LOCAL AGENCY FORMATION COMMISSION
FOR SAN BERNARDINO COUNTY

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DATE: **MARCH 11, 2025**

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

TO: **LOCAL AGENCY FORMATION COMMISSION**

SUBJECT **AGENDA ITEM #11 – LAFCO 3275 -- REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (26-ACRE ISLAND)**

INITIATED BY:

City of San Bernardino Council Resolution No. 2024-221, November 6, 2024

RECOMMENDATIONS:

The staff recommends that the Commission approve LAFCO 3275 by taking the following actions:

1. Adopt the CEQA Exemption that has been recommended for this proposal and direct the Executive Officer to file the Notice of Exemption within five (5) days;

2. Approve LAFCO 3275, with 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; and,

3. Adopt LAFCO Resolution No. 3432 setting forth the Commission's determinations and conditions of approval concerning LAFCO 3275.

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 island proposal encompasses approximately 26 acres and is located north of Meyers Road (existing City boundary), east of parcel lines (existing City boundary), and south and west of parcel lines (existing City

boundary) along the Spring Trails Specific Plan Project area (LAFCO 3274), within the City's northerly unincorporated 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.

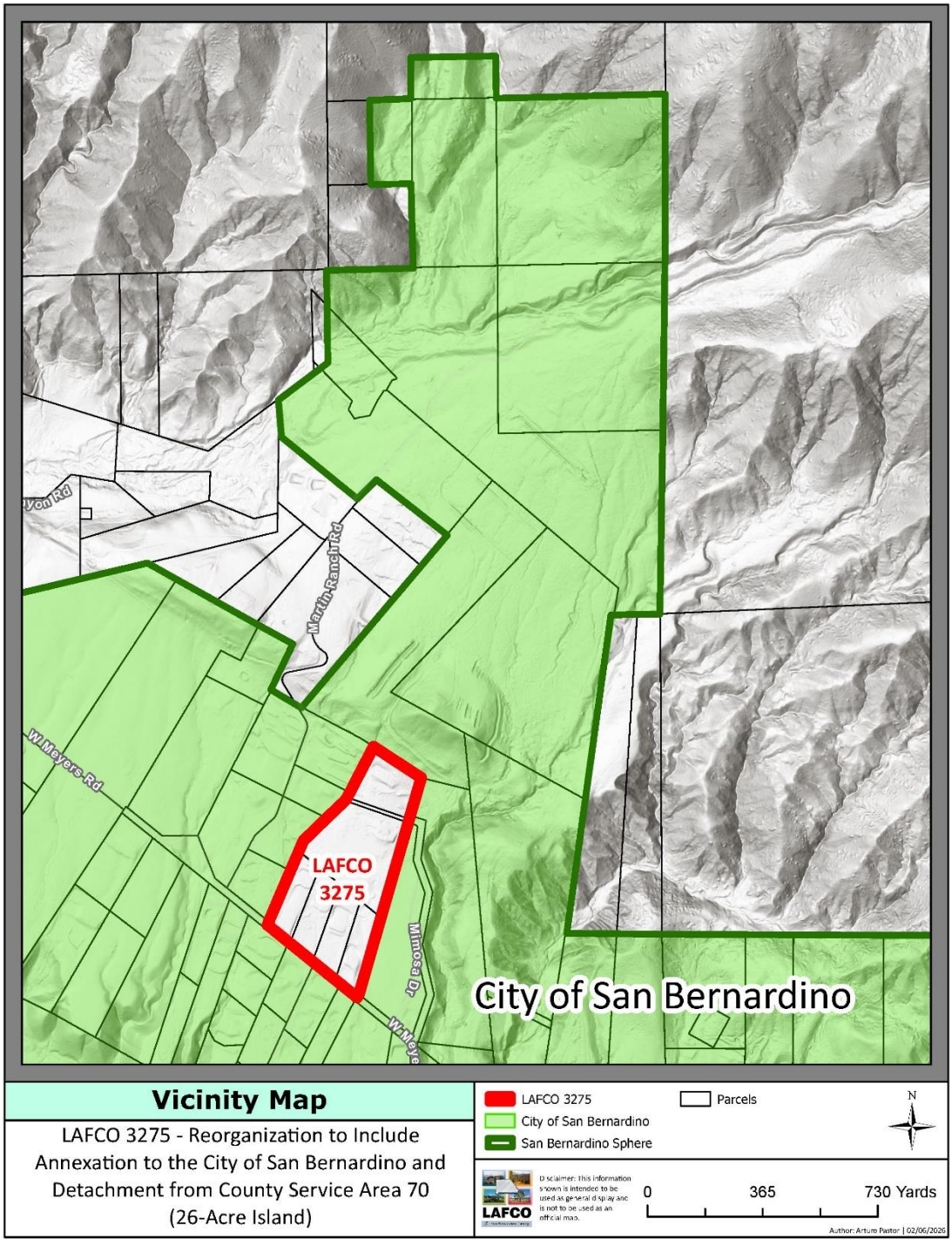


Fig. 1 – Vicinity Map of LAFCO 3275

City of San Bernardino's Application:

On November 6, 2024, the City initiated two separate applications to LAFCO (see Figure 2). First, the City Council unanimously adopted City Resolution No. 2024-220, which was its initiation and application for the Spring Trails Specific Plan Project (Spring Trails Project), LAFCO 3274, that was approved by the Commission in September 2025 and became effective on October 20, 2025.

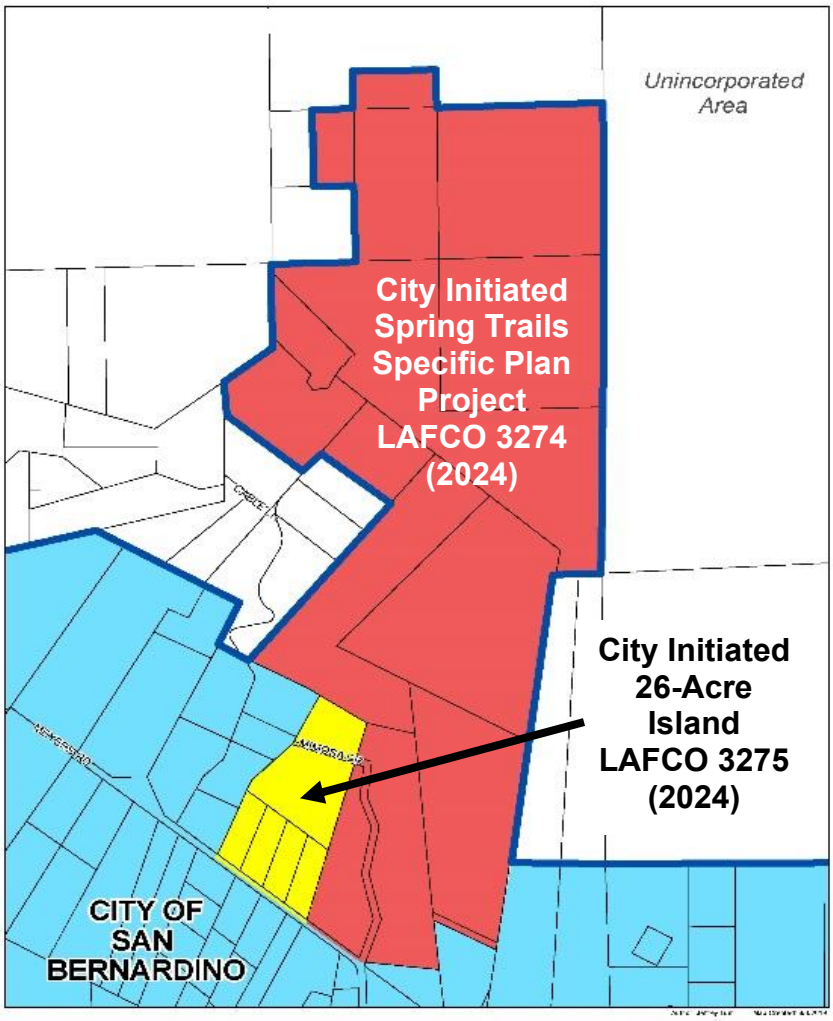


Fig. 2 – City's Applications

The City Council also unanimously adopted City Resolution No. 2024-221, which was its separate application for the annexation of the adjacent 26-acre unincorporated area (shown in yellow shade, which is for the current proposal, LAFCO 3275.

The City's rationale for initiating the island annexation, as outlined in its resolution, is to fulfill the (previous) requirement imposed by LAFCO to annex the totally-surrounded island area that would be created through the annexation of the Spring Trails Project.

PROVISIONS FOR ISLAND ANNEXATIONS:

In staff's view, LAFCO 3275 is a ministerial action for the Commission based upon Government Code Section 56375(a)(4) that requires the Commission to approve the annexation of unincorporated "surrounded" territory, initiated by resolution of the City, if several determinations are made. These determinations include that the territory is:

1) surrounded or substantially surrounded by the city to which the annexation is proposed;

2) substantially developed or developing;

3) not prime agricultural land;

4) designated for urban growth by the general plan of the annexing city; and

5) not within the sphere of influence of another city.

The staff's responses to these determinations are as follows:

1) The reorganization area is totally-surrounded by the City of San Bernardino;

2) The reorganization area is substantially developed or developing. This determination is based upon the findings that public utilities are available within the area, there are public improvements within the area, and there are physical improvements in most of the properties within the area;

3) The reorganization area is not prime agricultural land as defined by Section 56064;

4) The reorganization area has a land use designation of Residential Estates, which designates the area with urban growth; and,

5) The reorganization area is wholly within the City of San Bernardino's sphere of influence.

Based upon the information outlined above, it is the staff's position that these mandatory determinations are clear; therefore, the Commission is required by Government Code Section 56375(a)(4) to approve the proposal initiated by the City of San Bernardino. However, this action does not remove the ability of landowners within the area to determine whether this proposal is successful through the required protest proceeding.

The following provides a summary of the balance of the issues which the Commission reviews and considers in any jurisdictional change – boundaries, land uses, service delivery and the effect on other local governments, and environmental considerations.

BOUNDARIES:

As noted earlier, LAFCO 3275 is a totally-surrounded unincorporated area (see Figure 3). It is LAFCO staff's position that this reorganization proposal provides for a logical boundary since it removes a totally-surrounded unincorporated territory within the City.

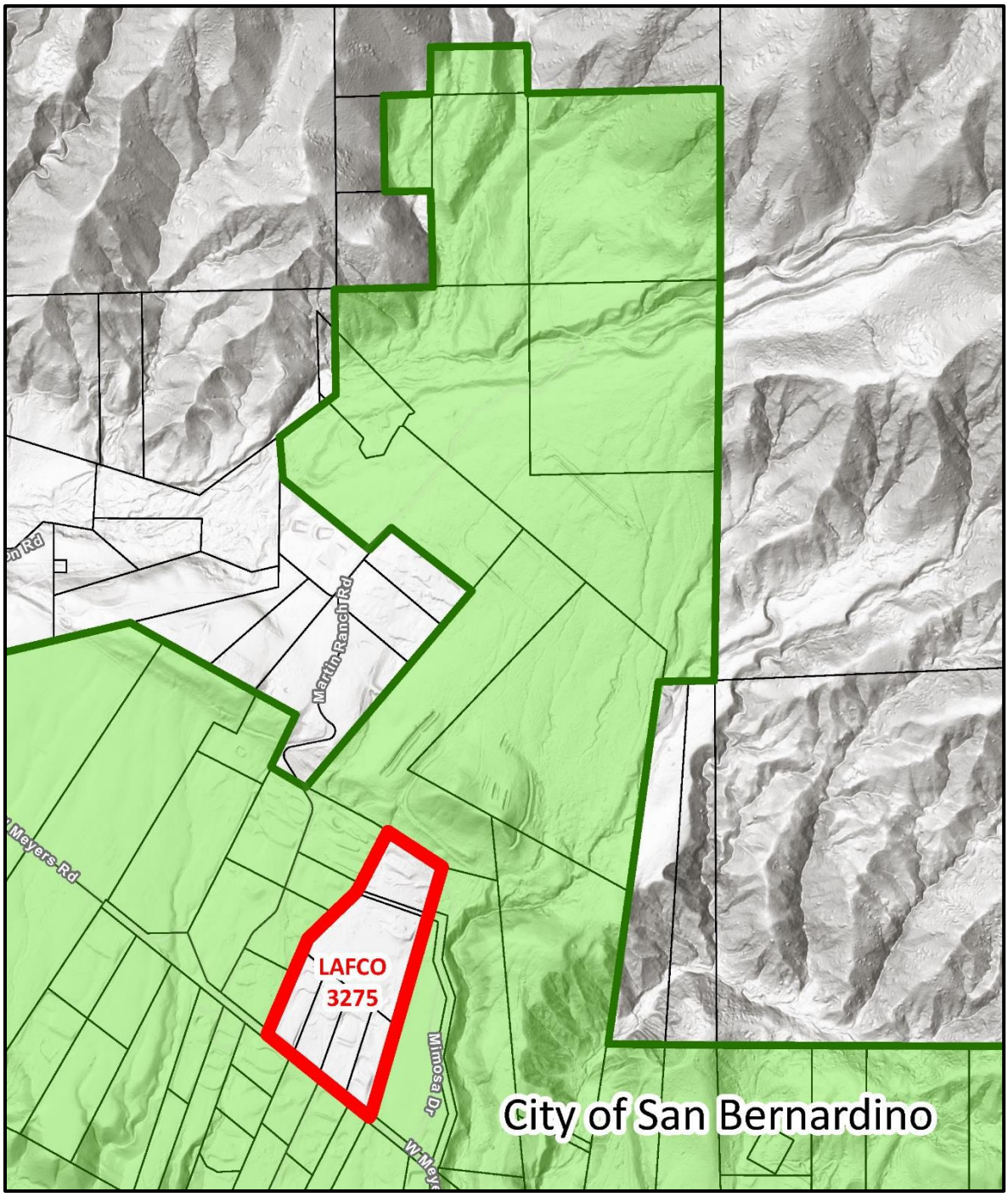


Fig. 3 – Detail Map of LAFCO 3275

LAND USE:

The reorganization area is primarily land with single-family residences with one property currently vacant (see Figure 4). The area is surrounded by single family residences and a vacant property to the west, single family residences to the south, and vacant lands (within the Spring Trails Project) to the east and north.

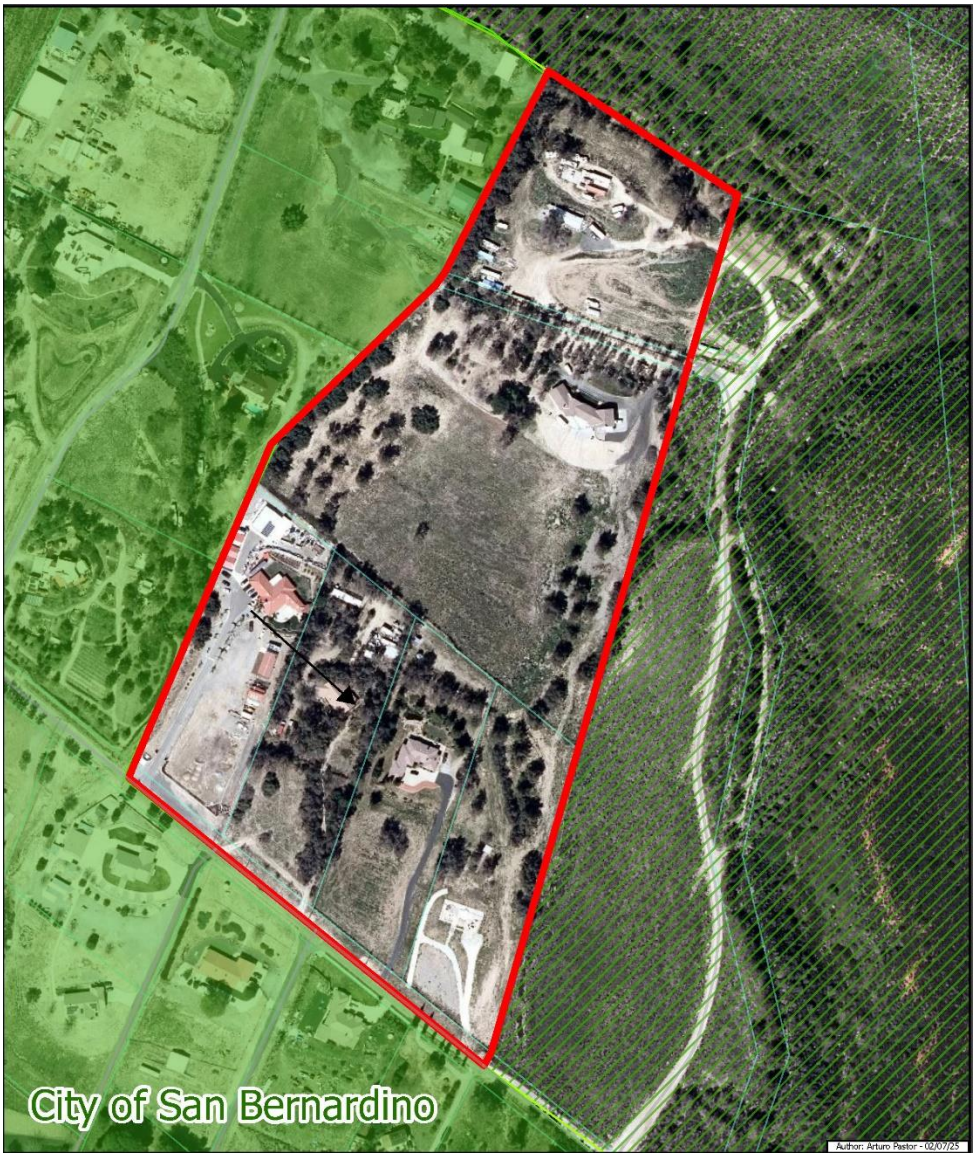


Fig. 4 – Aerial Map

County Land Use Designation:

The County's current land use designations for the area are Single Residential – 1-acre minimum (RS-1) and Rural Living – 5-acre minimum (RL-5) for the northernmost parcel.

City's Land Use/Pre-zone Designation:

The City has pre-zoned the reorganization area, as part of the Spring Trails Project, with the same underlying land use designation of Residential Estate (RE), allowing one dwelling unit per acre. This designation is consistent with the City's General Plan land use designation for the area and is also consistent with surrounding land uses.

Pursuant to the provisions of Government Code Section 56375(e), this zoning designation shall remain in effect for a period of two (2) years following annexation. The law allows for a change in zoning designation if the City Council makes the finding, at a public hearing, that a substantial change has occurred in circumstances that necessitate a departure from the pre-zoning outlined in the application made to the Commission.

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. 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 indicating that the project will not have a positive financial effect for the City for the projected five years. In general, the Plan identifies the following:

- Fire Protection and Emergency Medical Response:

  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 proposal area is already within 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 service provider will occur upon completion of the annexation.

- 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 proposal area is within the City's Northwest Patrol District, Patrol Beat B1.

- Park and Recreation:

  Regional park and recreation services to the area are currently provided by the County Regional Parks system. The closest regional park is Glen Helen Regional Park, which has various recreation activities. The City of San Bernardino has a variety of parks and recreation facilities that residents in the Devore/Devore Heights community use. The closest City park is Al Guhin Park located at 3650 Little League

Drive, approximately 1.3 miles from the proposal area. Upon development of the adjacent Spring Trails Project, two neighborhood parks are proposed along with natural open space and pedestrian/equestrian trails.

- Water Service:

  There are no City water facilities within the area at present. Upon annexation, the responsibility for water service will be from the City's Municipal Water Department. Currently, the City facility nearest to the area is the Meyers Canyon Reservoir but does not have adequate water pressure to serve the proposal area. Future water will be supplied by a combination of expanding and improving the offsite water system as well as additional reservoirs and transmission lines from the adjacent Spring Trails Project upon development.

- Sewer Service:

  There is no sewage collection system within the area at present. All existing development within the area are on septic systems. Upon annexation, the responsibility for sewer collection and treatment will be from by the City's Municipal Water Department and it has the capacity to accommodate the proposal area. Upon development of the adjacent Spring Trails Project, the proposed improvements would connect the area to the existing 10-inch main located on Little League Drive.

- Solid Waste

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

The following regional agencies overlay the reorganization area and there will be no change to these agencies or their services:

- Under LAFCO purview: Inland Empire Resource Conservation District and the San Bernardino Valley Municipal Water District (State Water Contractor).

- Not under LAFCO purview: San Bernardino Flood Control District San Bernardino City Unified School District, and public health through the San Bernardino County Department of Public Health.

It is the position of staff that LAFCO 3275 is a straightforward and logical extension of service delivery by the City of San Bernardino and its service providers. As required by Commission policy and State law, the Plan for Service submitted by the City of San Bernardino indicates that the extension of its services will maintain, and/or exceed, current service levels provided by the County and its special districts. However, the Fiscal Impact Analysis does not show sustainability from ongoing revenues. Nonetheless, this reorganization would address service confusion and service inefficiencies that result from an area being surrounded by a city. It is simply good government to provide a cohesive pattern for the delivery of government services.

ENVIRONMENTAL CONSIDERATIONS:

It is to be noted that the City of San Bernardino certified the Final Environmental Impact Report that was prepared for Spring Trails Project, which pre-zoned not only the Project itself but also the adjacent 26-acre island.

However, the Commission's Environmental Consultant, Tom Dodson and Associates, has reviewed this proposal and has indicated that it is his recommendation that the reorganization is exempt from the California Environmental Quality Act (CEQA). This determination is based on two exemption provisions. First, it is his recommendation that the "Common Sense" Exemption applies since the annexation will not have significant effect on the environment. Secondly, it is also his recommendation that because the Commission has no discretion in its review of this proposal and must approve the proposal, such a "ministerial action" is statutorily exempt from environmental review pursuant to Section 15268 of the State CEQA Guidelines. Therefore, it is recommended that the Commission adopt a CEQA Exemption for this proposal.

Mr. Dodson's response letter is included as Attachment #3 to this report.

CONCLUSION:

The City's rationale for initiating the island annexation is to annex the totally-surrounded island area that would be created through the annexation of the Spring Trails Specific Plan Project.

It is the staff's position that LAFCO 3275 is a ministerial action - one which the Commission has no discretion but to approve. This position is based on the requirements set forth in Government Code Section 56375(a)(4), which reads as follows:

> *(4) A commission shall not have the power to disapprove an annexation to a city, initiated by resolution, of contiguous territory that the commission finds is any of the following:*
>
> *(A) Surrounded or substantially surrounded by the city to which the annexation is proposed or by that city and a county boundary or the Pacific Ocean if the territory to be annexed is substantially developed or developing, is not prime agricultural land as defined in Section 56064, is designated for urban growth by the general plan of the annexing city, and is not within the sphere of influence of another city.*
>
> *…*

LAFCO staff outlined its determinations on these specific requirements contained in State law that obligates the Commission to approve LAFCO 3275. Even without this mandate, LAFCO staff would still support approval of LAFCO 3275 as the reorganization area will benefit from the full range of municipal services available through the City of San Bernardino. Therefore, for all the reasons outlined in the report, staff recommends approval of LAFCO 3275. However, this action does not remove the ability of landowners within the area to determine whether this proposal is successful through the required protest proceeding.

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 10 registered voters as of February 5, 2026, 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 $2,377,898 (land--$872,147; improvements--$1,505,751) as of April 15, 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 (6) and registered voters (10) within the reorganization area (totaling 16 notices); and,

    - landowners (42) and registered voters (76) surrounding the reorganization area (totaling 118 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 generally comprised of single-family residences with one property currently vacant that has a population of approximately 16 residents.

    The City of San Bernardino pre-zoned the reorganization area, as part of the Spring Trails Specific Plan Project, with the same underlying land use designation of Residential Estate (RE). This pre-zone designation is consistent with the City's General Plan and is generally compatible with surrounding land uses within the City. Pursuant to the provisions of Government Code Section 56375(e), this pre-zone designation 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 3275.

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 annexation area.

   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 #4 to this report.

9. The Local Agency Formation Commission has determined that this proposal is exempt from environmental review. The basis for this determination is two-fold: First, the Commission's approval of the reorganization has no potential to cause a significant adverse impact on the environment and, therefore, the proposal is exempt from the requirements of CEQA as outlined in the State CEQA Guidelines, Section 15061(b)(3). Secondly, this reorganization is a ministerial action, required by the terms of Government Code Section 56375(a)(4). Without discretion in the Commission's consideration of this proposal, approval of this proposal is exempt from environmental review under the provisions of the State CEQA Guidelines, Section 15268. The Commission adopted the Exemption and directed its Executive Officer to file the Notice of Exemption within five (5) days with the San Bernardino County Clerk of the Board of Supervisors.

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 the existing level of service delivery and can improve the level and range of select services currently available in the area.

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

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-level land use to be included within a City so that the full range of municipal services can be planned, funded, extended, and maintained.

14. This proposal will assist the City of San Bernardino's ability to achieve its fair share of the regional housing needs, although there are no guarantees any new residential development will occur.

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 Unincorporated Area within the General Vicinity (%)
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

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 3275.

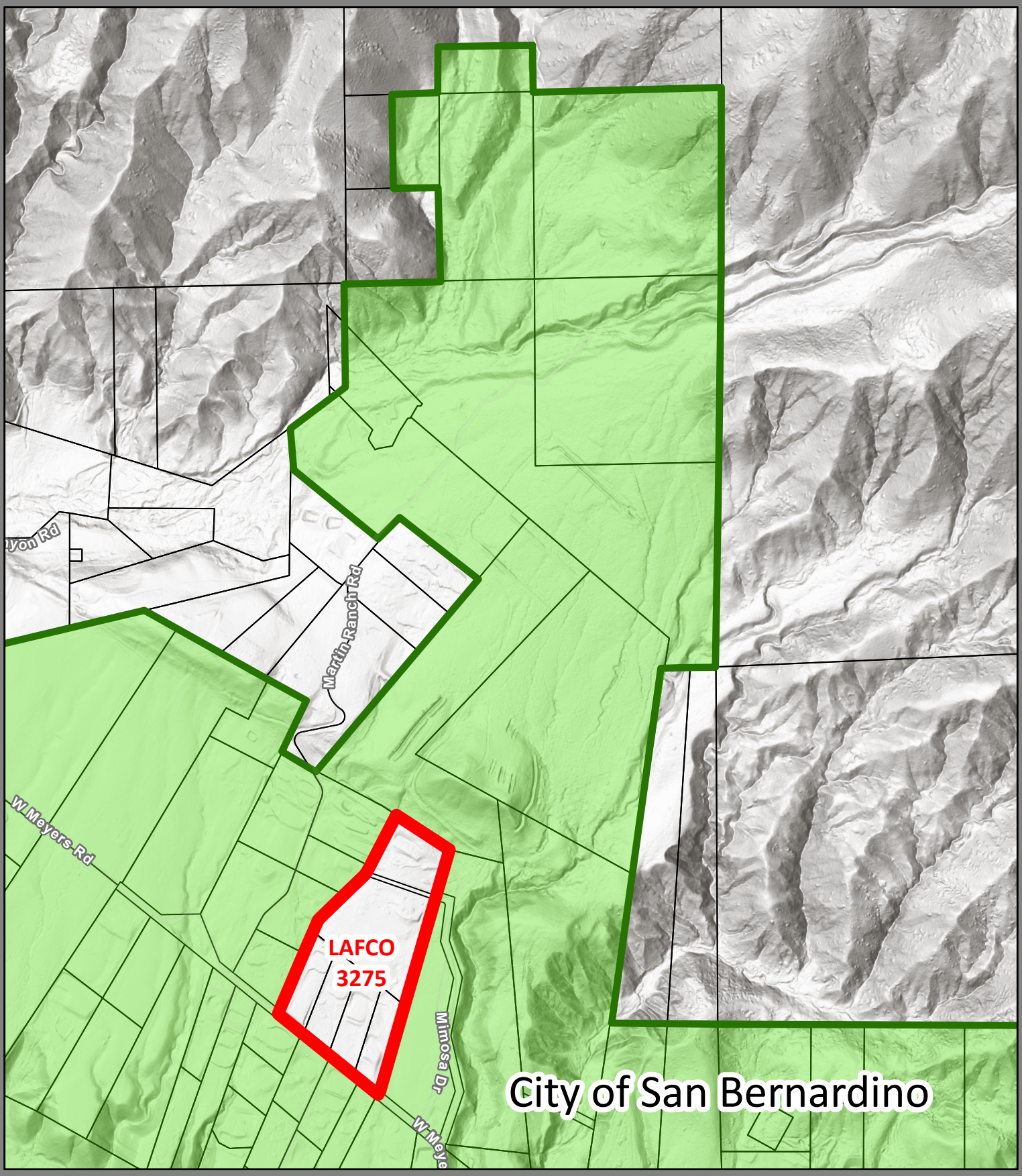
16. The County (for itself and acting on behalf of the San Bernardino County Fire Protection District) and the City of San Bernardino have negotiated a transfer of property tax revenues that will be implemented upon completion of this reorganization. Copies of the resolutions adopted by the City Council 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 and Reorganization Map
2. City's Application and Plan for Service
3. Response from Tom Dodson and Associates
4. City of San Bernardino's 2024 Local Hazard Mitigation Plan and Safety Element Portion of the City's General Plan
5. Draft Resolution No. 3432 for LAFCO 3274



Vicinity Map

LAFCO 3275 - Reorganization to Include Annexation to the City of San Bernardino and Detachment from County Service Area 70 (26-Acre Island)

LAFCO 3275
City of San Bernardino
San Bernardino Sphere
Parcels

N

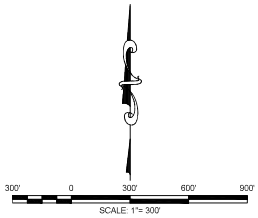
LAFCO
for San Bernardino County

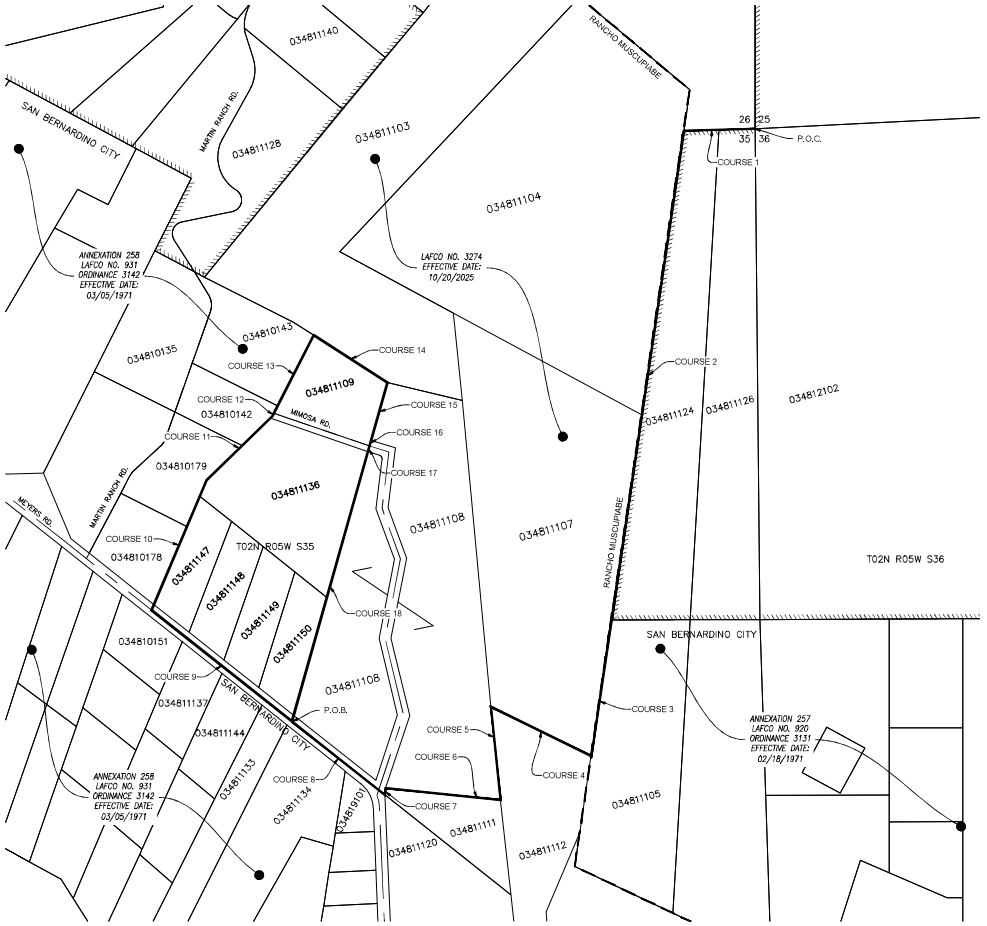
Disclaimer: This information shown is intended to be used as general display and is not to be used as an official map.

0 365 730 Yards

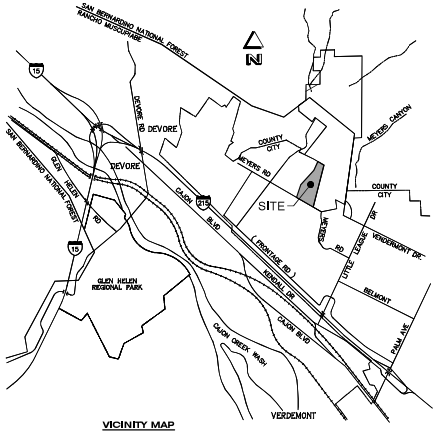
Author: Arturo Pastor | 02/06/2026

LAFCO 3275 - REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (26-ACRE ISLAND)





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°36'54"W	606.16'
COURSE 9	N51°36'40"W	916.19'
COURSE 10	N22°56'09"E	721.41'
COURSE 11	N45°46'14"E	469.27'
COURSE 12	N27°05'29"E	17.00'
COURSE 13	N27°05'29"E	448.05'
COURSE 14	S57°15'54"E	448.80'
COURSE 15	S15°53'55"W	306.36'
COURSE 16	S15°53'54"W	30.01'
COURSE 17	S15°44'02"W	30.01'
COURSE 18	S15°43'10"W	1433.20'



VICINITY MAP
N.T.S.

GENERAL DESCRIPTION

- LOCATED NORTH OF MYERS ROAD / EAST OF MARTIN RANCH ROAD
- 26.84 ACRES

LEGEND

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

LAFCO 3275

REORGANIZATION TO INCLUDE ANNEXATION
TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM
COUNTY SERVICE AREA 70 (26-ACRE ISLAND)

BONADIMAN
JOSEPH J. BONADIMAN & ASSOCIATES, INC.
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FAX (909) 381-7251

EDWARD J. BONADIMAN
L.S. 7529

01-26-2026
DATE

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

PREPARED FOR: MONTECITO EQUITIES LTD					
DRAWN BY: JH	SCALE: 1" = 300'	SHEET: 1 OF 1	D1		
CHECKED BY: E.J.B.	JOB NO: 133952				
DISREGARD PRINTS BEARING EARLIER REVISION DATES →	01-26-2026				

(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:

   LAFCO 3275 - Reorganization to Include Annexation to the City of San Bernardino and Detachment from County Service Area 70 (26- Acre Island)

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 NO X 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): 26 more or less

2. Current dwelling units in area classified by type (Single Family detached homes and vacant land

3. Approximate current population in area: 8

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 Island Annexation area.

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. Twenty-six (26) acres. Approximately 6 acres currently have single family homes. The balance of the properties are vacant.

   What is the proposed land use? No change to current land use.

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 ___

(FOR LAFCO USE ONLY)

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:*

Please provide me with an example_____

(FOR LAFCO USE ONLY)

ENVIRONMENTAL INFORMATION

1. Provide general description of topography. Gently sloping from west to east.

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

Residential	10%	Agricultural	0%
Commercial	0%	Vacant	90%
Industrial	0%	Other	0%

3. Describe the surrounding land uses:

NORTH	Vacant privately owned
EAST	Residential
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.).

None

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

(FOR LAFCO USE ONLY)

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.

DATE FEB. 6, 2025

SIGNATURE OF APPLICANT

MICHELLE CLAYTON

PRINTED NAME OF APPLICANT

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 3275 - Reorganization to Include Annexation to the City of San Bernardino and Detachment from County Service Area 70 (26-acre Island)

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?

   No

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

   No

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 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.

(FOR LAFCO USE ONLY)

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

Meyers Road Island Area 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

July 3, 2024

SRHA Job # 1408

STANLEY R. HOFFMAN ASSOCIATES

11661 San Vicente Blvd. Suite 306
Los Angeles, California 90049-5111
310.820.2680-p
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 *Meyers Road Island Area 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

MICHELE CAYTON

SIGNATURE OF APPLICANT

CITY MANAGER

TITLE OF APPLICANT

City of San Bernardino, California

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EXECUTIVE SUMMARY

This Plan for Service and Fiscal Analysis 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 annexation of the Meyers Road "Island Area" to the City of San Bernardino (the City). A commitment to annex the Island Area by the City was made a precondition by the San Bernardino County Local Agency Formation Commission (LAFCO) for approving the City annexation of the Spring Trails specific plan located to the north-east of the Island Area. The specific plan's annexation to the City would create an unincorporated county island (the Island Area), which is now being assessed for LAFCO approval in this study.

This report is being submitted to the San Bernardino County 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 is anticipated to provide services including general government, community development, police protection, local parks and recreation, community services and public works' services. The City 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 Island 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.

Fiscal Impacts

Based on an analysis of current service delivery capabilities, the City is equipped to handle additional demand from the proposed Island Area annexation comprising six parcels totaling 26.38 acres with four existing homes. No additional growth is assumed in the Island Area for the 5-year post-annexation analysis period required by LAFCO, which is presented in this study.

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.

As required by LAFCO, this study analyzes and presents the fiscal impacts of the Island Area on the City General Fund and other funds for the first five years upon annexation. First year post-annexation is assumed to be 2026.

General Fund. As shown in Table 1, projected recurring fiscal impacts to the City General Fund for the Island Area Annexation is shown to generate an extremely small deficit for all years.

Projected deficit to the General Fund declines slightly from $2,756 in Year 1 upon annexation through $2,474 in Year 5. The calculation assumes revenues from the recently adopted CFD 2018-1 tax for safety services family unit, which increases over time.

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 at $292 across all years.

Measure I Fund. Projected recurring Measure I sales tax revenues to the City are projected at $89 across all years.

Table 1
Summary of Projected General Fund Recurring Fiscal Impacts
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

General Fund	Year 1 2026	Year 2 2027	Year 3 2028	Year 4 2029	Year 5 2030
Estimated Annual Recurring Revenues	$5,456	$5,522	$5,591	$5,664	$5,738
Estimated Annual Recurring Costs	$8,212	$8,211	$8,212	$8,212	$8,212
Estimated Annual Recurring Surplus	($2,756)	($2,689)	($2,620)	($2,548)	($2,474)
Estimated Annual Revenue/Cost Ratio	0.66	0.67	0.68	0.69	0.70

Sources: Stanley R. Hoffman Associates, Inc.

Table 2
Summary of Projected Other Funds Recurring Revenues
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

Other Funds	Year 1 2026	Year 2 2027	Year 3 2028	Year 4 2029	Year 5 2030
A. Fund 126 - Gas Tax [1]					
Annual Recurring Gasoline Tax	$292	$292	$292	$292	$292
B. Fund 129 - Measure I [1]					
1/2 cent sales and road tax	$89	$89	$89	$89	$89

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

Sources: Stanley R. Hoffman Associates, Inc.

CHAPTER 1
INTRODUCTION

The Meyers Road Island Area is in unincorporated San Bernardino County located 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 annexation area is approximately 1.5 miles east of the unincorporated community of Devore and the junction of Interstate 215 (I-215) and I-15. The Island 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 annexation of the Island Area into the City requires the City to show that necessary infrastructure improvements and services can be provided to this area. Per the application form in the *LAFCO Policy and Procedure Manual*, Updated July 2023, 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.*

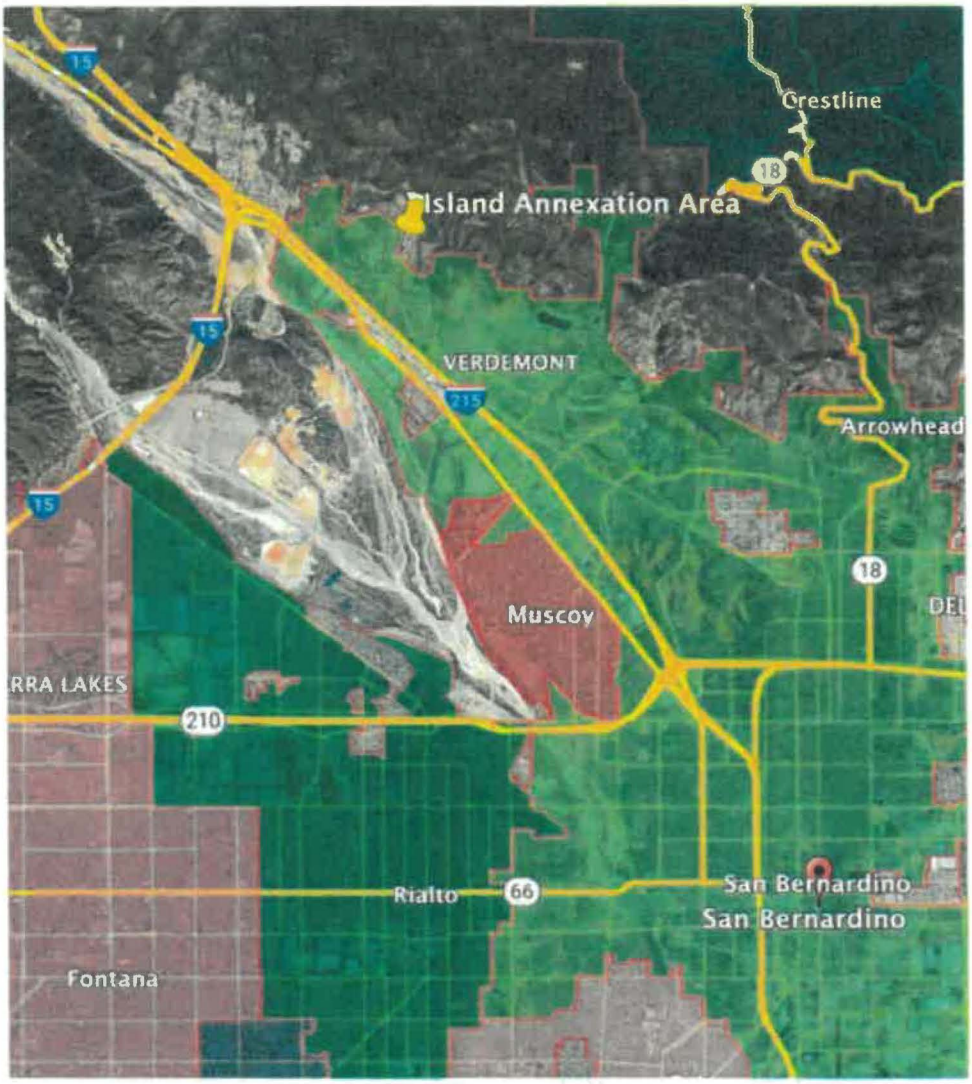
c. *An identification of any improvement or upgrading of structures, roads, water or sewer facilities, other infrastructure, or other conditions the affected agency would impose upon the affected territory.*

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
Meyers Road Island Area Annexation Regional Vicinity
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino



Sources: Stanley R. Hoffman Associates, Inc.

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 Bernardine 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 existing 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 a summary of the neighborhood infrastructure improvements associated with the Spring Trails Specific Plan. 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 land uses for the Meyers Road Island Area. Information includes housing units, population, assessed valuation and taxable sales. The total Meyers Road Island Area includes six parcels with four existing single-family units and two vacant parcels.

As shown in Figure 2-1, the Island Area is fronted by Meyers Road between Wendy Ranch Road and Martin Ranch Road. This area is generally about one-third mile northwest of the intersection of Meyers Road and Little League Drive, with the latter connecting to the frontage road along I-215. Freeway access is from the Palm Avenue interchange and the Glen Helen Parkway/Devore Road interchange.

As shown in Figure 2-2, the Island Area includes six parcels zoned for single-family residential use for a total of 26.38 acres. Of these, four parcels include existing single-family residential units, and two parcels are currently vacant. The parcel APNs include 034811147, 034811148, 034811149, 034811150, 034811136, and 034811109.

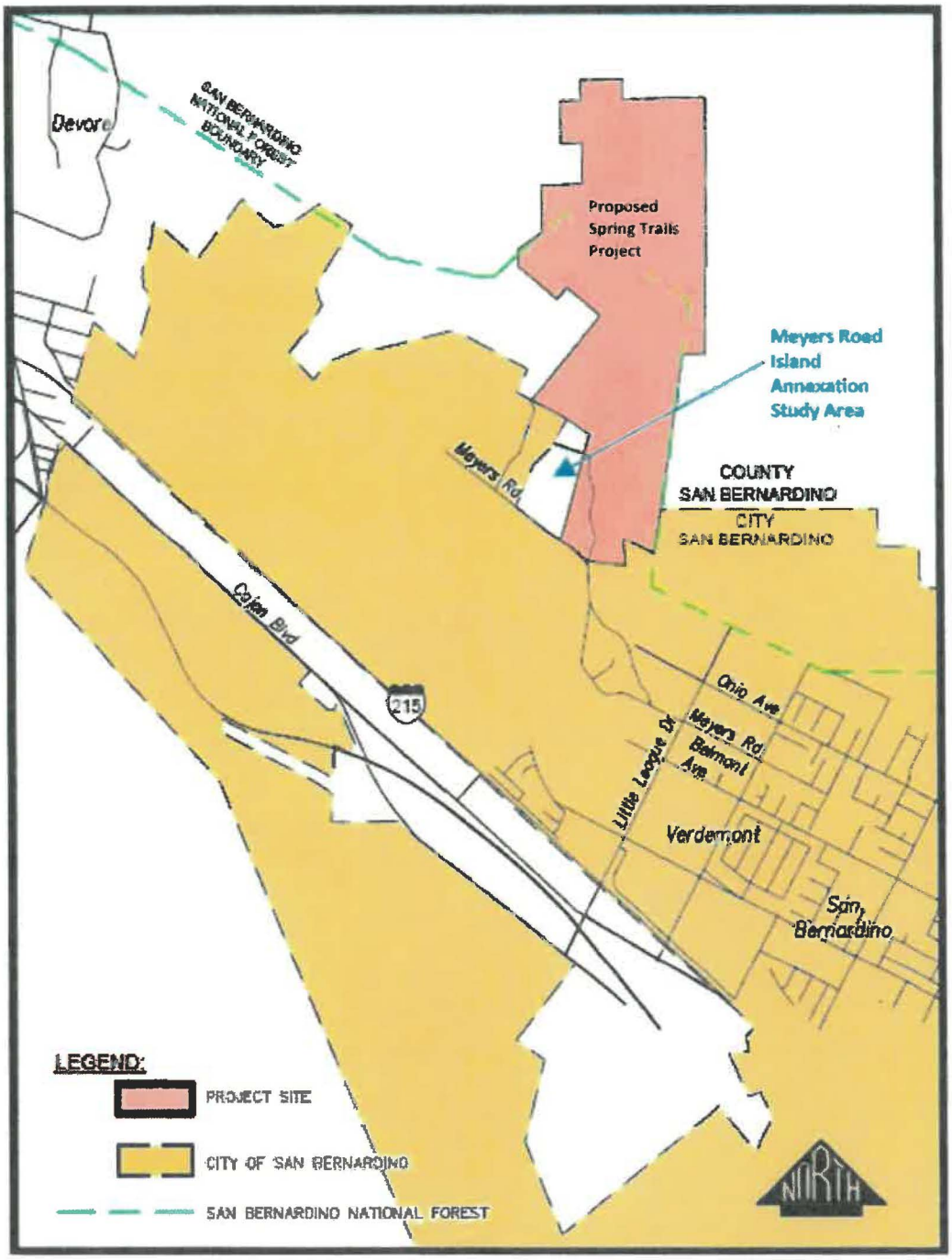
The annexation area is abutted by San Bernardino City to the south and west. To the north and east is the proposed Spring Trails Specific Plan, which was approved by San Bernardino LAFCO in October 2019 for annexation into the City pending certain conditions of approval. The Island Area, in the first place, was created due to the Spring Trails annexation, which LAFCO's conditions of approval remedied by requiring the City to adopt a resolution for commitment to annex the Island Area at some point in the future.

2.1 Residential Development

As shown in Panel A of Table 2-1, there are an estimated 4 single family residential units in the Island Area, while 2 parcels are vacant. No additional development is assumed in this area for the LAFCO required 5-year post-annexation period that is analyzed in this study.

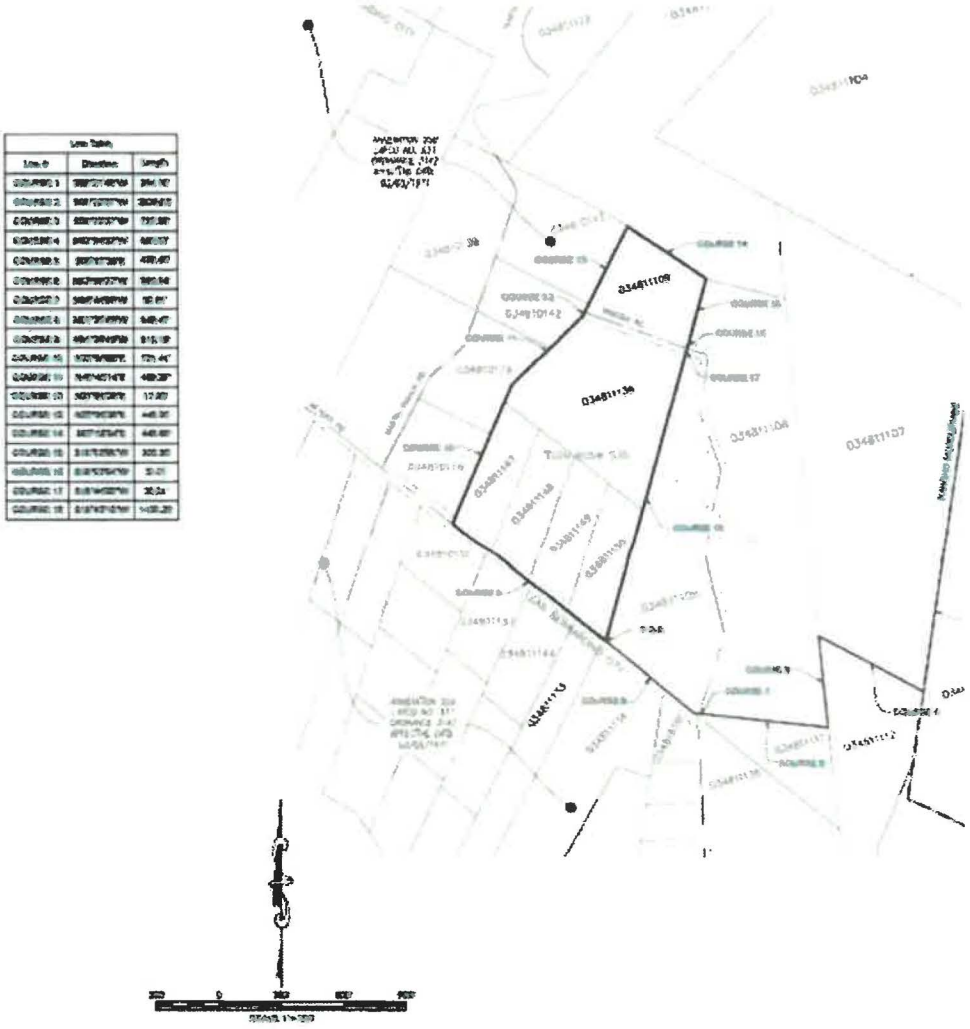
Based on the January 1, 2023, Citywide average estimate of 3.34 persons per unit from the Department of Finance, total population for the Annexation is projected at 13 persons over the 5-year period, as shown in Panel B of Table 2-1.

Figure 2-1
Meyers Road Island Area Annexation Local Vicinity
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino



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

Figure 2-2
Annexation Parcels
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino



Sources: Stanley R. Hoffman Associates, Inc.
Joseph E. Bondiman & Associates, Inc.; J.P. Weber Group, 2024

Table 2-1
Residential Development Description
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

Category	Year 1 2026	Year 2 2027	Year 3 2028	Year 4 2029	Year 5 2030	Total
A. Residential Units						
Existing Units	4	0	0	0	0	4
New Units	0	0	0	0	0	0
Total Annual Units	4	0	0	0	0	4
Total Cumulative Units	*4*	*4*	*4*	*4*	*4*	
New Annual Residential Square Feet [2]	n/a	0	0	0	0	0
Total Cumulative New Square Feet	*n/a*	*0*	*0*	*0*	*0*	
B. Population [3]						
Total Annual Population	13	0	0	0	0	13
Total Cumulative Population	*13*	*13*	*13*	*13*	*13*	

1. Population is projected at the Citywide average of 3.34 persons per unit for January 1, 2023.

Sources: Stanley R. Hoffman Associates, Inc.

2.2 Assessed Valuation and Property Tax

Assessed valuation for the total Meyers Road Island Area is estimated at $2.57 million at Year 5 after annexation, as shown in Panel B of Table 2-2. The current assessed valuation of about $2.57 million is estimated for Year 1, which remains unchanged as no new development is assumed over the 5-year study period. Existing assessed valuation is based on the County Assessor's 2023 tax roll value (accessed in March 2024), as shown in Table 2-3.

Projected Property Tax

As shown in Panel C of Table 2-2, 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.

Table 2-2
Assessed Valuation and Property Tax
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

Category	Existing Year 1 2026	New Growth Year 2 2027	New Growth Year 3 2028	New Growth Year 4 2029	New Growth Year 5 2030	Total
A. Residential Units [1]						
Existing Units	4					4
New Units	-	0	0	0	0	0
Total Annual Units	4	0	0	0	0	4
Total Cumulative Units	***4***	***4***	***4***	***4***	***4***	
B. Assessed Valuation						
Current Valuation [2]	$2,565,029					
New Valuation		$0	$0	$0	$0	
Total Annual Valuation	$2,565,029	$0	$0	$0	$0	$2,565,029
Total Cumulative Valuation	***$2,565,029***	***$2,565,029***	***$2,565,029***	***$2,565,029***	***$2,565,029***	
C. Projected Property Tax - Cumulative						
Annual 1 Percent Property Tax Levy (@ 1% of Valuation)	$25,650	$25,650	$25,650	$25,650	$25,650	$128,251
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	$0	$0	$0	$0	$0
Total Cumulative Valuation for Property Tax in Lieu VLF	*$0*	*$0*	*$0*	*$0*	*$0*	
Total Cumulative Projected Property Tax in Lieu VLF (@ $1,270 per $1,000,000 Assessed Valuation)	$0	$0	$0	$0	$0	
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**	**$0**	**$0**	**$0**	**$0**	

1. Existing units obtained from the County Assessor data. No incremental growth is assumed over the 5-year period.
2. Current assessed valuation is based on the 2024 County Assessor 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 $2,569,029 is not included in the projection of property tax in lieu of VLF. No PTVLF is projected because there is no new development assumed.
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. No PTVLF is projected because no new growth is assumed.

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, Finance Director

Table 2-3
Estimated Existing Assessed Valuation: 2023 Tax Roll
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

APN	Acres	Building Sq.Ft.	Valuation Land	Valuation Improvement	Valuation Total	Tax Rate Area	Land Use
034811147	2.92	2,300	$234,812	$547,895	$782,707	107150	SFR
034811148	2.94	1,888	$170,000	$405,000	$575,000	107150	SFR
034811149	2.93	3,698	$96,584	$393,574	$490,158	107150	SFR
034811150	2.92	0	$208,080	$0	$208,080	107150	SFR - Vacant
034811136	10.37	2,447	$206,196	$293,388	$499,584	107150	SFR
034811109	4.30	0	$9,500	$0	$9,500	107150	SFR - Vacant
	26.38	**10,333**	**$925,172**	**$1,639,857**	**$2,565,029**		

Sources: Stanley R. Hoffman Associates, Inc.
San Bernardino County Assessor, 2024

Projected Property Tax in Lieu VLF

The City General Fund will receive property tax in lieu of vehicle license fees (PTVLF) based on the increase in assessed valuation in the City. Per State law, when an annexation occurs the 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 2-2, no PTVLF is projected for the Island Area over the 5-year post-annexation study period, as no new development is assumed over this time frame. Over the long-term (beyond Year 5), it is possible that the study area parcels might redevelop, including new development on currently vacant parcels, which will then generate the PTVLF revenues as described above.

2.3 Sales and Use Tax

Sales and use tax are shown for the retail taxable sales that can be attributed to the existing residents in the Island Area. Offsite retail sales and use tax is estimated based on the estimated

household income and taxable retail purchases. 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 current residents generate total taxable retail purchases at about 33 percent of household income.

As shown in Table 2-5, estimated annual offsite retail sales and use tax that can currently be attributed to the Island Area is estimated at $954 per annum, and stays at this level through Year 5. This is based on the estimated total annual household income for the Island Area, at about $718,000, 33 percent of which are spent on retail taxable purchases with a 35 percent capture within the City. A use tax factor of 14.9 percent is applied to the Bradley-Burns 1 percent point sales tax in the calculation.

Table 2-4
Estimated Offsite Sales and Use Tax by Project Residents
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

Category	Year 1 2026	Year 2 2027	Year 3 2028	Year 4 2029	Year 5 2030	Cumulative Total
A. ANNUALIZED PROJECTIONS						
Annual New Residential Valuation	$2,565,029	$0	$0	$0	$0	$2,565,029
Annual Household Income (@ 28% of household valuation) [1]	$718,208	$0	$0	$0	$0	$718,208
Annual Taxable Retail Spending (@ 33% of household income)	$237,009	$0	$0	$0	$0	$237,009
Annual Projected Off-Site Retail Taxable Sales Captured in City (@ 35% capture)	$82,953	$0	$0	$0	$0	$82,953
Annual Projected Sales and Use Tax to City						
Sales Tax (@ 1% of taxable sales)	$830	$0	$0	$0	$0	$830
Use Tax (@ 14.9% of sales tax)	124	0	0	0	0	124
Total Projected Sales and Use Tax	$954	$0	$0	$0	$0	$954
B. CUMULATIVE PROJECTIONS						
Cumulative Sales and Use Tax	**$954**	**$954**	**$954**	**$954**	**$954**	

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 Meyers Road Island Area 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

On a general note, the Island Area will experience positive spillover neighborhood benefits from the many improvements required for the proposed Spring Trails Specific Plan annexation. This includes roadways, open space, parks and trails, landscaping, and water/sewer system infrastructure improvements. This will reduce the network costs for the City to service the overall area, including the Island Area. These details are not discussed in this report and can be found in the Plan for Services for the Spring Trails Specific Plan annexation. A summary table of these improvements is included in Appendix A-1.

Table 3-1 presents current and anticipated service providers in the Meyers Road Island Area 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.

Table 3-1
Current and Anticipated Service Providers in the Meyers Road Island Area Annexation
Meyers Road Island Area 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 Animal Services Department	City of San Bernardino Animal Services Department
Street Lighting	City of San Bernardino	City of San Bernardino Public Works Department
Landscape Maintenance	Forest/Natural	City of San Bernardino Public Works Department
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	San Bernardino County Flood Control District
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

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 Island Area, 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.

Figure 3-1
Fire Protection
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino

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

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 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 the Island Area and Spring Trails. 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

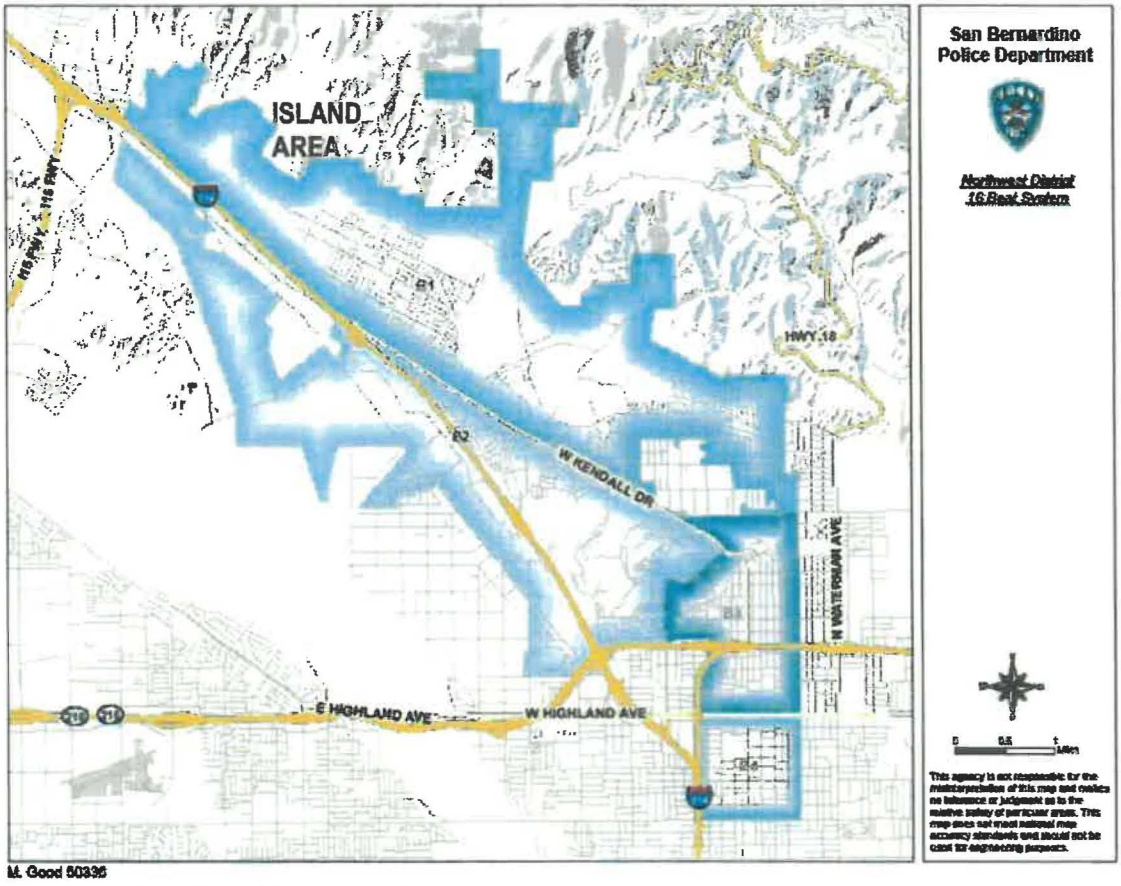
Before Annexation

Currently, the existing households 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 Island Area, 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
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino



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 proposed Spring Trails Specific Plan to the north of the Island Area will add additional 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.

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 is a field service provided by the City of San Bernardino Animal Services Department and is responsible for animal licensing, dead animal pickup, loose animal investigations, animal shelter management, and other services.

After Annexation

The Animal Control field service of the City of San Bernardino Animal Services Department will continue to provide services to the area after annexation.

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 Island Area along Wendy Ranch Road.

After Annexation

Upon annexation, the City of San Bernardino Public Works Department is responsible for the maintenance of lighting in the public right of ways.

3.8 Landscape Maintenance

Before Annexation

San Bernardino County provides road pavement and minimal landscaping maintenance.

After Annexation

Upon annexation and development, the responsibility will fall upon the City of San Bernardino Public Works Department.

3.9 Water

Before Annexation

Currently, public water facilities do not serve the parcels in the Island Area.

After Annexation

Upon annexation, the City of San Bernardino Municipal Water Department (SBMWD) would provide water services to the Island Area. The area 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 Verdemont Heights. Therefore, including the demand from the proposed Spring Trails project, water will be supplied from lower elevations by a combination of expanding and improving the offsite water system and the provision of onsite reservoirs and transmission lines.

3.10 Wastewater Collection

Before Annexation

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

After Annexation

The Island Area 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 Island Area and the proposed Spring Trails 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).

Under proposed improvements for Spring Trails, the project 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.[1]

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. Upon annexation, the City becomes responsible for the regional transportation fee associated with the proposed project, which is included in the review of City fees for new development in Chapter 4, Table 4-2.

3.12 Flood Control and Drainage

Before Annexation

The drainage area to which the Island Area 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 remain under the San Bernardino County Flood Control District. The existing Cable Canyon and Meyers Canyon drainage ways would remain relatively unchanged, except for necessary roadway and infrastructure improvements.

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

3.13 Utilities

Before and After Annexation

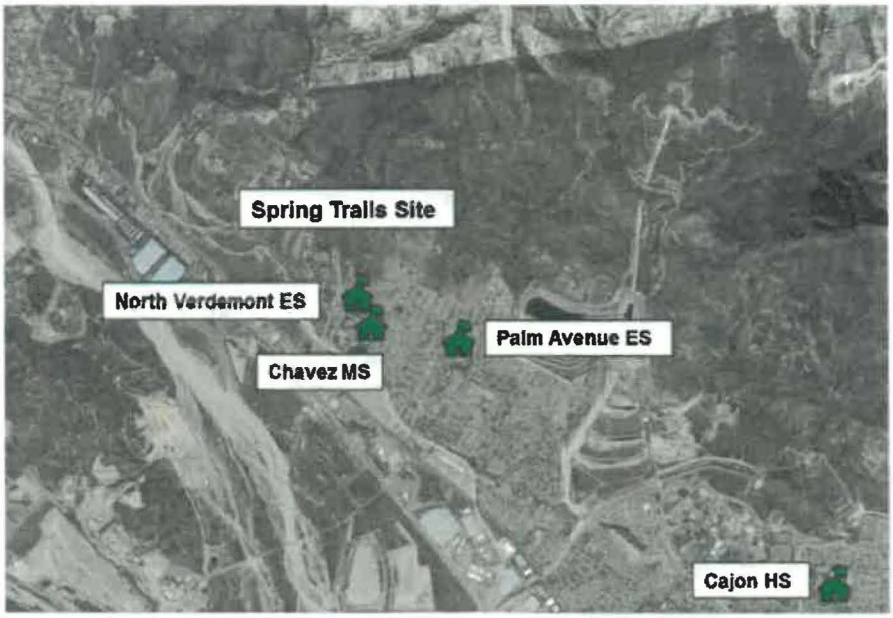
Utilities include cable television, internet, telephone, electric power, and natural gas. Currently, Charter Communications is the cable television and internet service provider. Verizon maintains telephone service to the annexation area. Electricity is provided by Southern California Edison, while natural 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. 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 3-3
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 Overview of Development Impact Fees

Any new development in the Island Area will 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.

At this time, no new development is assumed for the period of 5 years post-annexation being analyzed in this study. Therefore, no development impact fees are projected for this period for the Island Area Annexation.

For information purposes, one-time development impact fees that could be collected by the City and the Municipal Water Department upon annexation are shown in Table 4-1. City fees include Community Development, Public Safety and Engineering fees.

4.2 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.

4.3 Utilities

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

4.4 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 4-1.

4.5 Water and Sewer

The San Bernardino Municipal Water Department (SBMWD) charges a Sewer Capacity Fee of $3,500 per unit and a Water Connection Fee of $7,110 per unit, as shown in Table 4-1.

Table 4-1
Summary of City Development Impact Fees
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

Development Impact Fee Category [1]	Amount	Estimated Development Fees Impact Fees
New Residential Units	0	
	Fee per Unit	
City Fees [2]		
Community Development Fees		
Aquatic Facilities	$326	$0
Cultural Development	$3,000	$0
Library Facilities	$638	$0
Public Meeting Facilities	$1,090	$0
Parkland and Open Space	$9,518	$0
Subtotal	*$14,571*	*$0*
Public Safety Fees		
Law Enforcement	$639	$0 [3]
Subtotal	*$639*	*$0*
Engineering Fees		
Local Circulation Systems	$233	$0
Regional Circulation Systems	$2,435	$0
Storm Drain	$3,926	$0
Verdemont (Chestnut Drainage Fee -- $0.289/ sq. ft.)	$957	$0
Verdemont (Palm Box Culvert/ Signal -- $0.022/ sq. ft.)	$74	$0
Subtotal	*$7,624*	*$0*
Total City Fees	**$22,835**	**$0**
Water & Sewer - City of San Bernardino Municipal Water Department (SBMWD) [4]		
Sewer Capacity	$3,500	$0
Water Connection (3/4" x 3/4")	$7,110	$0
Total SBMWD Fees	*$10,610*	*$0*
TOTAL FEES	**$33,445**	**$0**

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.
4. Represents the applicable water fees per the City of San Bernardino Municipal Water Department.

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

CHAPTER 5
FISCAL IMPACTS

This chapter describes the fiscal analysis of the Meyers Road Island Area annexation. 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 2024 dollars with no adjustment for possible future inflation.

As required by LAFCO, this study analyzes and presents the fiscal impacts of the Island Area on the City General Fund and other funds for the first five years upon annexation. First year post-annexation is assumed to be 2026.

5.1 City General Fund

A small deficit of $2,474 is projected to the City General Fund for the Meyers Road Island Area Annexation at Year 5 upon annexation, as shown in Table 5-1. The projected deficit is based on recurring revenues of about $5,738 and recurring costs of about $8,212. 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 0.70 at Year 5 upon annexation.

Projected deficit to the General Fund declines slightly from $2,756 in Year 1 upon annexation through $2,474 in Year 5. The calculation assumes revenues from the recently adopted CFD 2018-1 tax for safety services family unit, which increases over time.

Table 5-1
Summary of Projected General Fund Recurring Fiscal Impacts
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

General Fund	Year 1 2026	Year 2 2027	Year 3 2028	Year 4 2029	Year 5 2030
Estimated Annual Recurring Revenues	$5,456	$5,522	$5,591	$5,664	$5,738
Estimated Annual Recurring Costs	$8,212	$8,211	$8,212	$8,212	$8,212
Estimated Annual Recurring Surplus	($2,756)	($2,689)	($2,620)	($2,548)	($2,474)
Estimated Annual Revenue/Cost Ratio	0.66	0.67	0.68	0.69	0.70

Sources: Stanley R. Hoffman Associates, Inc.

General Fund Projected Recurring Revenues

The CFD 2018-1 (safety services) taxes, Utility User tax, and off-site and Measure-S sales taxes account for about 82 percent of the total projected General Fund revenues at Year 5, 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
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

General Fund	Year 1 2026	Year 2 2027	Year 3 2028	Year 4 2029	Year 5 2030	Percent of Buildout
Estimated Recurring Revenues						
Property tax [1]	$0	$0	$0	$0	$0	0.0%
Property tax in lieu of VLF	0	0	0	0	0	0.0%
Off-site retail sales and use tax	954	954	954	954	954	16.6%
Measure S - sales tax	852	852	852	852	852	14.8%
Franchise tax	548	548	548	548	548	9.5%
CFD 2018-1 (safety services) [2]	1,666	1,732	1,802	1,874	1,949	34.0%
Charges for current services	143	143	143	143	143	2.5%
Fines and forfeitures	58	58	58	58	58	1.0%
Intergovernmental revenues	78	78	78	78	78	1.4%
Miscellaneous revenues	56	56	56	56	56	1.0%
Tow franchise revenues	28	28	28	28	28	0.5%
Property transfer tax-turnover [3]	0	0	0	0	0	0.0%
Sales tax - public safety	76	76	76	76	76	1.3%
Utility user tax	997	997	997	997	997	17.4%
Total Projected Revenues	$5,456	$5,522	$5,591	$5,664	$5,738	100.0%
Estimated Recurring Costs						
Economic and housing development	$68	$68	$68	$68	$68	0.8%
Police protection	4,949	4,949	4,949	4,949	4,949	60.3%
Parks, recreation and community services	268	268	268	268	268	3.3%
Public works' services	1,236	1,236	1,236	1,236	1,236	15.1%
Transfer to Animal Control Fund	197	197	197	197	197	2.4%
Library	153	153	153	153	153	1.9%
General government - O&M/contracts	458	458	458	458	458	5.6%
General government - overhead	883	883	883	883	883	10.8%
Total Recurring Costs	$8,212	$8,211	$8,212	$8,212	$8,212	100.0%
Estimated Net Recurring Surplus	-$2,756	-$2,689	-$2,620	-$2,548	-$2,474	
Estimated Revenue/Cost Ratio	0.66	0.67	0.68	0.69	0.70	

1. Based on information from the City Finance Director, per the agreement between the City and the San Bernardino County Fire Protection District (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 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.
3. Residential turnover is not anticipated within first 5 years of annexation.

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, Finance Director

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 $292 per year for the Island Area annexation over the 5-year period. 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 $89 per year over the 5-year period, as shown in Panel B of Table 5-3.

Table 5-3
Summary of Projected Other Funds Recurring Revenues
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

Other Funds	Year 1 2026	Year 2 2027	Year 3 2028	Year 4 2029	Year 5 2030
A. Fund 126 - Gas Tax [1]					
Annual Recurring Gasoline Tax	$292	$292	$292	$292	$292
B. Fund 129 - Measure I [1]					
1/2 cent sales and road tax	$89	$89	$89	$89	$89

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

Sources: Stanley R. Hoffman Associates, Inc.

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 Meyers Road Island Area 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 2023-24 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 2023-24 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
Meyers Road Island Area 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), *Preliiminary RTP 2024 Projecions 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 Island Area are presented in Table 6-2. These factors are based on the City's Fiscal Year (FY) 2023-24 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
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

Revenue Source	FY 2023-24 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]	$23,000,000	Case Study	$1,270 per $1,000,000 assessed valuation
			73.5% of PTVLF allocated to General Fund
			of 1% of projected sales and use
Sales and Use Tax	$51,500,000	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	$893.00 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	$2,450,750	Population = 223,230	$10.98 per capita
Fines and Forfeitures	$1,255,500	Service Population = 279,469	$4.49 per service population
Intergovernmental Revenues	$1,335,000	Population = 223,230	$5.98 per capita
Business Registration	$8,000,000	Employment = 112,478	$71.13 per employee
Miscellaneous Revenues	$1,209,056	Service Population = 279,469	$4.33 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	$5,008,561	Population = 223,230	$22.44 per capita
MEASURE I FUND 129			
1/2% sales tax	$4,808,000	City Sales and Use Tax = $51,500,000	$93.36 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 2023-24 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), *Prefiiminary RTP 2024 Projecions Data*

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 $893 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 2023-24 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 was $385 per single family unit and $358 per multi-family unit.

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

Charges for Current Services. Based on estimated FY 2023-24 Adopted Budget recurring revenues of $2,450,750 and the City's population estimate, charges for current services are projected at $10.98 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 $4.49 per service population based on estimated FY 2023-24 Adopted Budget revenues of $1,255,500 and the City's service population of 279,469.

Intergovernmental Revenues. As shown in Table 6-2, these revenues are projected at $5.98 per capita based on estimated FY 2023-24 Adopted Budget revenues of $1,335,000 and the City's population estimate of 223,230.

Business Registration. These revenues are not projected for the Island Area 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 2023-24 Adopted Budget recurring revenues of $1,209,056 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 2023-24 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 2023-24 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 2023-24 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 $22.44 per capita based on estimated FY 2023-24 Adopted Budget revenues of $5,008,561 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 $93.36 per $1,000 of total sales and use tax. This factor is based on estimated FY 2023-24 Adopted Budget revenues of $4,808,000 for Measure I sales tax and the City's total sales and use tax of $51,500,000. 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 Meyers Road Island Area Annexation are presented in Table 6-3. These factors are based on the City's Fiscal Year (FY) 2023-24 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
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

Cost Category	FY 2023-24 Adopted Budget		Projection Basis [1]	Cost Factor [1]
	Total	Net		
General Government - Overhead	$19,914,991	$19,914,991	Share of Line Costs	12.0% 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 Deyevelopment [2]	$11,923,799	$1,452,799	Service Population = 279,469	$5.20 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 2023-24 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 2023-24 Adopted Budget general government costs are estimated at $19,914,991 and direct departmental costs (or non-general government) are estimated at $165,342,925. Average general government costs are projected at about 12.0 percent of direct non-general government costs.

Table 6-4
Calculation of City General Government Overhead Rate
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
(In Constant 2024 Dollars)

General Fund Expenditures	FY 2023-24 Adopted Budget Total	General Government	Non-General Government
General Government			
Mayor	$317,840	$317,840	
City Council	959,087	959,087	
City Clerk	1,586,893	1,586,893	
City Attorney	3,310,443	3,310,443	
City Manager	2,401,885	2,401,885	
Human Resources	2,587,614	2,587,614	
Finance	6,218,078	6,218,078	
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	$11,923,799		$11,923,799
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	**$185,257,916**	**$19,914,991**	**$165,342,925**
Current General Government Overhead Rate			
General Government Expenditures			$19,914,991
		divided by	
Direct General Fund Expenditures			$165,342,925
		equals	
Current General Government Overhead Rate			**12.0%**

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, Fiscal Year 2023-24 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 2023-24 Adopted Budget Community and Economic Development costs of $11,923,799 are offset by one-time development related permit and fee revenues, as shown in Appendix Table B-6, to result in net costs of $1,452,799. This divided by the service population of 279,469 results in $5.20 per service population.

Police Department

Based on expenditures of $106,395,588 in the FY 2023-24 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 2023-24 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 2023-24 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 2023-24 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
NEIGHBORHOOD INFRASTRUCTURE IMPROVEMENTS

Table A-1
Road, Drainage, Sewer. Parks, Trails and Open Space Phasing
Spring Trails Specific Plan

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
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

Revenue Category	Total	Non-Recurring [1]	Not Projected [2]	Projected
Property Taxes				
Property Tax In Lieu of VLF	*$23,000,000*	*$0*	*$0*	*$23,000,000*
Sales and Use Tax				
Sales and Use Tax	*$51,500,000*	*$0*	*$0*	*$51,500,000*
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	$425,000	$425,000	$0	$0
Cannabis Permit Application Fee	20,000	20,000	0	0
Cannabis Permit Regulatory Fee	85,000	85,000	0	0
Passport Fees	0	0	0	0
Subdivision Filing Fee	100,000	100,000	0	0
Planning Development PR	650,000	650,000	0	0
Technology Fee Development Services	135,000	135,000	0	0
Plan Review	170,000	170,000	0	0
C&D Application Fee	0	0	0	0
Plan Check Fee - B&S	1,700,000	1,700,000	0	0
Plan Check Fee - Fire	0	0	0	0
Board Up/Demolition	325,000	325,000	0	0
CDBG Revenue	10,000	0	10,000	0
Pendency Release	3,500	0	3,500	0
Miscellaneous Police Receipts	1,200,000	0	0	1,200,000
Sale of Photos	1,500	0	0	1,500
Traffic Offender OTS Fee	150,000	0	0	150,000
Police Tow Release	575,000	0	0	575,000
Private Property Tow Fee	145,000	0	0	145,000
Fingerprint Fee	14,000	0	0	14,000
Property Auction	2,000	0	0	2,000
False Alarm Fee	65,000	0	0	65,000
Vehicle Repossession Fee	5,000	0	0	5,000
Investigation Fee	5,000	0	0	5,000
Fireworks Enforcement	50,000	0	0	50,000
Code SFIF	40,000	40,000	0	0
Administrative Citations SFRPIP	55,000	55,000	0	0
Payoff Demand Fee	0	0	0	0
Crime Free Rental Housing	0	0	0	0
Cemetery Burial Fee	7,500	0	0	7,500
Sale of Cemetery Vaults and Liners	0	0	0	0
Blanket Inspection Fee	225,000	225,000	0	0
Miscellaneous Engineering Receipt	120,000	120,000	0	0
Plan Check Fee - Engineering	1,600,000	1,600,000	0	0
Archival Fee - Development Services	0	0	0	0
NPDES Storm Drain Utility Fee	175,000	175,000	0	0
NPDES Inspection Fee	1,000	1,000	0	0
Weed Abatement Destruction	25,000	0	0	25,000
Program & Facility Use Fees	150,000	0	0	150,000
Park Energy Fee	0	0	0	0
Signal maint/energy	0	0	0	0
Class Registration Fee	5,750	0	0	5,750
Swimming Pool Fee	50,000	0	0	50,000
Burrtec Host Fee	415,000	415,000	0	0
Library Fines	6,000	6,000	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	$8,715,650	$6,251,400	$13,500	$2,450,750

Table B-1 (page 2 of 2)
General Fund Revenues, Fiscal Year 2022-23 Adopted Budget
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 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	69,000	0	0	69,000
Parking Citations	575,000	0	0	575,000
General Administrative Civil Penalty	130,000	0	0	130,000
Police Administrative Civil Penalty	0	0	0	0
PW Administrative Civil Penalty	0	0	0	0
Code Administrative Civil Penalty	465,000	0	0	465,000
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	$1,255,500	$0	$0	$1,255,500
Intergovernmental				
Motor Vehicle in Lieu Tax	$145,000	$0	$0	$145,000
Other Governmental Agencies	2,051,260	0	2,051,260	0
State Aid - POST	0	0	0	0
State Mandated Cost Reimbursement	65,000	0	0	65,000
SBIAA Reimbursement	2,000	0	2,000	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	25,000	0	0	25,000
Total Intergovernmental	$4,388,260	$0	$3,053,260	$1,335,000
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	15,000	15,000	0	0
Annual Alarm Permits	50,000	50,000	0	0
Building Permits	2,000,000	2,000,000	0	0
Mechanical Permits	125,000	125,000	0	0
C&D Self Haul Permit	5,000	5,000	0	0
Street Cut Permits	0	0	0	0
Miscellaneous Licenses and Permits	400,000	400,000	0	0
Grading Permits	15,000	15,000	0	0
Public Works Construction Permits	380,000	380,000	0	0
On Site Permits	1,750,000	1,750,000	0	0
Mobile Home Park Permit	3,000	0	3,000	0
Total Licenses & Permits	*$12,740,000*	*$4,740,000*	*$0*	*$8,000,000*
Miscellaneous				
Miscellaneous Planning Receipts	$125,000	$0	$0	$125,000
Miscellaneous Library Receipts	4,500	0	0	4,500
Miscellaneous Receipts	180,000	0	0	180,000
Refunds and Rebates	6,000	0	0	6,000
Litigation Settlements	60,000	0	0	60,000
Restitutions	0	0	0	0
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	30,000	0	0	30,000
Total Miscellaneous	*$1,209,056*	*$0*	*$0*	*$1,209,056*
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	$350,000	$0	$350,000	$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	*$554,000*	*$0*	*$554,000*	*$0*
Utility Users Tax				
Utility Users Tax	*$21,430,500*	*$0*	*$0*	*$21,430,500*
General Fund Total	**$194,754,966**	**$10,991,400**	**$4,145,760**	**$179,617,806**

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 2023-24 Adopted Budget

Table B-2
Fiscal Year 2022-23 Adopted Budget: Revenues for Other City Funds [1]
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

Revenue Category	Total	Not Projected [2]	Recurring
Fund 124 - Animal Control			
Animal Licenses	$210,000	$0	$210,000
Miscellaneous Licenses and Permits	2,500	0	2,500
General Fines	5,200	0	5,200
Animal License Penalty	13,500	0	13,500
Animal Adoption Fee	53,000	0	53,000
Contracted Shelter Fee	0	0	0
Apprehension Fee	11,000	0	11,000
Boarding Fee	0	0	0
Field Service Fee	6,000	0	6,000
Owner Release Fee	13,400	0	13,400
Vaccination Fee	36,000	0	36,000
Microchip Identification Fee	31,000	0	31,000
Miscellaneous Receipts	12,500	0	12,500
Transfers from General Fund	3,306,435	0	3,306,435
Intergovernmental	0	0	0
Total Animal Control Fund	*$3,700,535*	*$0*	*$3,700,535*
Fund 126 - Gas Tax			
State Gasoline Tax:			
- HUTA Prop 42 Replacement (for Section 2103)	$1,608,248	$0	$1,608,248
- Proposition 111 (Section 2105)	1,181,427	0	1,181,427
- Section 2106	716,333	0	716,333
- Section 2107	1,502,553	0	1,502,553
Subtotal	$5,008,561	$0	$5,008,561
- Section 2107.5 flat amount [3]	23,939	0	23,939
Use of Money and Property	5,000	5,000	0
Total Gas Tax Fund	*$5,037,500*	*$5,000*	*$5,032,500*
Fund 129 - Measure I			
1/2 Cent Sales Tax	$4,808,000	$0	$4,808,000
Federal Aid Street Construction		0	0
Subtotal	$4,808,000	$0	$4,808,000
Interest on Idle Cash	28,000	28,000	0
Total Gas Tax Fund	*$4,836,000*	*$28,000*	*$4,808,000*

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 2023-24 Adopted Budget

Table B-3
Estimated In Lieu Property Tax of Vehicle License Fees (VLF) Factor
Meyers Road Island Area 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
Meyers Road Island Area 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
Meyers Road Island Area 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
Meyers Road Island Area Annexation Plan for Service and Fiscal Analysis
City of San Bernardino
(In Constant 2024 Dollars)

Category	Amount
Total General Fund Community and Economic Development Costs	$11,923,799
	minus
Charges for Service	
On Site Plan Check Fees	$425,000
Cannabis Permit Application Fee	20,000
Cannabis Permit Regulatory Fee	85,000
Subdivision Filing Fee	100,000
Planning Development PR	650,000
Technology Fee Development Services	135,000
Plan Review	170,000
C&D Application Fee	0
Plan Check Fee - B&S	1,700,000
Board Up/Demolition	325,000
Blanket Inspection Fee	225,000
Miscellaneous Engineering Receipt	120,000
Plan Check Fee - Engineering	1,600,000
Archival Fee - Development Services	0
NPDES Storm Drain Utility Fee	175,000
NPDES Inspection Fee	1,000
Total One-Time Charges for Service	$5,731,000
	minus
One-Time Licenses and Permits	
Miscellaneous Planning Permits	$15,000
Annual Alarm Permits	$50,000
Building Permits	2,000,000
Mechanical Permits	125,000
C&D Self Haul Permit	5,000
Street Cut Permits	0
Miscellaneous Licenses and Permits	400,000
Grading Permits	15,000
Public Works Construction Permits	380,000
On Site Permits	1,750,000
Total One-Time Licenses and Permits	$4,740,000
	equals
Recurring Net Community Development Costs	$1,452,799
	divided by
City Service Population	279,469
	equals
Community Development Costs per Service Population	**$5.20**

Sources: Stanley R. Hoffman Associates, Inc.
City of San Bernardino, Fiscal Year 2023-24 Adopted Budget
City of San Bernardino, Finance Department

APPENDIX C
PROJECT REFERENCES

City of San Bernardino

www.sbcity.org/

Community and Economic Development
Gabriel Elliot, Director, 909.384.5357
Timothy O'Neal, Senior Management Analyst, 909.384.7276
Travis Martin, Principal Planner, 909.384.5313

Finance Department
Jeannie Fortune, Interim Director, 909.384.5242

Former Employees
Nathan Freeman, Former Director, Community and Economic Development
Marim Fam, Former Deputy Finance Director
Rita Conrad, Former Interim Finance Director
Brent Mason, Former Finance Director
David Murray, Former Deputy Director/City Planner
Oliver Mujica, Former Planning Division Manager

San Bernardino Municipal Water Department
Ted Brunson, Development Services Manager, 909.453.6165

J.P. Weber Group
Jeff Weber, Principal, 949.254.0135

Gresham Savage Nolan & Tilden, PC
Mark Ostoich, Principal Shareholder, 909.890.4499
Jennifer Dorgan, 909.890.4499

Hinderliter de Llamas and Associates
www.hdlcompanies.com

San Bernardino County Local Agency Formation Commission
909.388.0480
Samuel Martinez, Executive Officer
www.sblafco.com

County of San Bernardino
www.sbcounty.gov/

San Bernardino City Unified School District
Facilities/Operations Division, Facilities Management
Takara Russ, Use of Facilities Senior Clerk, 909.388.1600

Omnitrans
www.omnitrans.org/

TOM DODSON & ASSOCIATES

Mailing Address: **PO Box 2307, San Bernardino, CA 92406**
Physical Address: **2150 N. Arrowhead Avenue, San Bernardino, CA 92405**
Tel: (909) 882-3612 ✦ Email: tda@tdaenv.com ✦ Website: tdaenvironmental.com

March 10, 2026

Mr. Samuel Martinez
Local Agency Formation Commission
1601 East 3rd Street, Suite 102
San Bernardino, CA 92415-0490

Dear Sam:

LAFCO 3275 consists of a Reorganization to include Annexation to the City of San Bernardino (City) and Detachment from County Service Area 70. The proposed Reorganization area for the City encompasses approximately 26 acres within an island area that is generally located north of Meyers Road east of parcel lines (the existing City of San Bernardino boundary), along the Spring Trails Specific Plan Project area (LAFCO 3274). As an Island Reorganization/Annexation, the Local Agency Formation Commission (Commission) is required to approve this application, and without discretionary decision-making authority in this instance, LAFCO 3275 is no longer considered a project under the California Environmental Quality Act (CEQA). Also, most of the project area has been developed, so the potential for any significant changes to the physical environment is considered minimal.

Therefore, after careful review, I am recommending that the Commission consider the adoption of an Exemption under two CEQA Sections for LAFCO 3275.

I recommend that the Commission find that a Common Sense Exemption as defined in CEQA applies to LAFCO 3275 under Section 15061 (b) (3) of the State CEQA Guidelines, which states: "A project is exempt from CEQA if the activity is covered by the general rule that CEQA applies only to projects which have the potential for causing significant effect on the environment. Where it can be seen with certainty 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." It is my opinion, and recommendation to the Commission, that in addition to the project being exempt from CEQA as an island annexation, this circumstance applies to LAFCO 3275

Island annexations are allowed to proceed as ministerial actions because the originating statute indicates that the Commission has no discretion over the approval of such annexations. Therefore, LAFCO 3275 also qualifies for an exemption under Section 15268 of the State CEQA Guidelines which states: "Ministerial projects are exempt from the requirements of CEQA."

Based on the preceding review of LAFCO 3275 and the pertinent sections of CEQA and the State CEQA Guidelines cited, I conclude that LAFCO 3275 does not constitute a project under CEQA based on both of the above findings: 1) adoption of Common Sense Exemption and Statutory Exemption under Section 15268, the project is an island action and is ministerially exempt. Filing of a Notice of Exemption based on these two findings constitute the most appropriate determinations to comply with CEQA for this action. The Commission can approve the review and findings for this action and I recommend that you notice LAFCO 3275 as exempt from CEQA for the reasons cited above. The Commission needs to file a Notice of Exemption with the County Clerk to the Board for this action once the hearing is completed.

A copy of this exemption recommendation should be retained in LAFCO's project file to serve as verification of this evaluation and as the CEQA environmental determination record. If you have any questions, please feel free to give me a call.

Sincerely,

Tom Dodson

Tom Dodson

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

Table of Contents

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.

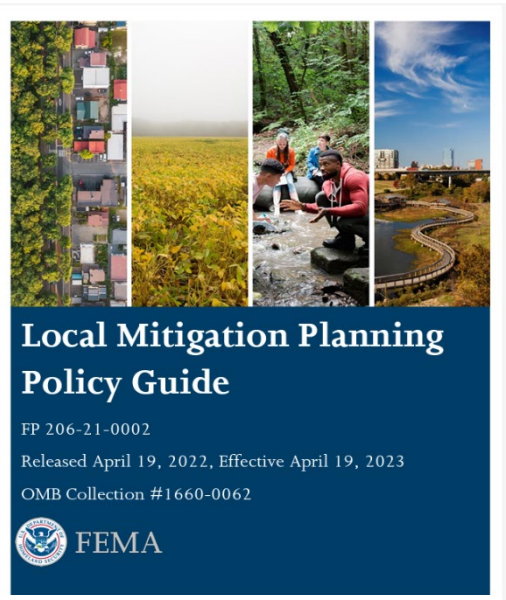
HAZARD MITIGATION: any sustained action taken to reduce or eliminate long-term risk to people and property from natural or human-caused hazards and their effects.

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.

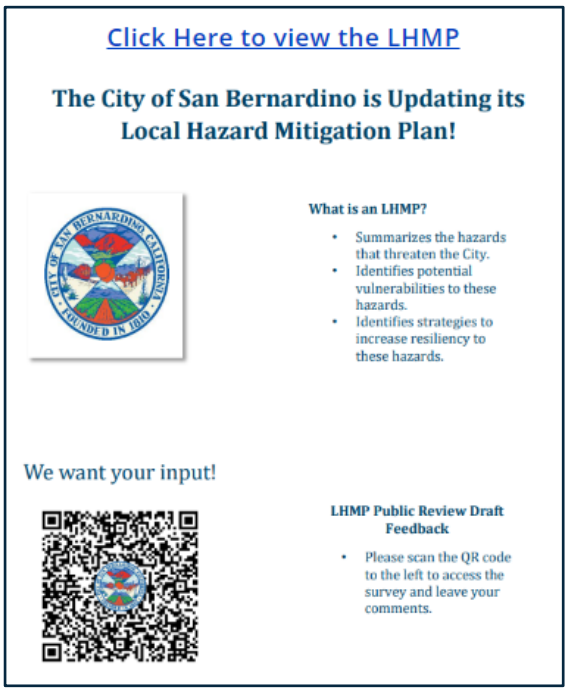


Table 1-2: Key Resources for Plan Development

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%**

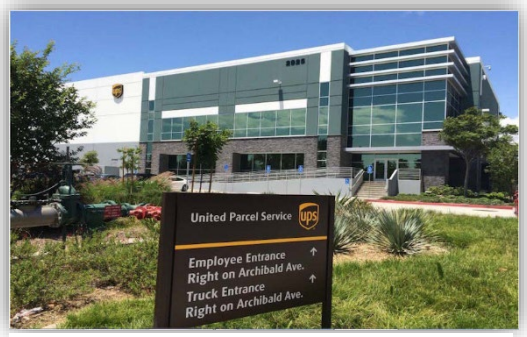
Note: Percentage values are rounded to the nearest tenth decimal.
Source: 2020 US Decennial Census, US Census ACS Survey 2016-2020

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.

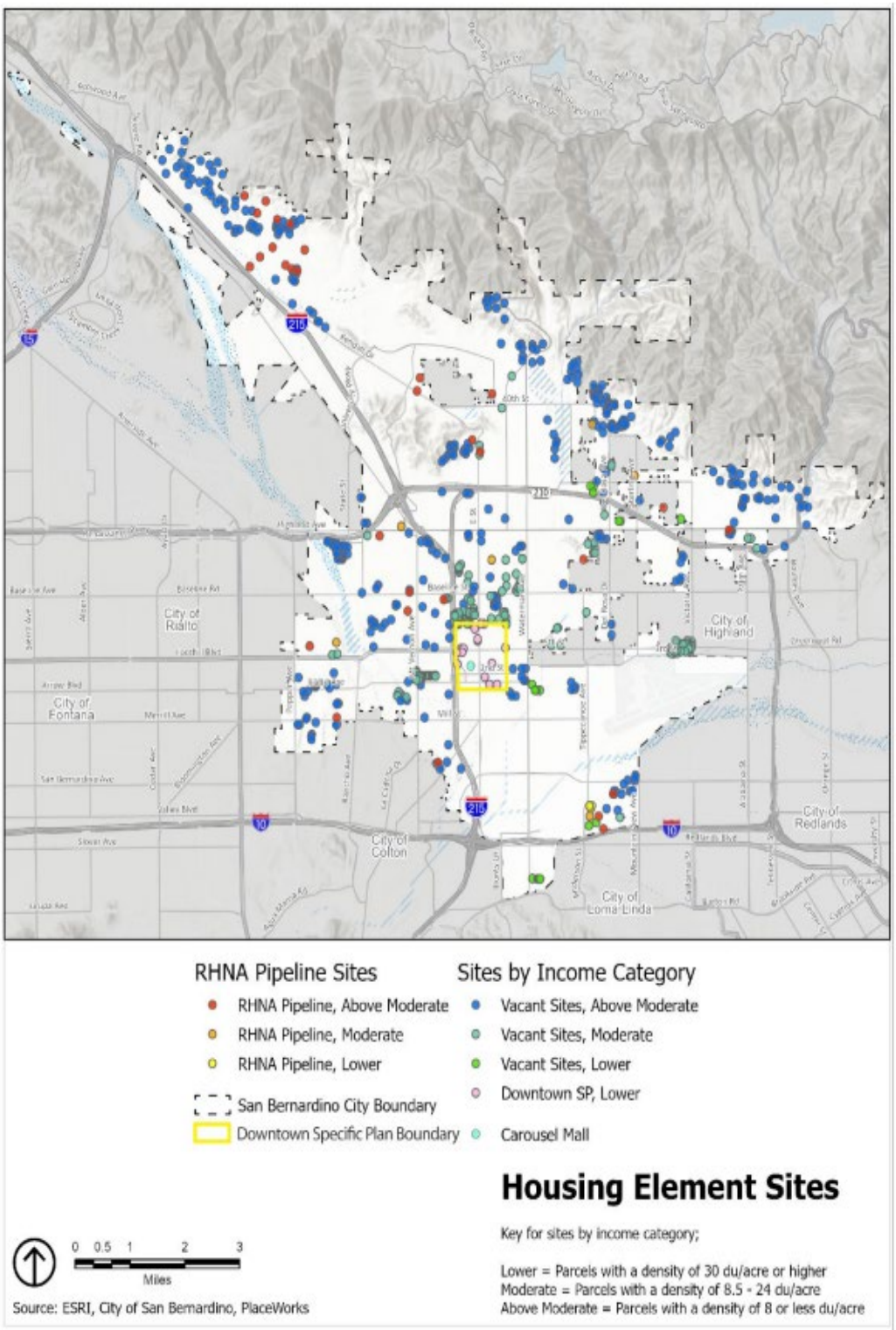
Major Community Elements

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).

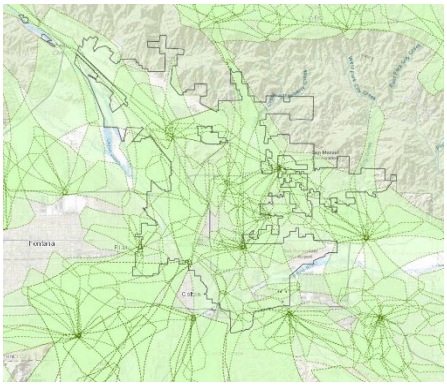


Figure 2-2: SCE Public Safety Power Shutoff Circuits surrounding the City

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

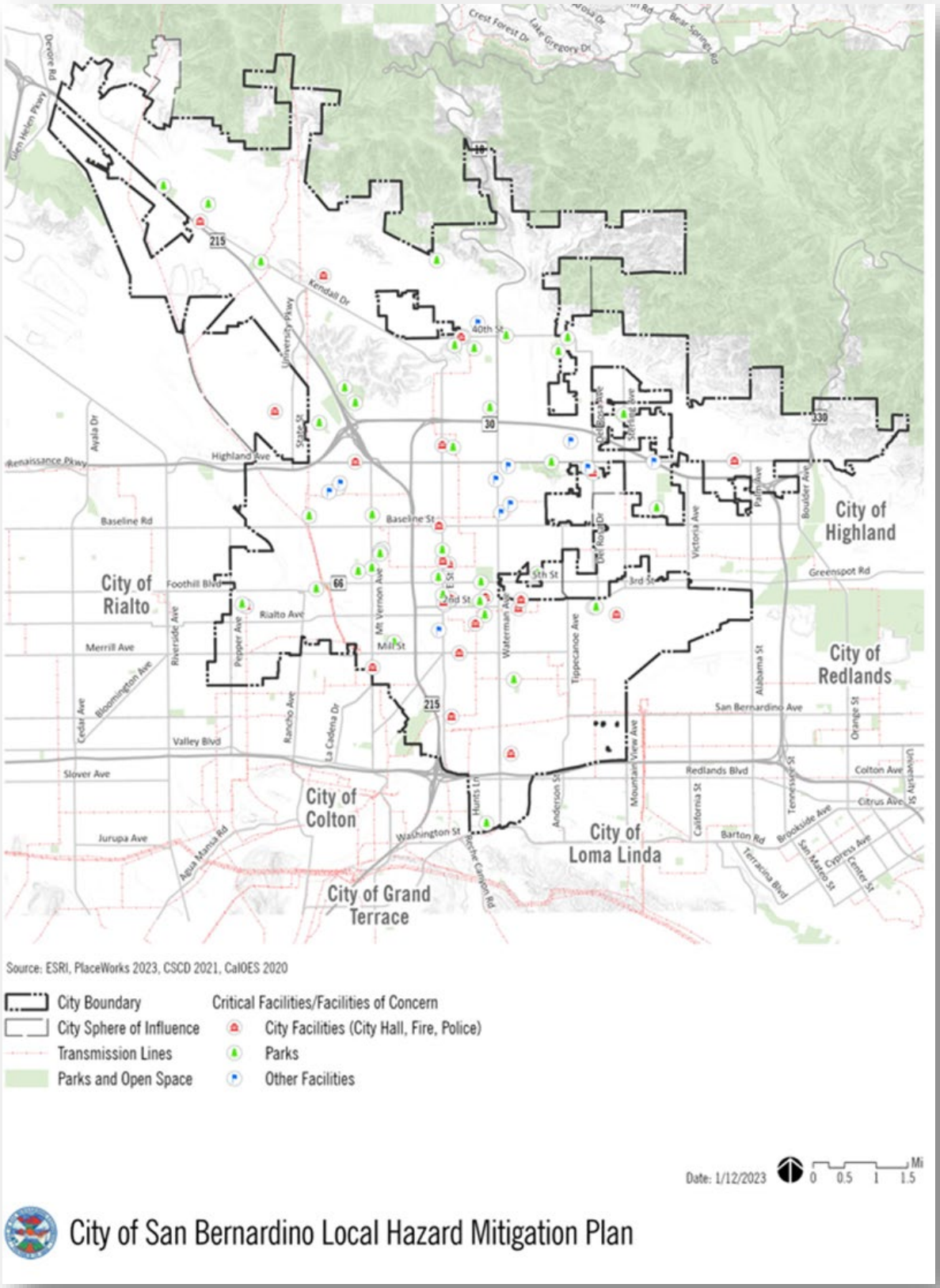
The possibility that all facilities will be completely damaged simultaneously is extremely rare. Based on the hazard, most impacts are anticipated to be isolated to certain locations. This estimate does not include the value of the City's underground infrastructure and surface drainage facilities.

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.

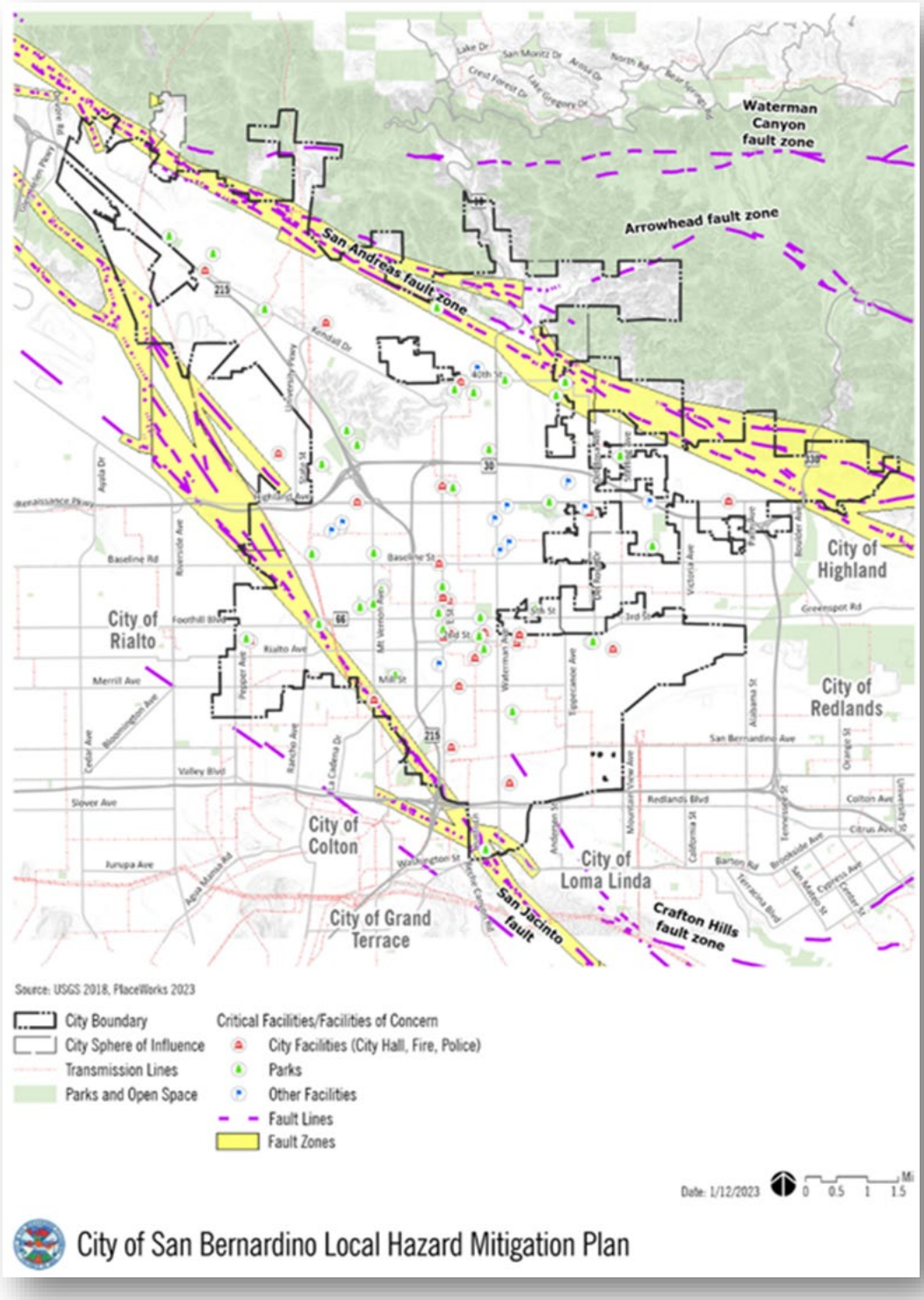
The location where two tectonic plates join is called a plate boundary, which is considered a fault line. Fault lines are sometimes visible on the Earth's crust as sudden rifts or anomalies in the continuity of the landscape. California's major north-south fault line is the San Andreas Fault—where the 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

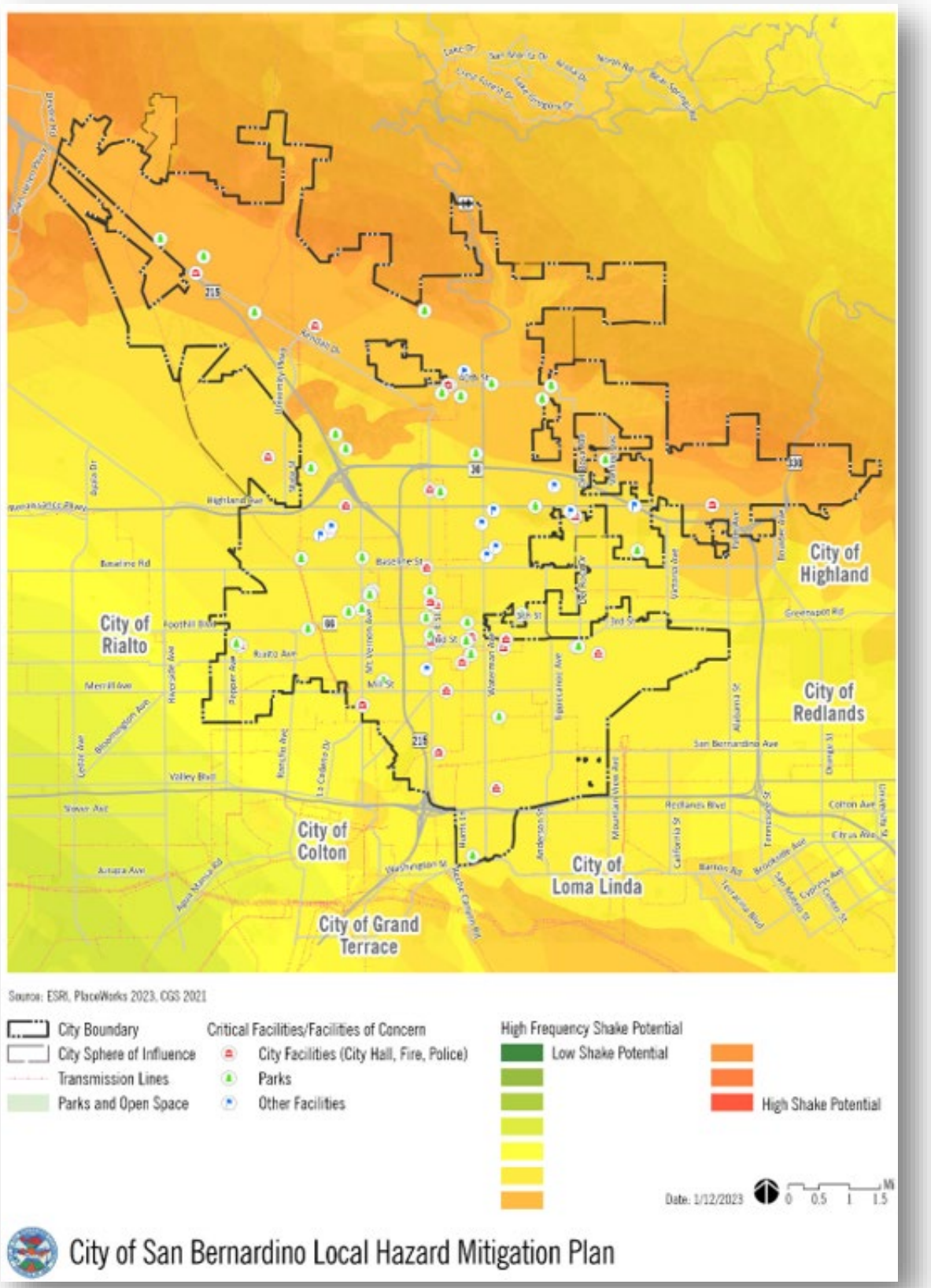


Table 3-6: Modified Mercalli Intensity Scale [12]		
Intensity	**Description**	**Description**
I	Instrumental	Felt only by very few people under especially favorable conditions.
II	Feeble	Felt only by a few people at rest, especially on the upper floors of buildings.
III	Slight	Noticeable by people indoors, 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

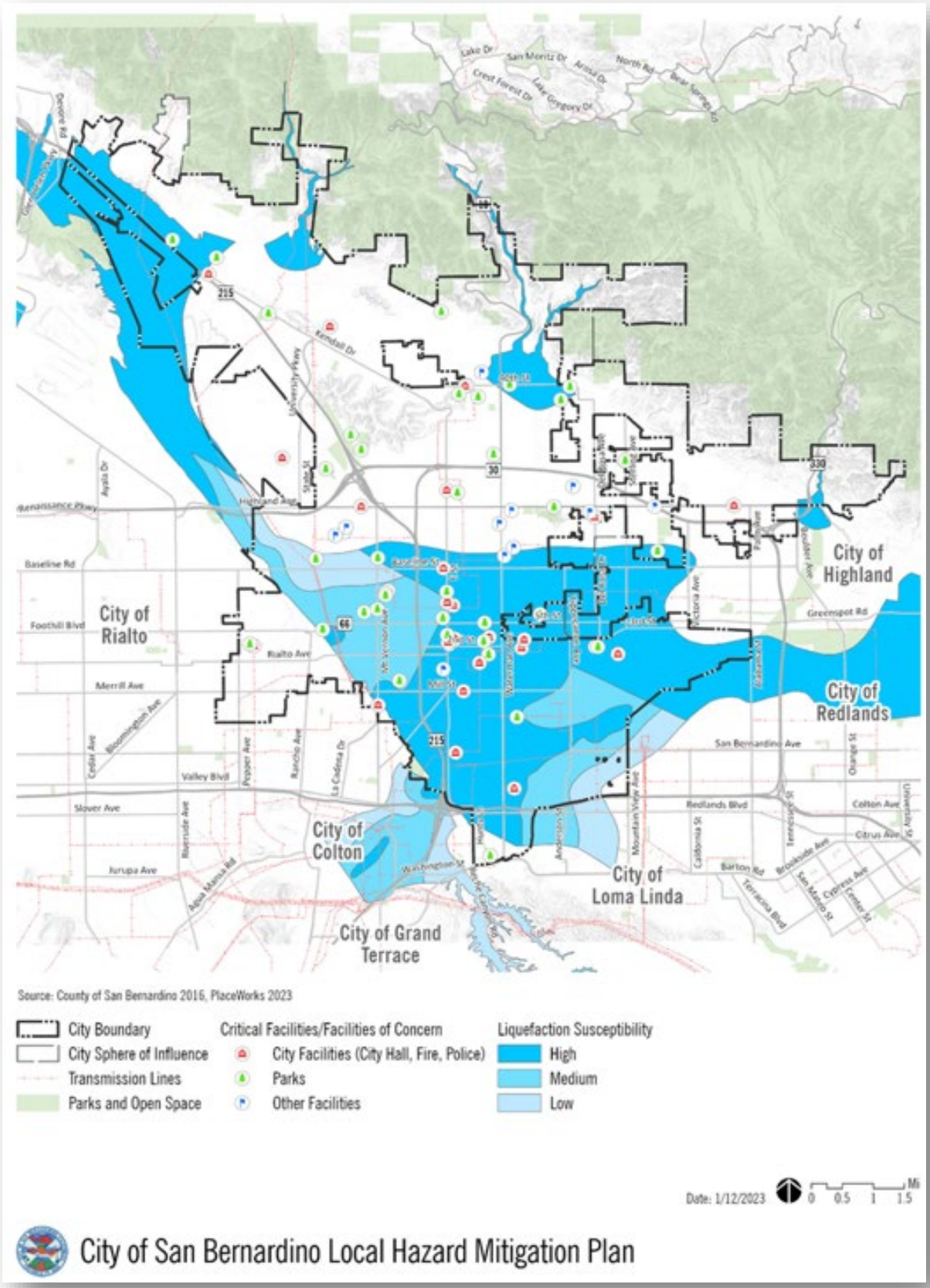
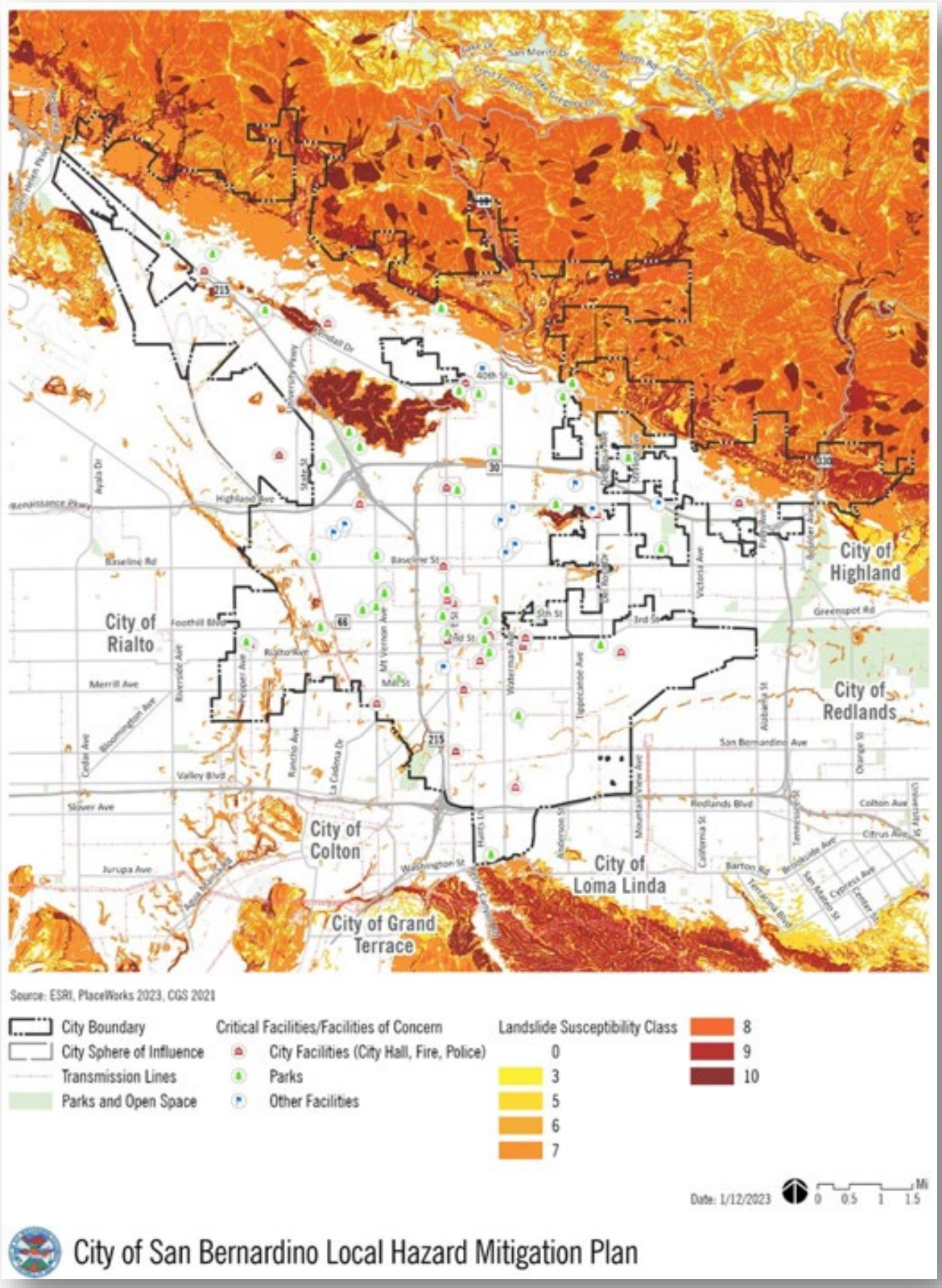


Figure 3-5: Landslide Susceptibility Zones within San Bernardino



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**.

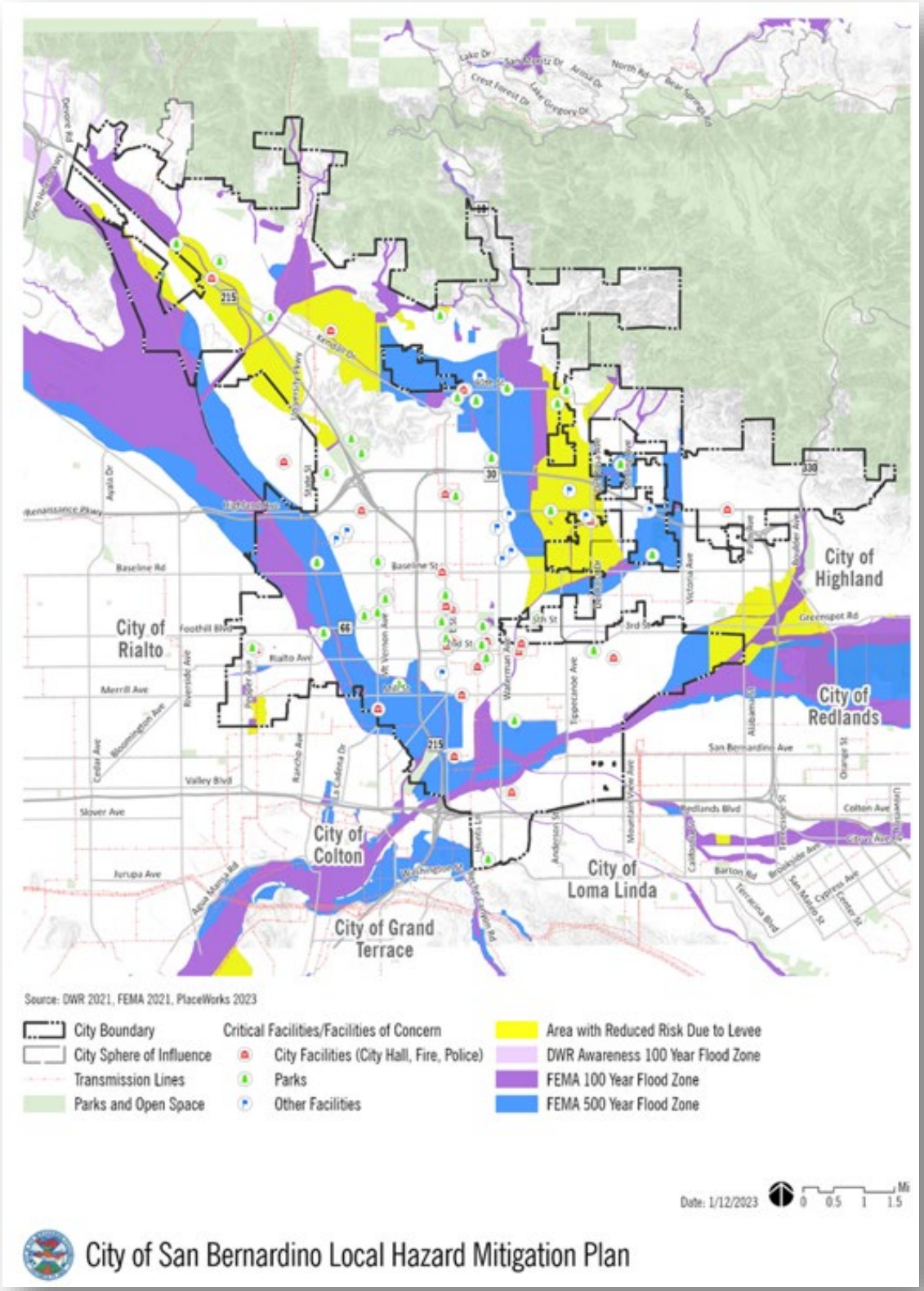
Flooding hazards can potentially impact a significant amount of the community; however, less than 10% of this area is subject to a 100-year event. Development within flood hazard areas is expected to comply with flood protection standards that reduce vulnerability to flood impacts and ensure safe use 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.

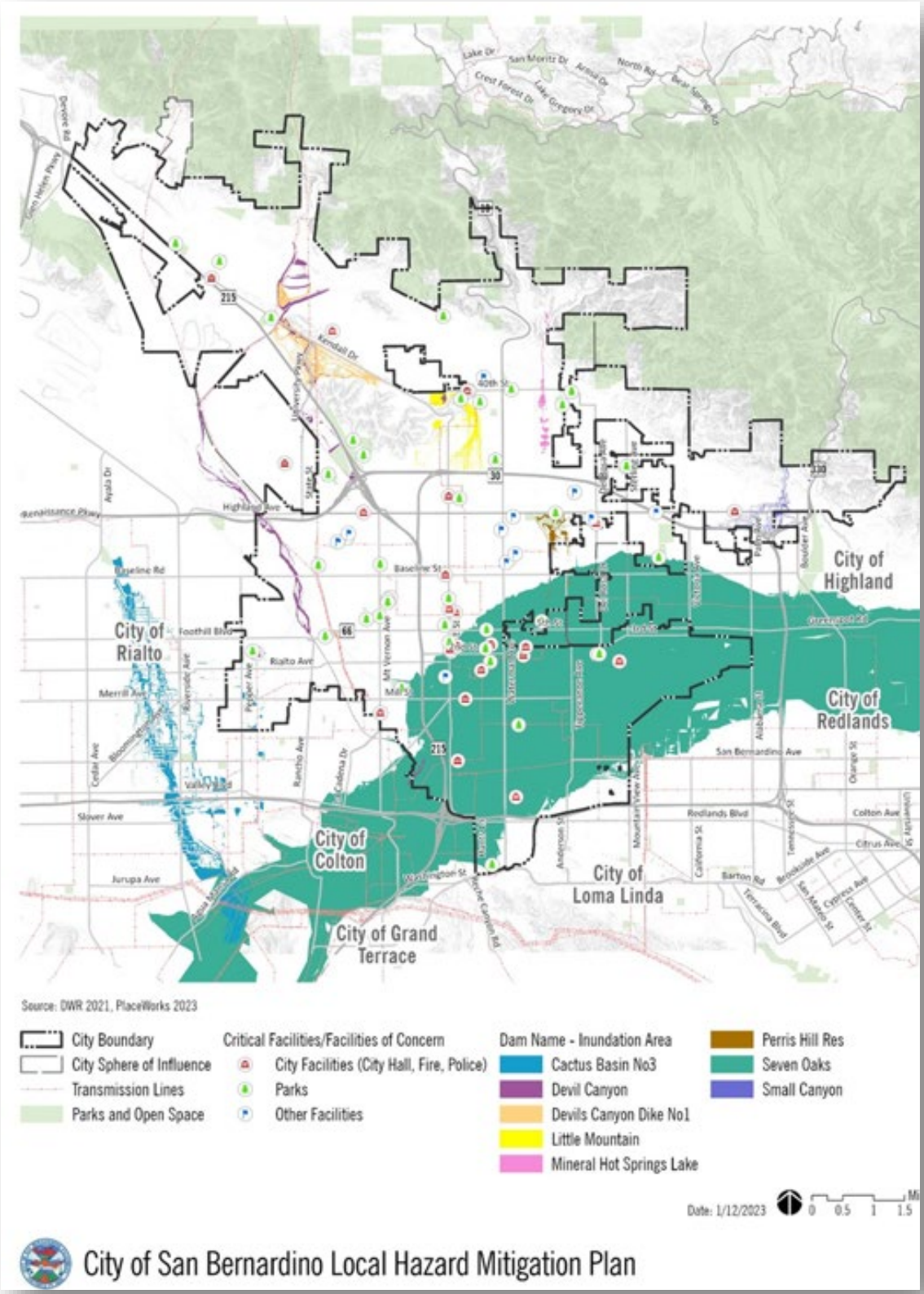
Figure 3-7: Dam Safety Action Classification (DSAC) Rating System

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.

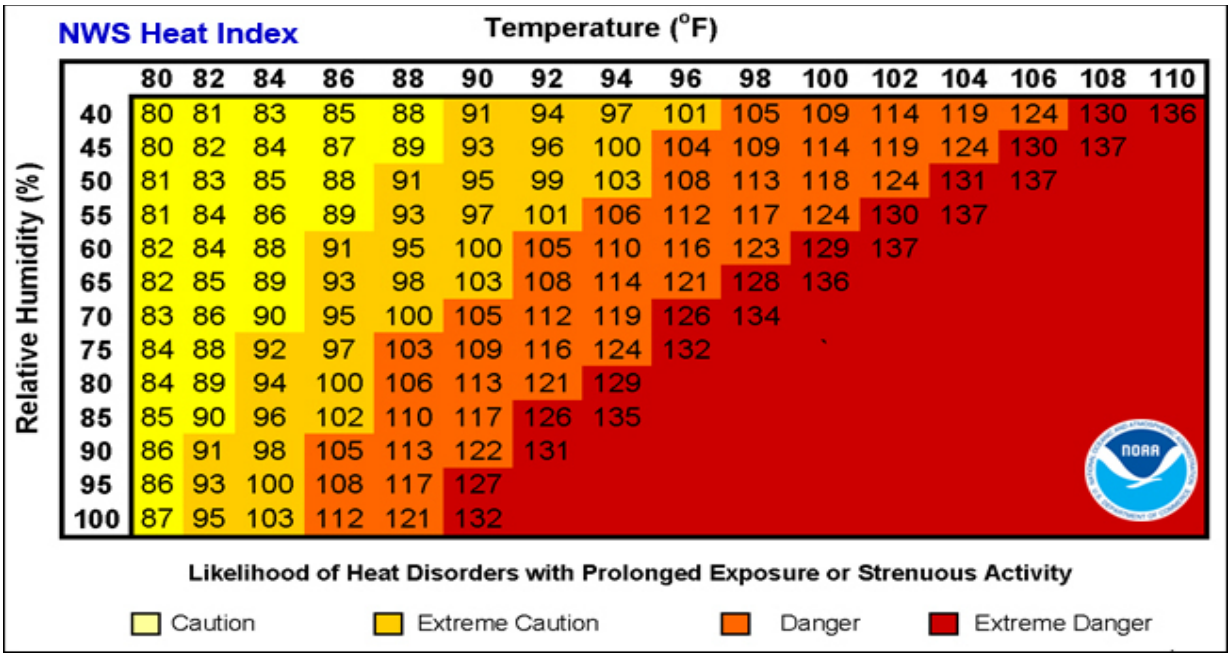
Table 3-28: Beaufort Scale

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.

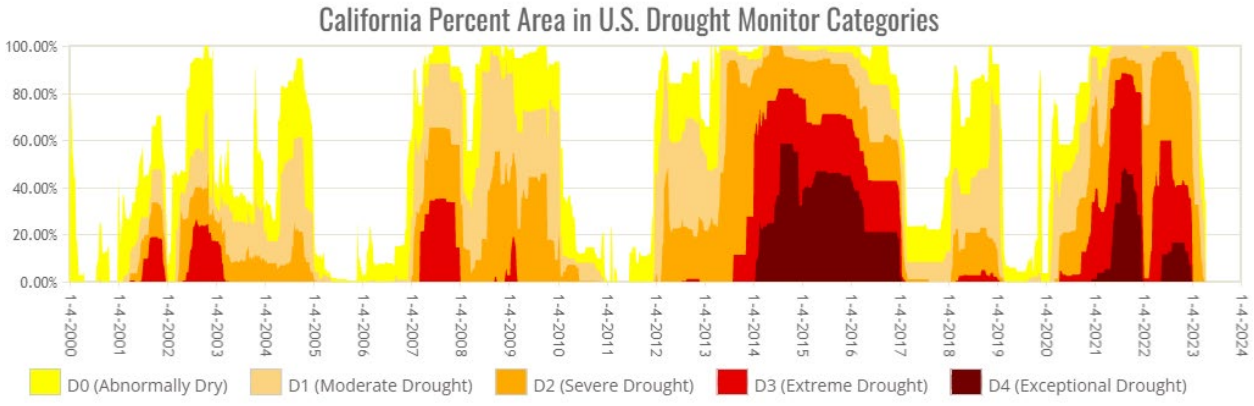
California experienced its most recent drought beginning in 2012 and lasting until 2017. All areas of the state were impacted, and by 2014 it was reported as the most severe drought in 1,200 years. **Figure 3-11** illustrates the severity of the drought conditions experienced over the past 23 years.

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.

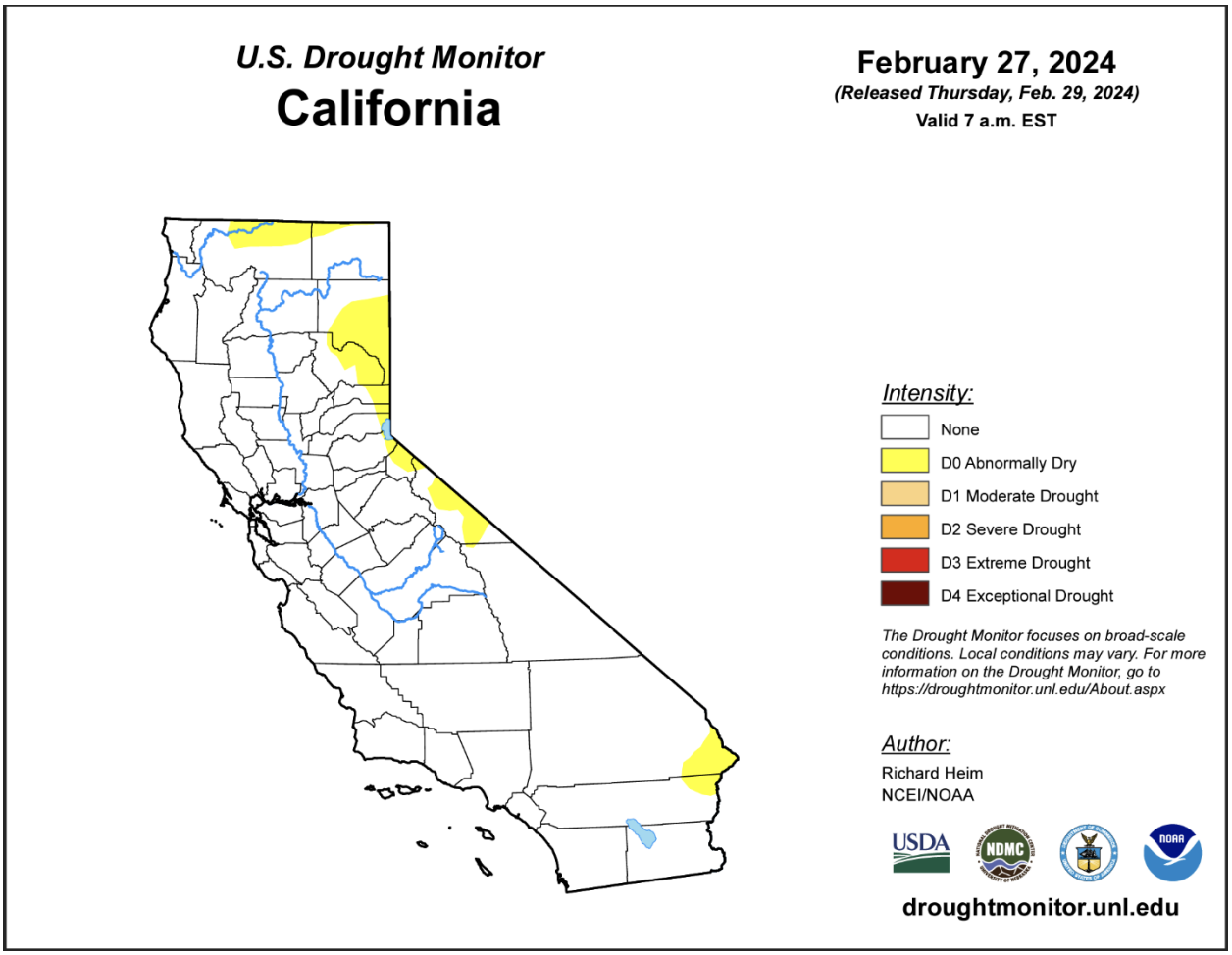
Regarding severe storms, climate change is expected to alter rainfall patterns in Southern California, including San Bernardino. As the climate warms, rain events are predicted to become more intense. San Bernardino will likely experience more rain inundation events that lead to flooding and increase 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

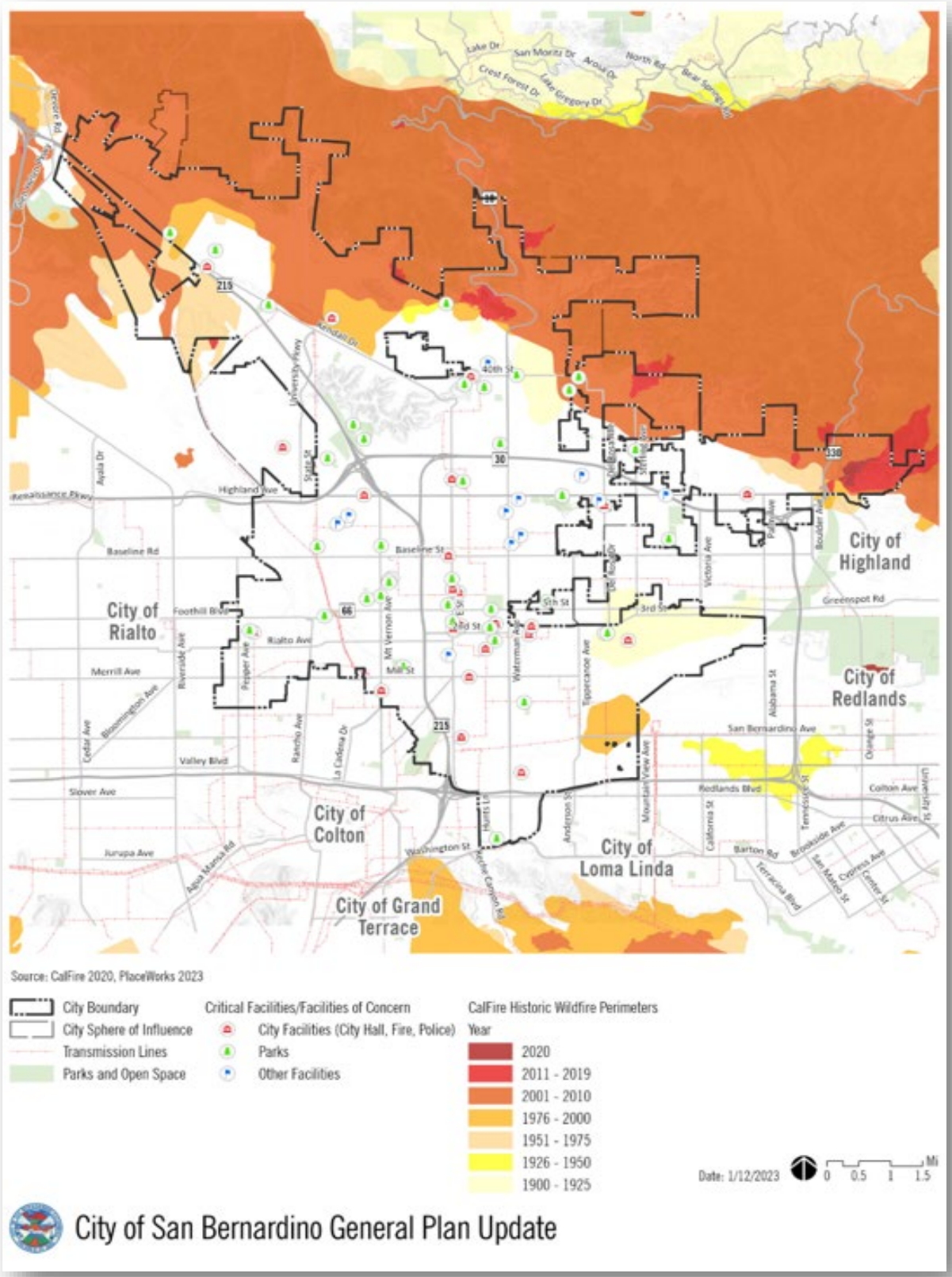
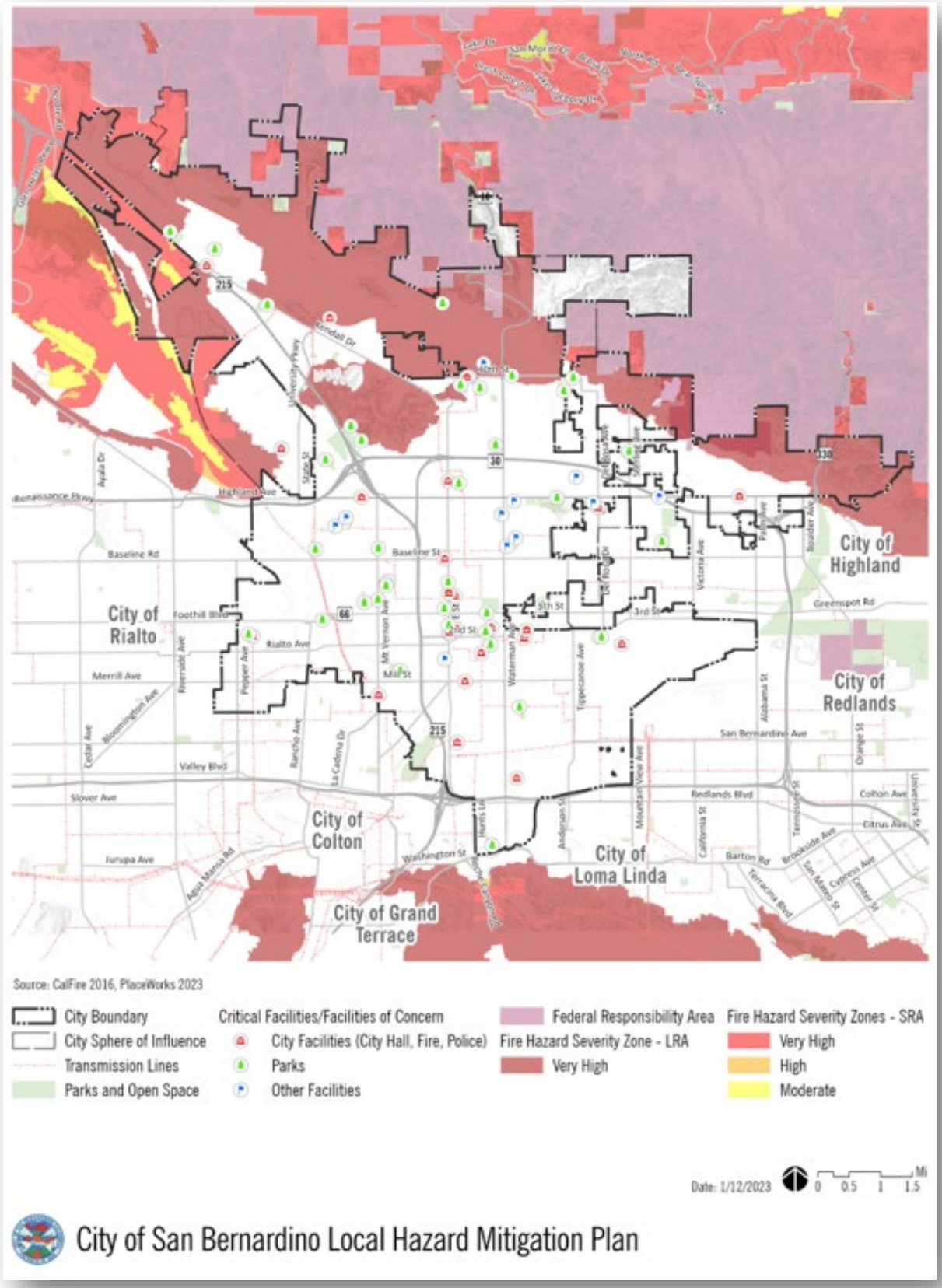


Figure 3-14: Fire Hazard Severity Zones



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:

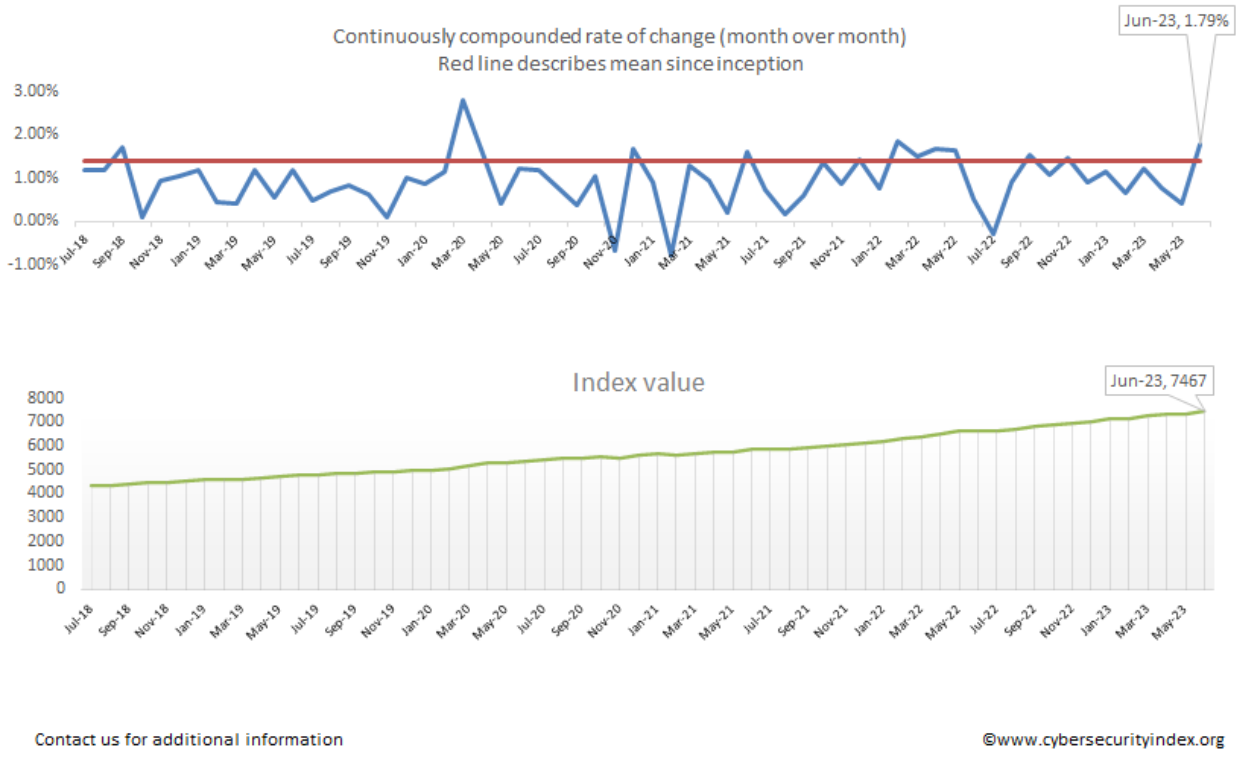
- The type of incident (website defacement, denial of service, unauthorized surveillance)
- The use of malicious software
- The level of security countermeasures that failed to prevent the cyber threat
- The duration of the cyber threat (a few hours, a few days, several weeks, etc.) [42]

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

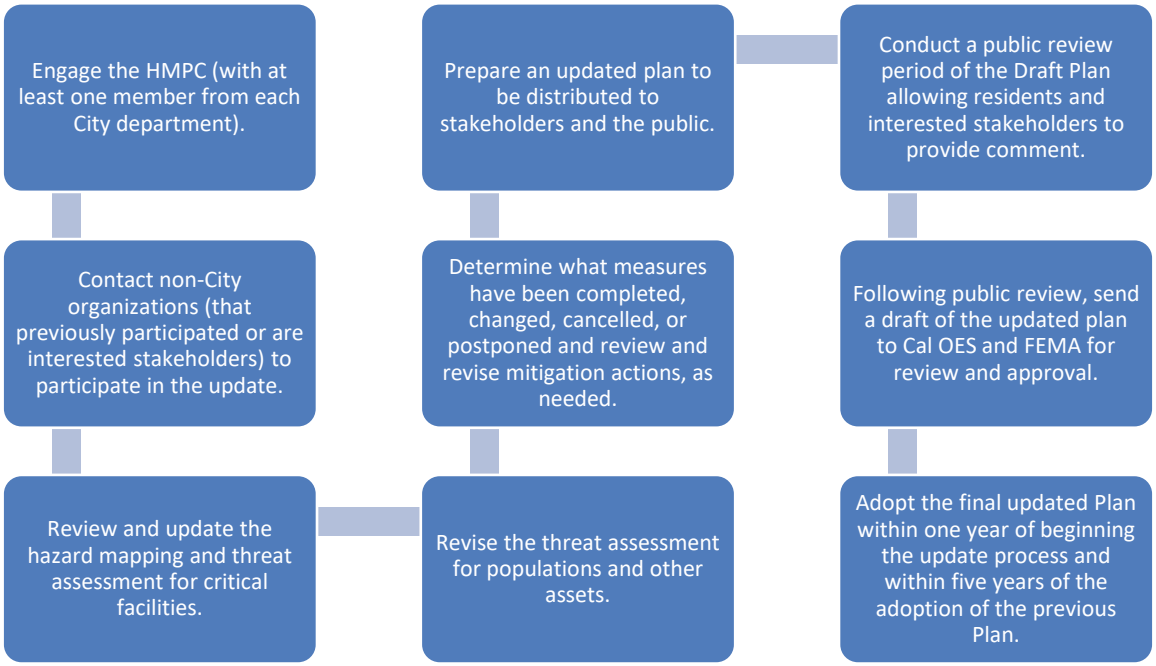
The information in this Plan, including the hazard profiles, threat assessments, and mitigation actions, is based on the best available information, practices, technology, and methods available to the City and HMPC at the time this Plan was prepared. As factors change, including technologies, community 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.

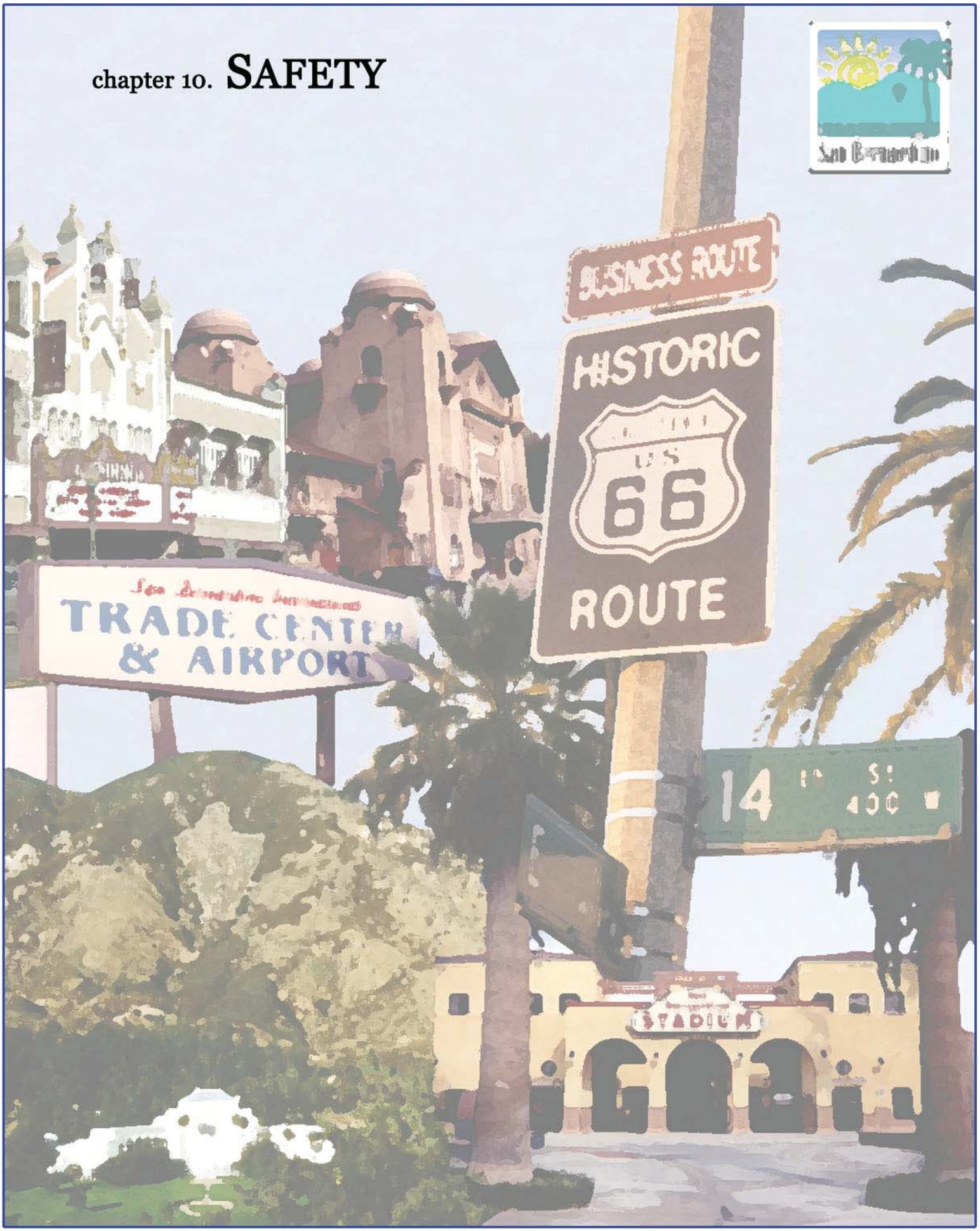
Sincerely,

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.

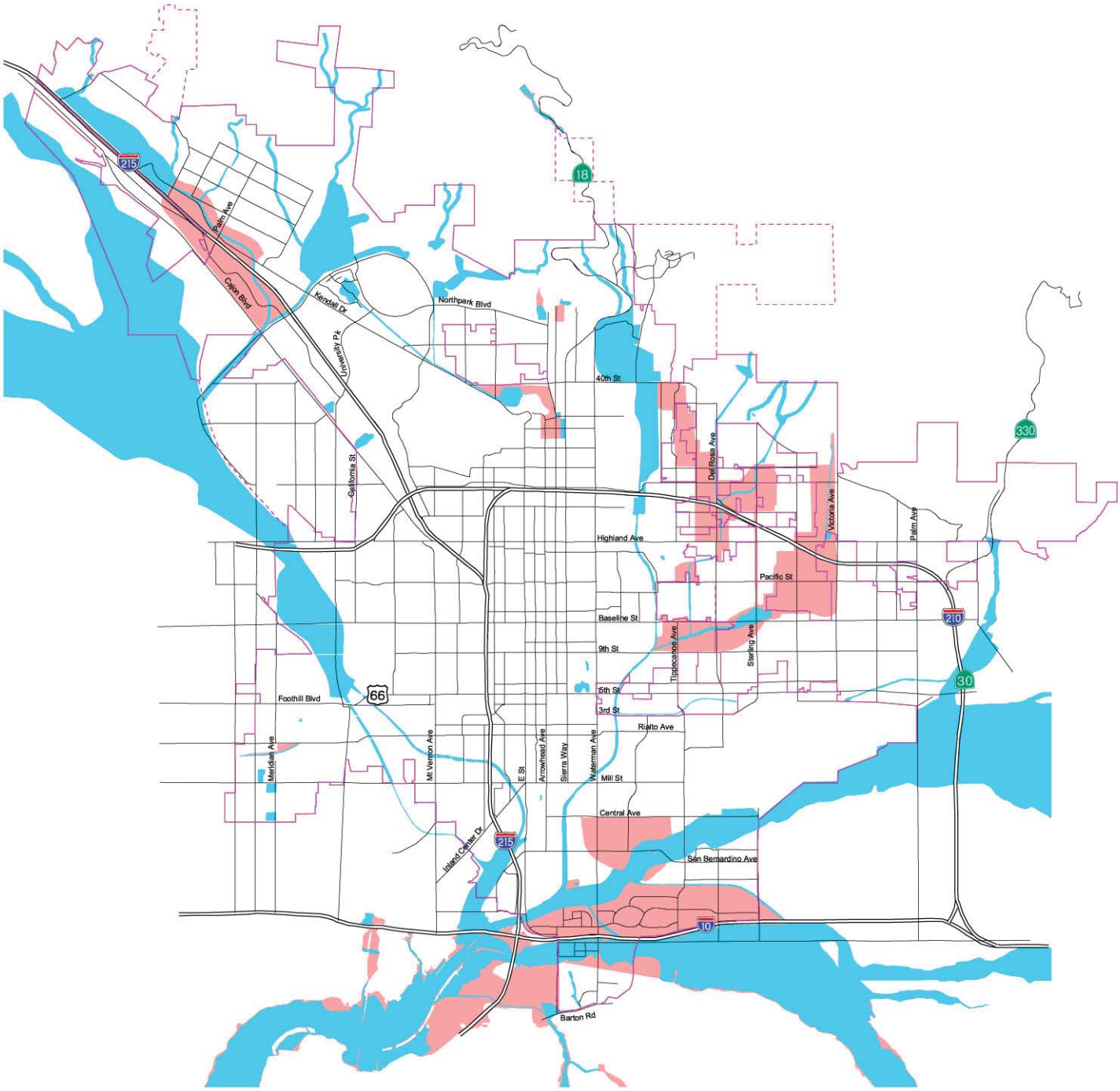
10.6.9 Ensure major drains in developed areas have a pipeline capacity to comply with the Flood Control District's Comprehensive Storm Drain Plans for development of the City's storm drain system.

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

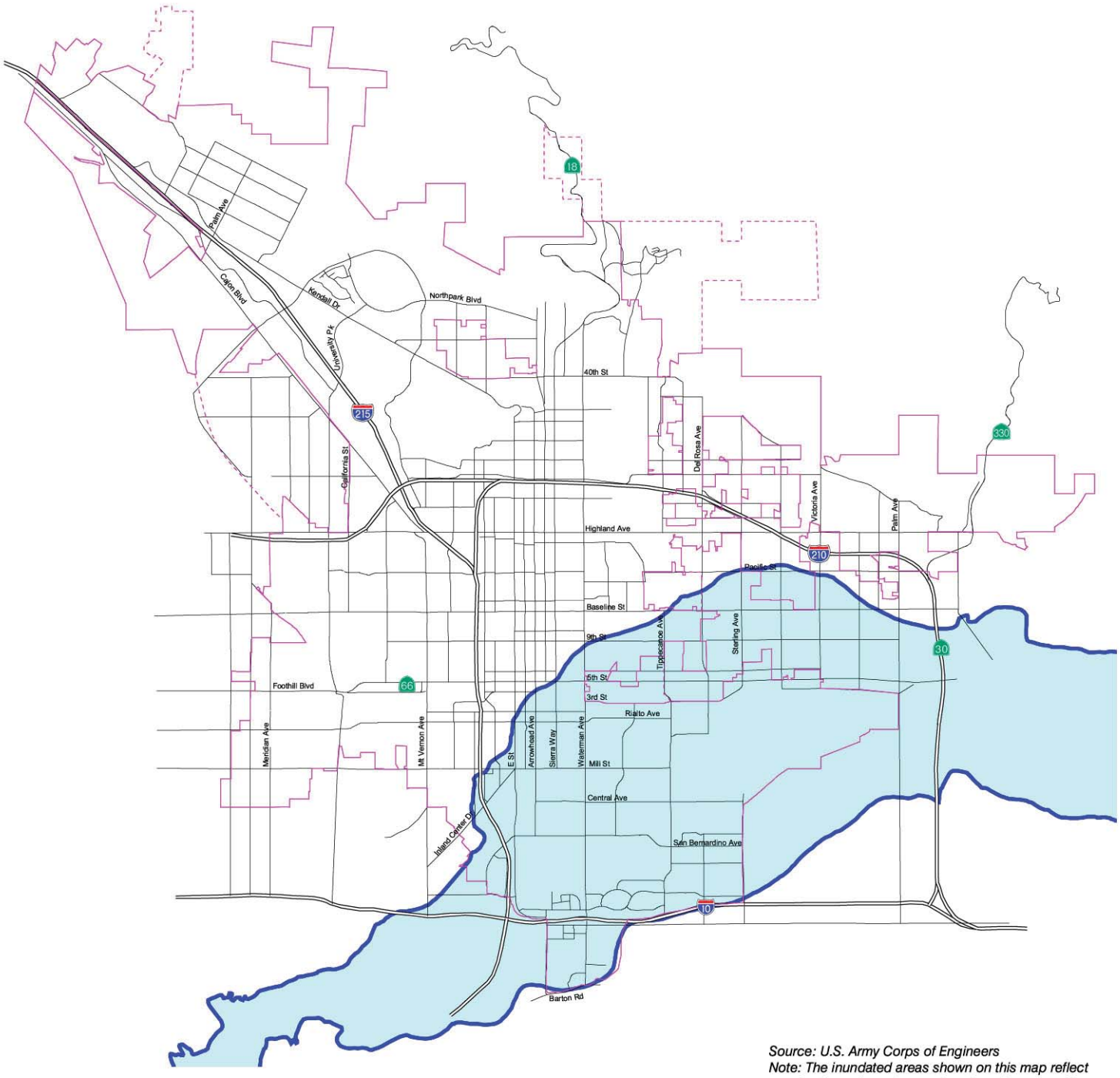
100-Year Flood Zone
500-Year Flood Zone
City Boundary
Sphere of Influence Boundary

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

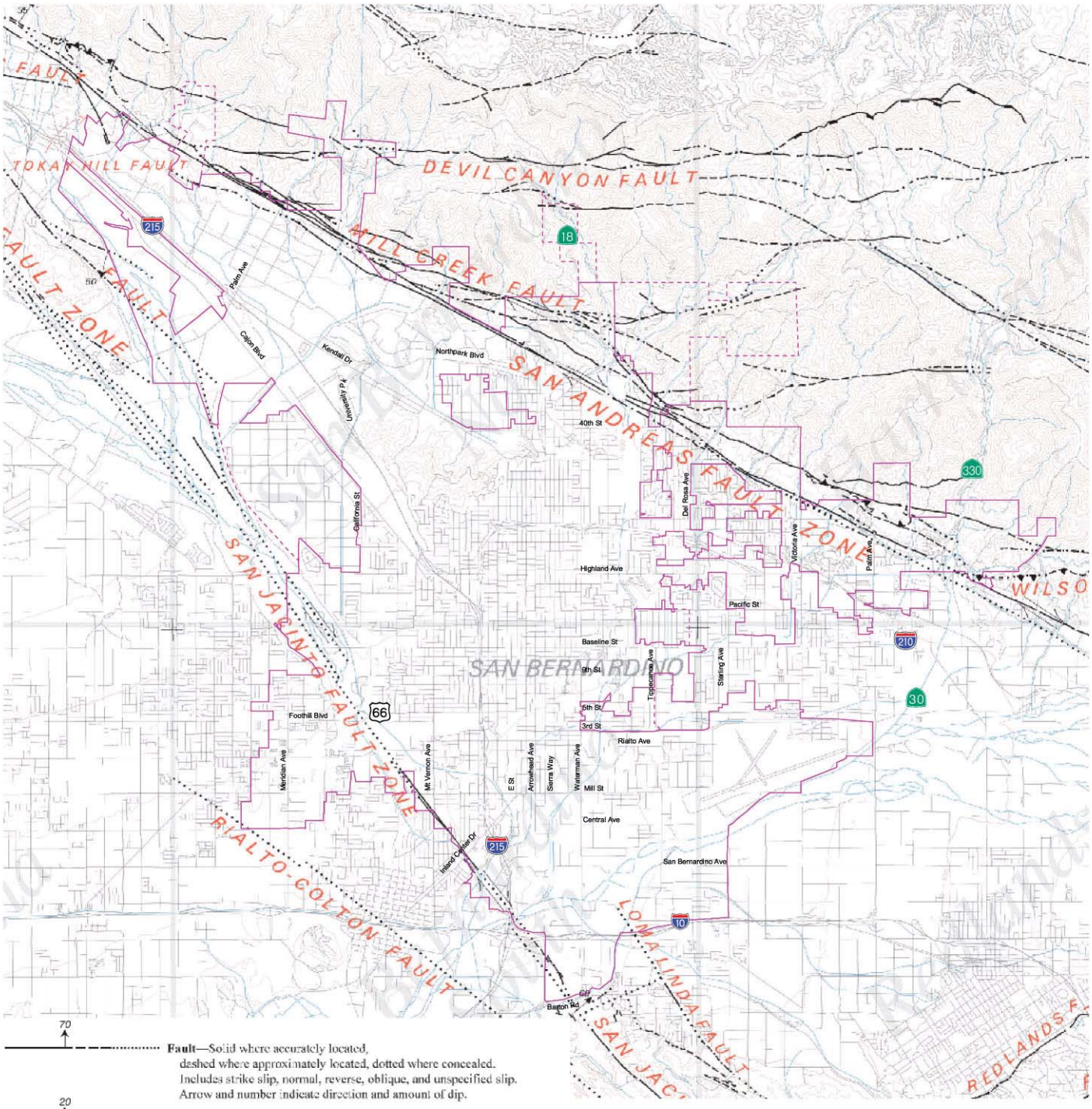
Sphere Boundary

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)

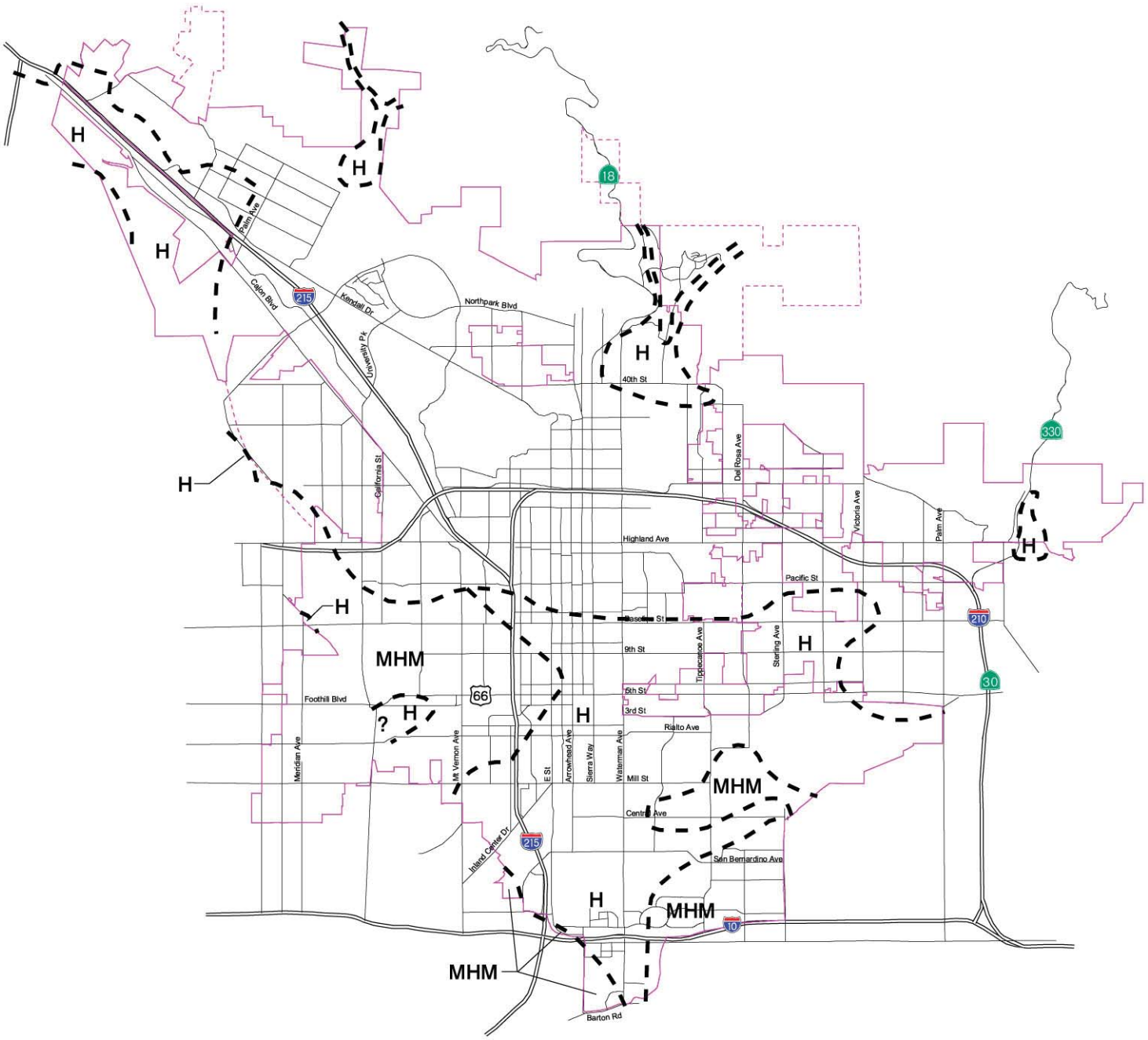
10.7.4 Determine the liquefaction potential at a site prior to development, and require that specific measures be taken, as necessary, to prevent or reduce damage in an earthquake.

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
SAN BERNARDINO
General Plan

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.

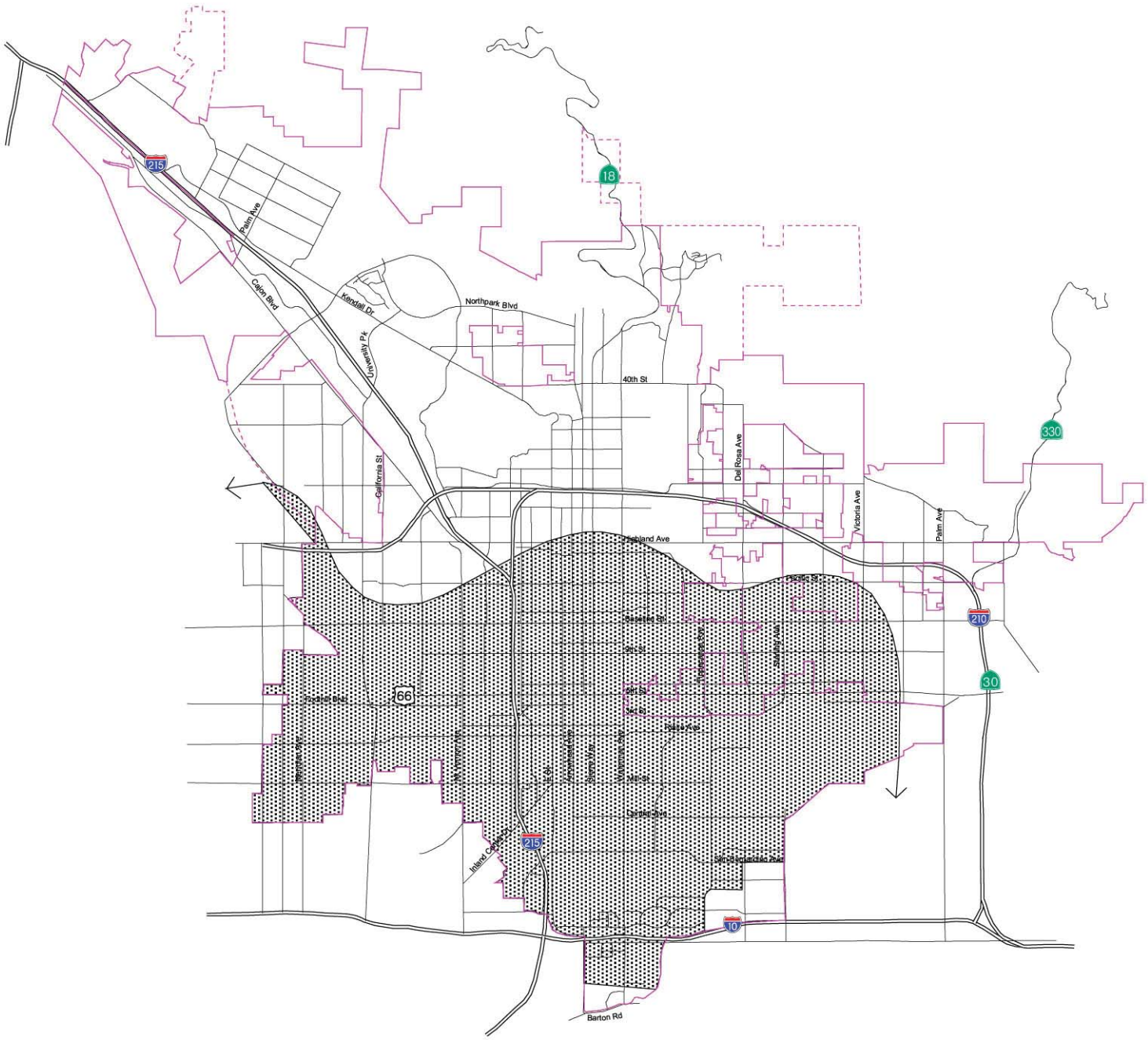
Policies:

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
SAN BERNARDINO
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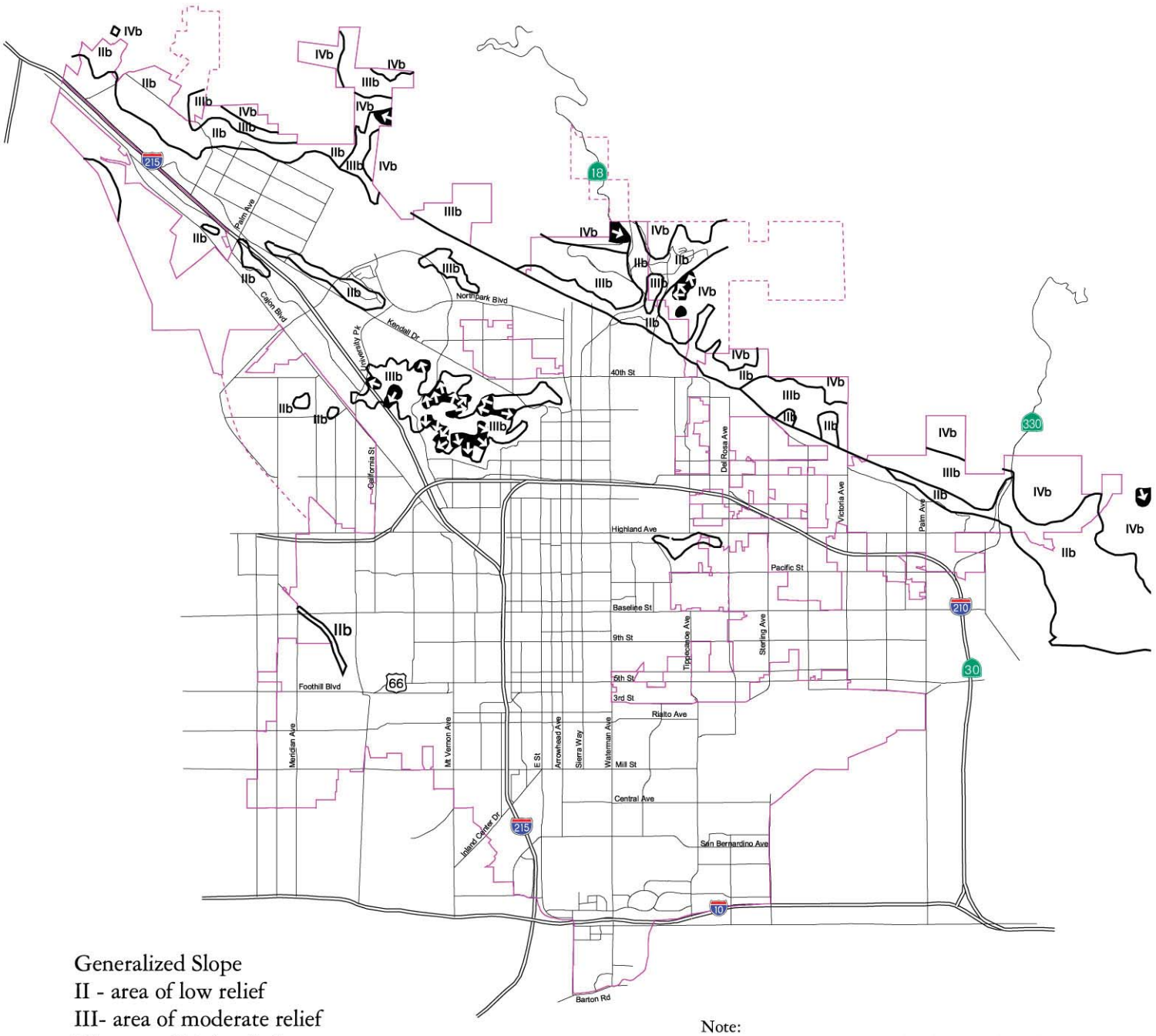
Figure S-6

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.

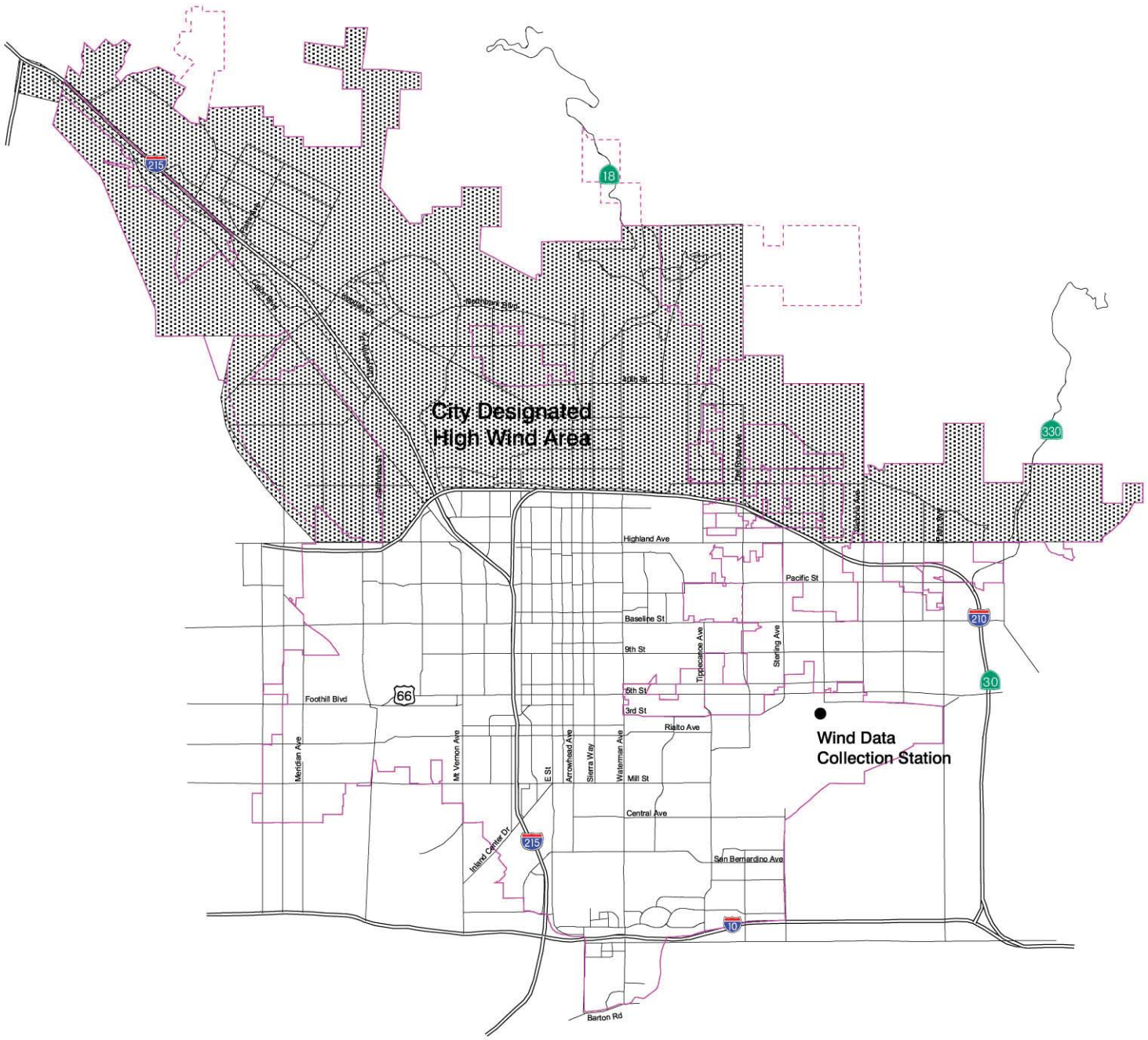
10.10.4 Require that structures be sited to prevent adverse funneling of wind on-site and on adjacent properties.

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
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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)

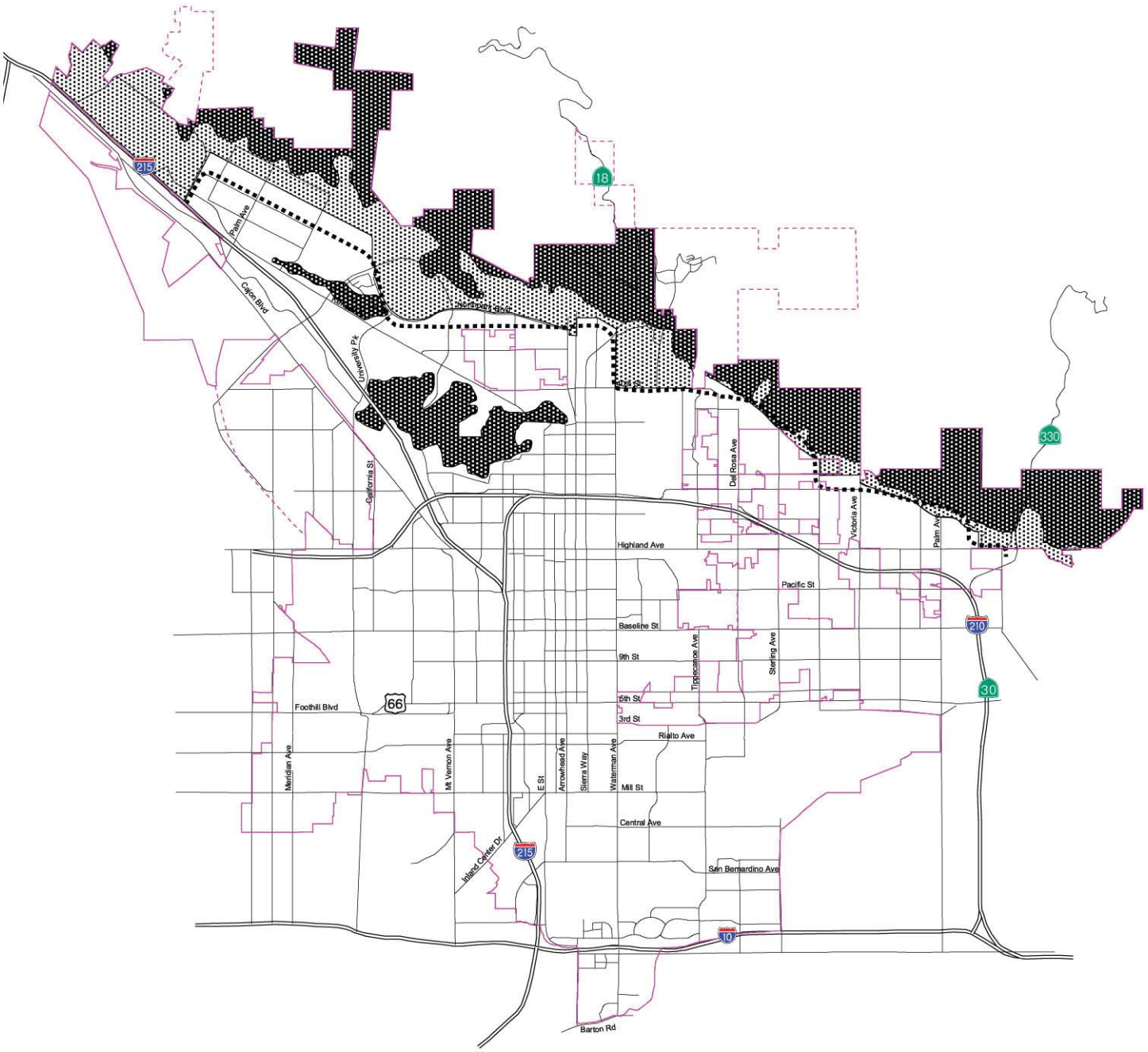
10.11.2 Work with the U.S. Forest Service and private landowners to ensure that buildings are constructed, sites are developed, and vegetation and natural areas are managed to minimize wildfire risks in the foothill areas of the City. (S-3)

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

1601 E. 3rd Street, Suite 102, San Bernardino, CA 92415-0490
(909) 388-0480 • Fax (909) 388-0481
lafco@lafco.sbcounty.gov
www.sbclafco.org

PROPOSAL NO.: LAFCO 3275

HEARING DATE: MARCH 18, 2026

RESOLUTION NO. 3432

A RESOLUTION OF THE LOCAL AGENCY FORMATION COMMISSION FOR SAN BERNARDINO COUNTY MAKING DETERMINATIONS ON LAFCO 3275 AND APPROVING THE REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (26-ACRE ISLAND). The reorganization area encompasses approximately 26 acres and is located north of Meyers Road (existing City boundary), east of parcel lines (existing City boundary), and south and west of parcel lines (existing City boundary) along the Spring Trails Specific Plan Project area (LAFCO 3274), 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 March 18, 2026 at the time and place specified in the notice of public hearing; and,

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 3275.

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. 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 10 registered voters as of February 5, 2026, 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 $2,377,898 (land--$872,147; improvements--$1,505,751) as of April 15, 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 (6) and registered voters (10) within the reorganization area (totaling 16 notices); and,

   - landowners (42) and registered voters (76) surrounding the reorganization area (totaling 118 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 generally comprised of single-family residences with one property currently vacant that has a population of approximately 16 residents.

   The City of San Bernardino pre-zoned the reorganization area, as part of the Spring Trails Specific Plan Project, with the same underlying land use designation of Residential Estate (RE). This pre-zone designation is consistent with the City's General Plan and is generally compatible with surrounding land uses within the City. Pursuant to the provisions of Government Code Section 56375(e), this pre-zone designation 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 3275.

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 annexation area.

9. The Local Agency Formation Commission has determined that this proposal is exempt from environmental review. The basis for this determination is two-fold: First, the Commission's approval of the reorganization has no potential to cause a significant adverse impact on the environment and, therefore, the proposal is exempt from the requirements of CEQA as outlined in the State CEQA Guidelines, Section

15061(b)(3). Secondly, this reorganization is a ministerial action, required by the terms of Government Code Section 56375(a)(4). Without discretion in the Commission's consideration of this proposal, approval of this proposal is exempt from environmental review under the provisions of the State CEQA Guidelines, Section 15268. The Commission adopted the Exemption and directed its Executive Officer to file the Notice of Exemption within five (5) days with the San Bernardino County Clerk of the Board of Supervisors.

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 the existing level of service delivery and can improve the level and range of select services currently available in the area.

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

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-level land use to be included within a City so that the full range of municipal services can be planned, funded, extended, and maintained.

14. This proposal will assist the City of San Bernardino's ability to achieve its fair share of the regional housing needs, although there are no guarantees any new residential development will occur.

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 Unincorporated Area within the General Vicinity (%)
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

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 3275.

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.

SECTION 3. 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 4. 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.

SECTION 5. The Commission hereby directs that, following completion of the reconsideration period specified by Government Code Section 56895(b), the Executive Officer is hereby directed to initiate protest proceedings in compliance with this resolution and State law (Part 4, commencing with Government Code Section 57000) and set the matter for consideration of the protest proceedings, providing notice of hearing pursuant to Government Code Sections 57025 and 57026.

SECTION 6. Upon conclusion of the protest proceedings, the Executive Officer shall adopt a resolution setting forth his determination on the levels of protest filed and not withdrawn and setting forth the action on the proposal considered.

SECTION 7. Upon adoption of the final resolution by the Executive Officer, either a Certificate of Completion or a Certificate of Termination, as required by Government Code Sections 57176 through 57203, and a Statement of Boundary Change, as required by Government Code Section 57204, shall be prepared and filed for the proposal.

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 March 18, 2026.

DATED:

_____
SAMUEL MARTINEZ
Executive Officer

LAFCO 3275 - REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY
OF SAN BERNARDINO AND DETACHMENT
FROM COUNTY SERVICE AREA 70 (26-ACRE ISLAND)

THOSE PARCELS OF LAND LOCATED IN SECTION 35, TOWNSHIP 2 NORTH, RANGE 5 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 35, T. 2 N., R. 5 W., SBM;

Course 1. THENCE SOUTH 88°23'29"WEST ALONG THE NORTH LINE OF SAID SECTION 35, 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 SOUTH 08°25'45" WEST 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 FEBUAURY 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 SOUTH 08°25'45" WEST ALONG SAID MUSCUPIABE RANCHO LINE AND ALONG SAID ANNEXATION NO. 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 ANNEXATION NO. 257;

Course 4. THENCE LEAVING SAID ANNEXATION NO. 257, NORTH 63°46'26" WEST 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 SOUTH 05°53'31" EAST 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 NO. 258;

Course 6. THENCE NORTH 84°02'43" WEST 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 NO. 258;

Course 7. THENCE SOUTH 06°50'45" WEST ALONG THE NORTHERLY LINE OF SAID 5 ACRES AND THE BOUNDARY OF SAID ANNEXATION 258, A DISTANCE OF 35.48 FEET, TO A POINT BEING THE

EXHIBIT A

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 NO. 258;

Course 8. THENCE NORTH 51°36'54" WEST ALONG SAID PROLONGATION OF THE CENTERLINE OF MEYERS ROAD, THE BOUNDARY OF SAID ANNEXATION 258 CENTERLINE OF MEYERS ROAD, A DISTANCE OF 606.16 FEET, TO ITS INTERSECTION WITH 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, SAID POINT ALSO BEING THE **POINT OF BEGINNING**;

Course 9. THENCE CONTINUING NORTH 51°36'40" WEST ALONG SAID CENTERLINE OF MEYERS ROAD AND THE BOUNDARY OF SAID ANNEXATION 258, A DISTANCE OF 916.19 FEET, TO ITS INTERSECTION WITH THE PROLONGATION OF THE WESTERLY LINE OF SAID PARCEL 1, SAID POINT ALSO BEING AN ANGLE POINT IN SAID ANNEXATION NO. 258;

Course 10. THENCE NORTH 22°56'09" EAST ALONG SAID PROLONGATION OF THE WESTERLY LINE OF PARCEL 1 AND ALONG THE WESTERLY LINE OF SAID PARCEL 1 AND ALONG THE WESTERLY LINE OF PARCEL 2 OF SAID PARCEL MAP NO. 4093 AND ALONG THE BOUNDARY OF SAID ANNEXATION NO. 258, A DISTANCE OF 721.41 FEET TO AN ANGLE POINT ON THE BOUNDARY OF SAID PARCEL 2, AND AN ANGLE POINT OF THE BOUNDARY OF SAID ANNEXATION NO. 258;

Course 11. THENCE NORTH 45°46'14" EAST ALONG THE WESTERLY LINE OF SAID PARCEL 2 A DISTANCE OF 469.27 FEET, TO AN ANGLE POINT OF THE BOUNDARY OF SAID PARCEL 2 AND TO AN ANGLE POINT OF THE BOUNDARY OF SAID ANNEXATION NO. 258;

Course 12. THENCE NORTH 27°05'29" EAST CONTINUING ALONG THE WESTERLY LINE OF SAID PARCEL 2, AND ALONG THE BOUNDARY OF SAID ANNEXATION NO. 258, A DISTANCE OF 17.00 FEET TO THE NORTHWESTERLY CORNER OF SAID PARCEL 2, SAID CORNER ALSO BEING THE SOUTHWESTERLY 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 13. THENCE CONTINUING NORTH 27°05'29" EAST ALONG THE WESTERLY LINE OF SAID LOT "D", AND ALONG THE BOUNDARY OF SAID ANNEXATION NO. 258, A DISTANCE OF 448.05 FEET TO THE NORTHWESTERLY CORNER OF SAID LOT "D", SAID POINT ALSO BEING AN ANGLE POINT ON THE BOUNDARY OF SAID ANNEXATION 258, SAID POINT ALSO BEING AN ANGLE POINT ON THE BOUNDARY OF LAFCO 3274;

Course 14. THENCE LEAVING THE BOUNDARY OF SAID ANNEXATION NO. 258, SOUTH 57°15'54" EAST ALONG THE NORTHERLY LINE OF SAID LOT "D" AND ALONG THE BOUNDARY OF SAID LAFCO 3274, A DISTANCE OF 448.80 FEET TO THE NORTHEAST CORNER OF SAID LOT "D" SAID CORNER ALSO BEING AN ANGLE POINT IN THE BOUNDARY OF SAID LAFCO 3274;

Course 15. THENCE SOUTH 15°53'55" WEST ALONG THE EASTERLY LINE OF SAID LOT "D", A DISTANCE OF 306.36 FEET;

Course 16. THENCE SOUTH 15°53’54” WEST ALONG THE EASTERLY LINE OF SAID LOT “D”, A DISTANCE OF 30.01 FEET TO THE SOUTHEAST CORNER OF SAID LOT “D”, SAID CORNER ALSO BEING AN ANGLE POINT IN THE BOUNDARY OF SAID LAFCO 3274;

Course 17. THENCE SOUTH 15°44’02” WEST ALONG THE PROLONGATION OF THE EASTERLY LINE OF SAID PARCEL 2 OF PARCEL MAP NO. 4093, A DISTANCE OF 30.01 TO THE NORTHEAST CORNER OF SAID PARCEL 2, SAID CORNER ALSO BEING AN ANGLE POINT IN THE BOUNDARY OF SAID LAFCO 3274;

Course 18. THENCE SOUTH 15°43’10” WEST ALONG THE EASTERLY LINE OF PARCEL 2 AND ALONG THE EASTERLY LINE OF SAID PARCEL 1 OF PARCEL MAP NO. 4093 AND ALONG THE PROLONGATION OF THE EASTERLY LINE OF SAID PARCEL 1, AND ALONG THE BOUNDARY OF SAID LAFCO 3274, A DISTANCE OF 1433.20 FEET TO **THE POINT OF BEGINNING**;

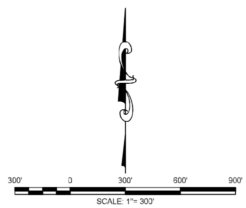
SAID PARCEL CONTAINS 26.84 ACRES MORE OR LESS.

Edward J. Bonadiman, P.L.S. — 01/26/2026 DATE

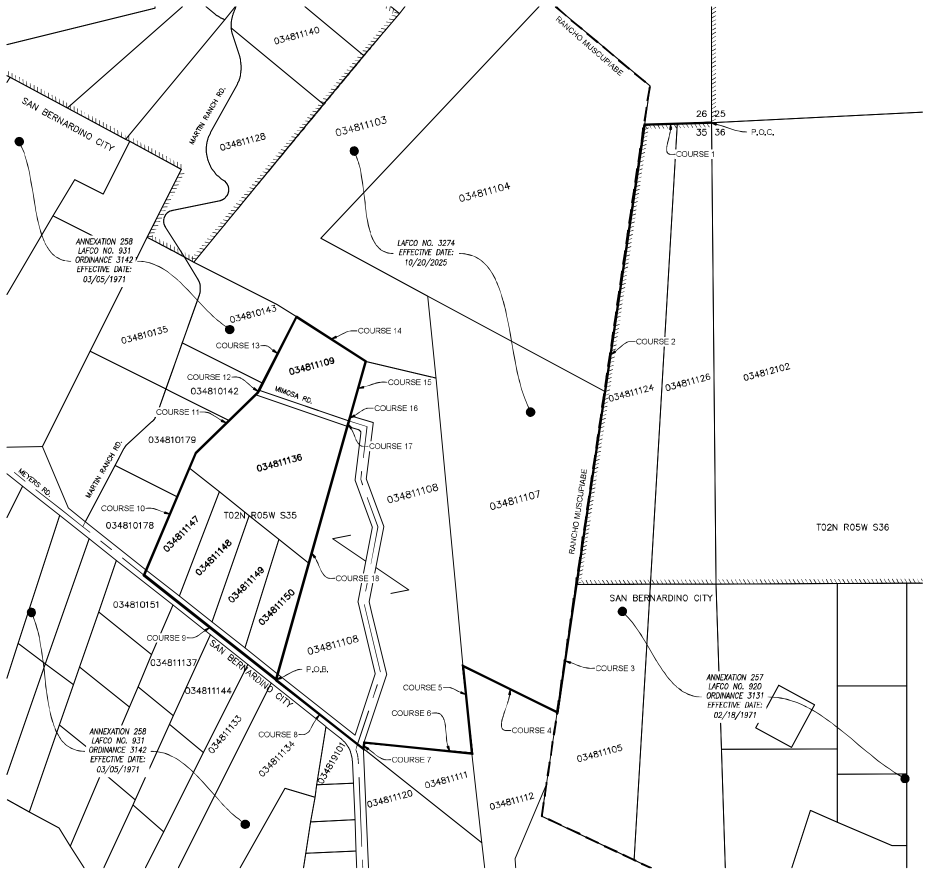
FOR QUESTIONS REGARDING THIS MAP OR TO OBTAIN A COPY OF THIS MAP IN ELECTRONIC FORM, PLEASE CONTACT LAFCO FOR SAN BERNARDINO COUNTY

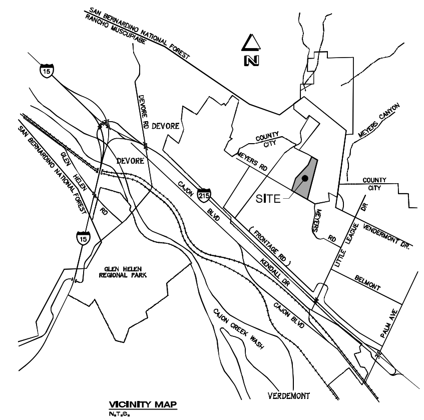
EXHIBIT A-1

LAFCO 3275 - REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (26-ACRE ISLAND)



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°36'54"W	606.16'
COURSE 9	N51°36'40"W	916.19'
COURSE 10	N22°56'09"E	721.41'
COURSE 11	N45°46'14"E	469.27'
COURSE 12	N27°05'29"E	17.00'
COURSE 13	N27°05'29"E	448.05'
COURSE 14	S57°15'54"E	448.80'
COURSE 15	S15°53'55"W	306.36'
COURSE 16	S15°53'54"W	30.01'
COURSE 17	S15°44'02"W	30.01'
COURSE 18	S15°43'10"W	1433.20'





VICINITY MAP
N.T.S.

GENERAL DESCRIPTION

- LOCATED NORTH OF MYERS ROAD / EAST OF MARTIN RANCH ROAD
- 26.84 ACRES

LEGEND

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

LAFCO 3275

REORGANIZATION TO INCLUDE ANNEXATION TO THE CITY OF SAN BERNARDINO AND DETACHMENT FROM COUNTY SERVICE AREA 70 (26-ACRE ISLAND)

BONADIMAN
JOSEPH E. BONADIMAN & ASSOCIATES, INC.
ENGINEERING • G.I.S. • SURVEYING • PLANNING
TEL (909) 885-3806

EDWARD J. BONADIMAN
L.S. 7529
01-23-2026
DATE

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

PREPARED FOR: MONTECITO EQUITIES LTD				
DRAWN BY: JH	SCALE: 1" = 300'	SHEET: 1 OF 1	D1
CHECKED BY: E.J.B.	JOB NO: 133952		
DISREGARD PRINTS BEARING EARLIER REVISION DATES	01-26-2026		

FOR QUESTIONS REGARDING THIS MAP OR TO OBTAIN A COPY OF THIS MAP IN ELECTRONIC FORM, PLEASE CONTACT LAFCO FOR SAN BERNARDINO COUNTY

EXHIBIT A-1