECTION

A Notice of Determination shall be filed with the Clerk of the County of San Bernardino Board within five (5) working days of final Project approval.

VII. REGARDING CONTENTS AND CUSTODIAN OF RECORD

The documents and materials that constitute the record for the Commission's actions related to the Complete FEIR are located at the Local Agency Formation Commission for San Bernardino County, 1601 E. 3rd Street, Suite 102, San Bernardino, California 92415-0490. The

custodian for these records is the San Bernardino County LAFCO. This information is provided in compliance with Public Resources Code section 21081.6.

ENVIRONMENTAL DOCUMENTS RELATED TO THE CITY OF SAN BERNARDINO'S APPROVAL OF THE SPRING TRAILS SPECIFIC PLAN PROJECT

- Notice of Determination
- Spring Trials Specific Plan Resolution
- Spring Trials Specific Plan Ordinance
- Spring Trials Specific Plan Facts, Findings and Statement of Overriding Considerations
- Spring Trials Specific Plan Mitigation Monitoring Program
- Spring Trials Specific Plan Final Environmental Impact Report
- Spring Trials Specific Plan Draft Environmental Impact Report
  - Appendix A - Initial Study and Notice of Preparation
  - Appendix B - Comments on the Initial Study and Notice of Preparation
  - Appendix C - Air Quality Modeling Result
  - Appendix D1 - Arborist Report (Integrated Urban Forestry 1998)
  - Appendix D2 - General Biological Assessment (MBA 2007)
  - Appendix D3 - Least Bell's Vireo & Southwestern Willow Flycatcher Focused Survey (MBA 2007)
  - Appendix D4 - Updated Arborist Report (MBA 2007)
  - Appendix D5 - Habitat Assessment Report (MBA 2008)
  - Appendix D6 - General Biological Resources Assessment Update (NRA 2004)
  - Appendix D7 - Jurisdictional Delineation for the Access Roads (PBS&J 2011)
  - Appendix D8 - Jurisdictional Delineation for the Project Site (PBS&J 2009)
  - Appendix D9 - San Bernardino Kangaroo Rat Survey Report (PBS&J 2009)
  - Appendix D10 - Rare Plant Survey Report
  - Appendix D11 - Biological Resources Review (PBS&J 2009)
  - Appendix D12 - Biological Resources Assessment (compiled) (PBS&J 2011)
  - Appendix D13 - Biological Resources Assessment (PCR 1999)
  - Appendix D14 - San Bernardino Kangaroo Rat Survey Report (SCD 2002)
  - Appendix D15 - Biological Report Update (WLB 2002)
  - Appendix D16 - Coastal California Gnatcatcher Survey (WLB 2002)
  - Appendix D17 - Biological Report for the Access Roads (WLB 2002)
  - Appendix E - Archaeological and Paleontological Resources Assessment
  - Appendix F1 - Geotechnical Report (Kleinfelder 2000)
  - Appendix F2 - Seismic Design Parameters (Leighton and Associates 2009)
  - Appendix G - Spring Trails Fire Protection Plan
  - Appendix H1 - Precise Fuel Modification – Sheet 1 (on CD only)
  - Appendix H2 - Precise Fuel Modification – Sheet 2 (on CD only)
  - Appendix I1 - Preliminary Water Quality Management Plan
  - Appendix I2 - Hydrologic and Water Quality Report
  - Appendix J - Noise Monitoring Results
  - Appendix K - Traffic Impact Analysis
  - Appendix L - Sewer Capacity Study

RESOLUTION NO. 2025-282

RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF SAN BERNARDINO, CALIFORNIA, APPROVING AND ADOPTING THE CITY OF SAN BERNARDINO LOCAL HAZARD MITIGATION PLAN 2024.

WHEREAS, The City of San Bernardino has contracted services with PlaceWorks/Atlas Planning Solutions to review and update the City's existing Local Hazard Mitigation Plan (LHMP), and,

WHEREAS, the Local Hazard Mitigation Plan for the City of San Bernardino was developed in accordance with the Disaster Mitigation Act of 2000 (DMA 2000) and followed FEMA's Local Hazard Mitigation Plan guidance. This plan incorporates a process where hazards are identified and profiled, the people and facilities at risk are analyzed, and mitigation actions are developed to reduce or eliminate hazard risk. The implementation of these mitigation actions, which include both short and long-term strategies, involve planning, policy changes, programs, projects, and other activities, and,

WHEREAS, the preparation of the Local Hazard Mitigation Plan will assist the City with Assembly Bill 2140 (Government Code Sections 8685.9 and 65302.6) compliance, and,

WHEREAS, The plan has been updated, reviewed, and deemed adoptable by the California Office of Emergency Services and Federal Emergency Management Agency.

BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF SAN BERNARDINO AS FOLLOWS:

SECTION 1. The above recitals are true and correct and are incorporated herein by this reference.

SECTION 2. The Mayor and City Council of the City of San Bernardino California, hereby adopt the 2024 Local Hazard Mitigation Plan.

SECTION 3. That the City Council finds this Resolution is not subject to the California Environmental Quality Act (CEQA) in that the activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty, as in this case, that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.

SECTION 4. Severability. If any provision of this Resolution or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications, and to this end the provisions of this Resolution are declared to be severable.

SECTION 5. Effective Date. This Resolution shall become effective immediately.

APPROVED and **ADOPTED** by the City Council and signed by the Mayor and attested by the City Clerk this 7th day of May 2025.

Helen Tran, Mayor
City of San Bernardino

Attest:

Telicia Lopez, CMC, Acting City Clerk

Approved as to form:

Sonia Carvalho, City Attorney

CERTIFICATION

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO) ss
CITY OF SAN BERNARDINO)

I, Telicia Lopez, Acting City Clerk, hereby certify that the attached is a true copy of Resolution No. 2025-282, adopted at a regular meeting held on the 7th day of May 2025 by the following vote:

Council Members:	**AYES**	**NAYS**	**ABSTAIN**	**ABSENT**
SANCHEZ	X			
IBARRA	X			
FIGUEROA	X			
SHORETT	X			
KNAUS	X			
FLORES	X			
ORTIZ	X			

WITNESS my hand and official seal of the City of San Bernardino this 8th day of May 2025.

Telicia Lopez, CMC, Acting City Clerk

2024

City of San Bernardino Local Hazard Mitigation Plan

Atlas Planning Solutions

Cal OES/FEMA Review Draft

8/1/2024

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Chapter 1 – Introduction

Plan Purpose and Authority

Hazard events can lead to injuries or death, affect a community's overall health and safety, damage or destroy public and private property, harm ecosystems, and disrupt key services. Although the hazard event itself often gets the most attention, it is only one part of a larger emergency management cycle.

Emergency planners and responders can take steps during the response, recovery, mitigation, and preparedness phases of the cycle to minimize the harm caused by a disaster. This Local Hazard Mitigation Plan (LHMP) focuses on optimizing the mitigation phase of the cycle. Mitigation involves making a community more resilient to disasters so that when hazard events do ultimately occur, the community suffers less damage and can recover more effectively. It differs from preparedness, which involves advanced planning for how best to respond when a disaster occurs or is imminent. For example, a policy to make homes structurally stronger so they suffer less damage during an earthquake is a mitigation action, while fully equipping shelters to accommodate people who lose their homes in an earthquake is a preparedness action. Some activities may qualify as both.

HAZARD EVENT: an emergency due to a natural or human-caused event that has the potential to cause harm.

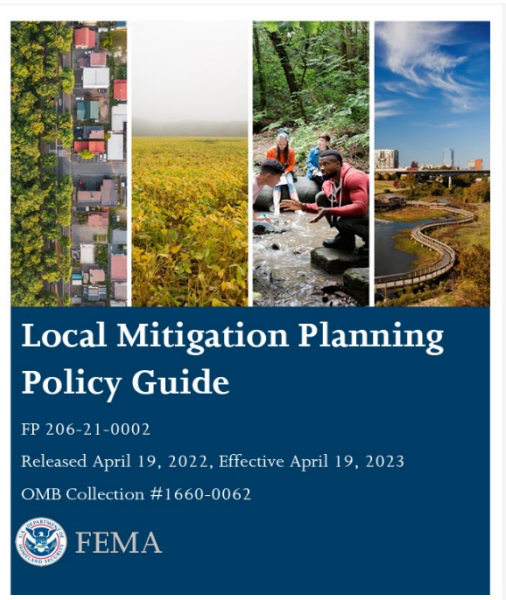
HAZARD MITIGATION: any sustained action taken to reduce or eliminate long-term risk to people and property from natural or human-caused hazards and their effects.

RESILIENCE: the capacity of any entity (an individual, a community, an organization, or a natural system) to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience.

Like other communities, the City of San Bernardino (City) could potentially suffer severe harm from hazard events. Although large disasters may cause widespread devastation, even smaller disasters can have substantial effects. The City cannot make itself completely immune to hazard events, but this LHMP can help make the community a safer place to live, work, and visit. This LHMP provides a comprehensive assessment of the threats that the City faces from natural and human-caused hazard events and a coordinated strategy to reduce these threats. It identifies resources and information that can help community members, City staff, and local officials understand local threats and make informed decisions. The LHMP can also support increased coordination and collaboration between the City, other public agencies, local employers, service providers, community members, and other key stakeholders.

Federal Authority

The City is not required to prepare an LHMP, but state and federal regulations encourage it. The federal Robert T. Stafford Disaster Relief and Emergency Act, amended by the Disaster Management Act of 2000, creates a federal framework for local hazard mitigation planning. It states that jurisdictions that wish to be eligible for federal hazard mitigation grant funding must prepare a hazard mitigation plan that meets a certain set of guidelines and submit this plan to the Federal Emergency Management Agency (FEMA) for review and approval. The following regulations and guidelines apply to this plan:



FEMA Local Mitigation Planning Policy Guide provides the official policy and interpretation of the applicable statutes and mitigation planning regulations in 44 Code of Federal Regulations

Federal Laws

- Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended.

Federal Regulations

- 44 CFR Part 201 Mitigation Planning
- 44 CFR, Part 60, Subpart A, including § 60.3 Flood plain management criteria for flood-prone areas
- 44 CFR Part 77 Flood Mitigation Grants
- 44 CFR Part 206 Subpart N. Hazard Mitigation Grant Program

Federal Guidance

- FEMA Local Mitigation Planning Policy Guide (FP 206-21-0002), effective May 2023.

State Authority

California Government Code Sections 8685.9 and 65302.6

California Government Code Section 8685.9 (also known as Assembly Bill 2140) limits the State of California's share of disaster relief funds paid out to local governments to 75 percent of the funds not paid for by federal disaster relief efforts unless the jurisdiction has adopted a valid hazard mitigation plan consistent with the Disaster Management Act of 2000 and has incorporated the hazard mitigation plan into the jurisdiction's general plan. The State may cover more than 75 percent of the remaining disaster relief costs in these cases.

All cities and counties in California must prepare a general plan, including a safety element that addresses various hazard conditions and other public safety issues. The safety element may be a stand-alone chapter or incorporated into another section, as the community wishes. California Government Code Section 65302.6 indicates that a community may adopt an LHMP into its safety element if the LHMP meets applicable state requirements. This allows communities to use the LHMP to satisfy state requirements for safety elements. As the General Plan is an overarching long-term plan for community growth and development, incorporating the LHMP into it creates a stronger mechanism for implementing the LHMP.

California Government Code Section 65302 (g)(4)

California Government Code Section 65302 (g)(4), also known as Senate Bill (SB) 379, requires that the safety element of a community's general plan address the hazards created or exacerbated by climate change. The safety element must identify how climate change is expected to affect hazard conditions in the community and include measures to adapt and be more resilient to these anticipated changes.

Because the LHMP can be incorporated into the safety element, including these items in the LHMP can satisfy the state requirement. SB 379 requires that climate change be addressed in the safety element when the LHMP is updated after January 1, 2017, for communities that already have an LHMP, or by January 1, 2022, for communities without an LHMP.

This LHMP is consistent with current standards and regulations outlined by the California Office of Emergency Services (Cal OES) and FEMA. It uses the best available science, and its mitigation actions/strategies reflect best practices and community values. It meets the requirements of current state and federal guidelines and makes the City eligible for all appropriate benefits under state and federal law and practices. Note that while FEMA is responsible for reviewing and certifying this LHMP, and Cal OES is responsible for conducting a preliminary review, it does not grant FEMA or Cal OES any increased role in the governance of the City or authorize either agency to take any specific action in the community.

Plan Organization and Use

The San Bernardino LHMP is both a reference document and an action plan. It has information and resources to educate readers and decision-makers about hazard events and related issues and a comprehensive strategy that the City and community members can follow to improve its resilience. It is divided into the following chapters:

- **Chapter 1: Introduction**. This chapter describes the background of the Plan, its goals and objectives, and the process used in its development.
- **Chapter 2: Community Profile**. This chapter discusses the history of San Bernardino, its physical setting and land uses, demographics, and other important community characteristics.
- **Chapter 3: Hazard Assessment and Vulnerability Assessment.** This chapter identifies and describes the hazards that threaten San Bernardino and discusses past and future events and the effects of climate change. The chapter also describes the threat of each hazard on San Bernardino's key facilities and community members, including socially vulnerable individuals.
- **Chapter 4: Mitigation Strategy**. This chapter lists the mitigation actions to reduce San Bernardino's vulnerability to hazard events and provides an overview of the community's existing capabilities to improve hazard resilience.
- **Chapter 5: Plan Maintenance**. This chapter summarizes the process for implementing, monitoring, and updating the LHMP and opportunities for continued public involvement.

Previous San Bernardino LHMP

The San Bernardino City Council adopted the 2016 San Bernardino LHMP on October 14, 2016. This plan expired on October 15, 2021. An active plan allows the City to maintain its eligibility for FEMA hazard mitigation grant funding sources, which occur annually through FEMA Hazard Mitigation Grant Programs budgeted by Congress or periodically as a part of a federally declared disaster.

Key updated elements from the previous San Bernardino LHMP include the following:

- Updated Plan Goals
- Integration of the San Bernardino General Plan (once update is complete), 2021-2029 Housing Element, and Climate Adaptation Vulnerability Assessment into the Community Profile, Hazards Assessment, and Vulnerability Assessment chapters of the plan
- Expanded historic events discussions within the plan
- Updated Capabilities Assessment
- Updated Mitigation Actions and Strategies, which include progress on previous actions

Plan Goals

This Plan was developed to broadly increase resilience in San Bernardino. The following goals are from the 2016 LHMP:

- Continue reducing fire hazards in the unincorporated areas of City of San Bernardino and its Special Districts.
- Minimize exposure to hazards and structural damage from geologic and seismic conditions. General Plan, Section VIII, Safety Element (Goal 10. 7)
- Provide adequate flood protection to minimize hazards and structural damage. (General Plan, Safety Element, Goal 10. 6)

In addition, the 2005 Safety Element included the following goals:

- Establish the appropriate infrastructure and facilities to protect the health, safety, and welfare of the City's businesses, visitors, and residents;
- Enhance the City's image by providing a safe place to live, work, and play;
- Effectively respond to natural and human-caused hazards and disasters; and
- Minimize any economic disruption and accelerate the City's recovery following a disaster.

During the planning process, the Hazard Mitigation Planning Committee (HMPC), identified these new goals to replace the previous goals and ensure better consistency with the updated General Plan Safety Element currently being prepared by the City:

- Protect against threats from natural hazards to life, injury, and property damage for San Bernardino residents and visitors;
- Increase public awareness of potential hazard events;
- Preserve critical services and functions by protecting key facilities and infrastructure;
- Protect natural systems from current and future hazard conditions;
- Coordinate mitigation activities among City departments, with neighboring jurisdictions, and with federal agencies, and;
- Prepare for long-term change in hazard conditions associated with climate change.

Planning Process

State and federal guidance for LHMPs does not require that jurisdictions follow a standardized planning process. FEMA encourages communities to create their own planning process that reflects local values, goals, and characteristics. FEMA does suggest a general planning process that follows these general milestones:

For the City of San Bernardino, the planning process used to create this plan is described below.

Hazard Mitigation Planning Committee

The City established an HMPC. The HMPC is comprised of representatives from City departments who are key to hazard mitigation activities. **Table 1-1** identifies the members who were invited and/or attended HMPC meetings.

Table 1-1: San Bernardino HMPC Members

Name	Title	Department
Edelia Eveland	Assistant City Manager	Administrative Services
Samuel Marrinan	Interim Building Official	Community & Economic Development Dept – Building
Christian Marr	Code Enforcement Manager	Community & Economic Development Dept – Code Enforcement
Nathan Freeman	Former Director	Community & Economic Development Dept
David Murray	Former Deputy City Planner	Community and Economic Development – Planning
Barbara Whitehorn	Finance Director	Finance Dept
Daniel Hernandez	Former Director of Public Works	Public Works Department
Susan Pan	City Engineer	Public Works - Engineering

Ernesto Salinas	Public Works Supervisor	Public Works
Martin Serna	San Bernardino City Fire Chief	San Bernardino County Fire Protection District
Lt. Michele Mahan	Administrative Services Manager/EOC	Police
Sgt Steve Aranda	Special Events/Fleet	Police
Lydie Gutfeld	Director	Parks, Recreation, and Community Services
Miguel Gurrero	Director of Water Department	Water Department
Frank Salazar		Water Department
Aaron Pfannenstiel	LHMP Project Manager	Atlas Planning Solutions
Crystal Stueve	LHMP Planner	Atlas Planning Solutions
Robbie Jackson	LHMP Planner	Atlas Planning Solutions
Tammy Seale	Climate Change Specialist	PlaceWorks
Jacqueline Protsman	Climate Change Specialist	PlaceWorks

The HMPC held three meetings throughout the plan development process to lay out the plan's methods and approach, draft, and review content, make revisions, and engage members of the public.

HMPC Meeting #1 (September 20, 2021): The HMPC members confirmed the project goals and responsibilities. They revised the community engagement and outreach strategy, confirmed, and prioritized the hazards to be included in the Plan, and identified critical facilities for the threat assessment.

HMPC Meeting #2 (March 2, 2023): Members discussed the results of the hazards assessment and mapping that showed the areas facing an elevated risk. The HMPC also reviewed the hazard prioritization results.

HMPC Meeting #3 (March 23, 2023): The HMPC reviewed the risk assessment results to identify the populations and assets that may face greater harm in a hazard event. The HMPC also discussed potential hazard mitigation actions to address vulnerabilities.

Invitations to HMPC meetings, as well as agendas/materials, were provided via email. **Appendix A** contains copies of HMPC meeting materials, including meeting agendas, sign-in sheets, and other relevant materials distributed to attendees for these meetings.

Public Engagement

Under FEMA guidelines, local hazard mitigation planning processes should create opportunities for members of the public to be involved in plan development—at a minimum, during the initial drafting stage and plan approval. In 2021, the City embarked on a comprehensive General Plan Update called 'SanBernardino2050.' The City conducted various public engagement activities as part of this update process. As part of this update, the City conducted in-person public workshops and meetings, as well as virtual workshops and meetings. Several key activities pertaining to the LHMP include the following:

San Bernardino 2050 Focus Areas Community Workshops

In March 2022, seven community workshops were held in each of the Wards in San Bernardino to gain valuable feedback from residents, local leaders, and stakeholders on the future land use of the City. Over 150 individuals attended these workshops and participated in the mapping exercise. Results of the City's community workshops can be accessed at:

https://futuresb2050.com/focus-area-public-input/

Stakeholder Engagement

The City conducted a virtual stakeholder meeting with representatives from stakeholders within the city. Information regarding this opportunity to include key members from within the community is in **Appendix B**.

Vulnerable Populations Outreach

Vulnerable population outreach occurred throughout the public engagement process. Stakeholder engagement included invitations to vulnerable populations representatives such as the Mexican Consulate, DaVita Health Centers, the Inland Regional Center, the Salvation Army, and the Central City Lutheran Mission. Physical copies of the LHMP draft were provided at four community centers, two senior centers, and the Center for Individual Development (CID). The CID is a recreation center for people of all ages with physical, developmental, and mental disabilities.

Public Engagement Opportunities

In-person engagement allowed members of the public to learn about the hazards of concern identified by the HMPC during this update. City staff presented the LHMP information and survey at the monthly Coffee with a Cop meeting. Additionally, City staff held a Zoom meeting for San Barnardino residents.

Public Engagement Opportunity #1 – October 3, 2023 – Coffee with a Cop

Public Engagement Opportunity #2 – October 10, 2023 – Zoom Meeting for Residents

Appendix B includes a copy of the materials used to promote these engagement opportunities.

Online Engagement

The City recognized that not all community members are able to attend public meetings and conducted public engagement through social media and online platforms. To assist with engagement, the City set up a project website as a simple, one-stop location for community members to learn about the LHMP. The website included information about what an LHMP is and why the City prepared one. It had links to materials and Plan documents as they became available and allowed members of the public to receive notifications about upcoming events.

The City also promoted the planning process through the following online methods:

- San Bernardino's City Website
- Social Media (Facebook, Instagram)

City of San Bernardino LHMP Webpage

Online Survey

A central part of the engagement strategy was an online survey. This survey asked community members about their experience and familiarity with emergency conditions, their level of preparedness for future emergencies, and preferred actions for the City to take to increase resiliency. The survey was distributed to over 300 individuals from the City's notification lists and had responses from 6 individuals. A summary of these responses is provided here:

- Nearly 60% of respondents live in San Bernardino, with an additional 17% that live and work in San Bernardino.
- Approximately 80% of respondents have been impacted by a disaster in their current residence.
- The top three hazards of concern for respondents were Earthquake/Geologic Hazards, Severe Weather, and Human-caused Hazards (Cyber Threat, Mass Casualty Incident/Terrorism, Civil Unrest).
- Approximately 50% of respondents showed concern regarding climate change affecting future hazards.

Appendix B contains copies of all materials used for public outreach, including the full results of the community survey.

Public Review Draft

On April 22, 2024, the City released a draft copy of the LHMP for public review and comment. The document was posted electronically on the City's website as well as at the following library branch locations and community centers for community members to review a hard copy:

- Norman F. Feldheym Central Library
- Howard M. Rowe Branch Library
- Paul Villaseñor Branch Library
- Center for Individual Development
- Delmann Heights Community Center
- Fifth Street Senior Center
- Lytle Creek Community Center
- Verdemont Community Center
- Perris Hill Senior Center
- Rudy C. Hernandez Community Center

Social media accounts and other online sources provided notifications about the public review draft.

Plan Revision and Adoption

The City received one public comment on the plan; however, the comment did not require edits or modifications to the plan content. Following public comment, the City submitted the plan to Cal OES and FEMA. The City then made additional revisions to incorporate comments from state and federal agencies, as appropriate, and submitted the final draft to City decision-makers. The City Council adopted the final LHMP on May 7th, 2025. **Appendix C** contains a copy of the adoption resolution.

Plan Resources

The City used several different plans, studies, technical reports, datasets, and other resources to prepare the hazard assessment, mapping, threat assessment, and other components of this Plan. **Table 1-2** provides some of the primary resources the HMPC used to prepare this Plan.

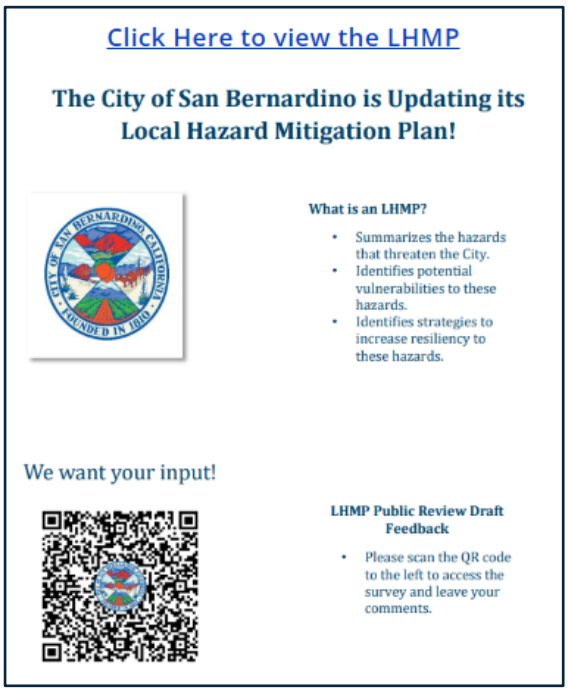


Table 1-2: Key Resources for Plan Development

Section	Key Resources Reviewed	Data Incorporated from Resource
Multiple	• Cal-Adapt • California Department of Conservation • California Geological Survey • California Office of Emergency Services • California State Hazard Mitigation Plan • 2016 City of San Bernardino Hazard Mitigation Plan • Draft 2050 San Bernardino Plan (General Plan) • FEMA Local Hazard Mitigation Plan Guidance • National Oceanic and Atmospheric Administration • National Weather Service • US Geological Survey	• Science and background information on different hazard conditions • Records of past disaster events in and around San Bernardino • Current and anticipated climate conditions in and around San Bernardino • Projections of future seismic conditions and events
Community Profile	• 2020 US Census Bureau Decennial Census	• Demographic information for San Bernardino and San Bernardino County

	• US Census Bureau 2016-2020 American Community Survey • Draft 2050 San Bernardino Plan (General Plan) • 2050 San Bernardino Plan Background Reports • California Energy Commission	• History of the region • Economic trends in San Bernardino • Commute patterns in San Bernardino • Local land-use patterns • Background information on utilities serving San Bernardino
Hazard Assessment (Dam Failure)	• California Department of Water Resources • San Bernardino County Flood Control District • US Army Corps of Engineers	• Mapping of dam failure inundation areas • Profiles and conditions of dams in and around San Bernardino
Hazard Assessment (Flood Hazards)	• FEMA Map Service Center • San Bernardino County Flood Control District	• Records of past flood events in and around San Bernardino • Locations of flood-prone areas in San Bernardino
Hazard Assessment (Human-Caused Hazards)	• Global Terrorism Database • Cyber Security Index	• Historical records of terrorism • Rate of Cyber Attacks over a period of time
Hazard Assessment (Hazardous Materials Release)	• Department of Toxic Substances and Control • Environmental Protection Agency	• Location and dates of past hazardous materials release • Effects of hazardous materials release
Hazard Assessment (Seismic Hazards)	• California Geological Survey • United State Geological Survey	• Science and background information on seismic hazards • Historical record of seismic hazard events in and around San Bernardino
Hazard Assessment (Severe Weather Hazards)	• Cal Adapt • NOAA • National Weather Service • US Drought Monitor	• Historical drought information • Current drought conditions • Science and background information on extreme weather events • Historical Records of extreme weather events in and around San Bernardino
Hazard Assessment (Wildfire)	• California Dept. of Forestry and Fire Prevention	• Historical fire records • Location of Fire Hazard zones in and around San Bernardino
Note: Sections not individually identified in this table relied primarily on sources identified in multiple sections.		

Chapter 2 – Community Profile

The Community Profile section of the LHMP summarizes San Bernardino, including information about the community's physical setting, history, economy and demographics, current and future land uses, and key infrastructure. The Community Profile helps to establish the baseline conditions in San Bernardino, which inform the development of the hazard mitigation actions in Chapter 4.

San Bernardino Quick Facts
Elevation: 1,053 ft above sea level
Area: 62.5 square miles
Incorporated: 1854
Government Type: Council-Manager
Population (2020 Census estimate): 222,101
Nearest cities: Muscoy, CA – 2.6 miles Rialto, CA – 4.8 miles Colton, CA – 5.9 miles Highland, CA – 6.2 miles Loma Linda, CA – 6.6 miles Grand Terrace, CA – 7.1 miles Bloomington, CA – 7.7 miles Crestline, CA – 8.4 miles
Nearest city with population 200,000+*: Fontana, CA (9.2 miles, pop. 212,809)
Nearest city with population 1,000,000+*: Los Angeles, CA (60.0 miles, pop. 3.820 million)
*** California Department of Finance**

Setting and Location

The City of San Bernardino is located in the Inland Empire in Western San Bernardino County, approximately 60 miles east of Los Angeles and 70 miles west of Palm Springs, at the base of the San Bernardino Mountains. The city is bordered by the neighboring cities of Highland, Rialto, Fontana, Redlands, Loma Linda, and Colton, as well as the San Manuel Indian Reservation.

San Bernardino is unique among Southern Californian cities because of its wealth of water, which is mostly contained in underground aquifers. A large part of the city is over the Bunker Hill Groundwater Basin, including downtown, accounting for a historically high water table in portions of the city, including at the former Urbita Springs, a lake that no longer exists and is now the site of the Inland Center Mall. Seccombe Lake, named after a former mayor, is a human-made lake at Sierra Way and 5th Street.

The City has several notable hills and mountains; among them are Perris Hill (named after Fred Perris, an early engineer and the namesake of Perris, California); Kendall Hill (near California State University); and Little Mountain, which rises among Shandin Hills (generally bounded by Sierra Way, 30th Street, Kendall Drive, and Interstate 215).[1]

History

Paleo-Indian sites dating from circa 10,000 BC show that the City of San Bernardino area has been inhabited for at least 12,000 years. Artifacts in the nearby Calico area suggest much earlier human occupation, but this has not been confirmed. In the past three thousand years, various Native American tribes flourished in the area: the Gabrielenos occupied the West Valley; the Serranos lived in the foothills of the San Bernardino Mountains; the Vanyumes lived along the Mojave River; the Mohave lived along the Colorado River; and the Chemehuevi occupied the Mojave Desert.

[1] 2016 Local Hazard Mitigation Plan

The first European explorers to enter the area were Pedro Fages, Military Commander of California, in 1772 and Fr. Francisco Garces, a missionary priest, in 1774. On May 20, 1810, Franciscan missionary Francisco Dumatz of the San Gabriel Mission led his company into a valley. In observance of the feast day of St. Bernardine of Siena, Dumatz named the valley San Bernardino. This name was later given to the nearby mountain range and later the city and county. In 1842, the Lugo family was granted the Rancho San Bernardino, a holding of 37,700 acres encompassing the entire San Bernardino Valley. Captain Jefferson Hunt of the Mormon Battalion led a group of settlers into San Bernardino and founded a Mormon Colony. In 1851, the Mormon Colony purchased the Rancho from the Lugo family. On April 26, 1853, the City of San Bernardino was created from parts of Los Angeles, San Diego, and Mariposa Counties. In 1854, the City of San Bernardino was incorporated as the county seat.

In 1857, three orange trees were planted on a farm in Old San Bernardino. By 1882, a rail carload of oranges and lemons grown in the East Valley was shipped to Denver, Colorado. As early as the 1840s, vineyards were planted in the Cucamonga area, and in the 1870 census, the City of San Bernardino was credited with producing 48,720 gallons of wine. In 1860, gold was discovered in Holcomb and Bear Valleys in the San Bernardino Mountains, and placer mining began in Lytle Creek. Silver was mined at Ivanpah in 1870, and the rich silver mines of the Calico district were developed in the 1880s. Borax was first discovered in 1761 at Searles Dry Lake near Trona and transported out by twelve-, eighteen- or twenty-mule team wagons. All these mining operations received supplies and support from city businesses and used the city as a shipping point for their products. After World War II, the citrus industry slowly declined. However, dairies relocated out of Los Angeles County and settled in the Chino Valley area, creating a robust dairy industry that included the City of San Bernardino. Elsewhere in the Valley region, suburbs grew as moderate-priced housing developments were built. By the late 1980s, the city had grown into a bedroom community and warehousing center for Southern California.

Demographics

The data used in this section comes from the most comprehensive American Community Survey (ACS 5-Year Estimates 2016-2020), administered by the United States Census Bureau (US Census) completed in 2020, the 2020 Decennial Census, and 2022 Census estimates. Based on these datasets, San Bernardino's 2020 population was estimated to be 222,101, with a median age of 32.4, which is 1.2 years younger than the rest of San Bernardino County (33.6 years old). Comparatively, the number of senior residents aged 65 and older is less than the rest of San Bernardino County, while San Bernardino County residents are slightly wealthier. In addition, a higher proportion of San Bernardino residents rent compared to San Bernardino County. **Table 2-1** shows the basic demographics for San Bernardino and San Bernardino County. According to the 2022 San Bernardino County Continuum of Care Homeless Count and Survey, the city has a homeless population of 1,350 people (992 unsheltered and 358 sheltered). The 2022 count shows a 28% increase in the homeless population from 2020. It can be assessed that the number of homeless people in the city is likely to be higher than reported, as it is extremely difficult to count people living in cars, abandoned buildings, and other deserted places. Additionally, some of the homeless population may not wish to be found.

Table 2-1: Basic Demographics, San Bernardino and San Bernardino County		
Demographics	**San Bernardino**	**San Bernardino County**
Total Population	222,101	2,181,654
Percent of children who are less than 10 years old	14.9%	14.3%
Percent of residents who are senior citizens (65+)	9.6%	12.1%
Median Age	32.4	33.6
Total households	63,331	640,090
Median household income	$65,311	$65,761
Percent of rental households	51.2%	39.9%
Note: Percentage values are rounded to the nearest tenth decimal. **Source: 2020 US Decennial Census, US Census ACS Survey 2016-2020**		

In terms of its racial and ethnic composition, San Bernardino is a racially diverse city, with 40% percent of all San Bernardino residents identifying as some other race alone. The second-largest population is white, with 24.2% percent of all residents identifying as such. This population makeup mirrors greater San Bernardino County due to a high proportion of white and some other race alone populations. **Table 2-2** shows the racial and ethnic composition of all groups in San Bernardino and San Bernardino County.

A higher percentage of San Bernardino residents have completed a high school diploma or equivalent when compared to the County. However, a smaller proportion of the population has attained bachelor's and professional degrees, 8% of the city's residents versus roughly 14% of the County's residents. **Table 2-3** shows all levels of educational attainment of residents 25 years of age or older in both San Bernardino and San Bernardino County.

San Bernardino has a wide range of non-English languages spoken at home among its residents, with varying proficiency levels. Generally, Spanish is the most spoken language at home other than English in San Bernardino, with approximately 32.2% who are not fluent in English and speak it less than "very well." This is approximately 1.5% lower than the countywide population of Spanish language speakers. Asian and Pacific Islander languages are the third most-spoken languages in San Bernardino, with over half (65.7%) of these speakers unable to speak English fluently. This is higher than the rest of San Bernardino County, where approximately 46.8% of Asian and Pacific Islander language speakers cannot speak English fluently. **Table 2-4** shows the most spoken languages in San Bernardino and the levels of fluency among speakers aged five and older in San Bernardino and San Bernardino County.

Table 2-2: Racial and Ethnic Composition, San Bernardino and San Bernardino County

Race or Ethnicity	San Bernardino		San Bernardino County	
	Population	Percentage	Population	Percentage
White	53,786	24.2%	782,691	35.9%
Black	27,875	12.6%	184,558	8.6%
American Indian and Alaskan Native	5,029	2.3%	41,663	1.9%
Asian	9,279	4.2%	182,287	8.4%
Native Hawaiian and Other Pacific Islander	920	0.4%	7,461	0.3%
Some Other Race Alone	87,961	39.6%	621,140	28.5%
Two or more races	37,251	16.8%	361,854	16.6%
Lantinx (of any race) *	151,125	68.0%	1,224,685	56.1%
Total	**222,101**	**100%**	**2,181,654**	**100%**

*** The US Census Bureau does not currently count persons who identify as Latinx as a separate racial or ethnic category. Persons who identify as Hispanic or Latinx are already included in the other racial or ethnic categories.**
Note: Percentage values are rounded to the nearest tenth decimal.
Source: 2020 US Decennial Census, US Census ACS Survey 2016-2020

Table 2-3: Educational Attainment of Residents 25+ Years of Age

Educational Attainment	San Bernardino		San Bernardino County	
	Number	Percentage	Number	Percentage
Less than 9th grade	15,969	12.3%	116,664	8.5%
9th grade to 12th grade (no diploma)	22,804	17.6%	147,371	10.8%
High school graduate or equivalent	38,706	29.9%	361,289	26.4%
Some college (no degree)	27,520	21.2%	332,044	24.3%
Associate's degree	9,300	7.2%	118,673	8.7%
Bachelor's degree	10,530	8.1%	190,544	13.9%
Graduate or professional degree	4,785	3.7%	101,693	7.4%
Total	**129,614**	**100%**	**1,368,278**	**100%**

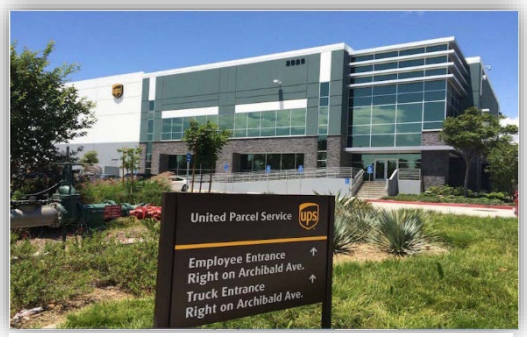
Note: Percentage values are rounded to the nearest tenth decimal.
Source: 2020 US Decennial Census, US Census ACS Survey 2016-2020

Table 2-4: English Proficiency and Languages Spoken at Home (2020)				
Languages	**San Bernardino**		**San Bernardino County**	
	Number of Speakers	**Speak English Less Than "Very Well"**	**Number of Speakers**	**Speak English Less Than "Very Well"**
English only	98,876	-	1,171,425	-
Spanish	101,159	32,559 (32.2%)	689,338	232,270 (33.7%)
Indo-European*	1,603	582 (36.3%)	27,134	7,379 (27.2%)
Asian and Pacific Islander*	4,759	3,125 (65.7%)	104,417	48,824 (46.8%)
All other languages	1,212	176 (14.5%)	17,498	6,487 (37.1%)
Total	207,609	36,442**	2,009,812	294,960**

***Census data does not break down the specific languages for languages spoken in these regions**
****Due to these figures only being a percentage of the overall number of speakers, they will not add up to 100%.**
Note: Percentage values are rounded to the nearest tenth decimal.
Source: 2020 US Decennial Census, US Census ACS Survey 2016-2020

Economy and Commute Patterns

San Bernardino has a diverse economy of employers from various sectors, including distribution, retail/wholesale trade, administrative support, construction, entertainment, health services, and education. With a total employment base of 22,719 employees, the top employer in the city is the County of San Bernardino. The second-largest employer is Stater Brothers, with 18,000 employees. The next top three employers are San Bernardino City Unified School District, Kaiser Permanente – Fontana Med, and Arrowhead Regional Medical Center. **Table 2-5** shows the top five employers in San Bernardino in 2022.



UPS air and ground sorting facility at San Bernardino International Airport. Image from Connectcre.com

As of 2020, 82,828 San Bernardino residents are employed, with approximately 17,837 (21.5%) working within the city. This local workforce accounts for 15.6% of the entire workforce, approximately 114,629 employees (2020), with the remaining workforce coming from surrounding cities throughout the region. **Table 2-6** shows the top five cities that contribute to San Bernardino's workforce, which accounts for over 33% of those employed within the city.

Table 2-5: Top Employers in San Bernardino	
Employer	**Number of Employees**
County of San Bernardino	22,719
Stater Brothers	18,000
San Bernardino City Unified School District	6,400
Kaiser Permanente – Fontana Med	1,000 – 4,999
Arrowhead Regional Medical Center	1,000-4,999
***Per EDD, employment numbers are confidential; therefore, only the data for the range of numbers of employees is available.** **Source: City of San Bernardino Annual Comprehensive Financial Report Fiscal Year Ended June 30, 2022**	

Table 2-6: Top Five Cities-of-Origin for San Bernardino's Workforce (2020)		
Cities-of-Origin for San Bernardino's Workforce	**Number of Employees**	**Percentage**
San Bernardino	17,837	15.6%
Fontana	5,796	5.1%
Riverside	4,896	4.3%
Highland	4,763	4.2%
Moreno Valley	4,444	3.9%
Total	**37,736**	**33.1%**
Source: https://onthemap.ces.census.gov/		

While the majority of San Bernardino's residents commute outside the city for work, most of those residents (41.0%) travel less than 10 miles to reach their place of employment. Approximately 17.8% of commuters traveled 50 miles or more, with most of those trips heading into the Los Angeles area. The city boasts convenient freeway, rail, and international air access to Los Angeles, Orange, San Diego, and Riverside Counties. **Table 2-7** shows the outflow of workers from San Bernardino to other regional worksites.

Table 2-7: Work Commute Distances for San Bernardino's Residents (2020)		
Work Destinations for San Bernardino's Residents	**Number**	**Percentage**
Less than 10 miles	33,964	41.0%
10 to 24 miles	21,332	25.8%
25 to 50 miles	12,816	15.5%
Greater than 50 miles	14,716	17.8%
Total	**82,828**	**100%**
Source: https://onthemap.ces.census.gov/		

Development Trends

San Bernardino is located within a dense part of San Bernardino County that has experienced significant growth and development over the past 30 years. The population of the City has grown by approximately 11,617 residents since 2010.

State Housing Law mandates the Regional Housing Needs Assessment (RHNA) as part of the periodic update of General Plan housing elements. Through the RHNA process, a community decides how to

address existing and future housing needs resulting from population, employment, and household growth. [2]

At the time of the writing of the LHMP, the City was in the process of a comprehensive update to the city's General Plan called The San Bernardino 2050 Plan. This collection of documents will help guide the development and conservation of the City over the next 25 years. According to the San Bernardino 2050 Plan, the City is anticipating growth in both the number of residential units and the corresponding population.

San Bernardino's RHNA allocation and housing goal for 2021-2029 is 8,123 housing units. To accommodate the units, the City has identified sites on appropriately zoned land, projects in the entitlement and development process since July 2021, and future development of accessory dwellings. The City can fully accommodate the RHNA allocation through the combined approaches, with a 22% buffer for lower-income units, a 73% buffer for moderate-income units, and an 8% buffer for above moderate-income units. **Table 2-8** depicts this anticipated growth and development that will meet the City's RHNA allocation requirements.

Table 2-8: 2021-2029 City of San Bernardino Regional Housing Needs Allocation

	Income Levels			
	Lower	**Moderate**	**Above Moderate**	**Total**
RHNA Allocation	2,512	1,448	4,163	8,123
RHNA Credits (Projects and Vacant Sites)				
Pipeline Projects towards RHNA	644	483	964	2,091
ADUS Permitted (2021-2023)	264	194	--	458
ADU's Projections (2024-2029)	690	510	--	1,200
Existing Residential Vacant Land	0	753	3,388	4,141
Existing Residential Vacant Land				
Total Remaining Need without Rezones	914	-492	-189	--
Vacant Residential Land for Upzone	740	0	0	740
Surplus Sites for Rezone	308	0	97	405
Final Summary				
Total Units towards RHNA	2,646	1,940	4,449	--
Count Over/Under RHNA	134	492	286	--

Source: Draft 2021-2029 Housing Element- City of San Bernardino

San Bernardino has a significant capacity for residential development. The City's associated housing strategy can be divided into three strategies. Each strategy's time frame is related to market demand, infrastructure, and planning tools that need to be created to guide future residential development. These three strategies are [3]:

[2] What is RHNA? https://scag.ca.gov/rhna
[3] Draft 2021-2029 San Bernardino Housing Element

- Specific Plans Development. The City has several specific plans in northwest San Bernardino that provide significant growth opportunities. Presently, the City is not crediting development capacity in this area because these specific plans are anticipated to be revised following the comprehensive General Plan update. Therefore, this land use strategy is anticipated to be used for the 7th cycle RHNA.
- Corridor/TOD Mixed Use Sites. The General Plan update will target mixed uses along the City's major corridors and within the City's 13 transit villages that are oriented around the SBx transit line. While mixed-use is envisioned and is anticipated to occur in select areas, it is not anticipated to materialize communitywide for some time. Therefore, since mixed-use is an emerging concept in San Bernardino, this strategy is anticipated for the 7th cycle RHNA.
- Infill Development Opportunities. The City's housing element focuses on vacant sites within existing urban areas (e.g., "infill") and is most feasible to develop during the 2021- 2029 planning period. The sites chosen are vacant, adequately served by infrastructure, and could immediately be developed. Infill potential also includes two specific plan areas—the Downtown (under development) and the Waterman+Baseline Specific Plan areas.

Figure 2-1 displays the areas of housing element sites.

Vulnerability and Risk Reduction

All new development occurring in the areas of change identified in **Figure 2-1** will provide hazard vulnerability and risk reduction for the city. This reduction will occur due to the anticipated improvements and investments implemented in the older parts of the City as a result of the San Bernardino 2050 Plan. In addition, the new developments that will be built will comply with the most up-to-date building codes and use the latest techniques, further reducing vulnerabilities throughout the City.

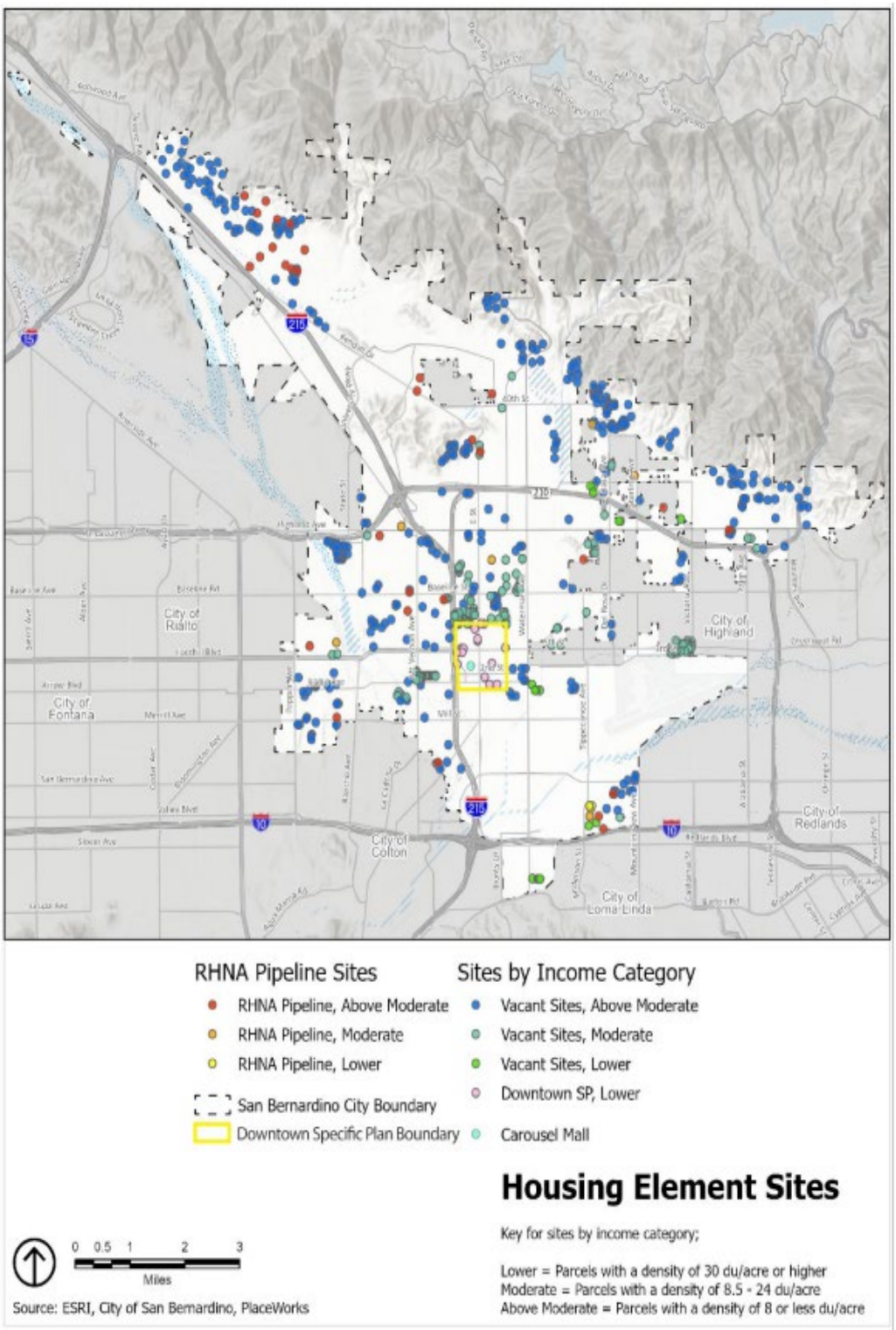
Major Community Elements

San Bernardino International Airport

San Bernardino International Airport is a public airport approximately two miles from downtown San Bernardino in San Bernardino County, CA. Formed in 1992, the San Bernardino International Airport Authority (SBIAA) is a regional joint powers authority created by and through State Legislation to serve as the owner, developer, and operator of the aeronautical portions of the former Norton Air Force Base, now known as the San Bernardino International Airport. The airport covers approximately 1,329 acres and has one runway. The facility is a commercial, general aviation, and cargo airport and has a domestic terminal and an international travel terminal.[4]

[4] https://www.sbdairport.com/facilities-amenities/airport-facts/

Figure 2-1: Sites Identified to Accommodate the 6th Cycle RHNA, San Bernardino



National Orange Show Event Center

The National Orange Show Event Center is a full-service event center that spans over 120 acres and offers 150,000 square feet of indoor exhibit space, a quarter-mile speedway, a state-of-the-art satellite wagering center, and can accommodate more than 40,000 attendees and park approximately 8,000 cars. The center's mission is to promote and preserve the citrus industry; manage and operate year-round recreational and cultural facilities to attract special events focusing on education and family entertainment; and support the community through charitable programs, scholarships, and active community involvement.[5]

San Manuel Stadium

San Manuel Stadium has been the home of the Inland Empire 66ers minor league baseball team since its inception in 1996. The 66ers are a Class-A affiliate of the Los Angeles Angels of Anaheim and have won five California League championships during their time at San Manuel Stadium. The stadium is located in downtown San Bernardino and can hold 8,000 people. In addition to baseball games, San Manuel hosts concerts, movies, and festivals.[6]

Open Space/Glen Helen Regional Park

The City of San Bernardino is home to thirty-three parks that span approximately five hundred acres of open space and developed land. Glen Helen Regional Park is a County-owned park located in northwest San Bernardino. The park offers 1,340 acres of recreational activities, two lakes for fishing, a swimming pool, and large group shelter picnic areas. Glen Helen Regional Park is also home to the Glen Helen Amphitheater, a 65,000-seat outdoor concert venue; the Glen Helen Raceway, an off-highway competitive event facility; and the annual Sheriff's Rodeo.[7]

Infrastructure Assessment

Infrastructure plays a vital role in mitigating the effects of hazard events. When infrastructure fails, it can exacerbate the extent of certain hazards or create complications for rescue workers trying to reach victims. For example, because of strong winds or seismic activity, fallen utility poles can obstruct roadways and prevent emergency vehicles from reaching affected areas. The following are electrical, fossil fuel, hydrologic, and transportation infrastructure networks in San Bernardino.

Electricity

San Bernardino receives its electrical supply from Southern California Edison (SCE). Fifteen substations are located within the City, connecting 220kV and 66 kV powerlines that run east to west and north to south. These lines bring power to San Bernardino and the surrounding cities and connect to other regional power sources. These connections help San Bernardino access auxiliary electricity sources should any of its immediate infrastructure fail. However, a larger and more regional failure of the power grid would likely disrupt power transmission to San Bernardino for an extended time until power can be restored.

[5] https://www.nosevents.com/about/
[6] https://www.vinverifications.com/san-manuel-stadium-in-san-bernardino/
[7] https://parks.sbcounty.gov/park/glen-helen-regional-park/

Natural Gas

San Bernardino receives its natural gas from Southern California Gas Company (SoCalGas). To ensure sufficient natural gas transmission throughout the region, SoCalGas owns and operates one transmission line that transects the city. The pipeline traverses the city from west to east along Mill Street, turns south on Tippecanoe Ave, and turns to the east again at E. San Bernardino Ave. If these lines are damaged, there is a potential to interrupt the flow and delivery of natural gas throughout the city.

Additionally, natural gas ignites very easily, and any rupture in a transmission line could cause additional damage to properties near the leak due to fire from the escaped natural gas. The presence of this infrastructure creates unique challenges for the city from an emergency management perspective. Including hazards associated with damage to this infrastructure is an important element of an effective response to future incidents involving natural gas use and transmission.

Public Safety Power Shutoff

Under California law, the State's investor-owned utilities have general authority to shut off electric power to protect public safety. Utilities exercise this authority during severe wildfire threat conditions as a preventative measure of last resort through Public Safety Power Shutoffs (PSPS).

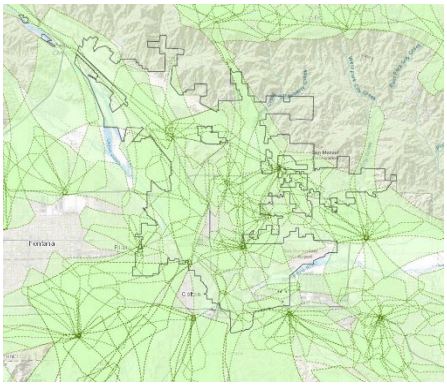


Figure 2-2: SCE Public Safety Power Shutoff Circuits surrounding the City

The City began preparation for PSPS events by understanding the potential circuits that could be impacted (**Figure 2-2**) and the city needs and special populations that may be affected by these events. These incidents typically occur during high fire threat conditions (i.e., dry conditions and strong winds) and may affect communities located far away from any actively occurring fires. Although not all SCE circuits in the city have been de-energized during past PSPS events, the city must be prepared if a future PSPS event affects one of those circuits. Residents and businesses in these areas are sure to feel the impacts of these events if they do not have alternative options for electricity at their homes and places of business.

These events are also anticipated to affect City resources since some City facilities rely on electricity to function. As a result, the City has prioritized back up power generation at City facilities in these affected areas to ensure residents have a safe place to seek refuge, if needed, during these events.

City of San Bernardino Municipal Water Department

The City of San Bernardino Municipal Water District (SBMWD) has a service area of approximately 55 square miles and provides water service to customers within the City of San Bernardino, with a small percentage of out-of-city accounts. SBMWD relies solely on water extracted from the underlying aquifer, the Bunker Hill Groundwater Basin, to meet its demands. This water is distributed via SBMWD's water distribution system consisting of pipelines, storage reservoirs, pumping stations, hydroelectric generating stations, manual and automatic control valves, fire hydrants, and water meters located throughout 23 individual pressure zones.[8]

[8] 2019 San Bernardino Municipal Water Department Local Hazard Mitigation Plan.

The SBMWD provides water service to approximately 44,000 active service connections within its 55-square-mile service area in San Bernardino and surrounding areas. The SBMWD operates and maintains 38 storage tanks, 53 water wells, and nearly 750 miles of water pipelines. In addition, the SBMWD has recently taken ownership of the City of San Bernardino's wastewater collection system. The SBMWD has owned and operated the wastewater treatment system for over 60 years but didn't own or operate the wastewater collection system. The collection system was owned and operated by the City of San Bernardino Public Works Department. In 2017, the city turned over ownership, maintenance, and control of the collections system. The collection system had not been updated in many years. The SBMWD now operates 466 miles of wastewater pipelines and has 64,342 customer wastewater laterals within the city and county areas. The wastewater system treats, on average, 22 million gallons of wastewater daily.[9]

Transportation

Much of the transportation infrastructure in San Bernardino consists of roadways for automobiles, but there are many modes of travel into and out of the City. In total, freeways, buses/shuttles, local commuter trains, and air travel support mobility in and out of the City.

Freeways/highways, Interstate (I), I-10, I-15, I-215, State Route (SR) SR-18 (also referred to as N Waterman Ave) and SR-330 connect San Bernardino to the greater Southern California region. The interchanges from these freeways and highways connect to major thoroughfares within the City. **Table 2-9** identifies these major routes that connect to the City's local transportation network.

Table 2-9: City of San Bernardino Transportation Infrastructure

Freeways/Highways in San Bernardino	Direction	Exits Serving the City of San Bernardino
I-10	East-West	Exit (73A) Waterman Ave S, (73B) Waterman Ave N, (74) Anderson St, Tippecanoe Ave
I-210	East-West	Exit (73) State St, University Pkwy; (75) H St.; (76) CA-18; Waterman Ave; (78) Del Rosa Ave; (79) Highland Ave
I-215	North-South	Exit (41) Orange Show Rd., Autoplaza Drive; (42) Inland Center Drive, Colton; (43) W 2nd St., W 3rd St; (44A) CA 66; (44B) Baseline St.; (45A) CA 259; (46A) Highland Ave; CA 210 W; (48) University Pkwy; (50) Palm Ave, Kendall Dr; (54A) Devore Rd.

Source: iExitapp.com

Public transportation options within San Bernardino are provided by two public transit agencies that operate local bus and train services, Omnitrans and Metrolink, which are all regulated by the San Bernardino County Transportation Authority (SBCTA). Serving more than 2.1 million residents of San Bernardino County, the SBCTA is responsible for cooperative regional planning and furthering an efficient multi-modal transportation system countywide. The SBCTA administers Measure I, the half-cent transportation sales tax approved by county voters in 1989, and supports freeway construction projects,

[9] Ibid.

regional and local road improvements, train and bus transportation, railroad crossings, call boxes, ridesharing, congestion management efforts, and long-term planning studies. [10]

Omnitrans provides fourteen routes servicing local San Bernardino neighborhoods, neighboring cities in San Bernardino County, and one express service route that connects San Bernardino with Loma Linda.

Metrolink's San Bernardino Depot Station, located in the City of San Bernardino. Photo Courtesy of Metrolink

The Metrolink provides local and regional train service in San Bernardino, out of three stations within San Bernardino: San Bernardino – Downtown (174 South E Street), San Bernardino Depot (1170 W. 3rd Street), and San Bernardino – Tippecanoe (1498 S Tippecanoe Ave). The San Bernardino – Tippecanoe station provides the Metrolink San Bernardino Line, and the San Bernardino – Downtown and San Bernardino Depot Stations provide both the San Bernardino Line and the Inland Empire-Orange County Line. The Inland Empire-Orange County line provides service from San Bernardino to Oceanside.

[10] San Bernardino County Transportation Authority

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Chapter 3 – Risk Assessment and Threat and Vulnerability Assessment

This chapter discusses the hazards that might reasonably occur in San Bernardino. It describes these hazards and how they are measured, where in San Bernardino they may occur, a history of these hazards in and around San Bernardino, and the future risk they pose. The discussion of future risks includes any changes to the frequency, intensity, and/or location of these hazards due to climate change. This chapter also discusses how the HMPC selected and prioritized the hazards in this Plan.

The threat assessment process looks at the potential harm of each hazard event discussed in each hazard profile.

Hazard Identification

FEMA guidance identifies several hazards that communities should evaluate for inclusion in a hazard mitigation plan. Communities may also consider additional hazards for their plans. The HMPC reviewed the previous hazards in the 2016 plan and discussed other potential hazards, excluding ones that do not pose a threat or are not a significant concern to San Bernardino. **Table 3-1** lists the hazards considered and explains the reasoning for inclusion/exclusion. For context, this table also shows if a hazard is recommended for consideration by FEMA, is included in the 2018 California State Hazard Mitigation Plan (SHMP) and is included in the San Bernardino County Hazard Mitigation Plan (SBC HMP).

Table 3-1: Hazard Evaluation for San Bernardino LHMP

Hazard	Recommended for Consideration	Included in LHMP?	Reason for Inclusion or Exclusion
Agricultural Pests	SHMP	No	While historically, agricultural activities have occurred within the City; these areas are moving out of the community and being replaced by new residential, commercial, and industrial developments. Without the presence of these large agricultural areas in the community, the HMPC did not identify this as a hazard of concern for the City.
Air Pollution	SHMP	No	Air pollution is a state and regional issue addressed through plans and regulations administered by the South Coast Air Quality Management District and/or California Air Resources Board. Since the City does not regulate these resources, the HMPC did not identify this as a hazard of concern that could be addressed in this plan.
Aircraft Incident	SHMP	No	San Bernardino International Airport is located within the City. This facility is operated under a Joint Powers Agreement (JPA) that the City is party to; however, the JPA conducts all planning activities for the facility. Given the lack of control over this asset and the few past incidents associated with aircraft incidents that have occurred, the HMPC determined that this hazard should not be included in the plan.

Aquatic Invasive Species	SHMP	No	There are no major riparian environments in San Bernardino where aquatic invasive species could endanger the community.
Avalanche	FEMA guidance SHMP	No	San Bernardino is not located within potential avalanche zones.
Civil Disturbance or Riot	SHMP	Yes	The HMPC determined that civil disturbances of the degree that could endanger property or the life of residents or visitors could occur, especially in locations of the City where large populations visit/congregate (National Orange Show) or city-owned facilities (Police Department).
Climate Change	SHMP SBC HMP	Yes	Climate change is discussed as a function of each relevant hazard and is mentioned throughout the Plan.
Coastal Flooding and Storm	FEMA guidance SHMP	No	San Bernardino is not located along the coast of California. Coastal flooding and storms are not anticipated to impact the community.
Cyber Threats	SHMP	Yes	With the increase in cyber threats occurring throughout California and the nation, the HMPC is concerned about their effects on communications. This hazard is addressed as a function of communications failure.
Dam Failure	FEMA guidance SHMP SBC HMP	Yes	San Bernardino is located downstream of dams that could inundate the community. Due to the city's location downstream of these facilities, the HMPC identified dam failure as a hazard of concern.
Drought	SHMP SBC HMP	Yes	The HMPC identified droughts as a recurring and potentially severe hazard in San Bernardino.
Energy Shortage	SHMP	No	While energy shortage can potentially occur in San Bernardino, the risk associated with this is similar to surrounding communities. While the loss of power could occur, the bigger concern for the City is the effects this could have on the communications infrastructure responsible for connecting the City in times of emergency.
Epidemic, Pandemic, Vector-Borne Disease	SHMP	No	San Bernardino is in San Bernardino County, which has experienced several health-related incidents in the past. The City and the rest of the country have recently responded to the COVID-19 pandemic, which has impacted staff and resources. However, the HMPC felt this issue did not need to be addressed within the LHMP.
Erosion	FEMA guidance SHMP	No	Due to its relatively flat nature and lack of hills, the HMPC did not identify erosion as a hazard of concern for the City.
Expansive Soil	FEMA guidance	No	The HMPC did not identify expansive soils as a hazard of concern. While they could exist, the City requires compliance with the California Building Code, which is intended to mitigate hazards associated with this condition.

Extreme Cold	FEMA guidance SHMP	No	Temperatures in San Bernardino do not fall to a level that would be considered a danger to public safety. Due to this, the HMPC did not identify this as a hazard of concern.
Extreme Heat	FEMA guidance SHMP	Yes	Extreme heat has occurred in San Bernardino and is expected to be a future recurring issue. This issue was identified by the HMPC as a hazard of concern and included in the Severe Weather profile.
Fault Rupture	FEMA guidance SHMP SBC HMP	Yes	There are known Alquist-Priolo fault zones located within San Bernardino. As a result, the HMPC identified this as a hazard of concern to the City.
Flooding	FEMA guidance SHMP	Yes	Several watercourses transect the City and are identified within FEMA flood hazard zones. The presence of these flood zones indicates the potential for future hazards. The HMPC identified flooding as a hazard of concern included in the Flooding profile.
Fracking	SHMP	No	Fracking does not occur in San Bernardino.
Hail	FEMA guidance	No	Hail that is severe enough to pose a threat to people and property is too rare in San Bernardino to be included.
Hazardous Materials release	SHMP	Yes	The presence of uses for storing, manufacturing, disposing, and transporting hazardous materials was identified as a concern for the HMPC. In addition, several major roadways, freeways, and rail lines transecting the City allow for transporting these materials that could endanger the community if a release into the environment were to occur.
Hurricane	FEMA guidance SHMP	No	Hurricanes do not occur in San Bernardino.
Infrastructure Failure	SHMP	No	Infrastructure failure can pose a threat to people and property in San Bernardino. A discussion of infrastructure failure is discussed as a function of other hazards.
Landslide (Earthquake-Induced)	FEMA guidance SHMP	Yes	Areas within the City of San Bernardino are considered to have a high potential for earthquake-induced landslides. As a result, the HMPC felt including this hazard in the plan was essential.
Levee Failure	SHMP	No	While levees are located within the City, they were not deemed a significant concern. These levees are owned and managed by San Bernardino County, and the City does not have the authority to address these facilities but coordinates with the County on issues and upgrades. Based on this, the HMPC did not include Levee failure as a hazard of concern.
Lightning	FEMA guidance	No	Although lightning occasionally occurs in San Bernardino, it does not pose a significant threat to people or property.
Liquefaction	FEMA guidance SHMP SBC HMP	Yes	Portions of the city are located within potential liquefaction areas, identifying a concern of the HMPC. This hazard has been included as part of the Seismic Hazards profile.

Methane-containing Soils	SBC HMP	No	The City does not have methane-containing soils that pose a threat to the public health and safety of residents and businesses. The HMPC did not identify this as a hazard of concern to the City.
Natural Gas Pipeline Hazards	SHMP	No	Natural gas pipelines traverse San Bernardino, posing a danger to people and property if they were to breach and release their contents. This condition is discussed in the Community Profile in Chapter 2 and is discussed in the vulnerability assessment where applicable.
Oil Spills	SHMP	No	There is no history of oil drilling and extraction within the City. Based on this, the HMPC did not identify this as a hazard of concern to the City.
Power Failure	SHMP	No	While power loss events can occur in the City, the HMPC determined that this hazard shouldn't be addressed within the LHMP and is better suited as a hazard addressed in the City's EOP.
Radiological Accidents	SHMP	No	There are no known major sources of radiation in San Bernardino or the immediate surrounding area that could pose a serious threat to the community.
Sea-level Rise	FEMA guidance SHMP	No	The City is not located along the coast or near any large bodies of seawater. The HMPC did not identify this as a hazard of concern for the City.
Seiche	FEMA guidance SHMP	No	There are no major bodies of water in San Bernardino that could be subjected to seiche.
Seismic Shaking	FEMA guidance SHMP SBC HMP	Yes	San Bernardino is in a seismically active area where shaking can be severe enough to damage property or cause loss of life. For this reason, the HMPC determined it should be addressed in this plan.
Severe Wind	FEMA guidance	Yes	Severe Weather includes discussions regarding extreme heat, severe wind, and drought, which are the most common weather-related hazards in San Bernardino.
Severe Weather and Storms	FEMA guidance SHMP SBC HMP	Yes	Severe Weather includes discussions regarding extreme heat, severe wind, and drought, which are the most common weather-related hazards in San Bernardino.
Storm Surge	FEMA guidance	No	San Bernardino is not a coastal community. The HMPC did not identify this as a hazard of concern to the City.
Subsidence	FEMA guidance	No	Subsidence is not a significant concern identified by the HMPC.
Terrorism	SHMP	Yes	The HMPC was concerned about terrorism incidents threatening public safety, given past events within the city. A discussion of this is in the Human-Caused Hazards profile.
Thunderstorm	SHMP	No	Thunderstorms that cause damage and endanger public safety are rare in the Southern California region. The HMPC did not identify this as a hazard of concern.
Tornadoes	FEMA guidance SHMP	No	No tornadoes are known to have occurred in San Bernardino. The HMPC did not identify this as a hazard of concern.
Transportation Accidents	SHMP	No	While transportation accidents can occur within the City, this hazard was not identified as a key hazard of HPMC concern.

Tree Mortality	SHMP	No	The HMPC noted that the city has a significant number of trees; however, the City currently manages these resources effectively and did not feel it was necessary to profile them as a hazard of concern.
Tsunami	FEMA guidance SHMP	No	San Bernardino is not a coastal community. The HMPC did not identify this as a hazard of concern to the City.
Urban Fire	SHMP SBC HMP	No	The HMPC did not identify urban fires as a risk to property and life in San Bernardino.
Volcano	SHMP	No	There are no volcanoes near San Bernardino to reasonably pose a threat. The HMPC did not identify this as a hazard of concern to the City.
Wildfire	FEMA guidance SHMP	Yes	The HMPC identified wildfire as a major threat to the developed and undeveloped areas of the City and is a topic included in the document.

After hazard evaluation and the organizational changes made by the HMPC, this Plan discusses seven broad hazard types with their respective sub-categories:

Hazard Type	Sub-Categories
Earthquake/Geologic Hazards	Seismic Shaking Fault Rupture Liquefaction Earthquake-Induced Landslide
Flooding	Includes Dam Inundation
Severe Weather	Severe Winds Extreme Heat Drought
Wildfire	
Hazardous Materials Release	
Human-Caused Hazards	Terrorism/Mass Casualty Incident Cyber Threat Civil Unrest
Climate Change	*Discussed in all Hazard Categories*

Hazard Scoring and Prioritization

Once the hazards for San Bernardino have been identified, the hazards are then given a priority ranking. In the Hazard Assessment Matrix below, the "Red" zone represents the highest priority hazards, the "Yellow" zone represents middle priority, and the "Green" zone represents the lowest priority hazards. As shown in Hazard Assessment Matrix, the hazards considered the greatest threat to the City of San Bernardino are flood, earthquake/geologic hazards, wildfires, and cyber threat. The following hazard profiles and risk assessment describes these hazards in-depth, reviews the exposure of assets to these hazards, and estimates losses or assesses risk for significant events associated with these hazards.

San Bernardino Hazard Assessment Matrix

2024 LHMP Hazards				
Probability				
High	Medium	Low		
Flood Earthquake / Geologic Hazards Wildfires HCH - Cyber Threat	HCH - Mass Casualty Incident/Terrorism/Civil Unrest	Dam Inundation	High	Impact
Extreme Heat High Winds / Straight Line Winds	Drought HCH - Hazardous Materials		Medium	
			Low	

In addition to the simple prioritization exercise, the HMPC followed FEMA guidance for hazard mitigation plans and prioritized each of the hazards identified. In the initial step, it assigned a score of 1 to 4 for each of the hazards for the following criteria:

- **Probability:** The likelihood that the hazard will occur in San Bernardino in the future.
- **Location:** The size of the area that the hazard would affect.
- **Maximum probable extent:** The severity of the direct damage of the hazard to San Bernardino.
- **Secondary impacts:** The severity of indirect damage of the hazard to San Bernardino.

The HMPC assigned a weighting value to each criterion, giving a higher weight to the criteria deemed more important, and multiplied the score for each criterion by weighing the factor to determine the overall score for each criterion. These weighting values were recommended by FEMA:

- Probability: 2.0
- Location: 0.8
- Maximum probable extent: 0.7
- Secondary impacts: 0.5

Table 3-2 shows the Criterion Scoring used to assign a score for each criterion.

After calculating the total impact score for each hazard (sum of the location, maximum probable extent, and the secondary impact). FEMA guidance recommends multiplying the total impact score by the overall probability to determine the final score for each hazard. A final score between 0 and 12 is considered a low-threat hazard, 12.1 to 42 is a medium-threat hazard, and a score above 42 is considered a high-threat hazard. This final score determines the prioritization of the hazards.

In compliance with the Disaster Mitigation Act (and as further specified by Interim Final Rule 44 CFR Section 206.401(c)(2)(i)), this LHMP addresses, in substantial detail, the primary hazards facing the City.

Lower priority hazards are addressed at a lesser level of detail due to their relatively reduced impacts, as identified in the hazard assessment discussion.

Table 3-2: San Bernardino Hazard Prioritization Worksheet

Hazard Type	Probability	Impact			Total Score	Hazard Planning Consideration
		Location	Primary Impact	Secondary Impacts		
Earthquake / Geologic Hazards	4	4	4	4	64.00	High
Flood	4	3	2	3	42.40	High
Wildfire	4	4	2	2	44.80	High
Cyber Threat	4	2	2	2	32.00	Medium
Extreme Heat	4	4	1	1	35.20	Medium
High Winds	4	2	1	1	22.40	Medium
Mass Casualty Incident/Terrorism	2	2	2	2	16.00	Medium
Civil Unrest	2	2	1	1	11.20	Low
Drought	2	4	1	1	17.60	Medium
Hazardous Materials Release	2	2	2	2	16.00	Medium
Dam Inundation	1	4	3	2	12.60	Medium

* Climate Change considerations discussed as appropriate within this hazard.

Probability	Importance
Based on estimated likelihood of occurrence from historical data	2.0
Probability	Score
Unlikely - less than 1% chance each year	1
Occasional - a 1 to 10% chance each year	2
Likely - a 10 to 90% chance each year	3
Highly Likely - more than 90% chance each year	4

Secondary Impacts	Importance
Based on estimated secondary impacts to community at large	0.5
Impact	Score
Negligible - no loss of function, downtime, and/or evacuations	1
Limited - minimal loss of function, downtime, and/or evacuations	2
Moderate - some loss of function, downtime, and/or evacuations	3
High - major loss of function, downtime, and/or evacuations	4

Location	Importance
area of community affected by hazard	0.8
Affected Area	Score
Negligible	1
Limited	2
Significant	3
Extensive	4

Maximum Probable Extent (Primary Impact)	Importance
Based on percentage of damage to typical facility in community	0.7
Impact	Score
Weak - little to no damage	1
Moderate - some damage, loss of service for days	2
Severe - devastating damage, loss of service for months	3
Extreme- catastrophic damage, uninhabitable conditions	4

Total Score = Probability x Impact, where:
Probability = (Probability Score x Importance)
Impact = (Affected Area + Primary Impact + Secondary Impacts), where:
Affected Area = Affected Area Score x Importance
Primary Impact = Primary Impact Score x Importance
Secondary Impacts = Secondary Impacts Score x Importance

Hazard Planning Consideration			
Total Score	Range	Distribution	Hazard Level
0.0	12.0	7	Low
12.1	42.0	10	Medium
42.1	64.0	5	High

The probability of each hazard is determined by assigning a level, from unlikely to highly likely, based on the likelihood of occurrence from historical data. The total impact value includes the affected area, primary impact and secondary impact levels of each hazard. Each level's score is reflected in the matrix. The total score for each hazard is the probability score multiplied by it's importance factor times the sum of the impact level scores multiplied by their importance factors. Based on this total score, the hazards are separated into three categories based on the hazard level they pose to the communities: High, Medium, Low.

Threat Assessment Process

The threat assessment process analyzes the harm San Bernardino may experience from a hazard event but does not consider its likelihood, thus giving equal consideration to hazards that are more likely (e.g., earthquakes, flood) and less probable hazards (e.g., dam failure).

The threat assessment examines three aspects of each hazard: the physical threat to facilities, the social threat to vulnerable populations, and the threat to any other assets that may be affected.

Critical Facilities and Facilities of Concern

Critical facilities (CF) consist of properties and structures that play important roles in government operations and the services they provide to the community. Examples of CFs include local government offices and yards, community centers, public safety buildings like police and fire stations, schools, and other properties a city has deemed essential for its operations. Critical Facilities may also serve dual roles if a city designates them as public assembly points during an emergency. Critical Facilities are often owned by the City, but some may also be owned and operated privately, such as some utilities and telecommunication infrastructure. Facilities of concern (FOC) are similar to critical facilities; however, the City may not own them, or their purpose and function are not as important to the function of the City after a disaster. These facilities are identified to ensure the City understands their potential vulnerability to the hazards of concern.

The HMPC identified a total of 207 facilities [23 CFs and 184 FOC] in San Bernardino that fall into 4 categories based on their function or characteristics. **Table 3-3** shows the number of CFs and FOC in each category, the total estimated replacement value for these facilities, and examples of the type of facility in each category. **Appendix D** has a complete list of the CFs and FOC used in this analysis. **Figure 3-1** shows the locations of the mapped CFs and FOC in San Bernardino.

The potential loss values identified in subsequent tables are based on the City's total insured value using the City's Insured Asset Inventory. It is intended to provide an estimate of the replacement cost if the property/ structure is completely or severely damaged. The actual costs of repair could be smaller or larger than the provided estimate. Since the data comes from the City's Insured Asset Inventory, any facilities not owned by the City will not have a replacement value listed. Where this occurs, "N/A" has been used within the table.

Based on the available data provided by the City, a minimum of $281,121,833 worth of City-owned assets were analyzed. The total potential loss value of all City-owned and non-City-owned assets is much higher but is unknown due to data limitations.

The greatest potential for loss among City-owned assets comes from the Other Facilities category, which includes but is not limited to libraries, cultural centers, and federal and county government operations centers located throughout the city. The next critical facility category with the greatest potential for loss would be City Facilities, which includes Police and Fire Department facilities and equipment, while Park Facilities and Recreation Centers are the third highest potential loss among critical facilities.

To better understand the magnitude of impacts, this plan identifies representative percentages of potential impact based on the total valuation of City assets. For planning purposes, we identified different tiers of impact that could occur. It is reasonable to assume that impacts would not exceed 50% of the total asset value city-wide during a single event. The following are parameters to help understand how much a proposed investment/improvement compares to the existing assets within the City:

- 1% Impact - $2,811,218
- 5% Impact – $14,056,091
- 10% Impact – $28,112,183
- 20% Impact - $56,224,366
- 50% Impact - $140,560,916

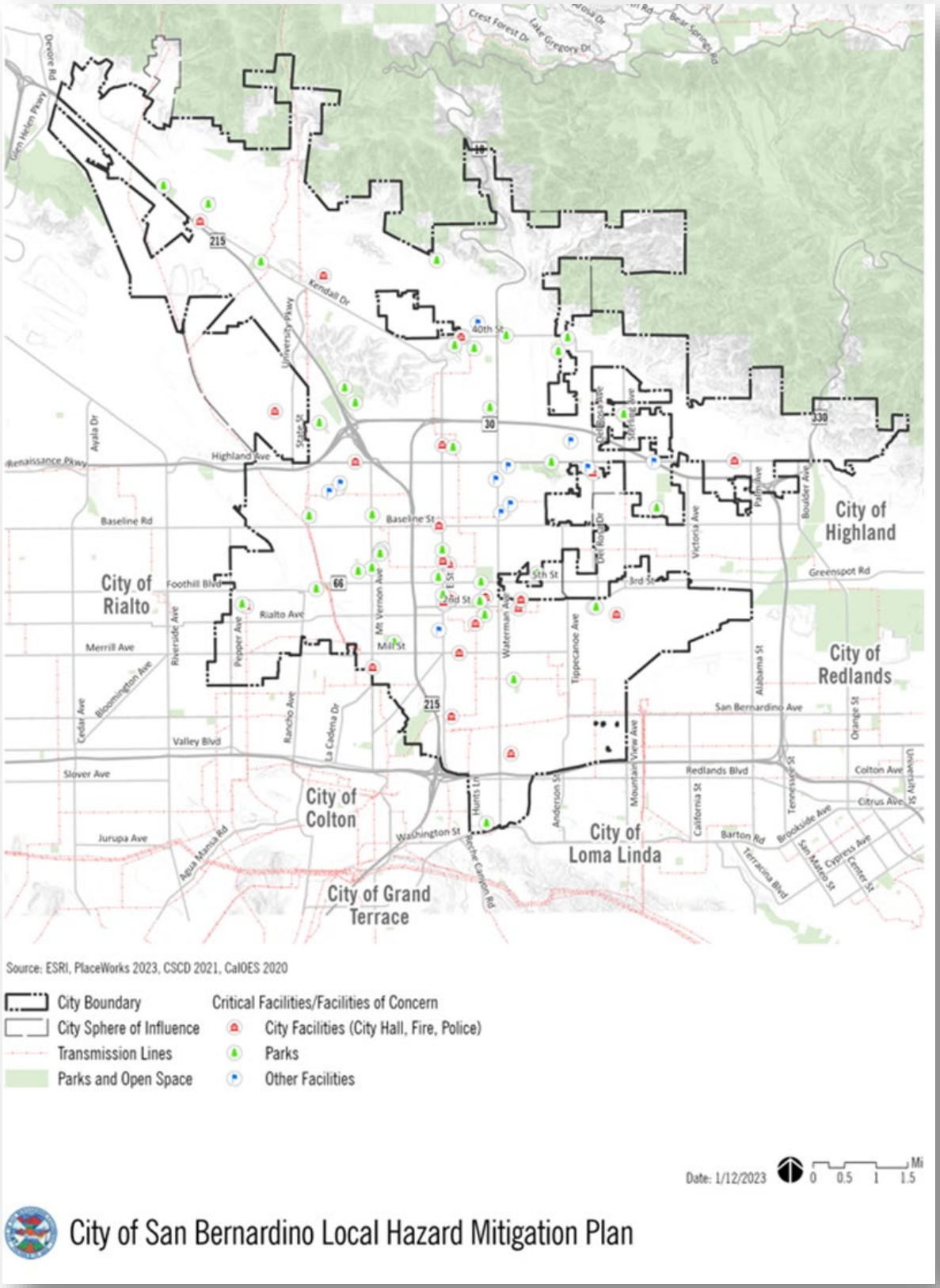
The possibility that all facilities will be completely damaged simultaneously is extremely rare. Based on the hazard, most impacts are anticipated to be isolated to certain locations. This estimate does not include the value of the City's underground infrastructure and surface drainage facilities.

Table 3-3: Critical Facilities and Facilities of Concern in San Bernardino

Category	Number of Facilities		Examples	Potential Loss
	Critical	Concern		
City Facilities	21	5	City Hall, Fire, Police	$78,060,013
Schools	0	75	---	Unknown
Park Facilities, Recreation Centers	0	39	Parks, Recreation Centers	$41,139,096
Other Facilities	2	65	Libraries, Cultural Centers, Federal and County Government Operations**	$161,922,724
Total	**23**	**184**		**$281,121,833**

*** Potential loss data are estimates only, as replacement values for some facilities were not available. Actual losses may be greater than the estimate presented in this table.**
**** No potential loss estimates are available for federal and county facilities within the city.**
***** Fire Services to the City are provided by San Bernardino County Fire District**

Figure 3-1: Critical Facilities and Facilities of Concern



Vulnerable Populations

Factors such as age, physical and/or mental condition, socioeconomic status, access to key services, and many other factors affect the ability of people to prepare for and protect themselves and their property from a hazard event. Even though some hazard events may impact all parts of San Bernardino with equal severity, different people may experience the impacts differently. Higher-income households, for instance, are likely more able to afford the cost of retrofitting their homes to resist flooding or, alternatively, move to a location that is less prone to flooding than a lower-income household. As a result, the higher-income household is less likely to experience significant damage during a flood event than the lower-income household, even if the same amount of rain falls on both.

A social threat analysis examines how hazard events are likely to impact different demographic populations in San Bernardino and where these different demographic populations live in the city. This includes assessing whether the people in an area of an elevated hazard risk are more likely than the average person to be considered a threatened population. The social threat analysis uses the following criteria to assess the threat to vulnerable populations:

- **Disability status**: Persons with disabilities may often have reduced mobility and experience difficulties living independently. As a result, they may have little or no ability to prepare for and mitigate hazard conditions without assistance from others.
- **Income levels**: Lower-income households are less likely to have the financial resources to implement mitigation activities on their residences. They may also struggle with having the necessary time to find and access educational resources discussing hazard mitigation strategies. Furthermore, lower-income households are less likely to be able to move to safer areas that are less at risk of being impacted by a hazard. The national poverty limit standard for the U.S. for a four-person family is approximately an income of $30,000 or less. San Bernardino County's FY 2022 Low-Income Limit for a four-person family is $70,400.[11]
- **Seniors (individuals at least 65 years of age):** Seniors are more likely to have reduced mobility, physical and/or mental disabilities, and lower-income levels, all of which may decrease their ability to prepare for and mitigate a hazard event.

Table 3-4 shows the amount of people in San Bernardino who meet at least one of the criteria for threatened, vulnerable populations. For more detailed demographic information, please refer to **Chapter 2**.

The social threat analysis also shows the threat other populations may encounter. For example, people experiencing homelessness or without access to lifelines (vehicles or communication networks) may experience greater hardship in evacuating or recovering from a disaster. Since data for these groups are not readily available, there is no definitive way to determine the amount of these people in areas of elevated risk, so this assessment will discuss how these other threatened groups may be affected on a general level.

[11] U.S. Department of HUD 2022 Adjusted Home Income Limits.

Table 3-4: San Bernardino Threatened-Population Metrics	
Threatened Population Metric	**Community-Wide Data**
Population	222,116
Households	66,156
Median household income	$52,321
Renter Households	15.2%
Percentage of households with at least one person living with a disability	9.1%
Percentage of households living under the poverty limit	21.0%
Percentage of households with one member aged 65+	9.4%
Source: US Census Bureau, 2020 Decennial Census, 2021 ACS 1-Year Estimates	

Data Limitations and Notes on Vulnerability Tables

Due to data limitations, the data comparing the hazard zone population with the citywide population comes from two separate sources. The citywide data comes from the US Census Bureau's American Community Survey, and the hazard zone population data comes from ESRI's Business Analyst reports. As a result, there may be minor discrepancies in comparing the two data sets. The data that should be considered correct for this plan is the ACS data reported in Chapter 2.

Other Assets

In addition to the City's designated inventory of CFs/FOC and vulnerable populations, hazard events could threaten other important assets to San Bernardino. These assets may include services, artistic or cultural landmarks, or local economic activities. The threat assessment describes the potential harm to these other assets based on available information.

Disaster Declaration Connections

Since the previous update the following major disasters, emergency declarations, and fire management events have been issued by the FEMA. Past events identified in this plan have been identified in connection with these events in the "Past Events" sections within each Hazard Profile. **Table 3-5** identifies recent disaster declarations in San Bernardino County.

Table 3-5: Disaster Declaration - San Bernardino County (2019-2023)					
Year	**Declaration Number**	**Declaration Title**	**Incident Type**	**Affected San Bernardino**	**Activated EOC / Requested PA**
2023	DR-4699-CA	SEVERE WINTER STORMS, STRAIGHT-LINE WINDS, FLOODING, LANDSLIDES, AND MUDSLIDES	Severe Storm	Yes	EOC Activated
2023	EM-3591-CA	SEVERE WINTER STORMS, FLOODING, AND MUDSLIDES	Flood	Yes	EOC Activated

2023	EM-3592-CA	SEVERE WINTER STORMS, FLOODING, LANDSLIDES, AND MUDSLIDES	Flood	Yes	EOC Activated
2021	DR-4569-CA	WILDFIRES	Fire	No	N/A
2021	FM-5381-CA	BLUE RIDGE FIRE	Fire	No	N/A
2020	DR-4482-CA	COVID-19 PANDEMIC	Biological	Yes	No
2020	EM-3428-CA	COVID-19	Biological	Yes	No
2020	FM-5350-CA	EL DORADO FIRE	Fire	No	N/A
2020	FM-5325-CA	APPLE FIRE	Fire	No	N/A
2020	FM-5301-CA	HILLSIDE FIRE	Fire	Yes	EOC Activated
2019	EM-3415-CA	EARTHQUAKES	Earthquake	No	N/A

Hazard Profiles

Earthquake / Geologic Hazards

Earthquake and geologic hazards of concern in San Bernardino include seismic shaking, fault rupture, liquefaction, and earthquake-induced landslides.

DESCRIPTION

An earthquake is a sudden slip on an active fault, and the resulting shaking and radiated seismic energy are caused by the slip (USGS, 2009). The majority of major active faults in the San Bernardino area are strike-slip faults. For this type of fault, during an earthquake event, one side of a fault line slides past the other. The rupture from this type of fault extends almost vertically into the ground.

Earthquakes are a significant concern to the City of San Bernardino. The area around San Bernardino is seismically active since it is situated on the boundary between two tectonic plates. Earthquakes can cause serious structural damage to buildings, overlying aqueducts, transportation facilities, and utilities and can lead to loss of life. In addition, earthquakes can cause collateral emergencies, including dam and levee failures, fires, and landslides.

SEISMIC SHAKING

Seismic shaking is the shaking felt on the surface caused by an earthquake. In most cases, earthquakes are not powerful enough to feel the shaking. However, powerful earthquakes can generate significant shaking, causing widespread destruction and property damage. As previously discussed, earthquakes are considered a major threat to the City of San Bernardino due to the proximity of several regional fault zones. Major fault zones in the region include the San Andreas Fault, which runs through the northeast portion of the city; the San Jacinto Fault, which runs through the eastern portion of the city; the Elsinore Fault, located approximately 25 miles southwest of the city; and the Cucamonga Fault, located approximately 10 miles northwest of the city. All of these faults are capable of producing earthquakes of magnitude 6.7 or greater. A significant earthquake along one of the major faults could cause substantial casualties, extensive damage, and other threats to life and property. The shaking of the ground can also damage or destroy underground utilities or pipelines, potentially leading to a loss of power, conceivable fires should any natural gas pipelines be damaged, and possible release of hazardous materials and flooding if water lines are breached. These regional fault zones are displayed in **Figure 3-2.**

Fault Rupture

The shifting and movement of the Earth's tectonic plates are responsible for seismic events. These tectonic plates can pull away from, move toward, or pass by each other. As they do, these plates sometimes lock together. This creates tension, and eventually, the built-up tension is released like a springboard, dissipating into the Earth's crust.

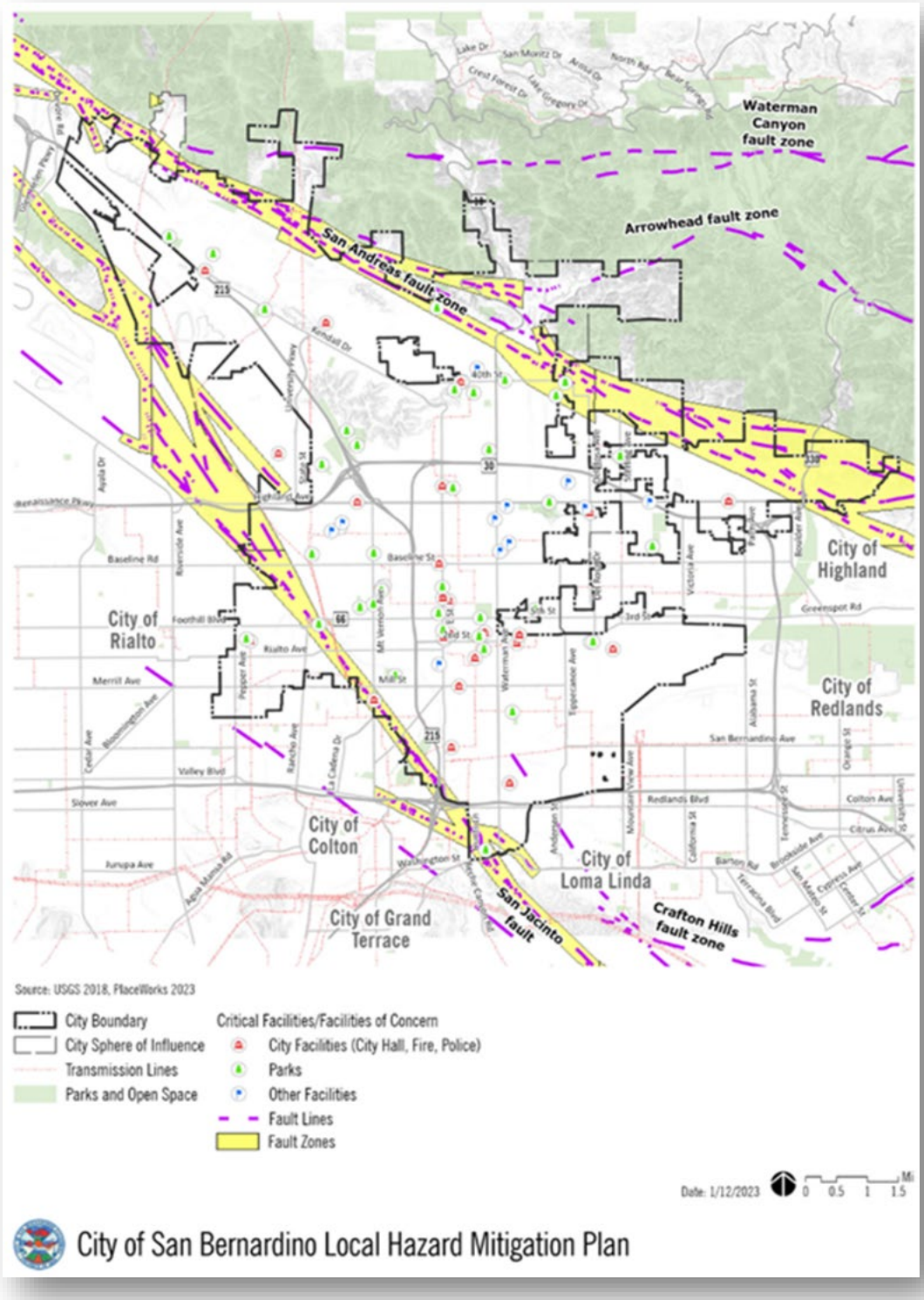
The location where two tectonic plates join is called a plate boundary, which is considered a fault line. Fault lines are sometimes visible on the Earth's crust as sudden rifts or anomalies in the continuity of the landscape. California's major north-south fault line is the San Andreas Fault—where the North American and Pacific Plates meet. However, constant friction between the two plates over the millennia has caused the areas where the two plates intersect to become fragmented, creating new, smaller faults.

The area near a fault line is at risk of damage due to the potential for a fault rupture—the deformation or displacement of land on either side of the fault, which may move a few inches to several feet in opposite directions. Any buildings or infrastructure situated around, on top of, or across a fault line could be severely damaged or destroyed. The direction of the fault rupture depends upon the fault type: dip-slip faults produce vertical shearing, strike-slip faults produce horizontal shearing, and oblique-slip faults produce both vertical and horizontal shearing. The fourth kind of fault, a "blind" thrust fault, produces virtually no visible land displacement.

Some faults have emerged recently in geologic history. Quaternary faults are faults that have developed any time between the Holocene Era and the present (within the last 1.8 million years). These faults are especially concerning since they are the most likely to be active and cause future earthquakes.

The Alquist-Priolo Earthquake Fault Zoning Act enables the California State Geologist to designate zones surrounding active faults as Alquist-Priolo Special Study Zones. These zones require additional study and analysis to determine the location of the fault and the limits of the area prohibited from surface construction on top of the known location of an active fault.

Figure 3-2: Regional Faults and Fault Zones



LIQUEFACTION

Liquefaction occurs when seismic energy shakes an area with low-density, fine-grain soil, like sand or silt, which is also saturated with water. When the shaking motion reaches these areas, it can cause these loosely packed soils to suddenly compact, making the saturated sediment behave more like a liquid than solid ground. During liquefaction events, the liquified soil can lose most of its stability, which can cause damage to buildings and infrastructure built upon it. In severe cases, some buildings may completely collapse. Pipelines or other utility lines running through a liquefaction zone can be breached during an event, potentially leading to flooding or releasing hazardous materials.

Earthquake-Induced Landslide

Ground failure resulting from an earthquake can occur in the form of an Earthquake-Induced Landslide. These failures typically happen in areas with steep slopes or unstable soil conditions. Landslides can impact structures, sever utility lines, block roadways, and impact people and properties in the failure path.

Location and Extent

Seismic Shaking

The intensity of seismic shaking occurs in relation to the amount of energy discharged by the seismic event, which is dictated by the length and depth of the fault. The longer and nearer to the surface the fault rupture is, the greater the seismic shaking. In most cases, areas nearest to the fault rupture experience the greatest seismic shaking, while areas more distant experience less shaking. Seismic shaking can damage or destroy structures leading to partial or total collapse. The shaking of the ground can also damage or destroy underground utilities or pipelines, potentially leading to the release of hazardous materials and flooding if water lines are breached.

Southern California is a highly seismic area because of the major faults that run through the region and the frequency of seismic events in the region. The intensity of seismic shaking is usually measured with the Modified Mercalli Intensity (MMI) scale based on the amount of observed damage. Seismic shaking may also be measured using the more widely known moment magnitude scale (MMS, denoted as M_w or sometimes M), which measures the amount of energy the earthquake releases. The MMS begins at 1.0 and increases as more energy is released. This scale is based on a logarithmic scale, meaning that the difference in energy between two measurements is substantially greater than the difference between the measurements themselves. For example, a M_w 6.5 earthquake releases approximately 1.4 times as much energy as a M_w 6.4 earthquake and 1,000 times as much energy as a M_w 4.5 earthquake. The MMS replaces the Richter scale, which is similar but less reliable when measuring large earthquakes. Since the degree of shaking and consequential damage generally decreases as the seismic energy travels farther away from the event's point of origin, different sections of a city or region can report different MMI measurements in different locations. Given San Bernardino's size, it is likely that different sections of the city would report different MMI measurements. The MMI scale depicted in **Table 3-6** uses Roman numerals on a 12-point scale to measure and describe the effects of the shaking event. **Figure 3-3** shows seismic shaking potential within the city.

Figure 3-3: Seismic Shaking Potential

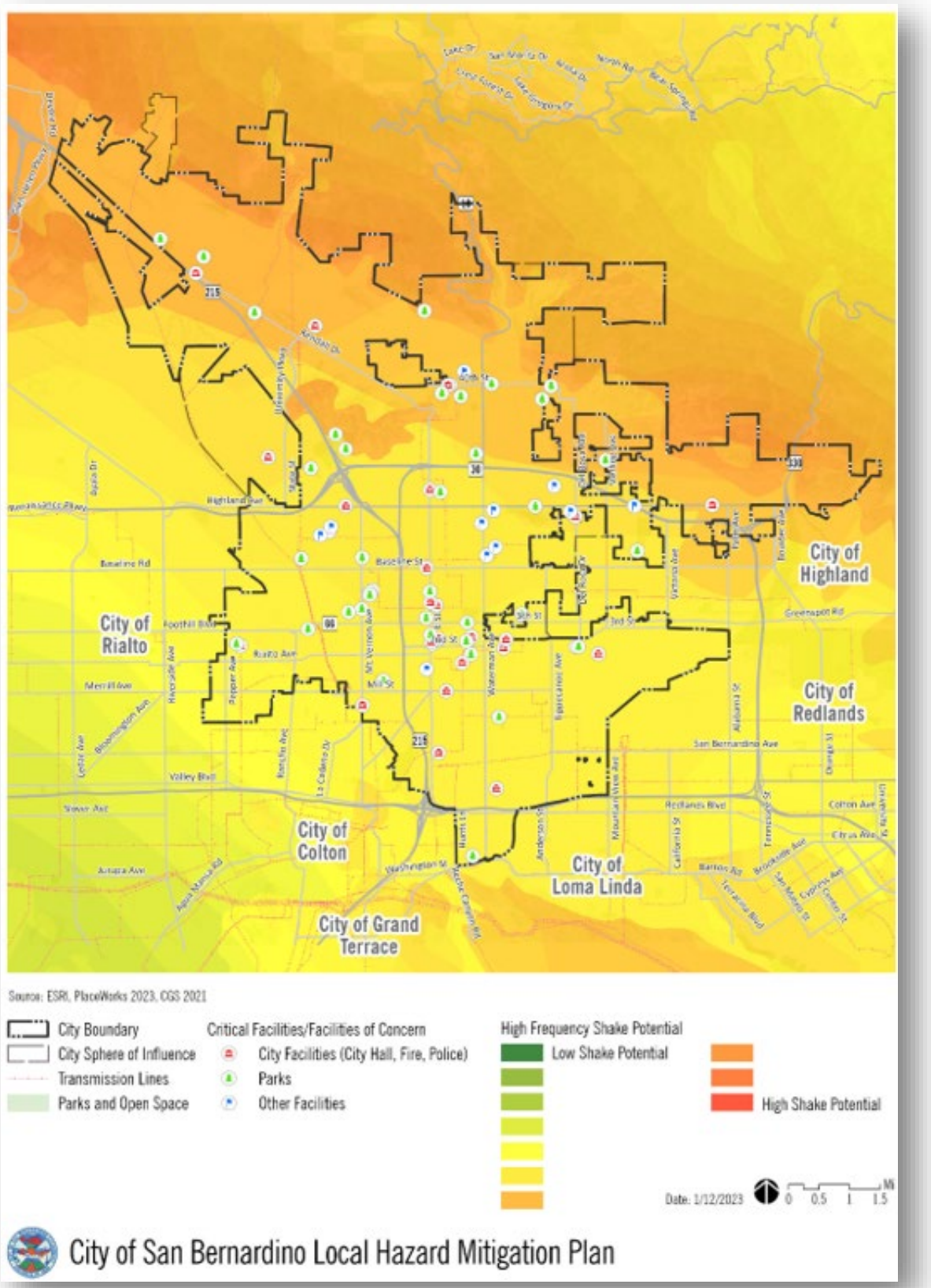


Table 3-6: Modified Mercalli Intensity Scale [12]		
Intensity	**Description**	**Description**
I	Instrumental	Felt only by very few people under especially favorable conditions.
II	Feeble	Felt only by a few people at rest, especially on the upper floors of buildings.
III	Slight	Noticeable by people indoors, especially on upper floors, but not always recognized as an earthquake.
IV	Moderate	Felt by many indoors and by some outdoors. Sleeping people may be awakened. Dishes, windows, and doors are disturbed.
V	Slightly Strong	Felt by nearly everyone, and many sleeping people are awakened. Some dishes and windows broken, and unstable objects overturned.
VI	Strong	Felt by everyone. Some heavy furniture is moved, and there is slight damage.
VII	Very Strong	Negligible damage in well-built buildings, slight to moderate damage in ordinary buildings, and considerable damage in poorly built buildings.
VIII	Destructive	Slight damage in well-built buildings, considerable damage and partial collapse in ordinary buildings, and great damage in poorly built buildings.
IX	Ruinous	Considerable damage to specially designed structures. Great damage and partial collapse in substantial buildings, and buildings are shifted off foundations.
X	Disastrous	Most foundations and buildings with masonry or frames and some well-built wood structures are destroyed. Rail lines are bent.
XI	Very Disastrous	Most or all masonry structures are destroyed, along with bridges. Rail lines are greatly bent.
XII	Catastrophic	Damage is total. The lines of sight are distorted, and objects are thrown into the air.

Fault Rupture

The Alquist-Priolo Earthquake Fault Zoning Act enables the California State Geologist to designate zones surrounding active faults as Alquist-Priolo Special Study Zones (AP Zones), which is a special regulatory zone that requires additional study to determine the location of an active fault and define the limits where construction should be prohibited to reduce the placement of structures on top of an active fault.

Two major active faults are identified within San Bernardino. The first is the San Andreas Fault, a northwestward trending strike-slip fault that runs along the southern base of the San Bernardino Mountains, crosses through the Cajon Pass, and continues northwest along the San Gabriel Mountains. The San Andreas Fault runs from Southern California to Northern California. The northern segment of this fault was responsible for the 1906 San Francisco earthquake that measured nearly 8.0 on the Richter scale and killed an estimated 3,000 people.[13] The segment of this fault that runs through the city, located within a special study zone, is believed to generate events ranging from M6.7-8.0 and will impact the entire City and its SOI if a major earthquake occurs. The second fault is the San Jacinto Fault, a southeastward trending strike-slip fault. The San Jacinto Fault Zone is a major component of the San Andreas Fault System and is Southern California's most seismically active fault. This fault is found in the southwestern portion

[12] United States Geological Survey. 2023. The Modified Mercalli Intensity Scale. https://www.usgs.gov/programs/earthquake-hazards/modified-mercalli-intensity-scale

[13] "The Great 1906 San Francisco Earthquake." U.S. Geological Survey. Accessed April 27, 2023. https://earthquake.usgs.gov/earthquakes/events/1906calif/18april/.

of the City. Its slip rate is typically between 7 and 17 mm/yr., with 100-300 years between ruptures. The most recent rupture on the San Jacinto Fault was within the last few centuries.[14] **Figure 3-2** identifies the CGS-designated AP Zones for these two faults.

Liquefaction

Soil must be saturated with water for liquefaction to occur. Areas with high water tables generally have saturated soil since the distance between the shallowest aquifer and the surface is minimal. Areas with alluvial soils—soft sands, silts, and clays—are also susceptible to liquefaction as these soils are fine grain and generally do not bond together well. Liquefaction events do not have a scale of measurement; however, other factors can be used to assess the extent of damage associated with a liquefaction event, such as:

- Soil type
- Strength of shaking near liquefaction
- Size of the affected area
- Destruction due to liquefaction

Liquefaction caused by the 1964 Niigita, Japan earthquake caused these apartment blocks to experience severe leaning. Image from the University of Washington.

According to the CGS, the city's downtown area is located within the high liquefaction susceptibility zone, and almost the entire southern portion of the city is susceptible to liquefaction **(Figure 3-4)**.

Earthquake-Induced Landslide

Areas in the City are also at risk for earthquake-induced landslides. **Figure 3-5** depicts these risk areas, predominantly located in the City's northern portions against the mountain and foothills, and Shandin Hills, located near I-215 and Little Mountain Drive. While these areas are potentially prone to earthquake-induced landslides, other areas of the City may be prone to landslides resulting from erosion from precipitation events. Areas of high susceptibility are isolated to the northern portions of the City and SOI. The severity of a landslide is often measured by the amount of material that slid (e.g., in cubic feet), but there is no standardized scale for measuring individual landslides.

[14] "Quaternary Fault and Fold Database of the United States." U.S. Geological Survey. Accessed April 27, 2023. https://earthquake.usgs.gov/cfusion/qfault/show_report_AB_archive.cfm?fault_id=125§ion_id=b.

Figure 3-4: Liquefaction Zones within San Bernardino

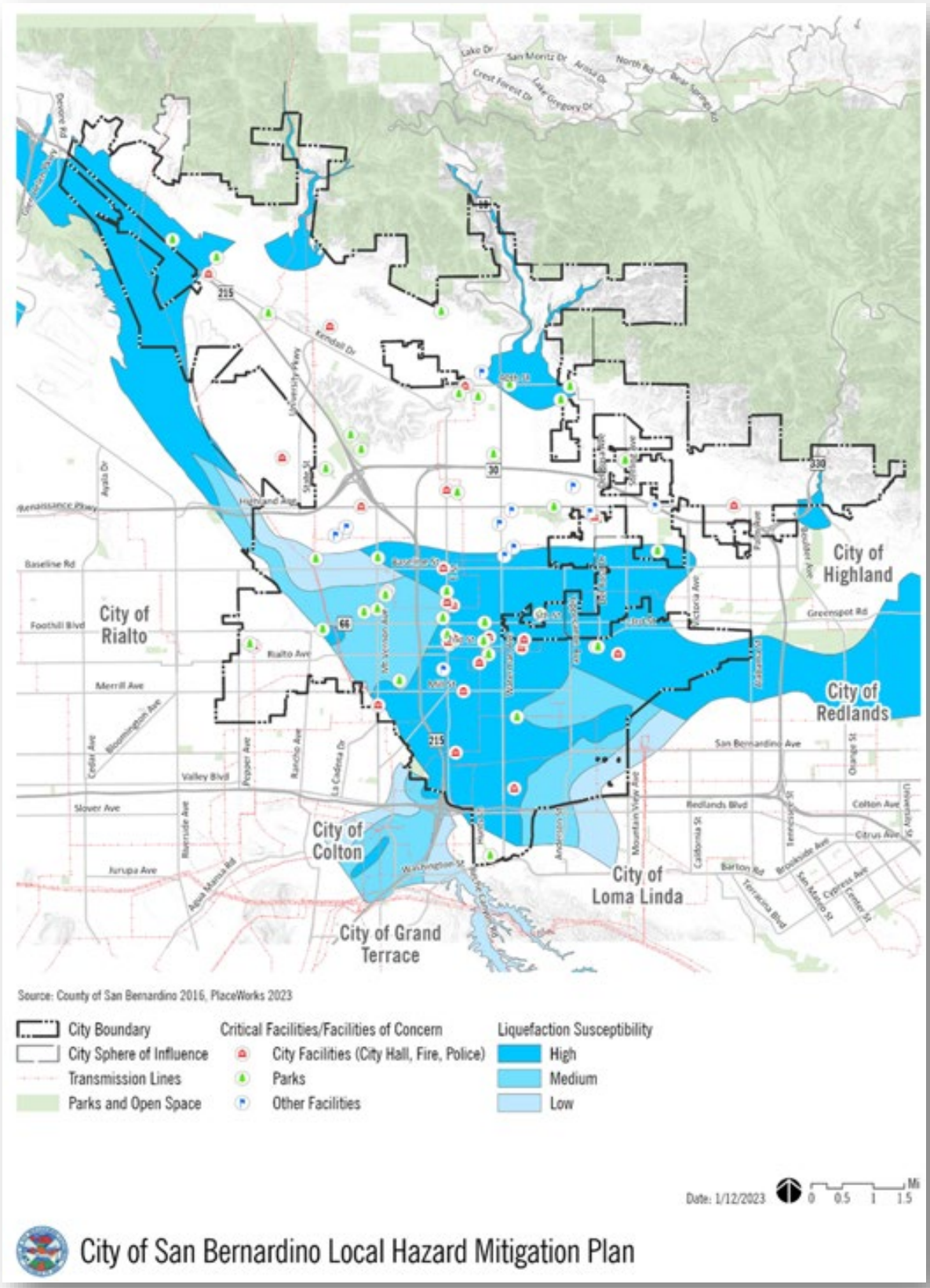
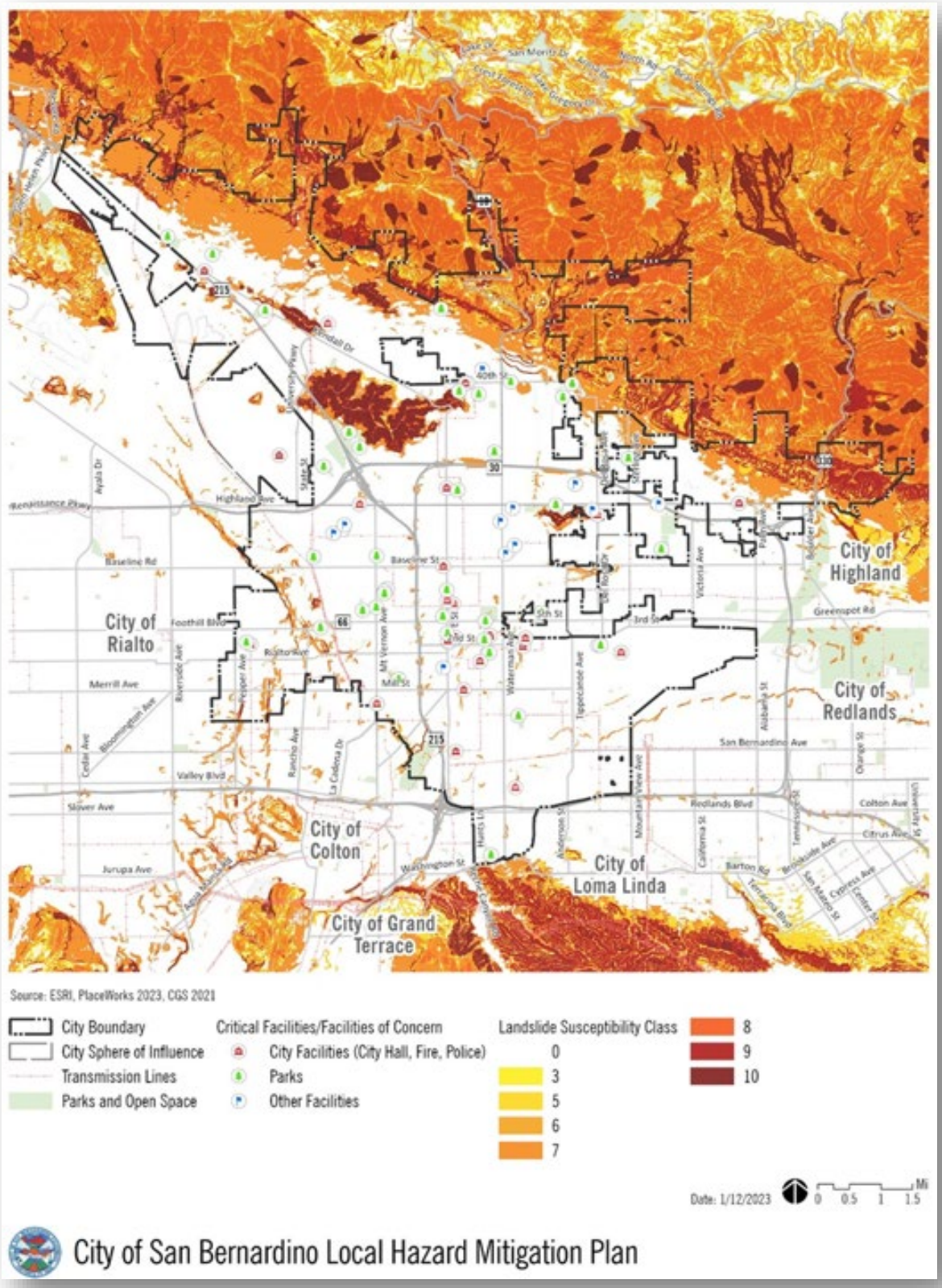


Figure 3-5: Landslide Susceptibility Zones within San Bernardino



Past Events

Seismic Shaking

While no significant earthquake has originated within San Bernardino within the last 100 years, the city has felt the shaking of regional earthquakes. The most recent major seismic shaking event near San Bernardino was the Ridgecrest Sequence of Earthquakes on July 4, 2019. The event was a sequence of multiple earthquakes registered as an M_w 6.4 followed by an M_w 7.1. [15] The event caused over 25 injuries, resulted in one death, and caused over $5 billion in damage. [16] The next most recent event occurred on January 17, 1994, in Northridge, registering as an M_w 6.7 [17] , causing 57 deaths, more than 8,700 injuries, and approximately $20 billion in damage costs, plus an additional economic loss of $40+ billion.

On June 6, 1992, there were multiple large events in Big Bear and Landers, California, with a rating of M_w 6.5 and M_w 7.3, respectively. These events resulted in 3 deaths, nearly 500 injuries, and approximately $1.52 billion in damages. [18]

Many major faults are located throughout Southern California, including some well-known ones like the San Andreas and San Jacinto Fault Zones. Proximity to various active faults ensures that seismic hazards will continue to be a major concern for the city. **Table 3-7** identifies the major earthquakes that have occurred within 100 miles of the City. While populations may have felt the 2019 Ridgecrest earthquakes within the city, these events were located over 100 miles away and thus were not added to **Table 3-7**. **Table 3-8** identifies earthquakes, M_w 4.0+, which have occurred in San Bernardino County. The LHMP Planning Team noted the following regional and local events for seismic activity in the City of San Bernardino. Although no significant damage within the city has resulted from earthquakes, it is only a matter of time before a sizeable damaging earthquake will strike the area.

Table 3-7: Significant Earthquakes (5.0+M_w) Within 100 Miles of San Bernardino

Event Name	Magnitude
9/12/1970	M_w 5.2 - Lytle Creek
2/28/1990	M_w 5.4 - Upland
4/22/1992	M_w 6.1 – Joshua Tree
6/28/1992	M_w 7.3 - Big Bear/Landers
1/17/1994	M_w 6.7 – Reseda
10/16/1999	M_w 7.1 - Hector Mine
7/29/2008	M_w 5.4 - Chino Hills

[15] California Earthquake Authority. 2023. List of Notable and Major California Earthquakes. https://www.earthquakeauthority.com/California-Earthquake-Risk/California-Earthquake-History-Timeline

[16] National Centers for Environmental Information. 2023. Global Significant Earthquake Database, 2120 B.C. to present. https://www.ngdc.noaa.gov/hazard/earthqk.shtml

[17] California Department of Conservation. N.d. Northridge Earthquake, January 17, 1994. https://www.conservation.ca.gov/cgs/earthquakes/northridge

[18] National Centers for Environmental Information. 2023. Global Significant Earthquake Database, 2120 B.C. to present. https://www.ngdc.noaa.gov/hazard/earthqk.shtml

Table 3-8: Earthquakes (Greater then 4.0+M_w) In San Bernardino County (Up to 2022)		
Date	**Name**	**Magnitude**
9/14/2011	Calimesa	M_w 4.1
1/15/2014	Fontana	M_w 4.4
7/5/2014	Running Springs	M_w 4.6
3/29/2014	Brea	M_w 5.1
7/25/2015	Fontana	M_w 4.2
9/16/2015	Big Bear Lake	M_w 4.0
12/30/2015	Muscoy	M_w 4.4
1/6/2016	Banning	M_w 4.4

It should be noted that hundreds of smaller (<M_w 4.0) earthquakes within San Bernardino County were not listed.

Fault Rupture

Seismic events involving fault rupture within the City have not occurred in the recent past. Of the two major faults transecting the City, the San Jacinto Fault has a historic rupture interval of approximately 100-300 years.

Liquefaction

There have been no instances of liquefaction within the City. However, an event could occur if soil conditions, shallow groundwater levels, and a strong seismic event coincide.

Earthquake-Induced Landslides

Prior landslide (erosion) events have occurred within the City. However, they have typically been associated with weather-related precipitation events.

Risk of Future Events

Seismic Shaking

San Bernardino is in a seismically active area with many faults in the surrounding area and region. There will be an ever-present danger posed by any seismic shaking, which could potentially cause damage to buildings and/or infrastructure. It is almost inevitable that an earthquake will occur along one of the adjacent or regional fault lines and cause a major seismic event. The Third Uniform California Earthquake Rupture Forecast (UCERF3) was released in 2015 and is the most recent assessment of the probability of a major earthquake on various faults between 2015 to 2044. **Table 3-9** shows the results for nearby and regional fault lines for San Bernardino.

In addition to UCERF3 forecasts, which project the odds of a major earthquake on local and regional faults, the U.S. Geological Survey forecasts the severity of seismic shaking in different locations for various plausible earthquake scenarios. **Table 3-10** shows some of these scenarios' anticipated shaking in San Bernardino.

The U.S. Geological Survey scenarios show that the largest magnitude events are anticipated to come from the San Jacinto and San Andreas faults. The overall magnitude of potential earthquake scenarios occurring along the San Andreas and San Jacinto faults is higher than some of the other faults, and their proximity to San Bernardino means that the city would be subjected to high-intensity shaking from these earthquakes. As noted in **Table 3-9**, the likelihood of a powerful earthquake occurring along these faults within the next 25 years is low.

Table 3-9: Earthquake Probabilities for Key Faults near San Bernardino (2015-2044)

Fault	Distance (Miles)*	Estimated Probabilities			
		6.7+ M*	7.0+ M*	7.5+ M*	8.0 M*
San Jacinto (San Bernardino)	2.36	4.24%	4.22%	4.18%	2.31%
San Jacinto (Lytle Creek)	2.99	1.06%	1.06%	1.05%	0.49%
San Andreas	4.56	17.50%	14.75%	11.55%	3.97%
Fontana	8.50	0.23%	Negligible	Negligible	Negligible
Cucamonga	10.62	1.49%	1.25%	0.74%	0.03%
Cleghorn	11.44	.60%	.51%	.31%	.01%
San Gorgonio Pass	15.26	1.50%	1.31%	1.30%	.05%
San Gabriel	22.68	0.46%	0.42%	0.18%	<0.01%
San Jose	23.76	.30%	.20%	.03%	Negligible
Chino Alt 1	24.80	1.42%	0.15%	0.08%	Negligible
Elsinore (Glen Ivy)	25.42	3.17%	1.71%	.91%	<0.01%
Elsinore (Temecula)	35.03	2.16%	1.75%	0.94%	<0.01%

*** Distance between San Bernardino City Hall and the nearest point of the fault. All distances are approximate. † Southern California segments only.**
Note: UCERF3 results consist of two individual models (3.1 and 3.2), each of which provides rupture probabilities for each segment of the fault. This table shows the maximum probability for a section of the fault in either model.
Source: Working Group on California Earthquake Probabilities. 2015. The Third California Earthquake Rupture Forecast (UCERF3). http://wgcep.org/UCERF3

Table 3-10: Selected Shaking Scenarios for San Bernardino			
Fault	**Magnitude**	**Distance to Epicenter (Miles)***	**MMI Range in San Bernardino**
San Andreas	7.68	4.56	8.0 – 9.0
San Jacinto (San Bernardino)	6.96	4.00	8.0 – 9.0
San Jacinto (Lytle Creek)	6.72	8.00	8.0 – 9.0
Cucamonga	6.88	8.00	7.0 - 8.0
Fontana	6.75	8.00	7.0 - 8.0

Note: UCERF3 results consist of two individual models (3.1 and 3.2), each of which provides rupture probabilities for each segment of the fault. This table shows the maximum probability for a section of the fault in either model.
Source: USGS Earthquake Scenarios Catalog

Fault Rupture

Given the San Andreas and San Jacinto faults within the City, it is likely that fault rupture could occur in the future. The San Andreas Fault has a decreasing probability range from 17.50% to 3.97% for events increasing in magnitude from 6.7 to 8.0.

Liquefaction

Since liquefaction events are triggered by seismic shaking, the probability of a liquefaction event occurring depends on an earthquake's likelihood. An earthquake could occur along the local faults running through San Bernardino County, which may lead to a liquefaction event. Refer to **Table 3-9** for the probability of a major earthquake occurring in faults near San Bernardino. Like the San Andreas or San Jacinto, regional faults are more likely to experience a significant earthquake within the next quarter-century. Therefore, it is only possible to say that liquefaction could occur in the City, but it is impossible to say with certainty when and where it may occur.

Earthquake-Induced Landslide

Landslides pose a threat to some city areas, especially in the foothills. Topography and terrain, soil type, precipitation, and seismic activity contribute to landslides' potential to occur. Destabilization of slopes and hills due to intense rainstorms also has the potential to cause future landslides. Overall, the probability of future occurrence within San Bernardino is considered occasional (1-10% chance per year).[19]

Climate Change Considerations

Seismic Shaking

There is no direct link between climate change and seismic activity that could impact San Bernardino; therefore, climate change is not expected to cause any changes to the frequency or intensity of seismic shaking. Some research indicates that climate change could result in "isostatic rebounds," or a sudden

[19] Masih, A. 2018. "An Enhanced Seismic Activity Observed Due to Climate Change: Preliminary Results from Alaska." IOP Conference Series: Earth and Environmental Science. https://iopscience.iop.org/article/10.1088/1755-1315/167/1/012018/pdf

upward movement of the crust because of reduced downward weight caused by glaciers.[20] As glaciers are known to melt when overall global temperatures increase, climate change could indirectly lead to increased seismicity in San Bernardino and the Southern California region.

Fault Rupture

Generally, there is no known direct connection between fault rupturing and climate change. Some evidence suggests that greater oceanic pressure on tectonic plates due to melting land ice could influence seismic events' behavior.[21] Still, little indicates that this would play a major factor in any seismic event, including fault rupture.

Liquefaction

Climate change is anticipated to change the usual precipitation patterns in Southern California. Periods of both rain and drought are anticipated to become more intense and frequent. Therefore, more precipitation will likely occur during rainy periods, and drought is expected to last even longer. As a result, the groundwater aquifer beneath San Bernardino and San Bernardino County could rise during intense precipitation periods. Alternatively, a longer-lasting drought may lead to more groundwater withdrawal and could lower groundwater elevations. Consequently, depending on the circumstances, climate change could increase or decrease the future risk of liquefaction in San Bernardino.

Earthquake-Induced Landslide

Due to the variety of factors that lead to landslides, climate change could indirectly affect landslides' conditions. More frequent and more intense rains may cause more moisture-induced landslides. Warmer temperatures and more frequent drought conditions may lead to more fires, destabilizing soils and making future landslide events more likely.[22]

Physical Threat

Seismic Shaking

Many physical assets in the city are estimated to experience the same seismic shaking intensity, ranging from 85 to 95% g (shaking intensity in relation to the earth's gravity). Therefore, all facilities could be damaged during a significant seismic event, which would be extremely costly for the City. If all facilities were damaged at the same time during a seismic shaking event, it can be assumed that the City would incur a percentage of the maximum potential loss of its physical assets. Assuming 20% of the City's assets are impacted, this potential loss could amount to over $56 million. Underground physical assets, like pipelines or utilities, could be damaged if seismic shaking were strong enough to cause a rupture. In such a scenario, natural gas and water delivery service to San Bernardino homes and businesses would be incapacitated until repairs are completed. **Table 3-11** displays these potential scenarios and losses that could be incurred should shaking reach the described threshold. **Figure 3-3** displays the CFs and FOCs within the city's seismic shaking potential hazard zones.

[20] Ibid., 47.
[21] Ibid., 47.
[22] Center for Climate and Energy Solutions. n.d. Wildfires and Climate Change. https://www.c2es.org/content/wildfires-and-climate-change/#:~:text=Wildfire%20risk%20depends%20on%20a,shrubs%2C%20and%20other%20potential%20fuel.&text=Research%20shows%20that%20changes%20in,these%20increases%20in%20wildfire%20risk.

Table 3-11: Critical Facilities and Facilities of Concern (Seismic Shake 0.85 to 0.95G)			
Category	**Number of Facilities**		**Potential Loss****
	Critical	**Concern**	
City Facilities	21	5	$78,060,013
Schools	0	75	-
Park Facilities, Recreation Centers	0	39	$41,139,096
Other Facilities	2	65	$161,922,724
Total	**23**	**184**	**$281,121,833**

***Potential loss data are estimates only, as replacement values for some facilities were not available. Actual losses may be greater than the estimate presented in this table.**
**** Based on the City of San Bernardino insured replacement values**
***** Fire Services to the City are provided by San Bernardino County Fire District**

Fault Rupture

The City has numerous faults that have been mapped and identified within the City. **Table 3-12** identifies the CFs and FOC located within 500 feet of these mapped fault segments. Based on this table, potential losses associated with fault rupture could affect 7 FOC; the potential monetary loss could not be assessed as replacement values for the affected facilities were unavailable. **Figure 3-2** displays the CFs and FOC within the city's fault rupture hazard zones.

Table 3-12: Critical Facilities and Facilities of Concern (Fault Rupture)			
Category	**Number of Facilities**		**Potential Loss****
	Critical	**Concern**	
City Facilities	0	1	-
Schools	0	1	-
Park Facilities, Recreation Centers	0	4	-
Other Facilities	0	1	-
Total	**0**	**7**	**-**

***Potential loss data are estimates only, as replacement values for some facilities were not available. Actual losses may be greater than the estimate presented in this table.**
**** Based on the City of San Bernardino insured replacement values**
***** Fire Services to the City are provided by San Bernardino County Fire District**

Liquefaction

Due to the City's location near active faults capable of generating large earthquakes, the potential for CFs and FOC to be affected by liquefaction is a concern. **Table 3-13** identifies the CFs and FOC in these areas, accounting for over $245 million in potential losses affecting 15 CFs and 105 FOC. **Figure 3-4** shows the CF and FOC within the designated liquefaction zone.

Table 3-13: Critical Facilities and Facilities of Concern (Liquefaction)			
Category	**Number of Facilities**		**Potential Loss****
	Critical	**Concern**	
City Facilities	13	3	$78,060,013
Schools	0	34	-
Park Facilities, Recreation Centers	0	23	$28,488,172
Other Facilities	2	45	$138,747,391
Total	**15**	**105**	**$245,295,576**

***Potential loss data are estimates only, as replacement values for some facilities were not available. Actual losses may be greater than the estimate presented in this table.**
**** Based on the City of San Bernardino insured replacement values**
***** Fire Services to the City are provided by San Bernardino County Fire District**

Earthquake-Induced Landslide

Landslides pose a threat to several City facilities. **Table 3-14** identifies the facilities in the mapped landslide hazard zone. Many of these areas are parks in the city's northern portion, characterized by steep slopes. In total, landslides could cause over $3 million in losses based on the 1 CF and 3 FOC located in this zone. **Figure 3-5** shows CF and FOC within the earthquake-induced landslide zones.

Table 3-14: Critical Facilities and Facilities of Concern (Earthquake-Induced Landslide)			
Category	**Number of Facilities**		**Potential Loss****
	Critical	**Concern**	
City Facilities	1	0	?
Schools	0	0	-
Park Facilities, Recreation Centers	0	1	$3,125,400
Other Facilities	0	2	?
Total	**1**	**3**	**$3,125,400**

***Potential loss data are estimates only, as replacement values for some facilities were not available. Actual losses may be greater than the estimate presented in this table.**
**** Based on the City of San Bernardino insured replacement values**
***** Fire Services to the City are provided by San Bernardino County Fire District**

Social Threat

The risk of a seismic event is a danger to all groups in San Bernardino though some are more threatened than others.

Seismic Shaking

Seniors, pregnant women, and persons with disabilities are more threatened by seismic shaking since they may have limited mobility and may be unable to reach shelter in time. Even if these groups reach shelter

in time, they may be trapped if furniture or building components have fallen around them. Renters and low-income people are also more threatened by seismic shaking since these groups may live in homes that are not properly retrofitted to survive the stresses of a seismic event. These groups may be unable to absorb the costs associated with repairing their homes or looking for new housing should their existing one be too damaged for occupancy. **Table 3-15** displays the threatened populations in San Bernardino associated with the seismic shaking scenarios.

Table 3-15: Seismic Shaking Threatened Populations

Threatened Population Metric	Seismic Shake Threshold 0.85 to 0.95g	City of San Bernardino
Population	221,116	221,116
Households	66,156	66,156
Median household income	$52,321	$52,321
Renter Occupied Households	15.2%	15.2%
Percentage of households with at least one person living with a disability	9.1%	9.1%
Percentage of households living under the poverty limit	21.0%	21.0%
Percentage of households with one member aged 65+	9.4%	9.4%

Fault Rupture

Table 3-16 identifies the threatened populations within 500 feet of faults located within the City. These areas include over 14,000 residents with a median household income of almost $20,000 higher than the City average. These areas mirror the City in the percentage of persons living with a disability, the percentage of households living under the poverty limit, and households with one member aged 65+.

Table 3-16: Fault Rupture Threatened Populations

Threatened Population Metric	Fault Rupture	City of San Bernardino
Population	14,853	221,116
Households	4,838	66,156
Median household income	$71,665	$52,321
Renter Occupied Households	2,477	15.2%
Percentage of households with at least one person living with a disability	9.1%	9.1%
Percentage of households living under the poverty limit	21.0%	21.0%
Percentage of households with one member aged 65+	9.4%	9.4%

Liquefaction

Approximately 30% of the City's population is located within a designated liquefaction zone. Much of the liquefaction zone is located in the downtown and older part of the city. Lower-income residents and

residents located in older construction areas may be impacted more due to the lack of financial resources needed to make repairs and/or the cost associated with retrofitting older buildings.

Table 3-17 compares the populations within the liquefaction hazard zones with citywide populations. Households located in these areas have a median household income of approximately $5,000 lower than the Citywide median. Persons living with a disability is lower than the City average, and households with a member aged 65+ is lower than the City average.

Table 3-17: Liquefaction Threatened Populations

Threatened Population Metric	Liquefaction	City of San Bernardino
Population	67,493	221,116
Households	19,437	66,156
Median household income	$46,861	$52,321
Renter Occupied Households	14.7%	15.2%
Percentage of households with at least one person living with a disability	2.62%	9.1%
Percentage of households living under the poverty limit	20.9%	21.0%
Percentage of households with one member aged 65+	2.71%	9.4%

Earthquake-Induced Landslide

As shown in **Table 3-18**, 33,278 people and 10,631 households live within the landslide hazard zone, which is approximately 15% of the city's population. The median household income for this population is higher than the city overall, and the percentage of households living under the poverty limit for this population is lower. Households with at least one person living with a disability and the percentage of households with one member aged 65+ are lower than the City overall. Additionally, private schools, preschools, residential care, and skilled nursing facilities located in this area are at risk of being impacted.

Table 3-18: Earthquake-Induced Landslide Threatened Populations

Threatened Population Metric	Landslide	City of San Bernardino
Population	33,278	221,116
Households	10,631	66,156
Median household income	$63,376	$52,321
Renter Occupied Households	16.3%	15.2%
Percentage of households with at least one person living with a disability	2.91%	9.1%
Percentage of households living under the poverty limit	6.67%	21.0%
Percentage of households with one member aged 65+	3.00%	9.4%

Other Threats

Seismic Shaking

As early earthquake warning systems become operational soon, it can be expected that utilities will take advantage of these advanced warnings to shut off gas, water, and power transmission to control any potential leaks following the seismic shaking. Authorities may have enough time to halt the use of infrastructure or move workers to safe locations away from hazardous conditions. Workers could cease their activity and take shelter until they can be safely evacuated. Therefore, all services could be non-operational during the shaking event and remain inactive until authorities are confident it is safe to reactivate utilities and return employees to their workplaces. The length of this time would vary depending on the event's magnitude. A significant earthquake would likely put utilities out of commission and halt any employment activity in the city for a few hours or several days. The city and the region would experience reduced economic activity during the outage period, which would not be felt for weeks, months, or years later. Structures such as telephone poles or power transmission towers felled by the shaking could block roadways and prevent emergency response teams from reaching victims or evacuees who need assistance.

Fault Rupture

Seismic events that cause surface fault rupture tend to damage roads and structures in impact areas. The length of rupture is typically a component of the magnitude of the seismic event. The stronger the event, the greater distance that rupture can occur. Strong events can create a larger problem with other identified hazards, such as dam inundations and flooding.

Liquefaction

Services and mobility may be disrupted during and following a liquefaction event. Due to the liquefying soils, sidewalks, roadways, and pipelines may become fractured and disjointed. Roads and sidewalks may be usable in some form, but a severe liquefaction event may render them impassible until they are repaired. Broken gas and water pipelines would result in utility outages, with services delayed until this infrastructure is repaired/replaced. Damage to power lines is unlikely since they are not rigid structures and can move if any transmission towers experience slight leaning. Homes and mid-rise office buildings may be damaged if the soils beneath lose strength rendering these locations unsafe for occupancy.

Earthquake-Induced Landslide

As earthquake-induced landslides typically occur in isolated areas of the city, effects on these areas may include damage to roadways, infrastructure (power poles and underground pipelines), and storm management infrastructure. This damage could result in a loss of utility services or an inability to access areas of the city.

Changes in Population and Land Use Development

Seismic Shaking

Based on the current San Bernardino Housing Element, it is anticipated that population patterns will increase approximately 1.3% by 2030. This could indicate that land use and development policies would remain consistent with the most current regulations. However, if a strong seismic event were to impact the city, there is the potential that older structures of the city may be impacted more severely than newer structures and developments in the city.

Fault Rupture

Based on the current San Bernardino Housing Element, it is anticipated that population patterns will increase approximately 1.3% by 2030. This could indicate that land use and development policies would remain consistent with the most current regulations. Given the presence of multiple faults within the City, an increase in population and an increase in residential development will most likely increase the potential impacts from fault rupture in the City and to its residents, especially in the areas located near the Alquist-Priolo Special Study zones. New development and land use designations may be limited in these areas out of precaution, or subject to policies developed in City documents such as the LHMP, Land Use, Housing, and Safety Elements. The City's development review process will identify steps to mitigate or prevent future liquefaction events.

Liquefaction

Liquefaction is being monitored throughout hazard prone areas in the city, the impacts can cause damage to structures located within these zones. However, these zones are generally located in certain areas of the city, meaning that the damage potential is limited to these areas. Despite this potential, liquefaction is unlikely to cause significant changes in population patterns. However, land use designations and new development may be limited in these areas out of precaution, or subject to policies developed in City documents such as the LHMP, Land Use, Housing, and Safety Elements. The City's development review process will identify steps to mitigate or prevent future liquefaction events.

Earthquake-Induced Landslide

Based on the current San Bernardino Housing Element, it is anticipated that population patterns will increase approximately 1.3% by 2030. This increase is not expected to have a significant impact on San Bernardino's vulnerability to landslides.

Land sliding is being monitored throughout the hazard prone areas in the city, the impacts can cause damage to structures located within these zones. However, these zones are generally located in certain areas of the city, meaning that the damage potential is limited to these areas. Despite this potential, landslides are unlikely to cause significant changes in population patterns. However, land use designations and new development may be limited in these areas out of precaution, or subject to any policies developed in City documents such as the LHMP, Land Use, Housing, and Safety Elements. The City's development review process will identify steps to mitigate or prevent future landslide events.

Flood (includes Dam Inundation)

Description

Flooding

Floods are a common hazard in many parts of California, including San Bernardino. Ultimately, a flood occurs when there is too much water on the ground to be held within local water bodies, causing water to accumulate in naturally dry areas. They are often caused by heavy rainfall, though floods can also occur after a long period of moderate rainfall or if unusually warm weather causes mountain snow to melt faster than expected. Floods that develop quickly, known as flash floods, are especially dangerous because there may be little warning that one is occurring, but floods can also build over a more extended period.

A flood, as defined by FEMA's National Flood Insurance Program (NFIP), is: "A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties (at least one of which is the policyholder's property) from:

- Overflow of inland or tidal waters, or
- Unusual and rapid accumulation or runoff of surface waters from any source, or
- Mudflow, or
- Collapse or subsidence of land along the shore of a lake or a similar body of water due to erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels."

Floods can be slow or fast rising but generally develop over a period of hours or days. Mitigation includes any activities that prevent an emergency, reduce the chance of an emergency happening, or lessen the damaging effects of unavoidable emergencies. Investing in mitigation measures now, such as engaging in floodplain management activities, constructing barriers such as levees, and purchasing flood insurance, will help reduce the amount of structural damage and financial loss from other types of property damage should a flood or flash flood occur.

Floods are dangerous for several reasons. The floodwaters can be deep enough for people to drown and moving fast enough to sweep people away. The moving water can damage buildings with its force (in extreme cases, it may move entire structures) or carry large debris that damages objects with which it collides. When water gets into buildings, it can cause extensive damage to personal property, ruining building materials, furniture, electronics, and numerous other items. Standing and moving water can be barriers to movement, isolating people and hindering evacuation, rescue, or relief efforts.

DAM INUNDATION

Dam failure can result from several causes, such as earthquakes, rapidly rising floodwaters, and structural design flaws. These events can occur instantaneously or very gradually, depending on the source of the failure. Inundation associated with these events can cause loss of life, damage to property, other hazard-related events, and the displacement of persons residing in the inundation path. According to the California Division of Safety of Dams (DSOD), a dam falls under their jurisdiction if its height is greater than 6 feet and impounds more than 50 acre-feet of water or if its height is greater than 25 feet and impounds 15 acre-feet of water.[23] Based on these criteria, 1,537 dams fall under DSOD jurisdiction, 8 of which are located within the City of San Bernardino.

LOCATION AND EXTENT

FLOODING

Flood events are measured by their likelihood of occurrence. For instance, a 100-year flood is a flood that has a 1 in 100 (1.0 percent) chance of occurring in any given year. A 500-year flood is a flood that has a 1 in 500 (0.2 percent) chance of occurring in any given year. The 100-year flood has been designated as the benchmark for major flood events. Thus 100-year floods are referred to as "base floods."

Floodplains are areas that are prone to flooding and often experience frequent flooding. While it is possible for areas outside of these designated floodplains to experience flooding, the most likely locations to experience future flooding are low-lying areas near bodies of water. FEMA is the governmental body responsible for designating which areas of the United States can be classified as floodplains.

[23] California Department of Water Resources. Jurisdictional Sized Dams. https://water.ca.gov/Programs/All-Programs/Division-of-Safety-of-Dams/Jurisdictional-Sized-Dams

The three most common designations are:

- Special Flood Hazard Area: The area within a 100-year floodplain.
- Moderate Flood Hazard Area: The area outside the 100-year floodplain but within the 500-year floodplain.
- Minimum Flood Hazard Area: The area outside of the 500-year floodplain.

FEMA has multiple floodplain categories for each unique environment within these three designations. **Table 3-19** shows these detailed floodplain categories. FEMA classifies San Bernardino under four floodplain categories: A, AE, AO, D, and X; the location of these floodplains can be seen on the FEMA Flood Hazard Zone Map depicted in **Figure 3-6**.

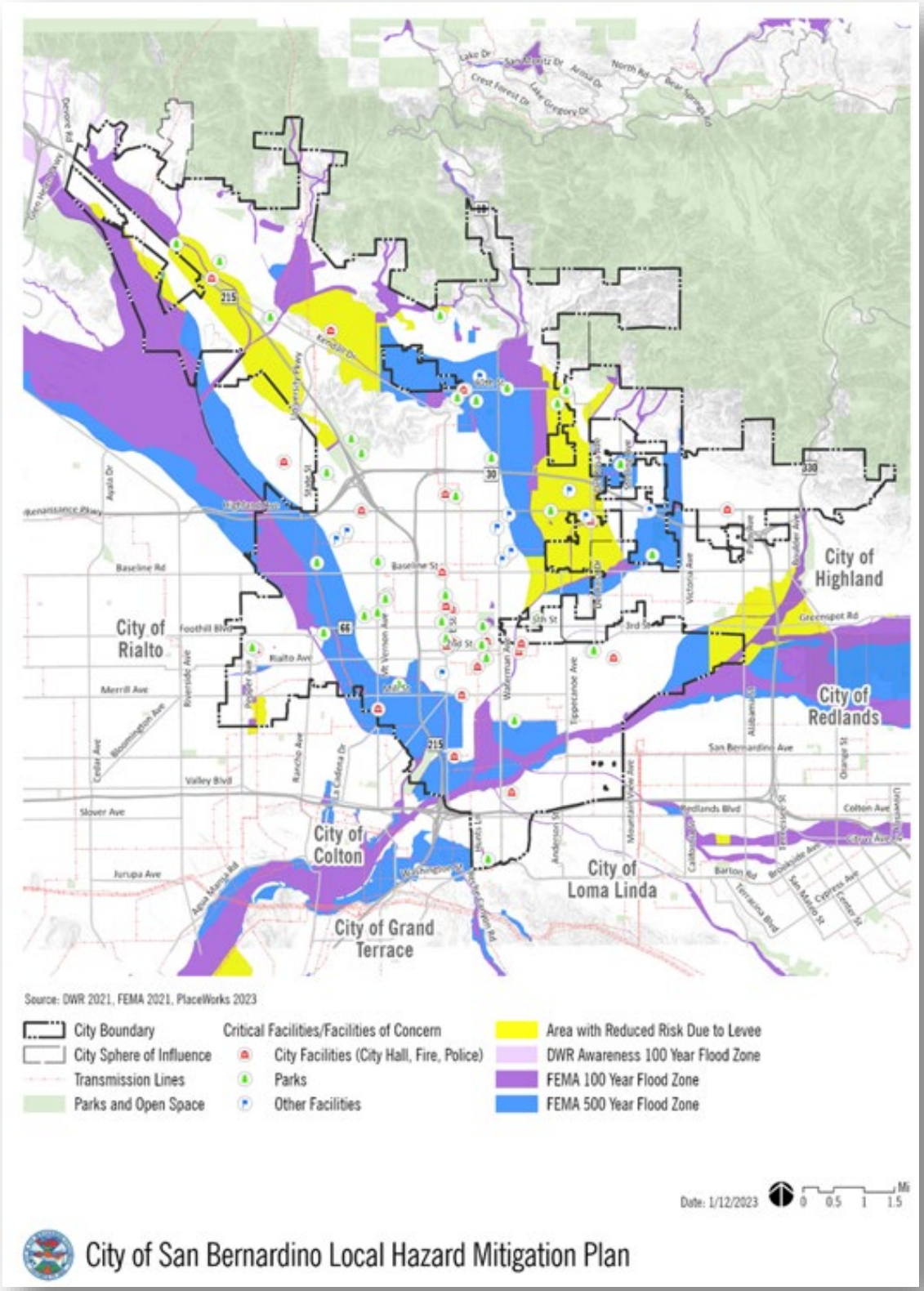
Flooding hazards can potentially impact a significant amount of the community; however, less than 10% of this area is subject to a 100-year event. Development within flood hazard areas is expected to comply with flood protection standards that reduce vulnerability to flood impacts and ensure safe use and occupation of structures.

Table 3-19: FEMA Floodplain Categories

Category	Description
A	Within a 100-year floodplain, but the water height of the 100-year flood is not known.
A1-30 or AE	Within a 100-year floodplain and the water height of the 100-year flood is known.
AO	Within a 100-year floodplain, and the water height of the 100-year flood is between one and three feet but not specifically known.
A99	Within a 100-year floodplain; protected by flood protection infrastructures such as dams or levees.
AH	Within a 100-year floodplain, the water height of the 100-year flood is between one and three feet and is specifically known.
AR	Within a 100-year floodplain, it is protected by flood protection infrastructure that is not currently effective but is being rebuilt to provide protection.
V	Within a 100-year floodplain for coastal floods, but the water height of the flood is not known.
V1-30 or VE	Within a 100-year floodplain for coastal floods and the water height of the flood is known.
VO	Within a 100-year floodplain for shallow coastal floods with a height between one and three feet.
B	Within a 500-year floodplain, or within a 100-year floodplain with a water height less than one foot (found on older maps).
C	Outside of the 500-year floodplain (found on older maps).
X	Outside of the 500-year floodplain (found on newer maps).
X500	Within a 500-year floodplain or within a 100-year floodplain with a water height less than one foot (found on newer maps).
D	Within an area with a potential and undetermined flood hazard.
M	Within an area at risk of mudslides from a 100-year flood event.
N	Within an area at risk of mudslides from a 500-year flood event.
P	Within an area at risk of mudslides from a potential and undetermined flood event.
E	Within an area at risk of erosion from a 100-year flood event.

Source: 24 CFR, Section 64.3

Figure 3-6: Flood Hazard Zones in San Bernardino



The City has also identified several locations where flooding can occur during precipitation events. **Table 3-20** identifies these locations, which include storm drains requiring cleanings weekly, storm drains considered problems during heavy rains, and storm drains that require sandbags to avoid water damage to adjacent properties or to divert water flows more effectively during a rain event.

Table 3-20: Flooding Hotspots in San Bernardino

Location	Cleaned Once a Week	Problem Draining During Heavy Rains	Problem Spot Requiring Sandbag Delivery
40th Street and Sierra Way	No	Flooding	No
40th Street and Mountain View Avenue	No	Flooding	No
40th Street and Electric	No	Flooding	No
Baseline Street and Waterman Ave	No	Flooding	No
Foisy Street, north of Central Avenue	No	Flooding	No
Washington Avenue and Pine Avenue	No	Flooding	No
Irvington Avenue and Pine Avenue	No	Flooding	No

Dam Inundation

The City of San Bernardino has eight catch-basins that can inundate areas of the City if a failure occurs. The basins serve several purposes, with the primary function of slowing and controlling the water flow. Without basins to capture these flows, the County's flood control channels could be inundated with so much water they would not be able to function.[24] **Figure 3-8** identifies the inundation zones for the catch basins within the City, described in **Table 3-21.** Based on this mapping, Seven Oaks generates the largest inundation area, which inundates a portion of the City and the neighboring cities of Highland, Redlands, and Colton.

Table 3-21: Reservoir Capacity/Dam Inundation Areas

Catch Basin Name	Reservoir Capacity
Cactus Basin #3	528 acre-feet
Devil Canyon	355 acre-feet
Devil's Canyon Dike #1	79 acre-feet
Little Mountain	150 acre-feet
Mineral Hot Springs Lake	31 acre-feet
Perris Hill Reservoir	31 acre-feet
Seven Oaks	145,600 acre-feet
Small Canyon	20 acre-feet

Source: Dams Within Jurisdiction of the State of California, September 2019, California Department of Water Resources, Division of Safety of Dams.

[24] The Rutherford Report, San Bernardino County. https://www.sbcounty.gov/uploads/bosd2/report/issues/2012_may/index.html

There are dams that provide flood protection and water storage north of the City. Failure of these dams would have a limited impact on the City, as depicted in **Figure 3-8.** The primary threat of inundation comes from the Seven Oaks Dam. The Seven Oaks Dam is a 550-foot-high earth and rock-fill dam with a crest length of 2,890 feet. This dam is a part of the Santa Ana River Mainstem project and has a gross capacity of 145,000 acre-ft.[25] **Table 3-22** identifies the significance of these downstream classifications.

Table 3-22: California Department of Water Resources Division of Safety of Dams – Downstream Hazard Classifications

Downstream Hazard Potential Classifications	Potential Downstream Impacts on Life and Property
Low	No probable loss of human life and low economic and environmental losses. Losses are expected to be principally limited to the owner's property.
Significant	No probable loss of human life, but it can cause economic loss, environmental damage, impacts to critical facilities, or other significant impacts.
High	Expected to cause the loss of at least one human life.
Extremely High	Expected to cause considerable loss of human life or would result in an inundation area with a population of 1,000 or more.

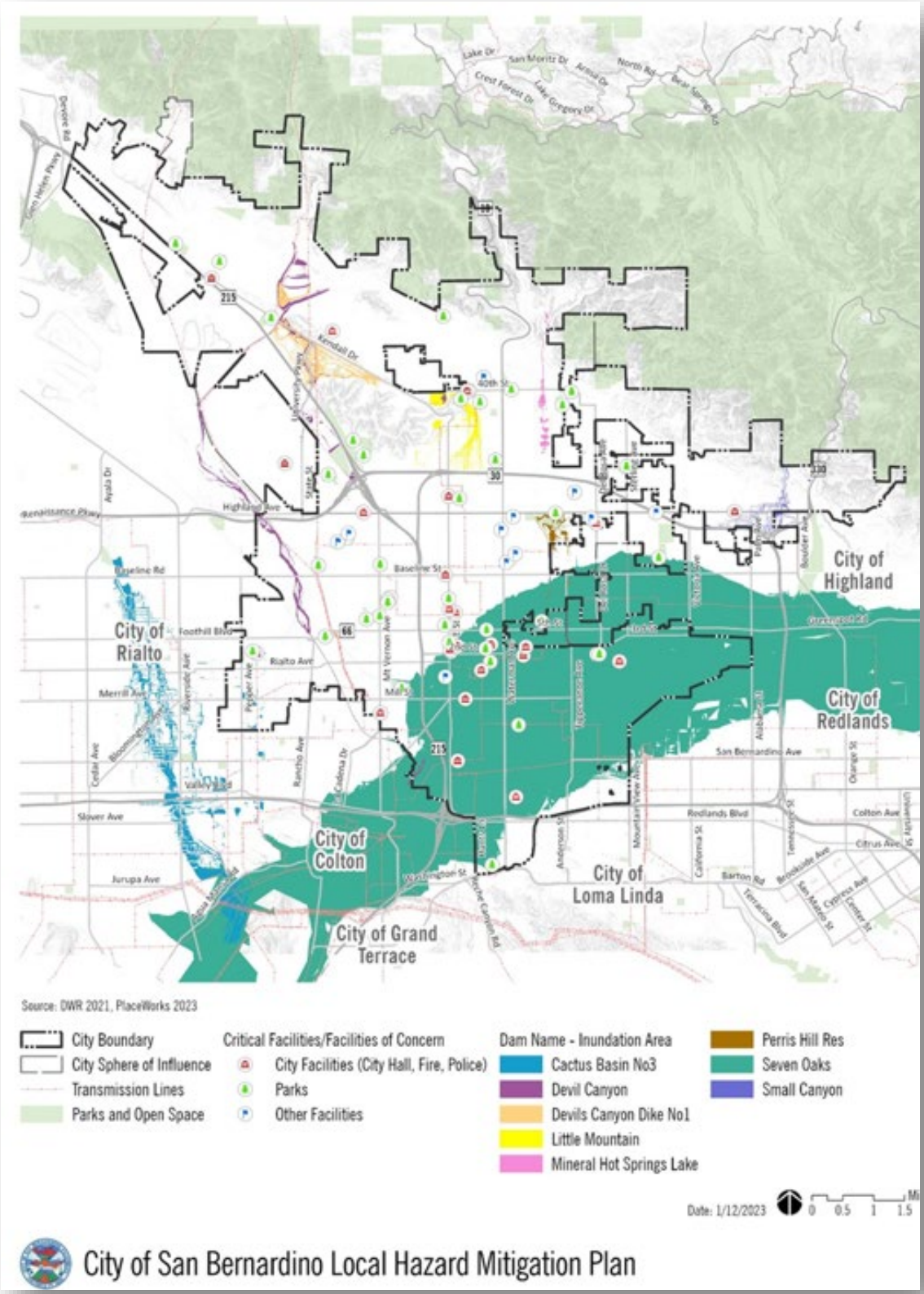
Figure 3-7: Dam Safety Action Classification (DSAC) Rating System

URGENCY OF ACTION (DSAC)	ACTIONS FOR DAMS IN THIS CLASS***	CHARACTERISTICS OF THIS CLASS
VERY HIGH (1)	Take immediate action to avoid failure. Communicate findings to sponsor, local, state, Federal, Tribal officials, and the public. Implement interim risk reduction measures, including operational restrictions. Ensure the emergency action plan is current and functionally tested for initiating event. Conduct heightened monitoring and evaluation. Expedite investigations to support remediation using all resources and funding necessary. Initiate intensive management and situation reports.	CRITICALLY NEAR FAILURE: Progression toward failure is confirmed to be taking place under normal operations. Dam is almost certain to fail under normal operations to within a few years without intervention. OR EXTREMELY HIGH INCREMENTAL RISK**: Combination of life or economic consequences with likelihood of failure is very high. USACE considers this level of life-risk to be unacceptable except in extraordinary circumstances.
HIGH (2)	Communicate findings to sponsor, local, state, Federal, Tribal officials, and the public. Implement interim risk reduction measures, including operational restrictions as warranted. Ensure the emergency action plan is current and functionally tested for initiating event. Conduct heightened monitoring and evaluation. Expedite confirmation of classification. Give very high priority for investigations to support the need for remediation.	FAILURE INITIATION FORESEEN: For confirmed and unconfirmed dam safety issues, failure could begin during normal operations or be initiated as the consequence of an event. The likelihood of failure from one of these occurrences, prior to remediation, is too high to assure public-safety. OR VERY HIGH INCREMENTAL RISK**: The combination of life or economic consequences with likelihood of failure is high. USACE considers this level of life-risk to be unacceptable except in extraordinary circumstances.
MODERATE (3)	Communicate findings to sponsor, local, state, Federal, Tribal officials, and the public. Implement interim risk reduction measures, including operational restrictions as warranted. Ensure the emergency action plan is current and functionally tested for initiating event. Conduct heightened monitoring and evaluation. Prioritize investigations to support the need for remediation informed by consequences and other factors.	MODERATE TO HIGH INCREMENTAL RISK**: For confirmed and unconfirmed dam safety issues, the combination of life, economic, or environmental consequences with likelihood of failure is moderate. USACE considers this level of life-risk to be unacceptable except in unusual circumstances.
LOW (4)	Communicate findings to sponsor, local, state, Federal, Tribal officials, and the public. Conduct elevated monitoring and evaluation. Give normal priority to investigations to validate classification, but do not plan for risk reduction measures at this time.	LOW INCREMENTAL RISK**: For confirmed and unconfirmed dam safety issues, the combination of life, economic, or environmental consequences with likelihood of failure is low to very low and the dam may not meet all essential USACE guidelines. USACE considers this level of life-risk to be in the range of tolerability but the dam does not meet all essential USACE guidelines.
NORMAL (5)	Continue routine dam safety activities and normal operations, maintenance, monitoring, and evaluation.	VERY LOW INCREMENTAL RISK**: The combination of life, economic, or environmental consequences with likelihood of failure is low to very low and the dam meets all essential USACE guidelines. USACE considers this level of life-safety risk to be tolerable.

*At any time for specific events a dam, from any action class, can become an emergency requiring activation of the emergency plan.
** INCREMENTAL RISK is used to inform the decision on the DSAC assignment; NON-BREACH RISK is not reflected in this table.
***DSAC 1 and 2 dams with no life loss will be referred to the appropriate business line program and are given lower priority in the dam safety program.

[25] San Bernardino County Public Works

Figure 3-8: Dam Inundation Zones in San Bernardino



Past Events

Flooding

Table 3-23 identifies past events of flooding in the city.

Table 3-23: History of Flooding in San Bernardino

Date	Description and Effect
1/14/1916-1/21/1916	Severe rainstorms in Southern California, over 8.5" in San Bernardino County, led to regional flooding, including massive flooding in the city's eastern section. The Santa Ana River was reported to be two miles wide and twenty feet deep.
1/25/1956-1/27/1956	A heavy storm in Southern California brought 7.06" of rain to San Bernardino. Around San Bernardino, local floods filled streets and channels and blocked many roadways. Mud and rocks covered some roads, causing damage.
2/27/1957	A storm brought heavy rains to San Bernardino. Burn areas from fires the previous November in the San Bernardino foothills led to severe debris flows and flash floods into Highland. A block of homes and most of the school grounds were inundated. City Creek ran black from ash and soot.
9/17/1963-9/19/1963	Tropical Storm Jennifer-Katherine made landfall in northern Baja California. Up to 3.86 inches fell in San Bernardino, causing disastrous flooding and erosion in northern San Bernardino.
1/1980	The San Bernardino Mountains were subjected to high-intensity rainstorms, during which time an excess of one inch per hour of rain fell. May debris basins in the City of San Bernardino were filled with mud and debris, particularly Harrison Basin, which overflowed into a nearby neighborhood, destroying 25-30 homes and damaging 25 more.
10/7/1997	An unexpected storm struck over the Sand Creek and Little Sand Creek watersheds, causing flooding throughout portions of San Bernardino, Highland, and San Bernardino County Service Area 38.
2/1998	Approximately 14.59 inches of rain was recorded for the month of February at the Gilbert Street gauge in San Bernardino. On 2/23, the gauge recorded 3-10 inches for the day.
12/25/2003	Heavy rain fell over the mountains and foothills, causing flash flooding and debris to wash across several highways and roads throughout San Bernardino County. Debris flowed into Waterman Canyon, moving through Saint Sofia Camp, killing 14 people. The debris flow continued down Waterman Canyon, destroying two bridges and filling the basin north of San Bernardino.
10/13/2006	A thunderstorm brought 0.51" of rain in 5 minutes and 1.81" inches in 30 minutes to San Bernardino. Eighteen homes and businesses and two vehicles were damaged by flooding. Big sinkholes were left in the road. One swift water rescue occurred. Mud and debris were left on the roads.
8/1/2017	Numerous monsoon thunderstorms struck the valleys. Approximately 1.56 inches fell in Alpine in a short period. Flash flooding, downed trees, and power outages were reported in Corona, Perris, San Bernardino, Temecula, and Alpine.
12/23/2021	A series of storms paraded through the region, each bringing heavy rain. Two-day totals for this storm reached 6" in the mountains, but Lytle Creek alone achieved just over 8". The northern Inland Empire got 2-5", while most other lower elevation stations received 0.75-3".
12/11/2022	An atmospheric river brought heavy rain to Southern California, ranging from 0.50-2" in the lowlands, generally 2- 4" in the mountains, except Lytle Creek, with 5.03".
12/31/2022-1/1/2023	A potent storm moved in late on 12.31.2022 and continued into 1.1.2023. Many mountain locations recorded over 4" of precipitation, mostly rain. Lytle Creek recorded 5.85".

Source: A History of Significant Weather Events in Southern California
San Bernardino County Flood History

DAM INUNDATION

Despite some significant flooding events in the late 1800s and early 1900s, including one in 1862 that wiped out the tiny Santa Ana River hamlet of Agua Mansa near present-day Colton, regional flood management and mitigation weren't given a great deal of consideration in San Bernardino County until the Great Flood of March 1938. That deluge claimed 14 lives, left hundreds homeless, and caused an estimated $12 million ($220 million in 2020 dollars) in property damage.

In 1939, the State Legislature passed the San Bernardino County Flood District Act, which empowered the County to develop regional flood protection facilities to protect life and property. Today, San Bernardino County Flood Control operates and maintains 14 dams, 119 basins, 82 levees, and more than 250 miles of flood control channels. The dams, levees, and channels are designed to convey runoff around homes and businesses in the valley safely. [26]

RISK OF FUTURE EVENTS

FLOODING

There is no indication that the severe rainfall that leads to flooding will abate in the future, either in San Bernardino or the greater region of Southern California. While San Bernardino may experience prolonged periods of dry or wet years, flood events will likely continue to impact the city. For areas within the 100-year and 500-year flood hazard zones, the likelihood of flooding occurring annually is 1% and 0.2%, respectively.

Because the City is vulnerable to flooding during the winter storm, it actively participates in the FEMA National Flood Insurance Program (NFIP). Through this program, "Special Flood Hazard Areas" within the city are identified and mapped on Flood Insurance Rate Maps (FIRMs), identifying the areas that require flood insurance. FIRMs generally describe flooding in terms of a 100- or 500-year flood event, which translates into the probability (1.0% or 0.2%, respectively) that flooding could occur within the designated zone in any given year. In addition to the federal requirements within the NFIP, the City has adopted flood protection standards requiring minimum building elevation, flood-proofing, and anchoring of buildings in areas prone to flooding. **Figure 3-6** identifies the FEMA Flood Hazard Zones mapped within the City.

Since its incorporation, San Bernardino has worked with San Bernardino County on flood management and mitigation projects. The City also takes steps on an annual basis to maintain and prepare for flood events, ensuring the existing infrastructure can effectively convey floodwaters. Flood events within the City can occur either due to large storms and flash flooding that overwhelms infrastructure or the failure of flood control facilities that inundate downstream communities.

DAM INUNDATION

With the adoption of SB 92 in 2017, new dam safety requirements mandate that dam owners map the downstream inundation areas for dams governed by the California Department of Water Resources (DWR). In addition to the mapping, owners must prepare Dam Emergency Action Plans that identify the emergency management plans and procedures in place for these facilities. **Figure 3-8** identifies the inundation areas mapped for dams upstream from the City. For inundation to occur, as depicted in this map, it is assumed the reservoirs behind these dams are full, and failure occurs suddenly, releasing water

[26] Ibid.

in a relatively short amount of time. Failures typically occur from an earthquake, erosion, design flaw, or water overflow condition during intense storms.

Climate Change Considerations

Flooding

Climate change is expected to affect California's precipitation patterns, likely influencing future flood events. A 2017 study found that the number of very intense precipitation days in California is projected to more than double by the end of the century, increasing 117 percent, making it likely that flood events will become more frequent [27]. More flood events could increase the frequency of maintenance and repair activities and require operational changes to City function. Much of the City's infrastructure may require modification and retrofit to better accommodate changes anticipated from climate change. As a result, significant investment in future infrastructure may be necessary.

Dam Inundation

Overall, engineers say that most dams that were built decades ago in the United States are unsuited to a warmer world and stronger storms. [28] Some recent dam episodes have been shown to have a climate change link. In February 2017, at Oroville Dam in California, the tallest in the nation, heavy mountain runoff into the reservoir led to an emergency spillway near failure and severe damage to the main spillway. Nearly 200,000 people were evacuated as a precaution, and repairs cost more than $1 billion. A later study found that increased early-season Sierra Nevada runoff contributed to the dam's high water levels. This early season runoff can be attributed to human-caused warming. [29]

In addition to short-duration extreme precipitation, rainfall of longer duration but less intensity—an overall wetter climate, which climate models forecast for parts of the United States in the coming decades—can contribute to the risk. [30] Overall, the main consideration will be the weather patterns and how rainfall will affect the city and the county, as many of the catch basins and dams in the region connect multiple cities and counties.

Physical Threat

Flooding

Portions of the city are located within the 100-year flood zone (1.0% Annual Chance of Flooding) and the 500-year flood zone (0.2% Annual Chance of Flooding). Any physical assets within these mapped boundaries can be inundated if enough precipitation falls, exceeding the storm drain infrastructure design capacity in these areas. Electronic or mechanical equipment on the ground could be impacted, causing it to fail. **Table 3-24** identifies that no physical assets within the City are located in the 100-year flood zone but that there are physical assets within the City in the 500-year flood zone, including 20 FOC. In total, these facilities are valued at over $10 million. **Figure 3-6** depicts the locations of CFs and FOCs located in

[27] Polade, S.D., Gershunov, A., Cayan, D.R., Dettinger, M.D., & Pierce, D.W. 2017. Precipitation in a warming world: Assessing projected hydro-climate changes in California and other Mediterranean climate regions. *Scientific Reports.* https://www.nature.com/articles/s41598-017-11285-y

[28] Fountain, H. 2020. "'Expect More': Climate Change Raises Risk of Dam Failures." New York Times. https://www.nytimes.com/2020/05/21/climate/dam-failure-michigan-climate change.html#:~:text=the%20main%20story,'Expect%20More'%3A%20Climate%20Change%20Raises%20Risk%20of%20Dam%20Failures,warmer%20world%20and%20stronger%20storms.&text=The%20dam%20that%20failed%20in,It%20was%20overwhelmed%20by%20water

[29] Ibid.

[30] Ibid.

FEMA-designated flood zones, which include the 100-Year Flood Hazard (blue), 500-Year Flood Hazard (orange), and Areas with Reduced Flood Risk Due to Levee (yellow).

Dam Inundation

Various factors, such as the amount of water released, the distance between the dam failure site, and the topography of the surrounding land, will influence the extent to which physical assets in San Bernardino are threatened. The Seven Oaks Dam has large storage capacities that could cause widespread inundation in San Bernardino if the reservoir waters are released due to a dam breach. **Table 3-25** identifies the physical assets in San Bernardino that are threatened by the potential failure of the Seven Oaks Dam. Based on this analysis, dam inundation would affect 11 CFs and 46 FOCs within the city, with the potential to cause approximately $98 million in damages, based on available information. **Figure 3-8** shows the location of the identified CFs and FOCs within these dam inundation zones.

Table 3-24: Critical Facilities and Facilities of Concern in FEMA Flood Zones

Category	Number of Facilities 100 Year Floodplain		Potential Loss*	Number of Facilities 500 Year Floodplain		Potential Loss*
	Critical	Concern		Critical	Concern	
City Facilities	0	0	-	0	0	-
Schools	0	0	-	0	8	?
Park Facilities, Recreation Centers	0	0	-	0	8	$10,724,772
Other Facilities	0	0	-	0	4	?
Total	0	0	-	0	20	$10,724,772

***Potential loss data are estimates only, as replacement values for some facilities were not available. Actual losses may be greater than the estimate presented in this table.**
**** Based on the City of San Bernardino insured replacement values**
*** Fire Services to the City are provided by San Bernardino County Fire District

Table 3-25: Critical Facilities and Facilities of Concern (Dam Inundation-Seven Oaks Dam)

Category	Number of Facilities		Potential Loss**
	Critical	Concern	
City Facilities	10	2	$55,248,613
Schools	0	14	-
Park Facilities, Recreation Centers	0	8	$21,596,372
Other Facilities	1	22	$21,592,820
Total	**11**	**46**	**$98,437,805**

***Potential loss data are estimates only, as replacement values for some facilities were not available. Actual losses may be greater than the estimate presented in this table.**
**** Based on the City of San Bernardino insured replacement values**
***** Fire Services to the City are provided by San Bernardino County Fire District**

Social Threat

Flooding

Floodwaters in both the 100-year and 500-year zones are anticipated to rise to a depth of no more than one foot above the base flood elevation. Flooding of this type would likely inundate curb cuts and sidewalks to some extent. People who walk or bike as their primary form of transportation may encounter difficulties if they do not have access to an alternative means of transportation. Seniors, persons with disabilities, and low-income persons are also likely to be impacted during these events. **Table 3-26** shows the proportion of San Bernardino's vulnerable populations facing a greater flood threat. Based on the information in **Table 3-26**, the median household income in the 100-year and 500-year flood zones is higher than the citywide average. The threat of flood hazards is especially a concern for those living in the 500-year flood zone, as this affects approximately 30% of the city's population.

Persons experiencing homelessness who are outside during flood conditions may experience property damage or cannot access shelter. Though floodwaters in San Bernardino are not expected to exceed a depth of one foot in many areas, six inches of floodwater may render any makeshift structures uninhabitable during a flood event. Possessions such as sleeping bags or electronic devices may be damaged or swept away by these floodwaters.

Dam Inundation

Dam failure hazards in the city would impact various downstream properties and the residents that live there. **Table 3-27** identifies these potential dam failure impacts caused by the Seven Oaks Dam. Failure of the Seven Oaks Dam would affect 17% of the population. Populations impacted by Seven Oaks Dam have a lower median household income than the citywide population; however, dam inundation would impact a much lower percentage of populations living with a disability and households with one member aged 65+ than the citywide population.

Table 3-26: Flood-Threatened Populations

Threatened Population Metric	Flood Hazards (100 Years)	Flood Hazards (500 Years)	City of San Bernardino
Population	8,564	67,216	221,116
Households	2,600	20,052	66,156
Median household income	$58,516	$53,400	$52,321
Renter Occupied Households	15.5%	15.3%	15.2%
Percentage of households with at least one person living with a disability	2.77%	2.72%	9.1%
Percentage of households living under the poverty limit	6.34%	6.24%	21.0%
Percentage of households with one member aged 65+	2.84%	9.25%	9.4%

Table 3-27: Dam inundation Threatened Populations (Seven Oaks Dam)		
Threatened Population Metric	**Flood Hazards (100 Years)**	**City of San Bernardino**
Population	38,330	221,116
Households	12,097	66,156
Median household income	$50,787	$52,321
Renter Occupied Households	16.2%	15.2%
Percentage of households with at least one person living with a disability	2.87%	9.1%
Percentage of households living under the poverty limit	6.60%	21.0%
Percentage of households with one member aged 65+	2.97%	9.4%

Other Threats

Flooding

Flooding may temporarily stop any type of transportation in the City. Debris from floodwaters can block roadways, hinder vehicle access, and potentially affect emergency response services. Depending on the velocity, one foot of rushing water is enough to carry small vehicles. A severe flood may prevent people who own smaller vehicles from driving to work, reducing economic activity. Severe flooding that causes serious damage to homes and businesses may also reduce economic activity until repair work is completed.

Dam Inundation

Dam failures are often triggered by other events (seismic shaking, intense rainstorms, etc.). Often when these events occur, there would almost certainly be service disruptions in San Bernardino. Floodwater would quickly inundate downstream portions of the City, disrupting utilities, such as water, power, and heating, and other services, such as communications or transportation infrastructure. Residents may find street lighting and traffic signals temporarily disabled if the inundation area interferes with the electronic systems that control them. The rapid inundation of water would sweep up any debris, which could block roads, impeding traffic flow. Water would likely inundate roadways and other low-lying, flat areas, such as parking lots, open spaces, and schoolyards. In severe scenarios, people's mobility in these areas would likely be restricted or even impossible. Any unprotected or unhoused mechanical or electronic equipment that is not properly elevated would become waterlogged and inoperable until crews can conduct repairs or replacements, if necessary.

Changes in Population and Land Use Development

Flooding

Based on the current San Bernardino Housing Element, population patterns are anticipated to increase by approximately 1.3% by 2030. Given the significant number of residents currently residing in FEMA flood zones, it is unlikely that flooding will significantly affect the City's population patterns and growth.

However, flooding will likely continue to affect land use and development patterns (as a side effect of the development review process), as flood-related impacts have to be accounted for, mitigated, and minimized. However, land use designations and new development may be limited in these areas out of

precaution or subject to policies developed in City documents such as the LHMP, Land Use, Housing, and Safety Elements.

Dam Failure

Based on the current San Bernardino Housing Element, population patterns are anticipated to increase by approximately 1.3% by 2030. Given the significant number of residents currently residing in the Seven Oaks Dam inundation zone, it is unlikely that the potential threat of dam failure will affect the City's population patterns and growth. Those in the inundation zone may choose to move out of the city or out of the inundation area if the impacts of dam failure are great enough. Those renting homes within the city (approximately 52% of households within the city) have little control over the rebuilding process of a home that has been affected by inundation and, therefore, may be forced to move out of the inundation area or out of the city.

It is likely that flooding will continue to affect land use and development patterns (as a side effect of the development review process), as flood-related impacts from dam inundation have to be accounted for, mitigated, and minimized. However, land use designations and new development may be limited in these areas out of precaution or subject to policies developed in City documents such as the LHMP, Land Use, Housing, and Safety Elements.

Severe Weather (Severe Winds, Extreme Heat, Drought)

Description

Severe Winds

Wind is simply the movement of air caused by differences in atmospheric pressure and temperature. High-pressure air will naturally move to areas of low pressure. Usually, the distance between these high- and low-pressure zones is far; however, these low- and high-pressure zones occasionally may be near one another. When this happens, air will flow dramatically, creating high-speed winds. The most common wind events in southern California are the "Santa Ana" winds. **Figure 3-9** depicts the typical conditions that occur in the fall and winter to create these events. When winds are fast enough, they can damage homes, public facilities, utilities, and other infrastructure. They can also uproot or topple mature trees, pick up debris, and send it careening through the air. This debris can injure or even kill bystanders who may find themselves stranded outside. High-speed winds can deposit this debris in the middle of rights-of-way, such as roads, freeways, and railways, blocking exit routes for would-be evacuees or impeding access to first responders trying to reach wounded people.

Extreme Heat

Extreme heat is a period when temperatures are abnormally high relative to the normal temperature range. There are generally three types of extreme heat events:

- Extreme Heat Days: a day during which the maximum temperature surpasses 98 percent of all historic high temperatures for the area, using the time between April and October from 1950 to 2005 as the baseline.
- Warm Nights: a day between April and October when the minimum temperature exceeds 98 percent of all historic minimum daytime temperatures observed between 1950 and 2005.
- Extreme Heat Waves: a successive series of extreme heat days and warm nights where extreme temperatures do not abate; while no universally accepted minimum length of time for a heatwave

event exists, Cal-Adapt considers four successive extreme heat days and warm nights to be the minimum threshold for an extreme heatwave.

Figure 3-9: Santa Ana Winds

Source: https://www.accuweather.com/en/weather-news/what-are-santa-ana-winds-2/343027

Drought

A drought is a long period with substantially less precipitation than usual. The primary direct impact of a drought is the reduction of available water supplies. This is particularly concerning in agricultural areas and natural environments but can also affect urban areas. Droughts can harm landscapes because plants do not get the water they need to survive. In severe cases, droughts may lead to a human health risk if available water supplies are insufficient to meet basic needs.

Indirectly, drought causes soils to dry out, making them harder and less able to absorb water. When precipitation returns, the soil absorbs less water, increasing runoff, which can lead to flooding. Dry soils are more susceptible to erosion, especially if plants have died or no longer provide stability due to loss of roots and soil composition changes. Drought causes many plants in natural areas to dry out, making them more susceptible to pests/diseases and increasing the risk of wildfires.

Location and Extent

Severe Wind

In Southern California, the most common type of severe wind event is called the Santa Ana wind. High pressure over Nevada and Utah, often during the fall and winter months, forces air down from the high desert toward the ocean. As the winds descend, they heat up and increase in speed, sometimes carrying particulate matter and aggravating the respiratory health of those with allergies. San Bernardino is often affected by Santa Ana winds blowing through the San Gabriel and San Bernardino Mountain ranges via the Cajon Pass. Santa Ana winds contribute to the threat and spread of wildfires in California. Santa Ana winds can damage the electrical distribution infrastructure, creating wildfire ignitions due to arcing or downed power lines. Santa Ana winds can also result in rapid fire spread from ordinarily contained or

small fires such as vehicle fires or fires caused by discarded smoking materials. Depending on the severity of the wind event, any part of the city can be affected by severe winds.

Generally, winds are measured using the Beaufort scale, developed in 1805, which categorizes wind events on a force scale from 0 to 12 using their speed and impacts. Any wind classified as force nine or above is generally considered a severe wind event. **Table 3-28** identifies the Beaufort scale, which classifies wind events in detail.

Extreme Heat

Extreme heat events will feel different from region to region since different areas have different historic high temperatures. For example, an extreme heat day on the coast will feel different than an extreme heat day in the High Desert. The reason for this is how humidity affects people's perceived heat. Humid conditions will make a day feel hotter than non-humid conditions, even though the temperature may be the same. The difference between the perceived and actual temperatures is known as the "heat index." To illustrate the effect of the heat index, a 90-degree day with 50 percent humidity feels like 95°F, whereas a 90°F Day with 90 percent humidity feels like 122°F. **Figure 3-10** illustrates the National Oceanic and Atmospheric Administration's (NOAA) National Weather Service Heat Index.

Extreme heat events are not limited to any part of the city. They occur with the same intensity and duration at the same time across all locations in San Bernardino. For San Bernardino, an extreme heat day involves a temperature that exceeds ***101.2°F***, and a warm night involves a temperature that exceeds ***68.1°F***. [31] These thresholds are based on a 2% probability event.

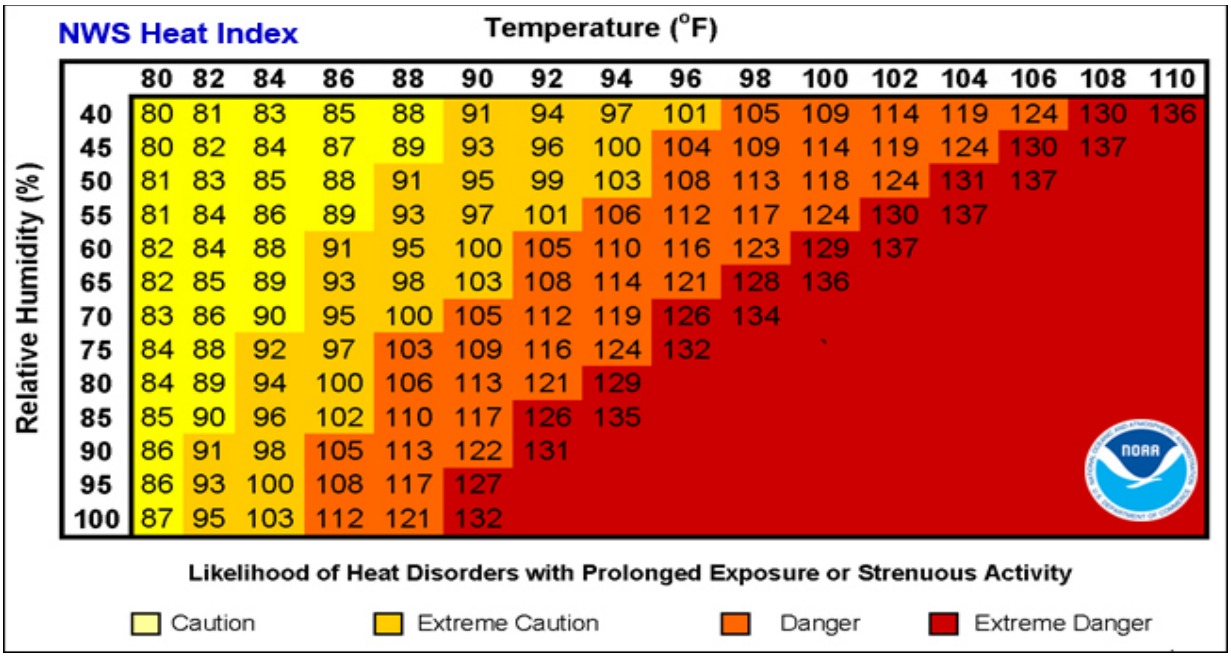
Table 3-28: Beaufort Scale

Force	Speed (mph)	Description
0	0 to 1	Calm: Smoke rises vertically
1	1 to 3	Light air: The direction of the wind is shown by smoke drift but not wind vanes.
2	4 to 7	Light breeze: Wind is felt on the face, leaves rustle, and wind vanes are moved.
3	8 to 12	Gentle breeze: Leaves and small twigs are in motion, and light flags are extended.
4	13 to 18	Moderate breeze: Dust and loose paper become airborne, and small branches are moved.
5	19 to 24	Fresh breeze: Small trees begin to sway
6	25 to 31	Strong breeze: Large branches are in motion, and using an umbrella becomes difficult.
7	32 to 38	High wind: Whole trees are in motion and walking against the wind can be hard.
8	39 to 46	Strong wind: Walking is difficult, and twigs break off trees.
9	47 to 54	Severe wind: Slight structural damage.
10	55 to 63	Storm: Trees are uprooted and considerable damage to structures.
11	63 to 72	Violent storm: Widespread damage.
12	73 and above	Hurricane: Devastating damage.

Source: https://www.weather.gov/mfl/beaufort

[31] https://cal-adapt.org/tools/extreme-heat

Figure 3-10: NOAA's National Weather Service Heat Index



Drought

Droughts are somewhat frequent in California and typically occur when precipitation is limited for an extended period. Rain arrives in California via atmospheric rivers (channels of moist air located high in the atmosphere) and the El Niño Southern Oscillation (ENSO) cycle (a regional meteorological phenomenon in the southern Pacific Ocean). This cycle typically gives rise to two distinct phases: El Niño, the warm and wet phase, and La Niña, the dry and cold phase. When California experiences a drought, it is typically the result of fewer atmospheric rivers or an active La Niña phase, resulting in lower-than-average precipitation levels. Drought may also occur when conditions in areas where water sources are located experience drought conditions, even though the local region does not. **Table 3-29** identifies the drought classifications used by the US Drought Monitor program. This classification system synthesizes multiple different scales into a descriptive index.

Communities that rely on water supplies from other parts of the State versus communities that source their water supplies locally may experience drought differently. Currently, the San Bernardino Municipal Water Department relies solely on water extracted from the Bunker Hill Groundwater Basin to meet its demands.[32]

Droughts are regional events, so all parts of San Bernardino face the same drought risk. However, urban areas will likely experience different effects than open-space areas. It is also possible for communities to experience a "long-distance drought" since many urban areas in California receive water supplies from great distances. If these distant areas experience drought, it may cause water shortages in the urban areas that rely on them, even if these areas are experiencing normal precipitation levels.

[32] City of San Bernardino Municipal Water Department 2019 LHMP

Table 3-29: US Drought Monitor Classification Scheme		
Category	**Description**	**Possible Impacts**
D0*	Abnormally Dry	Slower growth of crops and pastures
D1	Moderate Drought	Some damage to crops and pastures. Water bodies and wells are low. Some water shortages may occur or may be imminent. Voluntary water use restrictions can be requested.
D2	Severe Drought	Likely crop and pasture losses. Water shortages are common, and water restrictions can be imposed.
D3	Extreme Drought	Major crop and pasture losses. Widespread water shortages and restrictions.
D4	Exceptional Drought	Exceptional and widespread crop and pasture losses. Emergency water shortages develop.

Source: US Drought Monitor
* D0 areas are those under "drought watch" but not technically in a drought. They are potentially heading into drought conditions or recovering from drought but are not yet back to normal.

Past Events

Severe Wind

Severe wind incidents are a common occurrence in the city. Annually the city is subjected to Santa Ana Wind conditions that can cause significant damage to trees, buildings, and vehicles. While the effects of Santa Ana Winds are often overlooked, it should be noted that in 2003, two deaths in Southern California were directly related to the fierce condition. A falling tree struck one woman in San Diego. The second death occurred when a passenger in a vehicle was hit by a pickup truck cover launched by the Santa Ana Winds.

The following are significant events that have affected the city and region in the past:

- **December 12-13, 1987 -** Strong Santa Ana winds in San Bernardino, with gusts to 80 mph, causing downed tree limbs and damaged cars and homes.
- **January 6-7, 2003 -** Widespread regional Santa Ana winds in the region resulted in 2 dead, 11 injured, and widespread property damage, road closures, downed trees, crop damage, wildfires, and power outages.
- **October 25-27, 2003 -** Santa Ana winds exacerbated the Old Fire, which began in the San Bernardino Mountains and would consume 91,281 acres and kill six before it was extinguished.
- **December 3, 2006 –** Gusts of over 75 mph occurred in San Bernardino and caused downed powerlines to spark a small fire.
- **November 2014 -** A Santa Ana wind event caused winds of approximately 50 mph, with damage reported throughout the region.
- **August 16, 2016 -** Winds fanned the Blue Cut Fire, which spread rapidly, forcing 84,000 mandatory evacuations and threatening 35,000 homes. For two days, numerous roads were closed, including I-15, in both directions. The fire destroyed 105 homes and 313 smaller structures and scorched 36,274 acres before being extinguished.
- **January 2017 -** A series of three storms caused strong winds that knocked down hundreds of trees throughout the region, causing millions of dollars in damage.
- **February 25, 2021 -** After several offshore wind events during February, a particularly strong Santa Ana blew. Gusts of 80 to 90 mph were measured in the foothills north of San Bernardino.

Extreme Heat

Based on Cal Adapt's historical information (1950 through 2005), the city experiences five extreme heat days per year. During this same period, the city averaged (1) 4-day heatwave every year. Climate modeling under RCP 4.5 (the medium emissions scenario) predicts that by 2035, the city will experience (4) 4-day heatwave events per year and (6) 4-day heatwave events per year by the end of the century (2070-2099). Climate modeling under RCP 8.5 (the high emissions scenario) predicts that by 2035, the city will experience (6) 4-day heatwave events per year and (10) 4-day heatwave events per year by the end of the century (2070-2099). Over the past 16 years (2005-2021), the city has experienced an extreme heat event (101.2° F or higher) every year except 2007. In 2022, California experienced one of the worst heatwaves it has ever experienced. From September 1st through September 9th, 2022, temperature records for September were shattered across the western portion of the United States, including San Bernardino, where temperatures reached 108° F.

The County of San Bernardino has issued several high heat advisories between 2014 and 2020, as shown in **Table 3-30**.

Table 3-30: Extreme Weather Events, 2014 to 2020

DATE
September 4, 2020
July 24, 2018
July 6, 2018
August 25, 2017
July 21, 2016
October 9, 2015
August 12, 2015
June 18, 2015
September 11, 2014
May 12, 2014

Drought

Like the rest of California, San Bernardino has experienced many drought events throughout its history. Each event has been distinct, with varying lengths, severity, and frequency. One of the earliest recorded major droughts in state history is known as the "Great Drought," which occurred in 1863 and 1864. This drought killed 46 percent of the cattle in the state and ultimately led to the decline of cattle ranching. The "Dustbowl Droughts," lasting from 1928 to 1935, caused great impacts on the state's agriculture. The effects of this drought were so severe that it sparked the movement to create some of California's modern water irrigation infrastructure, such as the California Aqueduct. Another drought occurred in 1976 and

1977, leading to nearly $1 billion in agricultural losses. Implementation of water-saving practices resulted from this drought, which is still in effect today across the state. Further water conservation practices were enacted during a drought lasting from 1987 to 1993, which caused an estimated $250 million in agricultural damages each year.

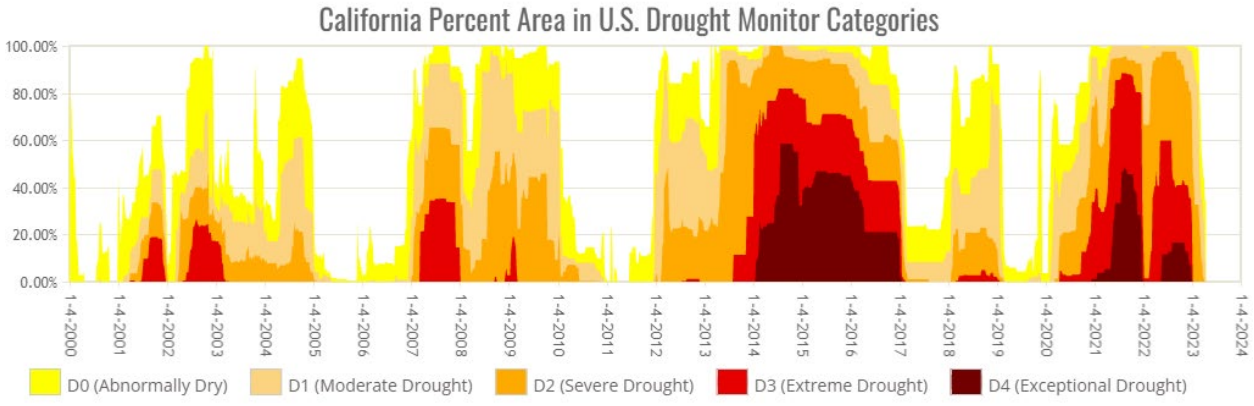
California experienced its most recent drought beginning in 2012 and lasting until 2017. All areas of the state were impacted, and by 2014 it was reported as the most severe drought in 1,200 years. **Figure 3-11** illustrates the severity of the drought conditions experienced over the past 23 years.

By the summer of 2014, almost all of California was experiencing D2 (Severe Drought) conditions. San Bernardino, all of San Bernardino County, and more than 75 percent of California were reported as experiencing the most intense level of drought conditions, D4 (Exceptional Drought). By 2015, emergency water-saving mandates were enacted, requiring all jurisdictions to reduce water use by at least 25 percent. In late 2016 and early 2017, successive heavy rains helped end the drought conditions in the state. The following winter, in late 2017 and early 2018, rains did not return in the same quantity, and slight drought conditions returned across California. This moderate drought was again abated in late 2018 and early 2019 in the winter season when heavy rains ended any existing drought conditions.

In November 2022, the majority of the state was in D2 (Severe Drought) and D3 (Extreme Drought) conditions, with Central California falling into the D4 (Exceptional Drought) category. A series of atmospheric rivers that swept through California from December 2022 to March 2023, bringing more than 78 trillion gallons of water, eliminated the drought for most of the state.[33]

As of February 2024, most of California is no longer in a drought. The majority of San Bernardino County is experiencing D0 (Abnormally Dry) and D1 (Moderate Drought) conditions. **Figure 3-12** identifies current drought conditions as of February 27, 2024.

Figure 3-11: Drought History (2000-2023)



[33] Rice, Doyle. "Trillions of Gallons Have Soaked California. Is This the State's Wettest Winter Ever?" USA Today, March 29, 2023. https://www.usatoday.com/story/news/nation/2023/03/29/californias-snow-rain-totals-explained/11525451002/.

Risk of Future Events

Severe Wind

Given San Bernardino's history of severe wind events, it is very likely that wind events will continue to impact the city. The most probable source of these events in the future will likely originate from the Santa Ana winds or extreme storms. All expectations are that the probability they will occur again in the future is highly likely.

Extreme Heat

According to Cal-Adapt data, which relies on NOAA data sources, San Bernardino experiences extreme heat days. The city historically (1950-2005) experiences, on average, four extreme heat days annually based on this historical period. That number of days increased to 9 days annually from 2006-2021. According to Cal-Adapt's projections, the city is projected to experience between 22 and 35 extreme heat days annually from 2050 to 2099.[34] As temperatures rise throughout California, the number of extreme heat days will also increase.

Drought

Drought will continue to be a foreseeable event in the future of California, including San Bernardino. Droughts in the area are expected to become more frequent and intense due to climate change. Droughts that result from infrastructure failure are equally impossible to predict since the circumstances that lead to infrastructure failure are unique to each situation.

Climate Change Considerations

Severe Wind

It is anticipated that the atmospheric rivers that deliver storms to Southern California may intensify because of climate change. While the average number of storms in Southern California will remain the same, storms are expected to increase by 10 to 20 percent.[35] This increase in storm intensity may also bring more intense winds to the Southern California region, including San Bernardino.

Regarding Santa Ana winds, however, studies indicate that these events may be affected in varying ways. According to one study that examined two global climate models, there is a projected increase in future Santa Ana events. However, other studies have found that the number of Santa Ana events may decrease by about 20% in the future.[36] Given the anticipated increases in temperatures throughout the region, future events are anticipated to become more severe in some cases, even if the total number of events decreases.

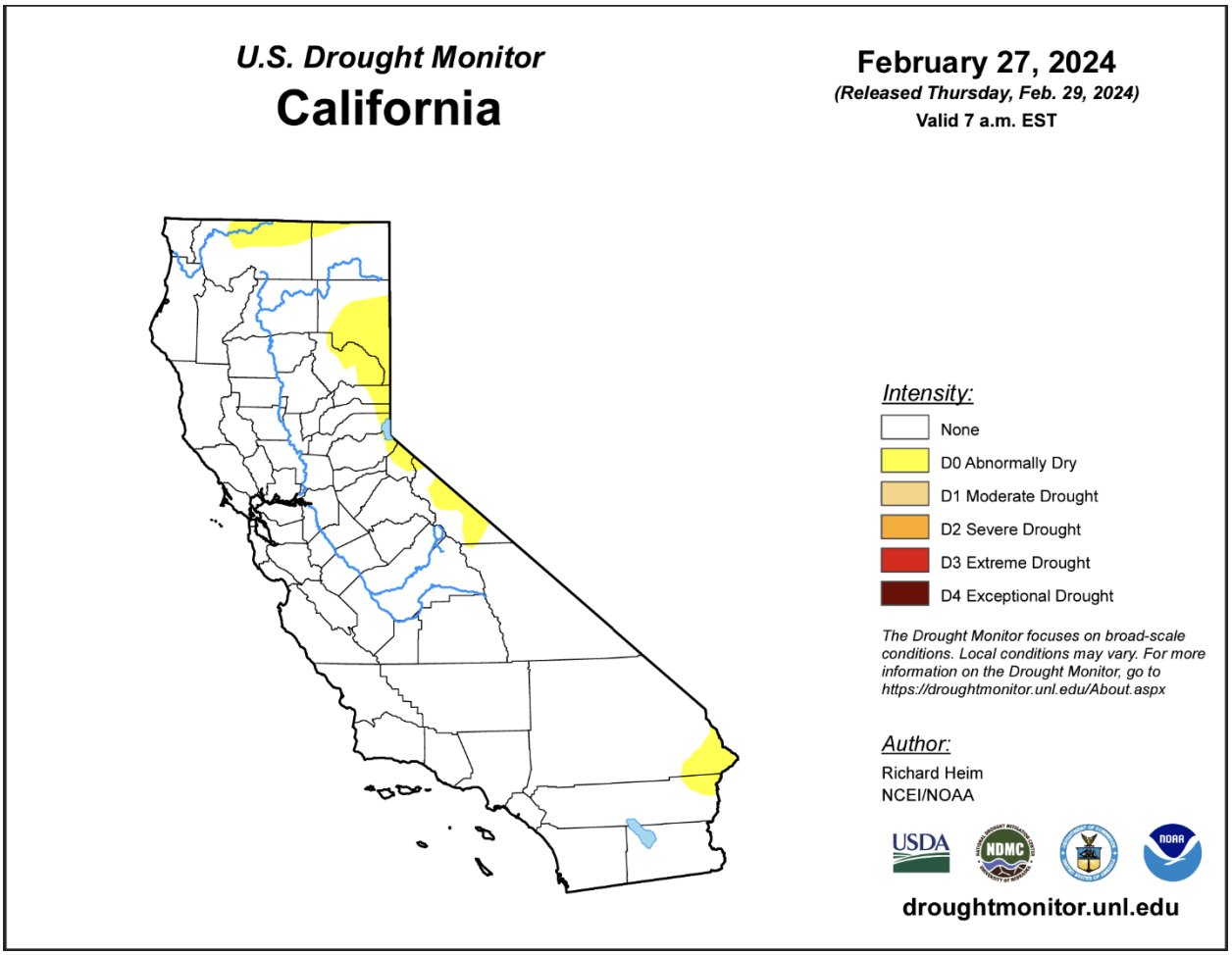
Regarding severe storms, climate change is expected to alter rainfall patterns in Southern California, including San Bernardino. As the climate warms, rain events are predicted to become more intense. San Bernardino will likely experience more rain inundation events that lead to flooding and increase the potential threat of dam failure, tree mortality, and other potential hazards.

[34] Cal Adapt, City of San Bernardino, https://cal-adapt.org/tools/extreme-heat

[35] Atmospheric Rivers to Soak California as Climate Warms. https://www.livescience.com/49225-atmospheric-rivers-double-climate-change.html

[36] Hall, Alex, Neil Berg, Katharine Reich. (University of California, Los Angeles). 2018. Los Angeles Summary Report. California's Fourth Climate Change Assessment. https://www.energy.ca.gov/sites/default/files/2019-11/Reg%20Report-%20SUM-CCCA4-2018-007%20LosAngeles_ADA.pdf

Figure 3-12: U.S. Drought Monitor – California



Extreme Heat

The primary effect of climate change is warmer average temperatures. The hottest years on record have occurred since 2000, with 2016 and 2020 being tied. [37] As climate change accelerates in the 21st century, it is anticipated that extreme heat events will become more frequent and intense in the city. With the projection that extreme heat days could increase between 22 and 35 days annually by 2100, the city can expect a shift in residential and business needs for cooling and addressing heat-related issues.

Drought

Climate change is anticipated to abate drought in certain situations but, on the other hand, could also intensify and exacerbate it in other cases. In some cases, climate change-intensified weather patterns, like ENSO, may bring more rain to California and San Bernardino, which would abate drought conditions for the State's affected parts. In other cases, climate change may also prolong the La Niña phase of ENSO, leading to longer dry periods with no precipitation in California.

[37] Rebecca Hersher and Lauren Sommer. 2020. "2020 May be the Hottest Year on Record. Here's the Damage it did." NPR. https://www.npr.org/2020/12/18/943219856/2020-may-be-the-hottest-year-on-record-heres-the-damage-it-did

Due to climate change, droughts are expected to become more frequent and intense in San Bernardino County and, more broadly, throughout California by mid-century. Scientific studies indicate:

- Climate change is projected to drive more frequent historically warm temperatures, reduced precipitation and snowpack, abnormally dry soils, and, in turn, drought conditions.
- Modeling studies attribute more frequent coincident warm and dry years and more severe drought conditions in Southern California due to climate change.
- The incidence of extremely dry years (those occurring in 1 out of every 100 years over the historical period) could triple by the end of the century.
- The likelihood of long-duration droughts in San Bernardino County would increase significantly, with some studies showing a more than 80% chance of multidecadal drought by the end of the century.[38]

Climate change is also expected to increase the average temperature and cause more frequent and prolonged heat waves in California and San Bernardino. During these events, water supplies may be diverted for cooling functions in the City. Hotter temperatures may also lead to increased surface water evaporation, which could contribute to greater water consumption. If a drought were to occur during a future heatwave, it could place water supplies under strain.

From a regional perspective, warmer overall temperatures in California are anticipated to reduce statewide water supplies. Much of California's water comes from melted snow in the High Sierra, where mountain snowpack acts as a natural reservoir. As the average temperature grows warmer with climate change, the amount of precipitation that falls as snow is expected to shift towards rain. Precipitation as rain will not flow into reservoirs and aqueducts the same way snowmelt does. The natural water reservoirs created by the snowpack stay intact as the initial snowpack runoff begins in the early spring and ends in early to late summer, depending on the level of the snowpack.[39] The runoff from the snowpack can be managed due to the slow pace at which the snow melts; however, when rain occurs in place of snowfall, there is no significant way to collect the water and retain it because it falls much faster. As less snow falls, the amount of melted water from the snowpack in the Sierra Nevada will decrease, reducing the water flowing into the reservoirs and aqueducts that supply Southern California. If regional and local water agencies, such as the California State Water Project (supplemental source of water for the City) and the San Bernardino Municipal Water Department (which draws its water from the local Bunker Hill Basin), do not account for increased groundwater withdrawal, San Bernardino and the San Bernardino County region could experience greater dependence on imported water.

Physical Threat

Severe Wind

Intense winds likely present the greatest threat to physical structures, particularly from trees or branches that fall on buildings/vehicles, causing substantial damage. Older structures that have deferred maintenance or have not been retrofitted for high wind conditions may suffer greater damage than newer/updated structures. Utility lines and wooden utility poles face an elevated threat from wind, as do

[38] San Bernardino County Vulnerability Assessment. https://wrcog.us/DocumentCenter/View/7477/San-Bernardino-County-Vulnerability-Assessment

[39] NASA. "World of Change: Snowpack in the Sierra Nevada." https://earthobservatory.nasa.gov/world-of-change/SierraNevada#:~:text=The%20snowpack%20on%20the%20Sierra%20Nevada%20has%20generally%20peaked%20and,reservoirs%20while%20recharging%20the%20groundwater.

buildings without reinforced roofs. Utility poles and trees often suffer impacts during high wind events after a significant rain event. During these events, saturated soils around the base of the tree/pole may be unable to withstand the strains placed on it by strong winds causing it to fall over.

Trees, tree branches, and other objects have the potential to fall on powerlines and other electrical infrastructure during a severe windstorm, causing power outages throughout the city. Another physical threat of severe wind is wildfire impacts and electric utilities' current practice of conducting Public Safety Power Shutoff activities. During high wind events, these shutoffs may impact structures that rely on electricity for normal operations. See social threats for population impacts that may also occur because of these events.

Extreme Heat

Extremely high temperatures can cause roads to deform and buckle as the pavement expands in the heat, especially in poorly maintained areas. Power lines and other electrical grid components become less effective in higher temperatures and may be damaged due to stress during extreme heat events. Urban heat islands occur when natural land cover is replaced with concentrations of pavement, buildings, or other surfaces that absorb and retain heat. Buildings with dark pavement will absorb more heat than surfaces with vegetation or lighter materials that are better at reflecting the sun's energy. This urban heat island effect is strongest during the summer when solar radiation is strongest.

Drought

Since the primary threat from drought is reduced water supply and availability, there are no foreseeable threats to any of the City's physical assets. It is possible that any water delivery infrastructure not used or used less than usual may fall into some degree of disrepair if maintenance is deferred. Lower water pressures may cause some aged water pipes to release rust particles into the water supply. Amenities within facilities, like water features and landscaping, could be affected by reduced watering. If dead or dying vegetation becomes a nuisance, the City may have to replace or retrofit locations affected.

Social Threat

Severe Wind

Severe wind events can harm people throughout San Bernardino but have a greater effect on the safety of people experiencing homelessness and those working outdoors. Severe wind events may impact populations that work outside or have respiratory illnesses as they can generate dust and other contaminants that can affect the health of residents and workers. Lower-income residents, who may not have the financial resources to purchase homes (or are renting homes) that are not built or retrofitted to withstand powerful winds, could also have difficulty recovering from wind events.

Extreme Heat

Whereas a heat event can be relatively harmless for those with a reliable means of staying hydrated and cool, the event can be deadly for others. Young children, the elderly, or people suffering from serious medical conditions are physiologically more vulnerable to heatstroke. Some senior citizens also take medicines that can make it harder for their bodies to maintain a safe internal temperature, creating an additional threat from extreme heat events. Young children may not be aware of the signs of dehydration or ways of protecting themselves from heatstroke.

Homeless people are at a high risk of health complications during heat waves, especially if they are unsheltered. According to San Bernardino County homeless counts, in 2022, there were approximately

3,333 individuals experiencing homelessness in the county, with 71.7% percent unsheltered.[40] Of the 3,333 individuals experiencing homelessness within the county, approximately 1,350 individuals are experiencing homelessness within the city. This population is very vulnerable to heatstroke during a heatwave, especially if they cannot reach a cooling center.

Sudden spikes in heat can catch people by surprise. Stores can rapidly sell out of fans, air-conditioning units, or drinking water during a heatwave. Many lower-income households live in older, poorly insulated, and energy-inefficient housing and cannot afford to run their air conditioning, which can be further compounded by the threat of power outages due to heat/rolling blackouts. During these events, extreme heat impacts may affect larger portions of the city and populations that would not be viewed as vulnerable under normal circumstances.

Drought

Droughts are unlikely to cause serious social threats to households in San Bernardino, though residents and business owners in the city may experience financial impacts associated with water conservation efforts. Those with less access to financial resources, such as low-income households or seniors, could be harder hit if higher water rates or additional fees are imposed during a severe drought event.

Other Threats

Severe Wind

Southern California and the City of San Bernardino suffer from seasonal Santa Ana Winds and will for the foreseeable future. Extreme wind events can worsen other risks, such as wildfires. It could affect the take-off and landing of small aircraft at nearby airports, leading to an increased risk of possible aircraft incidents.

Extreme Heat

Extreme Heat for any length of time can also affect other hazards and risks within the city. For example, it can create a spike in electricity demand leading to power loss/failure, food insecurities, and a rise in vector-borne disease transmission. Coupled with extreme wind, it can cause or spread urban fires and jeopardize additional neighborhoods/communities.

Drought

A typical drought is not anticipated to lead to any outages in service in San Bernardino. However, an exceptional drought may lead to restricted water use for residents or businesses in the City. Trees that are not adequately adapted to lower irrigation levels could perish, altering the City's aesthetic appearance and long-term air quality. Any open spaces with extensive lawns may start to die, turning brown, which could discourage residents from using these parks and open spaces. In addition, long-term drought conditions can change and reduce soil's ability to absorb water. When this occurs, water runoff from these areas may increase, which could cause downstream flooding and erosion in some areas.

Changes in Population and Land Use Development

Severe Wind

Severe windstorms occur periodically (primarily during the Fall months) and generally do not affect populations to the degree that they would need to migrate in and out of the city. The anticipated

[40] San Bernardino County. 2022. Homeless Count and Subpopulation Survey. https://www.sbcounty.gov/uploads/sbchp/SBC-2022-Homeless-Count-Report.pdf

population growth in San Bernardino, is not expected to have a significant impact on the City's vulnerability to severe windstorms.

It is unlikely that severe wind will affect land use and development because the development review process will take steps to mitigate or minimize the impacts of severe wind. There is the potential that older structures in the city may be impacted more severely than newer structures in the city. Potential damage to overhead powerlines and mature trees, and older structures may not comply with current building codes.

EXTREME HEAT

There could be minor changes in population patterns due to extreme heat if people cannot continue to live in older structures with limited insulation and older cooling units. The anticipated population growth in San Bernardino is not expected to significantly impact the City's vulnerability to extreme heat. It is unlikely that extreme heat will affect land use and development because the development review process will take steps to mitigate or minimize impacts. However, it is possible that additional investment will occur in older parts of the city to modify structures to handle these conditions.

DROUGHT

Droughts occur periodically (primarily during the Summer/Fall months) and generally do not affect populations to the degree that they would need to migrate in and out of the city The anticipated population growth in San Bernardino is unlikely to have any significant effect on population growth.

It is unlikely that drought will affect land use and development because the development review process will take steps to mitigate or minimize the impacts and vulnerability of drought in San Bernardino.

Wildfire

DESCRIPTION

Wildfires are fires that burn in largely undeveloped and natural areas and are a regular feature of ecosystems throughout California. These fires help to clear brush and debris from natural areas and are necessary for the health of many ecosystems and various species' life cycles. However, since the early twentieth century, the common practice was to suppress naturally occurring fires in wildland areas, allowing dry plant matter and other fuels to build up.

At the same time, human activity has caused changes in the buffer zone between urbanized and undeveloped areas, known as the wildland-urban interface (WUI). The more natural setting of a WUI can make these zones highly desirable places to live. In many parts of California, the WUIs have become developed, albeit at lower densities than fully urbanized areas. However, this development activity has brought more people into wildfire-prone areas. The availability of fuel and increasing encroachment into the WUI, together with a changing climate, have made wildfires among California's most common and dangerous natural hazards.

Lightning, accidents, or arson can spark wildfires. The size and severity of any fire depend on fuel, weather conditions, and topography availability. However, wildfires in the WUI do not need to be large to be damaging. In Oakland, the 1991 Tunnel Fire was relatively small, only 1,600 acres, but was the third deadliest and third most destructive wildfire in California history. The flames from wildfires create severe risks to property and lives. Smoke and other particulate matter from wildfires pose a health risk, even to those not near the blaze. Burned areas can be more susceptible to flooding and landslides because

wildfires destroy the vegetation that helps slow down water runoff and hold slopes together. The ground may repel water rather than absorb it when faced with ash deposits. Due to the change in the landscape structure after a fire, repelled water can carry debris into water reservoirs.

LOCATION AND EXTENT

Wildfires are not measured on a specific scale and are usually classified by size (e.g., acres burned) or impact (buildings destroyed or damaged, injuries or deaths, cost of damage, etc.). The California Department of Forestry and Fire Protection (Cal Fire) classified the wildfire hazard on a three-tier scale of fire hazard severity zones (FHSZs): very high, high, and moderate. These zone classifications do not correspond to a specific risk or intensity of the fire but are qualitative terms that consider many factors. Fire-prone areas are also classified by the agency responsible for fire protection. Federal Responsibility Area (FRA) falls to federal agencies such as the US Forest Service, the Bureau of Land Management, and the National Park Service. State Responsibilities Area (SRA), which includes unincorporated land within counties with statewide watershed value, falls to the Cal Fire. Local Responsibility Area (LRA), which includes portions of incorporated cities with identified wildfire hazard zones, falls to local governments.

Due to the San Bernardino Mountains foothill topography, San Bernardino has a susceptibility to and a long history of dealing with wildfires. The community extends into the undeveloped hillside areas/mountains to the north of the city, adjacent to the San Bernardino National Forests. Wildfires present a significant threat to the City, and the County, as it is a region of relatively high temperatures, low humidity, and low precipitation during the summer. This long summer season is followed by a fall season famous for high velocity and arid winds originating from the desert (Santa Ana winds). **Figure 3-13** identifies the historic wildfire perimeters between 1900 and 2020 in and around the city. In addition, **Figure 3-14** identifies the fire hazard zones within the City and surrounding areas. The zones depicted include areas of the national forest (FRA), areas within unincorporated San Bernardino County (SRA), and the San Bernardino Wildland Urban Interface (WUI), which includes the LRA within the jurisdictional boundaries of the San Bernardino County Fire Protection District.

Figure 3-13: Historic Wildfire Perimeters

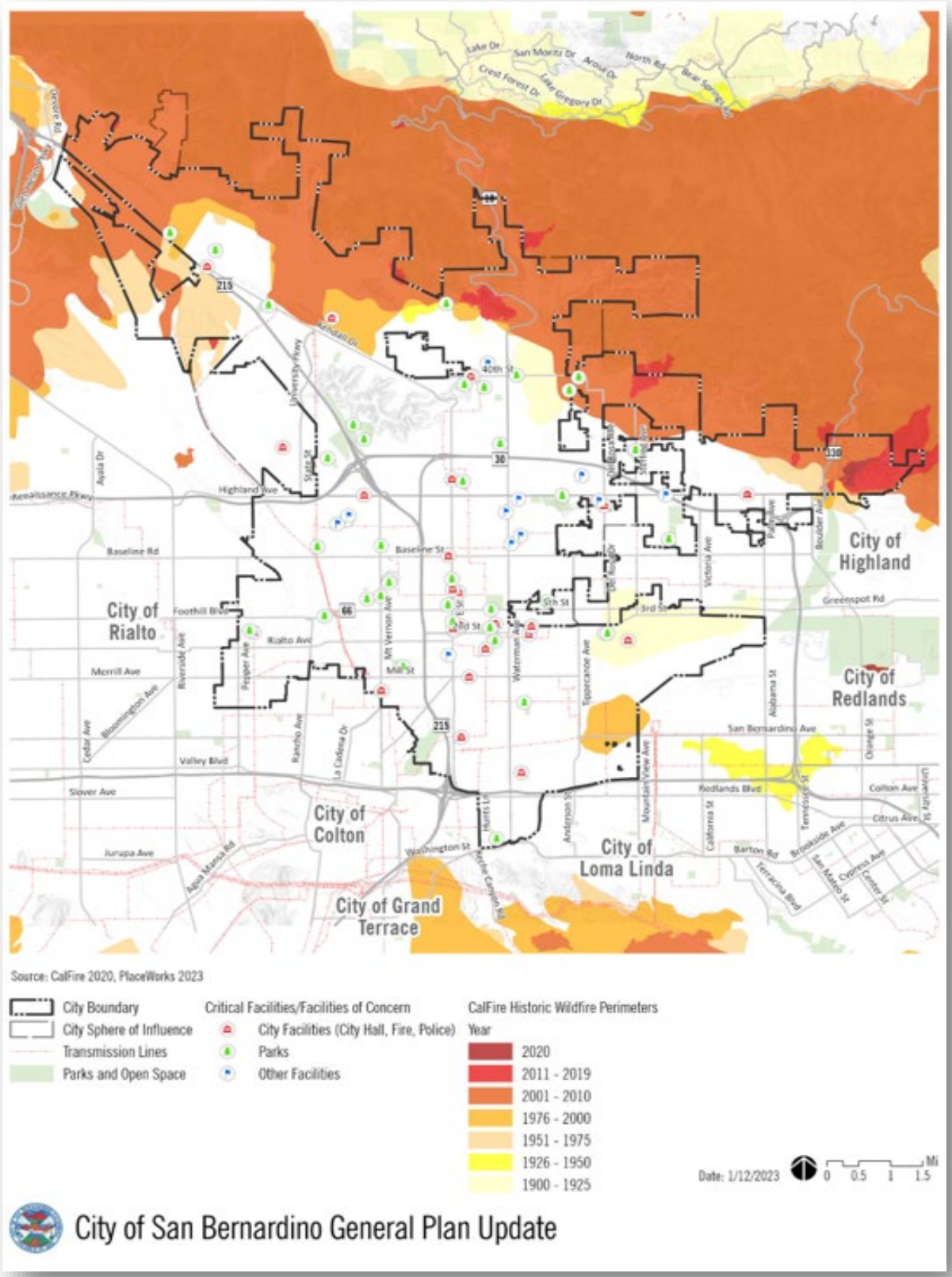
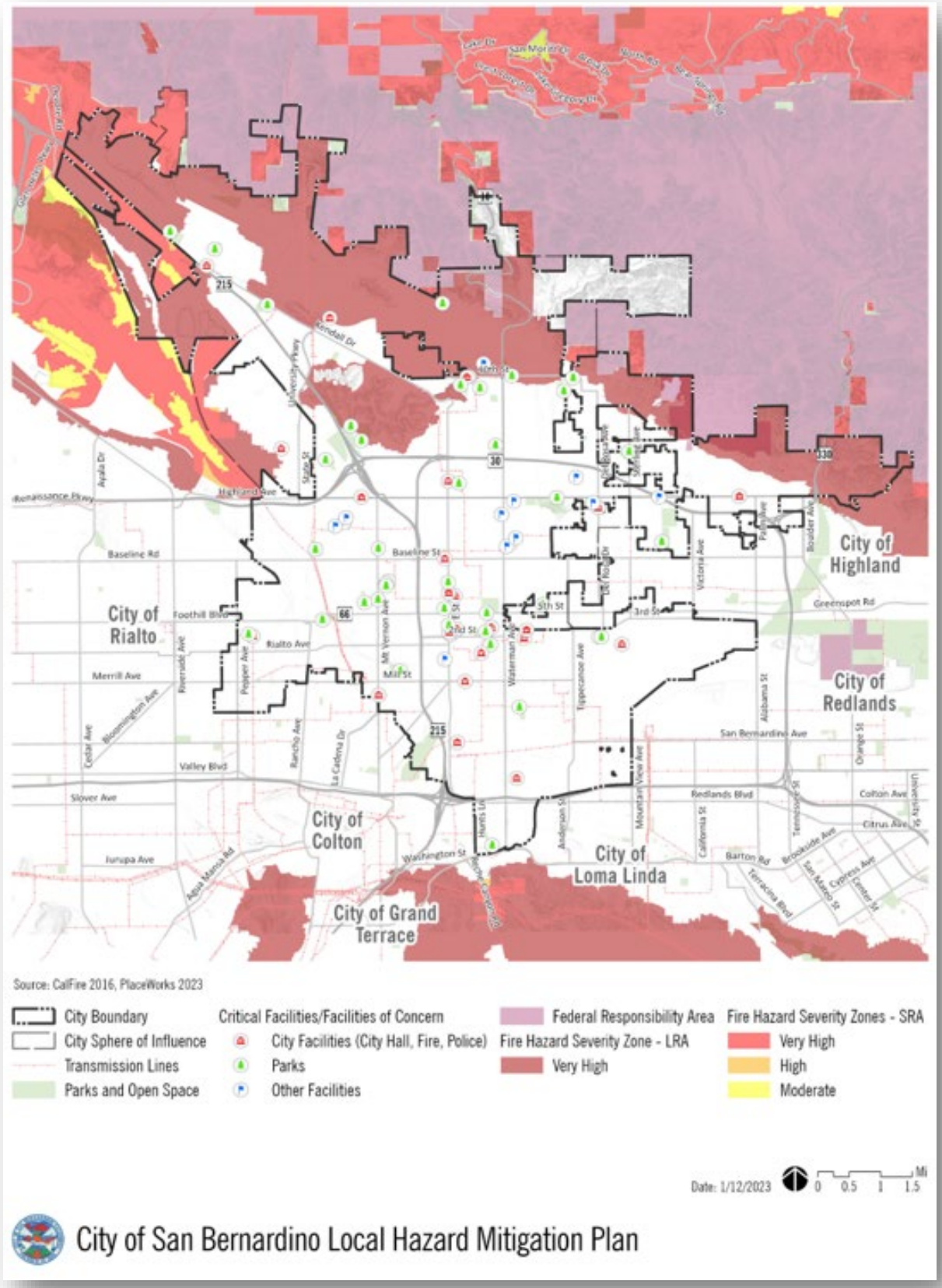


Figure 3-14: Fire Hazard Severity Zones



Past Events

Table 3-31 describes past wildfire events affecting San Bernardino.

Risk of Future Events

The history of wildfires in San Bernardino County and San Bernardino and the presence of development within the City's WUI, which includes very high fire hazard severity zones (VHFHSZ), indicates that wildfire events are likely in the future. Since 1980, three major wildfire events have affected the City. This risk is expected to remain highest in the undeveloped land in the foothills within both the City and the unincorporated areas of the Fire Protection District, as well as National Forest lands that border the City and SOI.

From 1956 to 2023, 260 fire incidents in California resulted in a Major Disaster Declaration, Emergency Declaration, or Fire Management Assistance Declaration from FEMA. The most destructive and deadliest fire in the state's history is the 2018 Camp Fire in Butte County, which destroyed nearly 19,000 structures and killed 85 people. The year 2020 was also a highly destructive wildfire season, with five of the six largest fires in the state's history totaling nearly 2.5 million acres.

The fire risk assessment shows that the City's area with the highest risk level is in the north, along the Wildland Urban Interface (WUI). New construction within WUI areas is required to comply with the California Building Code and the California Residential Code, including requirements for fire retardant or ignition-resistant construction materials at roofs, eaves, vents, exterior walls, exterior windows, doors, and decks. California Government Code Section 51182 also requires buildings within these areas to provide defensible space.

Table 3-31: Historic Wildfires in San Bernardino

Year	Name	Acres Burned	Description
11/24/1980	Panorama Fire	28,800 acres	That deadly blaze burned 23,800 acres, destroyed about 280 homes, and damaged 49 others. Some 60-plus other structures were also damaged or destroyed. Four civilian deaths and 77 injuries were attributed to the Panorama Fire. This fire started near the top of Waterman Canyon and was spread across the foothills by the merciless winds.
11/2/2003	Old Fire (Grand Prix)	91,281 acres	This Santa Ana wind-driven fire burned over 91,000 acres within San Bernardino and Los Angeles Counties. In total, the fires destroyed 975 buildings and killed six people. The total cost associated with fire response and suppression activities totaled over $1.2 billion in 2003 dollars.
8/16/2016	Blue Cut Fire	36,274 acres	The Blue Cut Fire began as a small brush fire in the Cajon Pass. IT immediately escalated to a large fire, consuming 18,000 acres in a matter of hours due to the dry hillsides, extreme heat temperatures that peaked at 102°F, and gusty winds of up to 45 mph. By the following morning, the fire had consumed 30,000 acres, peaking at 36,274 acres by the time it was contained one week later. The fire destroyed 105 homes and 213 other structures and ranks as the 20th most destructive wildfire in state history.

Source: City of San Bernardino. 2016 Local Hazard Mitigation Plan.

Climate Change Considerations

Climate change is expected to cause an increase in temperatures and more frequent and intense drought conditions. This increase will likely increase the amount of dry plant matter available for fuel, increasing wildfire risk statewide. In the foothills of the San Bernardino Mountains, which are already highly prone to wildfires, climate change is expected to increase the number of acres burned annually. However, increases in fuel supplies could cause wildfires to move faster or spread into more developed areas, increasing the future threat to San Bernardino.

Physical Threat

The California Department of Forestry and Fire Protection has mapped Very High Fire Hazard Severity Zones (VHFHSZ) within the City's Local Responsibility Area (LRA). The LRA is a government-designated area where a local agency, city, or county, NOT the State, is responsible for fire protection. An SRA is the opposite, where the State has responsibility for wildland fire protection. **Figure 3-14** identifies these zones and the City's CFs and FOCs within the area. All structures within this fire zone are at an elevated risk of wildfire impacts.

All structures located within this zone are at an elevated risk of wildfire impacts. **Table 3-32** identifies 0 CFs and 7 FOC within the wildfire hazard zone, resulting in a potential loss of approximately $5 million based on available replacement values. Additional losses associated with the schools in these areas could also occur.

While these areas have a high degree of vulnerability to wildfire, other areas of the City may also be susceptible to ember cast. These areas, typically referred to as the WUI (Wildland Urban Interface), are vulnerable if the right conditions exist. Typically, the WUI is impacted if adequate fuels are combined with dry conditions and strong winds. Sometimes, the ignition of a wildfire may occur if power lines around overgrown trees cause a spark and catch the tree on fire. These incidents are the main impetus for the recently established PSPS program throughout the State.

Table 3-32: Critical Facilities and Facilities of Concern (Wildfire)

Category	Number of Facilities		Potential Loss**
	Critical	Concern	
City Facilities	0	0	-
Schools	0	3	-
Park Facilities, Recreation Centers	0	4	$5,019,300
Other Facilities	0	0	-
Total	**0**	**7**	**$5,019,300**

***Potential loss data are estimates only, as replacement values for some facilities were not available. Actual losses may be greater than the estimate presented in this table.**
**** Based on the City of San Bernardino insured replacement values**
***** Fire Services to the City are provided by San Bernardino County Fire District**

Social Threat

Outside of the property owners directly impacted by a wildfire event, wildfires can also impact seniors and persons with disabilities. These groups may have limited mobility, be immuno-compromised, and/or

not receive notifications regarding current conditions and evacuation requirements. For example, a senior who lives alone may not be aware that a wildfire is burning close to their residence, and they have been ordered to evacuate if those notifications were sent in a manner that does not reach them. Persons with disabilities may require special mobility devices or caregiver assistance to go outside, which may not arrive as quickly as needed. Other groups with increased threat levels include people with lower incomes, renters, and the homeless. These groups may not have enough financial resources to rebuild or search for new homes after a fire. **Table 3-33** identifies the populations threatened by wildfire. Based on this analysis, these residents have a median income that is approximately $5,700 higher than the city-wide figure and a lesser proportion of households with one member aged 65+ and persons living with a disability. Based on this, households in this part of the City would be considered more resilient to wildfire impacts, given the lower percentage living under the poverty limit and a significant increase in median household income compared to city-wide statistics.

The health effects associated with wildfires can also be very detrimental to a community. As wildfires in California become larger and more intense, there is a greater potential for smoke production. Chronic exposure to particulates generated during a wildfire can cause health outcomes ranging from eye and respiratory tract irritation to more serious disorders, including reduced lung function, bronchitis, asthma and heart failure exacerbation, and premature death. Children, pregnant women, and the elderly are especially vulnerable to smoke exposure. Emissions from wildfires are known to cause increased visits to hospitals and clinics by those exposed to smoke.

A study of the 2003 wildfires in southern California concluded that wildfire-related particulate matter (PM) (2.5) led to increased respiratory hospital admissions, especially asthma, suggesting that better preventive measures are required to reduce morbidity among vulnerable populations. With the expectation that wildfire incidents will increase in size and severity in the future, it will be important to understand how the City can assist residents with poor air quality during wildfires occurring throughout the region.

Table 3-33: Wildfire Threatened Populations

Threatened Population Metric	VHFHSZ	City of San Bernardino
Population	100,993	221,116
Households	31,737	66,156
Median household income	$58,019	$52,321
Renter Occupied Households	16.1%	15.2%
Percentage of households with at least one person living with a disability	2.86%	9.1%
Percentage of households living under the poverty limit	6.57%	21.0%
Percentage of households with one member aged 65+	2.95%	9.4%

OTHER THREATS

Other threats associated with wildfires may involve the loss of electricity (PSPS) or other utilities, evacuation of areas potentially threatened, or the health effects of wildfires located near the City or

throughout the region. Loss of utility services can impact vulnerable populations to a greater degree if they rely on the service for medical reasons (oxygen, dialysis, etc.) or to ensure adequate heating/cooling occurs. Wildfire events generally occur when the weather is hot and dry. These weather conditions place a high demand on air conditioning, especially for those whose health conditions are worsened by extreme heat. During these conditions, the loss of power can place a greater strain on vulnerable residents, especially those who cannot supply their own backup power or afford to relocate during the power disruption.

Changes in Population Patterns and Land Use Development

If a large wildfire were to occur, it is feasible that changes to population patterns could fluctuate. Future land use designations, redevelopment, or new development in these areas could be restricted or even prohibited, especially in the WUI and the VHFHSZs. The anticipated population growth in the City is not expected to significantly impact San Bernardino's vulnerability to wildfire.

Hazardous Materials Release

Description

Hazardous materials release refers to a hazard event whereby harmful concentrations of hazardous or toxic substances are released into the environment. This occurs when storage containers of hazardous materials leak or fail. It can happen due to industrial accidents, vehicle crashes, as a direct result of other disasters (e.g., a flood or earthquake), or as a deliberate act.

The threat that hazardous materials pose to human health depends on the type of material, frequency, and duration of exposure, and whether chemicals are inhaled, penetrate the skin, or are ingested, among other factors. Exposure to hazardous materials can result in short- or long-term effects, including major damage to organs and systems in the body or death. Hazardous waste is any material with properties that make it dangerous or potentially harmful to human health or the environment. Hazardous materials can also cause health risks if they contaminate soil, groundwater, and air, potentially posing a threat long after the initial release.

As part of this analysis, the City also identified the potential environmental justice issues associated with hazardous materials. The mapping prepared in this analysis uses the CalEnviroScreen data set from the California Environmental Protection Agency

Table 3-34: San Bernardino Spill Release Reporting

Year	Reported Releases
2010	74
2011	121
2012	250
2013	194
2014	56
2015	43
2016	74
2017	72
2018	80
2019	125
2020	101
2021	50
2022	74
2023	26
Annual Avg	**95.71**

Source: https://www.caloes.ca.gov/cal-oes-divisions/fire-rescue/hazardous-materials/spill-release-reporting

(Cal EPA).[41] This dataset helps identify California communities most affected by many pollution sources and where people are often especially vulnerable to pollution. The dataset uses environmental, health, and socioeconomic information to produce scores for every census tract in the state that is mapped using a scale based on the location's pollution burden. The higher the percentage, the greater the burden and the higher the likelihood of environmental justice concerns.

Location and Extent

Hazardous materials and chemicals are used daily in households and businesses throughout San Bernardino. In addition to the locations of large industrial uses, sources of hazardous materials can originate from seemingly harmless places such as service stations, dry cleaners, medical centers, and almost any industrial business. Hazardous waste can take the form of liquids, solids, contained gases, or sludge and can be the by-products of manufacturing processes or simply discarded commercial products, like cleaning fluids and pesticides.

In severe situations, San Bernardino may also be at risk of hazardous materials release events regionally. With the right prevailing wind conditions, airborne toxic material could spread to and impact various parts of the air basin, including the San Bernardino area.

Past Events

San Bernardino has experienced an average of 103 hazardous materials spills annually (2010-2021), reported to the Cal OES Spill Release Reporting database. Most of these incidents involve sewage and petroleum products. **Table 3-34** identifies the yearly releases reported to Cal OES during this period.

Risk of Future Events

Most release events within San Bernardino have occurred due to human error, malfunctioning equipment, or deliberate acts. Given this, future events within the City are anticipated to include incidents like the past occurrences identified. Based on the historical average data provided by Cal OES in **Table 3-34**, the City can expect approximately eight reported spills per month.

Climate Change Considerations

Climate-related natural hazard events, such as an intense flood, could cause hazardous material releases. These releases could occur due to traffic accidents associated with inclement weather, flooded roadway conditions, or leakage from storage containers due to intense weather events. Climate-related hazards could also exacerbate the effects and impacts of such events. For example, heavier rains could lead to more runoff from contaminated sites. Extreme heat could affect the storage of hazardous materials and is also a concern for the combustibility of these materials. These issues should be monitored during the 5-year implementation period of this plan.

Physical Threat

If released into the environment, hazardous materials can damage physical assets in San Bernardino. Corrosive hazardous materials can damage the exteriors of buildings or structures. Flammable hazardous

[41] California Office of Environmental Health Hazard Assessment. 2018. CalEnviroScreen 3.0 (updated June 2018). https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30

materials can be ignited and cause damage to nearby structures. Generally, sites closer to the origin of the release of the hazardous materials are more at risk than those further away.

Social Threat

The threat of a hazardous materials release event affects those closest to a source of hazardous materials, including industrial sites, gas stations, gas transmission lines, or sewer mains. San Bernardino residents living next to major transportation infrastructure such as highways or major roadways also face a greater risk of being affected by a hazardous materials release if vehicles transporting these materials accidentally release their contents into the environment. Groups such as the elderly, low-income, and renters face a greater risk of exposure since they may not have the financial resources necessary to retrofit their homes against infiltration by hazardous materials or relocate to a home farther from the potential sources of hazardous materials.

Other Threats

Hazardous materials release could threaten the city and regional transportation networks. Portions of the local road or rail networks may be closed to prevent people from entering areas contaminated with hazardous materials to allow remediation and cleanup activities to occur. If a highly corrosive hazardous material is released, it could cause significant damage to the exteriors of homes or businesses in the area or require evacuation. A similar issue occurred recently in Perris, CA, where hundreds of residents were required to evacuate their homes and businesses due to a release event. The City may experience additional personnel-related costs to coordinate the evacuation of a large area.

Changes in Population and Land Use Development

A change in population pattern would only occur if a hazardous materials release was severe enough to require people to move. It is unlikely that hazardous materials release will affect land use and development because the development review process will take steps to mitigate or minimize impacts from a hazardous materials release event. Locations that store, produce, and dispose of hazardous materials are highly regulated within the city and monitored regularly. It is not anticipated that land use and development patterns will change through this process and the development review process. The anticipated population growth in the City is not expected to significantly impact San Bernardino's vulnerability to hazardous materials release.

Human-Caused Hazards (Terrorism/Mass Casualty Incident, Cyber Threat, Civil Unrest)

Description

Terrorism/Mass Casualty Incident

Terrorism is the use or threat of force to achieve a particular social or political outcome. The goals of terrorism may sometimes be overturning a government, reversing a public policy, releasing political prisoners, and other such motives. Acts of terror may overlap with acts of war or hate crimes. Generally, terrorism involves an attempt to kill or seriously harm people or disrupt civil society by destroying property or infrastructure, attacking government operations at all levels, interrupting essential public services, creating chaos, or a combination of some or all these goals. Firearms and explosives are the most common weapons used among terrorists. In extreme situations, terrorists may gain access to mass destruction weapons, including bioweapons, chemical agents, radioactive materials, or high-yield explosives. It should be noted that these events are infrequent. While incidents of terror caused by foreign

individuals or groups receive significant media and public attention, most acts of terror in the United States have been caused by domestic terrorists.

A mass casualty incident describes an incident within the United States where emergency medical services resources, such as personnel and equipment, are overwhelmed by the number and severity of casualties. The more commonly recognized events of this type include building collapses, train and bus collisions, plane crashes, earthquakes, and other large-scale emergencies. The most common types are generally caused by terrorism, mass transportation accidents, or natural disasters. Events such as the Oklahoma City bombing in 1995, the September 11 attacks in 2001, and the 2017 Las Vegas Shooting are well-publicized examples of mass casualty incidents.

Cyber Threat

Cyber threats are when an individual or a group threatens or attempts to disrupt the operations and functioning of computer systems belonging to private citizens, religious groups, educational institutions, government agencies, or businesses. These threats include online harassment, hacking, or in-person tampering with electronic equipment. Successful cyber threats can lead to service disruptions, infrastructure damage, and theft and may cause injury or death in severe instances.

Civil Unrest

Civil unrest is an event when the normal operations of the city are either threatened or temporarily interrupted by violent protests, riots, shootings, and armed standoffs. Civil unrest can occur at a single time or be a string of related events. Property damage to businesses, government facilities, or homes can occur during these events. In extreme situations, death and injury may result from civil unrest.

Location and Extent

Terrorism/Mass Casualty Incident

Mass Casualty Incidents can occur anywhere, although public spaces and locations where many people congregate (parks, schools, places of worship, government facilities, shopping centers, and public gathering areas) are most common. Critical locations in San Bernardino may be the San Bernardino International Airport, event centers (i.e., National Orange Show Event Center), government facilities (i.e., City Hall), universities and colleges (California State University San Bernardino), schools, medical facilities, parks, and large employers within the city.

Acts of terrorism may occur at the locations listed above; however, perpetrators may also choose high-value targets such as electric-generating facilities, water treatment plants, dams or reservoirs, railroads, highways, and other facilities that could impact governmental operations and services. Mass Casualty Incidents and acts of terrorism are typically measured by the fatalities, injuries, and destruction they cause, but there is no universally used scale for measuring these events.

Cyber Threat

Since computers are so ubiquitous, a cyber threat could appear in virtually any part of the City. In extreme circumstances, a threat could impact the entire city. Cyber threats vary in their length and severity of impact. A minor threat could cause computer systems to slow down for a few minutes and not behave as responsively. On the other hand, a major cyber threat could cause a complete shutdown of critical systems, including those used by banks, healthcare institutions, universities, major businesses, and city governments.

Cyber threats are not measured on any scale, but they can be assessed by determining the following:

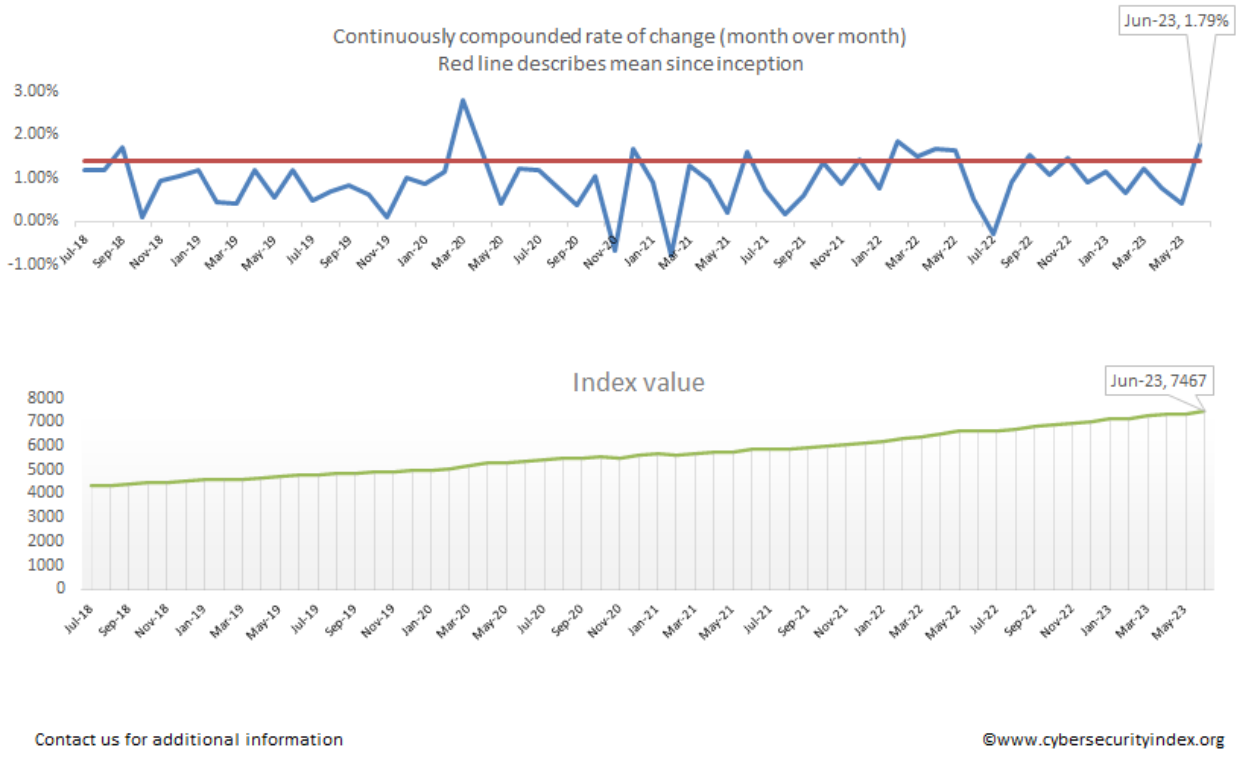
- The type of incident (website defacement, denial of service, unauthorized surveillance)
- The use of malicious software
- The level of security countermeasures that failed to prevent the cyber threat
- The duration of the cyber threat (a few hours, a few days, several weeks, etc.) [42]

Globally, cyber threats are increasing and becoming more sophisticated. The most common types of attacks include:

- Phishing
- Ransomware
- Intellectual Property Theft
- Spyware/Malware
- Unpatched Software

The Index of Cyber Security **(Figure 3-15)** can be referenced to understand the status of cyber threats, which identifies the measure of perceived risk. Since 2015, this index has trended upward and appears to have doubled in this timeframe.

Figure 3-15: Index of Cyber Security



[42] Mateski, M., C. Trevino, C. Veitch, J. Michalski, J. Harris, S. Maruoka, and J. Frye. 2012. "Cyber Threat Metrics." *Sandia National Laboratories*. https://fas.org/irp/eprint/metrics.pdf.

Civil Unrest

Civil unrest can arise at any time and place for various reasons. There are, however, some places where such events are more likely to emerge, including local, state, and federal government centers, jails, police stations, major businesses, university campuses, and places of public assembly. Many locations listed in the Terrorism/Mass Casualty Incident description above would also be locations for these types of incidents.

No definitive scale for measuring civil unrest events exists, but several metrics may be used individually to determine a civil unrest event's impact. These measures include:

- Number of facilities affected
- Number of fatalities
- Monetary loss
- Interruptions to communications infrastructure
- Number of people protesting
- Impacts to certain socioeconomic groups [43] [44]

Past Events

Terrorism/Mass Casualty Incident

Unfortunately, the city has experienced a terrorism/mass casualty incident in the recent past. On December 2, 2015, two shooters (a married couple) entered the Inland Regional Center during a training event and began shooting. This incident resulted in 14 people killed and 22 injured. Authorities determined this was a deliberate act of terrorism.[45]

The following are other acts of terrorism/mass casualty incident events that have occurred within San Bernardino County, California, and the Country:

- **1970** - Bombing of the Stanford Research Institute facility, which caused approximately $500,000 in property damage. No injuries or deaths occurred during this incident. [46]
- **1970** - Bombing of a Bank of America Branch, which caused approximately $500,000 in property damage. No injuries or deaths occurred during this incident. [47]
- **April 1995** - Timothy McVeigh detonated a bomb outside the Alfred P. Murrah Federal Building in Oklahoma City, OK. The blast was so powerful that the Federal Building was destroyed, and more than 300 nearby buildings were damaged or destroyed. The bombing killed 168 people, including 19 children. Timothy McVeigh's motive for bombing the Federal Building was to inspire a revolution against the federal government. [48]
- **September 11, 2001** -Terrorists hijacked four commercial airliners. The hijackers flew two planes into the Twin Towers at the World Trade Center in New York City and one into the Pentagon in

[43] Renn, O., et al. 2011. "Social Unrest." Organization for Economic Co-operation on Development. 14 January. https://www.oecd.org/gov/risk/46890018.pdf

[44] Cal OES (California Office of Emergency Services). 2018. 2018 State of California Multi-Hazard Mitigation Plan. https://www.caloes.ca.gov/cal-oes-divisions/hazard-mitigation/hazard-mitigation-planning/state-hazard-mitigation-plan

[45] Braziel, Rick, Frank Straub, George Watson, and Rod Hoops. "Bringing Calm to Chaos: A Critical Incident Review of the San Bernardino Public Safety Response to the December 2, 2015, Terrorist Shooting Incident at the Inland Regional Center." United States Department of Justice, 2016. https://cops.usdoj.gov/RIC/Publications/cops-w0808-pub.pdf.

[46] Global Terrorism Database. 2020. "1970-10-18". https://www.start.umd.edu/gtd/search/IncidentSummary.aspx?gtdid=197010180001

[47] Global Terrorism Database. 2020. "1970-10-26". https://www.start.umd.edu/gtd/search/IncidentSummary.aspx?gtdid=197010260001

[48] Federal Bureau of Investigation. Famous Cases and Criminals. https://www.fbi.gov/history/famous-cases/oklahoma-city-bombing

Arlington, VA. The fourth plane crashed in a field in rural Pennsylvania. The attacks on 9/11 killed 2,976 people and injured thousands more. [49]

- **April 15, 2013** - Two bombs detonated near the finish line of the Boston Marathon. The explosion killed 3 spectators and wounded more than 264 other people. Police captured 19-year-old Dzhokhar Tsarnaev in connection with the bombing; the second suspect, Tamerlan Tsarnaev, died following a shootout with law enforcement. Investigators concluded that the Tsarnaev brothers planned and carried out the attack independently and were not connected to any specific terrorist group. [50]
- **2014** - A teenager who had reportedly threatened terrorist action against the U.S. Open of Surfing event attendees was arrested. [51]
- **May 2015** - Two Anaheim-based men were arrested at a Transportation Security Administration checkpoint at the Los Angeles International Airport who had reportedly sworn allegiance to the Islamic State of Iraq and Syria (ISIS). One of these men, Muhanad Badawi, was a student at Fullerton College. [52]
- **October 2017** - Stephen Paddock opened fire on the Route 91 Harvest Festival concert from an elevated position at the Mandalay Bay Hotel in Las Vegas. The attack resulted in 58 people killed and 851 injured. Paddock shot and killed himself before responding officers reached him. The FBI Behavioral Analysis Unit determined no clear motivation for the attack. Although this attack did not occur in California, many California residents were affected, as more than half of the 58 people killed were from California. [53]
- **May 2022** – Payton S. Gendron opened fire with an illegally modified semi-automatic rifle at the Tops grocery store in Buffalo, New York. Ten people were killed, and three were wounded in the attack. Gendron pleaded guilty to terrorism and murder charges in the attack and was sentenced to life without the chance of parole. According to a document written by Gendron, the shooting was racially motivated, and he chose the location because it was in a particular area of the city that had the highest percentage of African Americans. [54]

Cyber Threat

The City of San Bernardino has not experienced any cyber incidents negatively impacting public services or safety. However, several jurisdictions in southern California and across the country have. Several recent incidents local to the City include:

- April 2023 – The San Bernardino County Sheriff's Department was hit with a cyberattack that likely started after someone clicked a malicious hyperlink. The Department recovered the data but shut down most of its systems, including email, internet, and many computers in its vehicles, out of precaution. County officials did not say if they paid a ransom for the data. [55]

[49] Federal Bureau of Investigation. Famous Cases and Criminals. https://www.fbi.gov/history/famous-cases/911-investigation
[50] History.com Editors. June 2019. Boston Marathon Bombing. https://www.history.com/topics/21st-century/boston-marathon-bombings
[51] Connelly, L., and S. Emery. 2014. "Teen Arrested for Terrorist Threats Toward US Open." Orange County Register. July 26.
[52] Winton, R. 2016. "Two O.C. Men Convicted of Conspiring to Fight with Islamic State." Los Angeles Times. June 21.
[53] Los Angeles Times Staff. "Las Vegas Shooting Victims: Portraits of the Fallen." October 2017. https://www.latimes.com/projects/la-na-las-vegas-shoot
[54] Morales, M., Levenson, E., and Sgueglia, K. "Buffalo Grocery Store Mass Shooter Pleads to Terrorism and Murder Charges in Racist Attack." CNN. November 2022. https://www.cnn.com/2022/11/28/us/buffalo-tops-grocery-shooting-payton-gendron-plea/index.html
[55] McMillan, Rob. "San Bernardino County Sheriff's Department Shuts down Internet Systems Following Recent Cyberattack." ABC7 Los Angeles, April 23, 2023. https://abc7.com/san-bernardino-cyberattack-ransomware-hyperlink/13176620/.

- December 2019 - The Cucamonga Valley Water District disclosed a data breach between August 26, 2019, and October 14, 2019. The breach occurred on a server used to accept one-time credit card payments from customers.
- October 2019 – Hackers infected San Bernardino City Unified School District servers with ransomware. The ransomware attack locked faculty and staff out of their emails and forced classes to proceed without Wi-Fi and other technology-based tools. Officials did not disclose the demands of the attackers.[56]

In addition, other recent, notable cybersecurity events in the US include the Colonial Pipeline incident, JBS (the world's largest meatpacker), and the Washington DC Metropolitan Police Department. These attacks have resulted in the shutdown or delay in critical services and functions, increasing the cost of goods/services, financial losses, and operational delays.

Civil Unrest

The following is a list of recent civil disturbances/riots:

- May 31, 2020 – What started as a protest over the death of George Floyd ended in rioting and looting that destroyed and vandalized businesses throughout the city. The gathering turned increasingly violent, and the San Bernardino Police Department announced a curfew that went into effect at 8 p.m. and lasted until sunrise the next day. [57]

Risk of Future Events

Terrorism/Mass Casualty Incident

Given that mass casualty incidents and acts of terrorism stem from a variety of factors: economics, societal pressures, mental health, global geopolitics, warfare, religion, etc.—it is impossible to predict when and where an incident could occur. It is anticipated that any future incidents would likely originate domestically and are less likely to attract the attention of international terrorist groups. Incidents of these types are more likely to be conducted by smaller organizations or individuals aligned with greater-known organizations, although the effects may be no less significant. Given the presence of this facility as well as a convention center, sports arena, large shopping center, numerous schools, and large employers within the city, the potential does exist for mass-casualty incidents/acts of terrorism.

Cyber Threat

Due to the integrated nature of technology into the everyday lives of San Bernardino's residents, businesses, and government operations, it is possible that a cyber threat could emerge in the future. While no cyber threats are publicly known to have disrupted the City's normal operations in the past, the likelihood of a cyber threat affecting the residents, businesses, and/or governmental operations in the future is increasing.

[56] Licas, Eric. "Hackers Hit San Bernardino School District with Ransomware Attack." San Bernardino Sun. San Bernardino Sun, October 21, 2019. https://www.sbsun.com/2019/10/20/hackers-hit-san-bernardino-school-district-with-ransomware-attack/.

[57] Atley, Richard K. De, and Joe Nelson. "San Bernardino Police Order Curfew after George Floyd Protest." San Bernardino Sun. San Bernardino Sun, June 1, 2020. https://www.sbsun.com/2020/05/31/hundreds-march-through-downtown-san-bernardino-in-george-floyd-protest/.

Civil Unrest

While civil disturbance events may be rare, there is still a possibility that they could occur in the future. Given that several recent civil disturbance events have occurred in the city, it is safe to assess that similar events could emerge in the future.

For all of these hazards, the combined future probability is greater than 90% each year, mainly due in part to the threat of cyber intrusion. This occurs on an ongoing basis. However, recent civil disturbance incidents during the COVID pandemic highlight the prevalence of this threat to the City. While terrorist/mass-casualty incidents are considered a low probability threat, due to the 2015 mass casualty incident and the City having several locations that could be targeted for these types of activities, there is an increase in concern associated with this type of incident.

Climate Change Considerations

Terrorism/Mass Casualty Incident

The link between mass casualty incidents/terrorism and climate change is not well understood. It has been suggested, however, that the impacts of a changing climate may exacerbate existing social, political, religious, and ethnic tensions. For example, longer, more intense droughts may restrict food supply or place limits on economic growth for cities, regions, or even whole countries. Nevertheless, the likelihood of climate change impacting mass casualty incidents/acts of terrorism in San Bernardino is negligible since these changes are more likely to impact developments on the national or international level.

Cyber Threat

Climate change is not likely to impact cyber threats in the future within San Bernardino.

Civil Unrest

Climate change is not likely to impact future civil disturbances in San Bernardino.

Physical Threat

Terrorism/Mass Casualty Incident

There is no way to predict which of San Bernardino's facilities or assets may be impacted by an act of terrorism since the motivation behind the incident is often complex and not easily understood. Generally, these incidents occur at places of political, economic, or cultural importance. If the perpetrator's motives are to shut down city or regional government activity for a period, they may instead target pieces of infrastructure, like water systems, utility delivery systems, or transportation networks. The financial losses that may result from this type of incident would depend on the degree of destruction associated with the activity. If the incident involves the destruction of physical assets, the cost to the City or property owners in San Bernardino could be significant.

Cyber Threat

Cyber threats would have a limited impact on physical assets. The extent of this impact would focus on City-owned computer and network infrastructure.

Civil Unrest

Like mass-casualty incidents, civil disturbance threats to physical assets are hard to predict. Typically, these incidents involve protests, marches, or celebrations that can become destructive or violent incidents (i.e., riots), causing property damage. Impacts associated with these incidents would likely initiate at the site of origin, which usually occurs at places of political, economic, or cultural importance.

Social Threat

Terrorism/Mass Casualty Incident

Since mass casualty incidents/acts of terrorism could occur anywhere in San Bernardino, all groups are potentially threatened by the impacts of these incidents; however, the extent of the threat would depend upon the type and magnitude of the event. For example, an active shooter situation may be isolated to a single location, whereas a larger-scale incident may affect multiple locations. Some locations are more likely to be targeted than others, including but not limited to medical facilities, government buildings, financial institutions, San Bernardino International Airport, and the National Orange Show Event Center. Populations that frequently visit these areas may face a greater threat than the average person. Seniors, pregnant women, and persons with disabilities, for instance, are more likely to frequently visit the local hospitals than other subpopulations in the city. If an incident occurs at the hospital or within the community (overwhelming hospital resources), these groups are expected to face an increased impact from the incident.

An incident at a government building or financial institution may be more likely to threaten seniors or lower-income individuals relying on in-person transactions instead of online options. As such, their use of these in-person services may place them in harm's way. An incident at San Bernardino City Hall or bank locations in the city can be expected to be more of a threat to these groups. Seniors and persons with limited income may be challenged if there is a need to shelter in place or evacuate during an incident requiring additional services, assistance, and/or medical treatment.

Cyber Threat

Cyber threats may have an impact on residents and businesses throughout the City. While most cyber threats focus on large entities like major corporations and/or government agencies, all residents could become victims of cyber threats. If services affected by cyber incidents become delayed or are impacted, populations that rely on those services may be negatively impacted if no alternatives exist.

Civil Unrest

Since civil disturbance could occur anywhere in San Bernardino, all groups are potentially threatened by the impacts of these incidents. While most residents affected by a civil disturbance would be able to recover from the incident, residents on fixed incomes or living below the poverty limit may have difficulty doing so if damage to their residence or property were to occur.

Other Threat

Cyber Threats

The greatest impact a cyber threat could present to the City itself would be a complete shutdown of city services and programs. Electricity, gas lines, and water could be shut off for extended periods if a cyber threat compromised the control systems. Additionally, control over streetlights, traffic lights, and railroad crossings could be lost. To the average citizen, personal information, identity, and financial records could be stolen. As society becomes more and more technologically ingrained/dependent, the ever-evolving category of cyber threats will continue to change and grow in possible impact.

Changes in Population Patterns and Land Use Development

The hazards identified under human-caused hazards will not affect population patterns or land use and development, as no connection can be drawn between these hazards and changes in population patterns or land use and development.

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Chapter 4 – Hazard Mitigation Strategy

Strategy Development Process

San Bernardino's hazard mitigation strategy is a comprehensive set of actions intended to reduce hazard events' impacts. These hazard mitigation actions will help to protect the safety and well-being of residents and visitors, CFs and FOC, other buildings and structures, key services, the local economy, and other important community assets. Some actions will also help with emergency preparedness, allowing for a more effective community response to hazard events. Preparedness actions are not required for an LHMP, but they support and complement mitigation activities. The HMPC included them as part of the overall hazard mitigation strategy.

Use of Hazard and Threat Assessment

The HMPC relied in part on the hazard profiles and threat assessments in this Plan to develop the actions in the mitigation strategy. A comprehensive set of mitigation actions that respond to the relevant hazard situations and protect San Bernardino residents, businesses, and community assets were prepared. The HMPC ensured that the mitigation actions would help reduce damage from the most frequent types of hazard events, the most significant that may reasonably occur, and those with the greatest potential to harm the community. The HMPC also drafted mitigation actions that will help protect the community's most vulnerable members and local assets.

Capabilities Assessment

As part of the effort to draft mitigation actions, the City completed a capabilities assessment, which included a review of existing policies, personnel, and technical resources that can support hazard mitigation activities in San Bernardino. The hazard mitigation actions build off the existing success of these resources and leverage their capabilities to support improved resiliency in the community. The capabilities assessment looked at the following types of resources:

- **Personnel resources:** City employees and volunteers, and employees and volunteers at other agencies
- **Plan resource:** Advisory or enforceable plans adopted by the City or other agencies.
- **Policy resource:** Policies adopted and implemented by the City or other agencies
- **Technical resource:** Data and tools available to the City
- **Financial resource:** Funding mechanisms available to the City that support mitigation activities

Capabilities Improvement/Expansion

The ability to expand current mitigation capabilities will generally be reliant upon the budgeting allocated for each department/program for that fiscal year. The level at which these programs may or may not be expanded upon will depend on the amount of funding received. FEMA has released a series of guides over the past few years highlighting some ways jurisdictions can expand mitigation. Some strategies for increasing current mitigation capabilities may include:

1. The City should actively identify, adopt, and enforce the most current set of development codes and standards available. Strongly encouraging new developments to be constructed to higher standards than currently required increases community resilience.
2. Engaging parts of the community that may not be actively involved in mitigation efforts.
3. Expanding the number and types of organizations involved in mitigation planning and implementation increases efficiency and bandwidth.
4. Fostering new relationships to bring underrepresented populations and partners to the hazard mitigation planning process.
5. During the annual LHMP review, the HMPC should look for opportunities to fund and expand/enhance the effectiveness of current mitigation actions.
6. During annual budgeting processes, the City should identify new funding sources (bonds, grants, assessment districts, etc.) that can be used to support existing capabilities enhancements.

Tables 4-1a-d show the capabilities assessment for San Bernardino. Within each resource described, a section titled "Expansion and Improvement" is provided, which helps the City recognize specific areas where each capability may be modified to align with mitigation priorities and actions to be taken in the future.

Table 4-1a: City of San Bernardino Capabilities Assessment

Local Legal and Regulatory Capabilities

Resource Name	Version/ Date	Hazards Addressed	Description (Effect on Hazard Mitigation)
San Bernardino 2050 (General Plan) Safety Element	2050 / Pending Adoption	All	The 2050 Plan identifies potential hazards: • Provides background on the history of hazards and the likelihood of future changes to these hazards. • Provides policies that increase the resilience of residents, businesses, workers, and visitors. • Provides policies to reduce the level of property loss due to a potential disaster. • Provides a framework for emergency management. Expansion and Improvement: The HMP will be informed by referencing the Safety Element of the General Plan. The City will adopt the approved HMP as part of the General Plan Safety Element to meet the requirements of AB 2140.
San Bernardino 2050 (General Plan) Land Use Element	2050 / Pending Adoption	Seismic, Fire, Flood, Wind	The Land Use Element is a guide to the ultimate development pattern for the city, both within its incorporated boundaries and sphere of influence. The Land Use Element: • Designates the distribution, location, and balance of land uses. • Describes the desired build-out of San Bernardino • Describes building intensity standards for each land use. • Communicates population density. • Ensures compatibility between land uses. The draft Land Use Plan may be found at the following link: https://futuresb2050.com/project-overview/proposed-land-use-plan/

Table 4-1a: City of San Bernardino Capabilities Assessment			
Local Legal and Regulatory Capabilities			
Resource Name	**Version/ Date**	**Hazards Addressed**	**Description (Effect on Hazard Mitigation)**
			Expansion and Improvement: Focus on balancing community needs and ensuring compatibility of uses and development patterns.
California Standards Building Code	2022	Seismic, Fire, Flood, Wind	The California Building Standards Code is a compilation of three types of building standards from three different origins: • Building standards that state agencies have adopted without change from building standards contained in national model codes; • Building standards that have been adopted and adapted from national model codes to address California's ever-changing conditions; and • Building standards, authorized by the California legislature, constitute amendments not covered by national model codes that have been created and adopted to address California concerns. Expansion and Improvement: Adherence to building codes, including local codes, regulates growth and controls land use patterns. As codes are updated, addressing known hazards lowers risk and potentially fewer losses.
San Bernardino City Municipal Code – Title 15 Building and Construction	2022	All	The purpose of the Building and Construction Code is to implement the San Bernardino City General Plan by classifying and regulating the uses of land and structures. It addresses earthquake and fire safety of structures, historic preservation, and compliance with California and Uniform Building Code regulations. The full code can be found at: https://www.sbcity.org/city_hall/city_clerk/municipal_code Expansion and Improvement: Building code policies should inform the HMP and the General Plan Land Use Element to guide developing structures that are compatible with and able to withstand hazards.
San Bernardino City Municipal Code – Title 19 Land Use/Subdivision Regulations	2022	All	The purpose of this section of the Municipal Code is to promote public health, safety, and general welfare and preserve and enhance the aesthetic quality of the City by providing regulations to ensure an appropriate mix of land uses in an orderly manner. Expansion and Improvement: Understanding land use policy and regulatory requirements is essential to developing mitigation strategies and activities. The land use components of the City Code will inform the development of the HMP mitigation actions.
City Emergency Operations Plan	2015	All	Explains how the City will respond to a major emergency or disaster and coordinate between the Emergency Operations Center (EOC) and field-level Incident Commanders; includes the hazards with a description of each; the concept of operations during a major emergency or disaster; the role of the EOC, and the coordination that occurs between the EOC and County's departments and other local, state, and federal governments in times of disaster. Expansion and Improvement: The hazards section of the Emergency Operations Plan (EOP) is informed by the HMP as the two are closely correlated.

Table 4-1a: City of San Bernardino Capabilities Assessment			
Local Legal and Regulatory Capabilities			
Resource Name	**Version/ Date**	**Hazards Addressed**	**Description (Effect on Hazard Mitigation)**
National Flood Insurance Program	Current	Flood	NFIP makes federally backed flood insurance available to homeowners, renters, and business owners in participating communities. The City will continue participating in the NFIP program and make changes accordingly. Expansion and Improvement: City websites and social media accounts will include information on the value of flood insurance for properties located in flood hazard areas and how to buy the insurance.
Regional Greenhouse Gas Reduction Plan	2021	Climate change, Drought, Excess Heat, Wildland fire, Flood, High winds/Tornado/ Severe storm	This is a Greenhouse Gas Reduction document for the County to help achieve its goals of reducing greenhouse gases that contribute to climate change impacts. The plan may be found at the following link: https://www.gosbcta.com/plan/regional-greenhouse-gas-reduction-plan/ Expansion and Improvement: The HMP and Regional Greenhouse Gas Reduction Plan should be closely correlated. As the Climate Action Plan is updated, mitigation measures from the new HMP can be incorporated.

Table 4-1b: City of San Bernardino Capabilities Assessment		
Administrative and Technical Capabilities		
Resource Name	**Lead Department**	**Description (Effect on Hazard Mitigation)**
Planning Division	Community and Economic Development Department	Oversees the City Building Code, Zoning Code, General Plan, and Specific Plans. Able to apply for grants (Grant Writer). Expansion and Improvement: Provide opportunities for continued education to Community Development staff to maintain state-of-the-art knowledge of new code and regulatory requirements.
Code Enforcement Division	Community and Economic Development Department	Code Enforcement administers programs designed to protect the public's safety, welfare, and property value through enforcement of San Bernardino City ordinances and State/Federal laws relating to land use, zoning, housing, public nuisances, and vehicle abatement within the unincorporated areas of the County. Expansion and Improvement: Provide opportunities for continued education to Code Enforcement staff to maintain state-of-the-art knowledge of new code and regulatory requirements.
Building and Safety Division	Community and Economic Development Department	Building and Safety's primary responsibility is the enforcement of Building Standards. These standards include the California Building, Electrical, Plumbing, Mechanical, and Energy Codes and Disabled Access Regulations in Title 24 of the California Code of Regulations. Expansion and Improvement: Provide continued education opportunities to Building and Safety staff to maintain state-of-the-art knowledge of new code and regulatory requirements.
Public Safety Officers	Police Department	Preserves the quality of life throughout the community by enforcing the adopted local codes and ordinances that govern the proper use and maintenance of private properties.

Table 4-1b: City of San Bernardino Capabilities Assessment		
Administrative and Technical Capabilities		
Resource Name	**Lead Department**	**Description (Effect on Hazard Mitigation)**
		Expansion and Improvement: Provide training to Officers to better enable them to see potential hazards and take action to report them.
Floodplain Manager	San Bernardino County Director of Public Works	The duties and responsibilities of the Floodplain Administrator shall include, but not be limited to: • Permit review • Flood hazard reduction • NFIP program administration • Construction inspections Expansion and Improvement: The Floodplain Administrator supports compliance with NFIP requirements, advocates for appropriate development in flood hazard areas, and provides technical expertise on effective flood mitigation activities. This can support mitigation activities.
Planning Commission	Community and Economic Development	This nine (9) member Commission, established under Municipal Code Chapter 2.22, is tasked with advising the Mayor, City Council, and City staff on the city's physical development, including zoning, building, land use, and related matters. The Planning Commission is responsible for reviewing proposed residential and commercial development projects, subdivisions, and land use requests on private property, to determine their compliance with applicable City regulations. The Commission has the authority to approve various development projects that comply with County requirements. In addition, the Commission makes recommendations to the City Council with respect to the City's General Plan, Zoning Code, Specific Plans, and other matters related to development within the County. The Commission may be responsible for implementing mitigation items pertaining to the Commission's scope. Expansion and Improvement: Provide opportunities for continued education to members of the Planning Commission to maintain state-of-the-art knowledge of new code and regulatory requirements.
Mountain Area Safety Taskforce (MAST)	California Department of Forestry	MAST is a coalition of local, state, and federal government agencies, private companies, and volunteer organizations in San Bernardino County concerned with public safety in the mountain areas of their respective jurisdictions. Expansion and Improvement: Continue to map and monitor areas for recent wildfire events to know and understand where mudslides and landslides can occur.
City Attorney	City Manager's Office	Reviews and approves resolutions and ordinances. Expansion and Improvement: Provide opportunities for the City Attorney to review updates to regulatory information to provide expert review of County resolutions and ordinances that may address hazard mitigation.
Southern California Association of Governments (SCAG)	SCAG	Functions as the Metropolitan Planning Organization for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. As the designated Metropolitan Planning Organization, the federal government mandates the Association of Governments to research and draw up plans for transportation, growth management, hazardous waste management, and air quality. Expansion and Improvement: Attend SCAG meetings. Continue to participate in SCAG-sponsored programs. Routinely coordinate with SCAG staff to stay informed of current planning initiatives.

Table 4-1b: City of San Bernardino Capabilities Assessment		
Administrative and Technical Capabilities		
Resource Name	**Lead Department**	**Description (Effect on Hazard Mitigation)**
GIS	Information Technology Department	Provides complex mapping and data management of City facilities, land use, and potential hazards. Supports visualization of complex data sets using geo-location and data correlation. Expansion and Improvement: Acquire and conduct training for GIS technicians on the latest versions of ArcGIS.
Inland Empire Emergency Communications Services	County OES	The Inland Valley Emergency Communications Service (IVECS) is the City's and other partnering agencies' amateur radio group. IVECS' mission is to support emergency communications between the community and government during incidents, events, or emergencies within the Inland Empire. IVECS service is authorized in Part 97.407 of the Federal Communications Commission (FCC) rules and regulations governing amateur radio in the United States. The primary mission and purpose of the IVECS is to support emergency communications during periods of local, regional, or national emergencies. By providing Fire and Police communication back-up with an amateur radio system, the integrity of public safety services is ensured. Expansion and Improvement: Continue to recruit amateur radio operators. Conduct preparedness exercises to provide proficiency in supporting emergency response.
Information Technology	Information Technology Department	The role of the IT Department is to support the operational departments with reliable systems and information daily. The most critical support required of IT is network, communications, and applications support. The IT department provides short- and long-term direction in planning, researching, selecting, and deploying future technologies. IT strives to accommodate improved business process automation, self-service, and quality customer service through various hardware and software solutions. Expansion and Improvement: Increase system redundancy and resiliency through improvements to technologies and connectivity.
Emergency Management	Police Department	Develops, coordinates, and manages programs that prevent, prepare for, respond to, recover from, and mitigate natural and human-caused disasters and emergencies. Expansion and Improvement: Increase coordination and collaboration with other City departments, especially during annual budgeting.
Fire Department	San Bernardino County Fire District	Effective July 1, 2016, Division 2 of the San Bernardino County Fire District provides fire protection and emergency medical response services. Expansion and Improvement: Proactively identify opportunities to coordinate and collaborate with neighboring jurisdictions to increase City and region-wide capabilities.
Public Works	Public Works Department	The City of San Bernardino Public Works Department is responsible for maintaining and improving the City's vital infrastructure, including streets, sidewalks, parks, landscaping, sewers, storm drains, and public facilities. Services are divided into four divisions: Engineering, Facilities and Fleet Maintenance, Integrated Solid Waste Management, and Operations and Maintenance. These services include maintenance of public buildings and facilities, landscaping and park upkeep, street and sidewalk maintenance and repair, storm drain and sewer servicing, and graffiti abatement.

Table 4-1b: City of San Bernardino Capabilities Assessment		
Administrative and Technical Capabilities		
Resource Name	**Lead Department**	**Description (Effect on Hazard Mitigation)**
		Expansion and Improvement: Improve the understanding of the role that daily activities play in hazard mitigation.

Table 4-1c: City of San Bernardino Capabilities Assessment		
Financial Resources		
Financial Resource	**Administrator**	**Description (Effect on Hazard Mitigation)**
General Fund	Department Specific	Program operations and specific projects. Consists of property tax, sales tax, transient occupancy tax, and franchise tax that can be used for general purposes. Expansion and Improvement: Hazard mitigation projects may be considered during the annual budgeting process for funding from the general fund.
Enterprise Funds	Fund specific	The City operates a variety of Special Revenue Funds. Special Revenue Funds are used to account for revenue derived from specific taxes or other revenue sources that are restricted by law or administrative action to be expended for specified purposes. Expansion and Improvement: Where permissible, Special Revenue Funds may be considered during the annual budgeting process for funding mitigation projects.
Community Development Block Grants (CDBG)	U.S. Department of Housing and Urban Development	The CDBG program provides funding for eligible senior activities such as in-home care, art classes, counseling, and home-delivered meals. HUD also provides Disaster Recovery Assistance in the form of flexible grants to help cities, counties, and States recover from Presidentially declared disasters, especially in low-income areas, subject to the availability of supplemental appropriations. Expansion and Improvement: Where applicable, CDBG grants should be used to fund mitigation projects that enhance the resiliency of low-income and underserved communities.
Hazard Mitigation Grant Program (HMPG)	Emergency Management	Provides support for pre-and post-disaster mitigation plans and projects. Expansion and Improvement: Train staff on notice of intent (NOI) procedures and track opportunities on the Cal OES mitigation website to initiate applications for grant funding.
Building Resilient Infrastructure and Communities (BRIC)	Grant Funding	Provides support for pre-disaster mitigation plans and projects. Expansion and Improvement: Train staff on notice of intent (NOI) procedures and track opportunities on the Cal OES mitigation website to initiate applications for grant funding.
Flood Mitigation Assistance grant program (FMA)	Grant Funding	Mitigates structures and infrastructure that have been repetitively flooded. Expansion and Improvement: Train staff on notice of intent (NOI) procedures and track opportunities on the Cal OES mitigation website to initiate applications for grant funding.
Special Use Funds		Program operations and specific projects. Consists of property tax, sales tax, transient occupancy tax, and franchise tax that can be used for general purposes. Expansion and Improvement: Hazard mitigation projects may be considered during the annual budgeting process for funding from the general fund.

Table 4-1d: City of San Bernardino Capabilities Assessment		
Education and Outreach Resources		
Name	**Lead Organization**	**Description (Effect on Hazard Mitigation)**
FEMA https://www.ready.gov/	FEMA	Provides free preparedness materials from FEMA's online ordering platform. Contains a link to the FEMA readiness app. Expansion and Improvement: Provide a link to the site on the County web page and Facebook account.
City of San Bernardino Office of Emergency Services Webpage https://www.sbcity.org/City_Hall/Police_Department/Emergency_Management	Police Department	Responsible for the comprehensive development and implementation of the four phases of emergency management. Expansion and Improvement: Expand and reorganize the website's disaster preparedness links page.
San Bernardino County Emergency/Disaster Readiness web site https://sbcfire.org/publiceducation/	San Bernardino County Fire Protection District	The San Bernardino County Fire website has educational material on making an emergency plan, stocking supplies, staying informed, and getting involved. Expansion and Improvement: Provide links to the County website on the County's website. Post material on social media accounts that provide a link to the appropriate County website page.
Cal OES Family Readiness Guide https://www.caloes.ca.gov/wp-content/uploads/Preparedness/Documents/Cal_OES_Family_Readiness_GuideENG.pdf	Cal OES	The Guide provides a comprehensive toolkit for making a family emergency plan. Expansion and Improvement: Provide a link to the Readiness Guide on the County website and Facebook account.
City Community Emergency Response Team (CERT)	Police Department	The City of San Bernardino's Community Emergency Response Team (CERT) Program educates people about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. Expansion and Improvement: Include material in CERT Newsletter that provides updates to progress in the mitigation action plan and contains links to the appropriate website page.
Telephone Emergency Notification System	San Bernardino Sheriff's Department	San Bernardino County Sheriff and Fire Departments send high-speed mass notifications via telephone and text. This system can be targeted to specific geographic areas. Expansion and Improvement: Continue to conduct outreach to expand the database and increase the percentage of residents who are subscribers.
City Website https://www.sbcity.org/	IT Department	Provide alert and warning information. Provide weather information and other public safety. Contains information on home and individual preparedness.

And social media accounts: **Facebook:** https://www.facebook.com/sbcitygov/ **X (formerly known as Twitter):** https://twitter.com/sbcitygov **Instagram:** https://www.instagram.com/sbcitygov/?hl=en	Expansion and Improvement: Link to FEMA, State and County websites, and social media accounts. Provide comprehensive personal/family preparedness information on these media.

Hazard Mitigation Strategies and Actions

Hazard Mitigation Goals

The goals identified in Chapter 1 help develop policies to protect community members, ecosystems, and other important assets from hazard events. These goals were developed to ensure consistency with the San Bernardino Plan 2050 Safety Element, which plays an important role in risk reduction within San Bernardino. These goals informed the development of mitigation actions and acted as checkpoints to help City staff determine implementation progress.

Evaluation of Potential Hazard Mitigation Actions

Based on the hazard profiles, threat assessment, capabilities assessment, community survey results, discussions among HMPC members, and existing best practices, a set of potential mitigation actions was developed and then evaluated based on the following criteria:

- FEMA requires local governments to evaluate potential mitigation actions' monetary and non-monetary costs and benefits. Although local governments are not required to assign specific dollar values to each action, they should identify the general size of costs and benefits.
- The HMPC may elect to include measures with a high cost or low benefits, but such measures should be clearly beneficial to the community and appropriate use of local resources.

In addition, FEMA directs local governments to consider the following questions as part of the financial analysis:

- What is the frequency and severity of the hazard type to be addressed by the action, and how vulnerable is the community to this hazard?
- What impacts of the hazard will the action reduce or avoid?
- What benefits will the action provide to the community?

The HMPC also chose to review and revise the potential hazard mitigation actions using a third set of criteria (**Table 4-2**), known as STAPLE/E (Social, Technical, Administrative, Political, Legal, Economic, and Environmental). The HMPC did not formally assess every potential mitigation action under all STAPLE/E criteria but used the criteria to guide and inform the discussion. A discussion also occurred regarding how the criteria might be used to evaluate grant applications the City may submit in the future as part of plan implementation.

Table 4-2: STAPLE/E Criteria	
Issues	**Criteria**
Social	• **Is the action socially acceptable to community members?** • **Would the action mistreat some individuals?** • **Is there a reasonable chance of the action causing a social disruption?**
Technical	• **Is the action likely to reduce the risk of the hazard occurring, or will it reduce the hazard's effects?** • **Will the action create new hazards or make existing hazards worse?** • **Given the City and community members ' goals, is the action the most useful approach for the City to take?**
Administrative	• **Does the City have the administrative capabilities to implement the action?** • **Can existing City staff lead and coordinate the measure's implementation, or can the City reasonably hire new staff for this role?** • **Does the City have enough staff, funding, technical support, and other resources to implement the action?** • **Are there administrative barriers to implementing the action?**
Political	• **Is the action politically acceptable to City officials and other relevant jurisdictions and political entities?** • **Do community members support the action?**
Legal	• **Does the City have the legal authority to implement and enforce the action?** • **Are there potential legal barriers or consequences that could hinder or prevent the implementation of the action?** • **Is there a reasonable chance that the implementation of the action would expose the City to legal liabilities?** • **Could the action reasonably face other legal challenges?**
Economic	• **What are the monetary costs of the action, and do the costs exceed the monetary benefits?** • **What are the start-up and maintenance costs of the action, including administrative costs?** • **Has the funding for action implementation been secured, or is a potential funding source available?** • **How will funding the action affect the City's financial capabilities?** • **Could the implementation of the action reasonably burden the City's economy or tax base?** • **Could there reasonably be other budgetary and revenue impacts on the City?**
Environmental	• **What are the potential environmental impacts of the action?** • **Will the action require environmental regulatory approvals?** • **Will the action comply with all applicable federal, state, regional, and local environmental regulations?** • **Will the action reasonably affect any endangered, threatened, or otherwise sensitive species of concern?**

Cost Estimates

To meet the cost estimation requirements of the hazard mitigation planning process, the HMPC identified relative cost estimates based on their understanding of the mitigation action intent and their experience

developing identical or similar programs/implementing projects. Three cost categories based on the City's typical cost criteria were used for budgeting purposes:

- Low cost ($): $49,999 or less
- Medium cost ($$): $50,000 to $999,999
- High cost ($$$): Greater than $1,000,000

Based on the criteria and evaluation processes used during Plan development, the HMPC prepared a prioritized list of mitigation actions to improve San Bernardino's resilience to hazard events. **Table 4-5** lists the mitigation actions, the prioritization of each action, and other details related to implementation. In addition to mitigation action and strategies, several preparedness activities were identified and denoted with the letter "P."

2016 Mitigation Action Progress

A review of the mitigation actions from the 2016 San Bernardino LHMP has identified where the City has integrated these strategies into standard procedures and practices. For those actions that were not successfully implemented and remain relevant to the City, this Plan update incorporates these actions into the current mitigation action table, as displayed in **Table 4-5 (shaded in blue)**. All actions from the 2016 LHMP were carried over to this plan.

2024 Hazard Mitigation Strategies and Actions

Table 4-5 identifies the 2024 mitigation strategies and actions proposed by the City as part of this LHMP update process. In addition to the list of actions, the table also identifies potential funding sources, responsible departments, relative cost estimates, timeframes, and priorities for these actions, which are described further below. In addition to mitigation action and strategies, several preparedness activities were identified and denoted with the letter "P."

Potential Funding Sources

In addition, **Table 4-5** lists the mitigation actions, prioritization of each action, and other details related to implementation, including potential FEMA funding sources such as:

Building Resilient Infrastructure and Communities (BRIC): A competitive FEMA grant program to support states, local communities, tribes, and territories.

Flood Mitigation Assistance Program (FMA): A competitive grant program that provides funding to states, local communities, federally recognized tribes, and territories. Funds can be used for projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program.

Hazard Mitigation Grant Program (HMGP): Provides funding to state, local, tribal, and territorial governments to rebuild in a way that reduces or mitigates future disaster losses in their communities. This grant funding is available after a presidentially declared disaster.

Other Grants: Other grants may include State of California grants associated with climate change, water infrastructure, homeland security, transportation, or other funding sources that periodically become available. The list below provides some common sources:

1. Climate Adaptation Planning Sustainable Transportation Planning Grant Program - Department of Transportation
2. Sustainable Communities Competitive – Department of Transportation
3. CAL FIRE Wildfire Prevention Grants Program – Department of Forestry and Fire Protection
4. Integrated Climate Adaptation and Resiliency Program's Climate Adaptation Planning Grant – Office of Planning and Research
5. Small Community Drought Relief Program – Department of Water Resources
6. Addressing Climate Impacts – Department of Fish and Wildlife
7. Cleanup Loans and Environmental Assistance to Neighborhoods (CLEAN) Program – Department of Toxic Substances Control
8. Clean Water State Revolving Fund (CWSRF) Program Construction – State Water Resources Control Board
9. Drinking Water State Revolving Fund (DWSRF) Construction – State Water Resources Control Board
10. Water Recycling Funding Program (WRFP) Construction Grant – State Water Resources Control Board
11. Equitable Community Revitalization Grants (ECRG) – Department of Toxic Substances Control
12. Water Recycling Funding Program (WRFP) Planning Grant – State Water Resources Control Board
13. Infrastructure State Revolving Fund (ISRF) Program - Infrastructure and Economic Development Bank

TIMELINES

In addition, the timeframes identified in **Table 4-5** may indicate a particular year to initiate the implementation of the action or, in some instances, use the terms “Ongoing” or “Annually.” For actions that use these terms, it is intended to identify that the action may add to existing capabilities and not have a particular start or end date or occur periodically. This is typically used for actions that include new policies, tasks, or standard operating procedures intended to mitigate future risks.

- **Ongoing (Annually)**: Actions that identify this timeframe are the types of actions that City staff would conduct on an annual basis.
- **Ongoing (As Needed)**: Actions that identify this timeframe include activities that City staff would conduct in response to a request by internal (City Departments) or external (Property Owners) forces.
- **Future Planning Process**: Actions identified within this timeframe are considered low-priority actions that the City would like to continue to track but does not feel they would be able to implement in the current planning implementation timeframe.

For actions that use these terms, it is intended to identify that the action may add to existing capabilities and not have a particular start or end date or occur periodically. This is typically used for actions that include new policies, tasks, or standard operating procedures intended to mitigate future risks.

Prioritization

As part of the mitigation actions development and review, the HMPC also prioritized the actions. The prioritization efforts looked at the risks and threats from each hazard, financial costs and benefits, technical feasibility, and community values, among others. HMPC members were asked to identify their priority actions through a voting exercise. Items prioritized by at least three HMPC members are

considered a high priority, and those prioritized by one or two members are considered a medium priority. Actions not prioritized by any HMPC member are considered a low priority.

National Flood Insurance Program

San Bernardino participates in the National Flood Insurance Program (NFIP), created by Congress in 1968 to provide flood insurance at subsidized rates to homeowners living in flood-prone areas. Individual communities have the option to participate in the NFIP, although property owners who live in nonparticipating communities with flood-prone areas will not be able to buy flood insurance through the program. Additionally, nonparticipating communities with mapped floodplains cannot receive federal grants or loans for development activities in flood-prone areas and cannot receive federal disaster assistance to repair flood-damaged buildings in mapped floodplains. San Bernardino has participated in NFIP since it was first deemed eligible. **Table 4-3** provides the City's NFIP information.

Table 4-3: City of San Bernardino NFIP Information	
Initial Flood Hazard Boundary Map (FHBM)	*6/28/1974*
Initial Flood Insurance Rate Map (FIRM)	*7/16/1979*
NFIP Participation Date	*7/16/1979*
Current Effective map Date	*9/2/2016*

Although participation is not a dedicated hazard mitigation action, San Bernardino will continue to participate in NFIP and comply with the program's requirements through continued enforcement of the City's Floodplain Management Regulations (Municipal Code Chapters 8.79: Floodplain Management and 19.16: FP (Flood Plain Overlay) Zone)). These regulations apply to all areas of special flood hazards, flood-related erosion hazards, and mudslide (i.e., mudflow) hazards within the City. These regulations aim to promote public health, safety, and general welfare and minimize public and private losses due to flood conditions. This chapter also includes methods of reducing flood losses, the basis for establishing flood hazard areas, development permit requirements, duties and responsibilities of the City's Floodplain Administrator, the development standards that apply in flood-prone areas and required documentation and analysis for construction within these areas. As part of the City's efforts to comply with NFIP, San Bernardino will make updates and revisions to these regulations periodically to ensure they are most effective at minimizing the threat of harm from flood events. These updates and revisions may be promoted by changes in local demographics, shifts in land use, changes to flood regimes such as frequency and intensity of flood events, and other factors that may warrant municipal action. The City will also continue to incorporate any changes to the locations and designations of mapped floodplains into future planning documents, including future updates to this Plan. **Table 4-4** provides the City's floodplain management regulations.

Table 4-4: City of San Bernardino Floodplain Management Regulations	
Adoption of Minimum Floodplain Management Criteria, and Implementation and Enforcement of Floodplain Management Regulations	Ord. MC-1551. Adopted December 7, 2020 Ord. MC-1393. Adopted December 2, 2013
Designee to Implement NFIP	8.79.030 - Designation of the Floodplain Administrator. The City Engineer fulfills this role.
Implementation of Substantial Improvement/ Substantial Damages Provisions	8.79.170 – Substantial Improvement and Substantial Damage Determinations
Note: Ordinances are hyperlinked to Municipal Code Section	

The City of San Bernardino contains Special Flood Hazard Areas with 100 policies in force, with approximately $117,624 in premiums. Total insurance coverage for these policies amounts to $35,621,800. According to FEMA, a total of 140 closed paid losses have occurred, totaling $931,447; however, only two repetitive loss properties (one residential and one other-nonresidential) and no severe repetitive loss properties were identified by FEMA.

Table 4-5: Mitigation Action Implementation Plan (Mitigation Actions from the 2016 San Bernardino LHMP are highlighted in blue)						
Mitigation Action		**Potential Funding Sources**	**Responsible Department**	**Relative Cost***	**Time frame**	**Priority**
Preparedness Activities						
P1	Conduct regular emergency preparedness drills and training exercises for City staff.	General Fund, Homeland Security Grants	Emergency Management (EM)	$	Ongoing (Annually)	High
P2	Continue to support the expansion of Red Cross Agreements with public agencies (City, School Districts) and private entities (Faith-Based Organizations, etc.) to ensure facilities can act as evacuation sites during major emergencies.	General Fund, Homeland Security Grants	EM	$	Ongoing (Annually)	Low
P3	Continue working with local businesses and organizations to conduct regular workplace emergency preparedness training.	General Fund, Homeland Security Grants	EM	$	Ongoing (Annually)	Medium
P4	Expand participation in the San Bernardino Community Emergency Response Team (CERT) program.	General Fund, Homeland Security Grants	EM	$	2026	Low
P5	Develop means to evacuate community members who do not have access to private vehicles or are otherwise unable to drive.	General Fund, Other Grants	EM	$	2026	Low
P6	Continue to ensure effective emergency notifications through multiple media formats—in at least English and Spanish—about pending, imminent, or ongoing emergency events. Ensure that information is accessible to people with access and functional needs.	General Fund, Homeland Security Grants	EM	$	Ongoing (Annually)	Low
P7	Update the San Bernardino Emergency Operations Plan to identify backup power and communications locations for critical facilities.	General Fund, Homeland Security Grants	EM	$	2025	Medium
P8	Continuously update response procedures for first responder departments to properly address new hazard events as they emerge.	General Fund, Homeland Security Grants	EM	$	Ongoing (Annually)	Low
P9	Ensure that the City has an adequate supply of sandbags for residents and businesses, including prefilled sandbags for individuals who cannot fill them on their own.	General Fund, Homeland Security Grants	EM	$	2025	Low

P10	Continue conducting active shooter drills for City staff by Police Department and Fire District tactical teams.	General Fund, Homeland Security Grants	EM	$	Ongoing (Annually)	Medium
P11	Continue supporting community active shooter preparedness through quarterly Active Shooter educational workshops.	General Fund, Homeland Security Grants	EM	$	Ongoing (Quarterly)	Low
P12	Increase the number of City staff with CalOES Safety Assessment Program (SAP) credentials.	General Fund, Homeland Security Grants	EM	$	2026	Low
Multiple Hazards						
1.01	Upgrade or install energy-efficient fixtures, appliances, and/or equipment within Critical Facilities to increase the longevity of the fuel supply for backup generators. (Hazards addressed: All)	General Fund, FEMA Grants (BRIC, HMGP), Other Grants	Public Works (PW)	$$$	2025-2029	Medium
1.02	Repair, as feasible, all major deficiencies discovered by inspections to prevent collapse, failure, or damage of key infrastructure in the event of a natural disaster. (Hazards addressed: All)	General Fund, FEMA Grants (BRIC, HMGP), Other Grants	PW	$$$	Ongoing (As needed)	High
1.03	Identify and upgrade City facilities that can serve as key cooling centers and evacuation and sheltering locations. (Hazards addressed: All)	General Fund, FEMA Grants (BRIC), Other Grants	Parks and Recreation (PR)	$$$	2025-2029	Medium
1.04	Conduct a feasibility assessment for installing solar and battery backup systems at key critical facilities within the City. (Hazards addressed: All)	General Fund, FEMA Grants (BRIC, HMGP), Other Grants	PW	$$	2030	Low
1.05	Work closely with community groups to increase awareness of hazard events and resiliency opportunities among socially vulnerable community members.(Hazards addressed: All)	General Fund, Other Grants	Community and Economic Development (CED), Police Dept. (PD), Fire Dept. (FD), PR	$	2025	Low
1.06	Avoid building new City-owned key facilities in mapped hazard areas. If no feasible sites outside of mapped areas exist, ensure that such facilities are hardened against hazards beyond any minimum building requirements/mitigation standards.(Hazards addressed: All)	General Fund	CED, PW	$	2025	Medium
1.07	Coordinate with regional social service agencies and nonprofit care providers to obtain temporary shelter for homeless persons in advance of potential hazard events. (Hazards addressed: All)	General Fund, Other Grants	CED, EM	$	Ongoing (Annually)	Low

1.08	Coordinate with Caltrans to monitor bridges within the City and develop recommendations for upgrade/retrofit when deemed necessary. Prioritize upgrades/retrofits on key evacuation routes. (Hazards addressed: All)	General Fund, FEMA Grants (BRIC, HMGP), Other Grants	PW	$$$	Ongoing (Annually)	High
1.09	Closely monitor changes in the boundaries of mapped hazard areas resulting from land use changes, new or updated information, changes to state or federal hazard maps, or climate change, and adopt new mitigation actions or revise existing ones to ensure continued resiliency. (Hazards addressed: All)	General Fund	CED	$	Ongoing (Annually)	Low
1.10	Install and harden emergency backup power at critical facilities deemed necessary. Prioritize installations for facilities that serve as key cooling/warming and evacuation centers. (Hazards addressed: All)	General Fund, FEMA Grants (BRIC, HMGP), Other Grants	PW	$$$	2027	High
1.11	Monitor funding sources for hazard mitigation activities. (Hazards addressed: All)	General Fund, FEMA Grants (BRIC, HMGP), Other Grants	City Manager (CM)	$	Ongoing (Annually)	Medium
1.12	Integrate policy direction and other information from this Plan into other City documents, including the General Plan, Emergency Operations Plan, and Capital Improvements Program. (Hazards addressed: All)	General Fund	CED, PW, EM	$	2025-2026	Medium
1.13	Identify updated equipment and training to enhance emergency services and increase the efficiency of emergency response and recovery activities.	General Fund, Other Grants	EM	$	Ongoing (Annually)	Medium
1.14	Integrate climate change mitigation and adaptation information and analysis into future LHMP updates and other City Plans, where practicable. (Hazards addressed: All)	General Fund	CED	$	Ongoing (As Needed)	Low
	Seismic/Geologic Hazards (Fault Rupture, Seismic Shaking, Landslides, Liquefaction)					
2.01	Prepare a seismically vulnerable inventory of private and public buildings.	General Fund, FEMA Grants (BRIC, HMGP), Other Grants	CED, PW	$$	2025-2029	Medium

2.02	Based on the technical report by URS Corp. supporting the EIR for the General Plan Update, include identified areas outside of the currently designated zone of liquefaction susceptibility within the Geologic Hazard Overlay District.	General Fund	CED	$	2029	Low
2.03	Require development on hillsides to be sited in such a manner that minimizes the extent of topographic alteration required to minimize erosion, maintain slope stability, and reduce the potential for offsite sediment transport.	General Fund	CED, PW	$	Ongoing (As Needed)	Medium
2.04	Monitor and track development applications that propose seismic improvements and ancillary issues to accommodate changes in the original use of the structure. (Hazards addressed: Seismic shaking, Fault Rupture)	General Fund	CED	$	Ongoing (Annually)	Low
2.05	Encourage community groups and industry representatives to conduct outreach about earthquake insurance to San Bernardino community members, including renters. (Hazards addressed: Seismic shaking, Fault Rupture)	General Fund	CED, EM	$	Ongoing (Annually)	Low
2.06	Improve local understanding of the threat of a major earthquake by conducting a citywide scenario modeling potential loss of life and injuries, destroyed and damaged structures, and interruptions to key services. (Hazards addressed: Seismic shaking, Fault Rupture)	General Fund	CED, EM	$/$$	Ongoing (Annually)	Medium
2.07	Retrofit key critical facilities with seismically rated and tinted window film treatments that ensure glass windows do not shatter and install tie-downs and straps for fixtures inside buildings. (Hazards addressed: Seismic shaking)	General Fund, FEMA Grants (BRIC, HMGP), Other Grants	PW	$$	2029	Medium
2.08	Monitor groundwater elevations for areas of potential liquefaction to ensure shallow groundwater conditions do not increase seismic vulnerability. (Hazards addressed: Liquefaction)	General Fund, Other Grants	Water Dept. (WD)	$	Ongoing (Annually)	Low
2.09	Reduce land use densities in areas of significant geologic hazard threat and identify retrofitting strategies for existing development in these hazard areas. (Hazards addressed: Seismic Hazards, Geologic Hazards)	General Fund	CED	$	Future Planning Process	Low
	Wildfire					
3.01	Incorporate the most up-to-date fire codes, regulations, and ordinances into the General Plan.	General Fund, Other Grants	CED	$	2025	Low

3.02	Continue cooperating and coordinating Fire Hazard Mitigation efforts with all stakeholders in the Wildland Urban Interface areas of the city through participation in the Mountain Areas Safety Taskforce (MAST).	General Fund, Other Grants	FD	$	Ongoing (Annually)	Low
3.03	Promote the proper maintenance and separation of power lines from buildings, trees, and other potential obstructions, in coordination with SoCal Edison.	General Fund	CED, CM, PW	$	Ongoing (Annually)	Low
3.04	Increase education and knowledge regarding safety and efficient response to fallen power lines in coordination with SoCal Edison.	General Fund	CM, EM	$	Ongoing (Annually)	Low
3.05	Coordinate programs with private entities to decrease highly flammable vegetation in the developed portions of the Wildland Urban Interface (WUI) and replant with fire-resistant specimens.	General Fund, Other Grants	CED, FD	$	Ongoing (Annually)	Medium
3.06	Evaluate a hillside weed abatement pilot program using goats or other livestock to reduce fuel loads in fire-prone areas.	General Fund, Other Grants	FD	$	2029	Low
3.07	Prepare a Community Wildfire Protection Plan for areas within the City prone to wildfire hazards.	General Fund, Other Grants	FD	$	2026	Medium
3.08	Work with property owners to manage dead vegetation on vacant properties, in flood control facility footprints, railroad rights-of-way, parks, and open spaces, especially during and after periods of extreme heat or prolonged drought.	General Fund	CED, FD	$	Ongoing (Annually)	Medium
3.09	Increase communication, coordination, and collaboration between wildland/urban interface property owners, City planners, and fire prevention crews and officials to address risks, existing mitigation strategies, and federal assistance programs.	General Fund	CED, FD	$	Ongoing (Annually)	Low
3.10	Conduct a fire hazard prevention awareness campaign for residents in the WUI and surrounding areas.	General Fund, Other Grants	CM, FD	$	Ongoing (Annually)	High

3.11	Require all new development in the WUI and surrounding areas to use building materials and methods approved by CA Building Standards Commission and establish zones of defensible space around structures in these areas.	General Fund, Other Grants	CED, FD	$	2025	High
3.12	Coordinate with the San Bernardino County Fire District for recommended landscaping vegetation lists and design recommendations that illustrate wildfire-resilient strategies.	General Fund, Other Grants	CED, FD	$	Ongoing (Annually)	Medium
3.13	Develop an inventory of sprinklered structures in the City and a community risk profile.	General Fund, Other Grants	CED, FD	$$	2028	Medium
	Flooding (includes Dam Inundation)					
4.01	Continue participation in the National Flood Insurance Program (NFIP).	General Fund, FEMA Grants (BRIC, HMGP, FMA), Other Grants	CED	$	Ongoing (Annually)	Low
4.02	Periodically review and analyze the findings and recommendations from the Alluvial Fan Task Force reports and incorporate findings into the LHMP and other appropriate plans as funding permits.	General Fund, Other Grants	CED	$	Ongoing (Annually)	Low
4.03	Amend the Flood Plain Safety Overlay District through automatic map updates (including revised FEMA floodplain data) as FEMA releases and publishes new data.	General Fund, Other Grants	CED, IT	$$	Ongoing (As Needed)	Low
4.04	Construct flood control facilities identified in each flood control zone.	General Fund, FEMA Grants (BRIC, HMGP, FMA), Other Grants	PW, SB County Flood Control	$$$	2029	Low
4.05	Investigate using permeable paving and landscaped swales for new construction and replacement of City-owned hardscape areas.	General Fund, FEMA Grants (BRIC, HMGP, FMA), Other Grants	CED, PW	$$	2029	Low

4.06	Update the City's Storm Drain Master Plan periodically (in conjunction with the LHMP and CIP) to incorporate new data (FEMA flood maps and information) and/or address emerging issues.	General Fund, Other Grants	PW	$$	Ongoing (As Needed)	Medium
4.07	Analyze if new critical facilities can be built at least 1 foot higher than the anticipated 500-year flood elevation height to determine where feasible.	General Fund, Other Grants	CED, PW	$$	Ongoing (As Needed)	Low
4.08	Coordinate with dam owners/operators, state, and federal agencies to collectively identify threats to the City and the region and identify ways to retrofit/strengthen the dams under their control.	General Fund, FEMA Grants (BRIC, HMGP, FMA), Other Grants	EM	$	Ongoing (Annually)	Low
4.09	Conduct frequent cleanings of storm drain intakes, especially before and during the rainy season.	General Fund, Other Grants	PW	$	Ongoing (Annually)	Medium
4.10	Monitor intersections that frequently flood during rain events and identify improvements to alleviate these conditions.	General Fund, FEMA Grants (BRIC, HMGP, FMA), Other Grants	PW	$$$	Ongoing (Annually)	Low
4.11	Track areas where ponding frequently occurs during heavy rainfall and install new drains or upgrade existing ones to reduce water ponding.	General Fund, Other Grants	PW	$$$	2026	Medium
4.12	Identify potential flood improvements that reduce inundation from both storm flows and potential dam inundation effects.	General Fund, FEMA Grants (BRIC, HMGP, FMA), Other Grants	PW	$$	2029	Medium
	Severe Weather (Drought, Extreme Heat, Severe Wind)					
5.01	Update Chapter 19.28 of the San Bernardino Municipal Code to reflect the latest advances in best practices in landscape design that reduce water use within the City and address wildfire susceptibility. (Hazards addressed: Drought)	General Fund	CED	$	2025, 2028, 2031	Low

5.02	Develop a campaign to encourage water/energy efficiency, reduce consumption for existing development, and promote the expansion of electric vehicle-ready construction in new development. (Hazards addressed: Drought, Extreme Heat)	General Fund	CED, WD	$	2029	Low
5.03	Use drought-tolerant plants when installing new or retrofitting City-owned landscapes. Limit turf that is not drought tolerant to recreational fields and lawns, and only in instances where no feasible drought tolerant alternatives exist. (Hazards addressed: Drought)	General Fund, Other Grants	PW	$$	Ongoing (Annually)	Medium
5.04	Implement an Urban Forest Master Plan to diversify tree age, increase resilience to drought and warmer temperatures, and expand shaded areas in the City to reduce urban heat island effects. (Hazards addressed: Extreme Heat)	General Fund	CED, PW	$$$	2029	Low
5.05	Create a Cooling Center Plan for the use of designated public facilities (libraries, community centers, etc.) as cooling centers for vulnerable populations during extreme weather events. (Hazards addressed: Extreme Heat)	General Fund	PR	$$	2026	Medium
5.06	During the design review process, promote passive cooling design (brise-soleil, long roof overhangs, locating windows away from southern facades, etc.) in new developments. (Hazards addressed: Extreme Heat)	General Fund	CED	$	Future Planning Process	Low
5.07	Evaluate the long-term capacity of designated cooling centers and shelters in the City to provide sufficient relief from extreme heat. Assess the need to expand services as the frequency, length, and severity of future heat waves potentially change due to climate change. (Hazards addressed: Extreme Heat)	General Fund	PR, PW	$	Ongoing (Annually)	Low
5.08	Conduct outreach to residents and businesses prior to severe wind events (Santa Ana Winds) on proper tree maintenance and identification of potentially hazardous trees. (Hazards addressed: Severe Wind)	General Fund	CM	$	Ongoing (Annually)	Low
5.09	Where feasible, remove or trim trees susceptible to blowing over during a severe wind event and underground power lines. (Hazards addressed: Severe Wind)	General Fund	PW	$$$	Ongoing (As Needed)	Medium
5.10	Upgrade HVAC within City facilities to more efficient systems, including split or decentralized systems that allow for heating and cooling rooms/spaces. (Hazards addressed: Extreme heat)	General Fund	PW	$$$	2029	Low
5.11	Increase the use and construction of shade structures within new developments, City facilities, parks, and trails to reduce urban heat island impacts. (Hazards addressed: Extreme Heat)	General Fund	CED, PR, PW	$$$	Ongoing (As Needed)	Medium

5.12	Promote early notifications to residents before a severe weather event, focusing on effective communication methods with vulnerable populations to better ensure they have adequate time to prepare. (Hazards addressed: Severe Weather)	General Fund	CM, EM, PR	$	Ongoing (Annually)	Medium
5.13	Expand access to alternative energy technologies, energy efficiency improvements and appliances, and programs for vulnerable populations to reduce energy consumption and the need for City services during extreme heat conditions. (Hazards addressed: Extreme Heat)	General Fund, Other Grants	CED, PR	$$	2029	Low
	Human-Caused Hazards (Cyber Threats, Terrorism/MCI, Civil Unrest)					
6.01	Coordinate with the San Bernardino County Sheriff to monitor potential terrorism, mass casualty incidents, and/or civil unrest. (Hazards addressed: Terrorism/Mass Casualty Incidents/Civil Unrest)	General Fund	PD	$	Ongoing (Annually)	Medium
6.02	Disseminate information on cyber threats, potential terrorist activity, or civil unrest to City staff and continually follow up with information on further developments of the situation. (Hazards addressed: Terrorism/Mass Casualty Incidents, Civil Unrest, Cyber Threats)	General Fund	IT, PD	$	Ongoing (As Needed)	Low
6.03	Regularly update cyber security software and educate business owners and residents on current internet-based threats. (Hazards addressed: Cyber Threats)	General Fund	CM, IT, PD	$$	Ongoing (Annually)	High
6.04	Evaluate all critical facilities and facilities of concern for potential human-caused hazard vulnerabilities and integrate counterterrorism design elements and building materials, where feasible. (Hazards addressed: Terrorism/Mass Casualty Incidents)	General Fund	CED, PD, PW	$$$	Ongoing (Annually)	High
6.05	Coordinate and enhance datasets for schools, hospitals, and other critical facilities with the School District, Hospitals, and other key entities within the City to better respond to mass-casualty and terrorism incidents. (Hazards addressed: Terrorism/Mass Casualty Incidents)	General Fund	CM, FD, IT, PD	$	Ongoing (Annually)	Medium
6.06	Conduct proactive community policing during special events. Ensure that all staff involved in community policing are trained to engage with and respect community members while maintaining security. (Hazards addressed: Terrorism/Mass Casualty Incidents)	General Fund	PD	$$	Ongoing (Annually)	Low

Hazardous Materials Release						
7.01	Discourage new sensitive land uses, including schools, parks, childcare centers, adult and senior assisted living facilities, and community centers, from locating near identified hazardous material facilities. Discourage or prohibit new hazardous material facilities from locating near sensitive land uses.	General Fund	CED	$	Ongoing (As Needed)	High
7.02	Continuously inspect businesses and other properties storing hazardous materials and create an inventory of storage locations that require updates, maintenance, or renovation.	General Fund, Other Grants	FD	$	Ongoing (Annually)	Low
7.03	Continue to work with solid waste service contractors to educate residents and businesses on the safe disposal of small quantities of hazardous materials.	General Fund, Other Grants	CM, PW	$	Ongoing (Annually)	Low
7.04	Coordinate with hazardous materials generators/operators (So Cal Gas, Edison, etc.) regularly to understand changes to operations within the City.	General Fund, Other Grants	EM, FD	$	Ongoing (Annually)	Low
7.05	Analyze the locations of railroad rights of way and adjacent land uses to determine key locations of concern if a train derailment occurs.	General Fund, Other Grants	CED, EM, FD, PD, PW	$	Ongoing (As Needed)	Low

Relative Cost Categories:
$ Less than $49,000
$$ $50,000-$999,999
$$$ Greater than $1,000,000

Chapter 5 – Plan Maintenance

For this LHMP to remain effective and useful to the community of San Bernardino, it must remain up to date. An updated version of the LHMP will continue to guide San Bernardino hazard mitigation activities and help keep the City eligible for state and federal hazard mitigation funding. The HMPC has structured this LHMP so individual sections can easily be updated as new information becomes available and as new needs arise, helping to keep this Plan current.

This chapter discusses updating this Plan to comply with applicable state and federal requirements. This chapter also describes how the City can incorporate the mitigation actions described in Chapter 4 into existing programs and planning mechanisms and how public participation will remain an important part of Plan monitoring and future update activities.

Coordinating Body

The HMPC will remain responsible for maintaining and updating the Plan, including evaluating the Plan effectiveness as needed. Members of the HMPC will also coordinate the implementation of the Plan through their respective positions. **Table 1-1** in Chapter 1 contains a list of current members. In future years, staff and representatives (either current HMPC members or other individuals) from the following City Departments should be included in maintenance and update activities:

- Community and Economic Development
- Finance
- Human Resources
- Information Technology
- Library
- Parks, Recreation, and Community Services
- Police Department (Emergency Management)
- Public Works
- Water Department

The staff member currently serving as the HMPC leader (responsible for coordinating future updates) is in the Office of Emergency Management (within the Police Department). He/she will serve as the project manager during the update process or designate this role to another staff member. The HMPC leader or their designee will coordinate the maintenance of this Plan, lead the formal Plan review and evaluation activities, direct the Plan update, and assign tasks to other members of the HMPC to complete these activities. Such tasks may include collecting data, developing new mitigation actions, updating mitigation actions, making presentations to City staff and community groups, and revising sections of the Plan.

Plan Implementation

The effectiveness of the Plan depends on the successful implementation of the mitigation actions. This includes integrating mitigation actions into existing City plans, policies, programs, and other implementation mechanisms. The mitigation actions in this Plan are intended to reduce the damage from hazard events, help the City secure funding, and provide a framework for hazard mitigation activities.

HMPC members prioritized the hazard mitigation actions in **Table 4-5** in Chapter 4. These priorities will guide the implementation of these actions through new or existing City mechanisms as resources are available. The LHMP project manager is responsible for overseeing this Plan's implementation, promotion, and maintenance, as well as facilitating meetings and other coordinating activities related to Plan implementation and maintenance.

The key City Plans that should incorporate content from this LHMP include the following:

- **The San Bernardino Plan 2050 - Safety Element** – Content from the LHMP incorporated into the Safety Element will ensure the goals and policies of this plan are reinforced throughout future developments and projects proposed within the city.
- **San Bernardino Emergency Operations Plan** – This plan focuses on the effective preparedness and response to hazard events that occur within the city. Incorporating relevant content from this plan into the EOP ensures consistency regarding the hazards addressed in both plans.
- **San Bernardino Capital Improvements Program** – This program identifies key infrastructure investments throughout the City that may include hazard mitigation elements. Incorporating this plan into the CIP may enhance infrastructure investment through additional funding and/or modification of improvements to include hazard mitigation elements.

This integration of the LHMP into The San Bernardino Plan 2050 Safety Element also allows the City to comply with AB 2140 requirements, as identified in Chapter 1 of this plan.

Plan Maintenance Process

The City's plan maintenance process will rely on the San Bernardino Mitigation Implementation Handbook, located in **Appendix E**. The handbook is intended to function as a stand-alone document that gives a concise and accessible guide to jurisdiction staff for implementing and maintaining the Plan. A key component of the handbook is the specific mechanisms the jurisdiction can use to integrate this plan into other City planning mechanisms.

Plan Monitoring and Evaluation

When members of the HMPC are not updating the Plan, they should meet at least once a year to go over mitigation action implementation and evaluate the Plan's effectiveness. These meetings should include the following:

- Discussion of the timing of mitigation action implementation
- Mitigation action implementation evaluation and determination of success
- Mitigation action prioritization revisions, if deemed necessary
- Mitigation action integration into other mechanisms, as needed

The first of these meetings will be held in the 2025-2026 fiscal calendar year. To the extent possible, HMPC meetings should be scheduled at an appropriate time in the City's annual budgeting process, which will help ensure that funding and staffing needs for mitigation actions are considered.

When the HMPC meets to evaluate the Plan, members should consider these questions:

- What hazard events, if any, have occurred in San Bernardino in the past year? What were the impacts of these events on the community? Were the impacts mitigated, and if so, how?

- What mitigation actions have been successfully implemented? Have any mitigation actions been implemented but not successfully, and if so, why?
- What mitigation actions, if any, have been scheduled for implementation but have not yet been implemented?
- What is the schedule for implementing future mitigation actions? Is this schedule reasonable? Does the schedule need to be adjusted for future implementation, and are such adjustments appropriate and feasible?
- Have any new issues of concern arisen, including hazard events in other communities or regions that are not covered by existing mitigation actions?
- Are new data available that could inform updates to the Plan, including data relevant to the hazard profiles and threat assessments?
- Are there any new planning programs, funding sources, or other mechanisms that can support hazard mitigation activities in San Bernardino?

Plan Updates

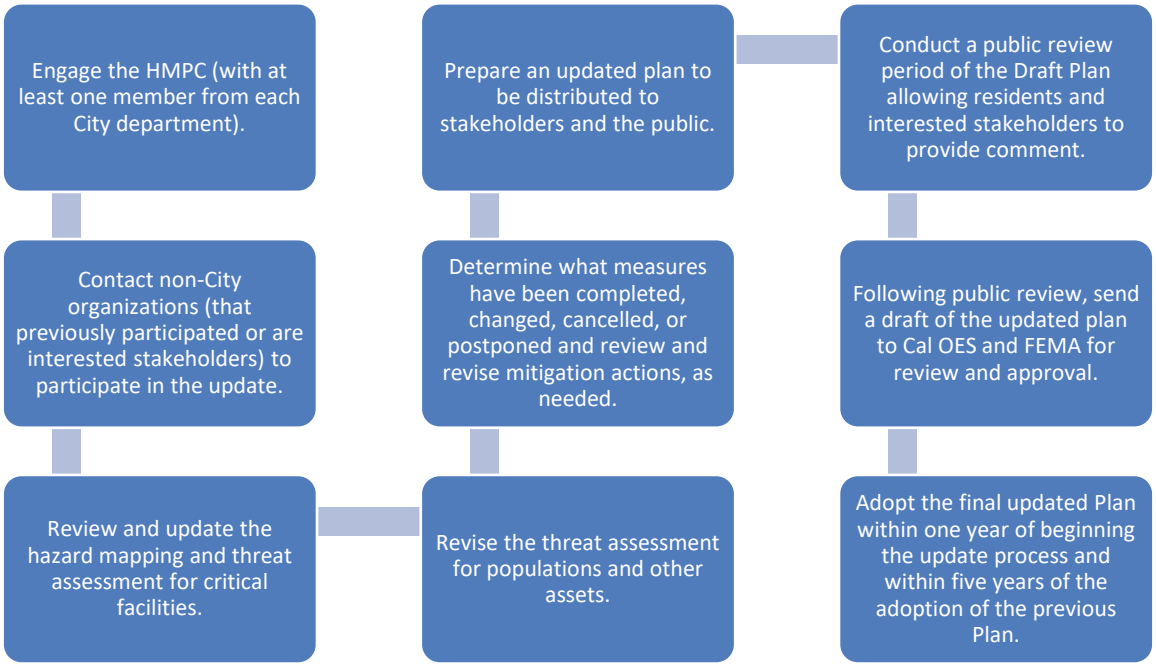
The information in this Plan, including the hazard profiles, threat assessments, and mitigation actions, is based on the best available information, practices, technology, and methods available to the City and HMPC at the time this Plan was prepared. As factors change, including technologies, community demographics and characteristics, best practices, and hazard conditions, it is necessary to update the plan to remain relevant. Additionally, Title 44, Section 201.6(d)(3) of the Code of Federal Regulations requires that LHMPs be reviewed, revised, and resubmitted for approval every five years to remain eligible for federal benefits.

Update Method and Schedule

The update process will begin no later than four years after this Plan is adopted, allowing a year for the update process before the Plan expires. Depending on the circumstances, the LHMP project manager or their designee may also choose to begin the update process sooner. Some reasons for accelerating the update process may include the following:

- A presidential disaster declaration for San Bernardino or an area that includes part or the entire city
- A hazard event that results in one or more fatalities in San Bernardino

The update process will add new and updated methods, demographic data, community information, hazard data and events, considerations for threat assessments, mitigation actions, and other information, as necessary. This helps keep the Plan relevant and current. The HMPC will determine the best process for updating the Plan, which should include the following steps:



UPDATE ADOPTION

The San Bernardino City Council is responsible for adopting this Plan and all future updates. As previously mentioned, adoption should occur every five years. To ensure the plan remains active, the City will begin the update process at least one year prior to expiration. If the City has a grant application that relies on the LHMP, an update to the plan will occur no later than 18 months before expiration. Adoption should take place after FEMA notifies the City that the Plan is Approved Pending Adoption. Once the City Council adopts the Plan following its approval by FEMA, the adopted plan should be transmitted to FEMA.

Continued Public Involvement

The City will continue to keep members of the public informed about the HMPC's actions to review and update the LHMP. The HMPC will develop a revised community engagement strategy that reflects the City's updated needs and capabilities. The updated strategy should include a tentative schedule and plan for public meetings, recommendations for using the City website and social media accounts, and content for public outreach documentation. The HMPC will also distribute annual progress reports through City social media platforms and mailing lists used to engage community members. These outreach opportunities will describe the actions taken by the City and ways that residents and businesses can help further the City's goals. These updates are anticipated to occur after the annual HMPC meeting is conducted by the City.

Point of Contact

The HMPC leader for San Bernardino is the primary point of contact for this Plan and future updates. At the time of writing, the HMPC leader is Michele Mahan (Lieutenant, Emergency Operations), available at mahan_mi@sbcity.org | (909) 384-5606.

U.S. Department of Homeland Security
FEMA Region 9
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

October 4, 2024

Michele Mahan
Emergency Manager
City of San Bernardino
710 N. D Street
San Bernardino, CA 92410

Dear Michele Mahan:

The Federal Emergency Management Agency (FEMA) has completed its review of the *City of San Bernardino Local Hazard Mitigation Plan 2024* and has determined that this plan is eligible for final approval pending its adoption by the City of San Bernardino.

Formal adoption documentation must be submitted to FEMA Region 9 within one calendar year of the date of this letter, or the entire plan must be updated and resubmitted for review. FEMA will approve the plan upon receipt of the documentation of formal adoption.

If you have any questions regarding the planning or review processes, please contact the FEMA Region 9 Hazard Mitigation Planning Team at fema-r9-mitigation-planning@fema.dhs.gov.

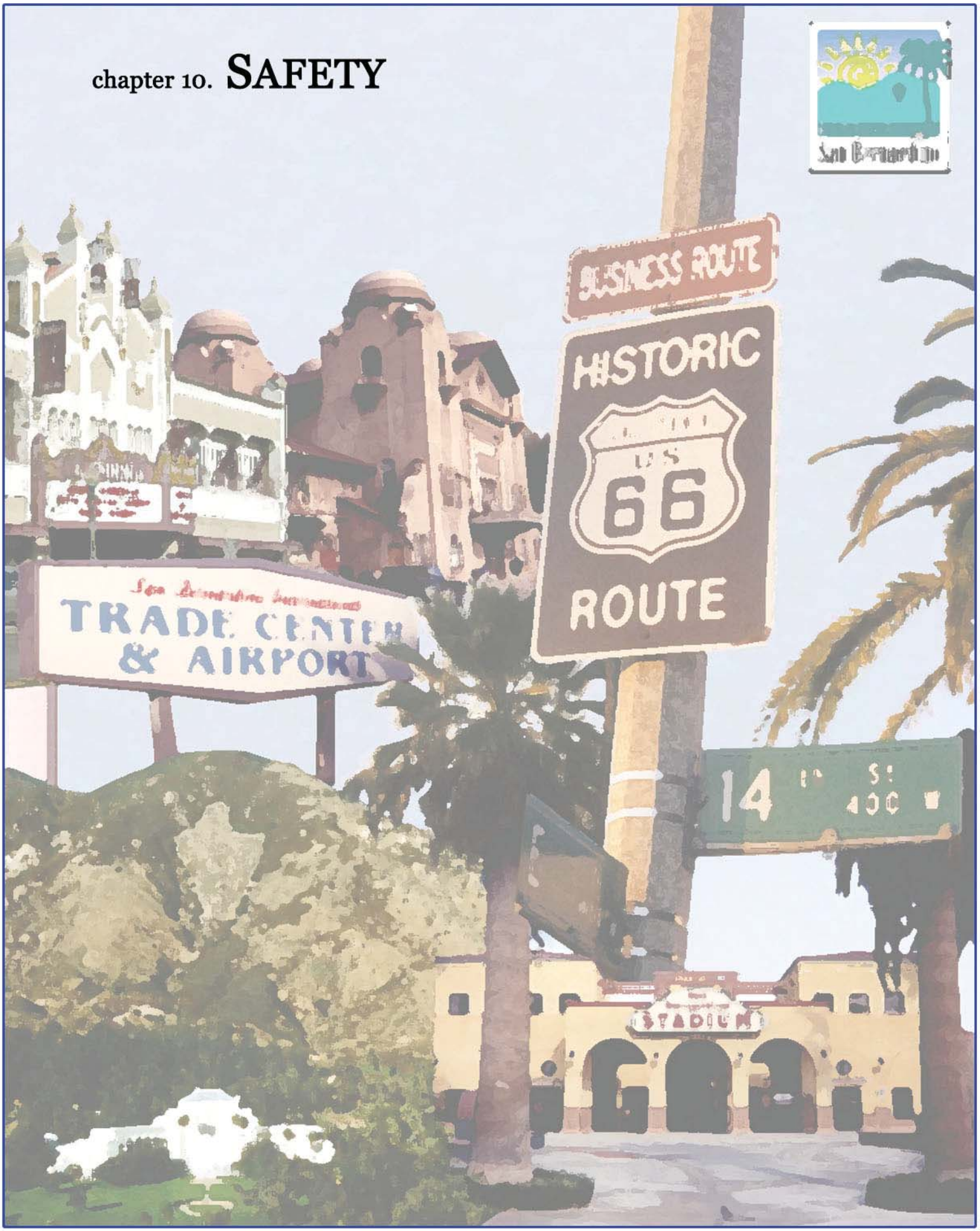
Sincerely,

for Alison Kearns
Planning and Implementation Branch Chief
Mitigation Division
FEMA Region 9

Enclosure (1)
City of San Bernardino Plan Review Tool, dated October 4, 2024

cc: Robyn Fennig, State Hazard Mitigation Officer, California Governor's Office of Emergency Services
Victoria LaMar-Haas, Hazard Mitigation Planning Chief, California Governor's Office of Emergency Services

chapter 10. SAFETY



Chapter 10. Safety

INTRODUCTION

San Bernardino has seen more than its fair share of disaster; from fires, to floods, to earthquakes. Reducing exposure to these threats and protecting the health, safety, and welfare of our community is a fundamental role of City government. It is increasingly important that the City of San Bernardino maintain programs that provide an effective response to public safety concerns. The Safety Element assesses natural and man-made hazards present in the community and includes policies to address those hazards.

Purpose

This element specifically addresses the way in which the City will prepare and respond to fire hazards, geologic, and seismic hazards, and flood hazards. The Safety Element provides background information related to each issue and identifies hazard locations within the City, risk-reduction strategies, and hazard abatement measures that can ultimately be used by decision-makers in their review of projects. Policies also address ways to minimize any economic disruption and accelerate the City's recovery following a disaster.

Relationship to Other Elements

Critical relationships exist between the Safety Element and other General Plan Elements. The types and locations of land uses identified in the Land Use Element are influenced and regulated by the locations of natural hazards, while emergency evacuation routes and locations of critical facilities can be influenced by the goals and policies identified in the Circulation Element. The Public Facilities Element identifies the services available to the City, such as the Police and Fire Departments, to aid in the response to hazards and disasters identified in this Element.

Relationship to Other Documents

Federal, State, and local regulations and policies such as the California Environmental Quality Act (CEQA), the California Government Code, and the San Bernardino Municipal Code regulate and/or influence land use and development in the City. Not only do they help to protect the health, safety, and welfare of our residents, visitors and businesses by ensuring that proper analyses are conducted, sound construction practices are implemented, and uses are appropriately sited within the City, they can also help to minimize the recovery time experienced after the occurrence of a disaster.

ACHIEVING THE VISION

The Safety Element builds upon the City's Vision of "Creating Opportunities for the Future" for its residents. People re-invest in their communities if they believe there are opportunities present to enhance their local environment. As such, a safe community can help to attract new businesses and residents. The Safety Element is responsive to our Vision because it represents our desires to:

- Establish the appropriate infrastructure and facilities to protect the health, safety, and welfare of the City's businesses, visitors, and residents;
- Enhance the City's image by providing a safe place to live, work, and play;
- Effectively respond to natural and man-made hazards and disasters; and
- Minimize any economic disruption and accelerate the City's recovery following a disaster.

GOALS AND POLICIES

The following presents the goals and policies related to safety in the City of San Bernardino:

Hazardous Materials and Waste

Hazardous materials are any materials that, because of their quantity, concentration, physical or chemical characteristics, pose a significant present or potential hazard to human health and safety or to the environment if released into the environment.

Our Hazardous Materials team in training. Source: City of San Bernardino Website.

The regulatory responsibility of hazardous waste in the City of San Bernardino belongs primarily to the San Bernardino County Department of Environmental Health. Hazardous waste falls into four general categories of materials that have some distinct characteristics in the types of danger they present. These include materials that are:

- toxic
- explosive
- reactive
- corrosive

The City's goals and policies for hazardous materials and uses are designed to ensure the protection of the public health, safety, and welfare, and environmental resources in the City. Planning practices emphasize waste reduction, recycling, proper management of hazardous materials, siting of facilities, and effective emergency response.

1. Hazardous Waste Management Plan

Hazardous waste and materials are stored, treated, and transported in the City. As a result, the City implements a Hazardous Waste Management Plan to ensure that these materials are handled properly. There are processes in the preparation of the hazardous waste management plan that include the assessment of the risk involved in dealing with hazardous waste, which allows the City to make decisions on the level of risk it is willing to accept.

The most comprehensive State legislation dealing with hazardous waste materials is the Tanner Act (AB2498), adopted in 1986. Because of the Tanner Act, the State Department of Health Services provides regulations and procedures for hazardous waste materials operations and assists

counties with guidelines and funding for the preparation and adoption of local hazardous waste management plans. The preparation of local management plans in southern California is coordinated on a regional basis with the Southern California Hazardous Waste Management Authority.

The San Bernardino County Fire Department is responsible for implementing the County Hazardous Waste Management Plan in the City of San Bernardino. Adopted in the early 1990's, this plan established regulations at the local level for the creation, storage, and handling of hazardous waste material. The management plan provides the following components:

- Planning process for waste management
- Permit process for new and expanded facilities
- Appeal process to the State for certain local decisions

The plan pertains to most of San Bernardino County and is included as an element in the County's General Plan.

Various departments in the City review plans for new development, including hazardous waste generators that might use the City sewer system for disposal of waste products. These departments are in a position to identify potential hazardous waste generators and advise them of the permits required prior to operation.

Goal 10.1 Protect the environment, public health, safety, and welfare from hazardous wastes.

Policies:

10.1.1 Employ effective emergency preparedness and emergency response strategies to minimize the impacts from hazardous materials emergencies, such as spills or contamination.

10.1.2 Ensure the protection of surface and groundwater quality, land resources, air quality, and environmentally sensitive areas through safe transportation of waste through the City and comprehensive planning of hazardous materials, wastes, and sites.

10.1.3 Execute long-range planning programs to protect resources and the public from the potential impacts that could be created by the use, storage, transport, and disposal of hazardous waste and materials.

10.1.4 Continue to support the role that the Fire and the Police Departments play in the on-site identification of hazardous wastes and emergency response to hazardous waste accidents in cooperation with the County Department of Environmental Health Services.

2. Hazardous Waste Operations

The State Department of Health Services requires permits for the use, storage or disposal of hazardous substances. The permit categories range from the use of solvents and flammable material in the ordinary repair of automobiles to the treatment or handling of hazardous wastes in large quantities over prolonged periods of time. Operations that involve the treatment of hazardous wastes or storage over long periods of time require the issuance of a special permit by the State Department of Health Services. As indicated, the County Hazardous Waste Management Plan is refining permit criteria and standards that will vest the permit process to the State.

There are several approved hazardous waste management companies offering managing services to other companies in the City of San Bernardino for the treatment, disposal or storage of hazardous material. These companies have either received a permit or have been granted interim status by the State of California pending review of the facilities for compliance with federal and State regulations.

Goal 10.2 Promote proper operations of hazardous waste facilities and ensure regulations applicable to these facilities are enforced.

Policies:

10.2.1 Require the proper handling, treatment, movement, and disposal of hazardous materials and hazardous waste.

10.2.2 Encourage businesses to utilize practices and technologies that will reduce the generation of hazardous wastes at the source.

10.2.3 Implement federal, state, and local regulations for the disposal, handling, and storage of hazardous materials.

10.2.4 Work with the Department of Environmental Health Services to promote waste minimization, recycling, and use of best available technology in City businesses.

10.2.5 Participate in the process of selecting routes that are the most acceptable for the safe transportation of hazardous waste material within the City limits. Streets with high concentrations of people, such as the downtown, or with sensitive facilities, such as schools and parks, should be avoided to the maximum extent possible.

3. Household Hazardous Waste

Hazardous materials are even in our homes. Many people don't realize it, but there are several common household items that are considered hazardous including medications, paint, motor oil, antifreeze, auto batteries, lawn care products, pest control products, drain cleaners, pool care products such as chlorine and acids, and household cleaners. These materials need to be used, stored, and disposed of in a safe and proper manner. When used properly, hazardous materials are normally not a problem. When used improperly, the results can be devastating. For example, some household cleaners may be harmful separately or when combined, such as ammonia and bleach. Flames caused by mixed household hazardous wastes improperly disposed of in curbside trash bins have injured City workers.

City residents can take household hazardous waste to the San Bernardino International Airport and Trade Center (2824 East W Street, Bldg. 302) to properly dispose of household hazardous materials.

Goal 10.3 Minimize risk of injuries or damages caused by household hazardous wastes.

10.3.1 Conduct educational programs to educate the public about the proper handling and disposal of household hazardous wastes.

10.3.2 Enforce the proper disposal of Household Hazardous Wastes.

Surface and Subsurface Groundwater Contamination

There are numerous sites in the City that have historically been subject to the disposal of hazardous waste and have likely contaminated the underlying groundwater. These sites may present an imminent danger to surrounding areas. They are polluting the groundwater and in many specific instances, they are polluting wells within the City. The pollution of the City's water system and the systems of other jurisdictions is a potentially serious health problem that warrants special attention and treatment.

Related to the issue of groundwater protection is the issue of minimizing the effects of storm water and urban runoff pollution (SWURP). Not only does storm water runoff affect local groundwater, it has the potential to impact neighboring jurisdictions and the region. Unlike sewage, which goes to treatment plants, urban runoff flows untreated through the storm drain system. Anything thrown, swept or poured into the street, gutter or a catch basin (the curbside openings that lead into the storm drain system) can flow directly into our waterways. The problem is particularly acute during heavy rains, but can be a problem at any time due to the improper disposal of products associated with home, garden, and automotive maintenance.

Water pollution is of national importance and the federal Clean Water Act established the National Pollution Discharge Elimination System (NPDES) permit program to address the problem. The Clean Water Act requires that cities "effectively prohibit non-stormwater discharges into the storm sewers" and "require controls to reduce the discharge of pollutants to the maximum extent practicable." Cities are now required to obtain NPDES permits to discharge their storm water into the storm drains and implement Best Management Practices (BMPs) on new construction in order to prevent illegal discharges to storm drains and runoff from construction sites, restaurants, outdoor storage sites, and industrial areas. Also see additional related discussion and policies in Chapter 9, Utilities.

Goal 10.4	Minimize the threat of surface and subsurface water contamination and promote restoration of healthful groundwater resources.

Policies:

10.4.1	Promote integrated inter-agency review and participation in water resource evaluation and mitigation programs.
10.4.2	Protect surface water and groundwater from contamination.
10.4.3	Eliminate or remediate old sources of water contamination generated by hazardous materials and uses.
10.4.4	Develop programs and incentives for prevention of groundwater contamination and clean up of known contaminated sites.

Goal 10.5	Reduce urban run-off from new and existing development.

Policies:

10.5.1	Ensure compliance with the Federal Clean Water Act requirements for National Pollutant Discharge Elimination System (NPDES) permits, including developing and requiring the development of Water Quality Management Plans for all new development and significant redevelopment in the City. (LU-1)
10.5.2	Continue to implement an urban runoff reduction program consistent with regional and federal requirements, which includes requiring and encouraging the following: • Increase permeable areas to allow more percolation of runoff into the ground; • Use natural drainage, detention ponds or infiltration pits to collect runoff; • Divert and catch runoff using swales, berms, green strip filters, gravel beds and French drains; • Install rain gutters and orient them towards permeable surfaces; • Construct property grades to divert flow to permeable areas;

- Use subsurface areas for storm runoff either for reuse or to enable release of runoff at predetermined times or rates to minimize peak discharge into storm drains;
- Use porous materials, wherever possible, for construction of driveways, walkways and parking lots; and
- Divert runoff away from material and waste storage areas and pollution-laden surfaces such as parking lots. (LU-1)

10.5.3 Cooperate with surrounding jurisdictions and the County to provide adequate storm drainage facilities.

10.5.4 Require new development and significant redevelopment to utilize site preparation, grading and foundation designs that provide erosion control to prevent sedimentation and contamination of waterways. (LU-1)

10.5.5 Ensure compliance with the requirements for Storm Water Pollution Prevention Plans or Water Quality Management Plans for all new development or construction activities.

10.5.6 Coordinate with appropriate federal, state, and local resource agencies on development projects and construction activities affecting waterways and drainages.

Flooding and Dam Inundation

Flooding

Flooding represents a potential hazard in San Bernardino, especially at the base of the mountains and foothills. This section addresses the risks of flooding due to the natural topography, rainfall, and runoff of the City.

The 100-year floodplain within the City, as currently defined by the Federal Emergency Management Agency Flood Insurance Rate maps, is depicted on Figure S-1. FEMA periodically updates these maps so please contact the Development Services Department for the most recent information. The 100-year floodplain is confined to storm channels, debris basins, and between levees with a few minor exceptions. A few areas, including the Base Line Street and Sterling Avenue area, Mountain View Avenue and Electric Avenue area, and south of Redlands Boulevard, east of Hunts Lane, are identified as low areas within the 100-year floodplain.

100-Year Floodplain:

Land that is subject to flooding by the 100-year flood or lands within the floodable elevation that has a one percent chance of being equaled or exceeded each year.

500-Year Floodplain:

Land that has the potential to be flooded in a storm that has a 0.2 percent chance of occurring every year.

Storm drains and flood control facilities within the City include: channels, storm drains, street waterways, natural drainage courses, dams, basins, and levees. Some streets in the City of San Bernardino are specifically designed to accommodate storm flow. Flows carried within the street right-of-way may cause localized flooding during storms, possibly making some roads impassable during the storm event.

Storms are not the only cause of flooding within our City. Basements and underground utility vaults may also experience flooding in areas between the Santa Ana River and downtown due to the City's existing high groundwater table.

Dam Inundation

Dam Inundation:
The release of flood waters to downstream areas caused by dam failure.

Flood inundation resulting from the failure of the Seven Oaks Dam is a potential hazard for the City of San Bernardino. General limits of flood hazards to San Bernardino due to the dam failure of Seven Oaks Dam are shown on Figure S-2, Seven Oaks Dam Inundation Map.

The Seven Oaks Dam is located in unincorporated San Bernardino County northeast of the City of Highland. The Seven Oaks Dam is a feature of the Santa Ana River Mainstream Project. A study showed that storage of dam floodwater would provide a minimum average of about 10,000 acre-feet of water per year. The dam was designed to resist an earthquake measuring 8.0 on the Richter scale, with any point able to sustain a displacement of four feet without causing any overall structural damage.

Seven Oaks Dam
Source: Army Corps of Engineers Website

Goal 10.6 Protect the lives and properties of residents and visitors of the City from flood hazards.

Policies:

10.6.1 Maintain flood control systems and restrict development to minimize hazards due to flooding.

10.6.2 Use natural watercourses as the City's primary flood control channels whenever feasible.

10.6.3 Keep natural drainage courses free of obstructions.

10.6.4 Evaluate all development proposals located in areas that are subject to flooding to minimize the exposure of life and property to potential flood risks.

10.6.5 Prohibit land use development and/or the construction of any structure intended for human occupancy within the 100-year flood plain as mapped by the Federal Emergency Management Agency (FEMA) unless adequate mitigation is provided against flood hazards.

10.6.6 Encourage new development to utilize and enhance existing natural streams, as feasible.

10.6.7 Utilize flood control methods that are consistent with Regional Water Quality Control Board Policies and Best Management Practices (BMPs).

10.6.8 Review development proposals for projects within the City's Sphere of Influence and encourage the County to disapprove any project that cannot be protected with an adequate storm drain system.

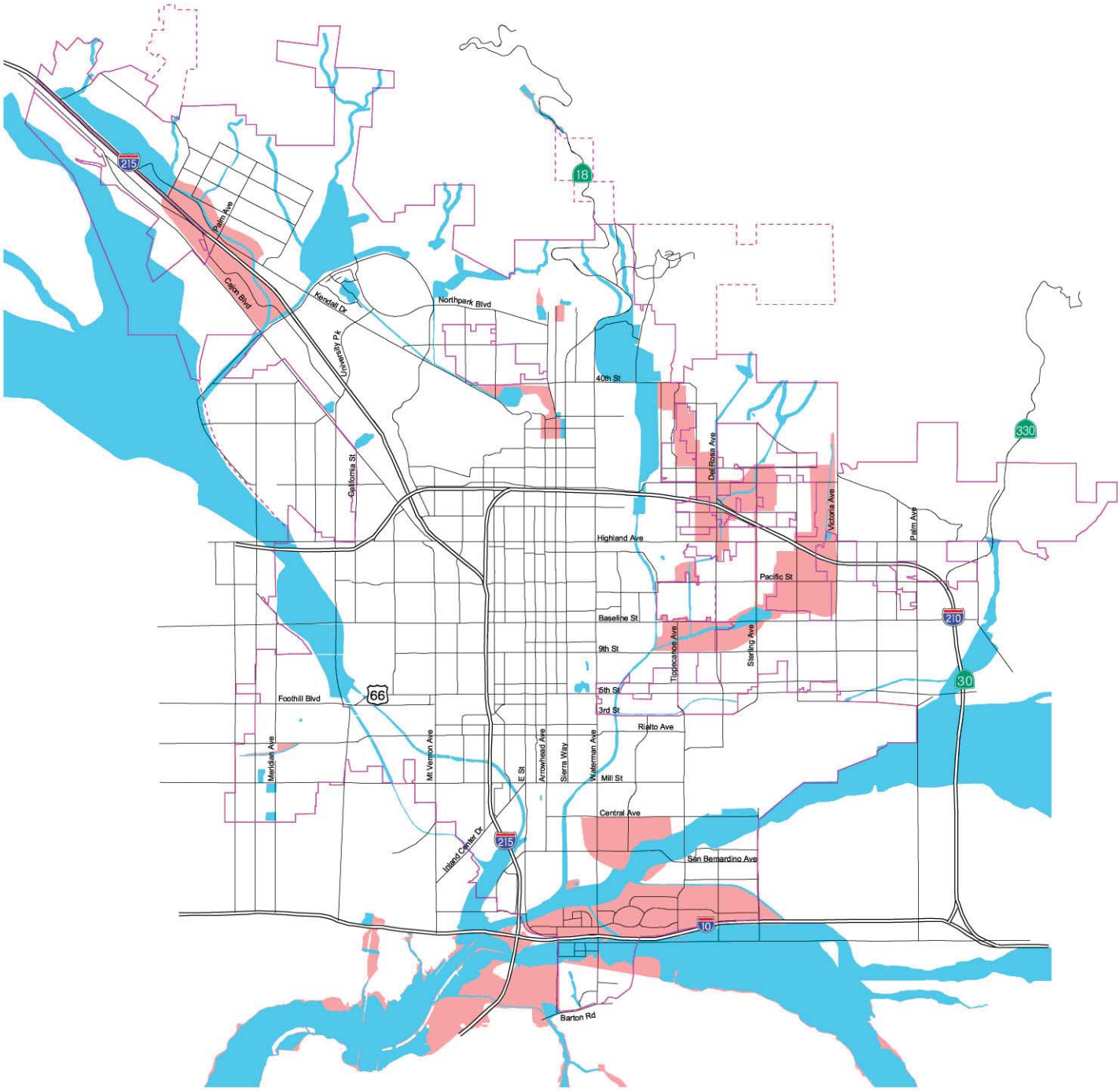
10.6.9 Ensure major drains in developed areas have a pipeline capacity to comply with the Flood Control District's Comprehensive Storm Drain Plans for development of the City's storm drain system.

10.6.10 Design local drains in foothill areas to convey 25-year storm flows where downstream systems are lacking and street systems are not present.

10.6.11 Design major drains in foothill to convey 100-year flows within a pipe or channel areas where downstream systems are lacking and street systems are not present.

10.6.12 Develop a process to study flooding issues and create appropriate regulations. This could include the creation of "alluvial districts," local quasi-government entities designed to inform homeowners of flood risks as well as advise the floodplain land use decisions of the City.

100-Year Flood Plain



Source: Federal Emergency Management Agency
Flood Insurance Rate Maps. Date: 1990

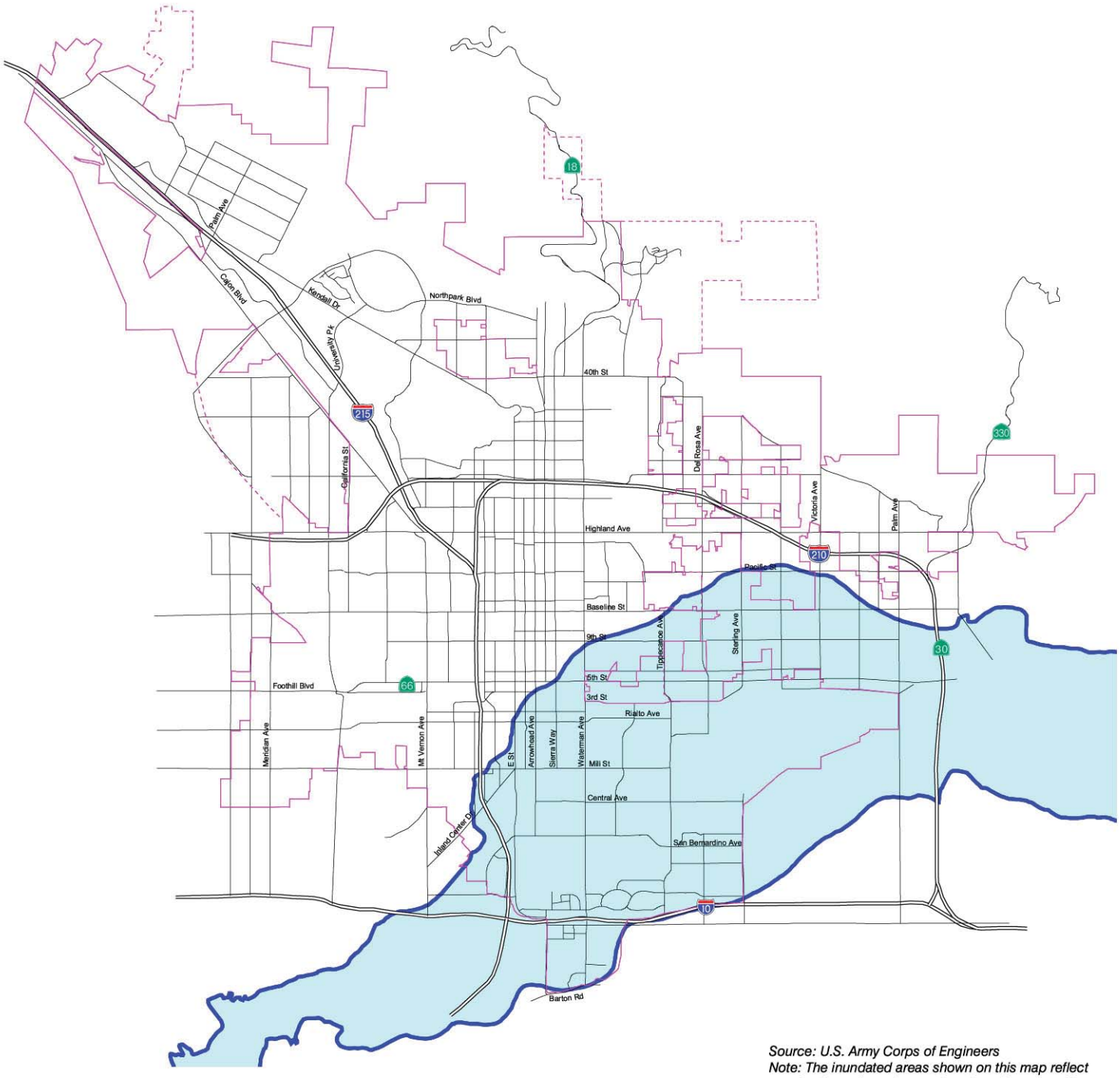
100-Year Flood Zone
500-Year Flood Zone
City Boundary
Sphere of Influence Boundary

0 10,000'

The City of
SAN BERNARDINO
General Plan

Figure S-1

Seven Oaks Dam Inundation



Source: U.S. Army Corps of Engineers
Note: The inundated areas shown on this map reflect events of an extremely remote nature. These results are not in any way intended to reflect upon the integrity of the Seven Oaks Dam. Flooded areas shown are based on dam failure at full pool elevation 2,580 feet, NGVD.

Limit of Flooded Area with Dam Failure

City Boundary

Sphere of Influence Boundary

0 10,000'

The City of
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Figure S-2

Seismic Hazards

San Bernardino is surrounded by earthquake faults. Two of the most notorious faults, the San Andreas and San Jacinto Faults, run through our City. Consequently, the potential for fault rupture, strong ground shaking, landslides, and liquefaction is high. These geologic and seismic hazards can affect the structural integrity of buildings and utilities, and, in turn, cause severe property damage and potential loss of life.

The City's policies and programs for geologic/seismic hazards are intended to reduce death, injuries, damage to property, and economic and social dislocation due to seismic events, as well as to enhance our preparedness to survive, respond to, and recover from a major earthquake or geologic disaster.

Effective implementation of seismic policies requires a continuing awareness of the seismic hazards affecting our City; strong, enforceable seismic standards for the siting, design, and review of proposed development; and progressive City-wide programs for disaster preparedness and recovery planning.

1. Fault Zones

San Bernardino is criss-crossed by numerous earthquake faults, as shown on Figures S-3 and S-4.

San Bernardino is located between several active fault zones including: the San Andreas Fault, the San Jacinto Fault, the Glen Helen Fault, and the Loma Linda Fault. Each of these faults is classified as Alquist Priolo Special Study Zones under the Alquist-Priolo Earthquake Fault Zoning Act, as shown on Figure S-3**.** The CDMG has designated certain faults within the planning area as part of the State of California Alquist-Priolo Special Study Zones. These zones extend parallel to and extend from approximately 200 to 500 feet from designated faults.

Site-specific geologic reports are required for development within these Zones to determine the precise location of and any required setbacks from any active faults. Human occupancy structures are prohibited within 50 feet of either side of an active fault.

In addition, active faults may also exist outside of the Alquist Priolo Zones, as shown on Figure S-4. Although they are not zoned as Alquist-Priolo faults, it is recommended that critical developments proposed in

California Seismic Hazards Mapping Act

The goal of the Seismic Hazards Mapping Act of 1990 is to minimize loss of life and property by identifying and mitigating seismic hazards. The Act addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The State agency charged with implementation of the Act is the California Geological Survey (CGS). The CGS prepares and provides local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. The seismic hazard zones delineated by the CGS are referred to as "zones of required investigation" because site-specific geological investigations are required for construction projects located within these areas.

As of the writing of this General Plan, the CGS had not completed the seismic hazard zone map for the City. Upon completion, the City should, if necessary, revise the General Plan accordingly.

Alquist-Priolo Earthquake Fault Zoning Act

The main purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act focuses on the hazards associated with surface fault rupture and does not address other earthquake hazards.

these areas be subject to more detailed, on-site analysis to make a more definite determination as to the activity levels and locations of any faults.

2. Liquefaction

Liquefaction is a process whereby strong earthquake shaking causes sediment layers that are saturated with groundwater to lose strength and behave as a fluid. This subsurface process can lead to ground failure that, in turn, can result in property damage and structural failure.

Groundwater saturation of sediments is required in order for earthquake-induced liquefaction to occur. Groundwater depth shallower than ten feet to the surface is considered to have the highest liquefaction susceptibility. Groundwater ten to 30 feet below the surface is considered to have a moderately high to moderate susceptibility. Groundwater 30 to 50 feet deep can create a moderate to low susceptibility to liquefaction.

Alquist-Priolo Study Zones

Approximate Fault Location

Approximate location of Alquist Priolo Special Study Zones

City Boundary

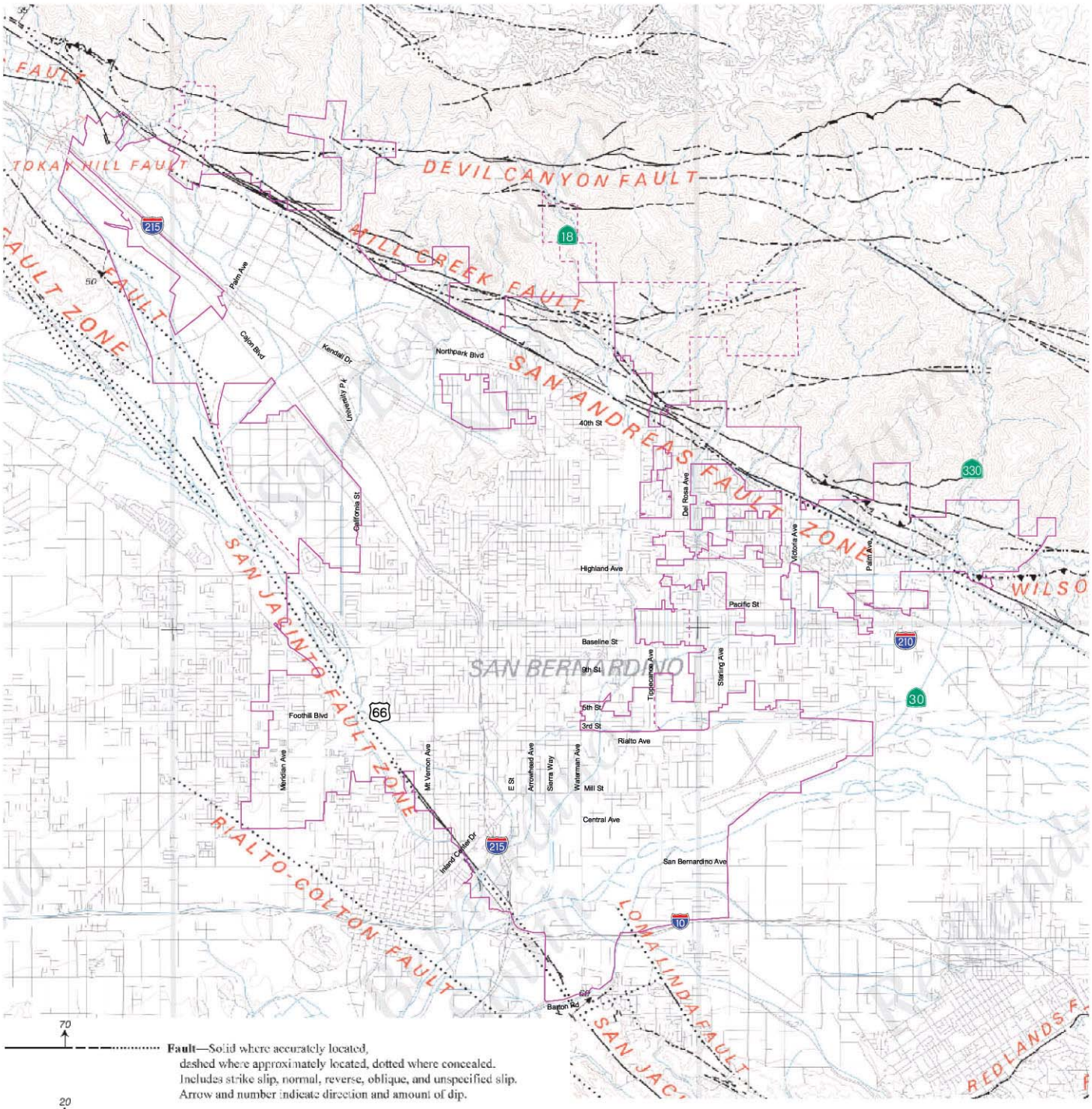
Sphere Boundary

0 10,000'

The City of
SAN BERNARDINO
General Plan

Figure S-3

Regional Faults



The City of
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Figure S-4

Figure S-5 summarizes the general liquefaction susceptibilities for maximum credible earthquakes occurring on the San Andreas, San Jacinto, or Loma Linda/Glen Helen Faults. Two general zones, "high" and "moderately-high to moderate" are depicted, and encompass almost the entire south end of the City. High zones are concentrated adjacent to the San Andreas Fault zone north and northeast of the City and in the old artesian area between the San Andreas and San Jacinto Faults in the central and southern parts of the City. In general, the old artesian area will continue to experience the greatest groundwater fluctuations.

These zones delineate regional susceptibility and can vary greatly due to groundwater level changes. Site-specific geotechnical reports are necessary to determine site-specific liquefaction potential and possible design mitigation.

Goal 10.7 Protect life, essential lifelines, and property from damage resulting from seismic activity.

Policies:

10.7.1 Minimize the risk to life and property through the identification of potentially hazardous areas, establishment of proper construction design criteria, and provision of public information.

10.7.2 Require geologic and geotechnical investigations for new development in areas adjacent to known fault locations and approximate fault locations (Figure S-3) as part of the environmental and/or development review process and enforce structural setbacks from faults identified through those investigations. (LU-1)

10.7.3 Enforce the requirements of the California Seismic Hazards Mapping and Alquist-Priolo Earthquake Fault Zoning Acts when siting, evaluating, and constructing new projects within the City. (LU-1)

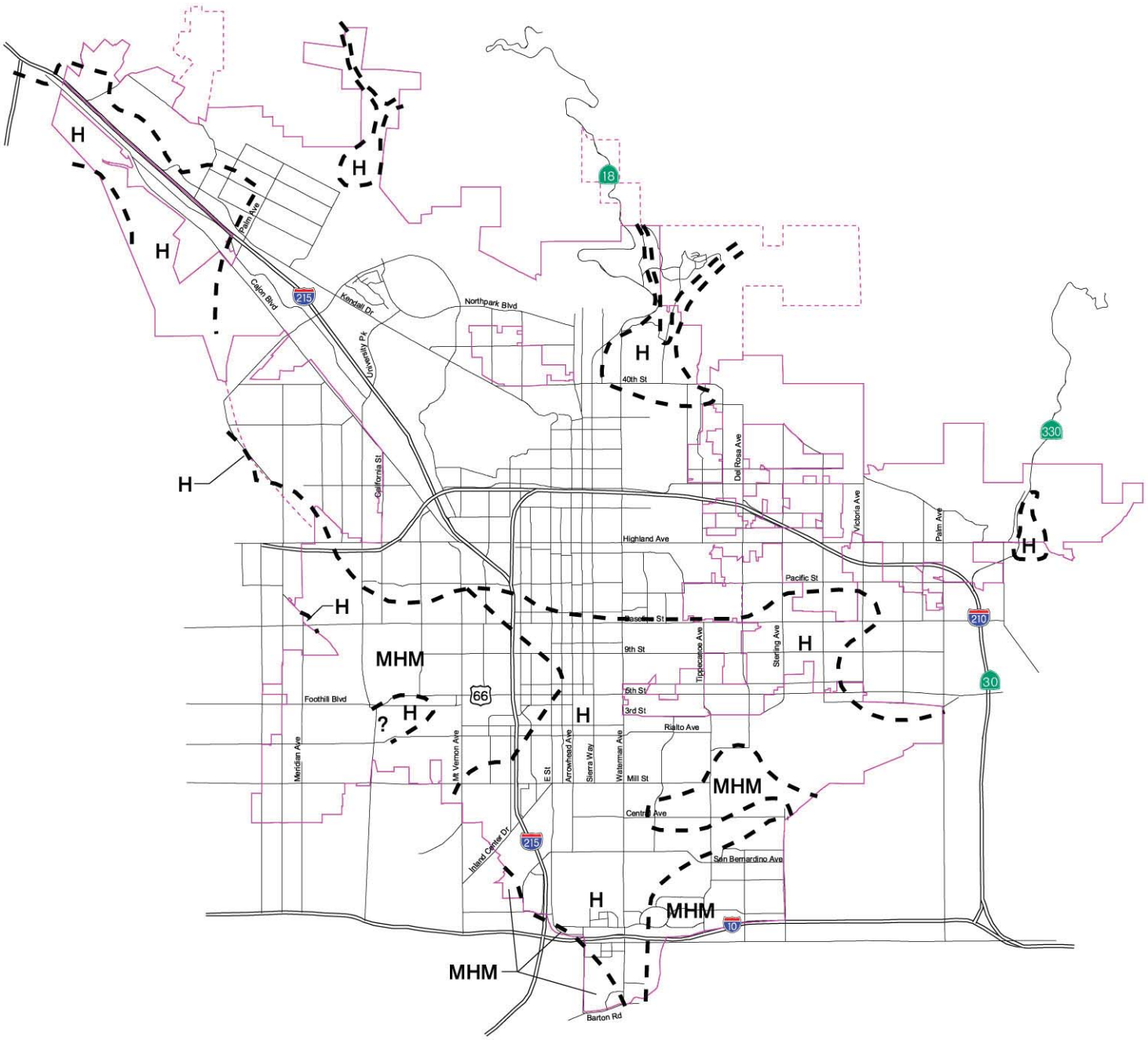
10.7.4 Determine the liquefaction potential at a site prior to development, and require that specific measures be taken, as necessary, to prevent or reduce damage in an earthquake.

10.7.5 Evaluate and reduce the potential impacts of liquefaction on new and existing lifelines.

Lifelines

Water, sewer, electrical, gas facilities, and communication and transportation facilities that are needed in the event of an earthquake, flood, or other natural disaster.

Liquefaction Susceptibility



H — Approximate Location of Areas of High Liquefaction Susceptibility

HMH — Approximate Location of Areas of Moderately High to Moderate Liquefaction Susceptibility

City Boundary

Sphere of Influence Boundary

Note: Not to be used as a substitute for site-specific geotechnical liquefaction induced ground failures should be addressed. Boundaries between susceptibility zones will shift if ground water conditions raise or lower over time. Zonations based on sub-surface geology, ground water levels, and maximum credible earthquakes on the San Andreas Fault System, the San Jacinto Fault System and the Cucamonga Fault. (After Matti and Carson, 1986)

0 10,000'

The City of
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Figure S-5

3. Hazardous Buildings

Ground shaking, fault rupture, or liquefaction pose threats to the community during an earthquake. Buildings that house people or buildings providing essential functions and services can be damaged, imposing significant impacts to the City. Continuing advances in engineering design and building code standards over the past decade have greatly reduced the potential for collapse in an earthquake of most of our new buildings. However, many of the City's buildings were built before some of the earthquake design standards were incorporated into the building code, and as such, the City is home to numerous unreinforced masonry buildings, pre-cast concrete buildings, soft-story structures, and non-ductile concrete frame buildings in need of seismic mitigation.

The California Building Code (CBC), Unreinforced Masonry Law (SB 547), Alquist-Priolo Earthquake Fault Zoning Act, and the State of California Seismic Hazards Mapping Act govern development in potentially seismically active areas.

The CBC contains provisions to safeguard against major structural failures or loss of life caused by earthquakes or other geologic hazards. According to the CBC, the City of San Bernardino is located in Seismic Zone 4, one of five zones (0-4) mapped in the CBC to identify areas subject to varying degrees of potential impact and frequency of large earthquakes. Seismic Zone 4 is potentially subject to the highest accelerations, or changes in speed or velocity due to seismic shaking, and has the greatest frequency of large earthquakes.

The Unreinforced Masonry Law requires all cities and counties in Seismic Zone 4 (CBC, 1998) to identify hazardous unreinforced masonry buildings in their jurisdictions. Owners of such buildings must be notified of the potential earthquake hazard, and mitigation must be performed. The mitigation method, which may include retrofitting or demolition, is left to the local jurisdiction.

Unreinforced Masonry Law:

The Unreinforced Masonry Law requires cities and counties within Seismic Zone 4 to identify hazardous unreinforced masonry buildings and consider local regulations to abate potentially dangerous buildings through retrofitting or demolition as outlined in the State Office of Planning and Research Guidelines.

Goal 10.8 Prevent the loss of life, serious injuries, and major disruption caused by the collapse of or severe damage to vulnerable buildings in an earthquake.

Policies:

10.8.1 Enforce the requirements of the California Seismic Hazards Mapping and Alquist-Priolo Earthquake Fault Zoning Acts

when siting, evaluating, and constructing new projects within the City. (LU-1)

10.8.2 Require that lifelines crossing a fault be designed to resist the occurrence of fault rupture.

10.8.3 Adopt a program for the orderly and effective upgrading of seismically hazardous buildings in the City for the protection of health and safety. Compliance with the Unreinforced Masonry Law shall include the enactment of an effective program for seismic upgrading of unreinforced masonry buildings within the City.

Geology and Soils

Site-specific investigation of geologic and soils conditions are the City's primary means of hazard evaluation and an important basis for developing effective mitigation of individual development projects through the planning and design. Standardized reporting procedures are necessary to assure consistency of hazard evaluation in the planning area.

Data collected for an individual development site does not necessarily provide a complete picture of the regional geologic hazards affecting the site. A broader data base of geologic and soils information, derived from a variety of research, development, and excavation projects, would provide a broader perspective and significant insights on potential development hazards, that can be utilized on a regional scale for land use planning.

1. Subsidence

Subsidence can be caused by natural geologic processes or by human activity such as subsurface mining or pumping of groundwater or oil. Historic and potential ground subsidence areas within the San Bernardino planning area are depicted in Figure S-6. The City's historic subsidence area was located within the thick, poorly consolidated alluvial and marsh deposits of the old artesian area north of Loma Linda. Potential subsidence within this area may be as great as five to eight feet if unreplenished groundwater is depleted from the Bunker Hill-San Timoteo Basin. Since 1972, the San Bernardino Municipal Water District has maintained groundwater levels from recharge to percolation basins that, in turn, filter back into the alluvial deposits. Problems with ground subsidence have not been identified since the groundwater recharge program began.

2. Landslides

General slope stability is determined by a number of factors including slope, vegetative cover, wildfire, bedrock, soil, precipitation, and human alteration. Slopes may be in temporary equilibrium until one of the above factors is modified resulting in an unstable condition and potential failure.

Slope stability studies of the San Bernardino planning area were conducted by Morton (1974) and Miller (1979) and include general descriptions of slope areas along with accompanying maps. Generalized slopes are subdivided into areas of low relief, areas of moderate relief, and areas of high relief. Generalized landslide susceptibility in the City is considered low to moderate. A combination of the generalized slope categories and the generalized landslide susceptibility areas results in two potentially hazardous zones. These zones are mapped in Figure S-7 and include:

- Areas of low relief with low to moderate susceptibility that may contain small-scale surficial soil slips, debris flow, and mudflows on steep slopes.
- Areas of moderate and high relief with low to moderate susceptibility that may contain small to large rotational slides, debris slide, and combinations of surficial slides and flows. These areas contain individual landslides that have been included on the regional slope stability and landslides map.

Potential slope failures in the above areas could be hazardous to buildings, reservoirs, roads, and utilities. Seismic shaking may also include slope failure.

Goal 10.9 Minimize exposure to and risks from geologic activities.

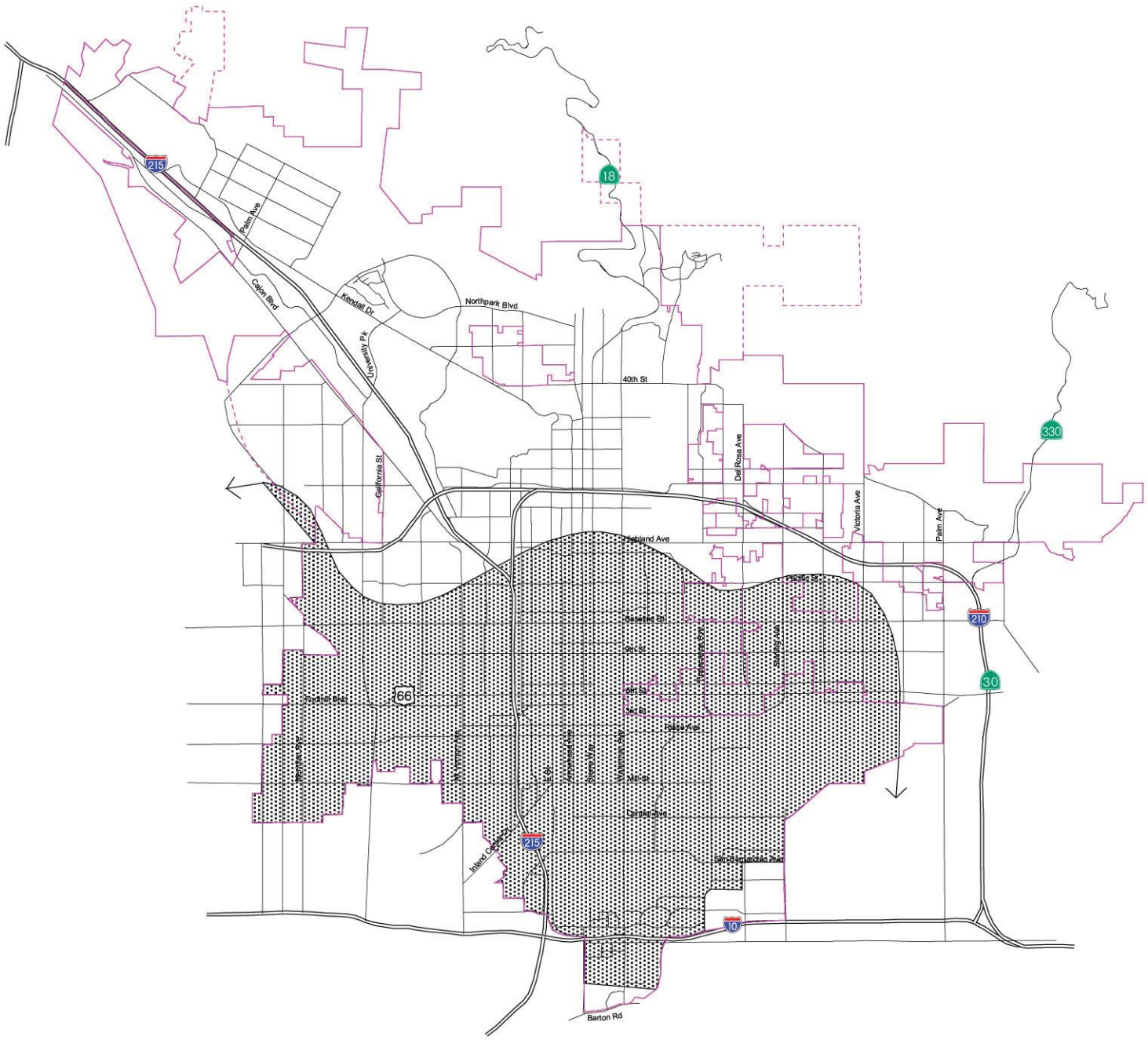
Policies:

10.9.1 Minimize risk to life and property by properly identifying hazardous areas, establishing proper construction design criteria, and distribution of public information.

10.9.2 Require geologic and geotechnical investigations in areas of potential geologic hazards as part of environmental and/or development review process for all new structures. (LU-1)

10.9.3 Require that new construction and significant alterations to structures located within potential landslide areas (Figure S-7) be evaluated for site stability, including potential impact to other properties during project design and review. (LU-1)

Potential Subsidence Areas



Note: Degree of subsidence dependent on groundwater levels.
Historic subsidence may have occurred in above area.
(After Fife and others, 1976)

Areas of Potential Ground Subsidence

City Boundary

Sphere of Influence Boundary

0 10,000'

The City of
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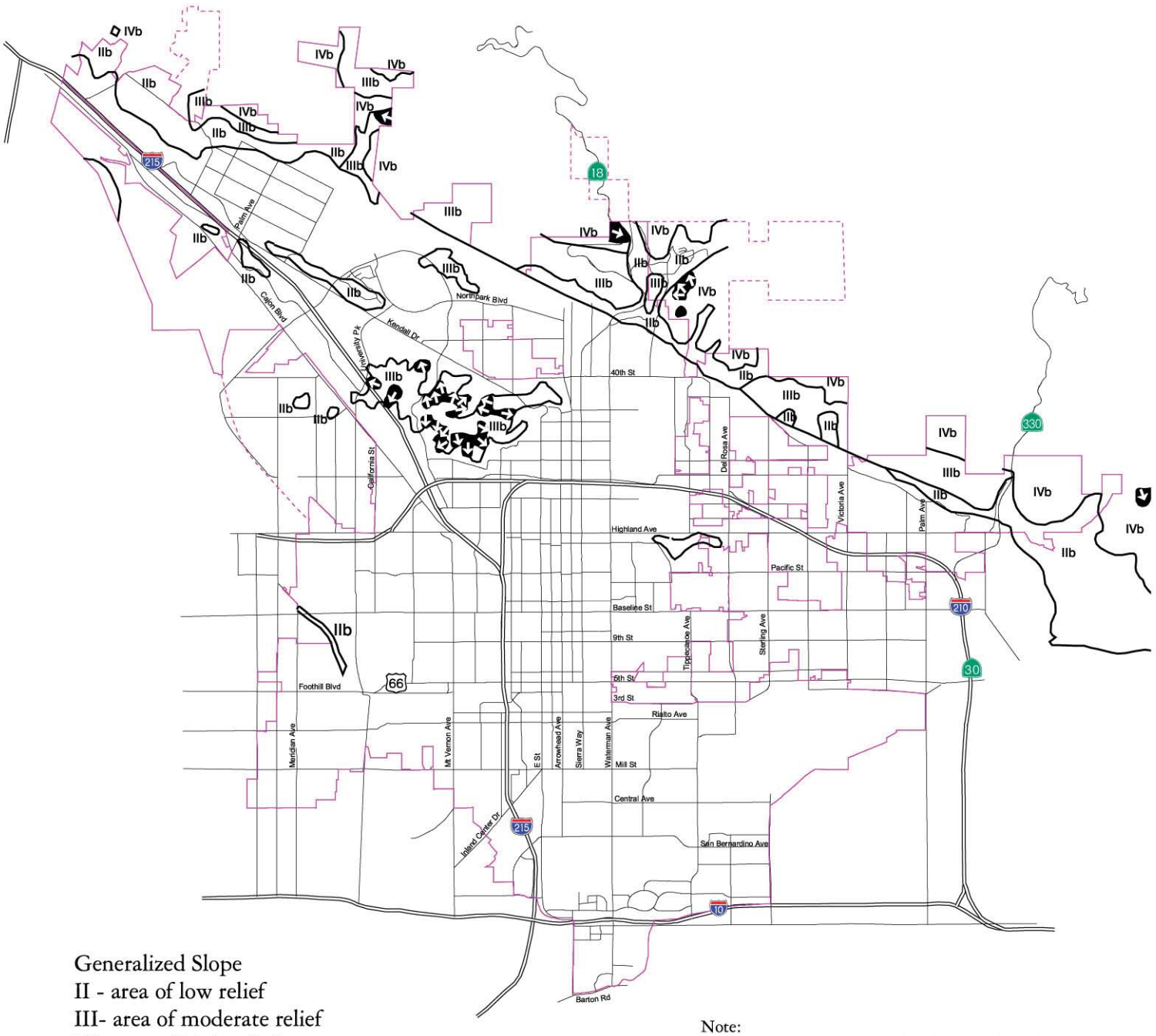
General Plan

Figure S-6

Slope Stability and Major Landslides



Generalized Slope
II - area of low relief
III- area of moderate relief
IV- area of high relief

Generalized Landslide Susceptability
b - low to moderate

Approximate location and size of individual landslides. Arrows illustrate predominate direction of landslide movement.

City Boundary

Sphere of Influence Boundary

Note:
-Areas IIb may contain small scale surficial soil slips, debris flows and mudflows on steep local slopes.
-Areas IIIb and IVb may contain small to large rotational slides, debris slides and combinations of surficial slides and flows.

(Source: Morton, 1974 and Miller, 1979)

0 10,000'

The City of
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Figure S-7

Wind

The City is subject to extremely high winds, which have resulted in significant property damage. For example, portions of roofs and block walls have been broken and blown away and public utility structures such as power lines and traffic signals have been damaged.

The most significant wind problems occur at the canyon mouths and valleys extending downslope from the San Bernardino Mountains. The highest velocities are associated with downslope canyon and Santa Ana winds (90-100 mph).

The Santa Ana wind conditions are a reversal of the prevailing southwesterly winds and usually occur on a region-wide basis during late summer and early fall. Santa Ana's are dry, warm winds that flow from the higher desert elevations in the north through the mountain passes and canyons. As they converge through the canyons, their velocities increase. Consequently, peak velocities are highest at the mouths of the canyons and dissipate as they spread across the valley floor.

High winds exacerbate brush fire conditions. Of the major fires in the San Bernardino Mountains, all have occurred during periods of high winds. New development in the foothill areas and valleys will expose buildings and population to significant wind hazards.

The high wind velocity and property damage potential have resulted in the northern half of the City adjacent to the mountains being classified by the City as a "High Wind Area" (Figure S-8). In this area of the City, stringent conditions for the construction of buildings and public facilities are applied. Due to various topographic conditions, wind velocities vary throughout the City; however, building standards remain constant. A detailed study may reveal localized wind patterns that merit different structural standards.

Goal 10.10 Protect people and property from the adverse impacts of winds.

Policies:

10.10.1 Ensure that buildings are constructed and sited to withstand wind hazards. (LU-1)

10.10.2 Require that development in the High Wind Hazard Area, as designated on Figure S-8, be designed and constructed to withstand extreme wind velocities. (LU-1)

10.10.3 Periodically review the structural design requirements for wind in the Building Code to reflect wind conditions and property damage experienced as well as advances to current construction technology.

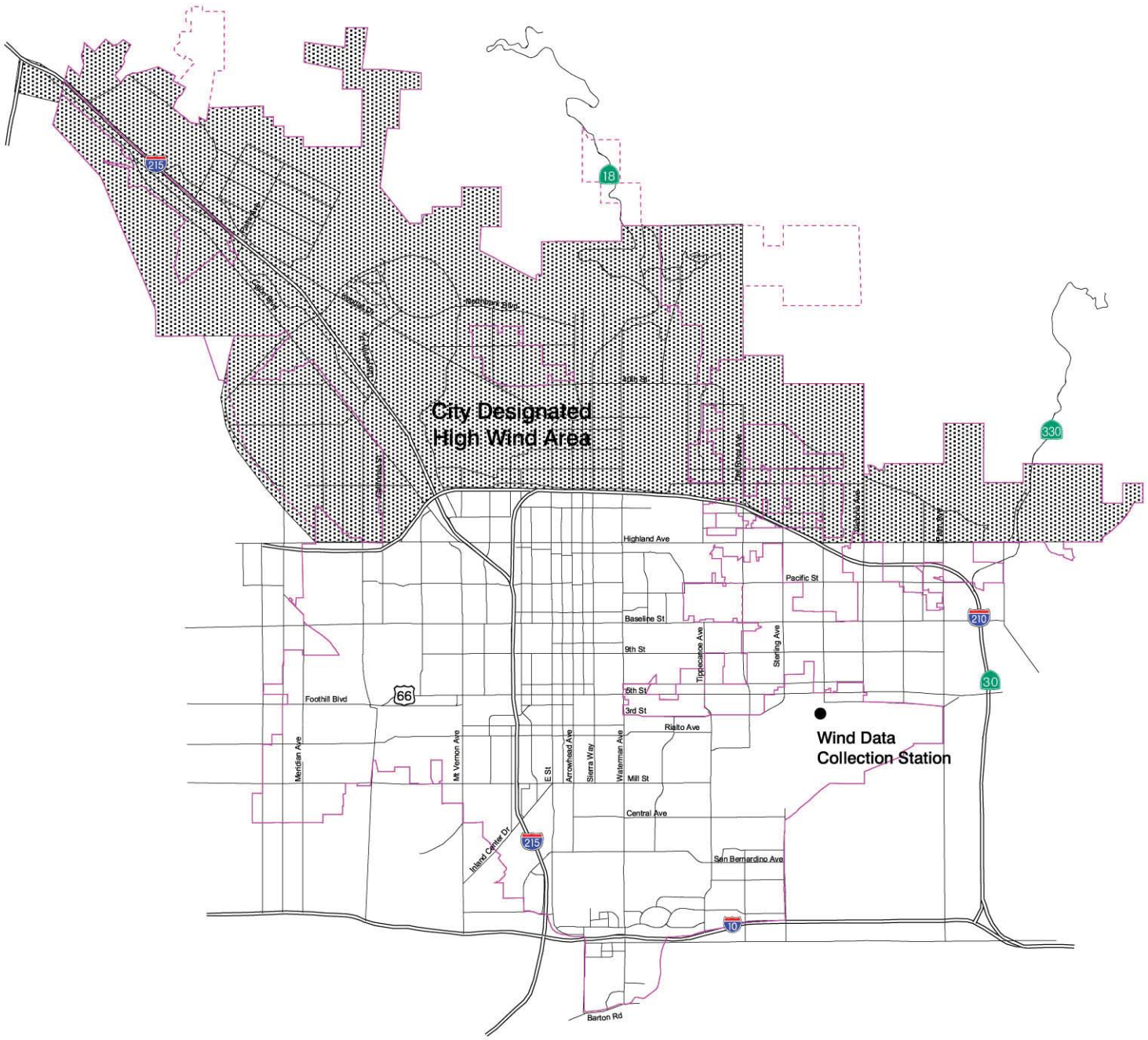
10.10.4 Require that structures be sited to prevent adverse funneling of wind on-site and on adjacent properties.

10.10.5 Require that multi-story residential, commercial, and industrial buildings be designed to prevent wind tunnel affects around their base and in passageways. (LU-1)

10.10.6 Construct public infrastructure (lighting poles, street lights, bridges, etc.) to withstand extreme wind velocities in High Wind Hazard areas.

10.10.7 Maintain police, fire, medical, and other pertinent programs to respond to wind-caused emergencies.

10.10.8 Initiate a review of the wind hazard potential as it applies to various parts of the City and, if merited, tailor the design standards accordingly.



City Designated High Wind Area

City Boundary

Sphere of Influence Boundary

The City of
SAN BERNARDINO
General Plan

Figure S-8

Urban and Wildland Fires

Fires in undeveloped areas result from the ignition of accumulated brush and woody materials, and are appropriately termed “wildland fires”. Such fires can burn large areas and cause a great deal of damage to both structures and valuable open space land. Urban fires usually result from sources within the structures themselves. Fire hazards of this type are related to specific sites and structures, and availability of fire fighting services is essential to minimize losses.

In urban areas, the effectiveness of fire protection efforts is based upon several factors, including the age of structures, efficiency of circulation routes that ultimately affect response times, and availability of water resources to combat fires. In wildland areas, taking the proper precautions, such as the use of fire resistant building materials, can protect developed lands from fires and, therefore, reduce the potential loss of life and property.

The City of San Bernardino is susceptible to wildland fires due to the steep terrain and highly flammable chaparral vegetation of the foothills of the San Bernardino Mountains and high winds that correspond with seasonal dry periods. The characteristics of the San Bernardino Mountains and winds in the area indicate that large uncontrollable fires on a recurring basis are inevitable. Major fires have endangered the City of numerous occasions and in several instances, have spread into the City causing extensive damage, most recently in 2003.

Foothill Fire Zone Overlay

The San Bernardino Development Code and this General Plan contain the Foothill Fire Zone Overlay District. The purpose of this overlay is to mitigate the spread of fire, to help minimize property damage, and reduce the risk to the public health and safety.

The Foothill Fire Zone Overlay ranks areas of fire danger (extreme, high, and moderate) and dictates standards that must be met when developing within the overlay. Standards address the access, vegetation, water supply, erosion control, identification, and design of all new development.

This Overlay is depicted on both the General Plan and Zoning Maps.

The danger from wildland fires in foothill locations is increased by the number of structures and encroachment of new development in the hillside areas. Specific concerns include the density of development, spacing of structures, brush clearance, building materials, access to buildings by fire equipment, adequacy of evacuation routes, property maintenance, and water availability. The capacity of the water systems to provide sufficient water to fight fires is also a significant issue.

The U.S. Department of Forestry has records of wildland fires dating back to the beginning of the 20th century. The data indicates that fires occur on a regular basis almost every year and that very large fires occur approximately every ten years. According to the Department of Forestry, the large fires correspond to the age of the vegetation which, if not burned regularly, begins to accumulate dead material that is more easily ignited and spreads fire faster than newer growth.

Consequently, a decade can pass with few fires followed by a decade with several large fires. The occurrence of the largest fires also corresponds to periods of extremely high wind conditions. This was seen in 2003 Old Waterman Canyon fire, the largest fire in recent history, which destroyed approximately 330 residential properties, and the Panorama fire in 1980, which destroyed 345 structures and killed four people. Many of the areas burned during the Panorama fire were again burned in 2003.

The large fires that are spread by winds periodically approaching and exceeding 90 to 100 miles per hour are considered uncontrollable by the California Department of Forestry and U.S. Forest Service. Other areas in southern California are being burned off periodically by way of controlled burns to remove older vegetation. The controlled burn process is used very carefully in the San Bernardino Mountains because of the unpredictability and force of the winds in the area that could make controlled burns a potential hazard.

Goal 10.11 Protect people and property from urban and wildland fire hazards.

Policies:

10.11.1 Continue to conduct long-range fire safety planning efforts to minimize urban and wildland fires, including enforcement of stringent building, fire, subdivision and other Municipal Code standards, improved infrastructure, and mutual aid agreements with other public agencies and the private sector. (S-2)

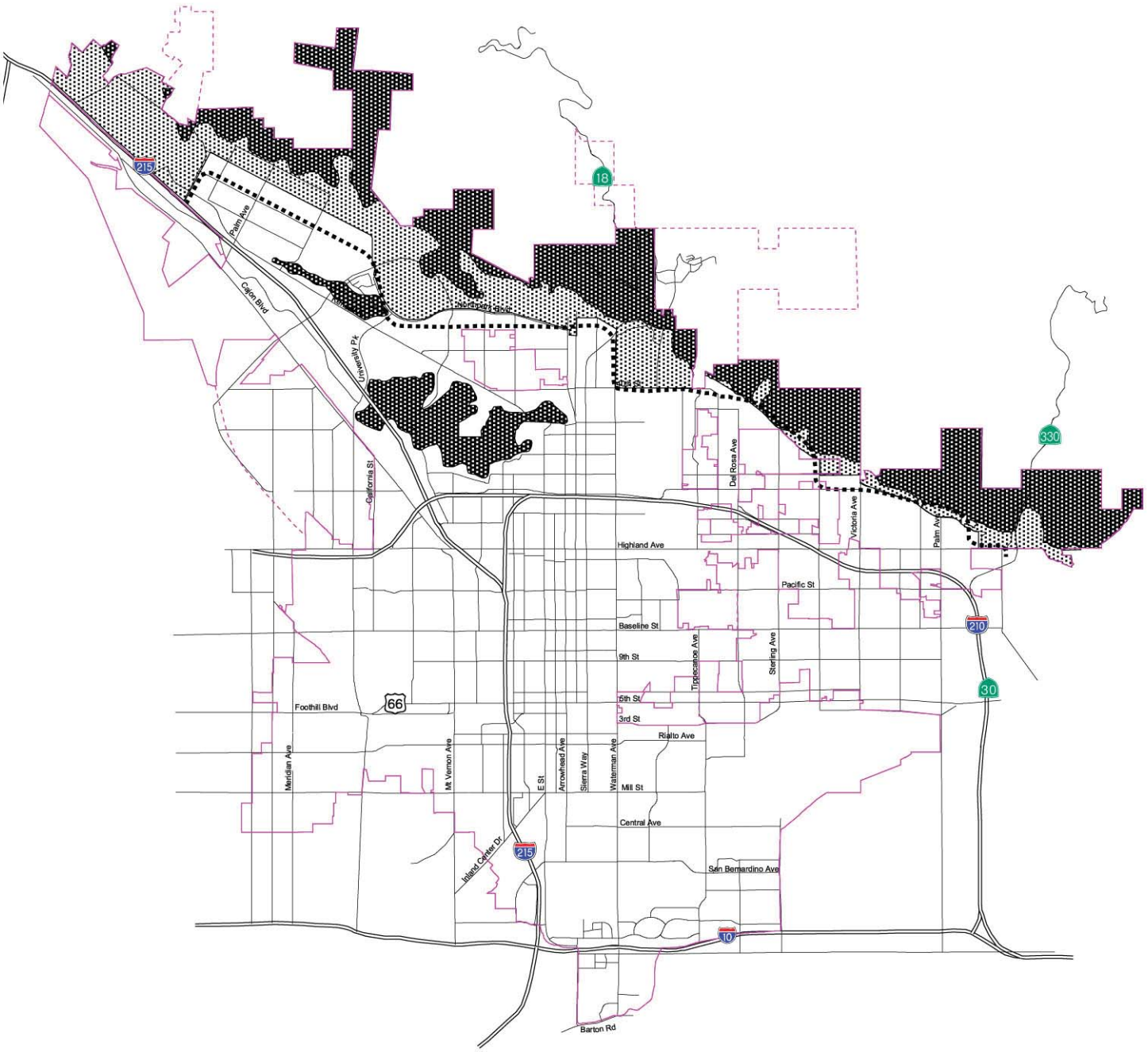
10.11.2 Work with the U.S. Forest Service and private landowners to ensure that buildings are constructed, sites are developed, and vegetation and natural areas are managed to minimize wildfire risks in the foothill areas of the City. (S-3)

10.11.3 Require that development in the High Fire Hazard Area, as designated on the Fire Hazards Areas Map (Figure S-9) be subject to the provisions of the Hillside Management Overlay District (HMOD) and the Foothill Fire Zones Overlay. (LU-1)

10.11.4 Study the potential acquisition of private lands for establishment of greenbelt buffers adjacent to existing development, where such buffers cannot be created by new subdivision.

10.11.5 Continue to require that all new construction and the replacement of 50% and greater of the roofs of existing structures use fire retardant materials. (LU-1 and S-3)

Fire Hazard Areas



Extreme Fire Hazard Area
Moderate Fire Hazard Area
City High Fire Hazard Line

City Boundary
Sphere of Influence Boundary

(Source: City of San Bernardino)

0 10,000'

The City of
SAN BERNARDINO
General Plan

Figure S-9

Emergency Preparedness and Response

Advance preparation for potential disasters can prevent severe loss of life and property from catastrophic events. The proper preparations improve the City's ability to respond to emergency situations created by these occurrences.

Preparation, however, is only the first step in the management of hazards and disasters. Once a disaster has occurred, the capability of the City to respond to the situation at hand affects how quickly the City can recover from impacts.

1. Emergency Management Plan

The City of San Bernardino Emergency Plan details the functional responsibilities and interactions of the federal, state, and local governmental agencies as well as private organizations in the event of natural and/or human-related disasters. Included within the natural disaster category are earthquakes, geologic hazards, floods, and fires. Potential human-related disasters include hazardous materials incident, nuclear attack, and transportation-related accidents.

Within the Emergency Management Plan, potential hazards are described, the possible effects delineated, and recommended mitigations are discussed where applicable. Post-disaster aid, reconstruction, and financial assistance are also discussed.

2. Hazard Mitigation Plan

The Disaster Mitigation Act of 2000 (DMA 2000), Section 322 (a-d), requires that local governments, as a condition of receiving federal disaster mitigation funds, adopt a mitigation plan that describes the process for identifying hazards, risks, and vulnerabilities, identifies and prioritizes mitigation actions, encourages the development of local mitigation, and provides technical support for those efforts. In response to this and the requirements of the State of California Office of Emergency Services and the San Bernardino County Office of Emergency Services, we have prepared the San Bernardino Hazard Mitigation Plan. While we cannot prevent natural disasters from occurring, we can reduce/eliminate their effects through the well organized public education and awareness effort, preparedness, and mitigation set forth in the Hazard Mitigation Plan.

3. Hazardous Materials Emergency Response Planning

The San Bernardino City Fire Department has a Hazardous Materials Response Team specially trained and equipped to handle hazardous materials releases that have adverse effects on lives, the environment, and property within the City of San Bernardino. A release is any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, unless permitted or authorized by a regulatory agency.

If the fire and police departments determine that an incident requires special expertise and equipment, they may request assistance from the Countywide Haz Mat Team of the County Environmental Health Department. The Haz Mat Team includes a minimum of two fire specialists and two environmental health specialists who perform hazard identification, risk assessment, and actual control measures. Haz Mat is a cooperative organization structure that is intended to bring the maximum available equipment and special expertise to any given emergency situation.

Goal 10.12 Ensure the availability and effective response of emergency services in the event of a disaster.

Policies:

10.12.1 Maintain a functional City emergency response plan that addresses all hazards.

10.12.2 Implement the City of San Bernardino Hazard Mitigation Plan.

10.12.3 Foster and participate in ongoing emergency preparedness and response training programs.

10.12.4 Enhance emergency preparedness through the implementation of community education and self-help programs. (S-4)

10.12.5 Prevent serious damage and injuries through effective hazard mitigation.

10.12.6 Maintain mutual aid agreements with neighboring cities and the County of San Bernardino and develop partnerships to respond to disaster with other emergency relief organizations.

10.12.7 Ensure that sensitive uses, such as the University and other public uses that accommodate many occupants, have adequate access to allow emergency personnel to access the site in the event of an emergency.

Goal 10.13 Prepare the City for effective response to facilitate rapid and effective recovery following disasters.

Policies:

10.13.1 Establish and maintain a rapid damage assessment capability through the formation of damage assessment strategies that are applied by the appropriate City Staff or inspection personnel.

10.13.2 Develop programs, options, and procedures to promote the rapid reconstruction of the City following a disaster, and to facilitate a specific upgrading of the community environment.

10.13.3 Identify alternative sources of financing of damage and reconstruction that can be utilized in the event of a disaster.

10.13.4 Encourage public awareness of emergency response planning and emergency evacuation routes. (S-1)

LOCAL AGENCY FORMATION COMMISSION
FOR SAN BERNARDINO COUNTY

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(909) 388-0480 • Fax (909) 388-0481
lafco@lafco.sbcounty.gov
www.sbclafco.org

PROPOSAL NO.: LAFCO 3274

HEARING DATE: SEPTEMBER 17, 2025

RESOLUTION NO. 3427

A RESOLUTION OF THE LOCAL AGENCY FORMATION COMMISSION FOR SAN BERNARDINO COUNTY MAKING DETERMINATIONS ON LAFCO 3274 AND APPROVING THE REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (SPRING TRAILS SPECIFIC PLAN PROJECT). The reorganization area encompasses approximately 350 acres and is generally located east of the community of Devore and northeasterly of the I-215 Freeway. The reorganization boundary is generally bordered by a combination of Meyers Road and parcel lines (existing City boundaries) on the south, parcel lines (a portion of existing City boundaries) on the west, and parcel lines on the north and east, within the City of San Bernardino's northern sphere of influence.

On motion of Commissioner _____, duly seconded by Commissioner _____, and carried, the Local Agency Formation Commission adopts the following resolution:

WHEREAS, an application for the proposed reorganization in the County of San Bernardino was filed with the Executive Officer of this Local Agency Formation Commission (hereinafter referred to as "the Commission") in accordance with the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code Sections 56000 et seq.), and the Executive Officer has examined the application and executed his certificate in accordance with law, determining and certifying that the filings are sufficient; and,

WHEREAS, at the times and in the form and manner provided by law, the Executive Officer has given notice of the public hearing by the Commission on this matter; and,

WHEREAS, the Executive Officer has reviewed available information and prepared a report including his recommendations thereon, the filings and report and related information having been presented to and considered by this Commission; and,

WHEREAS, the public hearing by this Commission was called for September 17, 2025 at the time and place specified in the notice of public hearing; and,

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WHEREAS, at the hearing, this Commission heard and received all oral and written support and/or opposition; the Commission considered all plans and proposed changes of organization, objections and evidence which were made, presented, or filed; and all persons present were given an opportunity to hear and be heard in respect to any matter relating to the application, in evidence presented at the hearing; and,

NOW, **THEREFORE**, **BE IT RESOLVED**, that the Commission does hereby determine, find, resolve, and order as follows:

DETERMINATIONS:

SECTION 1. The proposal is approved subject to the terms and conditions hereinafter specified:

CONDITIONS:

Condition No. 1. The boundaries of this change of organization are approved as set forth in Exhibits "A" and "A-1" attached.

Condition No. 2. The following distinctive short-form designation shall be used throughout this proceeding: LAFCO 3274.

Condition No. 3. All previously authorized charges, fees, assessments, and/or taxes currently in effect by the City of San Bernardino (annexing agency) shall be assumed by the annexing territory in the same manner as provided in the original authorization pursuant to Government Code Section 56886(t).

Condition No. 4. The City of San Bernardino shall indemnify, defend, and hold harmless the Local Agency Formation Commission for San Bernardino County from any legal expense, legal action, or judgment arising out of the Commission's approval of this proposal, including any reimbursement of legal fees and costs incurred by the Commission.

Condition No. 5. Pursuant to Government Code Section 56886.1, public utilities, as defined in Section 216 of the Public Utilities Code, have ninety (90) days following the recording of the Certificate of Completion to make the necessary changes to impacted utility customer accounts.

Condition No. 6. The date of issuance of the Certification of Completion shall be the effective date of the reorganization;

SECTION 2. The Commission determines that approval of LAFCO 3274 will create an unincorporated island surrounded by the City of San Bernardino. Since the inclusion of the island area would likely terminate the annexation proposal due to the number of registered voters within said island, the Commission determines, pursuant to the provision of Government Code Section 56375(m), to waive the restrictions on the creation of a totally-surrounded island contained within Government Code Section 56744 because it would be detrimental to the orderly development of the community, and it further determines that the area to be surrounded by the City of San Bernardino cannot reasonably be annexed to another city or incorporated as a new city.

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SECTION 3. The Commission determines that:

a) this proposal is certified to be legally uninhabited;

b) it has 100 % landowner consent; and,

c) no written opposition to a waiver of protest proceedings has been submitted by a subject agency.

Therefore, the Commission does hereby waive the protest proceedings for this action as permitted by Government Code Section 56662(d).

SECTION 4. DETERMINATIONS. The following determinations are required to be provided by Commission policy and Government Code Section 56668:

1. The reorganization area is legally uninhabited containing five (5) registered voters as of August 6, 2025, as certified by the County Registrar of Voters Office.

2. The County Assessor's Office has determined that the total assessed value of land and improvements within the reorganization area is $2,604,332 (land--$2,493,122; improvements--$111,210) as of April 1, 2025.

3. The reorganization area is within the sphere of influence of the City of San Bernardino.

4. Legal notice of the Commission's consideration has been provided through publication in *The Sun*, a newspaper of general circulation within the reorganization area. In addition, individual notices were provided to all affected and interested agencies, County departments, and those individuals and agencies having requested such notification. Comments from affected and interested agencies have been considered by the Commission in making its determination.

5. In compliance with the requirements of Government Code Section 56157 and Commission policies, LAFCO staff has provided individual notice to:

   - landowners (14) and registered voters (5) within the reorganization area (totaling 19 notices); and,

   - landowners (92) and registered voters (117) surrounding the reorganization area (totaling 209 notices).

   Comments from registered voters, landowners, and other individuals and any affected local agency in support or opposition have been reviewed and considered by the Commission in making its determination.

6. The reorganization area is predominantly vacant with the exception of an existing single-family residence on one of the parcels with an associated nominal population.

   The City of San Bernardino adopted the Spring Trails Specific Plan (SP #10-01) along with a General Plan Amendment (GPA #02-09) and a Development Code

Amendment (DCA #12-10), which pre-zoned the reorganization area as Spring Trails Specific Plan with the following underlying specific plan zone designations: Residential (Estate), Open Space, and Parks. These pre-zone/specific plan zone designations are consistent with the City's General Plan and are generally compatible with surrounding land uses within the City and in the County. Pursuant to the provisions of Government Code Section 56375(e), these pre-zone designations shall remain in effect for two years following annexation unless specific actions are taken by the City Council.

7. The Southern California Associated Governments (SCAG) recently adopted its 2024-2050 Regional Transportation Plan and Sustainable Communities Strategy (RTP-SCS), referred to as Connect SoCal 2024, pursuant to Government Code Section 65080. The 2025 Federal Transportation Improvement Program includes plans for the reconstruction of the University Parkway interchange on the I-215 Freeway and a non-capacity landscaping project along said I-215 Freeway within the City of San Bernardino, which is in close proximity to LAFCO 3274.

8. The City of San Bernardino recently adopted its 2024 Local Hazard Mitigation Plan (LHMP) in May 2025 (Resolution No. 2025-282), which was developed by County Fire, the City's fire service provider. Said LHMP includes hazards such as earthquake/geologic hazards, high wind, and wildfire, which are considered high probability hazards given the location of the Spring Trails project. In 2022, the County of San Bernardino created a Multi-Jurisdictional Hazard Mitigation Plan which presents updated information about the County's climate hazards. The risk assessment was added to align and comply with the State's Hazard Mitigation Plan and recent SB 379 initiatives.

9. A Complete Final Environmental Impact Report (EIR) was prepared and certified as adequate by the City of San Bernardino for its approval of the Spring Trails Specific Plan (SCH No. 2009111086). The Commission, its staff, and its Environmental Consultant have independently reviewed the City's Complete Final EIR and found it to be adequate for the reorganization decision.

   The Commission certifies that it has reviewed and considered the City's Complete Final EIR and the effects outlined therein, and as referenced in the Facts, Findings and Statement of Overriding Considerations, prior to reaching a decision on the project. By considering the Complete Final EIR adopted by the City of San Bernardino and adopting the revised Facts, Findings and Statement of Overriding Considerations for the proposal, the Commission is reconfirming its position regarding the adequacy of the City's Complete Final EIR and originally-approved Statement of Overriding Considerations in light of the reduced Project scope, for purposes of its approval of LAFCO 3274 as a Responsible Agency under CEQA.

   The Commission hereby acknowledges the mitigation measures and mitigation monitoring and reporting program contained in the City's Complete Final EIR and finds that no additional feasible alternatives or mitigation measures will be adopted by the Commission. The Commission finds that all changes, alterations, and mitigation measures are within the responsibility and jurisdiction of the City and other agencies, and not the Commission. The Commission finds that it is the responsibility

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of the City to oversee and implement these measures and the mitigation monitoring and reporting program.

The Commission hereby adopts the Facts, Findings and Statement of Overriding Considerations regarding the environmental effects of the reorganization. The Commission finds that all feasible changes or alterations have been incorporated into the project; that these changes are the responsibility of the City and other agencies identified in the Facts, Findings and Statement of Overriding Considerations and the City's Complete Final EIR; and that specific economic, social or other considerations make infeasible adoption of the alternatives identified in the City's Complete Final EIR.

The Commission directs its Executive Officer to file a Notice of Determination within five (5) days with the San Bernardino County Clerk of the Board of Supervisors. The Commission, as a Responsible Agency, also notes that this proposal is exempt from the California Department of Fish and Wildlife fees because the fees were the responsibility of the City of San Bernardino as a CEQA Lead Agency.

10. The local agencies currently serving the area are: County of San Bernardino, Inland Empire Resource Conservation District, San Bernardino Valley Municipal Water District, San Bernardino County Fire Protection District, its Valley Service Zone, and its Zone FP-5 (fire protection and emergency medical response), and County Service Area 70 (multi-function unincorporated County-wide).

    Upon reorganization, the area will be detached from County Service Area 70 and its sphere of influence reduced as a function of the reorganization. None of the other agencies are affected by this proposal as they are regional in nature.

11. The City of San Bernardino has submitted a plan for the provision of services to the reorganization area, as required by Government Code Section 56653. The Plan for Service and the Fiscal Impact Analysis, as certified by the City, indicates that the City can, at a minimum, maintain and/or improve the level and range of services currently available in the area.

    The Plan for Service and Fiscal Impact Analysis have been reviewed and compared with the standards established by the Commission and the factors contained within Government Code Section 56668. The Commission finds that the Plan for Service and the Fiscal Impact Analysis conform to those adopted standards and requirements.

    The Plan indicates that the revenues to be provided through the transfer of property tax revenues and existing and potential financing mechanisms are anticipated to be sufficient to provide for the infrastructure and ongoing maintenance and operation of the services to be provided from the City of San Bernardino and its Municipal Water Department as well as the services from the San Bernardino County Fire Protection District and its Valley Service Zone.

12. The reorganization area will benefit from the availability and extension of municipal-level services from the City of San Bernardino.

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13. The reorganization proposal complies with Commission policies and directives and State law that indicate the preference for areas proposed for urban intensity development to be included within a City so that the full range of municipal services can be planned, funded, extended, and maintained.

    However, approval of this proposal will create an island of unincorporated territory that will be totally-surrounded by the City of San Bernardino. The City has already initiated the annexation of the adjacent 26-acre unincorporated island area (LAFCO 3275) to be considered at a later date should the Commission approve LAFCO 3274.

14. This proposal will assist the City of San Bernardino's ability to achieve its fair share of the regional housing needs as it proposes to build the addition of 215 single-family residential units.

15. With respect to environmental justice, which is the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services, the following demographic and income profile was generated using ESRI's Business Analyst for the City of San Bernardino and the reorganization and adjacent unincorporated areas (2025 data):

Demographic and Income Comparison	City of San Bernardino (%)	Reorganization Area and Adjacent Unincorporated Area (%)
Race and Ethnicity		
• White Alone	22.7 %	60.5 %
• Black Alone	11.6 %	2.7 %
• American Indian Alone	2.3 %	1.3 %
• Asian Alone	4.3 %	4.6 %
• Pacific Islander Alone	0.4 %	0.2 %
• Some Other Race Alone	41.8 %	14.8 %
• Two or More Races	16.9 %	15.9 %
• Hispanic Origin (Any Race)	70.7 %	35.2 %
Median Household Income	$77,677	$128,136

    Through future development, the reorganization area will benefit from the extension of services and facilities from the City and, at the same time, would not result in the deprivation of service or the unfair treatment of any person based on race, culture or income through approval of LAFCO 3274.

16. The County (for itself and acting on behalf of the San Bernardino County Fire Protection District) and the City of San Bernardino have negotiated a transfer of property tax revenues that will be implemented upon completion of this reorganization. Copies of the resolutions adopted by the City Council of the City of San Bernardino and the San Bernardino County Board of Supervisors are on file in the LAFCO office outlining the exchange of revenues.

17. The maps and legal descriptions, as revised, are in substantial compliance with LAFCO and State standards through certification by the County Surveyor's Office.

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SECTION 5. The primary reason for this reorganization is to receive municipal services from the City for the proposed Spring Trails Specific Plan Project.

SECTION 6. The affected territory will not be taxed for existing bonded indebtedness or contractual obligations by the City of San Bernardino through the annexation. The City of San Bernardino utilizes the regular County assessment rolls.

SECTION 7. Approval by the Local Agency Formation Commission indicates that completion of this proposal would accomplish the proposed change of organization in a reasonable manner with a maximum chance of success and a minimum disruption of service to the functions of other local agencies in the area.

SECTION 8. The Commission hereby orders the territory described in Exhibits "A" and "A-1" annexed. The Commission hereby directs, following completion of the reconsideration period specified by Government Code Section 56895(b), that the Executive Officer shall prepare and file a Certificate of Completion, as required by Government Code Section 57176 through 57203, and a Statement of Boundary Change, as required by Government Code Section 57204.

SECTION 9. The Executive Officer is hereby authorized and directed to mail certified copies of this resolution in the manner provided by Section 56882 of the Government Code.

THIS ACTION APPROVED AND ADOPTED by the Local Agency Formation Commission for San Bernardino County by the following vote:

AYES: COMMISSIONERS:

NOES: COMMISSIONERS:

ABSTAIN: COMMISSIONERS:

ABSENT: COMMISSIONERS:

*** ***

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN BERNARDINO)

I, SAMUEL MARTINEZ, Executive Officer of the Local Agency Formation Commission for San Bernardino County, California, do hereby certify this record to be a full, true, and correct copy of the action taken by said Commission by vote of the members present as the same appears in the Official Minutes of said Commission at its regular meeting of September 17, 2025.

DATED:

_____
SAMUEL MARTINEZ
Executive Officer

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LAFCO 3274 - REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (SPRING TRAILS SPECIFIC PLAN PROJECT)

THOSE PARCELS OF LAND LOCATED IN SECTIONS 26 AND 35, TOWNSHIP 2 NORTH, RANGE 5 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SECTION 26, T. 2 N., R. 5 W., SBM;

Course 1. THENCE S88°23'29"W ALONG THE SOUTH LINE OF SAID SECTION 26, T. 2 N., R. 5 W., SBM, A DISTANCE OF 363.28 FEET, TO A POINT ON THE MUSCUPIABE RANCHO LINE, AS PER COUNTY SURVEYORS PLAT 7093, RECORDS OF SAN BERNARDINO COUNTY, STATE OF CALIFORNIA;

Course 2. THENCE S08°25'45"W ALONG SAID MUSCUPIABE RANCHO LINE, A DISTANCE OF 2529.70 FEET, TO A POINT ON THE BOUNDARY OF THE CITY OF SAN BERNARDINO ANNEXATION #257, LAFCO NO 920, ORDINANCE NO. 3131, EFFECTIVE DATE 02/18/1971, SAID POINT ALSO BEING THE NORTHWEST CORNER OF GOVERNMENT LOT 3 OF SECTION 35, T. 2 N., R. 5 W., SBM;

Course 3. THENCE CONTINUING S08°25'45"W ALONG SAID MUSCUPIABE RANCHO LINE, AND ALONG SAID ANNEXATION 257, A DISTANCE OF 703.63 FEET, TO A POINT ON THE CENTERLINE OF PENNSYLVANIA AVENUE AS SHOWN ON THE PLAT OF THE TOWN OF IRVINGTON AND THE LAND OF IRVINGTON LAND AND WATER CO., RECORDED IN MAP BOOK 3, PAGE 9, RECORDS OF SAN BERNARDINO COUNTY, SAID POINT ALSO BEING AN ANGLE POINT ON SAID ANNEXCATION 257;

Course 4. THENCE LEAVING SAID ANNEXATION 257, N63°46'26"W ALONG SAID CENTERLINE OF PENNSYLVANIA AVENUE AND THE BOUNDARY OF CITY OF SAN BERNARDINO ANNEXATION #258, LAFCO NO. 931, ORDINANCE NO. 3142, EFFECTIVE DATE 03/05/1971, A DISTANCE OF 572.96 FEET, TO A POINT ON THE EAST LINE OF LOT "A" PER MAP SHOWING A PORTION OF THE MEYER AND BARCLAY SUBDIVISION, RECORDED IN MAP BOOK 12, PAGE 18, RECORDS OF SAN BERNARDINO COUNTY;

Course 5. THENCE S05°53'31"E ALONG SAID EAST LINE OF LOT "A" AND THE BOUNDARY OF SAID ANNEXATION 258, A DISTANCE OF 480.00 FEET, TO THE NORTHEASTERLY CORNER OF THAT CERTAIN 5 ACRES IN THE SOUTHEAST CORNER OF SAID LOT "A", AS CONVEYED TO ROBERT B. MEYER BY DEED RECORDED IN BOOK 173, PAGE 156, OF DEEDS, RECORDS OF SAID COUNTY, SAID POINT ALSO BEING AN ANGLE POINT IN SAID ANNEXATION 258;

Course 6. THENCE N 84°02’43”W ALONG THE NORTHERLY LINE OF SAID 5 ACRES AND THE BOUNDARY OF SAID ANNEXATION 258, A DISTANCE OF 590.01 FEET, TO AN ANGLE POINT IN SAID ANNEXATION 258;

Course 7. THENCE S06°50’45”W ALONG THE NORTHERLY LINE OF SAID 5 ACRES AND THE BOUNDARY OF SAID ANNEXATION 258, A DISTANCE OF 35.48 FEET, TO THE POINT OF INTERSECTION OF THE CENTERLINE OF MEYERS ROAD AS SHOWN ON PARCEL MAP NO. 3540, RECORDED IN PARCEL MAP BOOK 31, PAGE 84, RECORDS OF SAN BERNARDINO COUNTY, SAID POINT ALSO BEING AN ANGLE POINT IN SAID ANNEXATION 258;

Course 8. THENCE N51°31’14”W ALONG SAID PROLONGATION OF THE CENTERLINE OF SAID MEYERS ROAD AND THE BOUNDARY OF SAID ANNEXATION 258, A DISTANCE OF 132.22 FEET TO THE CENTERLINE OF SAID MEYERS ROAD;

Course 9. THENCE CONTINUING ALONG THE CENTERLINE OF SAID MEYERS ROAD AND THE BOUNDARY OF SAID ANNEXATION 258, N51°31’14”W A DISTANCE OF 472.85 FEET TO THE INTERSECTION OF THE PROLONGATION OF THE EASTERLY LINE OF PARCEL 1, PARCEL MAP NO. 4093, RECORDED IN PARCEL MAP BOOK 38, PAGE 53, RECORDS OF SAN BERNARDINO COUNTY;

Course 10. THENCE LEAVING SAID ANNEXATION 258, N15°43’10”E ALONG SAID EASTERLY PROLONGATION AND THE EASTERLY LINE OF PARCEL 1 AND THE EASTERLY LINE OF PARCEL 2 OF SAID PARCEL MAP NO. 4093, A DISTANCE OF 1433.20 FEET;

Course 11. THENCE N15°44’02”E ALONG THE PROLONGATION OF THE EASTERLY LINE OF SAID PARCEL 2 A DISTANCE OF 30.01 FEET TO THE SOUTHEAST CORNER OF LOT “D,” PER MAP SHOWING A PORTION OF THE MEYER AND BARCLAY SUBDIVISION, RECORDED IN MAP BOOK 12, PAGE 18, RECORDS OF SAN BERNARDINO COUNTY;

Course 12. THENCE N15°53’54”E ALONG THE EASTERLY LINE OF SAID LOT “D” A DISTANCE OF 30.01 FEET;

Course 13. THENCE N15°53’55”E CONTINUING ALONG THE EASTERLY LINE OF SAID LOT “D”, A DISTANCE OF 306.36 FEET TO THE NORTHEAST CORNER OF SAID LOT “D”;

Course 14. THENCE N57°15’54”W ALONG THE NORTHERLY LINE OF SAID LOT “D” A DISTANCE OF 448.80 FEET TO THE NORTHWESTERLY CORNER OF SAID LOT “D”, SAID POINT ALSO BEING THE NORTHEASTERLY CORNER OF PARCEL 3 PER SAID PARCEL MAP NO. 3540, SAID POINT ALSO BEING AN ANGLE POINT ON THE BOUNDARY OF SAID ANNEXATION 258;

Course 15. THENCE N57°17’03”W ALONG THE NORTHEASTERLY LINE OF SAID PARCEL 3 AND THE BOUNDARY OF SAID ANNEXATION 258, A DISTANCE OF 124.74 FEET TO AN ANGLE POINT IN SAID PARCEL 3 ON THE BOUNDARY OF SAID ANNEXATION 258;

Course 16. THENCE N63°07’32”W CONTINUING ALONG THE NORTHEASTERLY LINE OF SAID PARCEL 3 AND THE BOUNDARY OF SAID ANNEXATION 258, A DISTANCE OF 509.44 FEET, TO THE SOUTHEASTERLY CORNER OF PARCEL MAP NO. 3810, RECORDED IN PARCEL MAP BOOK 34, PAGE 92, RECORDS OF SAN BERNARDINO COUNTY;

Course 17. THENCE LEAVING SAID ANNEXATION 258 BOUNDARY N39°33’40”E ALONG THE SOUTHEASTERLY LINE OF SAID PARCEL MAP NO. 3810, A DISTANCE OF 1755.23 FEET, TO THE NORTHEASTERLY CORNER OF PARCEL 3 OF SAID PARCEL MAP NO. 3810;

Course 18. THENCE N50°27’28”W ALONG THE NORTHEASTERLY LINE OF SAID PARCEL 3, A DISTANCE OF 709.08 FEET, TO THE NORTHWESTERLY CORNER OF SAID PARCEL 3;

Course 19. THENCE S39°36’09”W ALONG THE NORTHWESTERLY LINE OF SAID PARCEL 3, A DISTANCE OF 244.15 FEET, TO THE SOUTHEASTERLY CORNER OF PARCEL 4 OF PARCEL MAP NO. 3809, RECORDED IN PARCEL MAP BOOK 44, PAGE 20, RECORDS OF SAN BERNARDINO COUNTY;

Course 20. THENCE N50°26’50”W ALONG THE SOUTHWESTERLY LINE OF SAID PARCEL 4, A DISTANCE OF 823.52 FEET, TO THE SOUTHWESTERLY CORNER OF SAID PARCEL 4;

Course 21. THENCE N00°58’41”W ALONG THE WESTERLY LINE OF SAID PARCEL 4, A DISTANCE OF 282.73 FEET, TO THE WESTERLY CORNER OF SAID PARCEL 4, SAID POINT ALSO BEING ON THE MUSCUPIABE RANCHO LINE;

Course 22. THENCE N56°18’05”E ALONG THE NORTHWESTERLY LINE OF SAID PARCEL 4 AND THE MUSCUPIABE RANCHO LINE, A DISTANCE OF 340.00 FEET, TO ITS INTERSECTION WITH THE WESTERLY LINE OF GOVERNMENT LOT 2, SECTION 26, TOWNSHIP 2 NORTH, RANGE 5 WEST, SAN BERNARDINO MERIDIAN, ACCORDING TO THE OFFICIAL PLAT OF THE SURVEY OF SAID LAND APPROVED JUNE 24, 1898, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY;

Course 23. THENCE LEAVING THE MUSCUPIABE RANCHO LINE N02°08’54”W ALONG SAID WESTERLY LINE OF GOVERNMENT LOT 2, A DISTANCE OF 809.56 FEET, TO THE CENTER QUARTER CORNER OF SAID SECTION 26;

Course 24. THENCE N88°20’06”E ALONG THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 26, A DISTANCE OF 698.21 FEET, TO THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER, OF THE SOUTHWEST QUARTER, OF THE NORTHEAST QUARTER OF SAID SECTION 26;

Course 25. THENCE N02°32’47”W A DISTANCE OF 721.28 TO THE NORTHEAST CORNER OF THE SOUTHWEST QUARTER, OF THE SOUTHWEST QUARTER, OF THE NORTHEAST QUARTER OF SAID SECTION 26;

Course 26. THENCE S88°40’48”W A DISTANCE OF 338.59 FEET TO THE SOUTHWEST CORNER OF THE EAST HALF OF THE NORTHWEST QUARTER, OF THE SOUTHWEST QUARTER, OF THE NORTHEAST QUARTER OF SAID SECTION 26;

Course 27. THENCE N01°45’10”W A DISTANCE OF 718.47 FEET TO THE NORTHWEST CORNER OF THE EAST HALF OF THE NORTHWEST QUARTER, OF THE SOUTHWEST QUARTER, OF THE NORTHEAST QUARTER OF SAID SECTION 26;

Course 28. THENCE N89°03’45”E A DISTANCE OF 328.48 FEET TO THE NORTHEAST CORNER OF THE NORTHWEST QUARTER, OF THE SOUTHWEST QUARTER, OF THE NORTHEAST QUARTER OF SAID SECTION 26;

Course 29. THENCE N02°32’47”W A DISTANCE OF 360.64 FEET TO THE NORTHWEST CORNER OF THE SOUTH HALF OF THE SOUTHEAST QUARTER, OF THE NORTHWEST QUARTER, OF THE NORTHEAST QUARTER OF SAID SECTION 26;

Course 30. THENCE S89°03’45”E A DISTANCE OF 656.96 FEET TO THE NORTHEAST CORNER OF THE SOUTH HALF OF THE SOUTHEAST QUARTER, OF THE NORTHWEST QUARTER, OF THE NORTHEAST QUARTER OF SAID SECTION 26;

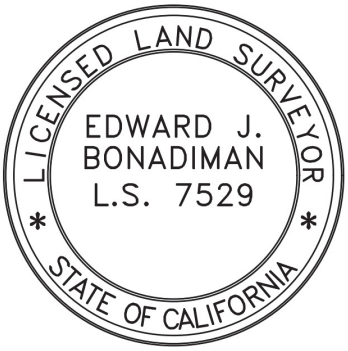
Course 31. THENCE S02°32’47”E A DISTANCE OF 360.64 FEET TO THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER, OF THE NORTHEAST QUARTER OF SAID SECTION 26;

Course 32. THENCE N89°03’45”E A DISTANCE OF 1345.57 FEET TO THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER, OF THE NORTHEAST QUARTER OF SAID SECTION 26;

Course 33. THENCE S05°57’30”E ALONG THE EASTERLY LINE OF SAID SECTION 26 A DISTANCE OF 1477.72 FEET TO THE EAST ONE-QUARTER CORNER OF SAID SECTION 26;

Course 34. THENCE S00°02’57”W ALONG THE EASTERLY LINE OF SAID SECTION 26 A DISTANCE OF 2580.79 FEET TO THE POINT OF **BEGINNING**.

SAID PARCEL CONTAINS 354.81 ACRES MORE OR LESS.



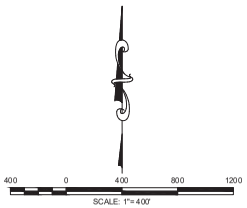
08-29-25

Edward J. Bonadiman, P.L.S. DATE

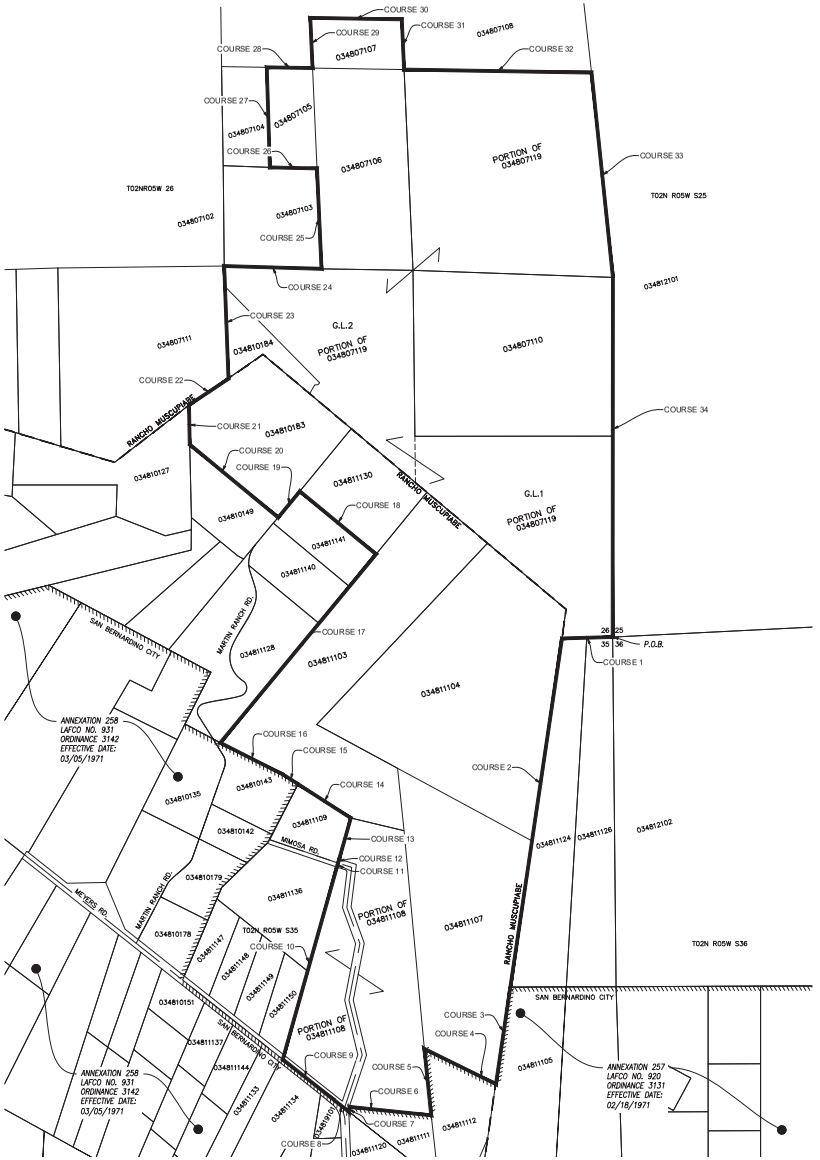
Exp. 12-31-25

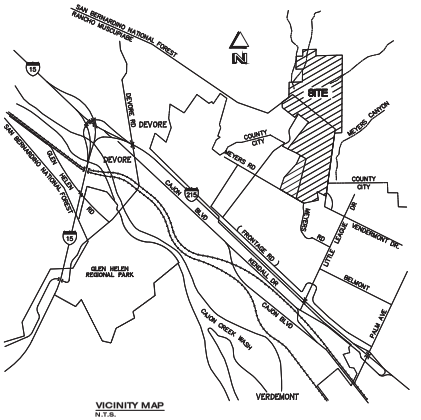
FOR QUESTIONS REGARDING THIS MAP OR TO OBTAIN A COPY OF THIS MAP IN ELECTRONIC FORM, PLEASE CONTACT LAFCO FOR SAN BERNARDINO COUNTY

LAFCO 3274 - REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (SPRING TRAILS SPECIFIC PLAN PROJECT)



Line Table		
Line #	Direction	Length
COURSE 1	S88° 23' 29"W	363.28
COURSE 2	S08° 25' 45"W	2529.70
COURSE 3	S08° 25' 45"W	703.63
COURSE 4	N63° 46' 26"W	572.96
COURSE 5	S05° 53' 31"E	480.00
COURSE 6	N84° 02' 43"W	590.01
COURSE 7	S06° 50' 45"W	35.48
COURSE 8	N51° 31' 14"W	132.22
COURSE 9	N51° 38' 25"W	472.85
COURSE 10	N15° 43' 10"E	1433.20
COURSE 11	N15° 44' 02"E	30.01
COURSE 12	N15° 53' 54"E	30.01
COURSE 13	N15° 53' 55"E	306.36
COURSE 14	N57° 15' 54"W	448.80
COURSE 15	N57° 17' 03"W	124.74
COURSE 16	N63° 07' 32"W	509.44
COURSE 17	N39° 33' 40"E	1755.23
COURSE 18	N50° 27' 28"W	709.08
COURSE 19	S39° 36' 09"W	244.15
COURSE 20	N50° 26' 50"W	823.52
COURSE 21	N00° 58' 41"W	282.73
COURSE 22	N56° 18' 05"E	340.00
COURSE 23	N02° 08' 54"W	809.56
COURSE 24	S88° 20' 06"E	698.21
COURSE 25	N02° 32' 47"W	721.28
COURSE 26	N88° 40' 48"W	338.59
COURSE 27	N01° 45' 10"W	718.47
COURSE 28	S89° 03' 45"E	328.48
COURSE 29	N02° 32' 47"W	360.64
COURSE 30	S89° 03' 45"E	656.96
COURSE 31	S02° 32' 47"E	360.64
COURSE 32	S89° 03' 45"E	1345.57
COURSE 33	S05° 57' 30"E	1477.72
COURSE 34	S00° 02' 57"W	2580.79





VICINITY MAP
N.T.S.

GENERAL DESCRIPTION

- LOCATED NORTH OF MYERS ROAD / WEST OF LITTLE LEAGUE DRIVE
- 349.36 ACRES

LEGEND

- BOUNDARY LIMITS
- EXISTING RANCHO
- EXISTING CENTERLINES
- EXISTING PROPERTY LINES
- EXISTING CITY BOUNDARY
- EXISTING UNPAVED ROAD

LAFCO 3274

REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (SPRING TRAILS SPECIFIC PLAN PROJECT)

BONADIMAN

EDWARD J. BONADIMAN
L.S. 7529

08-29-25
DATE

LICENSED LAND SURVEYOR
EDWARD J. BONADIMAN
L.S. 7529
STATE OF CALIFORNIA

PREPARED FOR: MONTECITO EQUITIES LTD

DRAWN BY:	JH	SCALE:	1" = 400'	SHEET: 1 OF 1	D1
CHECKED BY:	E.J.B.	JOB NO:	133952		
DISREGARD PRINTS BEARING EARLIER REVISION DATES		08-29-25			

EXHIBIT A-1

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EXHIBIT A-1