APPENDIX D

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Existing Conditions Atlas

Lake Elsinore General Plan Update

February 2024

City of Lake Elsinore

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Introduction



This Lake Elsinore General Plan Existing Conditions Map Atlas (Atlas) provides a "snapshot" in time of Lake Elsinore and the adjacent unincorporated Riverside County communities known here as the "Sphere of Influence or SOI." In a concise and graphic format including maps, tables, graphs, and photographs, the Atlas explores character, transportation and mobility, market analysis, natural resources, safety and hazards, public services and infrastructure, and environment justice. The Atlas is the foundational information for the Lake Elsinore General Plan 2040.

Context

Lake Elsinore is located in the western portion of Riverside County, approximately 30 miles south of downtown Riverside; Lake Elsinore is bordered by the cities of Wildomar, Canyon Lake, and Menifee, and unincorporated communities of Meadowbrook, Lakeland Village, Terra Cotta, and Alberhill. Los Angeles is approximately 60 miles northwest, Palm Springs 70 miles northeast, San Juan Capistrano 35 miles southwest, and San Diego 75 miles southwest.

The City surrounds Lake Elsinore, the largest freshwater lake in southern California. The Lake is a popular recreational destination. Recreation activities include boating, waterboarding, fishing, camping, swimming, and sunbathing. The Cleveland National Forest is to the southwest of the City's SOI.

Interstate 15 (I-15), also known as the Corona Freeway, runs northwest/southeast through Lake Elsinore's urbanized area connecting with nearby Corona and Murrieta. Ortega Highway (State Route 74 or SR-74) runs northeast/southwest connecting Lake Elsinore to Perris and Rancho Mission Viejo.

Planning Area

The City of Lake Elsinore encompasses approximately 43 square miles within Riverside County. Lake Elsinore land uses are a mix of residential, commercial, and manufacturing, with a concentration near I-15 and SR-74.

The City's Sphere of Influence (SOI)[1] extends into unincorporated County land and covers a total of 72 square miles. Most of this land is vacant/open space with terrain that is highly sloped.

[1] A Sphere of Influence is unincorporated County area likely to receive city services and possibly annexed to the city in the future. In California, the spheres of influence are determined by the Local Agency Formation Commission (LAFCO).

The area within the corporate City limits and the SOI are collectively called the Planning Area (Figure I-1). While the City has no formal authority within the SOI, the State of California requires a city to consider land use planning for areas that bear relation to the City's future. This planning approach provides cities with a means of shaping the future of areas they may eventually annex.

Originally, the Lake Elsinore Valley was located within San Diego County. However, in 1893, Lake Elsinore Valley became a part of the newly created County of Riverside. Lake Elsinore incorporated as a city on April 20, 1888. Lake Elsinore has five-member City Council and is under the Council-Manager form of government. In 2022, the City adopted new council districts as shown in Figure I-2.

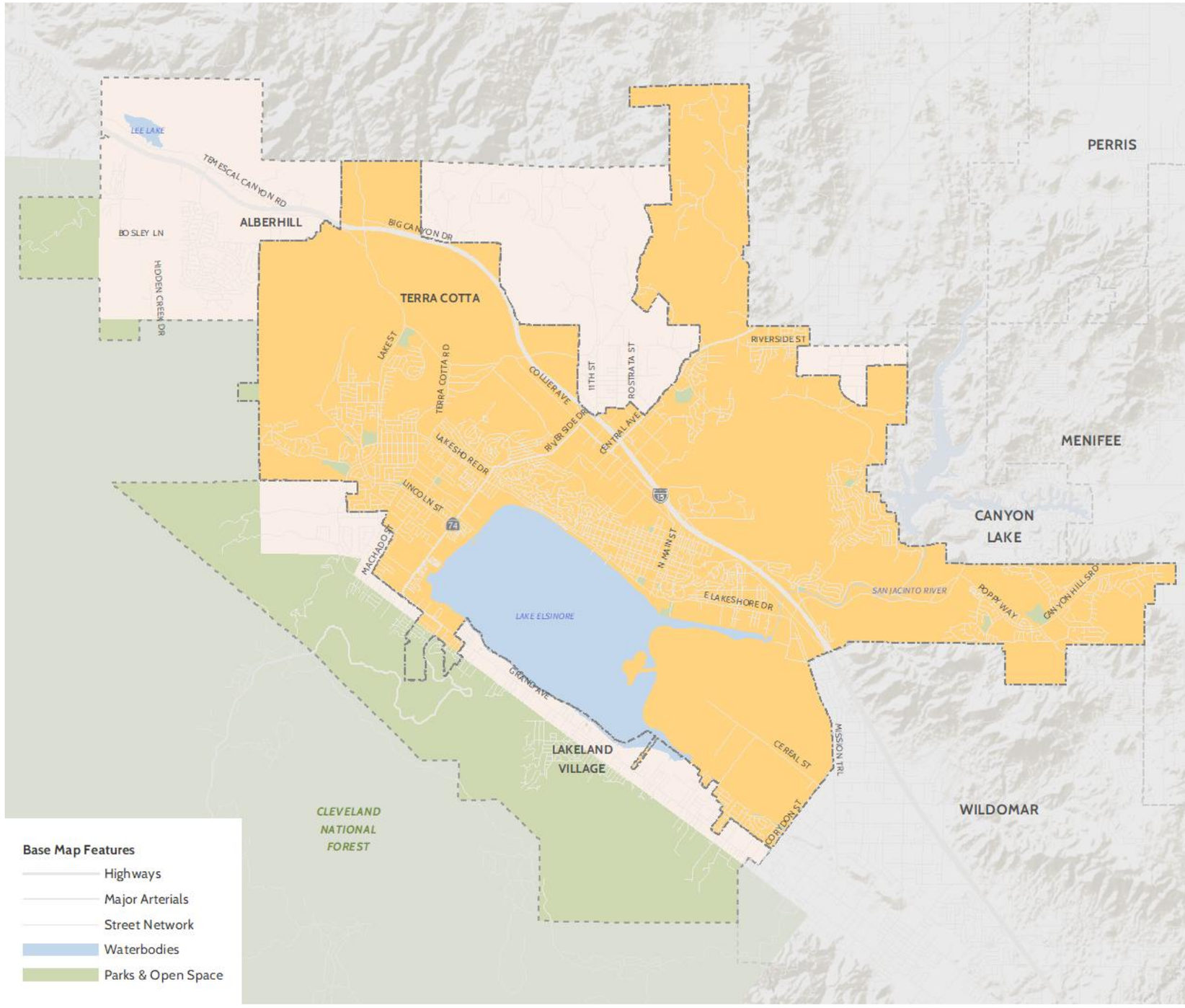


Figure I-1
PLANNING AREA

Planning Area
City Boundary
Sphere of Influence

Prepared by MIG, October 2023.
Source: City of Lake Elsinore, 2023

0 ¼ ½ 1 1½ 2 Miles

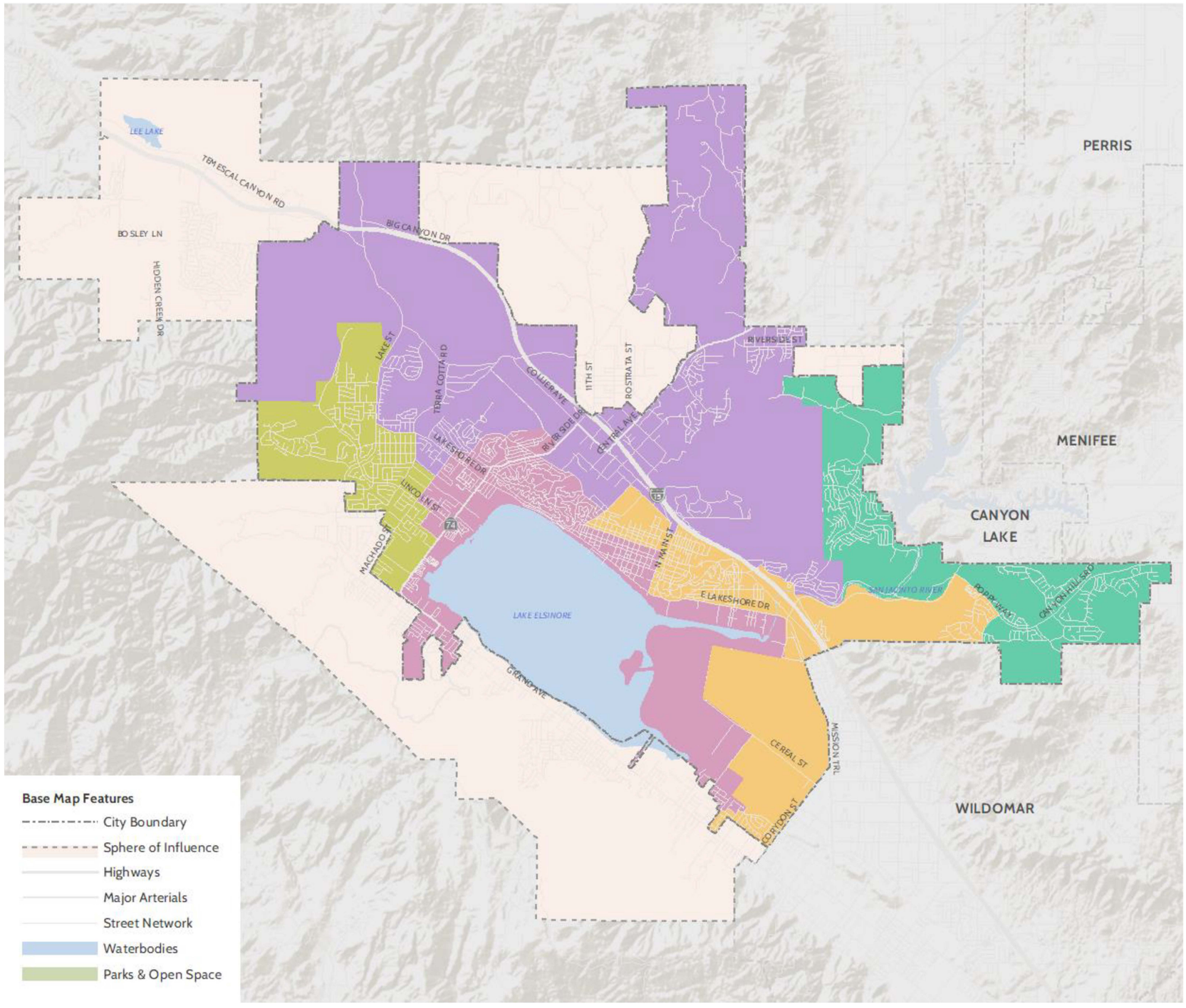


Figure I-2

CITY COUNCIL VOTING DISTRICTS

Voting Districts

- Council District 1
- Council District 2
- Council District 3
- Council District 4
- Council District 5

Prepared by MIG, October 2023.
Source: City of Lake Elsinore, 2023

0 ¼ ½ 1 1½ 2 Miles

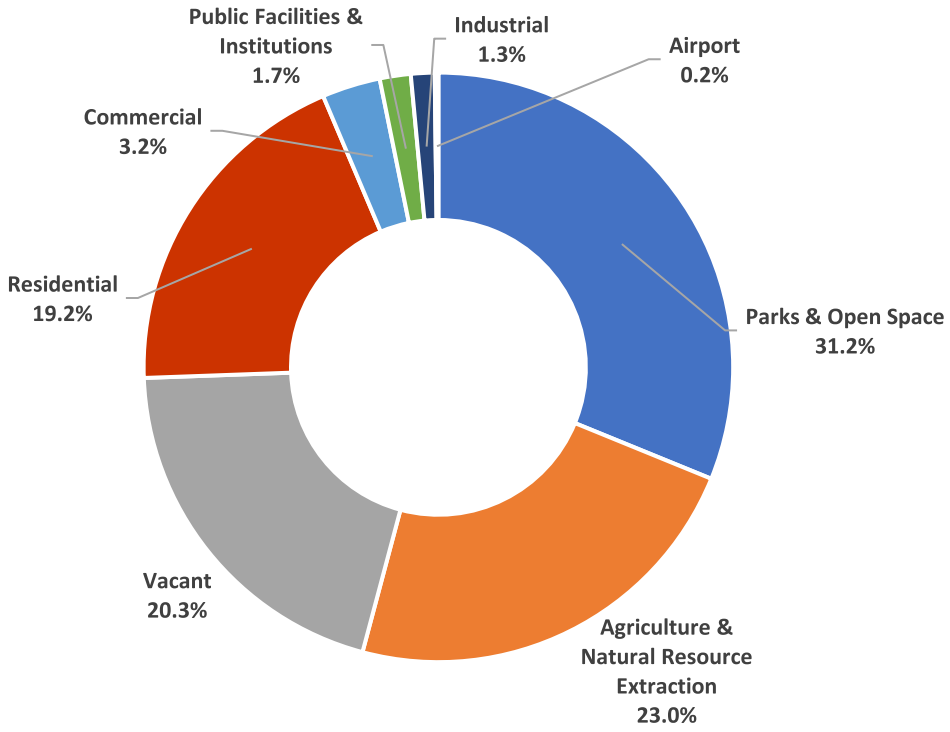
LAND USE

Existing land use and adopted policy documents/plans provide a starting point for understanding past planning efforts that have shaped and continue to shape Lake Elsinore. These plans include the General Plan, Zoning Code, 16 District Plans, and 22 Specific Plans.

Existing Land Use Pattern

The City of Lake Elsinore contains nearly 30,849 parcels encompassing almost 22,052.4 acres (excluding street rights-of-way). The Sphere of Influence adds an additional 17,971.9 acres to the Planning Area (Planning Area is defined as the City and Sphere of Influence). Like many cities in the Inland Empire, large portions of Lake Elsinore are undeveloped, where 20 percent of land is vacant. Parks and open space uses make up nearly one-third of the Planning Area (31.2 percent). Approximately 19 percent of the Planning Area is residential, the majority of which is single-family residential. Commercial, industrial, and agricultural/rural uses total 3.2 percent, 1.3 percent, and 23 percent, respectively (Figures LU-1 and LU-2 and Table LU-1).

Figure LU-1: Existing Land Use Distribution (Percent of Total Acres)



Source: Urban Footprint, 2023

A number of distinct neighborhoods within the City of Lake Elsinore are often defined by the name of a specific plan. For example, residents describe themselves as being from Tuscany Hills or Alberhill Ranch neighborhoods, which are both specific plan areas. Other neighborhoods are defined by the

development name, such as Country Club Heights. Neighborhoods are also defined by common characteristics (e.g. the Historic District), location, or geography.

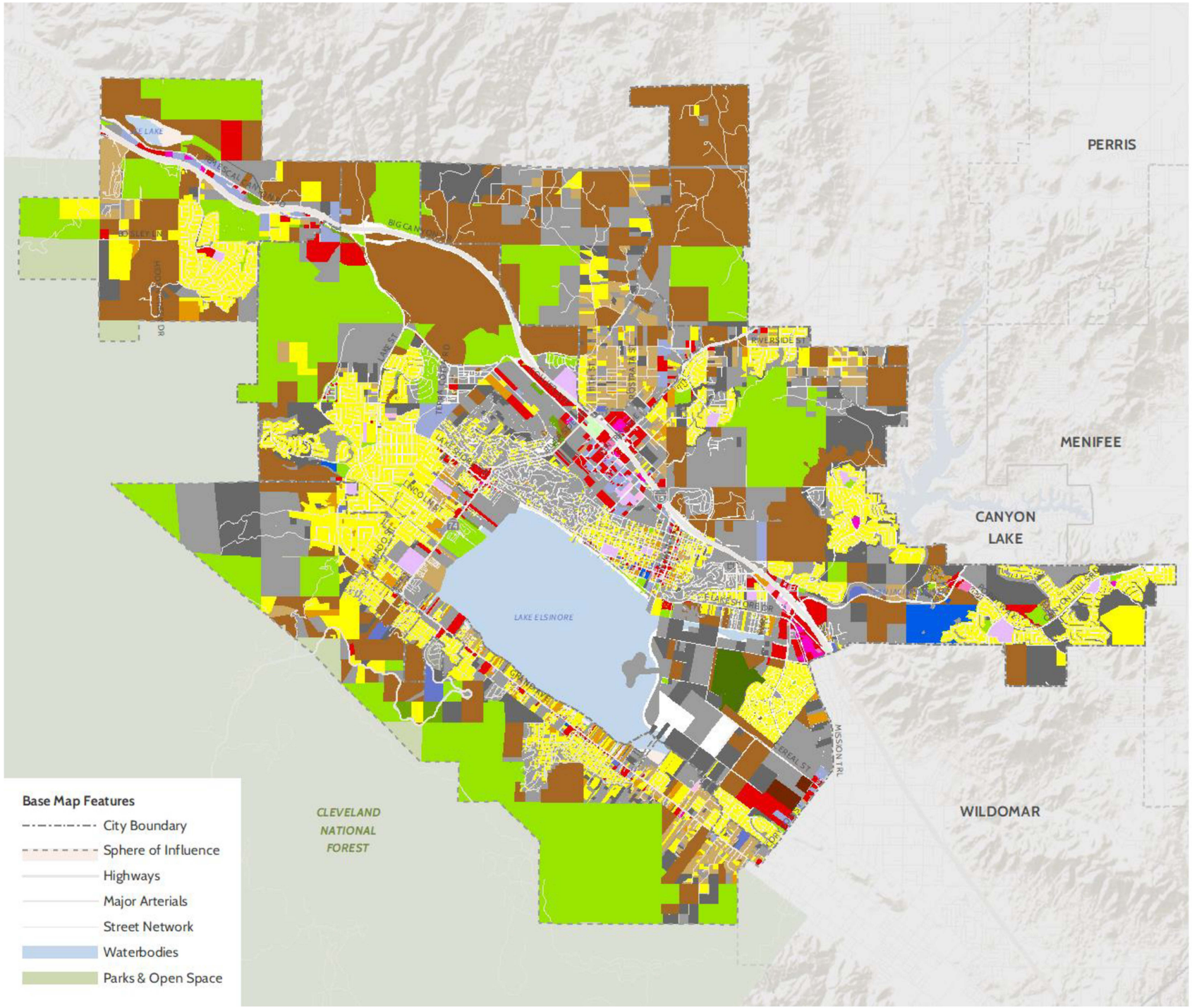
The Historic District acts as the heart of the City due to its central location, Main Street corridor, and concentration of historic, cultural, and civic uses. Several registered and non-registered historic buildings are located within the Historic District, many of which date to the late 1800's and include sites such as the Grand Armory of the Republic Building, Crescent Bath House, and the Santa Fe Depot.

To the north of the Historic District lies the Business District, which acts as Lake Elsinore's business and industrial hub. The Business District is anchored by the Outlets at Elsinore, the largest shopping destination in Lake Elsinore, as well as other big box stores and industrial parks. In addition, other commercial hubs include the Elsinore City Center (I-15 at Lake Elsinore's eastern edge), the commercial areas around the Central Avenue and Dexter Avenue intersection, and the commercial areas surrounding Diamond Stadium in the Ballpark District. Small commercial clusters can also be found throughout the city's neighborhood centers and at major intersections.

Many of the Lake Elsinore neighborhoods primarily consist of single-family residences surrounded by recreational uses, vacant land, open space, and conservation areas. These areas are characterized by rolling hills offering expansive views of Lake Elsinore and the City. Residential developments in the City's five Sphere Districts and outermost City Districts (Lake Elsinore Hills, Alberhill, and North Peak) have low-density lots and a more rural feel than more urbanized parts of the City due to higher amounts of vacant land and open space. Multi-family residences are mostly located in the areas surrounding the Lake.

Figure LU-2

EXISTING LAND USE



Existing Land Use (2023)

- Single-Family
- Multi-Family
- Mobile Homes
- Retail
- Commercial Recreation Facility
- Office
- Hotel/Motel
- Industrial
- Parks
- Open Space
- Cemetery
- Golf Course
- Emergency Services
- Education
- Religious Institution
- Agriculture and Natural Resources
- Airport
- Vacant
- Other

Prepared by MIG, October 2023.
Source: Urban Footprint, 2023

0 ¼ ½ 1 1½ 2 Miles

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Table LU-1: Existing Land Uses

Land Uses	Lake Elsinore		Sphere of Influence		Total	
	Acres	% of Land Uses	Acres	% of Land Uses	Acres	% of Land Uses
Residential	3,992.8	18.1%	3,686.3	20.5%	7,679.1	19.2%
Residential, Single-Family	3,421.2	15.5%	2,305.4	12.8%	5,726.6	14.3%
Residential, Duplexes and Triplexes	69.1	0.3%	21.5	0.1%	90.6	0.2%
Residential, 4+ Units	188.8	0.9%	199.1	1.1%	387.9	1.0%
Townhomes	11.6	0.1%	--	--	11.6	0.0%
Mobile Homes	302.1	1.4%	1,160.3	6.5%	1,462.4	3.7%
Commercial	991.5	4.5%	284.6	1.6%	1,276.1	3.2%
Regional Retail	126.9	0.6%	2.1	0.001%	129.0	0.3%
Local Retail	712.1	3.2%	260.0	1.4%	972.1	2.4%
Office	55.4	0.3%	11.1	0.1%	66.5	0.2%
Hotel/Motel	26.6	0.1%	0.3	0.0%	26.9	0.1%
Commercial Recreation Facility	70.5	0.3%	11.2	0.1%	81.7	0.2%
Industrial	314.2	1.4%	190.5	1.1%	504.7	1.3%
Heavy Industrial	0.6	0.0%	--	--	0.6	0.0%
Light Industrial	281.5	1.3%	161.7	0.9%	443.2	1.1%
Warehousing, Distribution, Storage	4.9	0.001%	25.4	0.1%	30.3	0.1%
Public Storage	27.2	0.1%	3.4	0.001%	30.6	0.1%
Parks and Open Space	5,807.6	26.3%	6,689.5	37.2%	12,497.1	31.2%
Parks	3,413.6	15.5%	5,370.5	29.9%	8,784.1	21.9%
Open Space	3.7	0.0%	60.7	0.3%	64.4	0.2%
Cemeteries	22.6	0.1%	--	--	22.6	0.1%
Golf Courses	187.4	0.8%	--	--	187.4	0.5%
Natural Conservation	30.2	0.1%	11.1	0.1%	41.3	0.1%
Other Parks and Open Space	2,150.1	9.8%	1,247.2	6.9%	3,397.3	8.5%

Table LU-1: Existing Land Uses

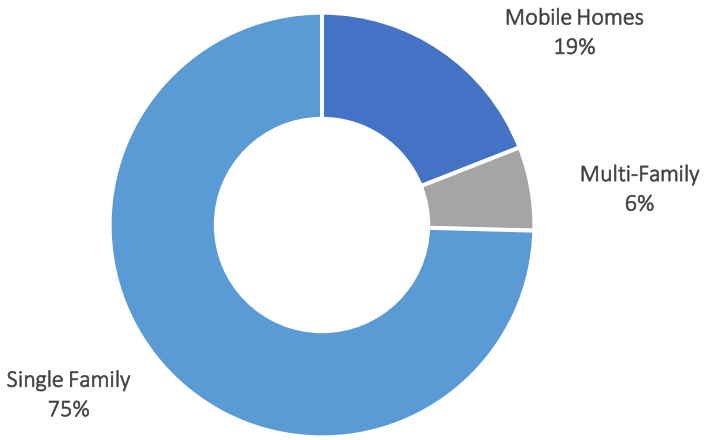
Land Uses	Lake Elsinore		Sphere of Influence		Total	
	Acres	% of Land Uses	Acres	% of Land Uses	Acres	% of Land Uses
Public Facilities and Institutions	491.2	2.2%	169.8	0.9%	661.0	1.7%
Emergency Services	214.1	1.0%	1.1	0.001%	215.2	0.5%
Primary and Secondary Education	245.6	1.1%	67.7	0.4%	313.3	0.8%
Religious Institution	31.3	0.1%	101.0	0.6%	132.3	0.3%
Other Public Facilities and Institutions	0.2	0.0001%	--	--	0.2	0.0%
Agriculture and Natural Resource Extraction	5,153.7	23.4%	4,066.4	22.6%	9,220.1	23.0%
Airport	73.1	0.3%	--	--	73.1	0.2%
Vacant	5,228.4	23.7%	2,884.8	16.1%	8,113.2	20.3%
Total	22,052.4	100%	17,971.9	100%	40,024.4	100%

Source: Urban Footprint, 2023

RESIDENTIAL LAND USES

Residential uses in the Planning Area account for approximately 19 percent of all land uses and are found throughout Lake Elsinore. Three-quarters of the residential land uses are single-family (one-unit) uses (Figure LU-3 and Figure LU-4). Mobile homes, the second largest residential use category, accounts for 19 percent of residential land. Within the City of Lake Elsinore, mobile homes are primarily located in the Lake View, Historic Village, and Lake Edge District. However, mobile homes are predominantly found in the Lakeland Village, Meadowbrook, and North Central Sphere Districts. Multi-family uses (duplexes/triplexes/quadplexes, townhomes, and buildings with 4+ units) account for six percent of residential land and can be found throughout Lake Elsinore, generally along major arterials and at key intersections. However, multi-family uses are largely clustered in the Lakeview District to the west of the Lake and in the Riverview, Historic, and Business Districts to the north of the Lake.

Figure LU-3: Residential Uses (Percent of Residential Acres)



Source: Urban Footprint, 2023

Density is measured by how many units are in one acre of land. Housing units in Residential Mixed Use (RMU) and High Density (R-2, R-3, CMU and RMU) zoned areas have the highest housing density potential, at over seven units per acre (Figure LU-5). Typical residential types found in these higher density zones include apartments, condos, townhouses, and row houses. Most single-family neighborhoods have an allowed density range from one to six dwelling units per acre. Figure LU-5 shows that a majority of the City is developed at 15 dwelling units per acre or less.

COMMERCIAL AND INDUSTRIAL LAND USES

Commercial areas make up 4.5 percent of all land uses in the City alone and 3.2 percent in the overall Planning Area. Most commercial uses are located along I-15, Ortega Highway (SR- 74), Grand Avenue, North Main Street, and Lakeshore Drive. Commercial clusters are also found at major intersections. Office uses occur in these same areas, but account for less than one percent of all commercial land. Regional commercial uses include major shopping centers and big box stores such as the Lake Elsinore Outlets located on Collier Avenue; Costco, Lowes, and Home Depot along Dexter Avenue, Target at the I-15/Central Avenue intersection; and the "City Center" (Wal-Mart and Vons) at the I-15/Railroad Canyon. Local commercial uses include low-intensity strip malls and Main Street

businesses. Strip malls account for a majority of all commercial uses in the Planning Area. Most of the commercial uses are commuter/auto-oriented and often characterized by large surface parking lots.

Industrial uses make up 1.2 percent of the Planning Area land, predominately located within the Business District near I-15 and adjacent to the major shopping centers listed above. The majority of the Planning Area's industrial land is dedicated to light industrial uses.

Parks and Open Space Uses

Parks and open space comprise over 30 percent of the Planning Area land use acreage. Parks and open space areas include State and City parks, Bureau of Land Management lands, Cleveland National Forest, Links at Summerly Golf Course, Canyon Lake Golf and Country Club, Elsinore Valley Cemetery, and Pioneer Cemetery. See Chapter 6: Public Services and Infrastructure for further discussion on parks and recreation facilities.

Much of the Planning Area's open space is designated for conservation under the Multiple Species Habitat Conservation Plan (MSHCP). Furthermore, Lake Elsinore is surrounded by hills with steep slopes that pose difficulties for land development. In many cases, open space uses may be most appropriate to remain undeveloped due to conservation goals and physical constraints to development.

Public Facilities and Institutional Land Uses

Approximately two percent of the Planning Area's total land area is devoted to public facilities and institutional uses. The Public Facilities and Institutional land uses primarily include educational facilities, emergency services, and religious institutions. The Public Facilities and Institutional land uses are generally found in and adjacent to low-density residential areas and in Lake Elsinore's civic hub, the Historic District. Some educational uses are also located near industrial and commercial uses in the Business District, such as Ortega High School.

Agriculture and Natural Resources

Land used for agriculture and natural resource extraction is found throughout the Planning Area and makes up 23 percent of all land uses. Agricultural uses include typical activities, such as the raising of livestock and crop production, but can also include uses such as gravel pits and extraction of mineral resources. Agriculture and natural resource extraction uses are mostly concentrated in the northern City and Sphere Districts such as North Peak, Alberhill, Meadowbrook, and Northwest. Significant clay resources are associated with the Alberhill area in the north portion of the City and classified by the State Department of Conservation, Division of Mines and Geology. The mining activity is being phased out in accordance with approved permits, and the continued use and ultimate reclamation of these lands has been or will be addressed in the specific plans prepared for these areas. Additionally, City records indicate that there are no major agricultural operations in Lake Elsinore, and agriculture use is only allowed in the R-M-R (Rural Mountainous Residential District) and R (Recreational District). Overall, agriculture and rural uses will continue to become less prominent as Lake Elsinore evolves into an urbanized community.

Airport Land Uses

The Skylark Field Airport is located in the East Lake District and totals 73.1 acres (less than one percent of the Planning Area's land use). It is privately owned/operated; Skylark Field Airport is home to Skydive Elsinore, the oldest and longest running drop zone in North America and one of Lake Elsinore's main recreational attractions.

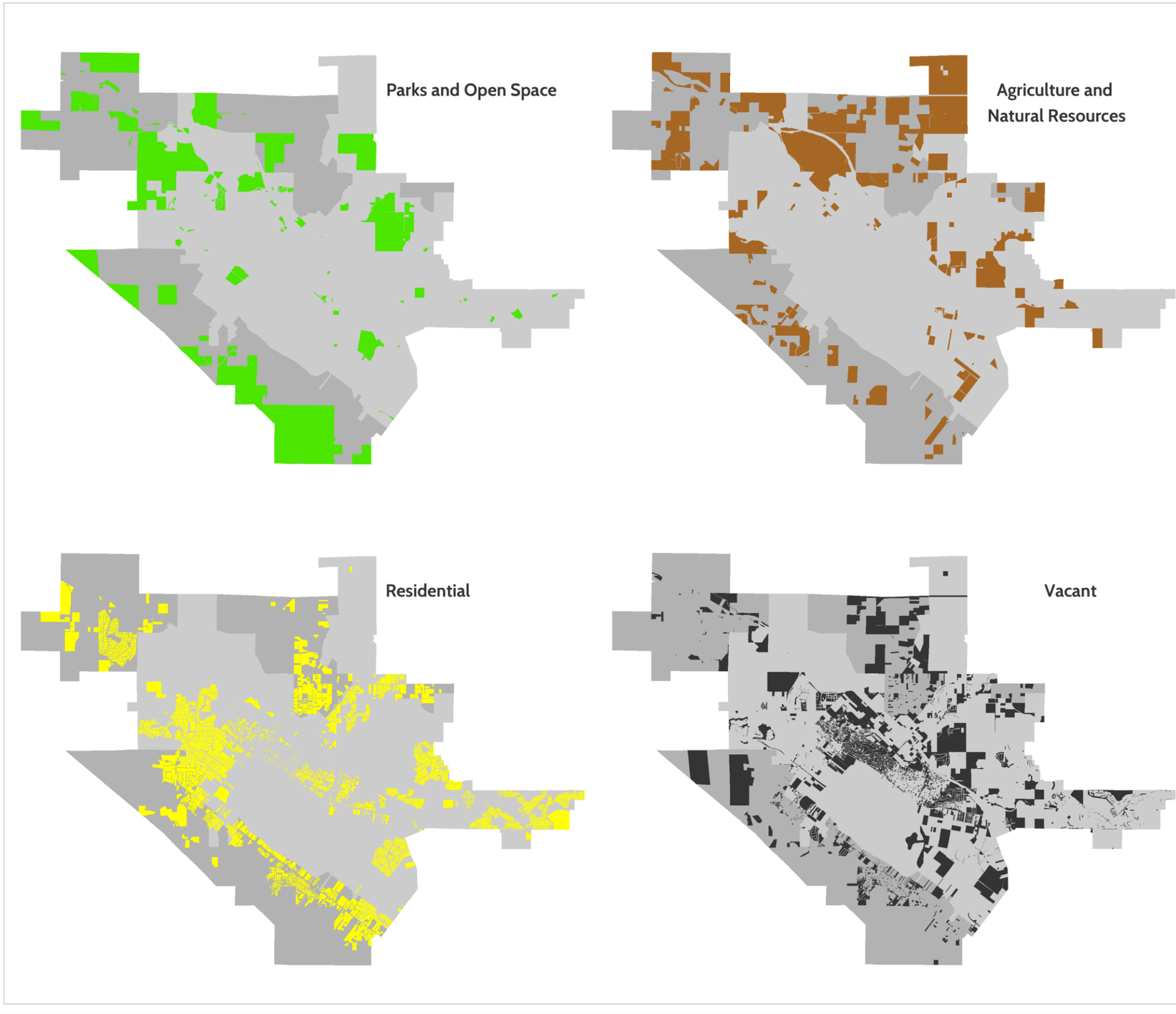


Figure LU-4
MAJOR LAND USE CATEGORIES

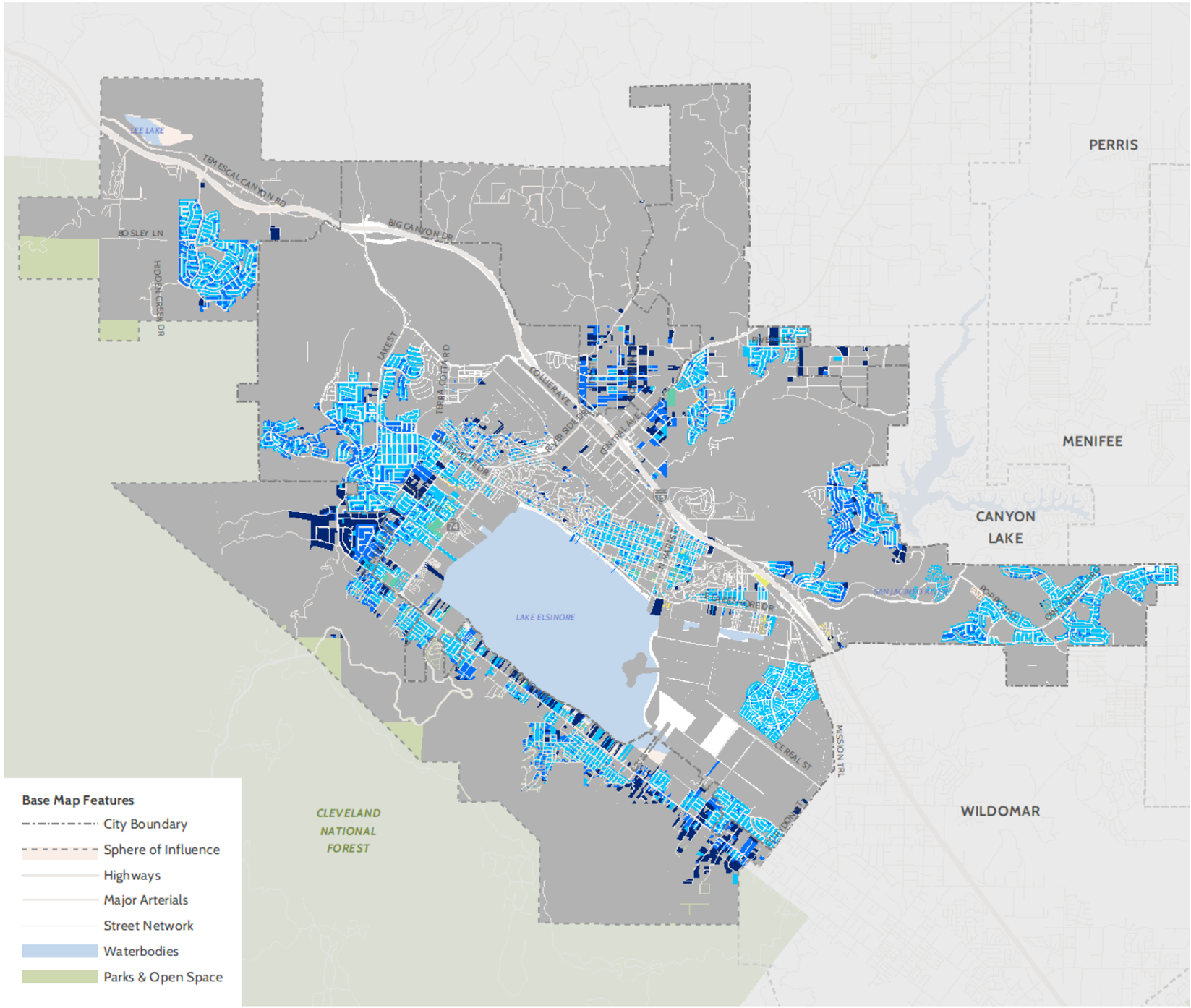


Figure LU-5

RESIDENTIAL DENSITY

Residential Densities (Dwelling Unit Per Acre)

- 1
- 2 - 4
- 5 - 15
- 16 - 30
- 31 - 45
- 46 - 60
- 61 - 75
- 76 - 90
- 91 - 105
- ≥ 106
- Vacant or Non-Residential

Prepared by MIG, October 2023.
Source: Urban Footprint, 2023

0 ¼ ½ 1 1½ 2 Miles

Vacant Land

Vacant land comprises 20 percent of land in the Planning Area (8,113 acres). Vacant properties are distributed throughout the Planning Area, many of which include steep slopes that impact development feasibility. The specific plans call for the conversion of vacant land into mostly residential development or for the preservation of open space.

General Plan

Adopted in 2011, the General Plan guides long-term growth and promotes the Lake Elsinore community's fundamental values and vision for the City's future development. State law mandates that seven elements be addressed in the General Plan: land use, circulation, housing, open space, conservation, noise, and safety. Although mandated, these elements do not have to be presented in individual chapters. The City's 2011 General Plan combined these topic areas into a smaller number of integrated chapters since the elements were found to be interrelated. The General Plan contains three Plan Chapters: Community Form, Public Safety and Welfare, and Resource Protection and Preservation. Table LU-2 summarizes the elements and topic areas covered in each of these chapters. Figure LU-6 summarize the General Plan land use designations.

Table LU-2: 2011 General Plan Content

Lake Elsinore General Plan Chapters	Elements Covered	Topics Covered and Notes
Community Form	Land Use Circulation Housing	Neighborhoods, housing, circulation, urban design, parks and recreation, special treatment areas. Additionally, this chapter identifies 17 land use designations, eight of which allow for residential development offering a mix of housing types to Lake Elsinore residents. The Housing Element, updated in 2022, pertains to the 2021 – 2029 planning period; it was certified by the Department of Housing and Community Development (HCD) as compliant with State law.
Public Safety and Welfare	Public Safety Noise	Flooding, seismic activity, wildfires, hazards and hazardous materials, community facilities and services, fire and police, utilities, schools, libraries, air quality, noise, and telecommunications.
Resource Protection and Preservation	Conservation Open Space	Biological resources, Multiple Species Habitat Conservation Plan, open space, water resources, mineral resources, cultural and paleontological resources, historic preservation, aesthetics, greenhouse gas emissions/sustainable environment, and energy conservation.

The General Plan contains goals, policies, and implementation measures addressing issues of interest with the Lake Elsinore community:

- The City is a predominantly residential community and it strives to be more than a bedroom community for Los Angeles and San Diego. The City seeks to accomplish this by creating a diverse and integrated balance of land uses.
- As the only natural lake remaining in Southern California, maintaining the Lake as a natural and recreational resource is a top priority for environmental, visual, and economic reasons. There is a desire to re-emphasize the Lake and expand lakeside opportunities.
- Sustainability is a central concern for the future of Lake Elsinore. Future development must consider the needs of current and future residents. Sustainable green building practices should also be incorporated into future development regulations and design criteria.
- There is increased interest in mixed-use, pedestrian oriented development that incorporates urban design components to improve community livability. Specific components include appropriate public service levels, scaled landscaping, user-friendly lighting, and public art.
- Lake Elsinore's long history has produced numerus cultural and historic sites and structures that should be preserved and revitalized.
- With growth and development, traffic and infrastructure capacity become an increasing concern. The City should evaluate growth impacts from individual and cumulative projects to determine their effect on quality of life within the City.
- Parks and recreation facilities should continue to be distributed equitably throughout the City and serve the current and future needs of the community.
- Air quality remains a regional issue that needs to be addressed. Pollutants loads of ozone, PM2.5, and PM10 continue to exceed state and federal standards.
- Lake Elsinore is at risk of numerous natural hazards including flooding, wildfires, and seismic activity. Efforts should be taken to minimize risks to life, property, and the environment from future natural hazards.
- Roadway traffic is a major source of noise within the City. Other noise sources include industrial and manufacturing facilities, Skylark Airport, schools, construction activities and recreational activities.
- Future growth needs to be balanced with the conservation and enhancement of the area's natural resources as development can impact resources such as water quality and associated watersheds.

The City has provided for 18 different land use designations guiding the future development of the City. The location of the land use designations are shown in Figure LU-6 and key land use provisions are summarized in Table LU-3.

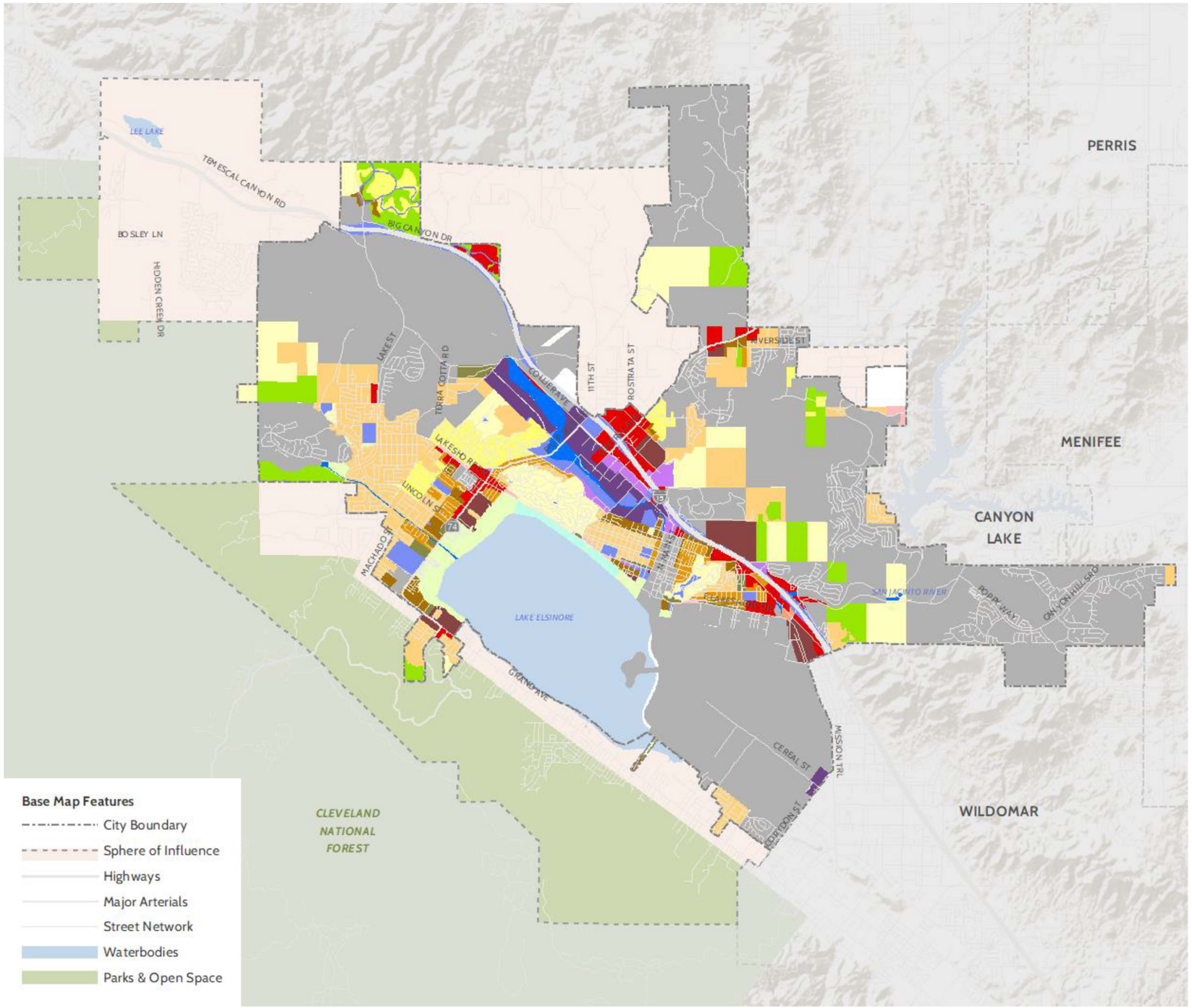


Figure LU-6
GENERAL PLAN LAND USE

General Plan Land Use Designations

- Floodway
- Business Professional
- Limited Industrial
- General Commercial
- Neighborhood Commercial
- Tourist Commercial
- Commercial Mixed Use
- Residential Mixed Use
- Lakeside Residential
- Hillside Residential
- Low Density Residential
- Low-Medium Residential
- Medium Density Residential
- High Density Residential
- Recreational
- Open Space
- Public/Institutional
- Specific Plan

Prepared by MIG, October 2023.
Source: City of Lake Elsinore, 2023, County of Riverside 2023.

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Table LU-3: General Plan Land Use Designations

General Plan Land Use Designation	Density Range (units/acre)	Maximum FAR	Corresponding Zone	Acres	% of Total Acres
Lakeside Residential	0-4	--	L	101.6	0.4%
Hillside Residential	0-1	--	R-M-R, R-H	1,829.4	7.4%
Low Density Residential	1-3	0.40	R-R, R-E	645.6	2.6%
Low-Medium Residential	1-6	0.40	R-1, MC	2,567.8	10.3%
Medium Density Residential	7-18	0.50	R-2	394.0	1.6%
High Density Residential	19-24	0.50	R-3	306	1.2%
Commercial Mixed Use	7-18	0.80	CMU	425.7	1.7%
Residential Mixed Use	19-24	1.00/1.2	RMU	127.2	0.5%
General Commercial	--	0.40	C-2	653.8	2.6%
Neighborhood Commercial	--	0.30	C-1, C-O	58.5	0.2%
Tourist Commercial	--	0.35/0.40	C-P	11.9	0.1%
Business Professional	--	0.45	C-M	166.5	0.7%
Limited Industrial	--	0.45	M-1, M-2, M-3	471.4	1.9%
Public/Institutional	--	0.20	PI	870.3	3.5%
Specific Plan	Varies	Varies	Varies	14,490.5	58.4%
Recreational	--	0.20	R	420.1	1.7%
Open Space	--	0.01	OS	1,062.3	4.3%
Floodway1	--	--	F	231.2	0.9%
Total (within City Limits)				24,833.9	100%

[1] This designation provides for the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water surface elevation more than one foot.

Source: City of Lake Elsinore 2023

District Plans

In addition to the three topical chapters discussed above, the 2011 Lake Elsinore General Plan also consists of 16 District Plans that cover specific, defined geographic areas within the City and its Sphere of Influence. The District Plans provide a more precise focus and recognize the unique and treasured assets of the individual communities that make up the City. District Plan goals and policies aim to reflect the goals and policies of the adopted Specific Plans within each district. If a conflict or discrepancy exists between District Plan and Specific Plan goal and policies, the adopted Specific Plan prevails. Table LU-4 and Figure LU-7 provide an overview of the City's District Plans.

Table LU-4: District Plans

District Plan	Specific Plans	Description	Unique Attributes
City Districts			
Alberhill District	Alberhill Ranch Alberhill Villages Murdock Alberhill Ranch Nichols Ranch (partial) Terracina	Approximately 4,240 acres consisting of extractive uses, vacant lands, residential uses, commercial uses, conservation areas, and parks.	Abundance of high-quality natural resources and extractive activities including historic mining operations.
Ballpark District	Diamond	Approximately 123.2 acres including a mix of commercial, tourist, entertainment facilities, and the Diamond Stadium.	Diamond Stadium, home to the Lake Elsinore Storm professional baseball team.
Business District	Outlet Center	Approximately 1,322.7 acres consisting of the strongest concentration of industrial and commercial uses in the City.	Outlets at Lake Elsinore and other shopping centers.
Country Club Heights District	-	Approximately 995 acres of sparsely developed residential uses.	Steep topography offering expansive views of the lake, mountains, and City. Limited provision of sewer and water provisions and transportation infrastructure partially due to the area's steep terrain.
East Lake District	East Lake	Approximately 3,240 acres containing a mix of industrial, single-family residential, active recreational uses, wetland habitat, and floodway.	Proximity to Lake Elsinore and "home" to extreme sport activities including the Skylark Field Airstrip, the Glider Launch Field, Skydive Elsinore facilities and the Lake Elsinore Motocross Park. Located in the 100-year floodplain.
Historic District	Downtown Elsinore	Approximately 474 acres, including civic, commercial, and residential uses.	The physical and cultural heart of the City. Home to most of the City's historic structures and civic uses. Includes a pedestrian-friendly Main Street that overlooks Lake Elsinore and the Santa Ana mountains.

Table LU-4: District Plans

District Plan	Specific Plans	Description	Unique Attributes
Lake Edge District	-	Approximately 876.2 acres offering a range of uses with an emphasis towards recreation, custom homes with lake access, commercial mixed uses, open space, and several miles of shoreline.	Exceptional range of recreational activities supported by the District's lake access.
Lake Elsinore Hills District	Canyon Creek Canyon Hills Canyon Hills Estates Ramsgate Spyglass Ranch Tuscany Hills Elsinore City Center	Approximately 7,486 acres primarily consisting of master planned residential communities, vacant land, commercial uses, and conservation areas.	Largest district within the City including the largest and most diverse open space landscape areas.
Lake View District	Cape of Good Hope Cottage Lane La Laguna Estates Lakeshore Village Village at Lakeshore	Approximately 2,935 acres primarily consisting of single-family homes and vacant lands with a limited amount of recreational, commercial, and industrial activities.	Variety of recreational uses, commercial services, and mixed-use corridor along Riverside Drive. Recreational amenities including multiple parks and close access to the Cleveland National Forest.
North Peak District	North Peak	Approximately 2,295 acres of isolated single-family residential uses and designated open space areas.	Very limited built environment due to designated open space areas and varied terrain.
Riverview District	-	Approximately 432 acres primarily consisting of residential uses, along with commercial and supporting institutional facilities.	Auto mall along the eastern edge of the District that provides significant tax revenues for the City.
Sphere Districts			
Lake View Sphere	-	Approximately 5,735 acres within the jurisdiction of Riverside County primarily consisting of residential uses, vacant lands, open space, and portions of the Cleveland National Forest.	Panoramic and accessible viewpoints of Lake Elsinore and the City, particularly from State Route SR-74 that runs through the District.
Lakeland Sphere	-	Approximately 3,091 acres within the jurisdiction of Riverside County primarily consisting of low-density housing along with	Encompasses the only edge of Lake Elsinore not included within the City's boundary.

Table LU-4: District Plans

District Plan	Specific Plans	Description	Unique Attributes
		pockets of recreational, commercial, industrial, and vacant uses.	
Meadowbrook Sphere	-	Approximately 487 acres within the jurisdiction of Riverside County primarily consisting of vacant lands with limited amounts of low-density single-family residential uses.	Rural residential character and proximity to SR- 74.
North Central Sphere	Nichols Ranch (partial)	Approximately 4,276 acres within the jurisdiction of Riverside County primarily consisting of vacant lands, open space areas, and low-density single-family residential uses.	Steep hillsides, significant vacant areas, and open space conservation areas.
Northwest Sphere	-	Approximately 5,190 acres within the jurisdiction of Riverside County primarily consisting of low-medium density residential, open space, limited agriculture, and some manufacturing and industrial areas.	Steep hillsides with open space, the central valley with its master planned neighborhoods, and its proximity to numerous amenities provided within the Lake Elsinore.

Source: City of Lake Elsinore, 2023

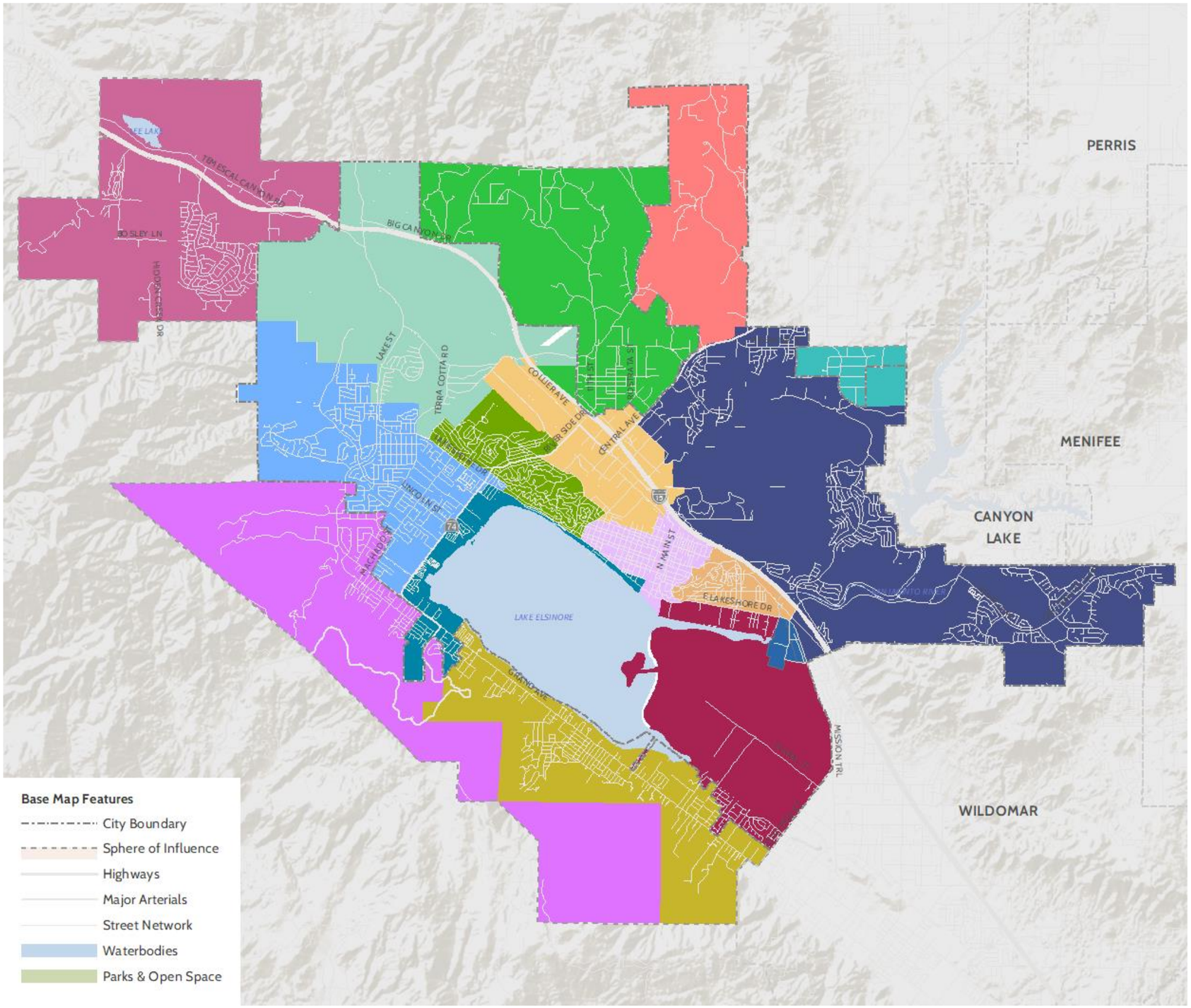


Figure LU-7

DISTRICT PLANS

City Districts

- Alberhill District
- Ballpark District
- Business District
- Country Club Heights District
- East Lake District
- Historic District
- Lake Edge District
- Lake Elsinore Hills District
- Lake View District
- North Peak District
- Riverview District

Sphere Districts

- Lake View Sphere
- Lakeland Village Sphere
- Meadowbrook Sphere
- North Central Sphere
- Northwest Sphere

Prepared by MIG, October 2023.
Source: City of Lake Elsinore, 2023

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Specific Plans

Specific plans implement a city or county's general plan by establishing detailed regulations for a defined geographic area. Specific plans are put in place to regulate distinct character areas that cannot be regulated through general development ordinances or citywide zoning. Specific plans can also be used to achieve creative design by providing flexibility in development standards beyond those contained in the Zoning Code. Table LU-5 and Figure LU-8 provide an overview of the City's Specific Plans.

DRAFT

Table LU-5: Specific Plans

Specific Plan	Adoption Date	Location	District Plan	Goal	Status
Alberhill Ranch	1989, last amended in 1997	Northwest Lake Elsinore, bounded by I-15 to the north and east, Terra Cotta Road/Nichols Road to the south, El Toro Road to the east, and Robb Road/Lake Street to the west.	Alberhill District	Restore a 100-year-old mining site into a master-planned community consisting of single-family and multi-family units, mixed uses, 41 acres of riparian resource area, a 207-acre golf course, and 103 acres of open space.	Partially developed
Alberhill Villages	2016, amended and restated in 2017	Northwest Lake Elsinore, located south of I-15 and west of Lake Street.	Alberhill District	Restore a 100-year-old mining site and develop a 1,375-acre sustainable mixed-use planned community that acts as a northwestern gateway to the City over 35 years.	Not developed
Canyon Creek	Adopted 1984, last amended in 2005	East Lake Elsinore, north of I-15 and bounded by undeveloped hilly terrain to the north and the Railroad Canyon Wastewater Treatment Facility to the east.	Lake Elsinore Hills District	Development of 1,100 detached single-family units supported by commercial uses, community park areas, and open space. As of 2005, 638 units have been developed.	Partially developed
Canyon Hills	Adopted 1989, last amended in 2009	Northeast Lake Elsinore, south of Newport Road.	Lake Elsinore Hills District	Development of a mixed-use, master-planned community consisting of single-family detached and multi-family attached units, commercial, public facilities, schools, open space, and parks/recreation uses.	Mostly developed

Table LU-5: Specific Plans

Specific Plan	Adoption Date	Location	District Plan	Goal	Status
Canyon Hills Estates	2006	Northeast Lake Elsinore, to the south of Canyon Hills Road.	Lake Elsinore Hills District	Development of a planned 246-acre community for 238 single-family detached units, 64 detached compact lot units, a neighborhood park, and open space.	Not developed yet, implementation applications currently under review
Cape of Good Hope	1993	Northwest Lake Elsinore, directly south of the Alberhill Ranch Specific Plan area.	Lake View District	Development of a 40-acre private, gated residential community consisting of 67 lots and open space.	Not developed
Cottage Lane	2005	Southwest Lake Elsinore, located northwest of Riverside Avenue, southeast of Machado Street, and north of Grand Avenue.	Lake View District	Development of a 12-acre residential development consisting of 48 single-family detached lots and a park.	Fully built-out
Diamond	2010, amended in 2015	Southeast Lake Elsinore, located in the Ballpark District along Diamond Drive.	Ballpark District	Development of the Diamond Project, an 87.2-acre master planned, mixed-use development that creates a unique sense of place and a regional destination venue surrounding the Diamond Stadium	Partially developed
Downtown Elsinore	2018	Downtown Lake Elsinore, including Historic Downtown Lake Elsinore. Extends from Flint Street along its northern edge to the edge of Lake Elsinore. Bounded by Riley Street and the Lake Elsinore	Historic District	To establish a vision, land use plan, and development standards to create a vibrant, livable, connected, and sustainable 178-acre downtown that acts as the heart of the city.	Partially developed

Table LU-5: Specific Plans

Specific Plan	Adoption Date	Location	District Plan	Goal	Status
		Outlet Channel to the west and Ellis Street and Chestnut Street to the East.			
East Lake	1993, last amended in 2017	East Lake Elsinore, located along the eastern shore of Lake Elsinore.	East Lake District	Development of a 2,977-acre planned community consisting of a well-balanced and functional mix of action sports, tourism, residential, commercial, open space, recreational, institutional, and accessory industrial land uses are provided.	Partially developed
Elsinore City Center	1992, last amended in 2001	East Lake Elsinore, located directly to the north of I-15 and south of the Canyon Creek Special Plan area.	Lake Elsinore Hills District	Development of a 49.2-acre commercial center and multi-family residential area.	Mostly developed
Lake Elsinore Outlet Center	1990, last amended in 2000	West Lake Elsinore, located directly south of I-15 along Collier Avenue.	Business District	Development of a 46.78-acre commercial retail area.	Mostly developed
La Laguna Estates	1998, amended in 2003	West Lake Elsinore, south of I-15 and directly east of the Cleveland National Forest.	Lake View District	Development of 660 single-family detached units and 140 acres of open space.	Fully built-out
Lakeshore Village	2003	West-central Lake Elsinore bounded by Lakeshore Drive to the northeast and Walnut Drive to the southwest	Lake View District	Infill development of a 37.7 acre planned mixed-use community with residences, recreational, and neighborhood commercial uses along with the improvement of street and infrastructure components.	Mostly developed

Table LU-5: Specific Plans

Specific Plan	Adoption Date	Location	District Plan	Goal	Status
Murdock Alberhill Ranch	1998, last amended in 2008	Northwest Lake Elsinore	Alberhill District	Infill development of a 511 acre planned mixed-use community consisting of single-family detached units, multi-family units, recreational, and neighborhood commercial uses.	Partially developed
Nichols Ranch	2019	North Lake Elsinore, located north of I-15 and bounded by El Toro Road to the east.	Alberhill District and North Central Sphere	Development of a 72.5-acre master planned community that preserves Stovepipe Creek while establishing residential, commercial, and recreational uses.	Under construction
North Peak	1991, amended in 1999	North Lake Elsinore, located to the north of SR-74.	North Peak District	Development of a 1,964-acre planned community consisting of a mixture of open space, residential, commercial, and public uses.	Not yet developed
Ramsgate	2008	North Lake Elsinore, located to the north of I-15 and directly south of SR-74.	Lake Elsinore Hills District	Development of a 1,366-acre planned community consisting of a mixture of open space, residential and public uses.	Mostly developed
Spyglass Ranch	2008, amended in 2015	North of Downtown Lake Elsinore, located directly north of I-15.	Lake Elsinore Hills District	Development of a 259-acre planned community consisting of single-family detached units, multi-family units, and commercial, and open space uses.	Not yet developed, implementation applications currently under review

Table LU-5: Specific Plans

Specific Plan	Adoption Date	Location	District Plan	Goal	Status
Terracina	2015	West Lake Elsinore, located southwest of I-15 and north of Lakeshore Drive between Dryden Street and Terra Cotta Road.	Alberhill District	Development of a 154-acre residential development consisting of single-family units (maximum of 452 dwelling units), open space, park lands, and graded slopes and basins.	Under construction
Tuscany Hills	1990, amended in 2005	Northeast Lake Elsinore, located north of I-15, southeast of CA 74, west of Canyon Lake and south of Greenwald Street.	Lake Elsinore Hills District	Development of a 972.9-acre planned community consisting of single-family detached units, community parks, HOA parks, recreational facilities, and natural open space.	Partially developed
Village at Lakeshore	2006, amended in 2015	Southwest Lake Elsinore, located near the intersection of Riverside Drive and Grand Avenue.	Lake View District	Development of a 19.7-acre planned private residential community consisting of approximately 163 single-family detached condominium residential units, a recreational facility, an open space park area, and a detention basin.	Fully built-out

Source: City of Lake Elsinore

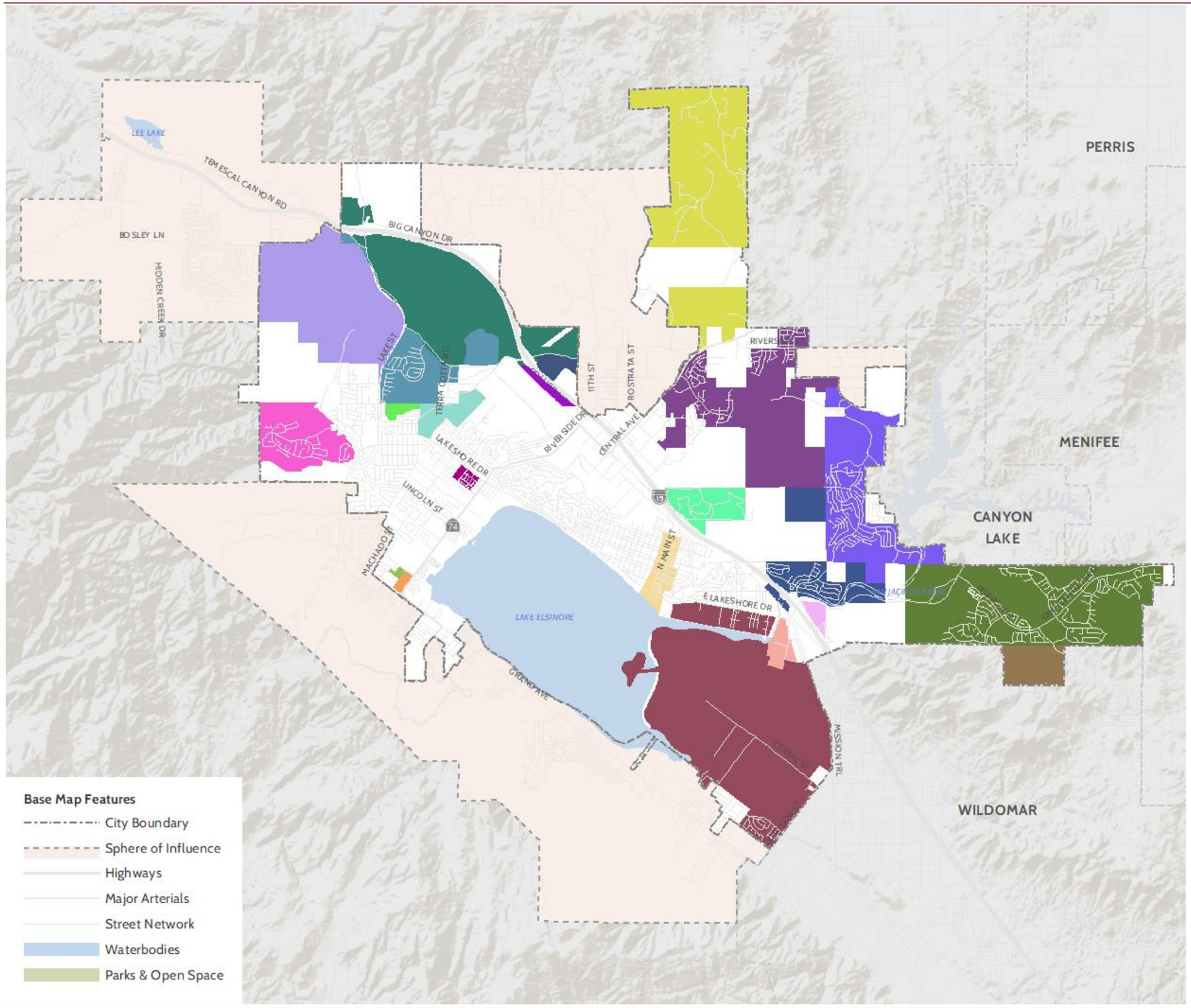


Figure LU-8
SPECIFIC PLANS

Specific Plans

- Alberhill Ranch
- Alberhill Villages
- Canyon Creek
- Canyon Estates
- Canyon Hills
- Cape of Good Hope
- Cottage Lane
- Diamond
- Downtown Elsinore
- East Lake
- Elsinore City Center
- La Laguna Estates
- Lakeshore Village
- Murdock Alberhill Ranch
- Nichols Ranch
- North Peak
- Outlet Center
- Ramsgate
- Spyglass Ranch
- Terracina
- The Village at Lakeshore
- Tuscany Hills

Base Map Features

- City Boundary
- Sphere of Influence
- Highways
- Major Arterials
- Street Network
- Waterbodies
- Parks & Open Space

Prepared by MIG, October 2023.
Source: City of Lake Elsinore, 2023

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Zoning

Zoning regulations implement the City's General Plan policies. By State law, zoning regulations must protect and promote the health, safety, and general welfare of residents. The Zoning Code identifies specific land uses allowed within each zoning district and provides specific development requirements such as density, setbacks, height, size, and development character and appearance (Table LU-6 and Figure LU-9). The Lake Elsinore Zoning Regulations are contained in Title 17 of the Municipal Code.

Table LU-6: Zoning Districts

Zoning District		Minimum Density / Intensity	Maximum Density / Intensity	Maximum Height
Residential				
R-M-R	Rural Mountainous Residential	--	1 dwelling unit per lot	30'
R-R	Rural Residential	--	1 dwelling unit per lot	30'
R-E	Residential Estate	--	1 dwelling unit per lot	30'
R-H	Hillside Single Family Residential	--	1 dwelling unit per lot	30'
R-1	Single Family Residential	--	1 unit per lot	30'
R-2	Medium Density Residential	--	12 units per acre	30'
R-3	High Density Residential	--	24 units per acre	30'
L	Lakeshore	--	1 unit per 10,000 sf	30'
MC	Mobile Home Community	--	1 unit per lot	30'
Mixed Use				
RMU	Residential Mixed Use	7 units per acre		Varies
CMU	Commercial Mixed Use	--	24 units per acre	Varies
Commercial				
C-1	Neighborhood Commercial	--		35'
C-O	Commercial Office	--		35'
C-2	General Commercial	25,000 sf per lot	--	45'
C-P	Commercial Park	--		50'
Industrial				
C-M	Commercial Manufacturing	20,000 sf per lot	--	45'
M-1	Limited Manufacturing	20,000 sf per lot	--	40'
M-2	General Manufacturing	1 acre per lot	--	45'
M-3	Mineral Resources/Related Manufacturing	300 acres	--	45'
Public Facilities				
PI	Public Institutional	--		
Open Space				
F[1]	Floodway	--		
OS	Open Space	--		25'
R	Recreation	--		
Specific Plan				
SP	Specific Plan	Refer to applicable Specific Plan		

[1] This designation provides for the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water surface elevation more than one foot.

Source: Title 17, Lake Elsinore Municipal Code

Key Considerations

- The City is still largely comprised of vacant or agricultural/rural uses. The Specific and District Plans should be re-evaluated to ensure their effectiveness in stimulating their intended development.
- The City lacks a variety of commercial and mixed uses. Identifying the appropriate areas for commercial development that respond to the demands of Lake Elsinore residents will be key in encouraging this type of development.
- Land dedicated to mobile home parks is a key residential land use. Mobile homes are an affordable housing option that should be preserved with the appropriate land use and zoning designations.
- Lake Elsinore contains large portions of land used for parks and open space. As Lake Elsinore becomes more urbanized it will be important to continue to balance development intensification with the preservation of recreational and open spaces.

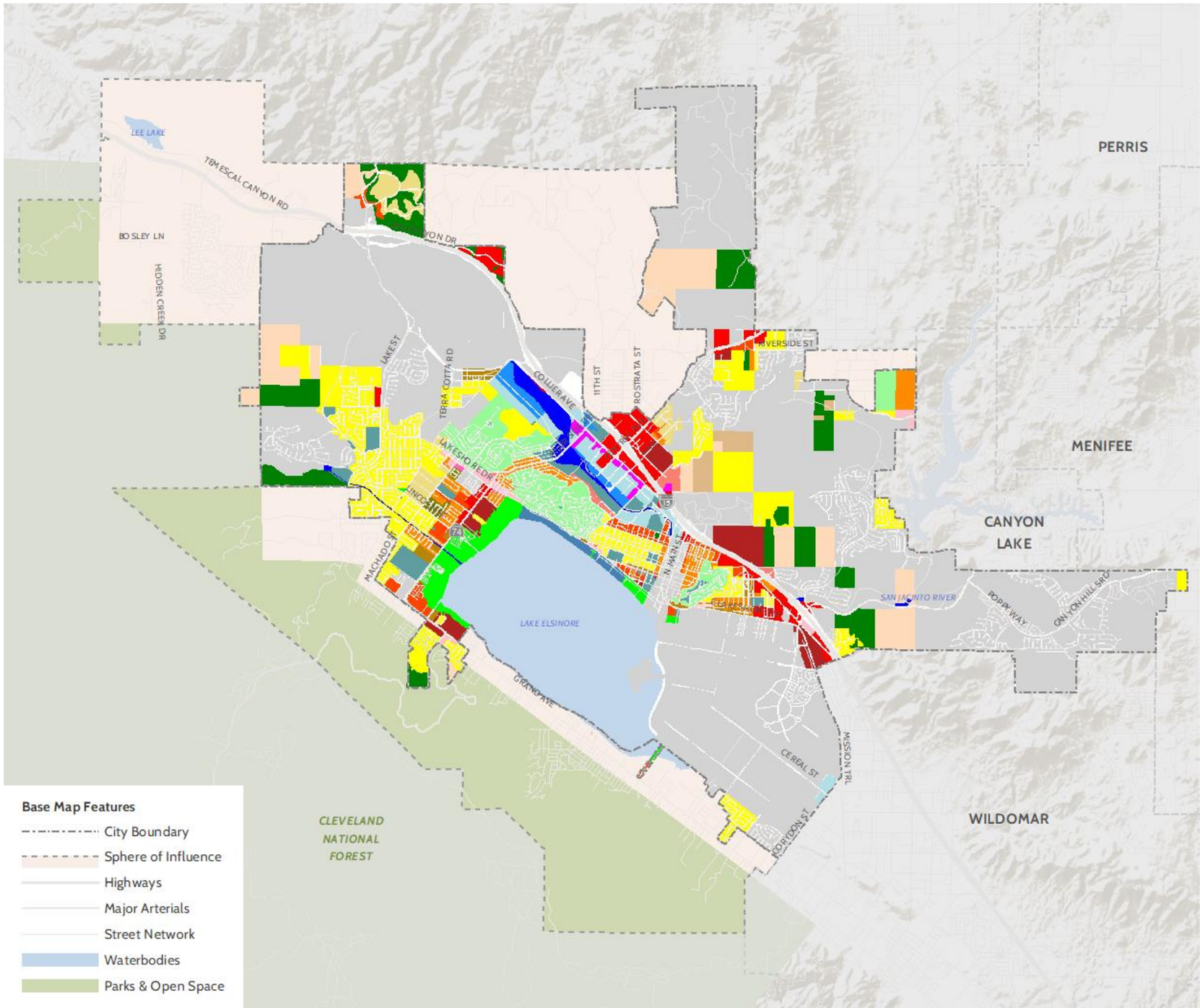


Figure LU-9
ZONING

Zoning
- RMR - Rural Mountainous Residential
- RR - Rural Residential
- RE - Residential Estate
- RH - Hillside Single Family Residential
- R1 - Single Family Residential
- R2 - Medium Density Residential
- R3 - High Density Residential
- RMU - Residential Mixed Use
- MC - Mobile Home Community
- L - Lakeshore
- C1 - Neighborhood Commercial
- CO - Commercial Office
- C2 - General Commercial
- CP - Commercial Park
- CMU - Commercial Mixed Use
- CM - Commercial Manufacturing
- M1 - Limited Manufacturing
- M2 - General Manufacturing
- PI - Public/Institutional
- OS - Open Space
- R - Recreation
- F - Floodway
- SP - Specific Plan

Prepared by MIG, October 2023.
Source: City of Lake Elsinore, 2023

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HOUSING

The adopted 2021-2029 Housing Element serves as the basis for this Housing discussion, which includes background information on current housing conditions, as well as policies to address the existing and projected housing needs of all economic segments of the community.

Housing Stock

Most of Lake Elsinore's housing stock (81 percent) consists of single-family residences (Table H-1). Multi-family units make up 15 percent of Lake Elsinore's housing stock while mobile homes and other housing make up just four percent of housing units.

Table H-1: Housing Stock Characteristics

Housing Characteristic	All Households
Single-Family Detached Units	14,585 (77%)
Single-Family Attached Units	812 (4%)
Multi-Family Units	2,816 (15%)
Mobile home, other units	733 (4%)
Total Units	18,946 (100%)
Average Household Size	3.58 persons per household
Units Needing Replacement/Rehabilitation	<10 units

Source: Lake Elsinore Housing Element (2022), 2020 CA DOF E-5 Population and Housing Estimates, US Census Bureau 2018 5-year, CoreLogic May 2020

HOUSING TENURE, VACANCY, AND OVERCROWDING

Housing tenure refers to whether someone rents or owns the home they live in. In Lake Elsinore, most homes are owner-occupied (68 percent) and only 32 percent are renter occupied (Table H-2 and Figure H-1). In Lake Elsinore, nine percent of occupied housing units are overcrowded. Overcrowding is more prevalent in rental units where 18 percent are considered overcrowded compared to owner occupied housing where only five percent are considered overcrowded. The most overcrowded units are in the East Lake, Lake Edge, and Lake View Districts (Figure H-2). Census data indicates that Lake Elsinore has low vacancy rates, one percent of owner units and 4.5 percent of rental units are vacant. Four percent is considered a healthy vacancy rate as it permits sufficient choice among a variety of housing units.

Table H-2: Housing Characteristics by Tenure

Housing Characteristics	All Households		
	Owner Households	Renter Households	All Households
Total Housing Units	11,971 (68%)	5,693 (32%)	17,664*
Vacancy Rate	1.0%	4.5%	6.1%
Overcrowded Units	637 (3.8%)	883 (5.3%)	1,520 (9.0%)

Note: 2020 CA DOF E-5 Population and Housing Estimates did not include a breakdown of data by tenure.

*Total housing units is from the US Census Bureau 2018 5-year data.
Source: Lake Elsinore Housing Element (2022), 2020 CA DOF E-5 Population and Housing Estimates, US Census Bureau 2019 ACS 5-year Estimates

Housing Condition

Housing age has a direct correlation to the quality and condition of housing units. Deteriorating structures pose a safety hazard and can negatively impact property values within a neighborhood. Commonly, housing over 30 years of age needs some form of major rehabilitation to maintain compliance with building and safety codes. While most of the City's housing stock is moderately new (13 percent of housing units built in the last 10 years, more than half, or 51 percent, of housing units built in the last 20 years), a third, or 33 percent, is over 30 years old.

Key Considerations

- Lake Elsinore will continue to need housing units of a variety of types, sizes, and price points to serve current and future Lake Elsinore residents.

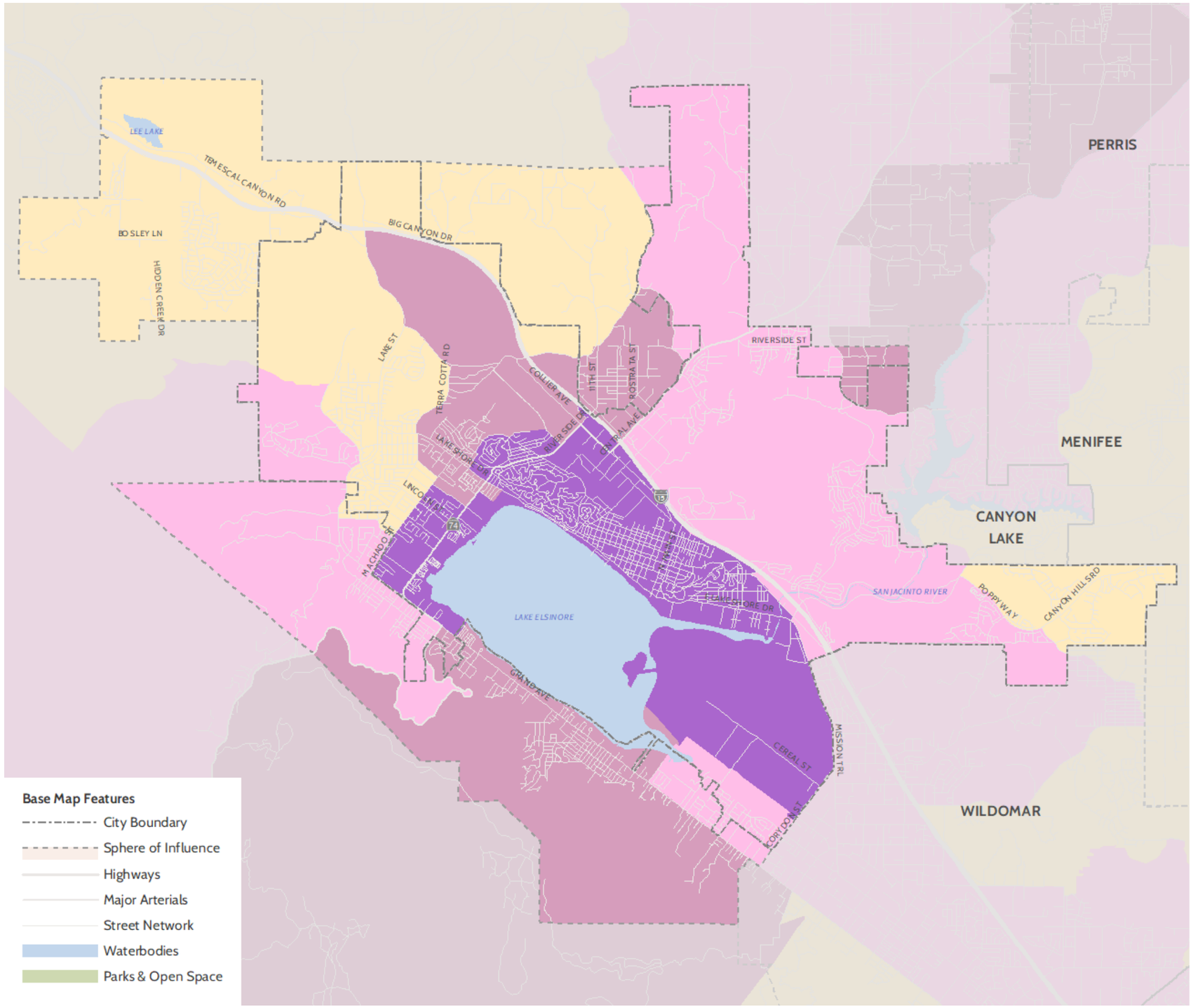


Figure H-1

RENTER-OCCUPIED HOUSEHOLDS

Percent of Renter-Occupied Households by Census Tract

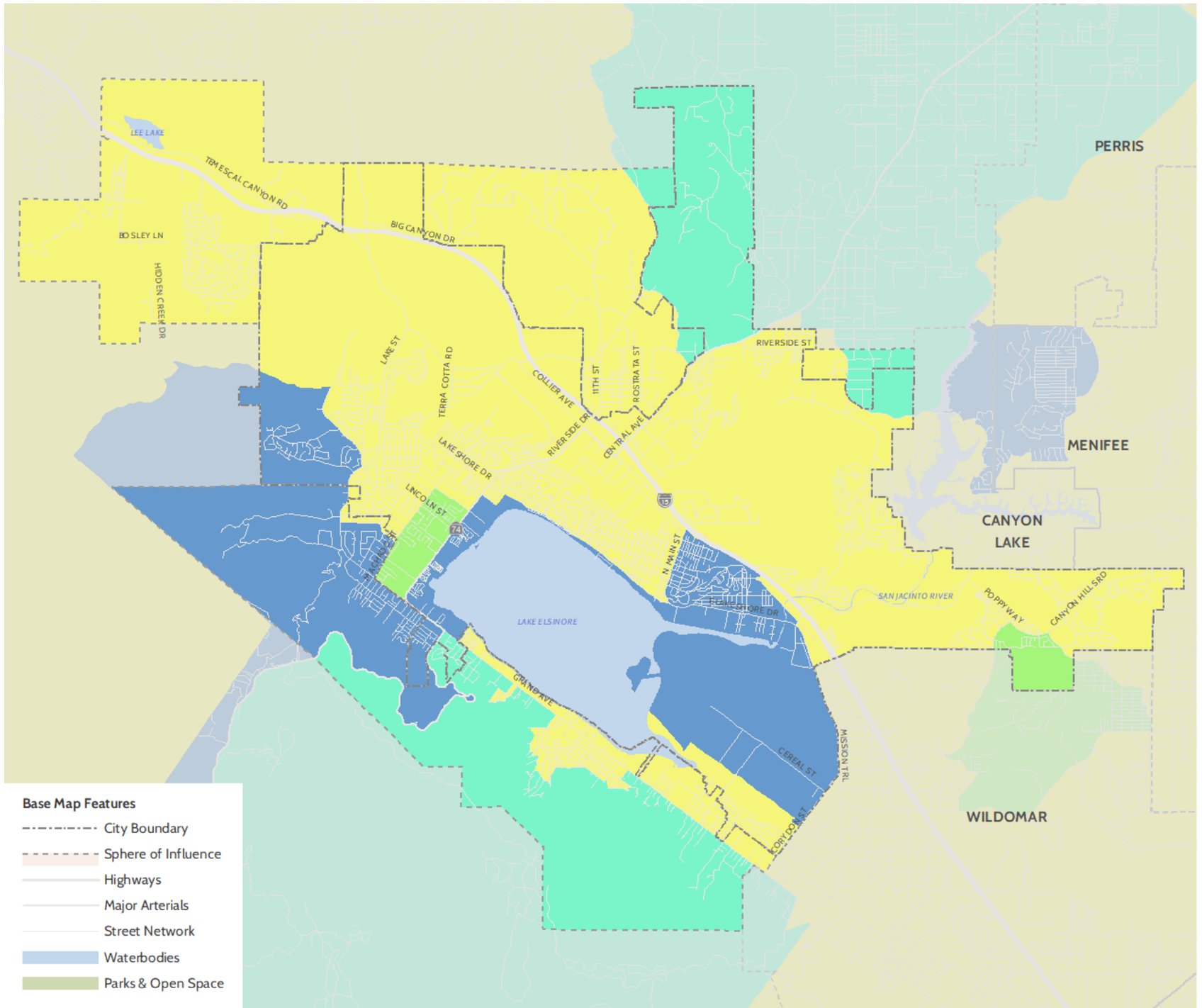
- ≤ 20%
- 20% - 40%
- 40% - 60%
- 60% - 80%

Prepared by MIG, October 2023.
Source: California Department of Housing and Community Development (HCD AFFH Data Viewer, 2021)

0 ¼ ½ 1 1½ 2 Miles

Figure H-2

OVERCROWDED HOUSEHOLDS



Historic and Cultural Heritage



Prior to Western settlement, areas within present day Lake Elsinore were occupied by the Payómkawichum or Luiseño indigenous people who migrated from the Great Basin and lived along the Pacific Coast as well as in the inland hills and valleys. Some of the indigenous inhabitants lived in a village near the lake known as Páayaxchi.

Luiseño territory comprised approximately 1,500 square miles of Southern California. Villages were located in diverse ecological areas, typically located along streams, valleys, or coastal strands near mountain ranges. The area around and including the Elsinore hot springs was known to the Luiseño as iténgvu Wumówmu (meaning "hot springs"). Several additional Luiseño place names are within the Lake Elsinore area and SOI including We'éeva, Pií'iv, Qawiimay, Páayaxchi Nivé'wuna, Anóomay and others, reflecting this diverse and well utilized region.

In 1769, Spanish colonizers set up missions throughout the area known as Alta California. These missions had little impact on indigenous populations outside of their immediate vicinities. However, in 1822 Mexico gained independence from Spain. This led to the Secularization Act of 1833, which had disastrous consequences for the indigenous people of the area. As the land grants were developed, local tribes were forced to relocate or to become laborers and workers on the ranches. The comisionados, who were placed in charge of the land transfer, took advantage of the situation, and became the powerful land holding class known as the rancheros.

In 1844, a Mexican land grant was awarded to Julian Manriquez for 13,340 acres, which included the Lake. He named this area Rancho La Laguna. The property exchanged ownership several times before being sold to Franklin Heald, William Collier, and Donald Graham in 1883 for $24,000. With Margaret Collier Graham, they established the town site and sold lots. Margaret Graham gave the town its name "Elsinore" as it reminded her of the Danish town in Shakespeare's play "Hamlet".[1]

Elsinore became a transcontinental railroad stop in 1885. The original route was abandoned; a new station was built by the Santa Fe Railway Company in 1896. It is now home to the Lake Elsinore Chamber of Commerce. In April 1888, Elsinore incorporated as a city and gained prominence for the local hot springs and the area's natural beauty. By the late 1800s, the economy was supported by coal

[1] "Historic Downtown Walking Tour." Lake Elsinore Historical Society, lakeelsinorehistoricalsociety.org/. Accessed Nov. 2023.

and clay mining, ranching, and agricultural industries. Farmers in the area grew olives, grapes, apricots, and other produce. Elsinore's population was approximately 1,000 residents; the town boasted a variety of stores, a lumberyard, daily mail service, brick buildings downtown; Elsinore's water, soil, and climate were good for agriculture. In addition, the mineral and hot springs attained regional recognition.

In 1887, The Crescent Bath House, also known as The Chimes, was one of the first buildings downtown and is a registered national historic site. By the 1920s, Elsinore was a popular destination for boat races and Olympic swim team training. In the 1930s, Elsinore was a resort-style retreat/party destination featuring the Laguna Vista Club and Mount Elsinore Country Club. During World War II, a Douglas Aircraft located a factory assembling aircraft wings for bombers. The Lake was used to test seaplanes. In 1948, Lake Elsinore elected the first black city councilman in California, Thomas Yarborough.[2] In 1972, Elsinore's name was changed to the City of Lake Elsinore. The name change helped highlight Lake Elsinore as a lake-oriented destination. The State of California Department of Parks and Recreation owned the lake and a campground recreation area until 1993, when those assets were conveyed to the City. [3]



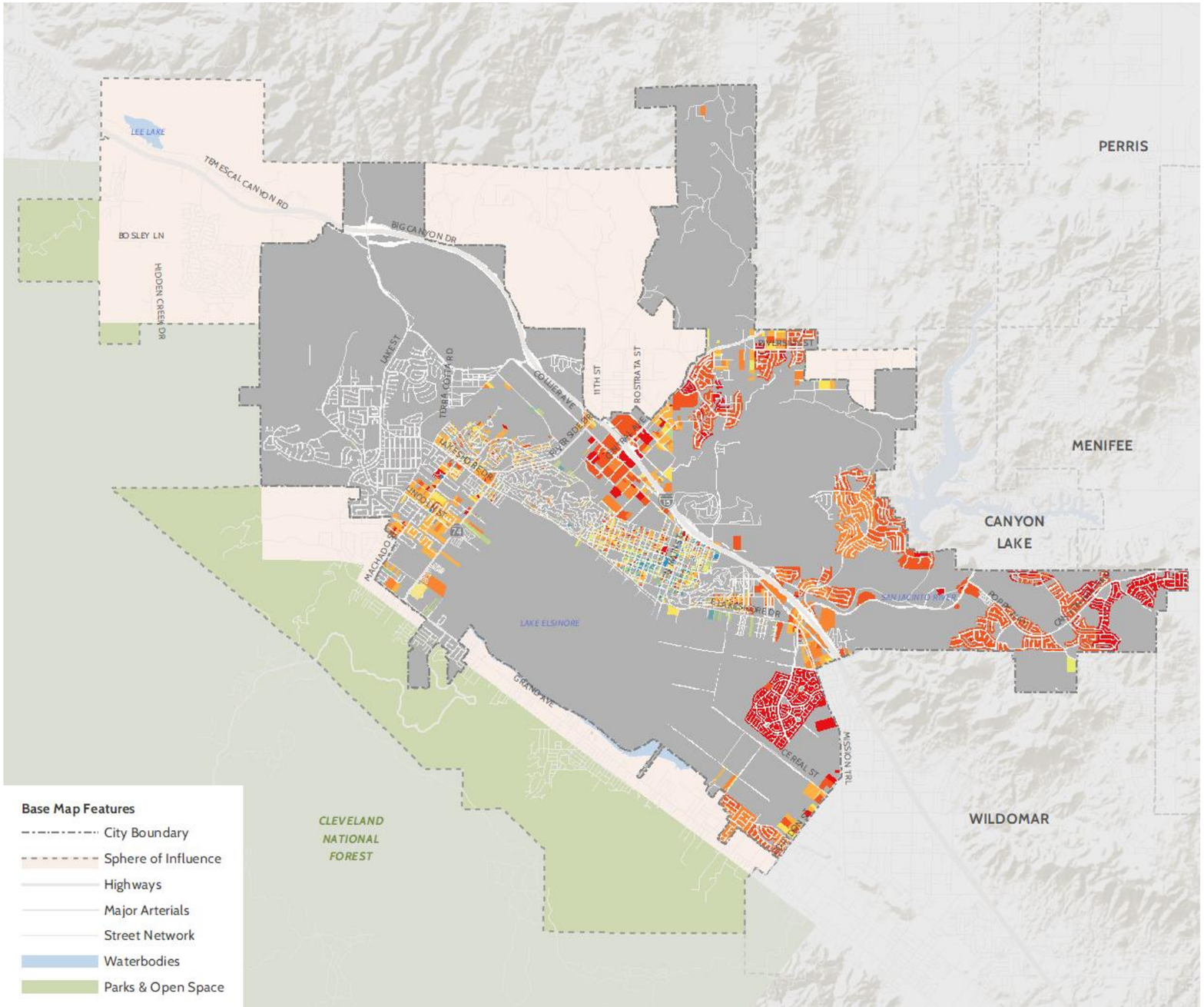
As shown in Figure HC-1, below, the majority of the City's historic structures are concentrated in the historic downtown neighborhood. Several of these structures are recognized on either national or state level historic registers. The downtown area has served as Lake Elsinore's cultural and economic hub since the late 1800s. In the Sphere of Influence, many new developments and subdivisions constructed in the last 20-30 years show housing demand continues to grow. Many of the newest developments are concentrated on the east side of the city near Railroad Canyon Road and the Canyon Lake area. The demand for growth is further depicted by Figure HC-2, which shows the City's annexation history since 1888. Since incorporating, the City has moderately expanded its boundaries to include outlying areas within the Sphere of Influence predominantly to the north, east, and west.

[2] Forrey, Kathy (August 1, 1990). "More than 200 pay homage to Yarborough". Lake Elsinore Valley Sun-Tribune. Accessed Nov. 2023 – via Newspapers.com.

[3] "Lake Elsinore General Plan, Chapter 9." Lake Elsinore General Plan | Lake Elsinore, CA, City of Lake Elsinore, Dec. 2011, www.lake-elsinore.org/465/Lake-Elsinore-General-Plan

Figure HC-1

BUILDING AGE



Year Built

- 1887 - 1913
- 1914 - 1928
- 1929 - 1941
- 1942 - 1951
- 1952 - 1961
- 1962 - 1973
- 1974 - 1987
- 1988 - 1999
- 2000 - 2010
- 2011 - 2023
- Vacant or No Date Available

Base Map Features

- City Boundary
- Sphere of Influence
- Highways
- Major Arterials
- Street Network
- Waterbodies
- Parks & Open Space

Prepared by MIG, October 2023.
Source: County of Riverside Assessor-County Clerk-Recorder, 2023

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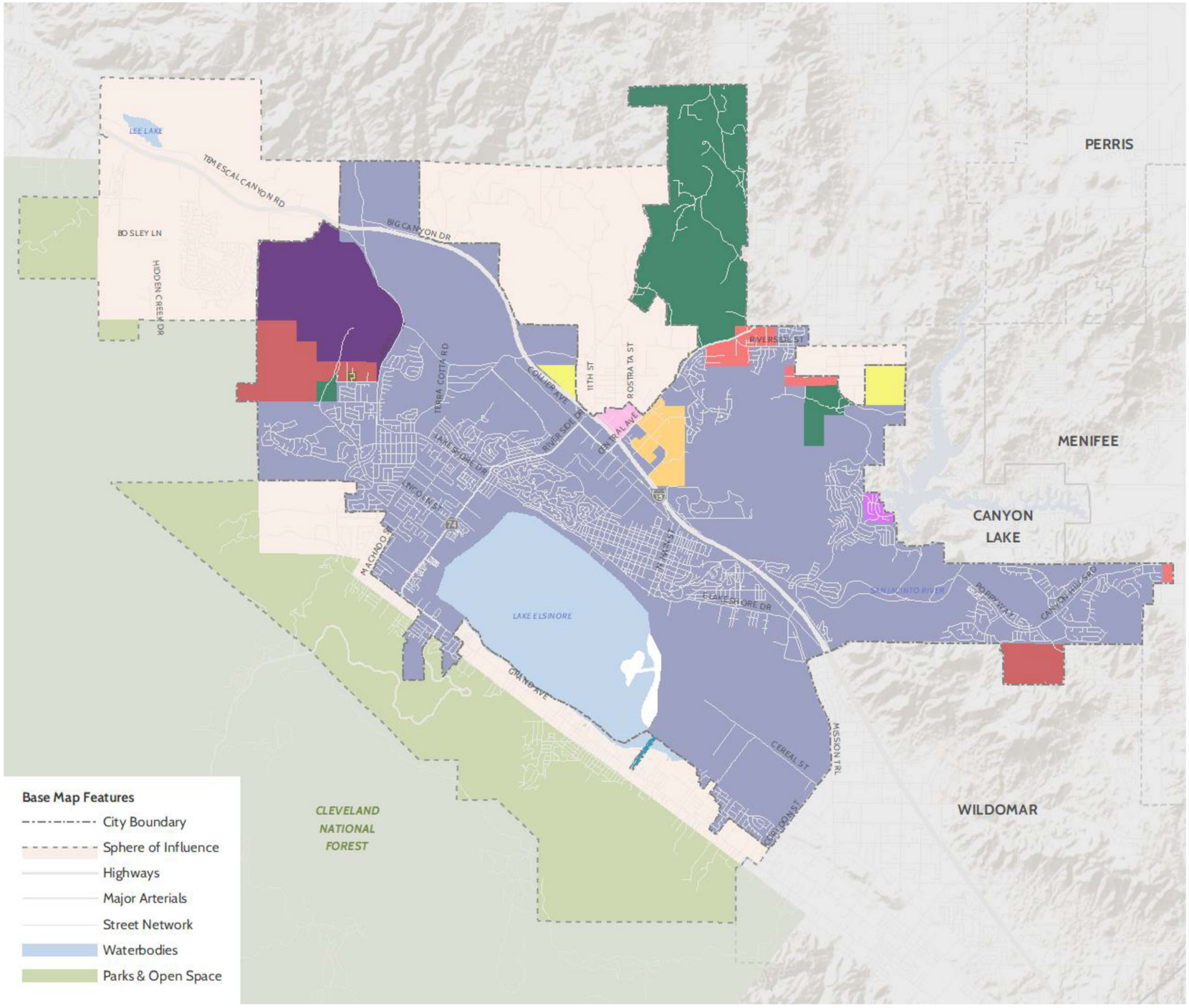


Figure HC-2

ANNEXATION HISTORY

City Annexations (Year)

- 1888
- 1971
- 1992
- 1993
- 1997
- 2000
- 2004
- 2007
- 2008
- 2009
- 2012
- 2016

Prepared by MIG, October 2023.
Source: County of Riverside, 2023

Miles
0 ¼ ½ 1 1½ 2

Lake Elsinore's Historic Downtown

In the 1980's, the Riverside County Historical Commission designated the Lake Elsinore downtown as a local historic district. The historic downtown primarily encompasses Main Street, Heald Avenue, and Graham Avenue. Two historic downtown buildings are listed in the National Register of Historic Places: The Crescent Bath House (aka Chimes Building) and the Grand Army of the Republic Armory Hall. The Crescent Bath House, built in 1887, was one of the first buildings to be constructed within the City of Lake Elsinore. The Armory Hall was built in 1887 to serve the Grand Army of the Republic, a fraternal organization for Civil War Union Army, Navy, and Marine veterans. Several other structures are listed in the California Points of Historical Interest, Riverside County Historical Landmarks, and locally recognized historic structures. In 2011, the City adopted the Downtown Elsinore Specific Plan to maintain the important historical resources downtown while facilitating future growth and development.[4]

Historic Preservation Organizations and Services

LAKE ELSINORE HISTORICAL SOCIETY

The Lake Elsinore Historical Society was founded in 1996 to collect, protect, preserve, display, and further the preservation of items and documents of historical value and significance from the Lake Elsinore Valley. The Lake Elsinore Historical Society Museum, located at 183 North Main Street, displays over 300 years of artifacts, and includes exhibits of the Elsinore Naval and Military Academy, Aimee Semple McPherson's Castle (also referred to as Aimee's Castle), sports memorabilia, antique household and farm tool items. The Historical Society reviews development applications that impact historic resources and may provide comments to the Planning Department.

Historic Resources

The following is a list of officially and unofficially recognized historic structures. Figure HC-3 illustrates the locations of these historic resources.

National Register of Historic Places List[5]:

- Crescent Bath House/Chimes Building (P33-6998)
- Grand Army of the Republic Armory Hall (RIV-070)

California Points of Historical Interest List[6]:

- Grand Army of the Republic Armory Hall (RIV-070)
- Elsinore Women's Club (RIV-071)

[4] "Downtown Elsinore Specific Plan." Downtown Elsinore Specific Plan | Lake Elsinore, CA, City of Lake Elsinore, 25 Sept. 2018, www.lake-elsinore.org/472/Downtown-Elsinore-Specific-Plan.

[5] National Park Service, 2023

[6] California Office of Historic Preservation, 2023

Riverside County Significant Historical Resource List[7]:

- Lake Elsinore Downtown Historic District (P33-7142) includes:
    - Lake Elsinore Cultural Center/Methodist Episcopal Church (RIV-023)
    - Santa Fe Train Station (P33-6997)
    - Mary J. McDonald Fountain and Building

Locally/Unofficially Recognized Significant Historical Resources[vii] [8]:

The sites listed below are not on official historical registers but have been locally recognized for their historical significance.

- Aimee's Castle
- The Adobe Machado House and Butterfield Stage Stop
- Elsinore Naval Military Academy
- Lake Theater
- Heritage Home (Strickland Home)
- First Presbyterian Church
- Elsinore Valley Cemetery

Lake Elsinore Historic Homes of Interest [vii]:

The Downtown Elsinore Specific Plan identifies the following homes as locally historic.

- 219 Riley Street, 1920
- 226 East Franklin Street, 1924, Scotty's Castle
- 228 Spring Street, 1912, Gardner Home
- 257 Hill Street

Key Considerations

- As time progresses and buildings and other potential resources age, the City must consider policy to address identifying additional historic and cultural resources.

[7] Downtown Elsinore Specific Plan, 2018

[8] Lake Elsinore Historical Society, 2023

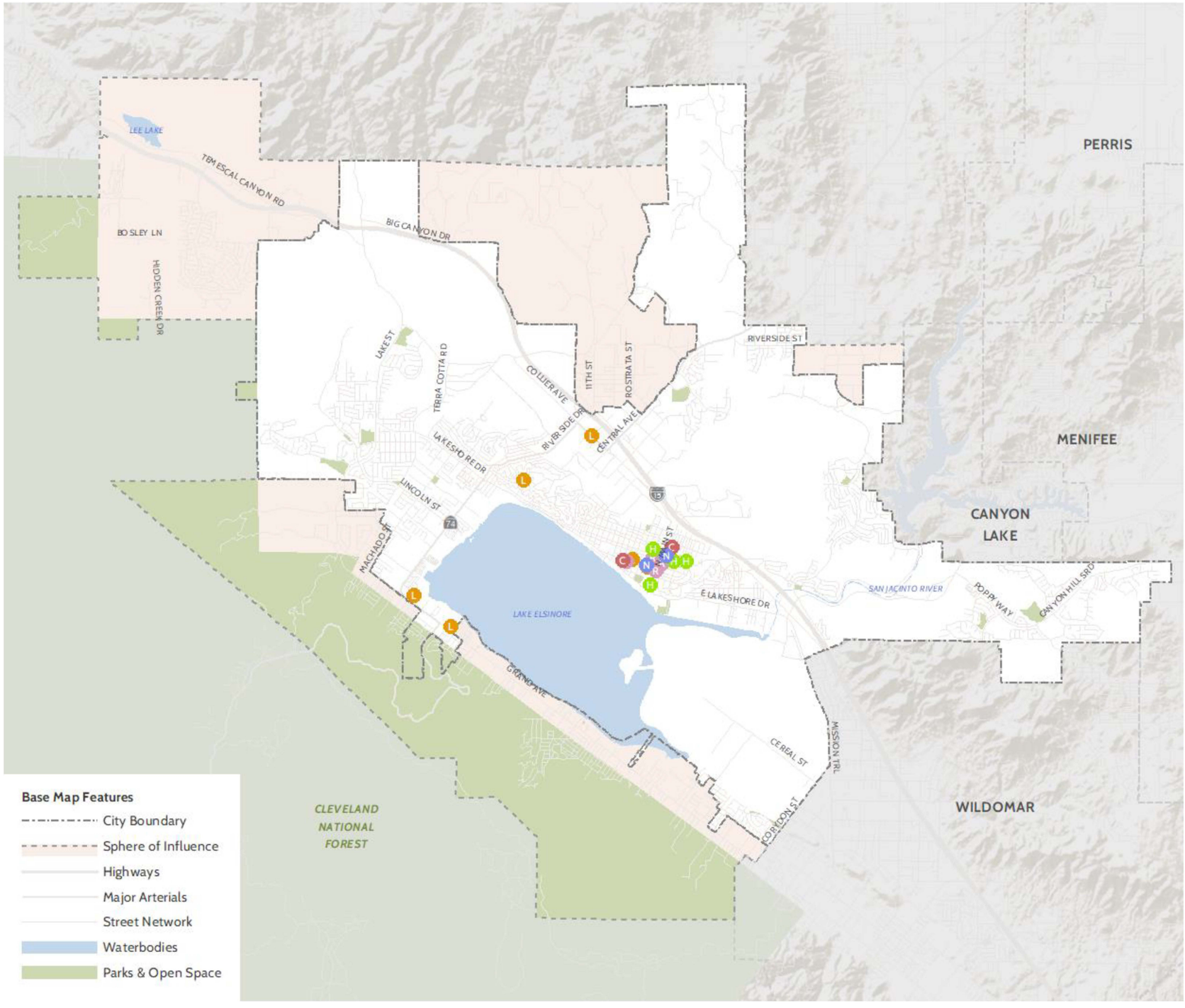


Figure HC-3
HISTORIC LANDMARKS

Historic Landmarks

- National Register of Historic Places
- California Points of Historical Interest
- Riverside County Historical Landmark
- Locally Recognized Significant Historical Resources
- Local Historic Homes of Interest

Prepared by MIG, October 2023.
Source: National Park Service, 2023, California Office of Historic Preservation, 2023, Lake Elsinore Historical Society, 2023, Downtown Elsinore Specific Plan, 2018

0 ¼ ½ 1 1½ 2 Miles

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DEMOGRAPHICS

Population

According to the 2020 U.S Census, Lake Elsinore's population was 70,244; this represents a 24% growth in ten years as shown in Table DE-1. Lake Elsinore's population growth outpaced Riverside County's growth rate of 8%. The Southern California Association of Governments (SCAG) estimates that the City's population will continue to grow rapidly and at a faster rate than Riverside County over the next 25 years.[1]

Figure DE-1 shows that areas with high population density (800 residents or greater per square mile) occur sporadically throughout the Planning Area and coincides with the development intensity of those areas. The Lake Edge and Lake View Districts contain the highest concentrations of population density. These areas are where a majority of City's multi-family residential uses are located. Areas with the lowest population density occur in the Downtown and Business Districts.

Table DE-1: Historical and Projected Population Growth

	Lake Elsinore	Riverside County
2010	51,821	2,203,332
2020	64,037	2,383,286
2045	111,600	3,252,000

Source: 2021-2029 Housing Element

Table DE-2: Historical and Projected Growth Percent Change

	Lake Elsinore	Riverside County
% Change 2010-2020	24%	8%
% Change 2020-2045	74%	36%

Source: 2021-2029 Housing Element

1 "Adopted 2021 to 2029 Housing Element." Adopted 2021 to 2029 Housing Element, City of Lake Elsinore, www.lake-elsinore.org/466/Adopted-2021-to-2029-Housing-Element. Accessed Dec. 2023.

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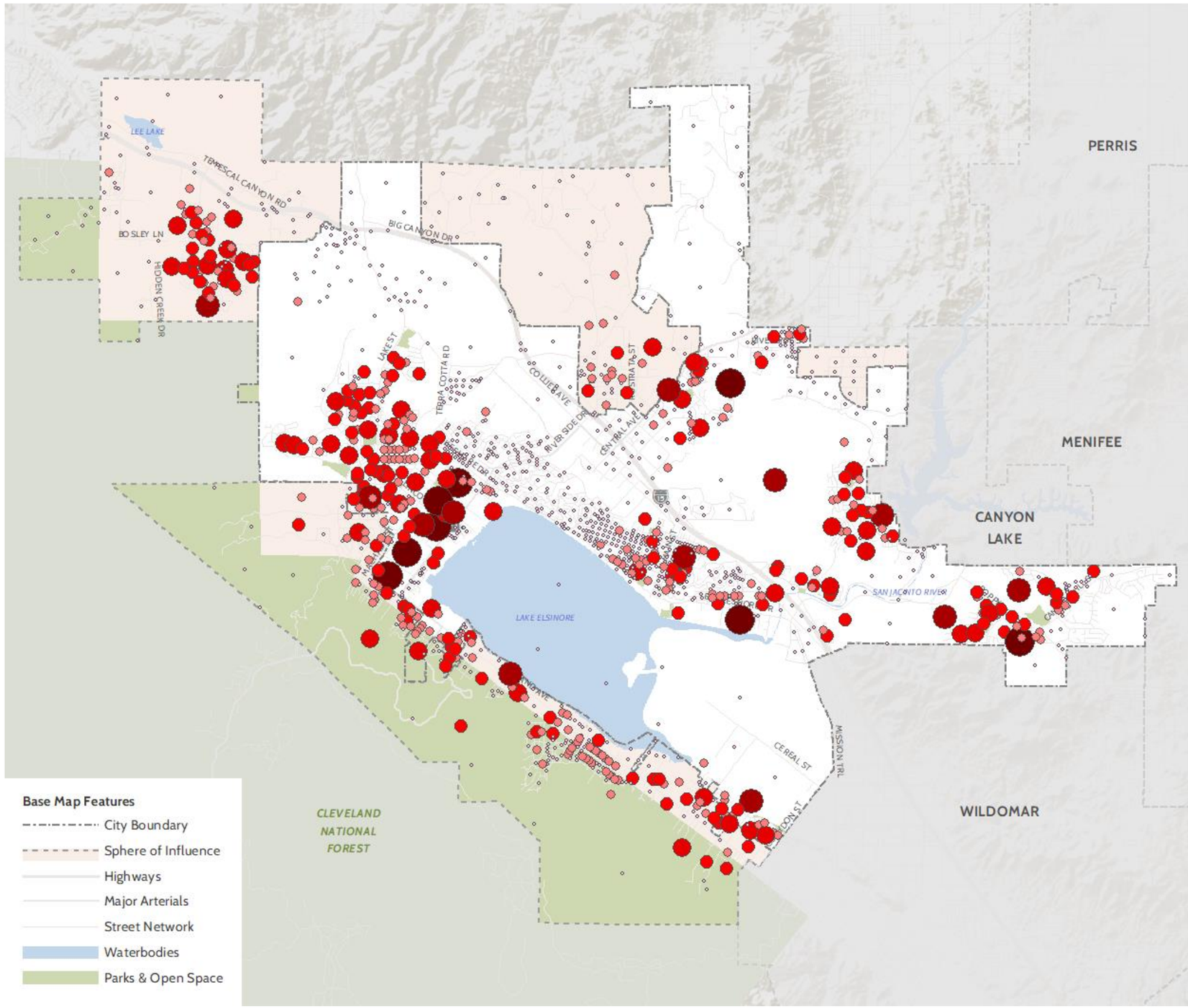


Figure DE-1

POPULATION DENSITY

Population Density (per Census Blocks)

- 0 - 50
- 51 - 100
- 101 - 200
- 201 - 400
- 401 - 800
- 801+

Prepared by MIG, October 2023.
Source: U.S. Census, 2023

Miles
0 ¼ ½ 1 1½ 2

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Age, Ethnicity/Race, Education Attainment

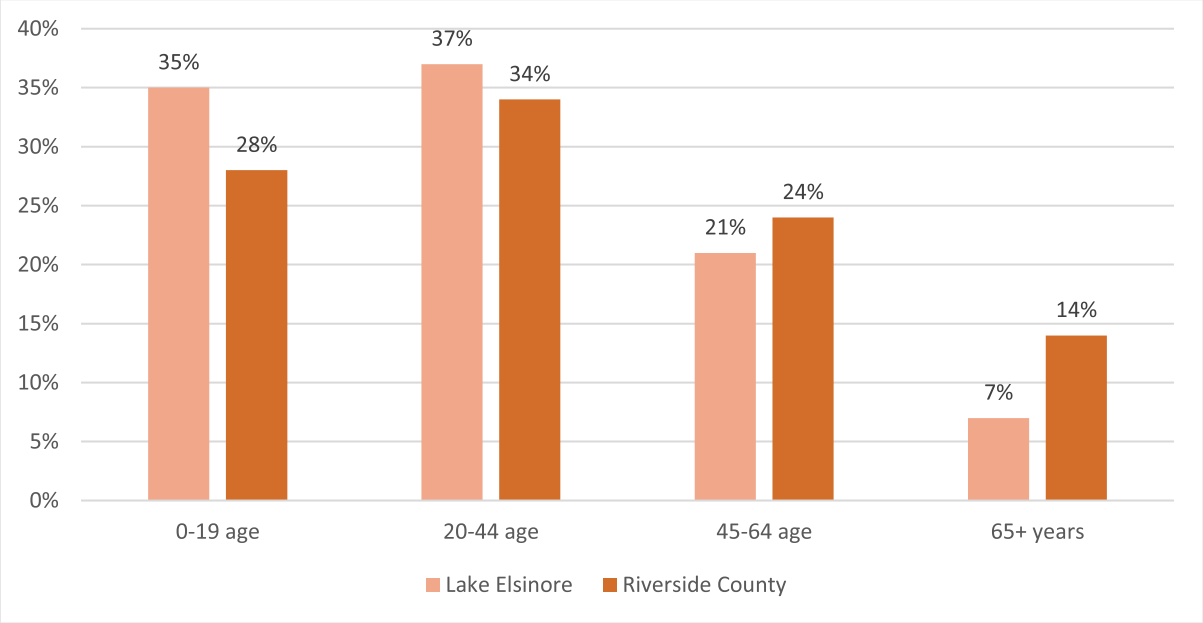
A community's population's age, education, and ethnicity/race help to determine the public services to be provided by a local jurisdiction.

Lake Elsinore's population is considered to be younger; Lake Elsinore's median age is 30 years compared to Riverside County's 35 years (Figure DE-1).

Over half of Lake Elsinore's population self-identified as Hispanic as shown in Figure DE-1. White non-Hispanic compromise one-third of Lake Elsinore's population. Compared with the County of Riverside, the City has a higher percentage of Hispanic residents and a lower percentage of white, non-Hispanic residents.

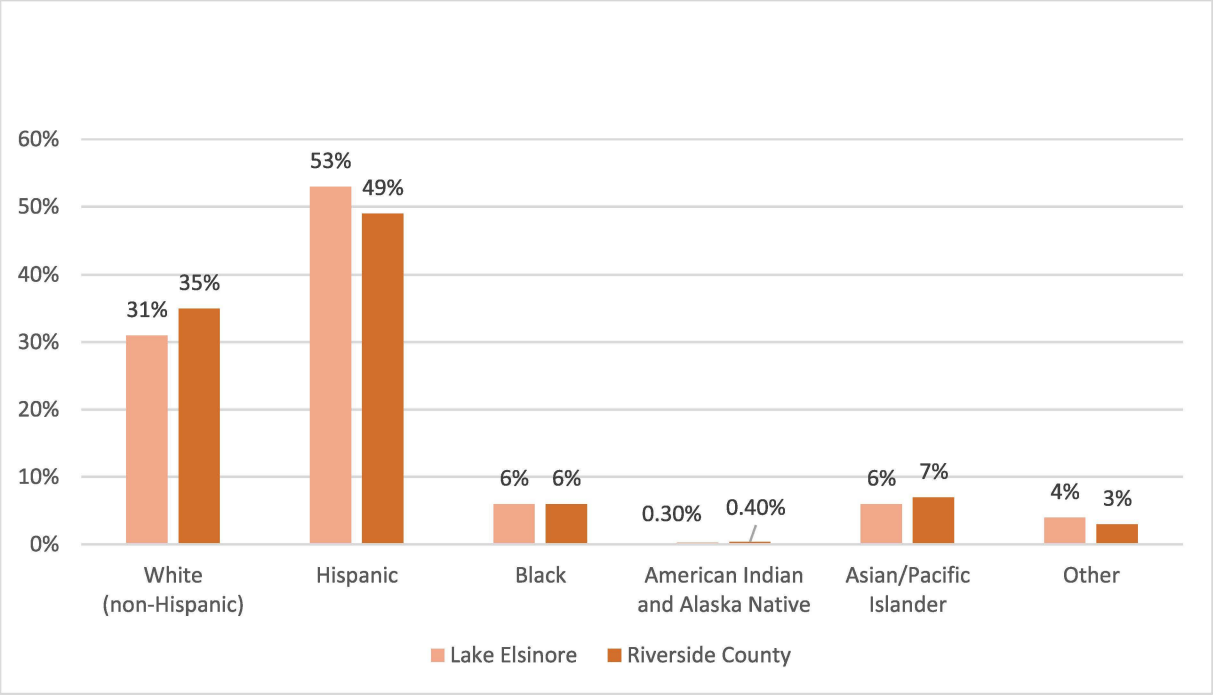
Eighty-four percent of Lake Elsinore's population are high school graduates; while 22% have college degrees. The education level is consistent with the County's overall population (83% high school graduates, 24% college graduates).

Figure DE-2: Population Age



Source: 2021-2029 Housing Element

Figure DE-3: Race and Ethnicity



Source: "2021 to 2029 Housing Element."

Population Income and Disability

According to the US Census Bureau's 2019 ACS 5-year estimates, the Lake Elsinore median household income was $71,476, nearly seven percent higher than the County of Riverside's median household income of $67,005 as shown in Table DE-3.

Household income determines a household's ability to balance housing costs with other necessities. Income levels can vary considerably among households, affecting preferences on housing type and location, as well as needs and preferences related to transportation and social services.

Table DE-3: Median Household Income

Place	Income
Lake Elsinore	$71,476
Riverside County	$67,005

Source: 2019 ACS 5 Year Estimate

Census data report that 16 percent of Lake Elsinore residents live in poverty, as defined by federal guidelines. Neighborhoods around the lake and in the North Peak District have higher levels of poverty as shown on Figure DE-4. The poverty rate is slightly higher than the County's 14 percent. The proportion of households living in poverty is much higher for Black or Hispanic residents, of which 25 percent and 20 percent live in poverty, respectively. Additionally, 21 percent of disabled residents and 30 percent of female-headed households live in poverty.

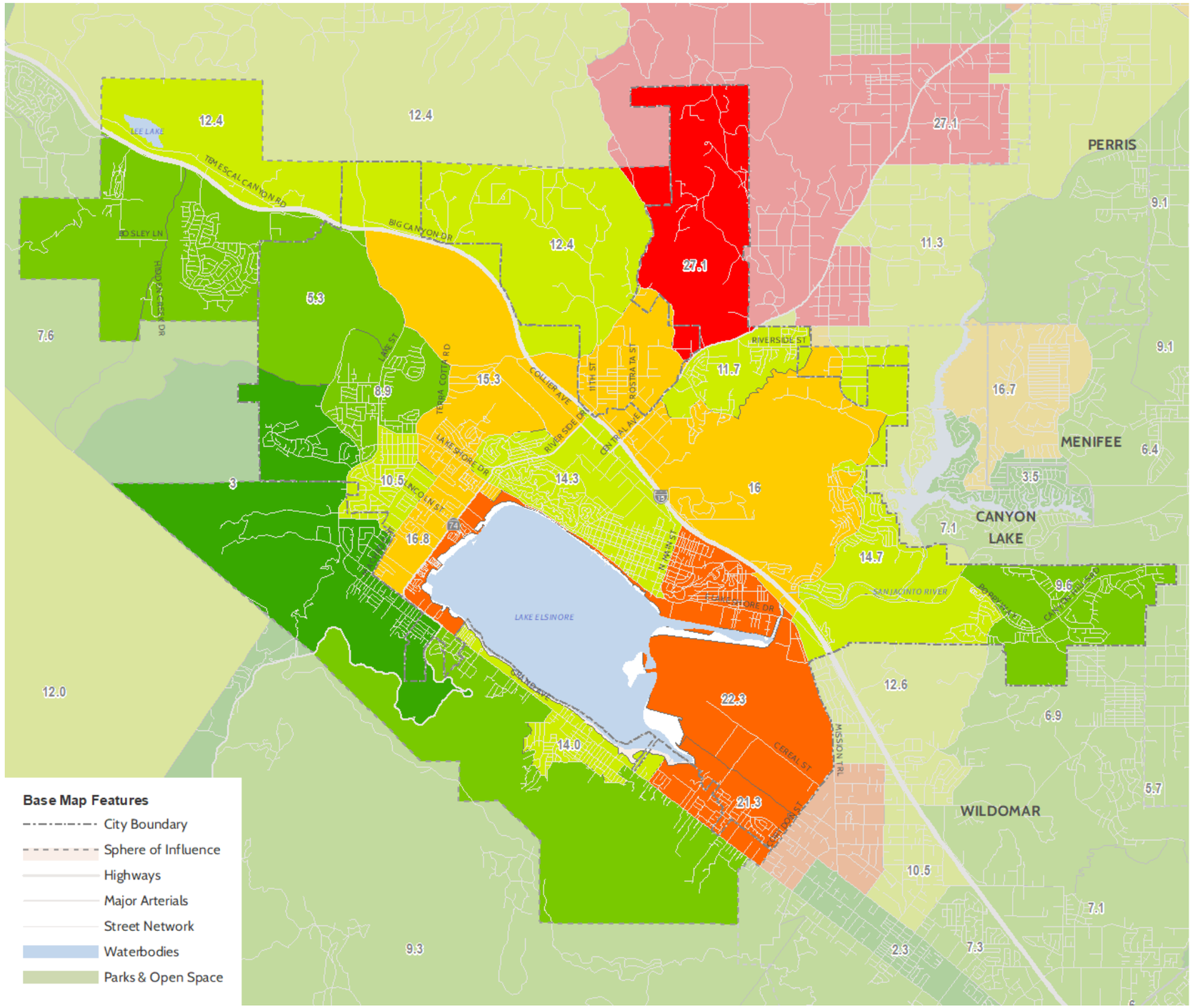


Figure DE-4

POVERTY STATUS

Poverty Status (2021) - Census Tract

- 1.1% - 5%
- 5.1% - 10%
- 10.1% - 15%
- 15.1% - 20%
- 20.1% - 25%
- 25.1% +

Percent of Population whose income in the past 12 months is below poverty level

Prepared by MIG, October 2023.
Source: U.S. Census, American Community Survey. 2021.

Miles
0 ¼ ½ 1 1½ 2

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Key Considerations

- Lake Elsinore's population is younger than the County as a whole. This infers that local services like library/education, daycare/afterschool, and recreation programs will be important during this life of this General Plan.
- Lake Elsinore's population is expected to grow significantly and rapidly over the next 20 years. This influx of population is likely to increase demand for housing and related public services.

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Public Services and Utilities

City Public Facilities and Services

CITY HALL

Lake Elsinore's City Hall is located in the historic downtown district at 130 South Main Street. All City departments, except the Public Works department, are in City Hall. The Public Works Department (Corporate Yard) is located at 521 North Langstaff Street. Figure PS-1 shows the location of Lake Elsinore City Hall and other key community facilities.

LIBRARY SERVICES

Libraries services are provided by the Riverside County Library System (RCLS). Lake Elsinore has two branch libraries located within City limits. The Lake Elsinore branch, located in Lake Elsinore's historic downtown at 600 West Graham Avenue, has a reservable community meeting room and offers a variety of services such as tutoring, skill share classes, and literacy programs. The Lakeside branch is a part of Lakeside High School located at 32593 Riverside Drive. The City of Lake Elsinore library facilities contain a total of 17,500 square feet of library space with approximately 66,686 volumes of material. A total of 12 people are employed by the City of Lake Elsinore library facilities.[1]

LAKE SERVICES

Lake Elsinore has more than 3,000 surface acres of water and 14 miles of shoreline and the City maintains public beaches and facilities for the public to access the lake. There are two boat launches, two city-operated campgrounds, and a public beach.

SENIOR ACTIVITY CENTER

Lake Elsinore's Senior Activity Center, 420 East Lakeside Drive, offers social, recreational, educational programs, and other services such as health screenings, cool/warm center, and income tax services.

FIRE AND EMERGENCY MEDICAL SERVICES

The Riverside County Fire Department (RCFD) and the State of California Department of Forestry and Fire Protection (CAL FIRE) provide Lake Elsinore with fire prevention, suppression, and emergency medical services. The RCFD operates 93 fire stations in 15 battalions, providing fire suppression, emergency medical, rescue, and fire prevention services. Equipment used by the Department can respond to both urban and wildland emergency conditions. Battalion 2 in the Southwest Division of

[1] "Nichols Ranch Specific Plan (PA 2017-29) - Approved June 11, 2019." Nichols Ranch Specific Plan (PA 2017-29) - Approved June 11, 2019, | Lake Elsinore, CA, City of Lake Elsinore, www.lake-elsinore.org/398/Nichols-Ranch-Specific-Plan-PA-2017-29--. Accessed 7 Dec. 2023.

RCFD services the City of Lake Elsinore. Below is a summary of RCFD assets and equipment in and around Lake Elsinore.[2]

The following stations are located within city limits:

Lake Elsinore Fire Stations

Station	Location	Equipment	Staff
Fire Station No. 10 (Elsinore)	410 W Graham Ave	1 Medic Squad	3 staff assigned daily
Fire Station No. 94 (Canyon Hills)	21775 Railroad Canyon Rd	1 Fire Engine	3 staff assigned daily
Fire Station No. 85 (McVicker Park)	29405 Grand Ave	1 Fire Engine	3 staff assigned daily
Fire Station No. 97 (Rosetta Canyon)	41725 Rosetta Canyon Dr	1 Quint Ladder Truck	4 staff assigned daily, 1 Fire Battalion Chief

The following stations, located outside city limits, provide additional fire protection services to the City of Lake Elsinore, on as needed basis:

- Quail Valley Station No. 5
- Lakeland Village Station No. 11.
- El Cariso Station No. 51.
- Canyon Lake Station No. 1
- Wildomar Station No. 61.
- Sycamore Canyon Station No. 64
- Menifee Station No. 68
- Good Meadow Station No. 9

The City of Lake Elsinore Fire Plan contains four fire response categories (Urban, Suburban, Rural, and Outlying) that are used to determine the response times/travel distances for primary and secondary fire stations. The response categories are based on the amount of community build-out presumed in the Master Fire Plan. The Fire Department assumes in any given region that one or six fire engines respond depending on fire call type. Below are the average response times for the Lake Elsinore stations:

- 2021: 5.1 Minutes
- 2022: 4.9 Minutes
- 2023 (10/31/23): 4.7 minutes

Furthermore, a majority of the Lake Elsinore residential areas are within a 1- to 3-mile drive time from a fire station, as shown in Figure PS-2. Response times standards are measured using roadway miles per hour not length of miles traveled.

[2] Communications with Division Chief Lonny Olson, Riverside County Fire Department, November 2023.

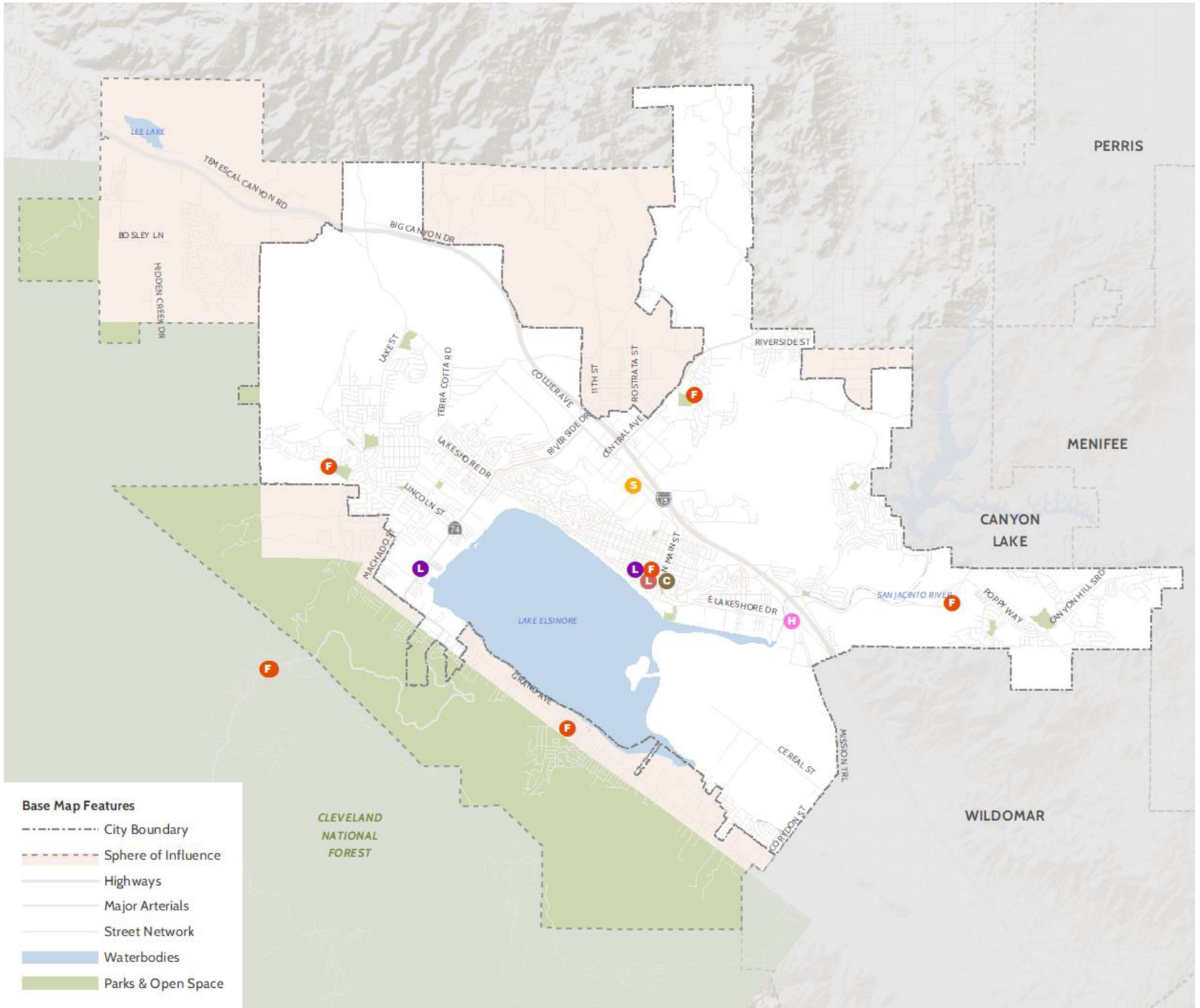


Figure PS-1
COMMUNITY FACILITIES

Community Facilities

- City Hall
- Library
- Fire Station
- Lake Elsinore Police Department
- Riverside County Public Social Services
- Community Health Agency

Prepared by MIG, October 2023.
Source: County of Riverside and California Department of Education 2023.

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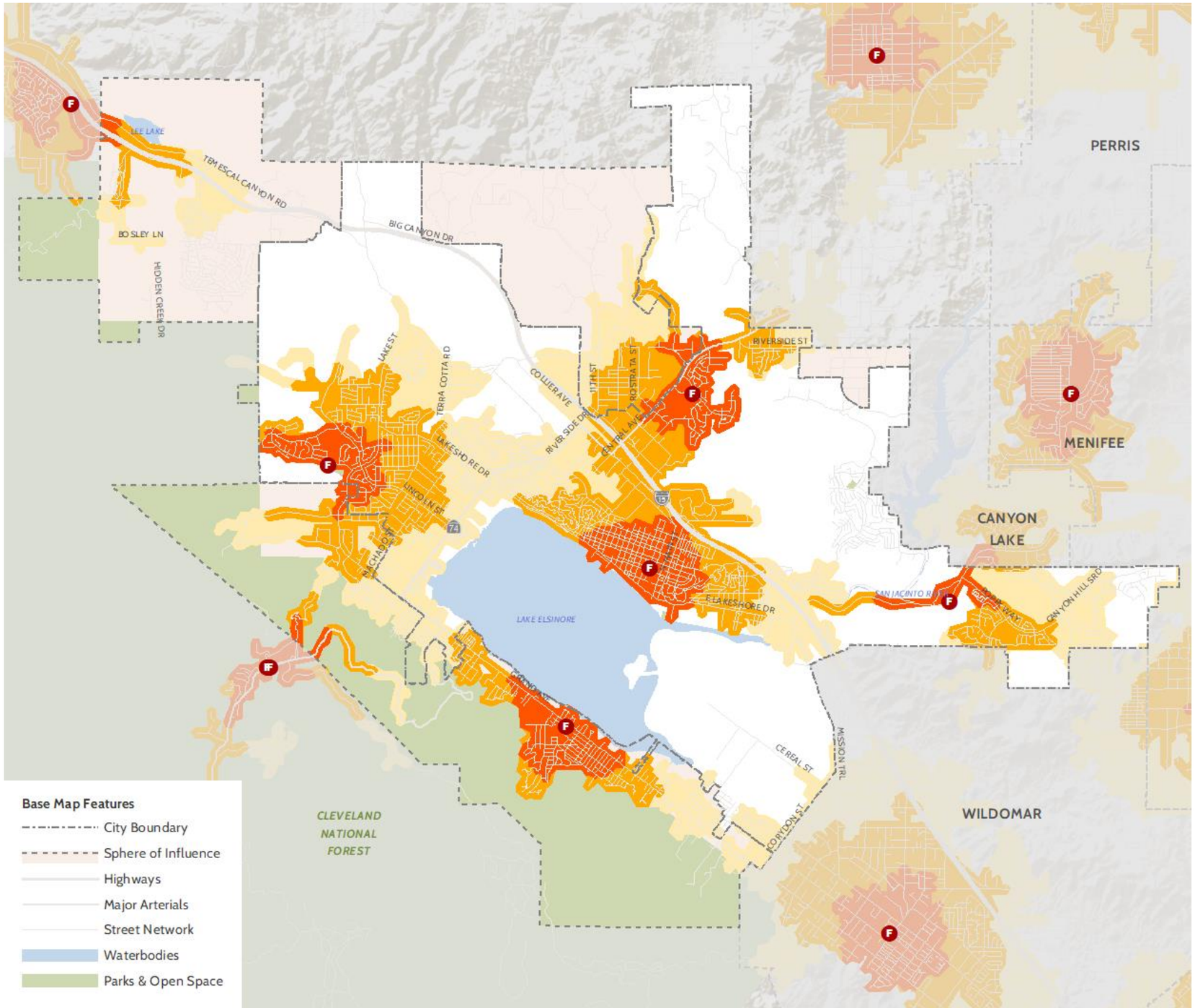


Figure PS-2

FIRE STATION ACCESS

Fire Stations

Fire Station

Estimated Fire Station Driving Distance

1-Mile Drive Time (4,840 feet)

2-Mile Drive Time (9,680 feet)

3-Mile Drive Time (14,520 feet)

Drive time assumes a constant 55-mile per drive speed. Does not take into account impediments that may slow down a vehicle, such as other vehilces, traffic congestion, and crossing at intersections.

Prepared by MIG, October 2023.
Source: MIG, 2023.

0 ¼ ½ 1 1½ 2 Miles

LAW ENFORCEMENT

Local law enforcement services, provided by Riverside County Sheriff's Department, are located at 333 Limited Avenue. The Lake Elsinore Sheriff's Station serves an area of 241 square miles, including the City of Lake Elsinore, City of Wildomar, and the unincorporated communities of Alberhill, El Cariso, Glen Eden Hot Springs, Glen Ivy Hot Springs, Good Hope, Lakeland Village, Quail Valley, and Sedco Hills. The City of Lake Elsinore has set a minimum standard of 0.85 officers per 1,000 residents. The Sheriff Department indicates that its desired staffing level is 1.0 officer per 1,000 residents.[3] Below are average response times from the Lake Elsinore Sheriff station for 2023 (November 2023).[4]

Priority Level	Avg Response Time
Priority 1	7.25 minutes
Priority 2	18.55 minutes
Priority 3	34.44 minutes
Priority 4	46.96 minutes

SCHOOLS AND EDUCATIONAL FACILITIES

Lake Elsinore Unified School District (LEUSD)

Lake Elsinore Unified School District operates 12 elementary schools, four middle schools, three comprehensive high schools, two K-through-8 schools, and four alternative education schools. LEUSD boundaries stretch over 144 square miles through Southwest Riverside County, serving families in Lake Elsinore, Canyon Lake, and Wildomar, and several unincorporated Riverside County communities, including Lakeland Village and Horsethief Canyon. Below is a description of each LEUSD campus and their capacities in Figure PS-2. Schools outside of Lake Elsinore's city limits and SOI are excluded. All but two schools within LEUSD operate below capacity. However, Elsinore Middle School and Keith McCarthy Academy's (high school) 2021-2022 enrollment exceed capacity.[5]

Private schools and daycare centers also serve Lake Elsinore and surrounding communities. Expectations Academy is a private K-12th grade private school and Stepping Stones Preschool is also located within the city limits.

[3] "Nichols Ranch Specific Plan (PA 2017-29) - Approved June 11, 2019." Nichols Ranch Specific Plan (PA 2017-29) - Approved June 11, 2019, | Lake Elsinore, CA, City of Lake Elsinore, www.lake-elsinore.org/398/Nichols-Ranch-Specific-Plan-PA-2017-29--. Accessed 7 Dec. 2023.

[4] Communications with Lt. David Clark, Riverside County Sheriff's Department, December 2023.

[5] Lake Elsinore Unified School District 2023 Master Plan, LEUSD, November 2023.

Table PS-1: Lake Elsinore Unified School District Campuses

Facility Name	Location	Enrollment (2021-2022)	Capacity
Within City Limits			
Elementary Schools			
Alberhill	4170 Brianna Cir, Lake Elsinore, CA 92530	379	427
Cottonwood Canyon	32100 Lost Rd, Lake Elsinore, CA 92532	801	1,025
Earl Warren	41221 Rosetta Canyon Dr, Lake Elsinore, CA 92532	835	902
Elsinore	512 W Sumner Ave, Lake Elsinore, CA 92530	505	788
Machado	15150 Joy St, Lake Elsinore, CA 92530	594	1,138
Railroad Canyon	1300 Mill St, Lake Elsinore, CA 92530	778	801
Rice Canyon	29535 Westwind Dr, Lake Elsinore, CA 92530	614	913
Tuscany Hills	23 Ponte Russo, Lake Elsinore, CA 92532	656	802
Withrow	30100 Audelo St, Lake Elsinore, CA 92530	660	851
Middle Schools			
Canyon Lake	33005 Canyon Hills Rd, Lake Elsinore, CA 92532	923	1,227
Elsinore	1203 W Graham Ave, Lake Elsinore, CA 92530	905	890
Terra Cotta	29291 Lake St, Lake Elsinore, CA 92530	1,059	1,416
High Schools			
Keith McCarthy Academy	1405 Education Way, Lake Elsinore, CA 92530	658	486
Lakeside	32593 Riverside Dr, Lake Elsinore, CA 92530	1,670	2,523
Ortega	520 Chaney St, Lake Elsinore, CA 92530	409	593
Temescal Canyon	28755 El Toro Rd, Lake Elsinore, CA 92532	2,023	2,346
Sphere of Influence (SOI)			
K-8 School Campuses			
Lakeland Village	18730 Grand Ave, Lake Elsinore, CA 92530	873	1,231

Source: Lake Elsinore Unified School District 2023 Master Plan, LEUSD, November 2023.

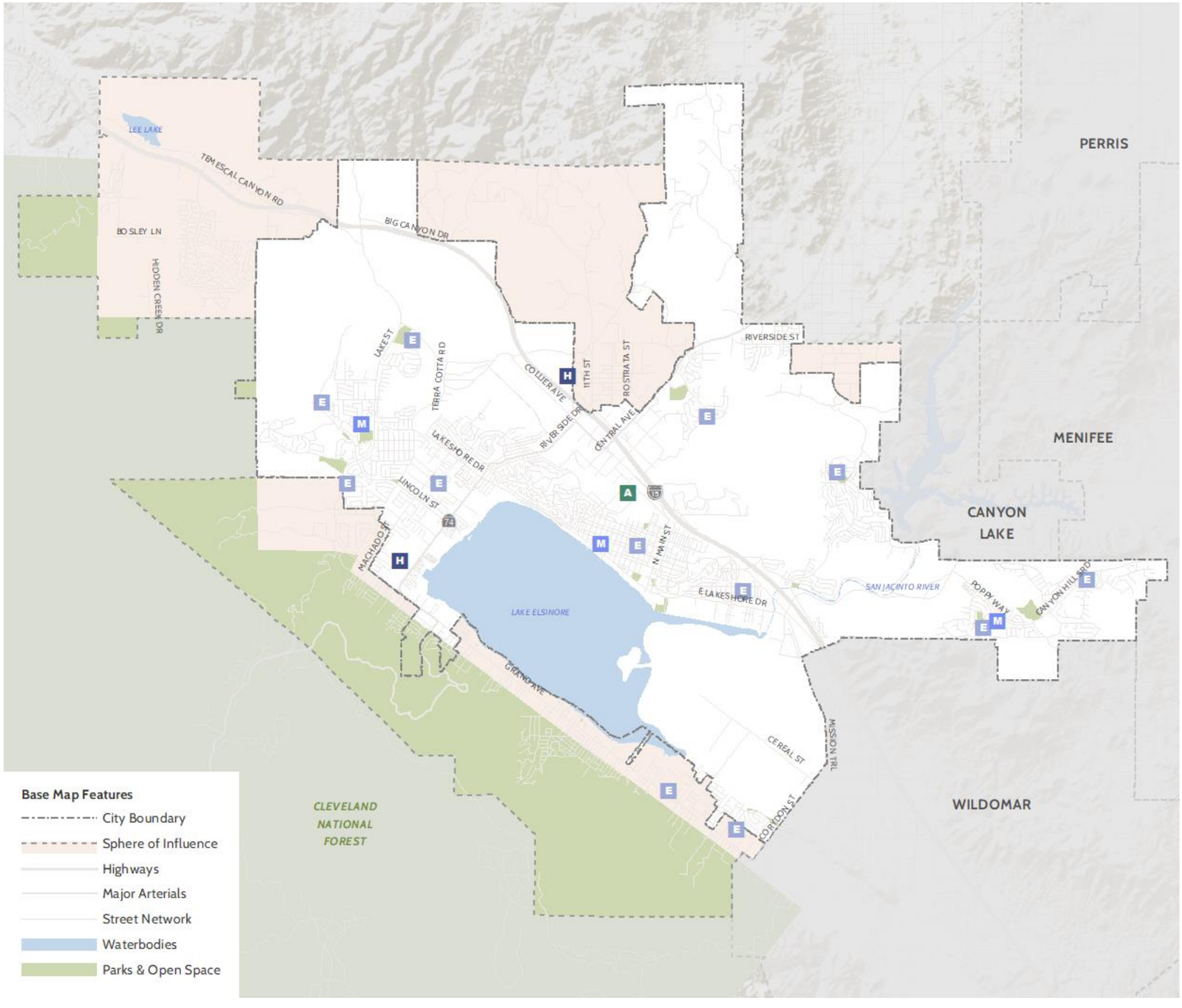


Figure PS-3

SCHOOLS AND EDUCATIONAL FACILITIES

Public Schools

- E Elementary
- M Middle
- H High
- A Alternative Schools of Choice

Prepared by MIG, October 2023.
Source: County of Riverside and California Department of Education 2023.

0 ¼ ½ 1 1½ 2 Miles

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Key Considerations

- Currently, the City funds a total of 33 fire suppression personnel and 3 fire marshal staff. If the city were fully built out, it would require a total of 72 fire suppression personnel and 8 fire marshal staff. To cover future services gaps the City will need to add fire facilities in the northwest, northeast and southeast areas of the City.[6]
- Most LEUSD schools operate below their enrollment capacity except Elsinore Middle School and Keith McCarthy Academy. The District forecasts that TK-12 enrollment is expected to slightly increase by 2025[7]. Additional facilities or expansions may be needed to meet this growing demand.

Water

Elsinore Valley Municipal Water District (EVMWD) provides water, wastewater, and reclaimed water services to the Elsinore and Temescal divisions, which encompass an area of 96 square miles, including the City of Lake Elsinore, and the cities of Canyon Lake and Wildomar, as well as portions of the City of Murrieta and unincorporated areas of Riverside County. EVMWD water system is primarily divided into two divisions, the Elsinore Division, and the Temescal Domestic Service Area (TDSA). The water system currently includes 41 pressure zones. Within these zones, there are approximately 3,618,000 feet (685 miles) of pipelines ranging in diameter from 4 inches to 42 inches, 73 storage reservoirs with an approximate total storage capacity of 93 million gallons (MG), and 54 booster pump stations.

EVMWD obtains its potable water supplies from local groundwater from the Elsinore Basin, local surface water from Canyon Lake, and imported water from Metropolitan Water District (MWD). Approximately 24% of the division water supply comes from local groundwater. Water demands for future scenarios are determined based on water duty factors (WDF), specific plans, and future projected growth. EVMWD provides collection system services to a population of approximately 74,000 in the City of Lake Elsinore alone. Table PS-2 summarizes the population and project water demands projection for the City of Lake Elsinore.

Table PS-2 Population and Project Water Demands Projection for the City of Lake Elsinore

Year	Population	Average Annual (mgd)
2023	74,000	33.1
2025	78,500	34.6
2030	86,200	38.6
2035	93,100	42.3
2040	100,500	46.2

[6] Communications with Division Chief Lonny Olson, Riverside County Fire Department, November 2023.

[7] Lake Elsinore Unified School District 2023 Master Plan, LEUSD, November 2023.

EXISTING POTABLE WATER SYSTEM

The existing water system in the City of Lake Elsinore consists of 29 active storage reservoirs, 21 pump stations, 8 groundwater wells, and approximately 320 miles of pipeline. The water system is shown on Figure PS-4.

GROUNDWATER WELLS

There are 8 EVMWD operating production wells within the City of Lake Elsinore. In the Elsinore Division, the total capacity of active wells is 12,300 gallons per minute (gpm).

WATER PUMP STATIONS

EVMWD operates 49 booster pumping stations, and a total of 142 pumps, not including well pumps. 21 pumps stations are located within the City of Lake Elsinore. Each booster pump station has between two to four pumps, and the pumps vary in size from 7.5 horsepower (hp) to 250 hp. The individual booster pump capacities vary from about 35 gpm to 5,510 gpm (0.05 million gallons per day (MGD) to 7.9 MGD). These booster pumping stations either transfer water between zones or pump water from the Auld Valley Pipeline connections. The total capacity of all booster stations is approximately 132,400 gpm (190.6MGD) with a total firm capacity of approximately 89,700 gpm (129.2 MGD).

WATER STORAGE RESERVOIRS

There are 25 active storage reservoirs in the City of Lake Elsinore. The storage reservoir's capacity ranges from 0.05 MG to 8 MG, with a total reservoir capacity of approximately 52 MG.

DISTRIBUTION NETWORK SYSTEM

EVMWD's distribution system network consists of approximately 685 miles of pipeline, which range in diameter from 4 inches to 42 inches. There are approximately 320 miles of pipeline within the City of Lake Elsinore.

FUTURE SYSTEM IMPROVEMENTS

The following improvements list aims to address existing system deficiencies and meet future growth. EVMWD capital improvements projects within the City of Lake Elsinore are recommended according to system needs. A summary of the recommended improvements is shown Table PS-3 through Table PS-5.

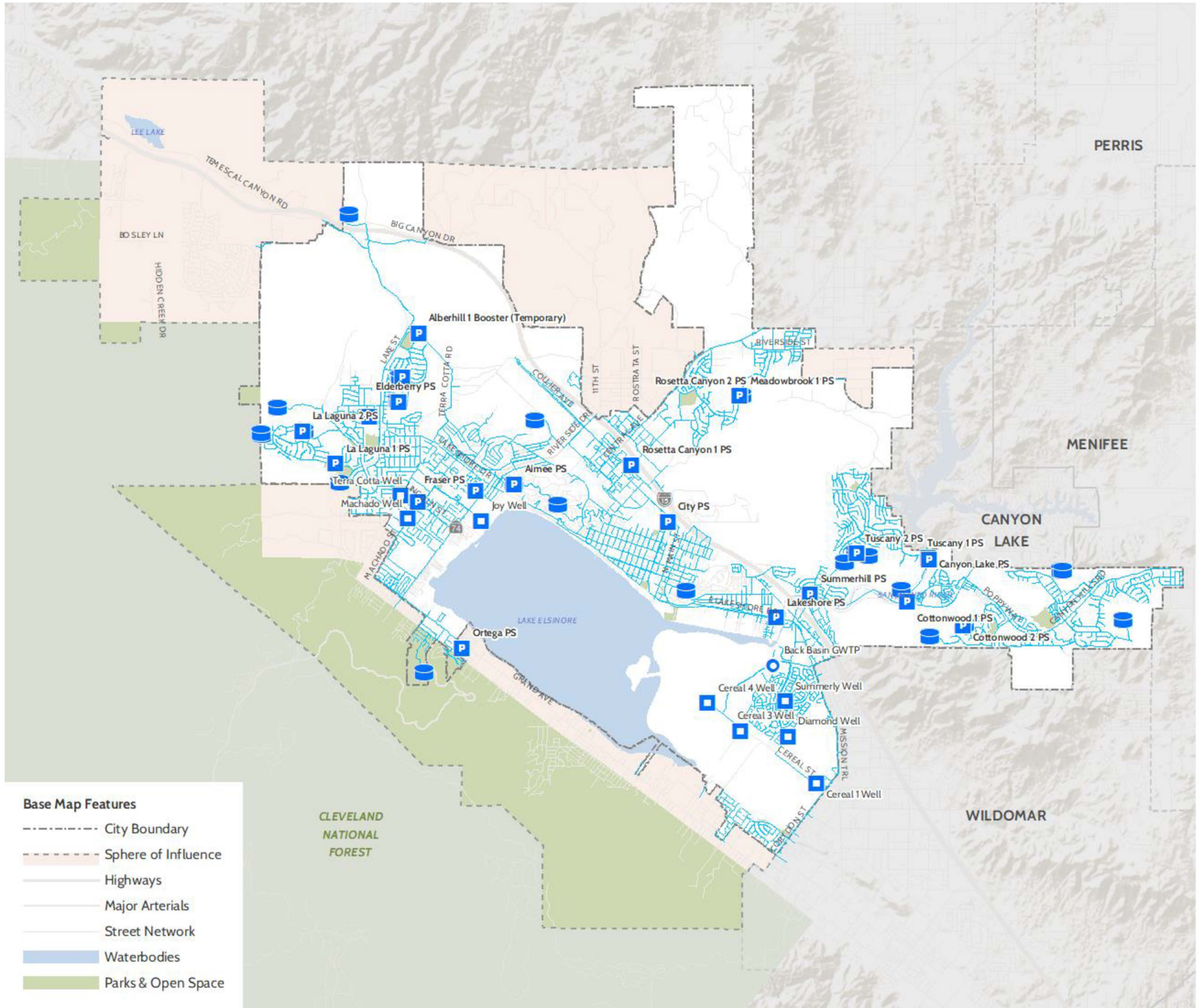


Figure PS-4

WATER SYSTEM

Existing Water Facilities

- EVMWD Water Pressure Main
- EVMWD Water Pump Station
- EVMWD Water Reservoir
- EVMWD Water Treatment Plant
- EVMWD Water Well

Prepared by MIG, October 2023.
Source: County of Riverside, 2023, City of Lake Elsinore, 2023, EVMWD, 2023.

0 ¼ ½ 1 1½ 2 Miles

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Table PS-3 Future Improvements: Transmission and Distribution Pipelines (2023 Dollars)

Project Name	Dia (in)	Length (ft)	Cost[1]	CIP Term
1434 Zone Transmission in Alberhill Villages (Deficient Pipeline)	24	5,400	$5,715,000	2025-2030
1434 Zone Transmission from Baker/Nichols to Nichols/Collier	24	1,714	$1,814,000	2025-2030
1601 Zone Transmission in Alberhill Villages	16/30	4,482/10,562	$16,846,000	2025-2030
1601 Transmission from Alberhill PS to Nichols/Terra Cotta (Future Growth)	16	3,200	$2,527,000	2025-2030
1901 Ortega Transmission	8/16	1,673	$1,102,000	2035-2040
Zone 1601 pipelines on Stoddard Street to Lash Avenue	8	395	$100,800	2035-2040
Zone Alberhill 1601 pipeline on Jernigan Street and Lakeshore Drive	8	382	$92,264	2035-2040
Zone 1801 pipeline from Rosetta Canyon 2 Reservoir to Rosetta Canyon 2 PS along Wasson Canyon Road	16	2,739	$1,380,292	2035-2040
Zone 1601 pipeline from Terra Cotta Road to El Toro Reservoir along Nichols Road	20	7,971	$5,021,646	2035-2040

Table PS-4 Future Improvements: Booster Pump Stations (2023 Dollars)

Name	Horsepower (hp)	Capacity (gpm)	Cost[1]
Rosetta Canyon 1 PS Upgrade	250	1,300	$504,000
Rosetta Canyon 2 PS Upgrade	150	1,300	$403,000
Cottonwood PS Upgrade	200	1,000	$403,000
Rice Canyon PS Upgrade	75	1,300	$403,000
Alberhill PS Upgrade	-	3,000	$8,400,000
Ortega PS Upgrade	-	1,700	$2,520,000

Table PS-5 Future Improvements: Storage Reservoirs Tanks (2023 Dollars)

Name	Capacity (MG)	Cost[1]
1601 Rosetta Canyon 1 Additional Tank	0.7	$3,175,000
1571 City Tank Replacement (Existing Capacity 1.73 MG)	4.2	$11,995,000
1622 Canyon Lake Additional Tank	2.0	$8,064,000
1676 Alberhill Zone New Tank	1.0	$4,536,000
1800 Rice Canyon/Alberhill 2 New Tank	1.7	$6,854,000
1801 North Tuscany Hills New Tank	0.5	$9,173,000
1896 Meadowbrook 2 Additional Tank	1.3	$5,242,000
1901 Ortega Zone New Tank	0.5	$2,520,000

Several wells within Lake Elsinore have well pumps past their 20 years of useful life period and should be considered for replacement. The cost of the well pump replacements due to aging infrastructure is shown in Table PS-6.

Table PS-6 Future Improvements: Wells (2023 Dollars)

Project Name	Number	Total Cost Estimate [1]	CIP Phasing Term
PWRR-W1 Cereal No. 1 Well	2	$1,024,000	2023-2025
PWRR-W2 Cereal No. 3 Well	2	$1,024,000	2023-2025
PWRR-W3 Cereal No. 4 Well	2	$1,024,000	2023-2025
PWRR-W6 Joy Street Well	2	$1,024,000	2023-2025
PWRR-W9 Machado Street Well	2	$1,024,000	2023-2025
PWRR-W13 Terra Cotta Well	1	$512,000	2040-2045

RECYCLED WATER

EVMWD's existing recycled water demands are supplied by tertiary-treated wastewater from the Regional Water Reclamation Facility (WRF), Railroad Canyon WRF, and Horsethief WRF. In the effort to minimize the need for imported water, EVMWD plans to expand its recycled water system to provide recycled water for irrigation users and to maintain water levels in Lake Elsinore during normal and dry years. Recycled water is used to irrigate parks, street medians, golf courses, and wildlife habitat and provide lake stabilization. It is the goal of EVMWD to build additional lines and expand recycled water services in order to free up water for additional residential uses. The recycled water facilities are shown in Figure PS-5.

The Railroad Canyon WRF has a total design capacity of 1.3 mgd. There are existing storage opportunities for the Railroad Canyon Service Area within the City of Lake Elsinore; Canyon Hills Recycled Tank A and B.

The Regional WRF discharges an effluent of approximately 5.5 mgd to Lake Elsinore. During periods when Lake Elsinore levels are high, all Regional WRF effluent is discharged to Temescal Creek. As population and water demands continue to increase within the City of Lake Elsinore influent flows will increase to the Regional WRF. EVMWD completed an Integrated Resources Plan (IRP) feasibility study that will help increase water supply reliability to reuse recycled water.

The Railroad Canyon Water Reclamation Facility system does not have any plans for expansion, and there is no additional water available for new recycled water customers. While there is a possibility of a slight increase in future demands, the system has adequate capacity to accommodate it, and no capacity-based or growth-related CIP projects are recommended for this system. However, the pumps at the Canyon Lake Golf Course pump station and the Cottonwood Hills pump station have exceeded their useful life and require replacement. The five pumps will be replaced in the 2023-2025 cycle, and then again in the 2040-2045 cycle, as they reach the end of their useful life 20 years from installation. The cost of this pump replacement project due to aging infrastructure is $880,000, as shown in Table PS-7.

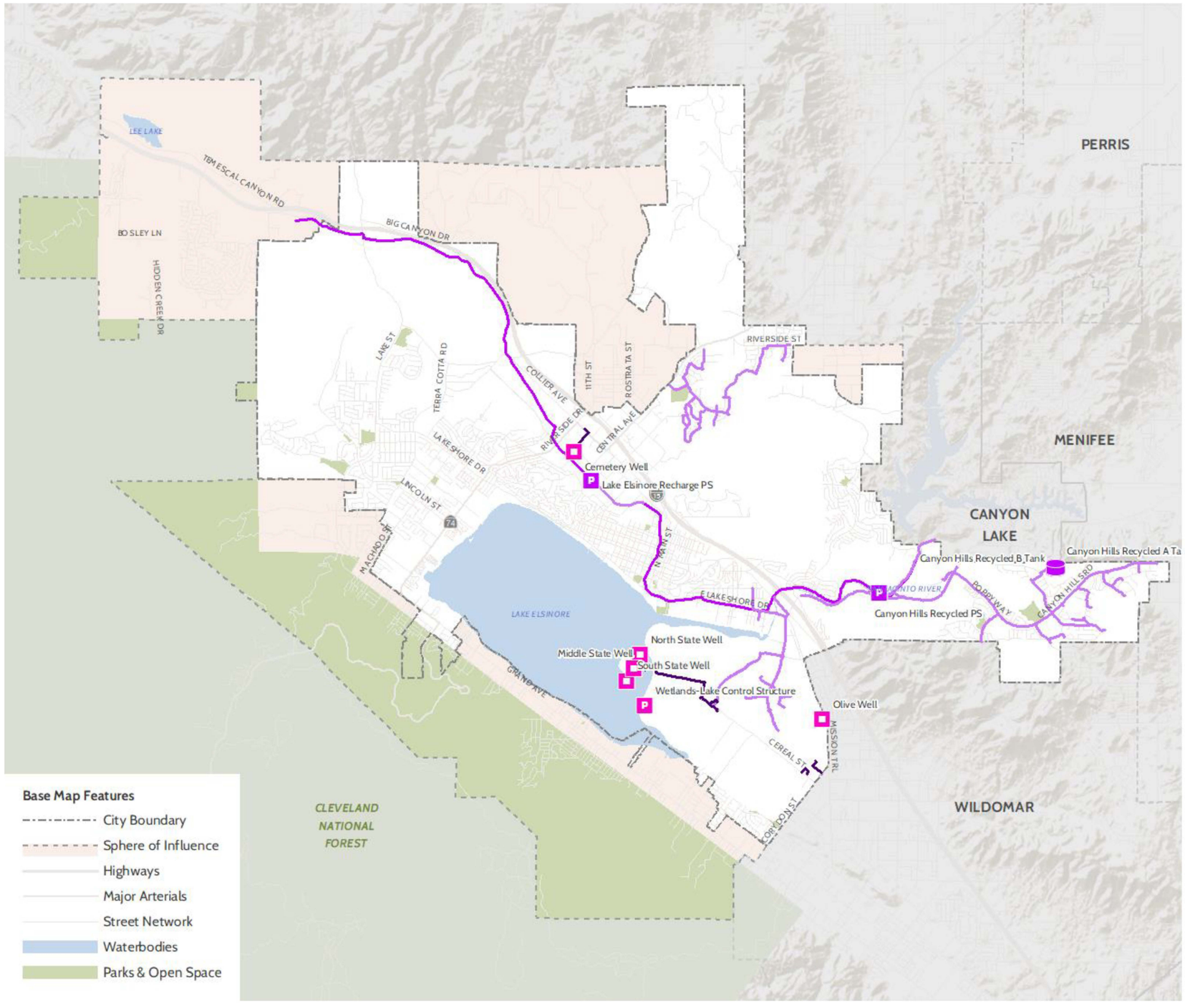


Figure PS-5

RECYCLED WATER FACILITIES

Existing Recycled Water Facilities

- EVMWD Non-Potable Water Pressure Main
- EVMWD Recycled Water Pressure Main
- EVMWD Irrigation Main
- EVMWD Non-Potable Pump Station
- EVMWD Non-Potable Well
- EVMWD Recycled Water Pump Station
- EVMWD Recycled Water Reservoir

Prepared by MIG, October 2023.
Source: County of Riverside, 2023, City of Lake Elsinore, 2023, EVMWD, 2023.

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Table PS-7 Future Improvements: Pump Replacement Costs (2023 Dollars)

Name	Number of Pumps	Cost	Replacement Year
Cottonwood Hills Pump Station	3	$300,000	2023-2025
Canyon Lake Golf Course Pump Station	2	$140,000	2023-2025
Cottonwood Hills Pump Station	3	$300,00	2040-2045
Canyon Lake Golf Course Pump Station	2	$140,000	2040-2045
Total Cost		**$880,000**	

The recommended projects to address existing systems deficiencies and provide facilities necessary to meet recycled water demands are shown in Table PS-8.

The Railroad Canyon Water Reclamation Facility - Chlorine Contact Basin Covering

The Railroad Canyon Water Reclamation Facility (RRCWRF) is a scalping plant that treats wastewater flows from the Canyon Lake and Canyon Hills areas. Wastewater flows that cannot be treated at the plant along with all waste activated sludge (WAS) generated at the plant are conveyed to the Regional Water Reclamation Facility for treatment. Sunlight, specifically ultraviolet (UV) radiation, degrades chlorine residuals in uncovered chlorine contact basins. A permanent cover is proposed to prevent degradation and to protect the Chlorine Contact Basin from UV. This Project involves the installation of a permanent retractable cover for the Chlorine Contact Basin to replace the existing temporary cover. The District funded $500,000 in FY 2022, bringing total Project funding to $1,150,000.

Regional WRF IPR in Back Basin

The IPR project, which involves the construction of five new injection wells and an Advanced Water Purification Facility (AWPF), will be completed in two phases. The first phase will include the construction of three injection wells in 2030-2035, and the second phase will involve the construction of two more injection wells in 2036. The phasing of the project is based on the Indirect Portable Reuse Feasibility Study conducted by EVMWD in 2017. The phasing of the new pump projects is determined based on the age of the pumps and the future growth needs. The pumps in the EVMWD system are beyond their useful life and are recommended for replacement in the 2023-2025 planning period.

The Regional IPR study is included in the 2023 EVMWD Recycled Water System Master Plan.

Table PS-8 Future Improvements: Recycled Water Facilities (2023 Dollars)

Name	Size (MG)	Cost
Railroad Canyon Water Reclamation Facility - Chlorine Contact Basin Permanent Cover	-	$1,150,000
Regional WRF IPR in Back Basin	-	$164,000,000

Sewer

The EVMWD Sewer District provides service for the City of Lake Elsinore, the cities of Canyon Lake and Wildomar, portions of the city of Murrieta, and unincorporated portions of Riverside County. The "backbone" of the system consists of trunk sewers, generally 10 inches in diameter and larger, that convey the collected wastewater to EVMWD's WRFs. EVMWD's existing wastewater collection systems

consist of approximately 358 miles of sewer mains up to 54 inches in diameter, 33 lift stations and three WFRs. Sewer (wastewater) facilities are shown in Figure PS-6.

EVMWD provides collection system services to a population of approximately 74,000 in the City of Lake Elsinore alone.

EVMWD's sewer current service area is delineated into four separate collection systems. The collections systems are Regional, Canyon Lake, Horsethief, and Southern. Wastewater flow generated within the Regional collection system is treated at the District operated Regional WRF. This facility is located near the intersection of Chaney Street and Treleven Avenue and serves the District's customers in the City of Lake Elsinore.

The Regional WRF was constructed in 1985 with a capacity of 2.0 million gallons per day (mgd). The plant was expanded in 1989 to a total capacity of 4.0 mgd (Train A). In 2002, a new 4.0 mgd process train (Train B) was added to the existing 4.0 mgd Train A, expanding the Regional WRF to accommodate an average flow of 8.0 mgd. The disinfection process with chlorine was replaced with an ultraviolet disinfection system designed to treat 8.0 mgd average flow and 16.0 mgd peak flow. Currently the Regional WRF is in design for increasing flows.

GRAVITY MAINS

The Regional collection system contains approximately 203 miles of sewer mains up to 54 inches in diameter, approximately 66 miles of which are 10 inches in diameter and larger.

LIFT STATIONS

The Regional collection system contains 16 lift stations and associated force mains within the limits of the City of Lake Elsinore. These stations range in capacity from 120 gpm to 2,400 gpm. Some lift stations serve small communities while others serve as the main lift station conveying flow into a treatment plan.

WATER RECLAMATION FACILITIES

There are two Water Reclamation Facilities in the City of Lake Elsinore: Lake Elsinore Regional WWRF and Railroad Canyon WWRF.

CAPACITY BASED IMPROVEMENTS

Separate from the age-based analysis, a CIP project list was developed for the EVMWD system using the hydraulic model. As discussed further in the Design Criteria section, a depth over Diameter ratio (d/D) greater than 0.85 at any point during the hydraulic model run for Peak Design Flow would trigger an improvement that is planned for future years. Improvements that are recommended for both capacity and age-based replacement are shown in Table PS-9.

Downtown Sewer Replacement

The existing sewers lines in downtown Lake Elsinore are undersized and over 100 years old. The existing 6-inch sewer lines have significant structural damage and require frequent cleaning and flushing. To avoid sewer blockages and sanitary sewer overflows and reduce operations and maintenance costs, certain sewer lines in this area need to be replaced, repaired, and/or upsized to an 8-inch pipe. The Downtown Sewer Replacement project proposes to replace approximately 3,700

linear feet of aged sewer main. An amount of $300,000 was previously budgeted for this Project in FY 2021, and $2,000,000 was budgeted in FY 2023. This will increase the budget to $2,300,000 in total.

Sewer Manhole Rehabilitation

EVMWD currently has over 10,000 manholes. Many of the manholes within the City of Lake Elsinore are not lined, and have structural damage to the concrete, due to hydrogen sulfide gasses. District staff routinely evaluates the condition of existing sewer manholes for corrosion and structural integrity. The Sewer Manhole Rehabilitation project will rehabilitate existing manholes that have been identified to be in critical condition and that have the potential to fail or collapse.

Table PS-9 Future Improvements: Wastewater Facilities capacity based improvements (2023 Dollars)

Description	Dia (in)	Length (ft)	HP	Cost
Replace 8" Force Main with 16" at Riverside Dr. from Steele Valley Rd to Ambridge St.	16	358	-	$245,840
Install new 8" Force main for new Tuscany Hills LS	8	3,835	-	$1,020,040
Upsize pump at Palomar St and Cape Cod Dr. New Tuscany Hills LS	-	-	60	$945,000
Downtown sewer replacement (1)	6	3,700	-	$4,300,000
Replace 14" Force main with 21" at A-2 LS in Riverside Dr	21	1,720	-	$722,540
Replace 8" pipe with 10" pipe at Lake Terrace Dr. from Grandview Ave to Macy St.	10	1,022	-	$414,960
Replace 8" pipe with 12" at Tiller Ln from Keel Dr to Machado St.	12	708	-	$307,160
Pipe replacement from 16" to 24". New Intake for Nichols LS	24	72	-	$40,460
Pipe replacement from 8" to 12" at Grand Ave from Wood St to Tetterington.	12	1,671	-	$772,240
Sewer Manhole Rehabilitation (2)	-	-	-	$475,000

Storm Drainage

The existing storm drain facilities (Figure PS-7) within the City boundary and Master Drainage Plan study area are separated to three major categories based on the maintenance responsibility:

- City and privately owned/maintained facilities –The City facilities (mapped in 2013) range from underground pipe systems and concrete lined channels to culverts and basins. Some of the water quality basins and detention basins are maintained by the HOAs or POAs. Some of the facilities shown in the City's map database may be duplications of the District's facilities (in the West Elsinore MDP area).
- The Riverside County Flood Control District (RCFCD) "District" owned and maintained facilities – The Master Drainage Plan study area is located in the District's Zone 3. Among the District facilities, Outlet Channel is a unique facility designed by the Army Corp of Engineers. With its crest (high point) located at mid Wasson Canyon Channel inlet, it conveys half of the Wasson Canyon runoff to Lake Elsinore in normal storm events. It also discharges Lake's overflow to the Temescal Wash when the 1,255-foot water surface elevation is reached.
- Caltrans facilities – Integrated within the I-15's right-of-way, Caltrans allow the stormwater runoff to cross under I-15 along the existing drainage courses as well as provide for de-watering of

the I-15. These culverts are maintained by Caltrans. Typically, neither culvert design capacity nor hydraulics data are depicted on the "as built" plans. For any extension, connection or modifications of these culverts, a Caltrans encroachment permit would need to be obtained.

EXISTING FACILITIES AND DRAINAGE ISSUES

The City identified approximately 79 drainage issue locations. These locations are characterized by any combination of street flooding, private property flooding, dirt or roadway erosion, long-term ponding, hillside runoff, and maintenance issues.

Most of the drainage issue locations are between I-15 and the northeast side of the Lake. This area of Lake Elsinore is older with few to no storm drain facilities. Frequent drainage issues are caused by low points on the street or property, streets not having proper slopes and crowns, lack of curbs and/or gutter facilities, unimproved land, and insufficient maintenance of existing facilities.

The top ten flooding locations, as identified by City staff, and shown in Figure PS-8, are:

- 1209 N. Sumner Avenue
- 3rd Street / Pasadena Street
- Avenue 6 / Lakeshore Drive
- Pepper Drive / Dawes Street
- Mission Trail south of Olive Street
- High Street / Alley east of Lakeshore Drive
- East side of Lakeshore Drive from Morton Avenue to 100 feet past Lake Park Street
- Lakeshore Drive / Kansas Street on north side of Lakeshore Drive
- W/S Machado Street south of Joy Street by guard rail
- Franklin Street by Cell Tower

Power and Natural Gas

Southern California Edison (SCE) provides electricity to the City of Lake Elsinore and Southern California Gas Company (The Gas Company) provides gas to the City of Lake Elsinore. Both SCE and The Gas Company anticipate the ability to accommodate future growth within the city.

Key Considerations

- While the City anticipates resolving current water, recycled water, sewer, and storm drainage deficiencies, the City (and County) need to ensure that the proposed projects provide sufficient capacity to accommodate future growth.

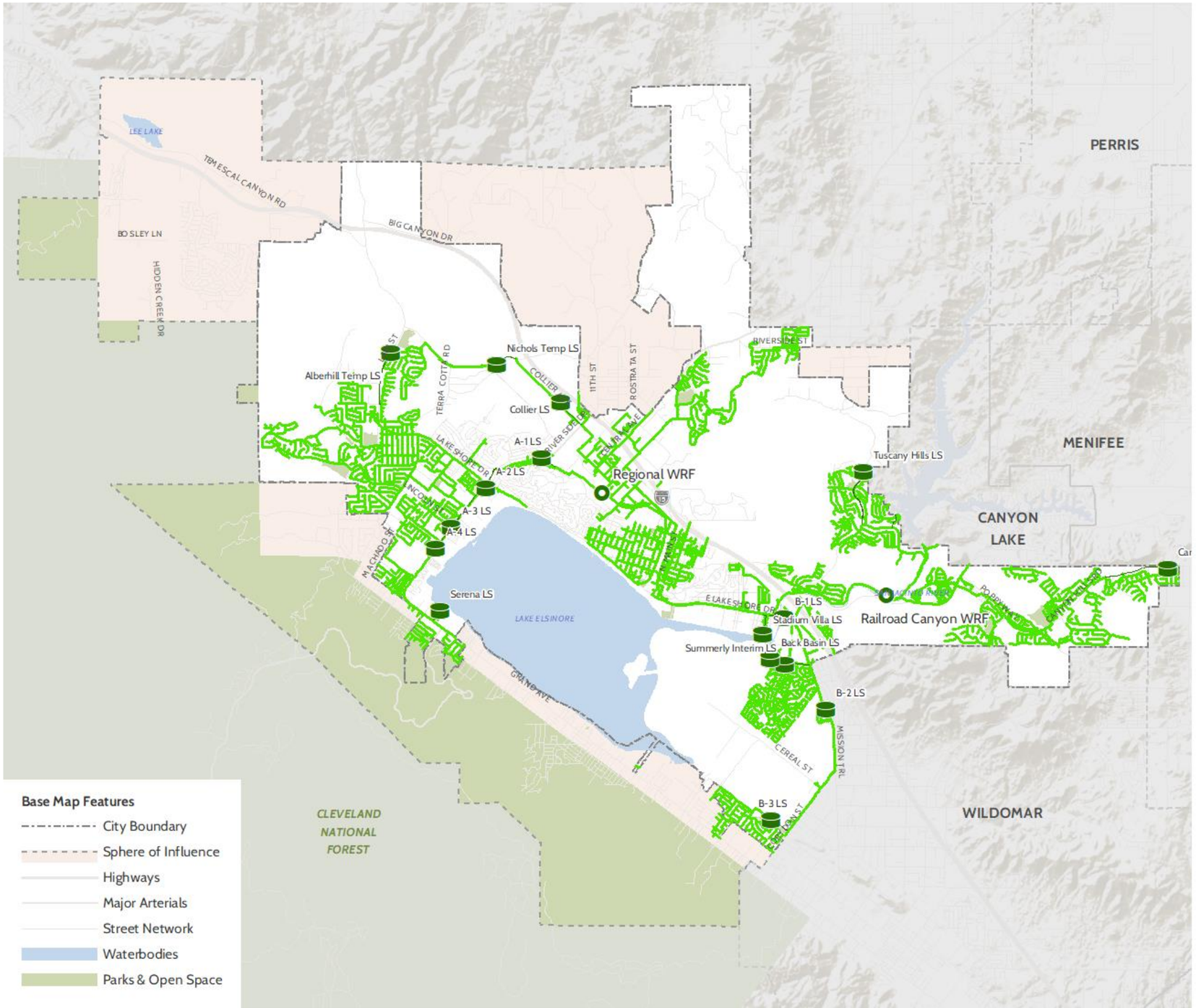


Figure PS-6

WASTEWATER FACILITIES

Existing Wastewater Facilities

- EVMWD Wastewater Force Main
- EVMWD Wastewater Gravity Main
- EVMWD Wastewater Lift Station
- EVMWD Wastewater Treatment Plant

Prepared by MIG, October 2023.
Source: County of Riverside, 2023, City of Lake Elsinore, 2023, EVMWD, 2023.

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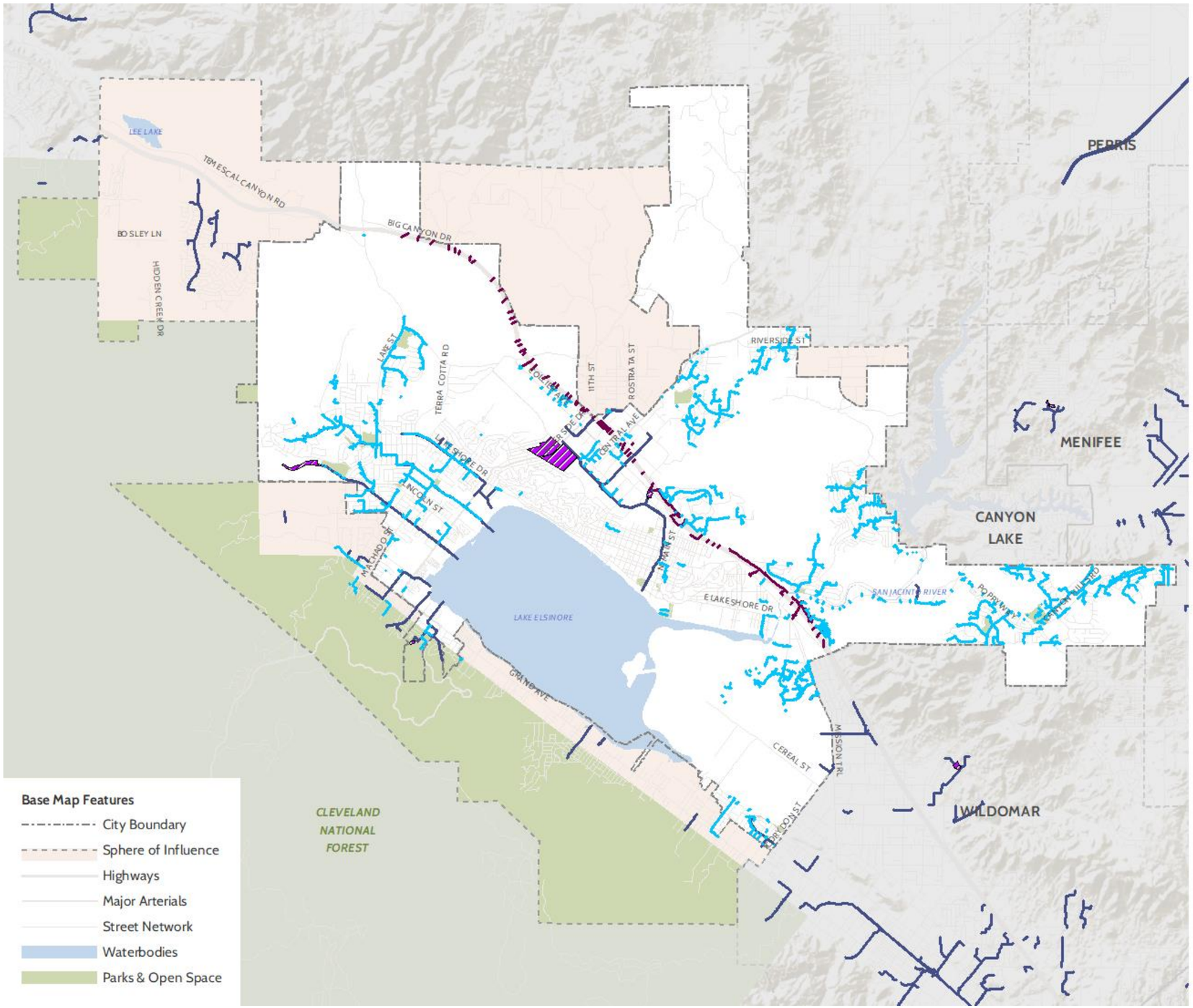


Figure PS-7

STORM DRAIN FACILITIES

Existing Storm Drain Facilities

- RCFC Basin
- City's Facilities
- Caltrans Culverts
- RCFC & WCD Facilities

Prepared by MIG, October 2023.
Source: County of Riverside, 2023, City of Lake Elsinore, 2023.

Miles
0 ¼ ½ 1 1½ 2

CIRCULATION

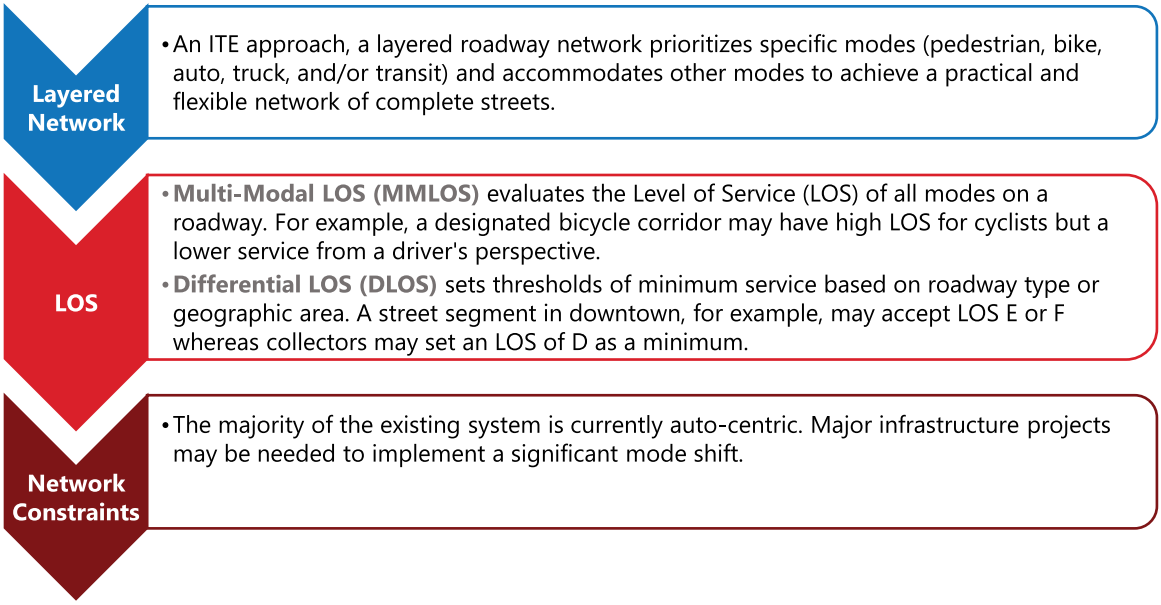
2023 Conditions

EXISTING INFRASTRUCTURE

The City of Lake Elsinore is served by two regional highways, I-15, running north to south, and SR-74, running east to west. Though continued coordination with regional and state agencies is recommended, these highways present a constraint to the City's mobility network in terms of available infrastructure or programming improvements.

City-operated roadways present a number of constraints and opportunities in the update to the City's Circulation Element. These are summarized below (Figure C-1):

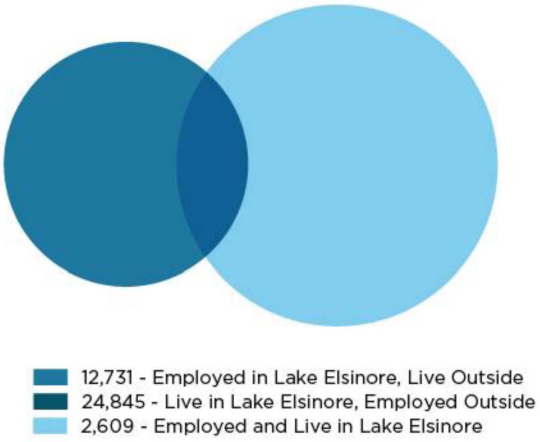
Figure C-1: Opportunities and Constraints Presented by Existing Roadway Network



TRAVEL CHARACTERISTICS

About nine out of every 10 Lake Elsinore residents are employed outside the City (Figure C-2). This presents an opportunity to address the heavy outbound and inbound commute flows for residents leaving and returning to the City each day through policies to expand employment options within the City and expand efforts in creating sustainable options for commutes, especially given that about 90% of trips to and from Lake Elsinore are within the Western Riverside Council of Governments (WRCOG).

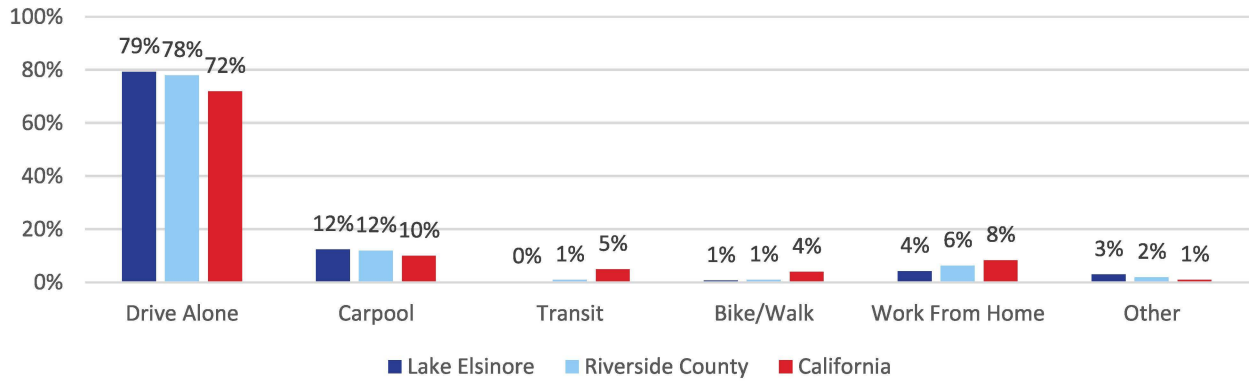
Figure C-2: Inflow and Outflow Job Counts for Lake Elsinore (2019)



Source: Longitudinal Employer-Household Dynamics (LEHD), 2019.

In terms of modal share, driving alone makes up the largest proportion of commute trips (79%), which is higher than the Riverside County average (78%) and state average (72%) (Figure C-3). Though constrained by the 90% share of commuters who work outside of Lake Elsinore, the opportunity to induce demand on other modes, such as biking, walking, or transit, should be considered.

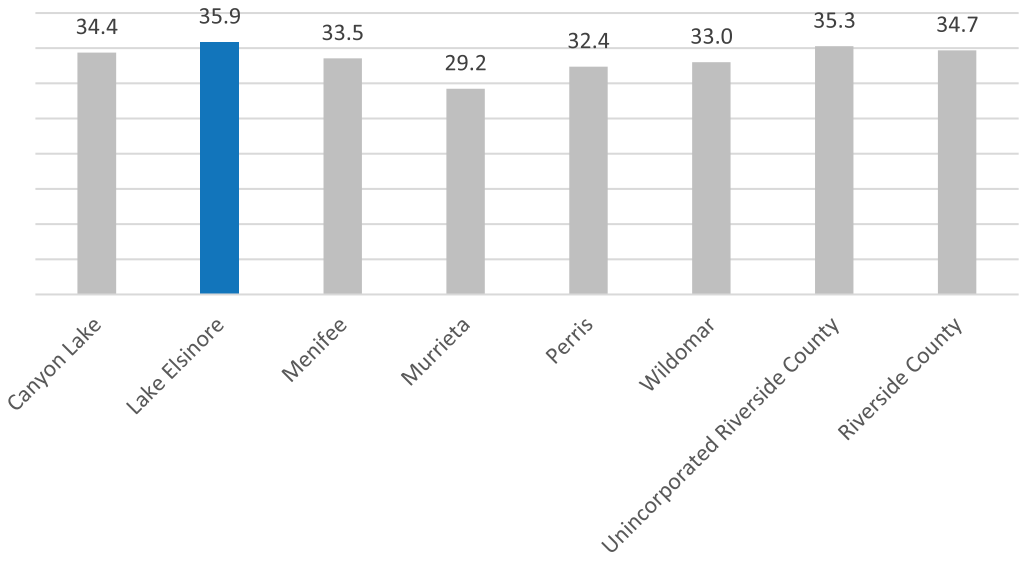
Figure C-3: Mode Share (Percent) for Commute Trips (2016-2020)



Source: American Community Survey 5-Year Estimates; 2020. Table B08301.

Another opportunity related to mode-share lies with Vehicle Miles Traveled (VMT), a measure of the distance each vehicle travels on a daily basis. The City can help its residents improve their travel efficiency through a reduction in VMT through mode shifts, as described above, as well as increasing options for carpooling or working from home, to decrease the current 35.9 VMT/Service Population (Figure C-4).

Figure C-4: VMT Per Service Population Comparison in the Neighboring Cities (2018)



Source: Origin-Destination (OD) VMT per Service Population Base Year (2018) RIVCOM Model

TRANSIT

Lake Elsinore is served by regional transit, Riverside Transit Agency (RTA), which provides three routes to the City: Routes 8, 9, and 205/206 (Figure C-5). These routes may, as they stand, present a constraint in terms of attracting a larger audience of ridership, but also present an opportunity to partner with RTA to develop routes that may better serve the community.

FREIGHT

The Inland Empire has seen tremendous growth in freight and logistics. Designated truck routes (Figure C-6) help facilitate the movement of goods throughout Lake Elsinore. Truck traffic may present challenges to other modes, especially bicyclists, as well as cause additional wear and tear on City facilities. These can be mitigated through designated truck routes and partnering with the freight and logistics community.

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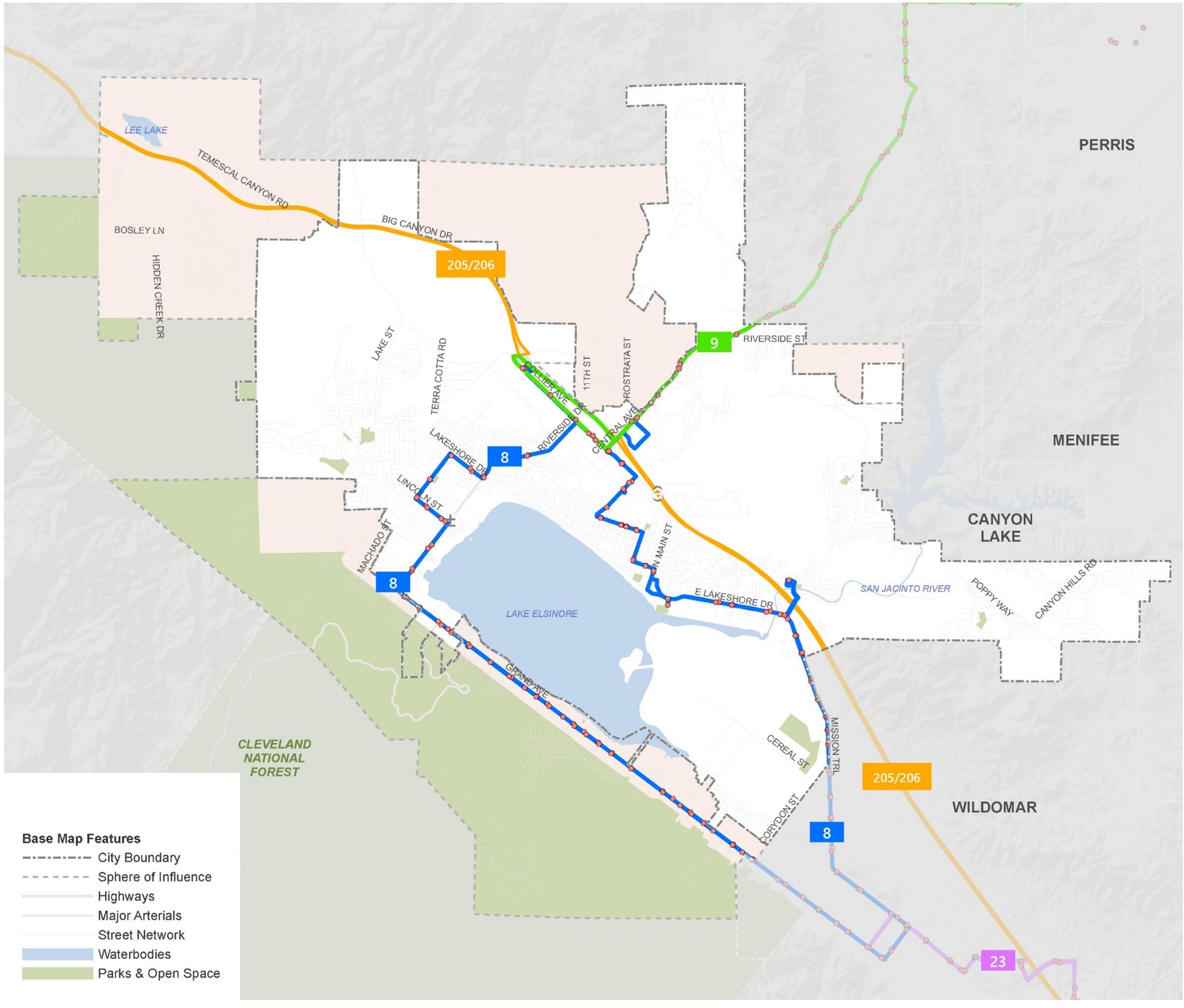


Figure C-5

TRANSIT ROUTES AND STOPS

Transit Routes

- 8 — Lake Elsinore-Wildomar Loop
- 9 — Perris Station Transit Center - Lake Elsinore Outlet Center
- 23 — Temecula - Murrieta - Wildomar
- 205/206 — Temecula - Murrieta - Lake Elsinote - CTC
- Transit Stops

Prepared by MIG, Fehr & Peers, November 2023.
Source: Riverside Transit Authority, 2022,
City of Lake Elsinore, 2022

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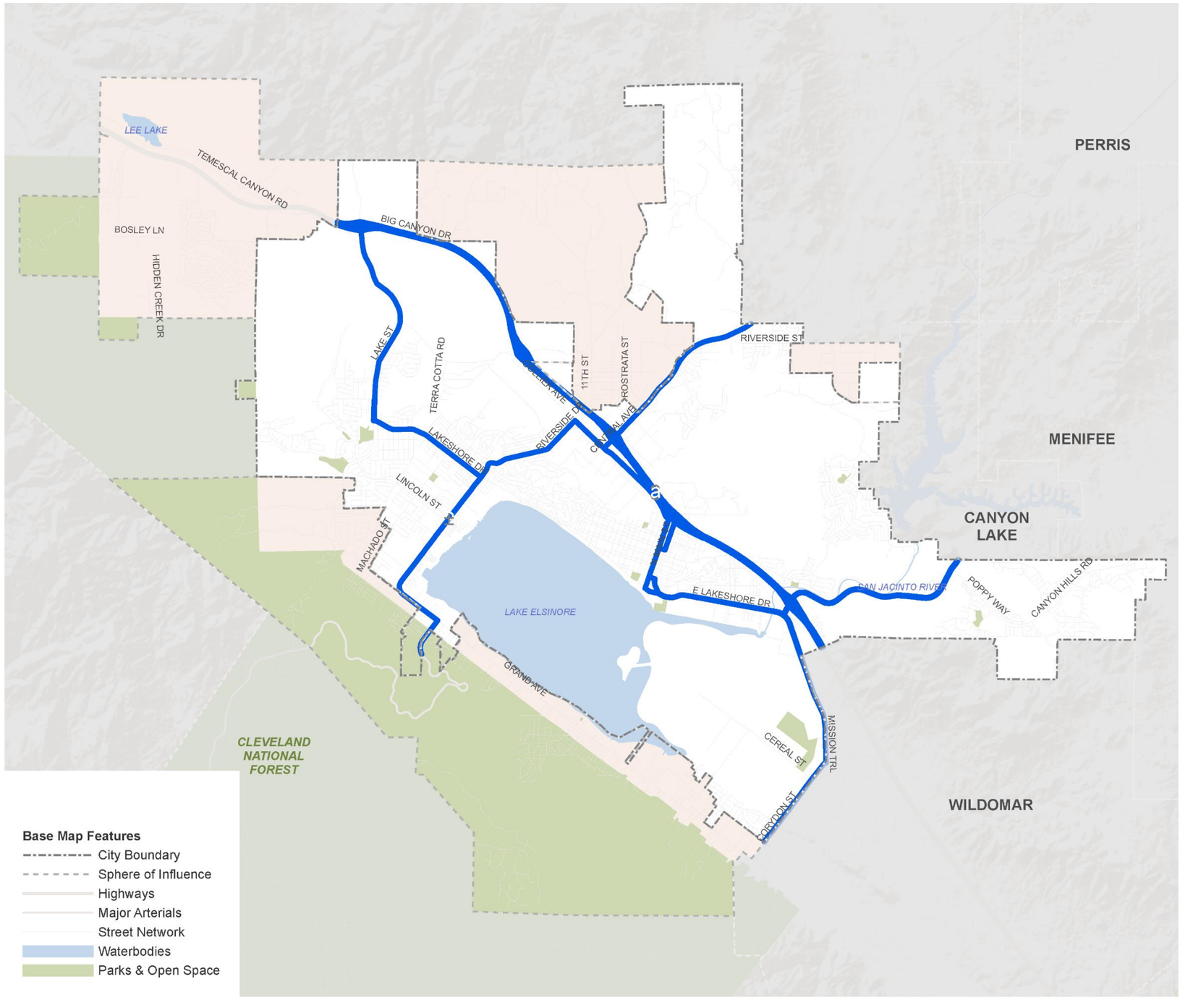


Figure C-6

TRUCK ROUTES

Existing Truck Routes

Prepared by MIG, Fehr & Peers, November 2023.
Source: City of Lake Elsinore, 2022

0 ¼ ½ 1 1½ 2 Miles

Mobility of the Future

The ways in which people, goods, and services move around have undergone many recent changes; they continue to evolve. Some key disruptors to the transportation industry are outlined below.

Figure C-7: Disruptive Transportation Trends

Electrification

- Electric vehicles, from personal cars to freight to electric bikes, are a growing means of transportation that can reduce emissions and the effects of climate change.
- Charging infrastructure and cost are primary barriers to the adoption of electric vehicles.

Connected Cities

- Connected Cities and Intelligent Transportation Systems (ITS) can provide real-time and historical trends on volume, LOS, safety, and more. Some examples include:
  - *Camera-based signal detection*
  - *Passive pedestrian detection*
  - *Vehicle-to-infrastructure communications*
  - *Real-time updates to travelers via messaging boards or mobile applications*
- These systems may have high costs to implement and additional costs to operate.

Event Management

- The City of Lake Elsinore has a number of attractions that attract visitors, both local and regional. From extreme sports to wildflower blooms, the circulation of the City may see large and rapid increases of roadway volumes. Event congestion can be mitigated through a combination of the following:
  - *Adequate parking supply at or near the destination*
  - *Shuttle access from a central parking location*
  - *Coordination & partnership with other agencies and businesses*

Ridesharing

- Transportation Network Companies (TNCs), such as Uber or Lyft, have shown increasing usage in the past decade. Usage of TNCs can decrease parking demand and provide options for those who are unable to drive themselves. They also can help travelers in their first/last mile of travel.
- The demand for curb space for pick-up and drop-off areas increases. Additional considerations for staging or loading zones should be considered.

MOBILITY HUBS

Mobility hubs offer a centralized location that integrate a variety of mobility choices, services and technologies to enhance connectivity in an area, particularly in closing the gap of first/last mile travel. To succeed, a mobility hub should consider the following components:

- Easily accessible by foot, bicycle, or scooter
- Proximity to key transportation infrastructure and services
- Residents with lower levels of mobility and accessibility
- Mixed land use
- Areas with a potential for future growth

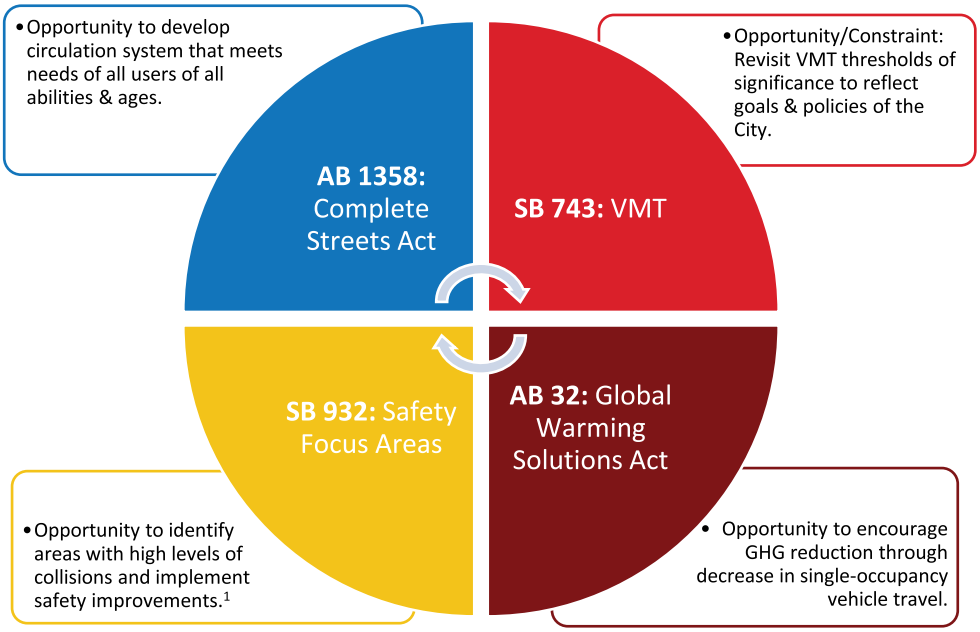
Legislative Landscape

Since the adoption of the current general plan, there have been several updates to state and regional policies that impact the Circulation Element and other updates to the General Plan.

CIRCULATION ELEMENT

The Circulation Element is primarily affected by four state policies (Figure C-8).

Figure C-8: State Policies Affecting Circulation Element



[1]Note, Fehr & Peers is currently assisting the City in the development of these safety focus areas as part of a separate project.

Key Considerations

- The majority of Lake Elsinore workers travel outside the City to reach their jobs. This presents an opportunity for the City to address the heavy commute flows and focus on policies that promote infill and redevelopment to increase the share of residents who work within the City. These policies can also assist with the City's climate action goals in reducing VMT and greenhouse gases.
- Under SB 932, local jurisdictions are required to identify high-injury streets and intersections and develop safety improvements to reduce traffic collisions. Fehr & Peers is currently partnering with the City on a Local Road Safety Plan (LRSP), which is expected to be completed in Spring of 2024.
- Evacuation Safety – Under AB 747, Lake Elsinore is required to include an evacuation route assessment for capacity, safety, and viability under a range of emergency scenarios. Though this work will be completed under a different scope. Pertinent to this analysis are a series of maps included as part of this Atlas' Safety and Hazards Chapter and included here as Figure C-9, Zero Vehicle Households.
- The City needs to consider developing policy regarding autonomous vehicles, ride-sharing, mobility hubs, and other circulation "disruptors", which influence transportation in the next twenty years.

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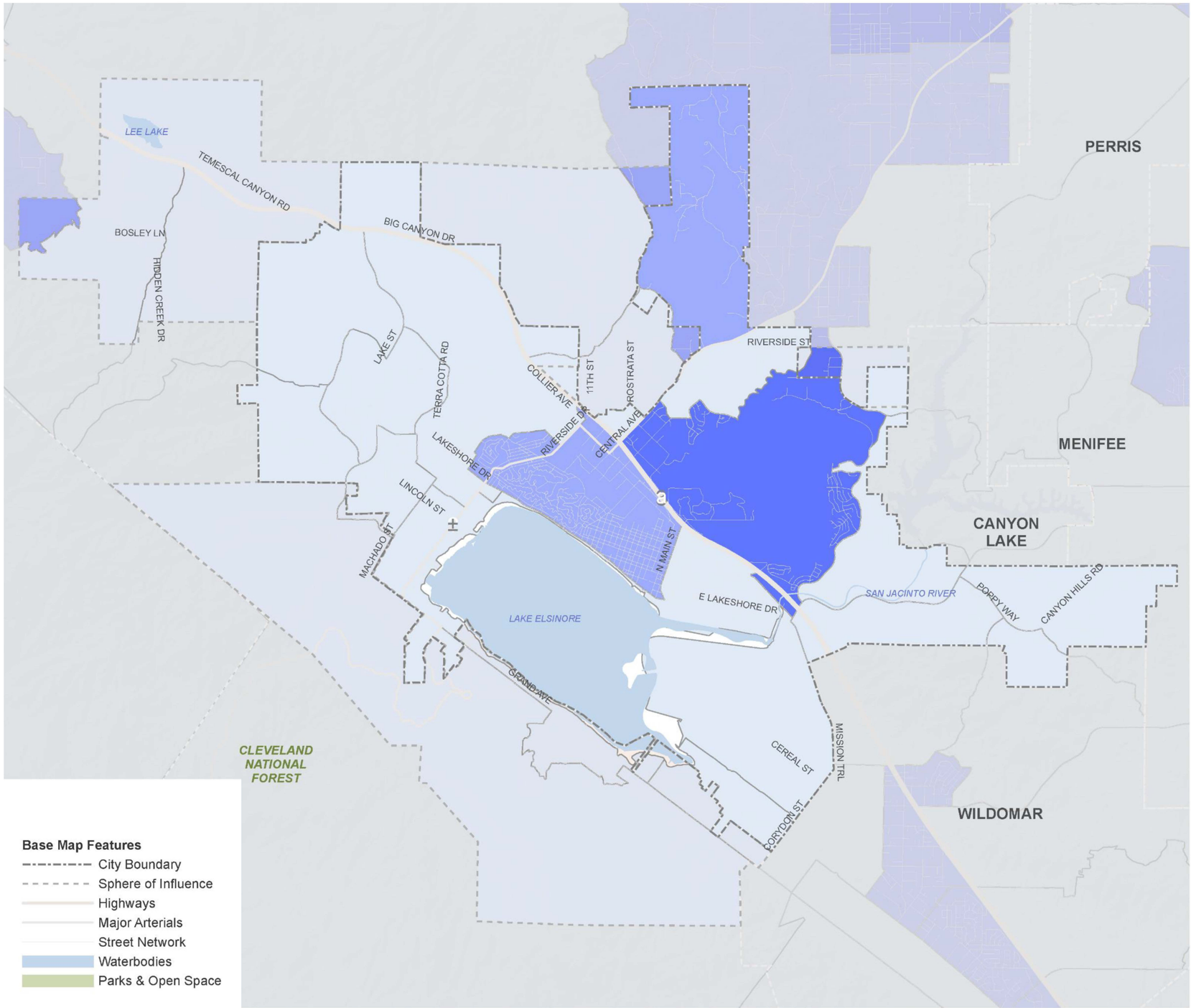


Figure C-9

ZERO VEHICLE HOUSEHOLDS

% No Vehicle Ownership

- Less than 5%
- 5% - 10%
- 15% - 20%
- 20% - 25%
- More than 25%

Prepared by MIG, Fehr & Peers, November 2023.
Source: American Community Survey, 2008;
City of Lake Elsinore, 2023

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Parks, Recreation, and Open Space

The City of Lake Elsinore parks system has 20 parks that contain hundreds of acres of open space, recreational opportunities, and facilities. These facilities include three skate parks, a BMX track, four dog parks, two splash pads/spray parks, ball fields, playgrounds, and trails. The City also operates three indoor facilities with spaces available for private rentals and community events.

Parks and Recreation

CLASSIFICATIONS

The City of Lake Elsinore provides the following types of recreational facilities for its residents and visitors:

1. **Pocket Parks** (less than 1 acre) – Parks of this nature are typically developed in conjunction with specific plans. Linear Park is an example of a pocket park.
2. **Neighborhood Parks** (1 – 10 acres) – These facilities are typically population based to serve the immediate and surrounding residents, which is usually 3,500 –5,000 persons within a one-half (1/2) to three quarter (3/4) mile radius. Neighborhood parks may adjoin school sites where possible to encourage joint use. Typical amenities include play areas, turf, multi-purpose courts, and picnic facilities. Tuscany Hills Park and Yarborough Park are examples of neighborhood parks.
3. **Community Parks** (11 – 40 acres) – These parks are designed to serve 15,000 –20,000 residents within a one and one-half mile (1 ½) service radius and are utilized for active and passive recreation. The actual size and development depends on the specific resource involved, available land, anticipated use, and location. Typical amenities include lighted sports fields and courts, picnic facilities, play areas, restrooms, and off-street parking. McVicker Canyon Park and Lakepoint Park are examples of community parks.
4. **Regional Parks** (25 – 100 acres) – Regional parks offer a broad range of amenities to attract the greatest range of users from within and beyond the City limits. Amenities can include open space, bodies of water, structures (such as museums and nature centers), and trails. Their typical service radius typically corresponds to a one (1) hour drive.
5. **Recreational Facilities** – The City also provides recreational facilities that can service either residents or visitors. These facilities range from passive landscaped areas, hang-gliding, hiking trails, and community centers. These facilities also feature special programs, activities, and classes that help make up the City of Lake Elsinore's public recreation system. Examples of recreation facilities include Lake Community Center, the Senior Activity Center, and the Cultural Center.

PARK STANDARDS

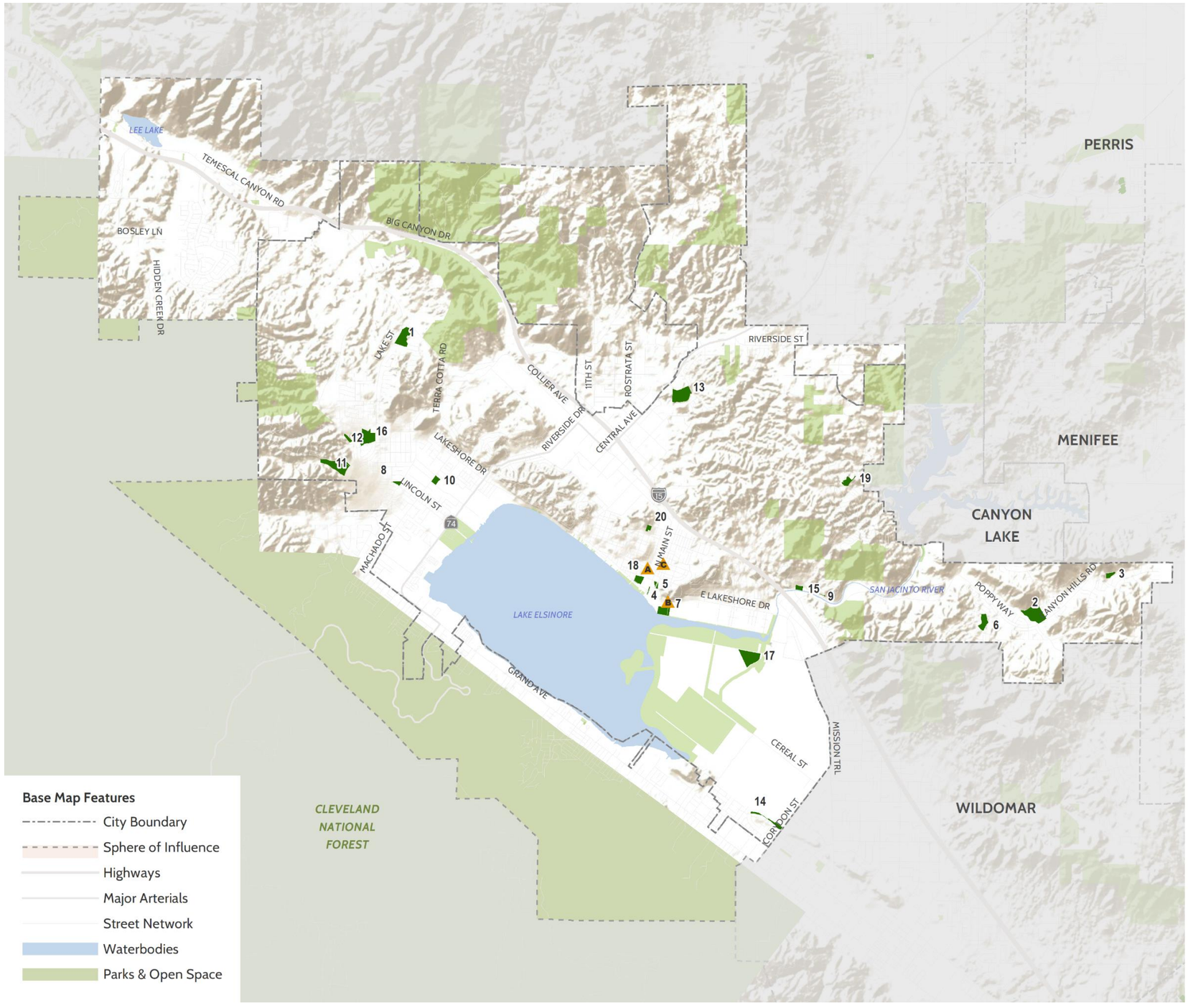
The Parks and Recreation Master Plan (2008-2030) identifies the approximate park land to population ratio is approximately 2.6 acres per 1,000 population. An additional 114 acres of developed park facilities were needed to serve the 2007 population. Since the creation of that plan, Lake Elsinore's population has grown significantly and additional parks and facilities have been developed. Lake Elsinore now has approximately 194.7 acres of park land. With a population of 70,244 (2020 Census), the current park land to population ratio is approximately 2.8 acres per 1,000 residents, requiring an additional 156 acres of park land to meet the 2007 Master Plan ratio. The Master Plan sets a minimum

park land standard of 5 acres per 1,000 residents.[1] Table PR-1 shows the established facility standards by amenity type established in the Parks Master Plan. Figure PR-1 shows park and recreation facilities' locations.

Table PR-1: Recreational Facility Standards (2008)

Facility Type	Standard per Population
Softball Field	
Organized Youth	1/7,300
Organized Adult	1/5,500
Baseball Field	
- *Little League*	1/5,300
- *Adult League*	1/8,000
Multi-Purpose Fields	1/5,000
Picnic Tables	1/1,000
Picnic Shelter	1/5,000
Tot Lot / Playground	1/5,000
Swimming Pool	1/50,000
Tennis Court	1/10,000
Basketball Court	1/30,000
Volleyball Court – Sand	1/10,000
Racquetball Court	1/10,000
Exercise Course	1/10,000
Horseshoe Pit	1/5,000
Handball Court	1/10,000
Restroom Facilities	1/4,000
Classrooms	1/5,000

[1] Parks and Recreation Master Plan (2008-2030), City of Lake Elsinore.



Base Map Features
- City Boundary
- Sphere of Influence
- Highways
- Major Arterials
- Street Network
- Waterbodies
- Parks & Open Space

Figure PR-1
PARKS, OPEN SPACE, AND RECREATION FACILITIES

Parks and Open Space
- City of Lake Elsinore Parks
- Other Open Space

Recreation Facilities
- City Recreation Facilities

Other open spaces includes State Recreation Areas, MHSCP Conserved Lands, and federal land owned by the Bureau of Land Management.

Prepared by MIG, October 2023.
Source: City of Lake Elsinore and Riverside County, 2023.

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PARKS AND RECREATION FACILITIES

The City of Lake Elsinore provides the following types of recreational facilities for its residents and visitors:

Table PR-2: Park Facilities

Map ID	Park Name	Amenities	Acres
1	**Alberhill Park** *28200 Lake Street*	Barbeques, Basketball Court, Community Building, Concession Stand, Drinking Fountains, Football Field, Picnic Shelters, Picnic Tables, Playground, Restrooms, Soccer Field	22
2	**Canyon Hills Community Park** *34360 Canyon Hills Road*	Barbeques, Baseball / Softball Diamond, Basketball Court, Canine Area, Concession Stand, Drinking Fountain, Parking, Picnic Shelters, Picnic Tables, Playground, Restrooms, Soccer Field, Splash Pad	18
3	**Christensen Park** *36300 Piedmont Drive*	Baseball / Softball Diamond, Soccer Field, Playground, Basketball Court, Restroom, Picnic Area	6
4	**Channel Walk** *Heald Avenue and Spring Street*	*Paved walking path, benches, and lighting. Channel Walk also provides opportunities for wildlife viewing.*	5.8
5	**City Park** *243 S Main Street*	Barbeques, Basketball Court, Concession Stand, Drinking Fountain, Parking, Picnic Shelters, Picnic Tables, Playground, Restrooms, Trails	4
6	**Creekside Park** *3200 Lost Road*	Barbeques, Concession Stand, Drinking Fountain, Football Field, Parking, Picnic Tables, Playground, Restrooms, Soccer, Sports Lights, Tennis Court, Walking Track	7
7	**Lakepoint Park** *420 E Lakeshore Drive*	Baseball / Softball Diamond, Concession Stand, Drinking Fountain, Football Field Parking, Playground, Restrooms, Soccer, Sports Lights, Volleyball	12.5
8	**Lincoln Street Park** *14986 Lincoln Avenue*	Barbeques, Basketball Court, Drinking Fountain, Picnic Shelters, Picnic Tables, Playground, Walking Track	2.2
9	**Linear Park** *31717 Canyon Estates Drive*	Seating Areas, Small Turf Areas, Paved Walking Path	0.5
10	**Machado Park** *15150 Joy Street*	Barbeques, Drinking Fountain, Parking Picnic Areas, Picnic Shelters, Picnic Tables, Playground, Restrooms, Tennis Court, Volleyball, Walking	5
11	**McVicker Canyon Park and Skate Park** *29355 McVicker Canyon Park Road*	Barbeques, Baseball / Softball Diamond Canine Area, Concession Stand, Drinking Fountain, Parking, Picnic Areas, Picnic Shelters, Picnic Tables, Playground, Restrooms, Sports Lights, Walking	26
12	**Oak Tree Park** *15340 Lincoln Street*	Picnic Areas, Picnic Tables, Walking	2

Map ID	Park Name	Amenities	Acres
13	**Rosetta Canyon Community Park and Dog Park** *39423 Ardenwood Way*	Barbeques, Baseball / Softball Diamond, Dog Area, Concession Stand, Drinking Fountain, Football Field, Grill, Picnic Shelters, Picnic Tables, Playground, Restrooms, Soccer Field, Sports Lights, Tennis Court, Trails	21.6
14	**Serenity Park** *19685 Palomar Road*	Basketball Court, Canine Area, Drinking Fountain, Football Field, Picnic Shelters, Picnic Tables, Playground, Restrooms, Skate Park, Soccer, Tennis Court, Walking	2.1
15	**Summerhill Park** *31613 Canyon Estates Drive*	Barbeques, Drinking Fountain, Football Field, Parking, Picnic Tables, Playground, Restrooms, Soccer	5
16	**Summerlake Park** *900 W Broadway*	Barbeques, Drinking Fountain, Football Field, Parking, Picnic Tables, Playground, Restrooms, Soccer, Sports Lights	16
17	**Summerly Community Park** *18505 Malaga Road*	Barbeques, Drinking Fountain, Football Field, Parking, Picnic Tables, Playground, Restrooms, Soccer, Sports Lights	24
18	**Swick & Matuch Park** *402 Limited Street*	Baseball / Softball Diamond, Concession Stand, Drinking Fountain, Parking, Picnic Tables, Playground, Restrooms, Sports Lights	7
19	**Tuscany Hills Park** *30 Summerhill Drive*	Baseball / Softball Diamond, Concession Stand, Drinking Fountain, Football Field, Parking, Playground, Restrooms, Soccer, Sports Lights	5
20	**Yarborough Park** *419 N Poe Street*	Barbeques, Drinking Fountain, Football Field, Parking, Picnic Tables, Playground, Restrooms, Soccer, Splash Pad	3

Figure PR-1 also identifies Lake Elsinore's recreational facilities. The City operated recreational facilities, described in Table PR-3, and are concentrated in the downtown area. Lake Community Center was the City's first Senior and Community Center and offers programming for all ages and reservable spaces for events. The Senior Activity Center is another facility that is geared toward providing recreation, education, and self-enrichment programs for participants 55 and older. In addition to a variety of recreational programs, the Center also offers services including paralegal services, LIHEAP, health, and other educational programs. The Lake Elsinore Cultural Center is where the City Council meets and can accommodate various public meetings and community events. It is also home to the Lake Elsinore Historical Society Museum and Research Library.

Table PR-3: Recreation Facilities

Map ID	Recreation Center Name	Amenities	Sq Ft.
A	**Lake Community Center** *310 W Graham Avenue*	Gymnasium, restrooms, parking, volleyball, drinking fountains, kitchen, two (2) meeting rooms and benches.	8,000
B	**Senior Activity Center** *420 E. Lakeshore Drive*	Restrooms, game room, computer lab, dining area, parking, horseshoe court, shade structure, drinking fountain, benches, and gardening planters.	5,000
C	**Lake Elsinore Cultural Center** *183 North Main Street*	Performance stage, restrooms, meeting room, drinking fountains, museum, and research library.	4,000

Open Space

In addition to City owned park facilities, hundreds of acres of public and private open space are located within the Planning Area as identified in Figure PR-1. The open space is managed by several agencies including the City of Lake Elsinore, Riverside County, United States Forest Service, Bureau of Land Management, Western Riverside County Regional Conservation Authority, and the Riverside County Regional Park and Open Space District. Table PR-4 is an inventory of open space land and the agency managing the land.

Table PR-4: Open Spaces

Name	Agency	Acres
Lake Elsinore State Recreation Area	City of Lake Elsinore	5,436
Alberhill Conservation Area	Riverside County	1,075
Perret Park	Riverside County	3
North Peak Preserve	Riverside County	280
Unnamed BLM Land	Bureau of Land Management	951
Steele Peak Reserve	Bureau of Land Management	228
Cleveland National Forest	U.S. Forest Service	7,392
Unnamed Western Riverside County Regional Conservation Authority Land	Western Riverside County Regional Conservation Authority	3,253
Unnamed Riverside County Parks and Open Space District Land	Riverside County Parks and Open Space District	19

Source: Riverside County GIS

A portion of the Cleveland National Forest, a national park, is also within the Planning Area. The Cleveland National Forest is the southernmost national forest in California and encompasses approximately 460,000 acres in total. Landscapes in the park range from dense forests, canyons, high desert, and meadows. The national park offers opportunities for hiking, camping, horseback riding, and hunting.

In addition to these formal open spaces, other open spaces include the Lake Elsinore levee (3.5 mile multi-use trail), golf courses, campgrounds, and undeveloped spaces including wetlands, steep slopes, and wooded areas not suitable for development.

LAKE ELSINORE

With over 3,000 surface acres of water and 14 miles of shoreline, Lake Elsinore is one of the most valuable recreational assets for the City of Lake Elsinore. The lake is a popular destination for fishing, motorboating, kayaking, jet skiing, and swimming. It features public beaches, campgrounds, and picnic areas. The Lake also features a three-mile levee for hiking, nature walking, and fishing in some areas. As Southern California's largest freshwater lake, Lake Elsinore can have a complex biology. While it contains several varieties of freshwater fish, it is also susceptible to algae blooms and other water quality issues. The City has started a pilot study, funded by a Proposition 1 grant, for harvesting algae biomasses to evaluate different methods of improving water quality and minimizing algae growth in the lake.

Key Considerations

- The 2008 Parks and Recreation Master Plan identified a deficit in park land and amenities. While additional parks land is planned, improving existing parks and facility amenities may also be needed to meet established facility standards.
- Furthermore, Lake Elsinore's rapid growth has meant that an additional 156 acres of park land is needed to meet the standard of 5 acres per 1,000 population established in the Parks and Recreation Master Plan.

Natural Resources

Open Space and Natural Resources

Open space and natural areas in Lake Elsinore consist of local parks, mountains, rugged hillsides, and the lake. Lake Elsinore's park system consists of 20 parks, five dog parks, three skate parks, one BMX park, two gyms/auditoriums, sports fields, public beaches along Lake Elsinore, four fitness trails including workout stations, and the 2.75-mile downtown riverwalk and nature trail.[1] The Cleveland National Forest, located to the west of the City, encompasses most of the Santa Ana Mountains. Natural resources within the City's mountains and hillsides include water, flora, and fauna. Mineral resources, such as sand, gravel, and clay, are also found in the Alberhill, Rice Canyon, Temescal Wash, and Cottonwood Hills areas.

NATURAL COMMUNITIES AND WILDLIFE HABITAT

The Planning Area provides a range of complex vegetation communities and habitats resulting from the soils, slope, hydrology, and regional climate. Sixteen major natural communities have been identified in the Planning Area, several of which are considered "sensitive" or "special status" habitats due to their unique qualities, high wildlife value, and/or limited distribution across the region.[2] Natural communities include:

- Coastal sage scrub
- Riversidian sage scrub
- Diegan coastal sage scrub
- Riversidian alluvial fan sage scrub
- Chaparral
- Oak woodland
- Coast live oak woodland
- Dense englemann oak woodland
- Riparian forest
- Riparian scrub
- Southern willow scrub
- Southern cottonwood-willow riparian forest
- Southern sycamore-alder riparian forest
- Coastal and valley freshwater marsh
- Open water/reservoir/pond
- Vernal pools

The natural communities are further discussed in Table NR-1 and shown in Figure NR-1.

[1] "Parks," Lake Elsinore Visitors Bureau, October 20, 2023, https://visitlakeelsinore.com/parks/.

[2] City of Lake Elsinore General Plan (2011).

Table NR-1: Planning Area Natural Communities

Type	Lake Elsinore (acres)	Sphere of Influence (acres)	Total Acres
Nonnative Grassland	5,661	1,103	6,764
Coastal Sage Scrub	6,727	3,262	9,989
Riversidian Sage Scrub*	32	680	712
Diegan Coastal Sage Scrub	112	205	317
Riversidian Alluvial Fan Sage Scrub*			
Chaparral	213	6	219
Chamise Chaparral	4,148	8,544	12,692
Chaparral			
Woodlands	73	392	465
Coast Live Oak Woodland*	0	5	5
Dense Engelmann Oak Woodland*	5	57	62
Oak Woodland			
Riparian	56	32	88
Riparian Forest	186	111	297
Riparian Scrub	0	22	22
Southern Cottonwood/Willow	27	30	57
Southern Willow Scrub*			
Marsh	32	0	32
Coastal and Valley Freshwater Marsh			
Open Water/Reservoir/Pond	2,378	29	2,407
Vernal Pools* **	-	-	-
Agricultural Lands	89	289	378
Field Croplands	26	198	224
Grove/Orchard			
Residential/Urban/Exotic	7,982	3,853	11,835
Total	27,747	18,818	46,565

*Considered to be a special-status/sensitive habitat because it is unique, has relatively limited distribution in the region, has high wildlife value, and/or is directly or indirectly protected federal, state, or local regulations and policies.

**Individual vernal pools and vernal pool complexes were not mapped in the MSHCP or for the City General Plan but are known to occur in the City and SOI.

Source: Lake Elsinore General Plan (2011), GIS Database for MSHCP (July 2003)

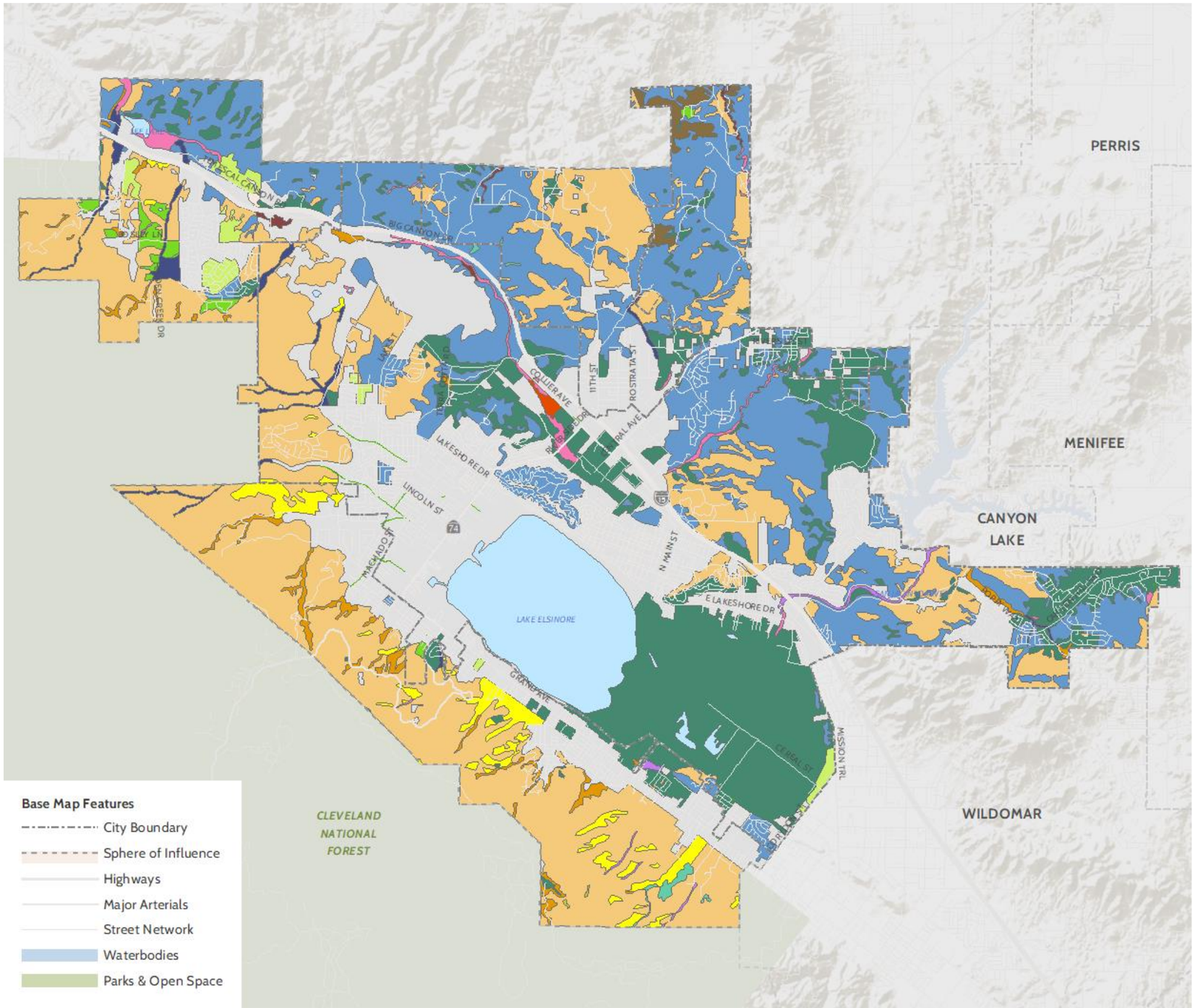


Figure NR-1

VEGETATIVE COMMUNITIES

Vegetative Communities

- Chamise Chaparral
- Chaparral
- Coast Live Oak Woodland
- Coastal and Valley Freshwater Marsh
- Dense Engelmann Oak Woodland
- Diegan Coastal Sage Scrub
- Field Croplands
- Grove/Orchard
- Non-native Grassland
- Oak Woodland
- Open Water/Reservoir/Pond
- Residential/Urban/Exotic
- Riparian Forest
- Riparian Scrub
- Riversidean Alluvial Fan Sage Scrub
- Riversidean Sage Scrub
- Southern Cottonwood/Willow Riparian
- Southern Willow Scrub

Prepared by MIG, October 2023.
Source: County of Riverside, 2023

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CONSERVATION AREAS

The City is part of a multi-jurisdictional species and habitat conservation effort known as the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP designates open space areas for either permanent conservation or authorizes a "take" of these lands in exchange for the assembly of conservation areas.[3]

Authorized "takes" require plan participants to assemble a reserve system of approximately 500,000 acres to connect current and future conserved lands.[4] Approximately 3,500 acres in the City and the SOI are part of the existing reserve system within the MSHCP. The City's conservation target under the MSHCP is to add between 4,830 and 7,870 acres to the reserve system over the next 25 years. To achieve these targets, the City has focused on adding lands to existing core reserves and linkages within the Elsinore Area Plan, public and quasi-public lands that are part of the existing MSHCP conservation area, and the criteria area in and adjacent to the City and SOI as shown in Figure NR-2. The 2021 MSHCP annual report shows that a total of 3,642 acres have been conserved between 2000 and 2021.

Water Resources

Lake Elsinore is located within an arid region of southern California where water is a limited resource. Fortunately, the City has access to multiple water resources such as Lake Elsinore, the San Jacinto River, the Temescal Wash, and treated water plants (Figure NR-3). Lake Elsinore's water supply is managed by the Elsinore Valley Municipal Water District (EVMWD) and consists of a blend of local groundwater, surface water from Railroad Canyon Reservoir (Canyon Lake), and imported water.[5]

WATERSHED

The Lake Elsinore Planning Area is located in the Santa Ana River and San Jacinto River Watersheds (Figure NR-3). The Santa Ana River Watershed includes the approximately 100-mile-long Santa Ana River and more than 50 tributaries, making it the largest river basin in Southern California. The San Jacinto River Watershed includes the 42-mile-long San Jacinto River. The river's headwaters are in Santa Rosa and the San Jacinto Mountains National Monument from which water flows downstream until reaching Lake Elsinore.[6] The San Jacinto River includes 23 tributaries. The City of Lake Elsinore is primarily located within the Lake Elsinore sub-watershed area, which covers 45 square miles at the lowest point of the San Jacinto River watershed at the end of the San Jacinto River.

[3] Riverside County Multiple Species Habitat Conservation Plan (2003).

[4] Ibid.

[5] "Water Resources," Elsinore Valley Municipal Water District, November 22, 2023, https://evmwd.com/who-we-are/water-resources/.

[6] "The San Jacinto River Watershed," Lake Elsinore and San Jacinto Watersheds Authority LESJWA, n.d., https://mywatersheds.com/the-san-jacinto-river-watersheds/.

GROUNDWATER

Lake Elsinore is underlain by the Elsinore Groundwater Basin, which covers 25,700 acres (40.2 square miles) in western Riverside County (Figure NR-4).[7] The Basin is bounded by the Santa Ana and Elsinore Mountains along the Willard fault to the southwest, the Temecula Valley Groundwater Basin to the southeast, the Temescal Sub-basin of the Upper Santa Ana River Valley Groundwater Basin to the northwest, and the Peninsular Ranges along the Glen Ivy fault to the northeast.[8] The Basin is primarily served by precipitation infiltration as well as infiltration along the San Jacinto River channel upstream of Lake Elsinore and agricultural and residential return flows.[9] Average annual precipitation ranges from 12 to 14 inches. Municipal pumping for potable water is the only major outflow from the Basin.

The EVMWD has 13 active municipal wells that provide quality drinking water from 35% of the District's groundwater wells. [10] Groundwater is disinfected with chlorine and chloramines and represents 40-50% of Lake Elsinore's drinking water supply.[11]

SURFACE WATERS

Surface water features in the Planning Area include Lake Elsinore, the San Jacinto River, and Temescal Wash. Surface waters released from the Railroad Canyon Reservoir flow into the San Jacinto River, which flows into Lake Elsinore and lastly into the Temescal Walsh during periods of high lake levels (Figure NR-5).[12] These flows are supported by over a dozen tributaries, including intermittent streams and creeks. Intermittent streams contribute to distinctive riparian vegetation and play a major biological role by supplying sediment, water, and organic materials to downstream water channels.

Lake Elsinore is southern California's largest natural freshwater lake, measuring approximately 5 miles long by 2 miles wide. To maintain consistent lake levels, a levee was constructed in 1995 to reduce water surface size, minimize evaporation, and provide flood protection for the southern end of the lake. Lake Elsinore is fed by three primary water sources including runoff from local tributaries (8%), direct precipitation (20%), and inflows from the San Jacinto River (72%).[13] The Lake's reliance on runoff water brings water quality issues and associated ecological concerns such as fish die-offs and algal blooms.[14]

[7] "B118 Basin Boundary Description" (California Department of Water Resources, January 2006).

[8] Ibid.

[9] City of Lake Elsinore General Plan (2011).

[10] "Water Resources," Elsinore Valley Municipal Water District, November 22, 2023, https://evmwd.com/who-we-are/water-resources/.

[11] Ibid.

[12] City of Lake Elsinore General Plan (2011).

[13] Ibid.

[14] "The San Jacinto River Watershed," Lake Elsinore and San Jacinto Watersheds Authority LESJWA, n.d., https://mywatersheds.com/the-san-jacinto-river-watersheds/.

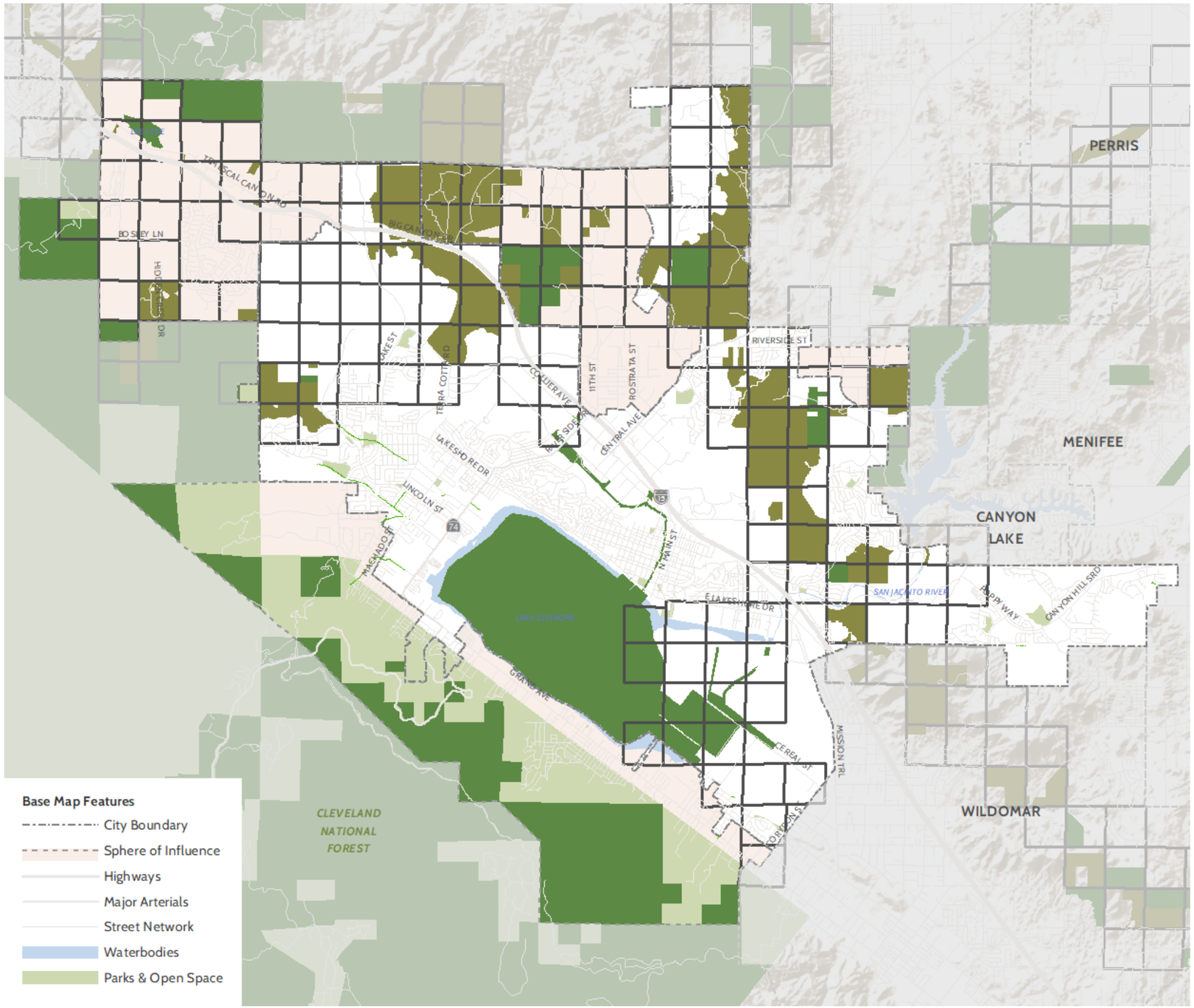


Figure NR-2
MSHCP CONSERVATION AREAS

Conserved Lands

- Criteria Cells
- RCA MSHCP Conserved Lands / Easments
- Public / Quasi-Public Conserved Lands

Public / Quasi-Public Conserved Lands: Properties owned, managed, or maintained by public agencies for the purposes of conservation.

RCA MSHCP Conserved / Easements: Additional reserve lands that contribute toward MSHCP conservation goals.

Criteria Cells / Area: A roughly 160-acre rectangle overlaid onto parcels within the MSHCP Plan Area and that has areas described for conservation.

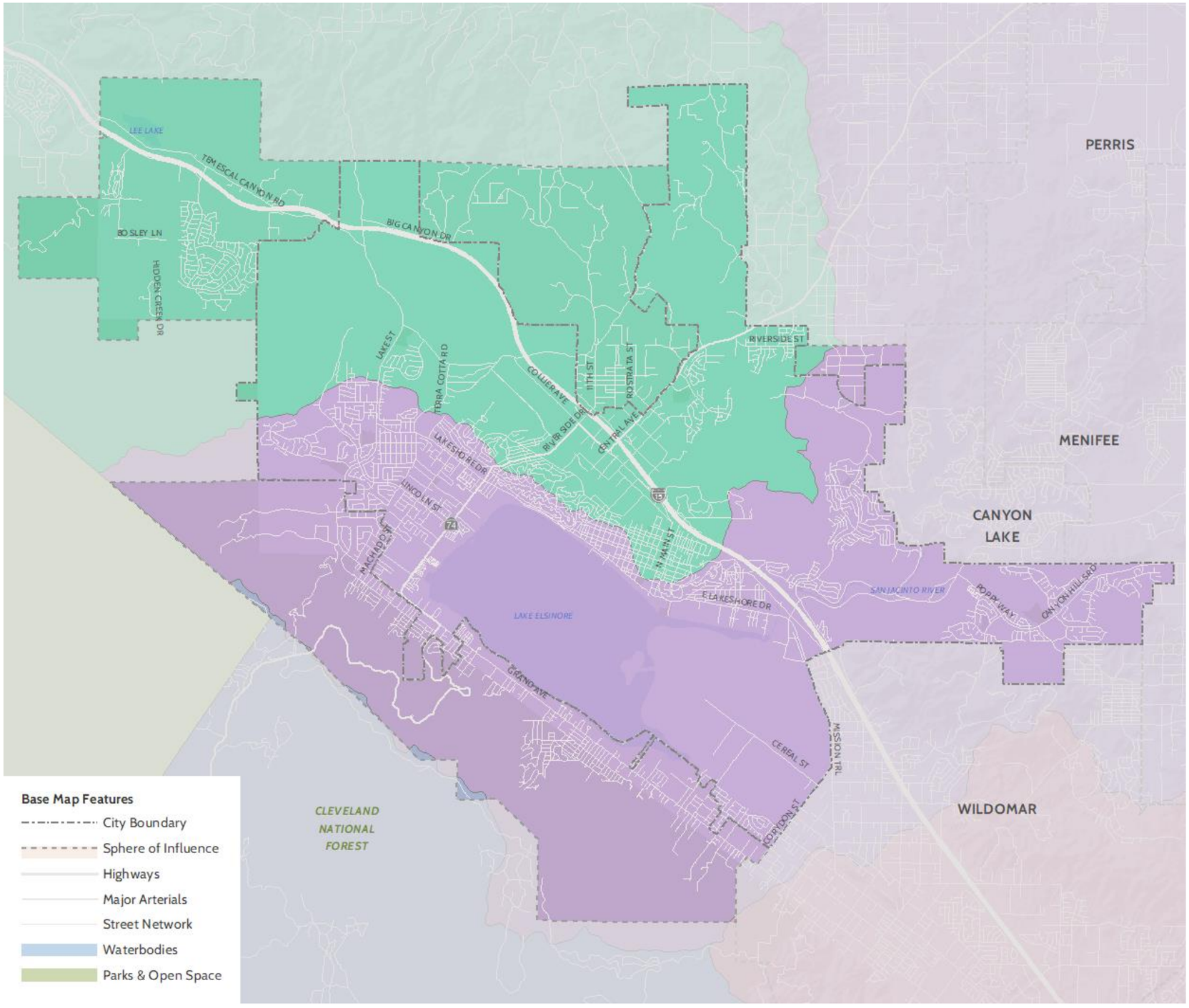


Figure NR-3

WATERSHEDS

Watersheds

- San Jacinto Valley
- Santa Ana River
- San Juan
- Santa Margarita

Prepared by MIG, October 2023.
Source: County of Riverside, 2023

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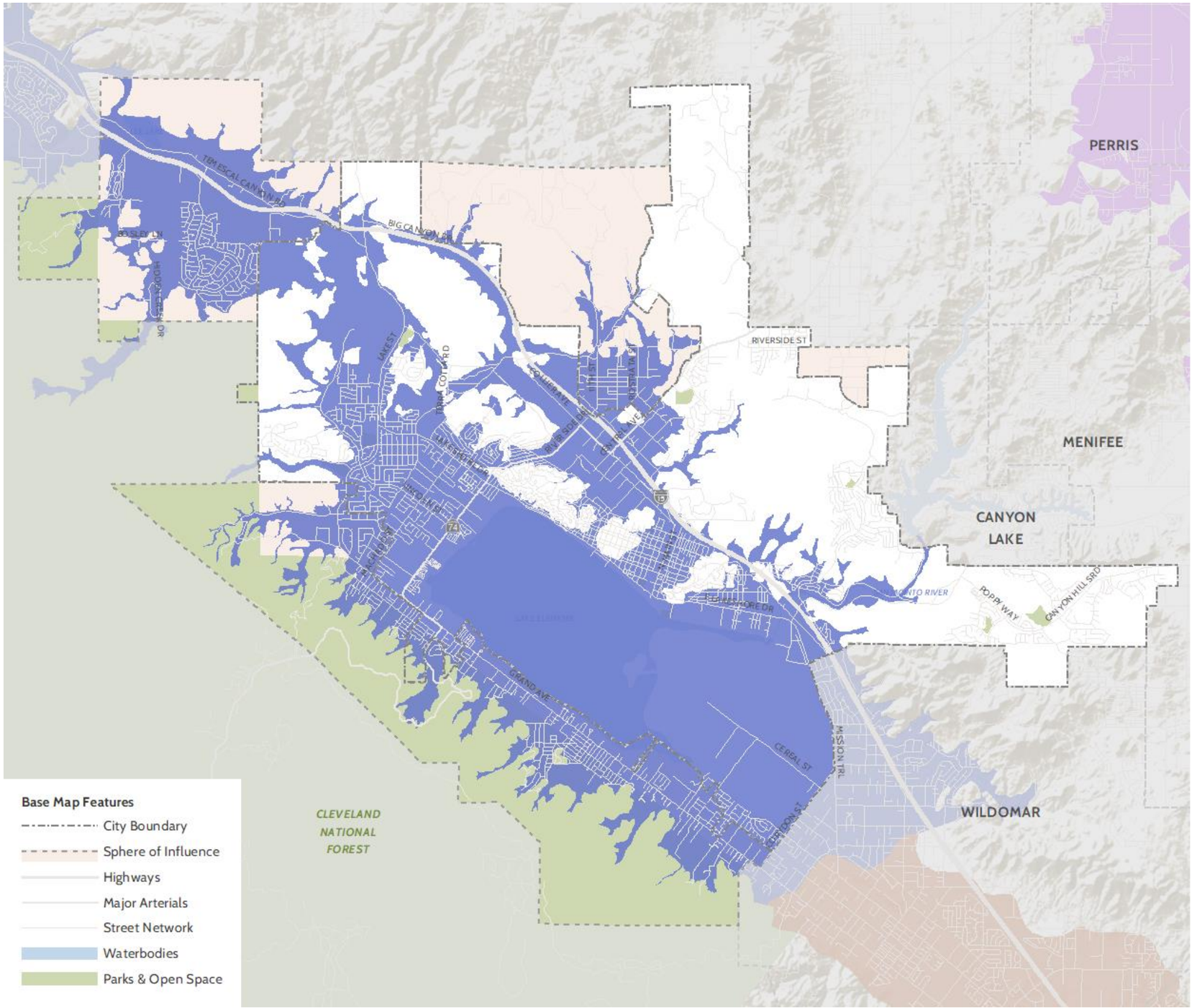


Figure NR-4
GROUNDWATER BASINS

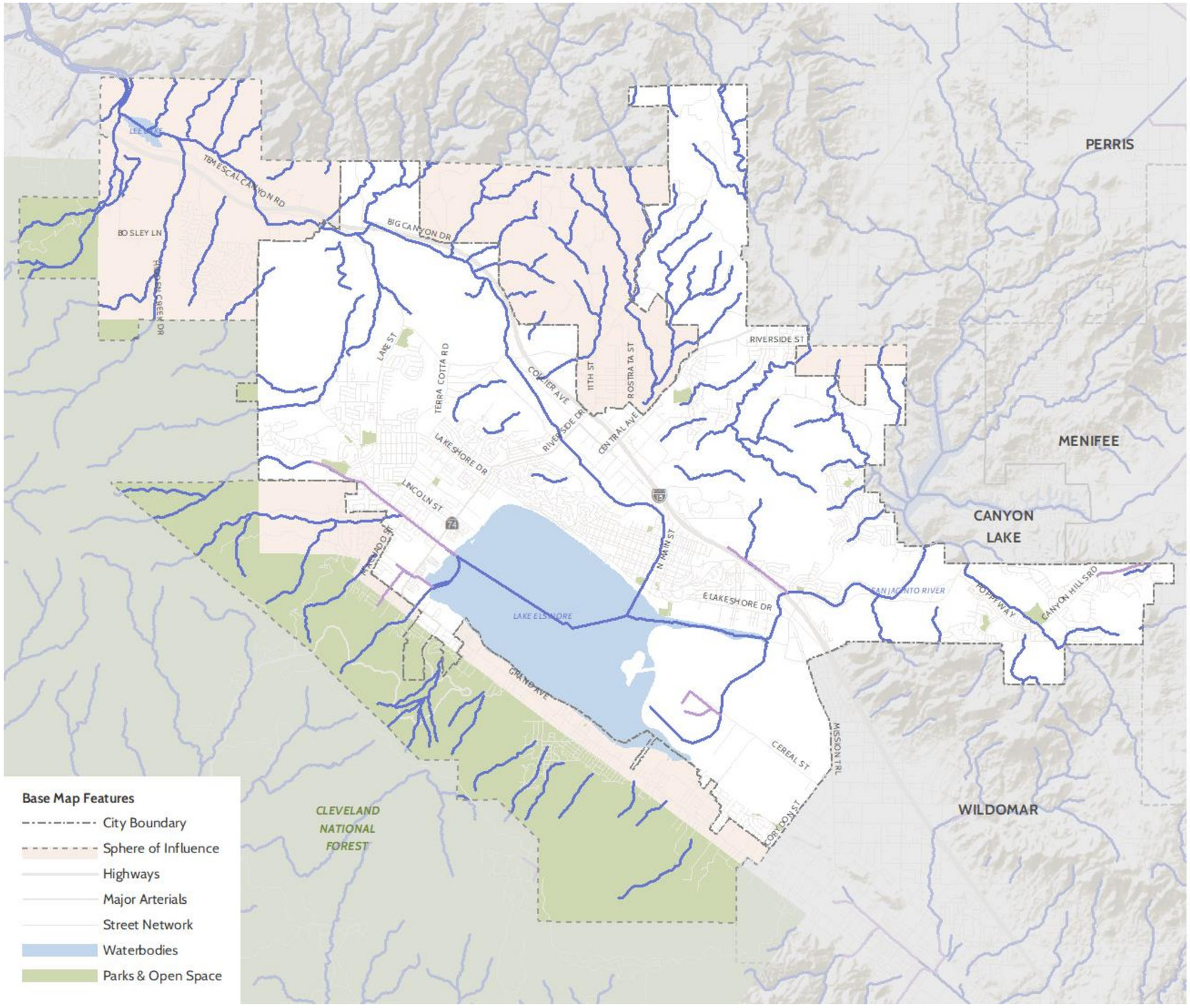


Figure NR-5

WATER COURSES

Water Courses / Conveyances

- Canal/Ditch
- Intermittent Stream/River

Prepared by MIG, October 2023.
Source: California State Geoportal, 2023, USGS National Hydrography Dataset, 2023

0 ¼ ½ 1 1½ 2 Miles

FLOOD PROTECTION

The Riverside County Flood Control District manages the region's flood protection and drainage. The District oversees several flood control facilities such as debris dams, storm channels, and storm drains that are referred to as the "backbone" system of flood control for the region.[15] The City of Lake Elsinore also owns and maintains multiple flood control facilities that are generally constructed as part of the drainage plans for individual projects. Naturally occurring flood protection, such as natural channelization, allows water to percolate into local groundwater basins. Two dams operated by the EVMWD impact the Planning Area. The Canyon Lake Dam (also referred to as the Railroad Canyon Dam), located at Canyon Lake northeast of the Planning Area, maintains the level of Canyon Lake Reservoir and regulates flows from the San Jacinto River watershed to Lake Elsinore.[16] The Elsinore Valley Dam (also referred to as the Lee Lake Dam), located at Corona Lake in the northwest corner of the Planning Area, regulates a man-made storage reservoir for non-drinking water that was previously used for agricultural irrigation and recreation but dried up almost completely during the five-year drought.[17]

For more information, see section on Flooding and Dam Inundation.

Mineral Resources

The City and SOI encompass areas with economically viable deposits of clay, sand, and gravel. As of 2023, two clay, sand, and gravel mines were active in the Lake Elsinore area. Both mines are going through reclamation processes.

Significant clay resources are located in the northern portions of the Planning Area, particularly in the Alberhill area. Clay resources have been used to produce heavy products such as brick and tile and refractory products such as fire brick and pottery.[18] In addition, red "bone clay" is sold directly for cement use. The mining activity is being phased out and reclamation processes are addressed in the specific plans for areas with mineral resources.

[15] Lake Elsinore General Plan (2011).

[16] "EVMWD Dams and Dam Safety," Elsinore Valley Municipal Water District, July 31, 2023, https://evmwd.com/who-we-are/operations/evmwd-dams-and-dam-safety/.

[17] Ibid.

[18] Lake Elsinore General Plan (2011).

KEY CONSIDERATIONS

- Mining operations have been slowly phased out through careful reclamation processes and will ultimately be terminated.

Topography and Terrain

Elevations in the Planning Area range from 1,230 to 2,932 feet above sea level. The shoreline areas along Lake Elsinore and the Lake View District, Lake Edge District and East Lake District to the west and east of the lake are predominantly flat. Terrain in the remaining areas of the Planning Area consist of rolling hills and heavily vegetated steep slopes that steadily increase outward from the Lake. As a result, Lake Elsinore's land use includes a high amount of vacant, development-constrained land across its many steep slopes. These steep slope areas pose various natural hazard concerns such as heightened landslide susceptibility and wildfire risk. Lake Elsinore is also located within the Elsinore Fault Zone, which includes multiple active faults directly to the northwest and southwest. Refer to the Safety and Hazards section for more information on the City's active faults and natural hazards.

Key Considerations

- The natural communities and conservation areas are home to a variety of animal and plant species, some of which are either protected or threatened.
- The City will need to reconsider the challenges and benefits of future development growth in natural areas, particularly in the hillsides and around the Lake, versus focusing future growth around infill opportunities.
- Many developed areas in the Planning Area occur on varied terrain, including rolling hills and steep hillsides. These areas may experience unstable soils and high fire hazards associated with the steeper, highly vegetated slopes.
- Steep slopes and high elevations limit development on significant portions of the Planning Area's vacant lands and pose numerous natural hazard risks.
- The City's water resources play a major role in supporting several plant and animal species.
- Continued local, regional, and state coordination is required to maintain water quality that supports the well-being of residents and natural areas.

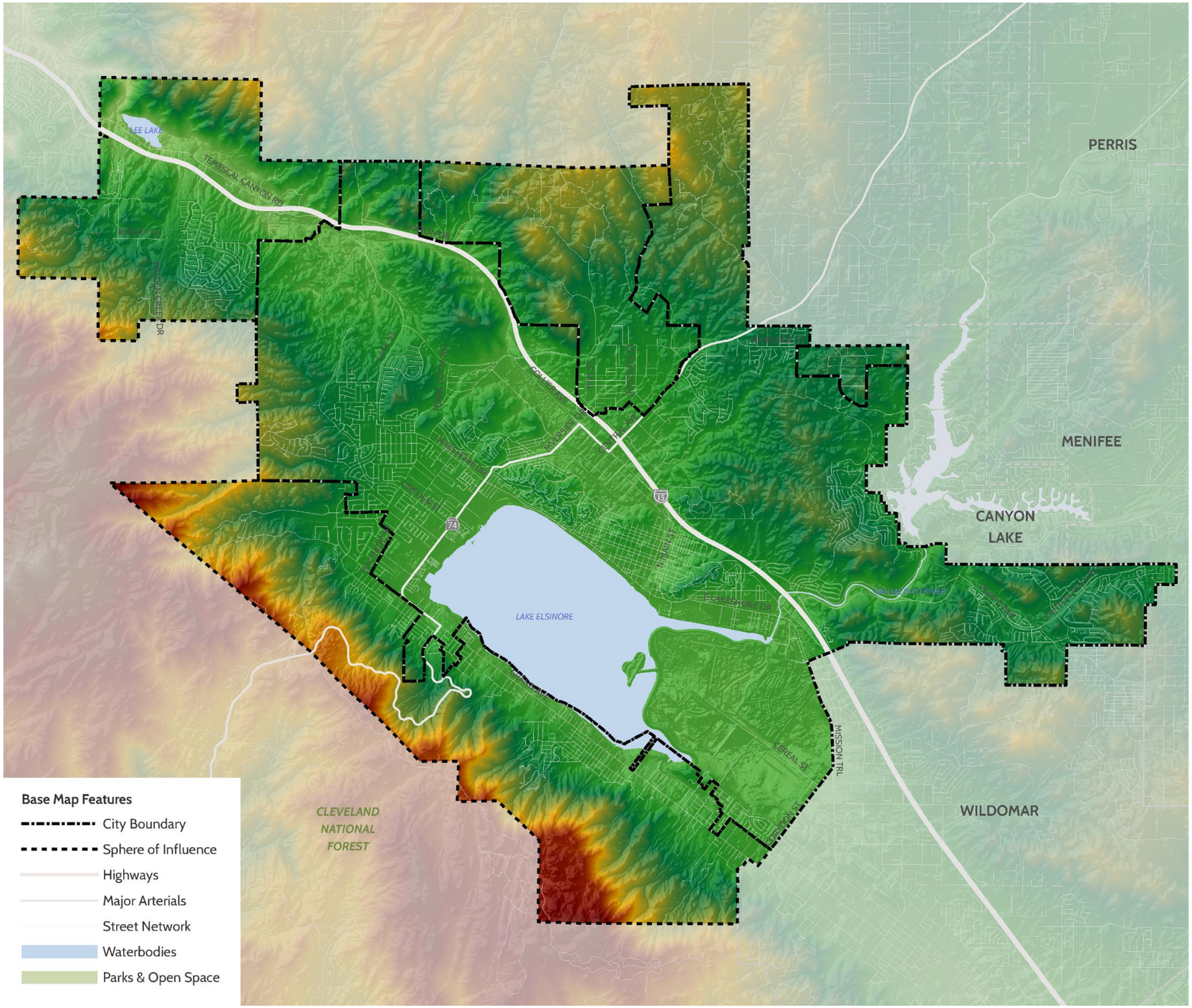


Figure NR-6

TOPOGRAPHY

Elevation (Meters)

High : 1,731

Low : -2.5

Prepared by MIG, October 2023.

Source: California Department of Water Resources, 2023

0 ¼ ½ 1 1½ 2 Miles

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Safety and Hazards

Lake Elsinore is bounded by the Lake Elsinore Mountains of the Santa Ana Mountain Range to the southwest and the Temescal Mountains to the north. The steep terrain and dense natural vegetation present wildland fires and slope failure hazards. Multiple areas throughout Lake Elsinore also experience routine flooding during heavy rain events that overwhelm the City's storm drainage system. Each of these hazards are expected to increase in severity with climate change. For this reason, the City understands that comprehensive planning within the context of safety must address both public safety and environmental conditions such as potential earthquakes, wildfires, floods, and the presence of hazardous materials. Public safety responsibilities continue to evolve to address changing conditions.

The City is committed to taking preventative measures including emergency preparedness to reduce their negative effects. The focus is on maintaining a healthy and safe physical environment and ensuring community welfare through access to effective and efficient high-quality public services.

Natural Hazards

SEISMIC HAZARDS

Seismic hazards pose a significant threat to Lake Elsinore. A significant seismic event could cause casualties, property damage, disruption in communications, utility, supply, and distribution systems, and cascading natural disasters such as landslides, liquefaction, and flooding. Building damage caused by seismic activities also represents an ever-present hazard. Over a third of Lake Elsinore's housing stock is over 30 years old. These older structures could be vulnerable to considerable damage as result of a significant seismic event. For these reasons, the City recognizes the importance of addressing seismic hazards and taking preventative measures to reduce their negative effects.

Seismic History

The most significant earthquake affecting Lake Elsinore was the May 15, 1910, Elsinore Earthquake (magnitude 6) that hit just northwest of the City. The 1910 earthquake struck at 7:47 AM. Significant damage was not recorded beyond a few toppled chimneys and alarm expressed by residents. The 1910 earthquake is the largest historically recorded earthquake in the Elsinore Fault Zone. Table SH-1 shows the earthquakes that have struck within 10 miles of Lake Elsinore since 1930.

Table SH-1: Recent Earthquake History

Decade	Frequency of Earthquakes within 10 miles of Lake Elsinore				
	2.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	Total
1930	27	5	1	-	33
1940	3	1	-	-	4
1950	2	1	1	-	4
1960	2	3	-	-	5
1970	5	1	1	-	7
1980	42	5	-	-	47
1990	16	3	-	-	19
2000	17	4	1	-	22
2010	14	3	-	-	17

Table SH-1: Recent Earthquake History

Decade	Frequency of Earthquakes within 10 miles of Lake Elsinore				
	2.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	Total
2020	9	2	-	-	11
Total	136	28	4	0	168

Source: Southern California Earthquake Center, Caltech, 2023.

Faults

Southern California is an area well known for its seismicity. The region sits across two tectonic plates: the North American and the Pacific. Movement along this boundary has resulted in many earthquakes from the region's numerous faults. Due to the numerous active faults within Lake Elsinore and the broader region, the Planning Area is likely to experience moderate to significant seismic activity in the foreseeable future. Figure SH-1 shows the regional faults' locations.

The City of Lake Elsinore is located within the Elsinore Fault Zone, one of Southern California's largest active fault zones, which extends approximately 190 miles from San Diego County to the northern end of the Santa Ana Mountains. The Elsinore Fault Zone consists of multiple fault strands including the Glen Ivy North and Glen Ivy South faults directly northwest of Lake Elsinore, the Wildomar and Willard faults directly southeast of Lake Elsinore, and numerous other unnamed faults. The Elsinore Fault Zone is known to be one of the historically quietest fault zones in the region with the last major rupture reported in 1910. It is estimated that the zone can produce a magnitude- 6.5-7.5 earthquake, with a recurrence interval of approximately 250 years between major events.[1] Smaller events are expected to occur more frequently.

The San Andreas fault and the San Jacinto fault, both further than 10 miles from the City, have the capability of producing a large earthquake that could affect Lake Elsinore. The San Andreas fault could produce a magnitude- 8.0 earthquake, while the San Jacinto fault could produce a magnitude- 7.5 earthquake.[2]

Landslides and Liquefaction

Landslides and liquefaction represent two seismically induced hazards. Earthquake induced landslides are secondary earthquake hazards that occur from ground shaking. While the State of California has not yet issued seismically induced landslide maps for the Lake Elsinore area, landslides are likely to occur in hillside areas. A substantial portion of the Planning Areas is located on slopes of 25-35 percent or steeper, much of which is at substantial risk of seismically induced slope failure.[3]

Soil liquefaction is a seismically induced form of ground failure, which has been a major cause of earthquake damage in Southern California. Liquefaction occurs when ground shaking causes wet granular soils to change from a solid state to a liquid state, destabilizing the ability of the soil to support structures. In Lake Elsinore, very high liquefaction hazards are present along Grand Avenue directly south of Lake Elsinore and along I-15 in the Business and Historic districts, as depicted in Figure SH-2 and Figure SH-3. High liquefaction potential is also expected along the area's principal tributary drainages and in the valley floor corridor formerly occupied by the axial riverine drainage.

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[1] https://scedc.caltech.edu/earthquake/elsinore.html#:~:text=Northwest%20of%20Lake%20Elsinore%20are,easterly)%20and%20the%20Willard%20fault.

[2] https://scedc.caltech.edu/earthquake/faults.html#s

[3] Lake Elsinore Local Hazard Mitigation Plan (2017)

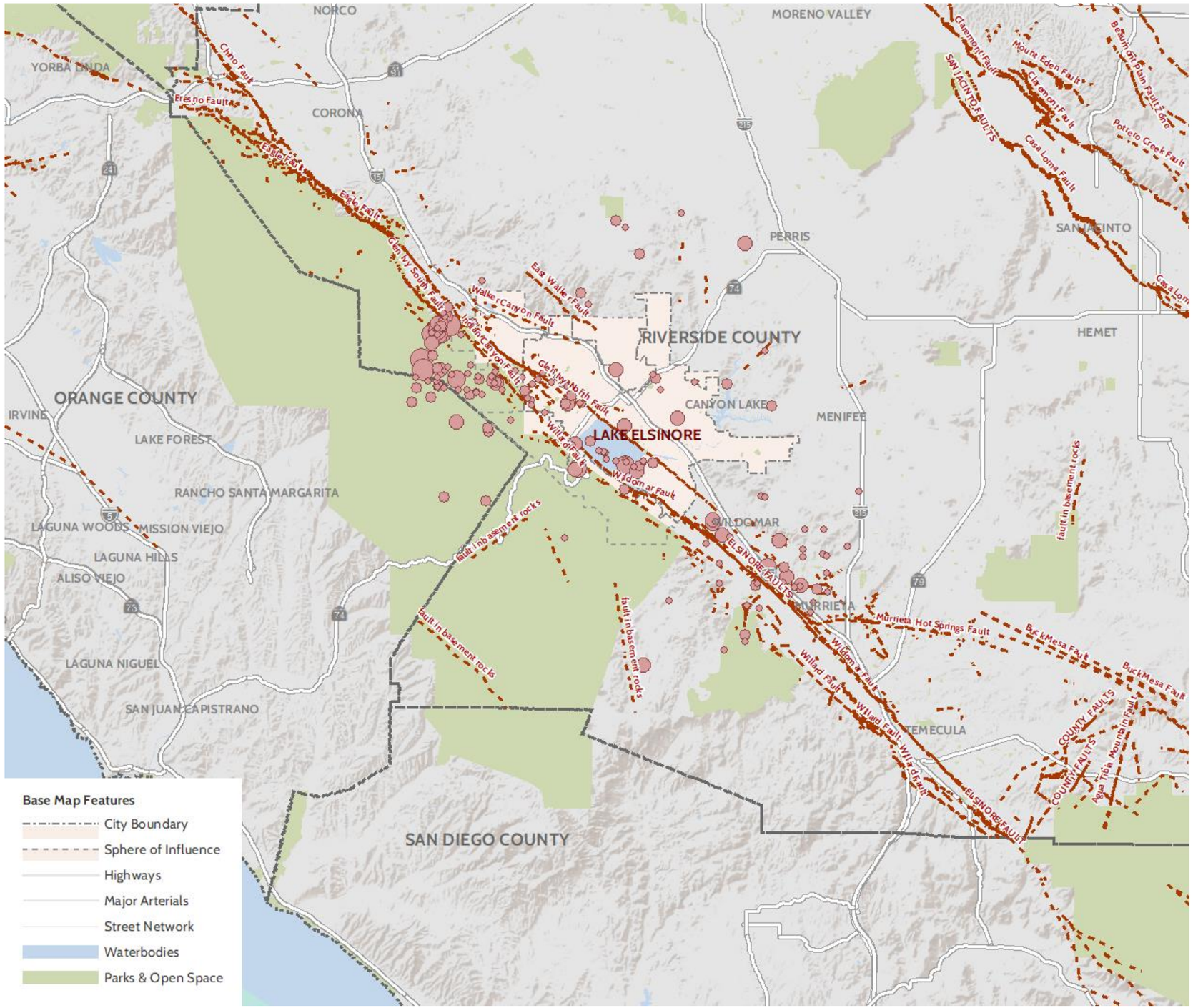


Figure SH-1

REGIONAL FAULTS AND HISTORIC EARTHQUAKES

Faults

Regional Fault Lines

Earthquake Magnitude (1932-2023)

2.0 - 2.5	*Not Felt*
2.6 - 3.0	
3.1 - 3.5	
3.6 - 4.0	*Minor*
4.1 - 4.5	
4.6 - 5.0	*Light*

Prepared by MIG, October 2023.
Source: County of Riverside, 2016, USGS, 2023, Southern California Earthquake Center, Caltech, 2023.

Miles
0 2 4 6 8

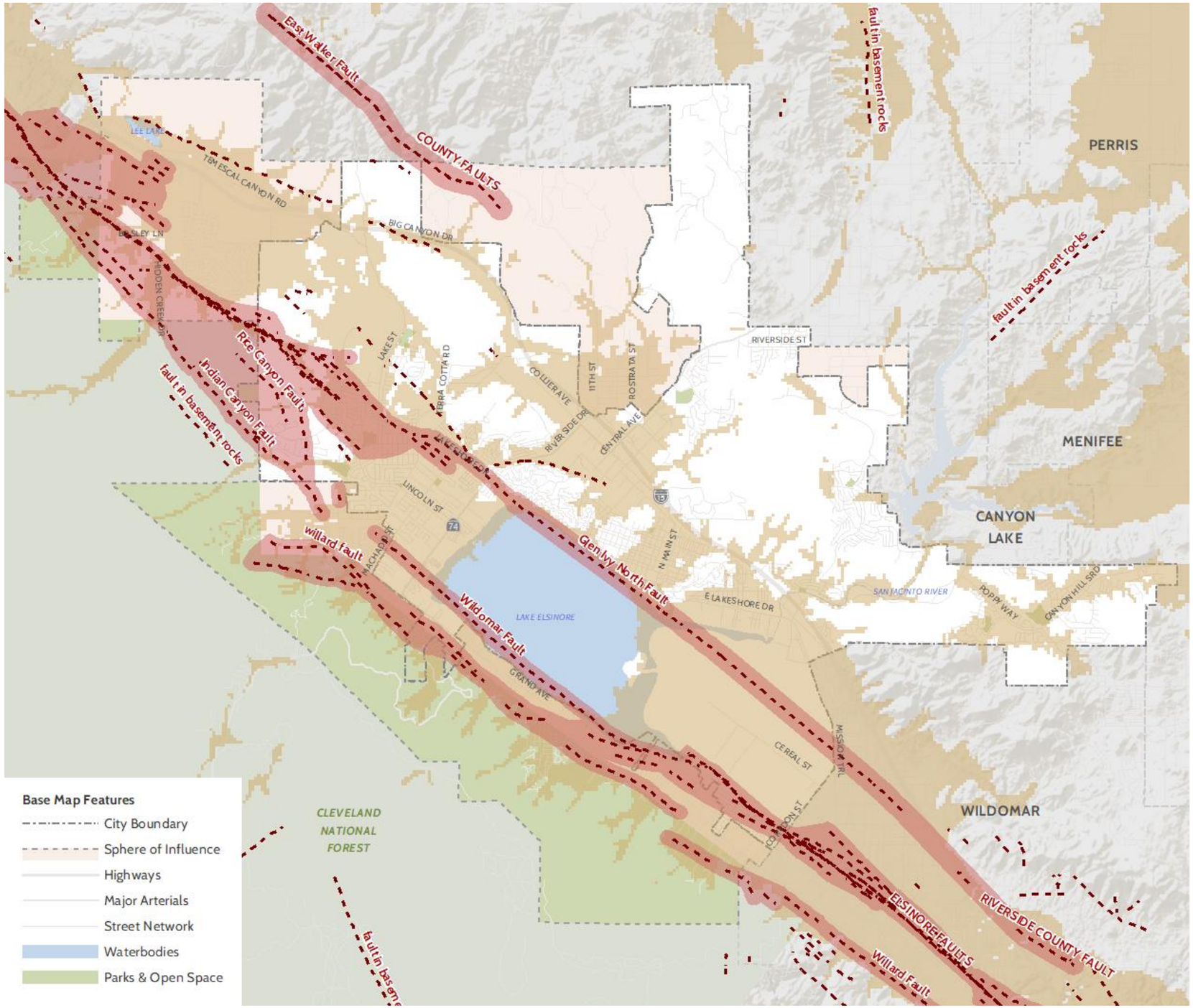


Figure SH-2

LOCAL SEISMIC HAZARDS

Seismic Hazards

- Fault Lines
- Fault Zones
- Liquefaction Zones

Prepared by MIG, October 2023.
Source: County of Riverside, 2016.

0 ¼ ½ 1 1½ 2 Miles

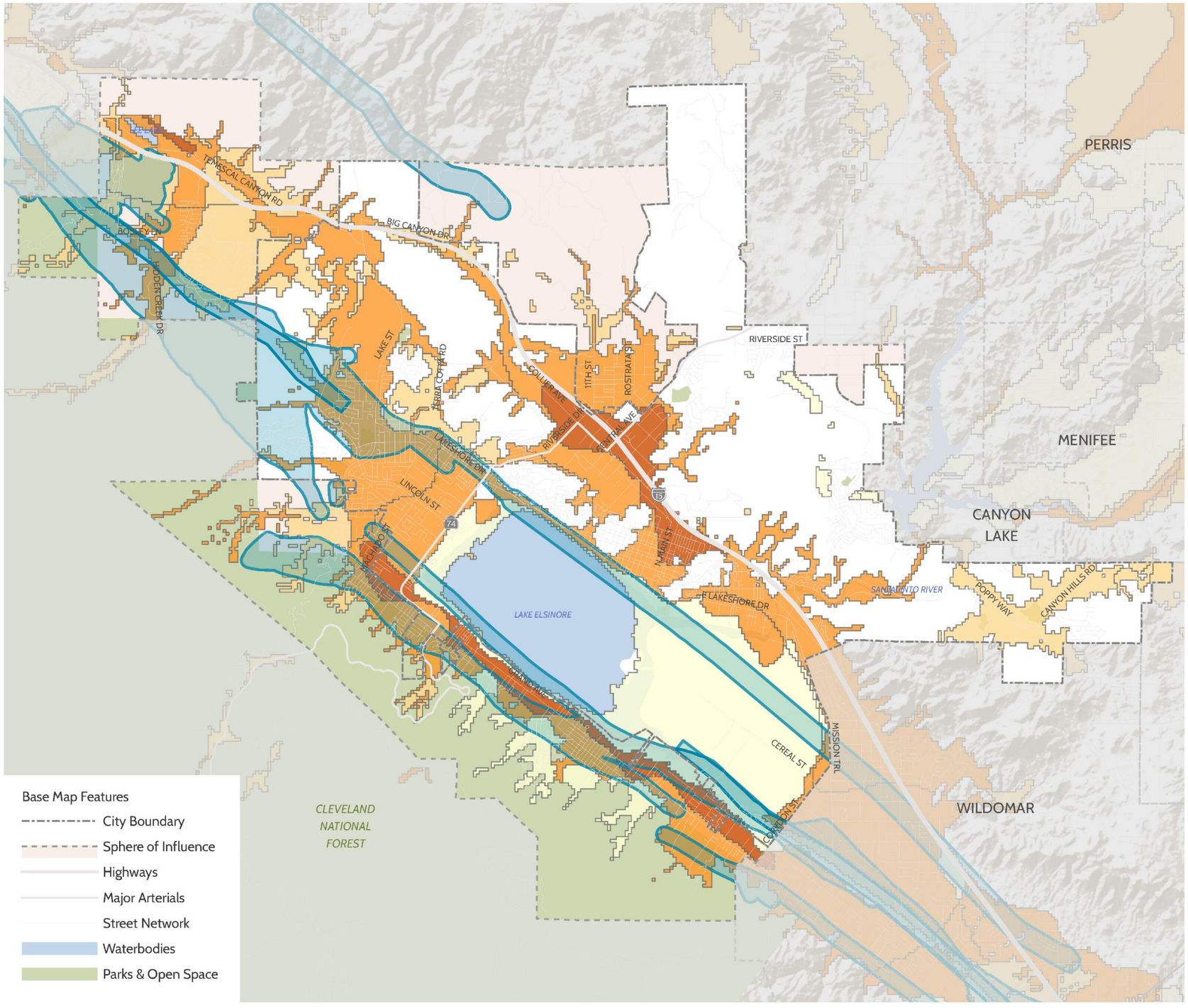


Figure SH-3

LIQUEFACTION SUSCEPTIBILITY ZONES

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Geologic Hazards

Figure SH-4 identifies local geologic conditions and shows that a significant portion of the City is underlain by soils that are well-drained, undulated to steep, moderately deep to shallow, formed on gabbro or latite bedrock, and have a surface layer of fine sandy loam and loam. Most of the soils found in the City are suitable to support development, recreational uses, and wildlife habitats.

Soils characteristics are based on observations of slope, length, drainage patterns, floral activity, and bedrock types. Soils profiles note color, texture, size and shape of aggregates, amount and type of rock fragments, plant root distribution, reaction, and other identifying features. The soil characteristics include limitations, such as susceptibility to erosion, that may affect development.

FLOODING AND DAM INUNDATION

Large portions of the Planning Area are located within the Federal Emergency Management Agency (FEMA) mapped 100-year special flood hazard zones, see Figure SH-5. In the past decade, the City has experienced flood damage from numerous winter storms that have overwhelmed the City's storm drainage system and created localized flood problems.[4] Flood sources in Lake Elsinore include the following:

- Arroyo del Toro
- Channel H
- Elsinore Spillway Channel
- Lake Elsinore
- Leach canyon Channel
- Lime Street Channel
- McVicker Canyon
- Ortega Wash
- Ortega Channel
- Rice Canyon
- San Jacinto River
- Stovepipe Canyon Creek
- Temescal Walsh
- Wash G
- Wash I
- Murrieta Creek
- Wasson Canyon Creek

Failure of the Railroad Canyon Dam would pose extreme high downstream hazards to large portions of Lake Elsinore (Figure SH-5). The Railroad Canyon Dam is owned and operated by the Elsinore Valley Municipal Water District (EVMWD). In 1996, the EVMWD spent $9.1 million to upgrade and widen the dam to withstand a 1,000-year flood event. The dam is inspected monthly by the EVMWD and yearly by the Division of Safety of Dams to ensure the dam is properly maintained and protected against an earthquake or flood. The Railroad Canyon Dam was rated "Satisfactory" by the 2022 condition assessment utilizing the National Dam Safety Review Board rating system.[5]

[4] Lake Elsinore Local Hazard Mitigation Plan (2017)

[5] California Department of Water Resources Division of Safety of Dams Jurisdictional Dams Inventory, 2022.

Wildfire Hazards

While the Elsinore Mountains of the Santa Ana Mountain Range and surrounding hills frame Lake Elsinore's picturesque backdrop, they also facilitate wildfire hazard risks. Wildfires are an ever-present concern in the adjacent mountain ranges and steep terrain—especially considering much of the areas to the southwest, west, and northwest of the SOI are fueled by vegetative shrub and chaparral overgrowth. Risk is further elevated by high temperatures, occasional Santa Ana winds, and periodic high velocity winds through the valley and steep canyons that form a natural wind funnel. In the past decade, one notable fire has occurred within the Planning Area, and seven others have been documented in the area since 1984. In August 2018, the Holy Fire burned 92 square miles in the Cleveland National Forest, impacting approximately 160 buildings in Lake Elsinore. Figure SH-6 illustrates the fire perimeters of wild fire that have occurred within the Planning Area and surrounding communities.

The majority of the Planning Area is designated "Very High Fire Hazard Severity Zones" (VHFHSZs) by Riverside County and the California Department of Forestry and Fire Protection (CAL FIRE) as depicted in Figure SH-7. Developments within the zone are required develop Fire Protection Plans. Lake Elsinore contracts fire services with the Riverside County Fire Department and CAL FIRE, providing a full range of fire protection services including fire prevention, suppression, and emergency medical response. The Riverside County Fire Department provides firefighting services to Lake Elsinore's portion of the Local Responsibility Area (LRA) while CAL FIRE is the primary emergency response agency responsible for lands within State Responsibility Areas (SRA).

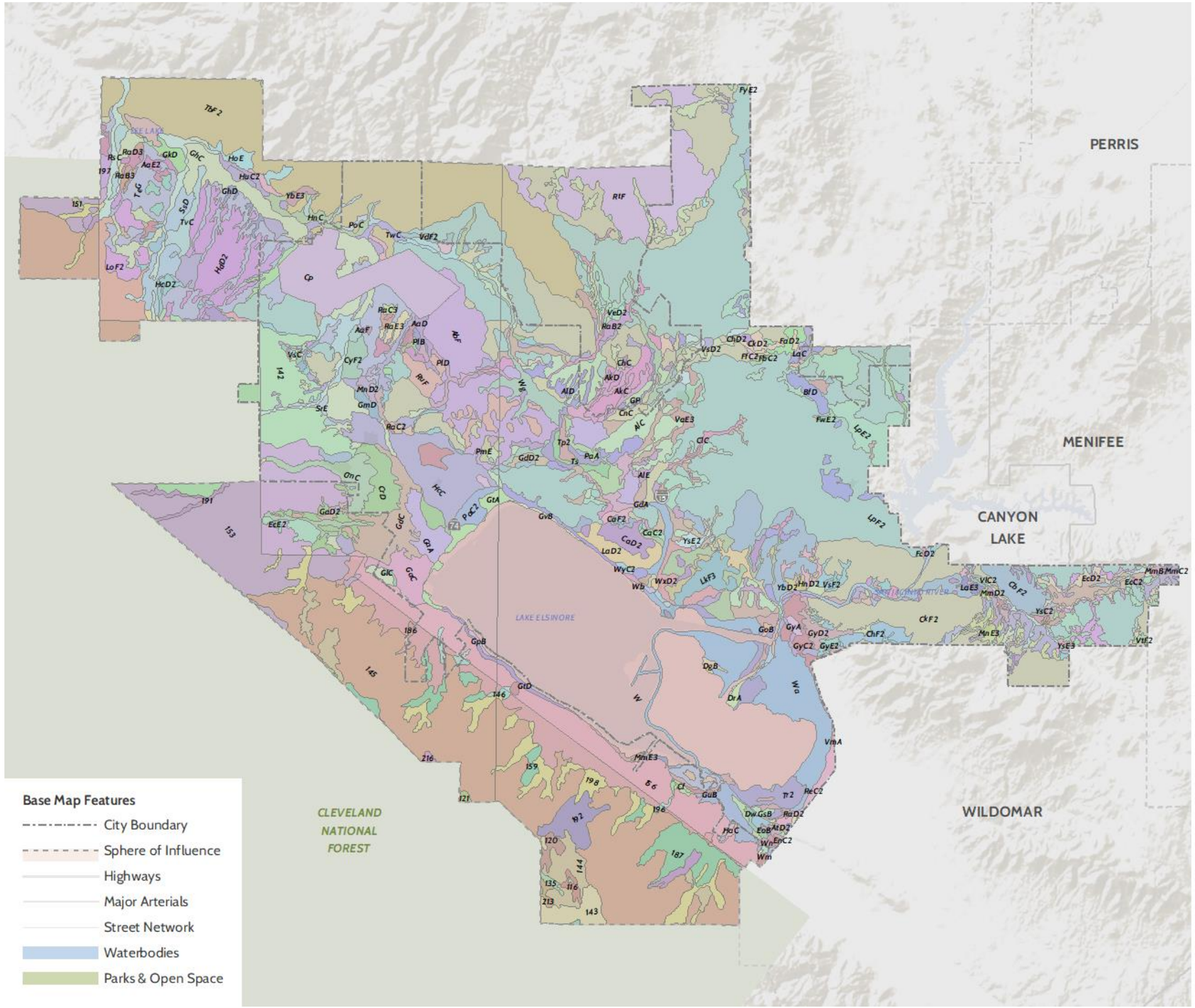


Figure SH-4
SOIL CLASSIFICATIONS

See Table SH-2 for glossary of abbreviations.

Prepared by MIG, October 2023.
Source: United States Department of Agriculture Web Soil Survey, 2023.

0 ¼ ½ 1 1½ 2 Miles

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Table SH-2 Soil Categories (Legend for Figure SH-3)

Legend
116, Blasingame loam, 9 to 30 percent slopes
120, Blasingame-Vista complex, 9 to 15 percent slopes
121, Blasingame-Vista complex, 15 to 30 percent slopes
135, Capistrano sandy loam, 2 to 9 percent slopes
142, Cieneba sandy loam, 30 to 75 percent slopes, eroded
143, Cieneba-Blasingame-Rock outcrop complex, 9 to 30 percent slopes
144, Cieneba-Rock outcrop complex, 9 to 30 percent slopes
145, Cieneba-Rock outcrop complex, 30 to 75 percent slopes
146, Corralitos loamy sand
151, Escondido very fine sandy loam, 15 to 30 percent slopes
153, Friant fine sandy loam, 30 to 75 percent slopes
156, Hanford sandy loam, 2 to 9 percent slopes
159, Las Posas gravelly loam, 15 to 50 percent slopes
186, Ramona fine sandy loam, 2 to 9 percent slopes
187, Ramona gravelly fine sandy loam, 9 to 15 percent slopes
191, Riverwash
192, Rock outcrop-Cieneba complex, 30 to 75 percent slopes
196, San Emigdio fine sandy loam, moderately fine substratum, 0 to 2 percent slopes
197, Soboba gravelly loamy sand, 0 to 5 percent slopes
198, Soboba cobbly loamy sand, 0 to 15 percent slopes
213, Vista coarse sandy loam, 9 to 15 percent slopes, MLRA 20
216, Vista-Rock outcrop complex, 9 to 30 percent slopes
AaD, Altamont clay, 5 to 15 percent slopes
AaE2, Altamont clay, 15 to 25 percent slopes, eroded
AaF, Altamont clay, 25 to 50 percent slopes
AbF, Altamont cobbly clay, 8 to 35 percent slopes
AkC, Arbuckle loam, 2 to 8 percent slopes
AkD, Arbuckle loam, 8 to 15 percent slopes
AlC, Arbuckle gravelly loam, 2 to 9 percent slopes, dry, MLRA 19
AlD, Arbuckle gravelly loam, 8 to 15 percent slopes
AlE, Arbuckle gravelly loam, 15 to 25 percent slopes
AtD2, Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded
BfD, Bosanko clay, 9 to 15 percent slopes
CaC2, Cajalco fine sandy loam, 2 to 8 percent slopes, eroded
CaD2, Cajalco fine sandy loam, 8 to 15 percent slopes, eroded
CaF2, Cajalco fine sandy loam, 15 to 35 percent slopes, erode d
CbD2, Cajalco rocky fine sandy loam, 5 to 15 percent slopes, eroded
CbF2, Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
Cf, Chino silt loam, drained, saline-alkali
ChC, Cieneba sandy loam, 5 to 8 percent slopes
ChD2, Cieneba sandy loam, 8 to 15 percent slopes, eroded
ChF2, Cieneba sandy loam, 15 to 50 percent slopes, eroded
CkD2, Cieneba rocky sandy loam, 8 to 15 percent slopes, eroded
CkF2, Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
ClC, Cortina gravelly loamy sand, 2 to 8 percent slopes
CmC, Cortina cobbly loamy sand, 2 to 8 percent slopes
CnC, Cortina gravelly coarse sandy loam, 2 to 8 percent slopes
CP, Clay Pits
CrD, Cortina cobbly sandy loam, 2 to 12 percent slopes
CyF2, Crouch rocky sandy loam, 25 to 50 percent slopes, eroded

Legend
DaD2, Delhi fine sand, 2 to 15 percent slopes, wind-eroded
DgB, Dello loamy sand, 0 to 5 percent slopes
DrA, Dello loamy fine sand, gravelly substratum, 0 to 2 percent slopes
Dw, Domino silt loam, strongly saline-alkali
EcC2, Escondido fine sandy loam, 2 to 8 percent slopes, eroded
EcD2, Escondido fine sandy loam, 8 to 15 percent slopes, eroded
EcE2, Escondido fine sandy loam, 15 to 25 percent slopes, eroded
EnC2, Exeter sandy loam, 2 to 8 percent slopes, eroded
EoB, Exeter sandy loam, slightly saline-alkali, 0 to 5 perce nt slopes
EwB, Exeter very fine sandy loam, 0 to 5 percent slopes
FaD2, Fallbrook sandy loam, 8 to 15 percent slopes, eroded
FbC2, Fallbrook sandy loam, shallow, 5 to 8 percent slopes, eroded
FcD2, Fallbrook rocky sandy loam, shallow, 8 to 15 percent slopes, eroded
FfC2, Fallbrook fine sandy loam, 2 to 8 percent slopes, eroded
FkD2, Fallbrook fine sandy loam, shallow, 8 to 15 percent slopes, eroded
FwE2, Friant fine sandy loam, 5 to 25 percent slopes, eroded
FyE2, Friant rocky fine sandy loam, 8 to 25 percent slopes, e roded
GaA, Garretson very fine sandy loam, 0 to 2 percent slopes
GaC, Garretson very fine sandy loam, 2 to 8 percent slopes
GaD2, Garretson very fine sandy loam, 8 to 15 percent slopes, eroded
GdA, Garretson gravelly very fine sandy loam, 0 to 2 percent slopes
GdC, Garretson gravelly very fine sandy loam, 2 to 8 percent slopes
GdD2, Garretson gravelly very fine sandy loam, 8 to 15 percent slopes, eroded
GhC, Gorgonio loamy sand, 0 to 8 percent slopes
GhD, Gorgonio loamy sand, 8 to 15 percent slopes
GkD, Gorgonio loamy sand, channeled, 2 to 15 percent slopes
GlC, Gorgonio loamy sand, deep, 2 to 8 percent slopes
GmD, Gorgonio gravelly loamy fine sand, 2 to 15 percent slop es
GoB, Grangeville loamy fine sand, drained, 0 to 5 percent slopes
GP, Gravel pits
GpB, Grangeville sandy loam, drained, saline-alkali, 0 to 5 percent slopes
GsB, Grangeville sandy loam, sandy substratum, drained, saline-alkali , 0 to 5 percent slopes
GtA, Grangeville fine sandy loam, drained, 0 to 2 percent sl opes
GtD, Grangeville fine sandy loam, drained, 5 to 15 percent s lopes
GuB, Grangeville fine sandy loam, poorly drained, saline-alk ali, 0 to 5 percent slopes
GvB, Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes
GyA, Greenfield sandy loam, 0 to 2 percent slopes
GyC2, Greenfield sandy loam, 2 to 8 percent slopes, eroded
GyD2, Greenfield sandy loam, 8 to 15 percent slopes, eroded
GyE2, Greenfield sandy loam, 15 to 25 percent slopes, eroded
HaC, Hanford loamy fine sand, 0 to 8 percent slopes
HcC, Hanford coarse sandy loam, 2 to 8 percent slopes
HcD2, Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
HdD2, Hanford cobbly coarse sandy loam, 2 to 15 percent slopes, eroded
HnC, Honcut sandy loam, 2 to 8 percent slopes
HnD2, Honcut sandy loam, 8 to 15 percent slopes, eroded
HoE, Honcut cobbly sandy loam, 2 to 25 percent slopes
HuC2, Honcut loam, 2 to 8 percent slopes, eroded
LaC, Las Posas loam, 2 to 8 percent slopes
LaC2, Las Posas loam, 5 to 8 percent slopes, eroded

Legend
LaD2, Las Posas loam, 8 to 15 percent slopes, eroded
LaE3, Las Posas loam, 8 to 25 percent slopes, severely eroded
LkF3, Las Posas rocky loam, 15 to 50 percent slopes, severely eroded
LoF2, Lodo gravelly loam, 15 to 50 percent slopes, eroded
LpE2, Lodo rocky loam, 8 to 25 percent slopes, eroded
LpF2, Lodo rocky loam, 25 to 50 percent slopes, eroded
MmB, Monserate sandy loam, 0 to 5 percent slopes
MmC2, Monserate sandy loam, 5 to 8 percent slopes, eroded
MmD2, Monserate sandy loam, 8 to 15 percent slopes, eroded
MmE3, Monserate sandy loam, 15 to 25 percent slopes, severely eroded
MnD2, Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded
MnE3, Monserate sandy loam, shallow, 15 to 25 percent slopes, severely eroded
PaA, Pachappa fine sandy loam, 0 to 2 percent slopes
PaC2, Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
PlB, Placentia fine sandy loam, 0 to 5 percent slopes
PlD, Placentia fine sandy loam, 5 to 15 percent slopes
PmE, Placentia cobbly fine sandy loam, 8 to 25 percent slope s
PoC, Porterville clay, 0 to 8 percent slopes
RaB2, Ramona sandy loam, 2 to 5 percent slopes, eroded
RaB3, Ramona sandy loam, 0 to 5 percent slopes, severely eroded
RaC2, Ramona sandy loam, 5 to 8 percent slopes, eroded
RaC3, Ramona sandy loam, 5 to 8 percent slopes, severely eroded
RaD2, Ramona sandy loam, 8 to 15 percent slopes, eroded
RaD3, Ramona sandy loam, 8 to 15 percent slopes, severely eroded
RaE3, Ramona sandy loam, 15 to 25 percent slopes, severely eroded
ReC2, Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
RsC, Riverwash
RtF, Rockland
RuF, Rough broken land
SrE, Soboba cobbly loamy sand, 2 to 25 percent slopes
SsD, Soboba stony loamy sand, 2 to 15 percent slopes
TbF2, Temescal rocky loam, 15 to 50 percent slopes, eroded
TeG, Terrace escarpments
Tp2, Traver loamy fine sand, eroded
Tr2, Traver loamy fine sand, saline-alkali, eroded
Ts, Traver fine sandy loam, saline-alkali
TvC, Tujunga loamy sand, channeled, 0 to 8 percent slopes
TwC, Tujunga gravelly loamy sand, 0 to 8 percent slopes
VaE3, Vallecitos loam, 8 to 25 percent slopes, severely eroded
VdF2, Vallecitos rocky loam, 8 to 50 percent slopes, eroded
VeD2, Vallecitos loam, thick solum variant, 8 to 15 percent slopes, eroded
VlC2, Visalia sandy loam, 0 to 8 percent slopes, eroded
VmA, Visalia fine sandy loam, 0 to 2 percent slopes
VmC, Visalia fine sandy loam, 2 to 8 percent slopes
VsC, Vista coarse sandy loam, 2 to 8 percent slopes
VsD2, Vista coarse sandy loam, 8 to 15 percent slopes, eroded
VsF2, Vista coarse sandy loam, 15 to 35 percent slopes, eroded
VtF2, Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded
W, Water
Wa, Waukena loamy fine sand, saline-alkali
Wb, Waukena fine sandy loam, saline-alkali
Wg, Willows silty clay, saline-alkali

Legend
Wm, Willows silty clay, deep, saline-alkali
Wn, Willows silty clay, deep, strongly saline-alkali
WxD2, Wyman fine sandy loam, 8 to 15 percent slopes, eroded
WyC2, Wyman loam, 2 to 8 percent slopes, eroded
YbD2, Yokohl loam, 8 to 15 percent slopes, eroded
YbE3, Yokohl loam, 8 to 25 percent slopes, severely eroded
YsC2, Ysidora gravelly very fine sandy loam, 2 to 8 percent s lopes, eroded
YsE2, Ysidora gravelly very fine sandy loam, 8 to 25 percent slopes, eroded
YsE3, Ysidora gravelly very fine sandy loam, 8 to 25 percent slopes, severely eroded

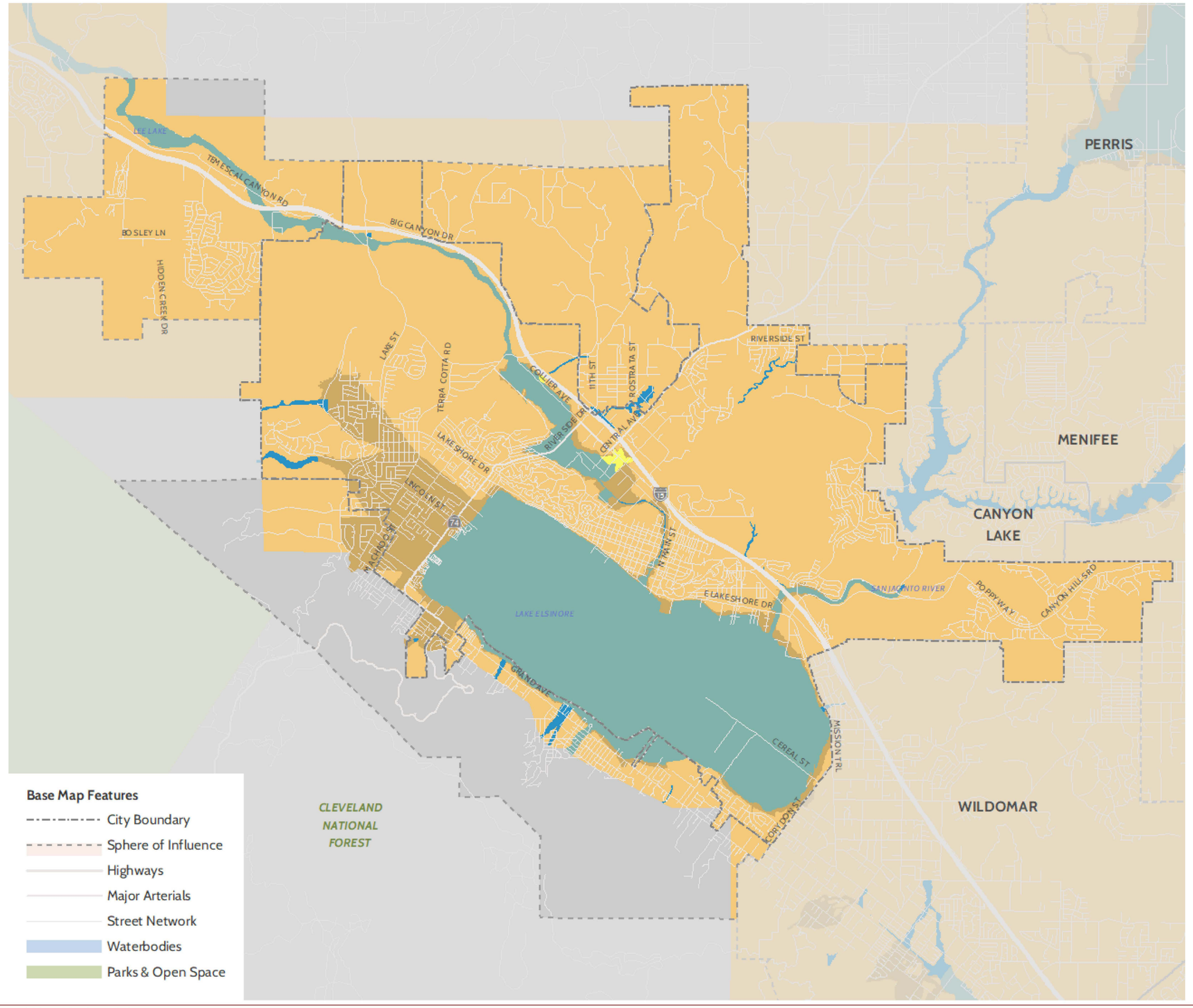


Figure SH-5

FLOOD HAZARDS

FEMA Flood Zones

- 1% Annual Chance of Flooding (100-Year Flood)
- Base Floodplain
- 1% Annual Chance of Shallow Flooding
- 1% Annual Chance of River or Stream Shallow Flooding
- Betwen 0.2% and 1% Annual Chance of Flooding (500-Year and 100-Year Flood)
- 0.2% Chance of Annual Flooding (500-Year Flood)
- Protected by Levee
- Undetermined Risk Areas

Prepared by MIG, October 2023.
Source: California Department of Water Resources, 2023

Miles
0 ¼ ½ 1 1½ 2

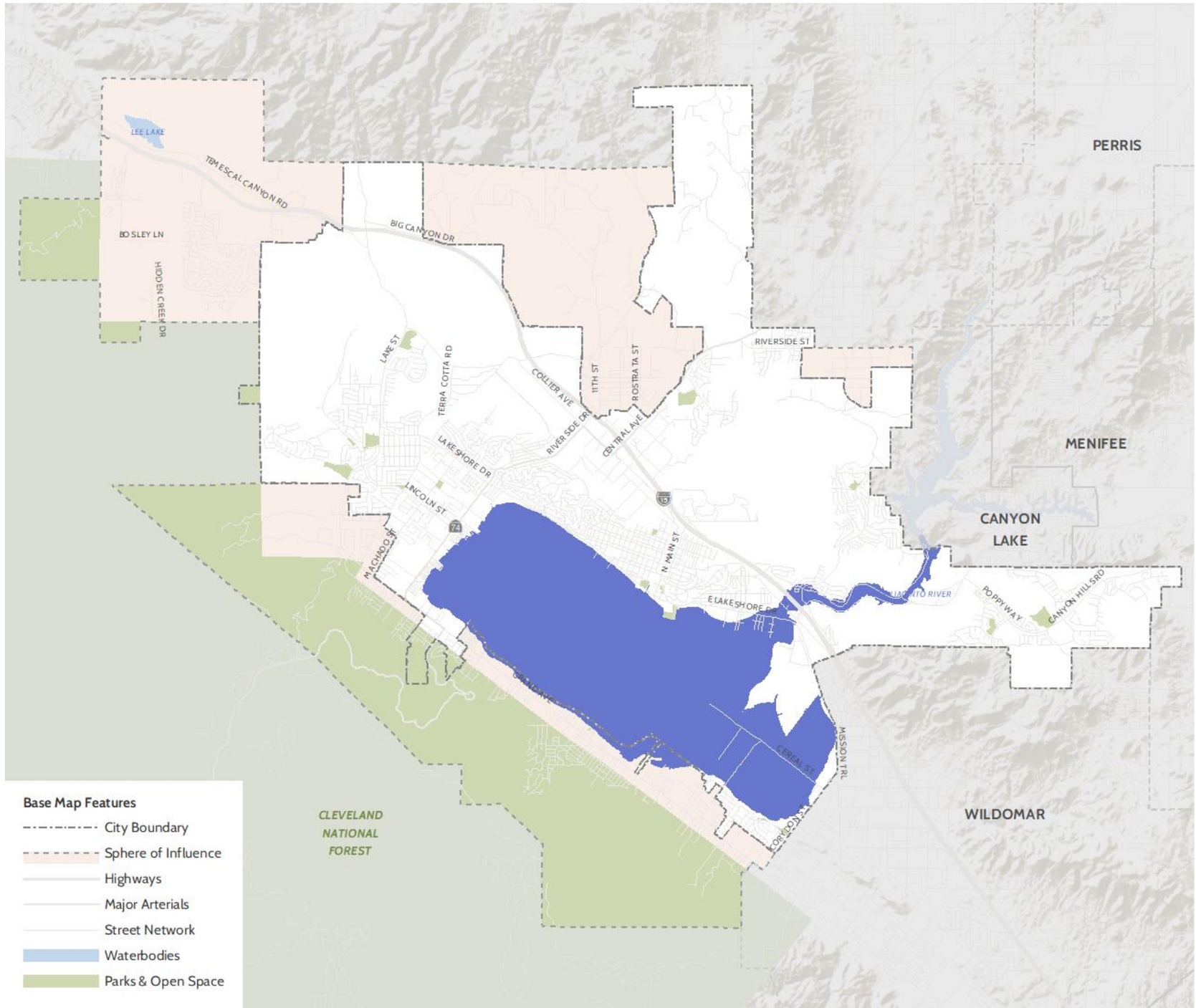


Figure SH-6

DAM & RESERVOIR INUNDATION HAZARDS

Inundation Limits

Railroad Canyon Dam

Prepared by MIG, October 2023.
Source: California Department of Water Resources, 2023

0 ¼ ½ 1 1½ 2 Miles

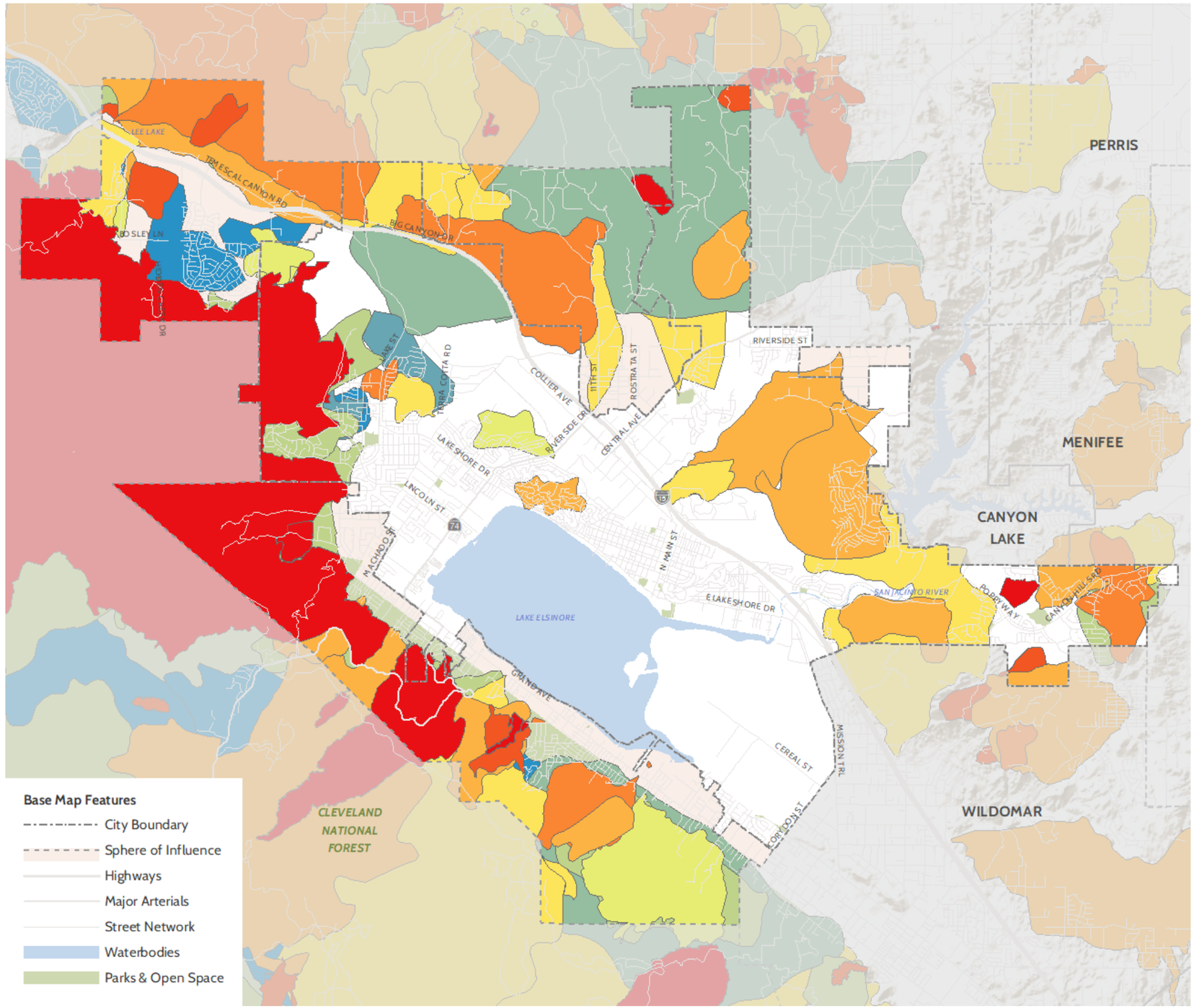


Figure SH-7

HISTORIC FIRE PERIMETER

Historic Fire Perimeters (By Year)

- 1913 - 1930
- 1931 - 1940
- 1941 - 1950
- 1951 - 1960
- 1961 - 1970
- 1971 - 1980
- 1981 - 1990
- 1991 - 2000
- 2001 - 2010
- 2011 - 2022

Prepared by MIG, October 2023.
Source: California Department of Forestry and Fire Protection, 2023

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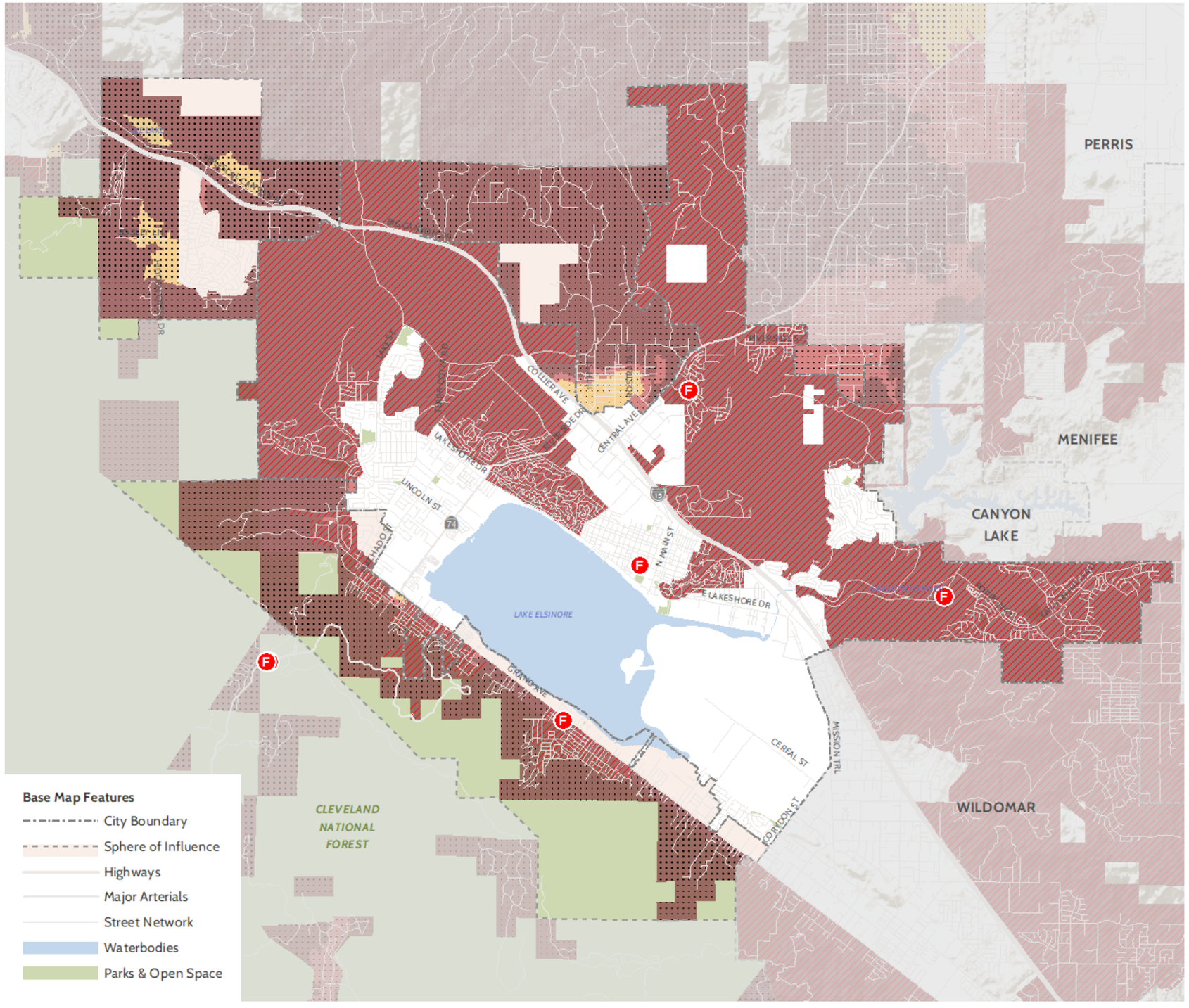


Figure VA-8

WILDFIRE HAZARDS

Fire Hazard Severity Zones

- Very High
- High
- Moderate
- Local Resposibility Area (LRA)
- State Responsibility Area (SRA)
- Fire Station

Prepared by MIG, October 2023.
Source: County of Riverside, 2023

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Climate Vulnerability

The California Energy Commission divides California into several distinct climate zones. Lake Elsinore is within Zone 10, which encompasses San Bernardino, Riverside, and San Diego counties. In Lake Elsinore and the broader region, climate change is expected to intensify existing climate hazards and create new hazards, posing a significant threat to Lake Elsinore's diverse populations, infrastructure, key services, and natural environment. Top hazards of concern include drought, extreme heat, flooding, landslides, mudflows and debris flows, severe weather, and wildfire (some of which were discussed in prior sections of this report). As part of the General Plan Update and to meet state requirements, the City completed the Climate Resiliency Vulnerability Assessment (Vulnerability Assessment) under a separate cover to assess climate change vulnerability, increase resiliency in Lake Elsinore, and enable the community to prepare for, respond to, withstand, and recover from disruptions created or worsened by climate change.

POPULATIONS AND ASSETS OF CONCERN

To assess communitywide resilience to climate change, the Vulnerability Assessment explored the impacts of climate change hazards on selected populations and assets that may be disproportionately harmed by climate hazards. State guidance provides a general list of populations and assets, which Lake Elsinore refined to develop 15 distinct asset types and 17 distinct population types as shown in Table SH-3. Each population and asset were then given an impact score describing overall climate impact from the identified hazards of concern.

ADAPTIVE CAPACITY

The City, partner agencies, and countywide organizations have already taken steps to build resilience and protect sensitive populations and assets from climate hazards in Lake Elsinore. To determine the ability of the City to adapt to each of the identified climate hazards of concern, the Vulnerability Assessment reviewed existing plans, policies, and programs. Existing efforts to manage climate impacts include:

- Lake Elsinore General Plan (updated 2011)
- Lake Elsinore Local Hazard Mitigation Plan (updated 2018)
- Lake Elsinore Climate Action Plan (updated 2011)
- Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan (updated 2023)
- Riverside County Climate Action Plan (updated 2019)
- Western Riverside Council of Governments Western Riverside County Vulnerability Assessment (updated 2019)

Each population and asset were then given an adaptive capacity score based on the magnitude of risk posed to populations and assets, and any existing measures in place to mitigate these impacts.

Table SH-3: Lake Elsinore Populations and Assets of Concern

Category		Population or Asset
Populations	Financially Constrained Households	Low-income Households Households in Poverty Cost-Burdened Households Severely Overcrowded Households Renters
	Physically or Socially Isolated Communities	Mobile Homes Persons without Access to Transportation or Telecommunications Linguistically Isolated Communities
	Persons with High Outdoor or Hazard Exposure	Outdoor Workers Healthcare Workers, First Responders, and Protective Service Occupations Houseless Population
	Low-Resourced Racial or Ethnic Minorities	Low-Resourced Racial or Ethnic Minorities
	Persons with Limited Mobility, Chronic Health Conditions, or Who May Be Dependent on Individuals or Services	Children Persons with Disabilities Persons with Chronic Health Problems Seniors Persons Living Alone
Assets	Transportation Services and Infrastructure	
	Energy Infrastructure	
	Water and Wastewater Infrastructure	
	Key Services	
	Buildings	
	Natural and Managed Resources	

Source: Lake Elsinore Vulnerability Assessment

VULNERABILITY SCORES

Utilizing the impact and adaptive capacity scores, the Vulnerability Assessment assigned a final vulnerability score on a scale from 1 to 5 for each of the selected City populations and assets. The vulnerability score reflects how susceptible the population or asset is to the harm posed by the climate hazard. Populations and assets that score at least a V4 for one or more exposures are considered substantially vulnerable. Tables SH-4 and SH-5 show the most vulnerable populations and assets in Lake Elsinore. Moving forward, the City will develop Safety Element goals and policies to address these vulnerabilities and improve community resilience.

Refer to the Climate Resiliency Vulnerability Assessment for more detailed information on Lake Elsinore's climate vulnerability.

Table SH-4: Highly and Severely Vulnerable Populations

	Drought	Extreme Heat	Flooding	Landslides and Mudflows	Severe Weather	Wildfire
Populations						
Low-Income Households	_	V4	V5	V5	V4	V4
Households in Poverty	_	V5	V5	V5	V5	V5
Cost-Burdened Households	_					
Severely Overcrowded Households	_					
Renters	_		V4	V4	V4	
Mobile Homes	_				V4	V4
Persons Without Access to Transportation or Telecommunications	_		V5	V5	V5	V5
Linguistically Isolated Communities	_					V4
Low-Resourced Racial or Ethnic Minorities	_		V4	V4	V4	V4
Outdoor Workers	V5	V4	V4	V4	V4	V4
Healthcare Workers, First Responders, and Protective Service Occupations	V5	V4	V4	V4	V4	V4
Houseless Population	V5	V4	V5	V4	V4	V4
Children (under 14 years of age)	_	V5				V5
Persons with Disabilities	_	V4	V4	V4		V5
Persons with Chronic Health Problems	_	V5				V5
Seniors (65+)	_	V4				V5
Persons Living Alone	_					

Source: Lake Elsinore Vulnerability Assessment

Table SH-5: Highly and Severely Vulnerable Assets

	Drought	Extreme Heat	Flooding	Landslides and Mudflows	Severe Weather	Wildfire
Infrastructure						
Airports	_	_		_		
Transit Routes	_	_		_		
Major Roads and Highways	_	_	V4	V4	V4	V4
Freight	_	_	V4	V4	V4	V4
Electrical Substations	_	V4			V4	V4
Electrical Transmission and Distribution Lines	_	V4			V4	V4
Water and Wastewater Infrastructure			V4		V4	
Flood Control Infrastructure	V4	_	V4		V4	
Key Services						
Emergency Services	_	V4	V4	V4	V4	V4
Communication Services	_			V5		V5
Buildings						
Areas of Concentrated Residential Development	_		V5	V5		V4
Government Buildings and Sites	_					
Key Employment or Commercial Centers	_					
Schools	_					
Natural and Managed Resources						
Wildlands and open spaces	V4			V4		

Source: Lake Elsinore Vulnerability Assessment

Hazardous Waste and Pollution Sites

Hazardous materials are regulated by the U.S. Environmental Protection Agency (EPA). The EPA defines hazardous materials as chemicals that can cause harm to people, plants, or animals when released into the environment. Hazardous materials are used in many everyday activities and common service facilities such as painting a house or dry cleaning. The Resource Conservation and Recovery Act (RCRA) regulates the management of municipal and industrial waste to ensure the safe handling and disposal of hazardous materials. Facilities that transport, generate, or treat hazardous waste must report their activities to the California and U.S. Environmental Protection Agencies and comply with waste management standards. These facilities are tracked through the RCRA's national program management and inventory system for hazardous waste handlers and generators known as RCRAInfo.

HAZARDOUS WASTE

The EPA categorizes hazardous waste generators as either Small Quantity Generators (SQG) or Large Quantity Generators (LQG). VSQGs produce no more than 220 pounds of waste per month; SQGs produce 220 pounds to 2,200 pounds of hazardous waste per month; LQGs produce more than 2,200 pounds of waste per month. Additionally, there are two categories for handlers of hazardous waste as either a transporter (waste transportation) or transfer facility (temporary storage facility). The EPA also identifies other hazardous waste activities for anything that falls outside the realm of a generator, transporter, or transfer facility. The number and location of hazardous waste handlers and generators are summarized in Table SH-56 and illustrated on Figure SH-8.

The City and Sphere of Influence have few generators and transporters, which mostly include industrial uses. These are largely located in the Business District – the City's industrial and commercial hub. Only one location in the Planning Area has been identified by the EPA as an LQG. This LQG is attributed to the California Department of Transportation (Caltrans). According to the EPA, a generator of waste does not have to be the entity that produces the waste but could be the entity that removes the waste. While it is unclear from the RCRAInfo database what Caltrans activities are contributing to hazardous waste, it could be possible that Caltrans removed or handled hazardous waste at one of their construction sites. The majority of hazardous waste generators are attributed to miscellaneous hazardous waste activities, such as automotive repair, maintenance yards, and the generation of common waste products like batteries, lamps, or pesticides.

Table SH-6: Hazardous Waste Handlers and Generators

Hazardous Waste	City	Sphere of Influence
Large Quantity Generator (LQG)	1	--
Small Quantity Generator (SQG)	22	7
Very Small Quantity Generators (VSQG)	4	--
Transporter	5	5
Other Hazardous Waste Activities	117	28
Total	**149**	**40**

Source: Resource Conservation and Recovery Act Information (RCRAInfo), U.S. Environmental Protection Agency, 2023

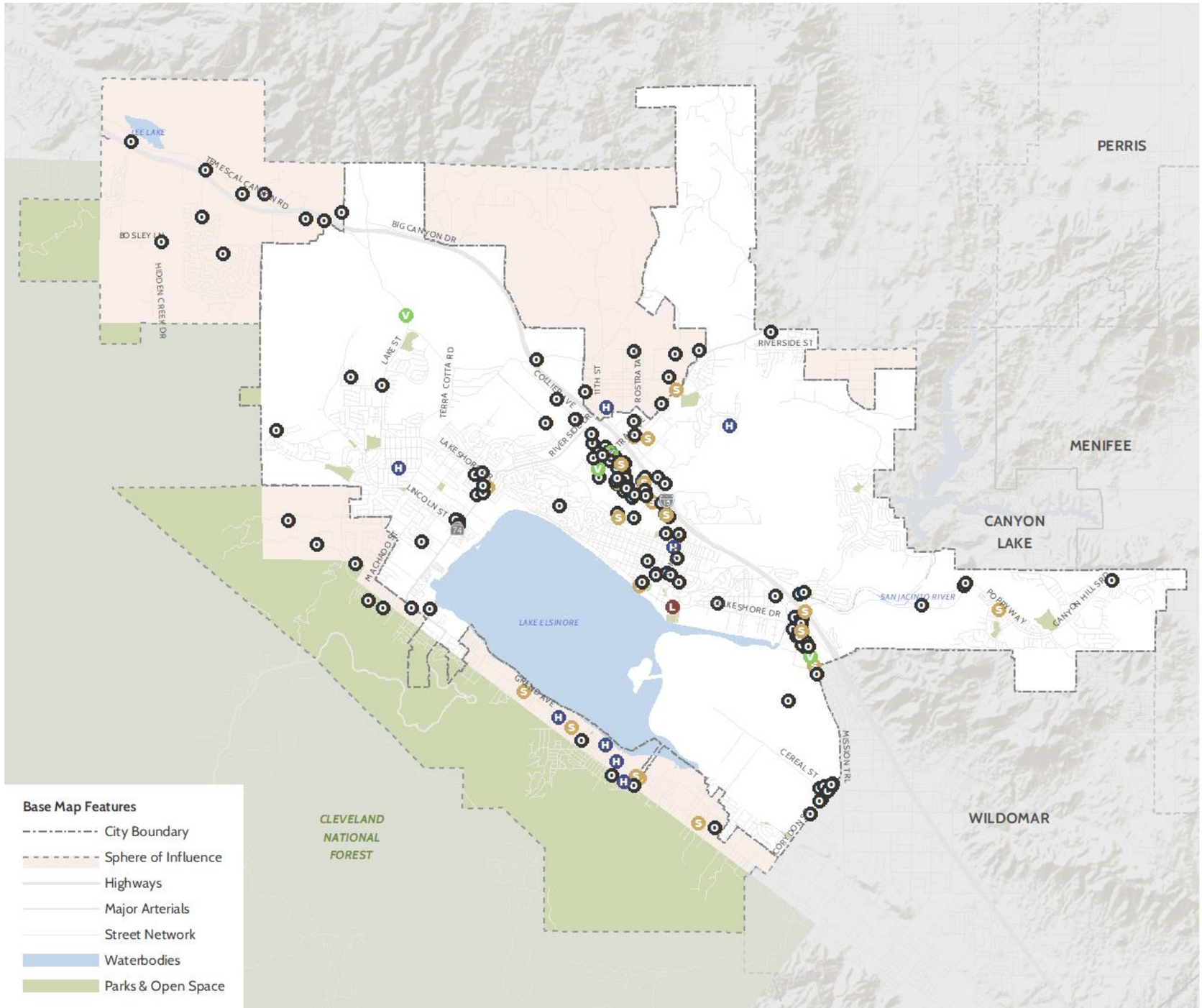


Figure SH-9

HAZARDOUS WASTE GENERATORS

Hazardous Waste

- Large Quantity Generator (LQG)
- Small Quantity Generator (SQG)
- Very Small Quantity Generator (VSQG)
- Hazardous Waste Transporter
- Other Hazardous Waste Activities

LQG: A business that generates more than 2,200 lbs per month of hazardous waste

SQG: A business that generates more than 220 lbs but less than 2,200 lbs of hazardous waste per month

VSQG: A business that generates no more than 220 lbs of hazardous waste per month

Prepared by MIG, October 2023.
Source: Resource Conservation and Recovery Act Information (RCRAInfo), U.S. Environmental Protection Agency, 2023

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POLLUTION SITES

The Clean Air Act and Clean Water Act are two key pieces of federal legislation that regulate air and water pollution. The EPA is the implementing agency for several programs under the Clean Air Act and Clean Water Act to mitigate the impacts of air and water pollutants on the environment and human health. According to the RCRAInfo database, six sites producing hazardous air and water pollutants are located within the city's boundaries and are mostly located within the Business District.

Hazardous Air Pollutants

Hazardous air pollutants are those known to cause cancer and other serious health impacts. Common examples include asbestos, lead compounds, and perchloroethylene, which is emitted from some dry cleaning facilities. Five facilities within the City produce air pollutants. These include the Skylark Field, Elsinore Valley Cemetery, and three other manufacturing/industrial businesses, as summarized in Table SH-7 and shown in Figure SH-9. The emissions from the Elsinore Valley Cemetery are likely caused by cremation, which is known to produce significant amounts of carbon dioxide.

Hazardous Water Pollutants

Water pollution occurs when harmful substances (e.g. sewage, chemicals, etc.) contaminate waterbodies. Water pollution can either originate from point sources or nonpoint sources. Point source means contamination originated from a single source, such as an oil refinery. Nonpoint sources originate from diffuse sources, such as stormwater runoff.

The National Pollutant Discharge Elimination System (NPDES) is a permit system for discharging point source pollutants into waterbodies. One unpermitted facility in the City has been identified by this program, which is a storm drain located near the lake on South Poe Street (see Figure SH-9). It could be possible that the storm drain is carrying runoff from industrial uses located to the north.

Table SH-7: Pollutant Discharge by Type

Air Pollutant Discharge	City	Sphere of Influence
Air Minor	1	--
Hazardous Air Pollutant Major	3	--
Pesticide Producer	1	--
Water Pollutant Discharge		
ICIS-NPDES Unpermitted	1	--

Source: Resource Conservation and Recovery Act Information (RCRAInfo), U.S. Environmental Protection Agency, 2023

Key Considerations

- The City updated its Local Hazard Mitigation Plan in 2017. However, the document did not address the heightened risk of natural hazards such as flooding and wildfires associated with climate change.
- The City lies on an active fault line in a seismically active region. Earthquakes and the effects of seismically induced landslides and liquefaction threaten human safety, public infrastructure, and older buildings.
- Winter storm flooding is the most frequently occurring natural hazard since 2000.

- Flooding inundation from the Railroad Canyon Dam is possible if there were a catastrophic break in the dam. If so, properties along the shore of Lake Elsinore and in the East Lake District are susceptible to flooding.
- Much of the Planning Area is located within "Very High Fire Hazard Severity Zones," which will require State, regional, local, and tribal coordination for best practices in wildfire mitigation and resiliency.
- Pollution sources and hazardous waste facilities are generally clustered around the Business District and along I-15, which is typical of land use planning practices.
- The City has been able to provide a good degree of separation between industrial uses and sensitive uses such as schools and residences. As the City continues to develop, particularly in the Business and Downtown District, it will be critical to employ land use planning practices that mitigate negative environmental impacts on the health of current and future residents.
- The City should continue to coordinate with local industrial businesses to mitigate environmental impacts and ensure continued compliance with state and federal environmental regulations.

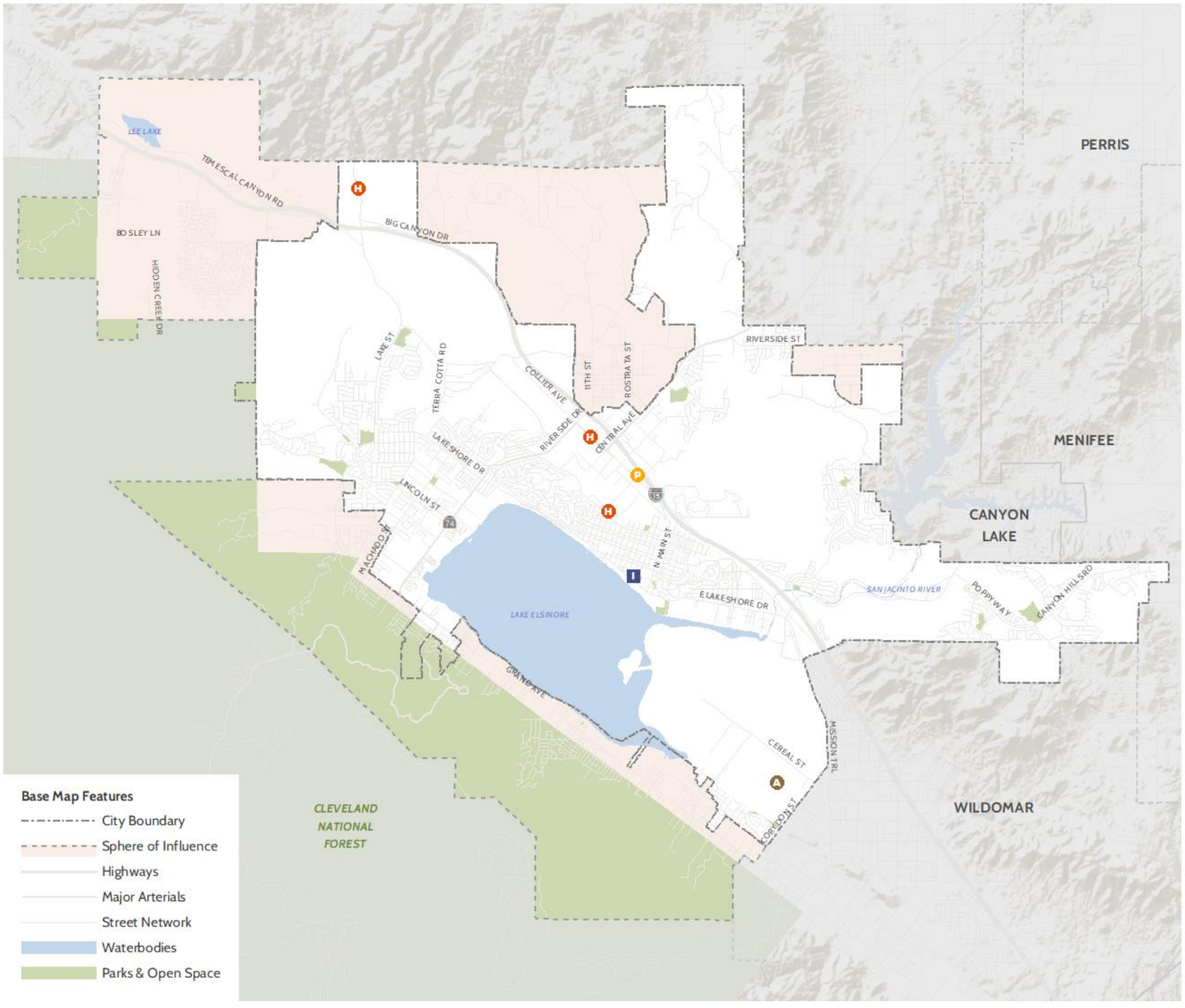


Figure SH-10
POLLUTION SITES

Water Pollutant Discharge Site

- ICIS-NPDES Unpermitted

Air Pollutant Discharge Site

- Air Minor
- Hazardous Air Pollutant Major
- Pesticide Producer

Prepared by MIG, October 2023.
Source: Resource Conservation and Recovery Act Information (RCRAInfo), U.S. Environmental Protection Agency, 2023

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Environmental Justice, Health and Wellness

Environmental justice is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental regulations and policies implemented by local agencies. Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations and policies.

Disadvantaged Communities

Disadvantaged communities refer to areas that are most afflicted with a combination of economic, health, and environmental burdens. California law requires local governments to identify any disadvantaged communities that exist within their jurisdiction. CalEnviroScreen 4.0 was developed by the California Environmental Protection Agency to identify disadvantaged communities using the following indicators of pollution burden and population characteristics (see Table EJ-1):

- Pollution Burden. Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation
- Population Characteristics. Areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, and/or low levels of educational attainment

Table EJ-1: CalEnviroScreen 4.0 Indicators

Pollution Burdens	
Exposure Indicators: • Ozone concentrations in air • PM 2.5 concentrations in air • Diesel particulate matter emissions • Drinking water contaminants • Children's Lead Risk from Housing • Use of certain high-hazard, high volatility pesticides • Toxic releases from facilities • Traffic density	Environmental Effect Indicators: • Toxic cleanup sites • Groundwater threats from leaking underground storage sites and cleanups • Hazardous waste facilities and generators • Impaired water bodies • Solid waste sites and facilities
Population Characteristics	
Sensitive Population Indicators: • Asthma emergency department visits • Cardiovascular disease (emergency department visits for heart attacks) • Low birth weight infants	Socioeconomic Factor Indicators: • Educational attainment • Housing burdened low-income households • Linguistic isolation • Poverty • Unemployment

Source: California Communities Environmental Health Screening Tool (CalEnviroScreen 4.0), Office of Environmental Health Hazard Assessment (OEHHA), 2021.

CalEnviroScreen 4.0 produces a percentile ranking of Lake Elsinore's census tracts (small, relatively permanent statistical subdivisions of a city or county). The percentile ranking for each census tract demonstrates the degree of burdens present in that tract relative to the rest of the State's census tracts. Using the 20 indicators listed in Table EJ-1, an overall CalEnviroScreen 4.0 score for is created for each census tract (see Table EJ-2). All census tracts across the State are then put in order from highest to lowest and assigned a percentile rank. Percentile ranking for a census tract above 75 would mean that the census tract is in the top 25 percent of all CalEnviroScreen 4.0 scores statewide.

Table EJ-2 shows three census tracts in the Planning Area (429.01 is largely outside of the Planning Area) have an overall percentile score in the top 25 percent, qualifying those tracts as disadvantaged communities (DAC). While these three census tracts do not have significant pollution impacts, they do possess significant socioeconomic and health burdens. The following sections discuss these scores in more detail. Figure EJ-1 the percentile ranking for all census tracts in the Planning Area.

Table EJ-2: CalEnviroScreen (CES) 4.0 Percentile Scores

Census Tracts	Percentiles and Indicators		
	CES 4.0 Percentile	Pollution Indicators Percentile	Population Characteristics Percentile
Census Tracts in City of Lake Elsinore			
427.14	12	5	26
427.33	32	16	46
430.06	83	60	90
430.09	26	7	51
432.74	26	7	50
464.04	60	48	62
Census Tracts that Overlap City and Sphere of Influence			
420.07	59	80	42
427.15	49	58	40
429.01	82	70	81
429.02	73	46	85
430.01	75	55	81
430.03	64	21	95
430.05	73	51	81
430.07	11	14	14
430.08	42	18	62
430.10	27	4	63
464.01	55	37	63
464.02	59	31	75
464.03	43	13	72
Census Tracts in Sphere of Influence			
419.11	37	56	27

Source: CalEnviroScreen 4.0 the Office of Environmental Health Hazard Assessment, June 2018.
Note: Census tracts with a percentile of 75 or greater are highlighted in red, indicating these areas are within the top 25 percentiles in the State.

POLLUTION BURDEN

The pollution burden for each census tract is calculated by measuring the average exposure and environmental effects. Tract 429.01 experiences the highest pollution burden as it scores in the top 25 percent for four pollution burden indicators. However, only six percent of this census tract's total area is located within the boundaries of the Planning Area and encompasses a few residential uses that are rural in character. The area is bound by Greenwald Ave to the west and south, Tyson Road to the north, and Dowling Road to the east. The majority of tract 429.01 is located within the City of Perris. Tracts 430.06 and 430.01 are wholly within the Planning Area boundaries. These two tracts score in the top 25 percent for two pollution burden indicators. All census tracts in the Planning Area are heavily impacted by ozone pollutants (see Table EJ-3).

All but two census tracts in the Planning Area score in the 80th percentile or greater for ozone, which means the summed concentration of ozone in these tracts is higher than 80 percent of census tracts in California. Lake Elsinore is in the South Coast Air Basin (SCAB), which also includes the highly polluted Los Angeles region and San Bernardino Valley. Prevailing winds transport pollutants from congested urban areas throughout the SCAB. Significant and long-term exposure to relatively high amounts of ozone causes respiratory issues and chronic respiratory diseases.

Other pollution indicators scoring in the top 25 percent of the State's census tracts are noted and described below:

- **Cleanup Sites.** Cleanup sites are places contaminated with hazardous chemicals that require clean up by the property owners or government. Chemicals at cleanup sites can move through the air or groundwater. People living near these sites have a greater potential to be exposed to chemicals from the sites than people living farther away. The three census tracts scoring above the 75th percentile for the cleanup site indicator (census tracts 420.07, 429.01, and 429.02) contain a cleanup site.
- **Hazardous Waste.** Hazardous waste is potentially dangerous or harmful to human health and the environment. Potential health effects associated with living in proximity to hazardous waste processing and disposal sites include diabetes and cardiovascular disease. Only certain licensed facilities are allowed to treat, store, or dispose of this type of waste. Hazardous waste can range from used automotive oil to highly toxic waste materials produced by factories and businesses. Census tracts 427.15, 429.01, and 429.02 score above the 75th percentile for this indicator; each contain several businesses or other facilities generating hazardous waste.
- **Solid Waste Sites and Facilities.** Solid waste facilities are places where household garbage and similar kinds of waste are collected, processed, or stored. These include landfills and composting or recycling facilities. Solid waste disposal can release waste gases such as methane and carbon dioxide and may do so for decades after site closure. Exposure to landfill leachate can have adverse impacts on reproductive and respiratory systems. Census tracts 420.07, 427.15, and 429.01 score above the 75th percentile for this indicator. The facilities found in these census tracts include a Caltrans Maintenance Station, recycling facilities, and the Elsinore Sanitary Landfill.
- **Traffic.** Traffic density measures the number of vehicles on the roads. Major roads and highways are significant sources of air pollutants and noise due to vehicle-emissions. Asthma rates are higher amongst children who live or go to school near busy roads than those who live farther away. In Lake Elsinore the census tracts (430.06, 420.07, 427.15, 430.05, and 430.07) that encompass I-15 and SR-74 score in the top 25 percent.
- **Drinking Water.** Drinking water sometimes becomes contaminated with chemicals or bacteria above the State's health standards. Both natural and human sources can contaminate drinking water.

Natural sources include rocks, soil, wildlife, and fires. Human sources include factories, sewage, and runoff from farms. Tracts 420.07 and 464.01 score above the 75th for drinking water contaminants and contain significant levels of perchlorate. Perchlorate is a contaminant that can come from geologic, industrial, industrial, and agricultural sources, but also occurs naturally in arid environments. Exposure to perchlorate during pregnancy can affect thyroid hormone levels in newborns, which can disrupt normal development.

Figure EJ-2 shows the pollution burden percentile scores for the entire Planning Area. Although the aforementioned census tracts score above 75 percent for several indicators, only one census tract (420.07) has a pollution burden score in the top 25 percent.

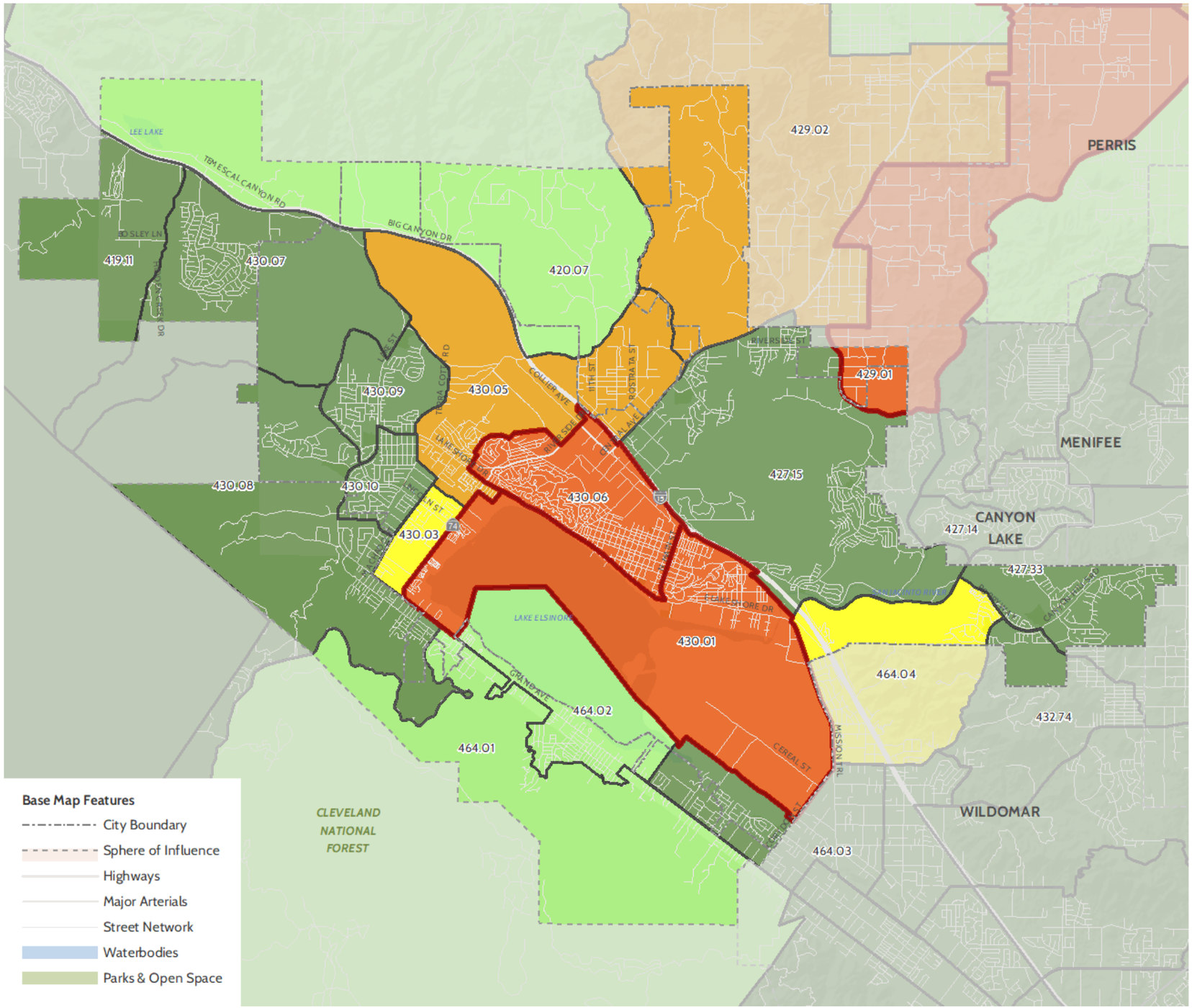


Figure EJ-1

CALENVIROSCREEN 4.0

CES 4.0 Percentile Scores

- 54% or Lower
- 55 - 59%
- 60 - 64%
- 65 - 69%
- 70 - 74%
- 75% or Higher (DAC)

Prepared by MIG, October 2023.
Source: California Health Hazard Assessment, Public Health Alliance of Southern California, 2021

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Table EJ-3: Pollution Burden Indicators Percentile Scores

Census Tracts	Percentiles and Indicators													
	Pollution Indicators	Cleanup Sites	Hazardous Waste	Groundwater Threats	Solid Waste Facilities	Toxic Release Inventory	PM2.5	Traffic	Diesel PM	Drinking Water	Ozone	Impaired Water Bodies	Pesticides	Lead Exposure
City of Lake Elsinore														
427.14	5	0	10	0	0	21	50	46	6	32	85	12	0	4
427.33	16	0	61	0	0	18	47	19	21	71	85	12	10	23
430.06	60	17	77	7	10	29	53	83	65	32	82	51	0	79
430.09	7	0	2	0	0	42	53	0	30	32	80	0	0	12
432.74	7	0	0	0	53	15	47	19	2	73	80	0	0	7
464.04	48	0	71	31	10	19	50	68	47	69	80	51	0	41
Census Tracts that Overlap City and Sphere of Influence														
420.07	79	75	71	32	93	49	58	83	4	79	85	0	66	3
427.15	58	8	80	38	76	23	52	83	20	69	85	51	0	14
429.01	70	81	93	25	93	27	52	17	21	72	94	12	36	38
429.02	46	77	17	0	53	31	53	5	12	69	89	0	62	56
430.01	55	17	79	38	22	24	51	66	48	32	80	51	0	68
430.03	21	0	5	0	0	38	53	51	43	32	78	51	0	41
430.05	51	0	55	0	70	38	53	94	46	32	83	51	0	30
430.07	14	0	7	14	0	45	55	97	8	32	78	0	0	6
430.08	17	0	0	0	0	41	51	20	11	55	74	92	0	35
430.10	4	0	9	0	0	40	53	0	7	32	80	0	0	4
464.01	37	17	0	31	59	21	39	24	1	99	71	92	17	25
464.02	30	2	0	47	76	23	50	27	4	32	77	51	0	73
464.03	13	17	4	7	0	14	49	52	10	32	78	51	0	29
Census Tracts in Sphere of Influence														
419.11	56	0	56	28	70	53	56	99	9	98	78	24	0	1

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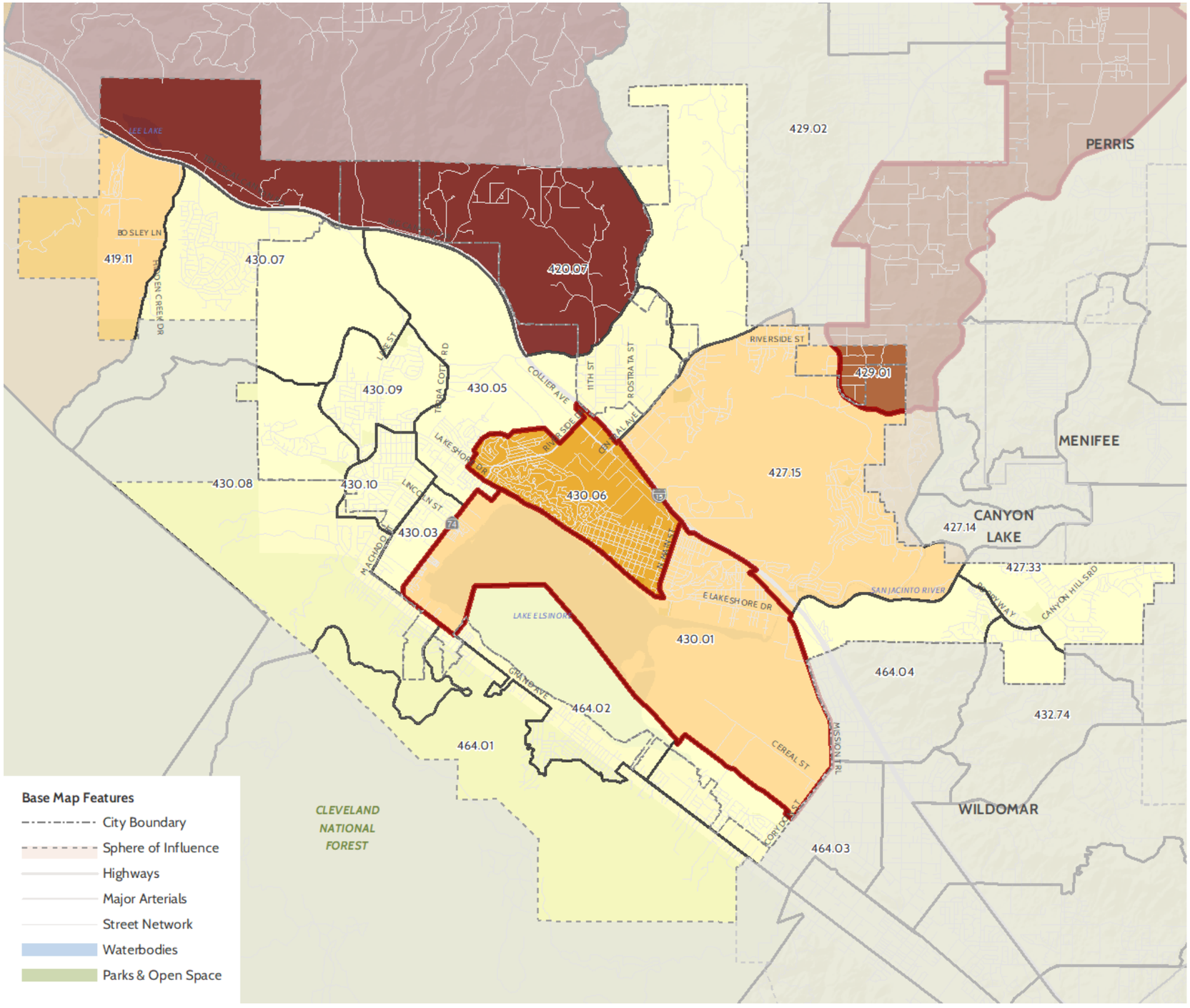


Figure EJ-2

POLLUTION BURDENS

Pollution Burden Percentile Scores

- 54% or Lower
- 55 - 59%
- 60 - 64%
- 65 - 69%
- 70 - 74%
- 75% or Higher
- Disadvantaged Community

Prepared by MIG, October 2023.
Source: California Health Hazard Assessment, Public Health Alliance of Southern California, 2021

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POPULATION CHARACTERISTICS

Table EJ-4 shows CalEnviroScreen 4.0 population characteristics indicators related to health conditions (asthma, low-birth weight, and cardiovascular disease) and socioeconomic factors. Socioeconomic factors are related to commonly found characteristics of low-income populations such as lower educational attainment, linguistic isolation, and lower material well-being measured in poverty, unemployment, and housing burden.

The disadvantaged communities score in the top 25 percent for three to five of the population characteristics indicators. Most of the census tracts in the Planning Area show very high rates of cardiovascular disease, poverty, and unemployment. Many of the pollution issues captured in the pollution burden indicator analysis contribute to the respiratory and other health issues local residents face.

Population characteristics indicators scoring in the top 25 percent of the State's census tracts are noted and further described below:

- **Cardiovascular Disease.** Cardiovascular disease can lead to acute myocardial infarction (heart attack) and other heart problems and is the leading cause of death both in California and the United States. Survivors of a cardiovascular event are highly vulnerable to future cardiovascular events, especially following short- or long-term exposure to particulate matter. Risk factors for developing cardiovascular disease include diet, lack of exercise, smoking, and exposure to air pollution. This indicator has the highest average score of all indicators in the Planning Area's CalEnviroScreen 4.0 dataset, with 16 of 20 census tracts scoring above the 75th percentile.
- **Poverty.** Members of low-income communities are more likely to be exposed to pollution and to suffer from poor health effects as a result of that exposure than residents of wealthier communities. Income can affect health, as people with limited means often cannot afford healthy living and working conditions, nutritious food, and necessary medical care. Low-income communities are often located in areas with high levels of pollution. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution. The U.S. Census Bureau determines the federal poverty level each year. The poverty level is based on the size of the household and the ages of family members. If a person or family's total income before taxes is less than the poverty level, the person or family is considered in poverty. The indicator used by CalEnviroScreen is the percent of the population with incomes less than two times the federal poverty level. Seven census tracts have higher rates of people living below twice the poverty level than 75 percent of the census tracts in California.
- **Unemployment.** The U.S. Census Bureau counts as unemployed people over 16 years old who are out of work and able to work but not working. This does not include students, active-duty military, retired people, and people who have stopped looking for work. Stress from long-term unemployment can lead to chronic illnesses, such as heart disease, and can shorten a person's life. Ten census tracts face unemployment at higher rates than the rest of the State.

Figure EJ-3 shows the cumulative population characteristic percentile scores for the entire Planning Area.

Table EJ-4: Population Burden Indicators Percentile Scores

Census Tracts	Percentiles and Indicators								
	Population Indicators	Asthma	Low Birth Weight	Cardiovascular Disease	Educational Attainment	Linguistic Isolation	Poverty	Unemployment	Housing Burden
City of Lake Elsinore									
427.14	26	41	18	70	33	0	27	0	41
427.33	46	46	25	94	31	12	42	61	50
430.06	90	66	49	99	83	82	93	93	71
430.09	51	67	24	99	44	32	27	73	11
432.74	50	39	27	93	59	35	36	93	9
464.04	62	37	28	88	66	56	74	97	31
Census Tracts that Overlap City and Sphere of Influence									
420.07	42	44	54	70	42	26	39	38	16
427.15	40	33	41	84	50	11	48	29	31
429.01	81	65	38	89	86	77	83	75	67
429.02	85	63	73	89	86	75	81	92	26
430.01	81	64	51	98	68	62	82	62	79
430.03	95	67	88	99	74	64	89	93	78
430.05	81	63	59	99	75	50	74	80	58
430.07	14	16	4	60	32	12	38	24	12
430.08	62	58	14	97	55	2	57	95	83
430.10	63	67	32	99	70	47	44	77	18
464.01	63	56	58	96	59	66	52	11	49
464.02	75	67	28	99	59	43	86	67	89
464.03	72	43	55	91	65	41	75	77	73
Census Tracts in Sphere of Influence									
419.11	27	17	31	64	33	19	24	71	12

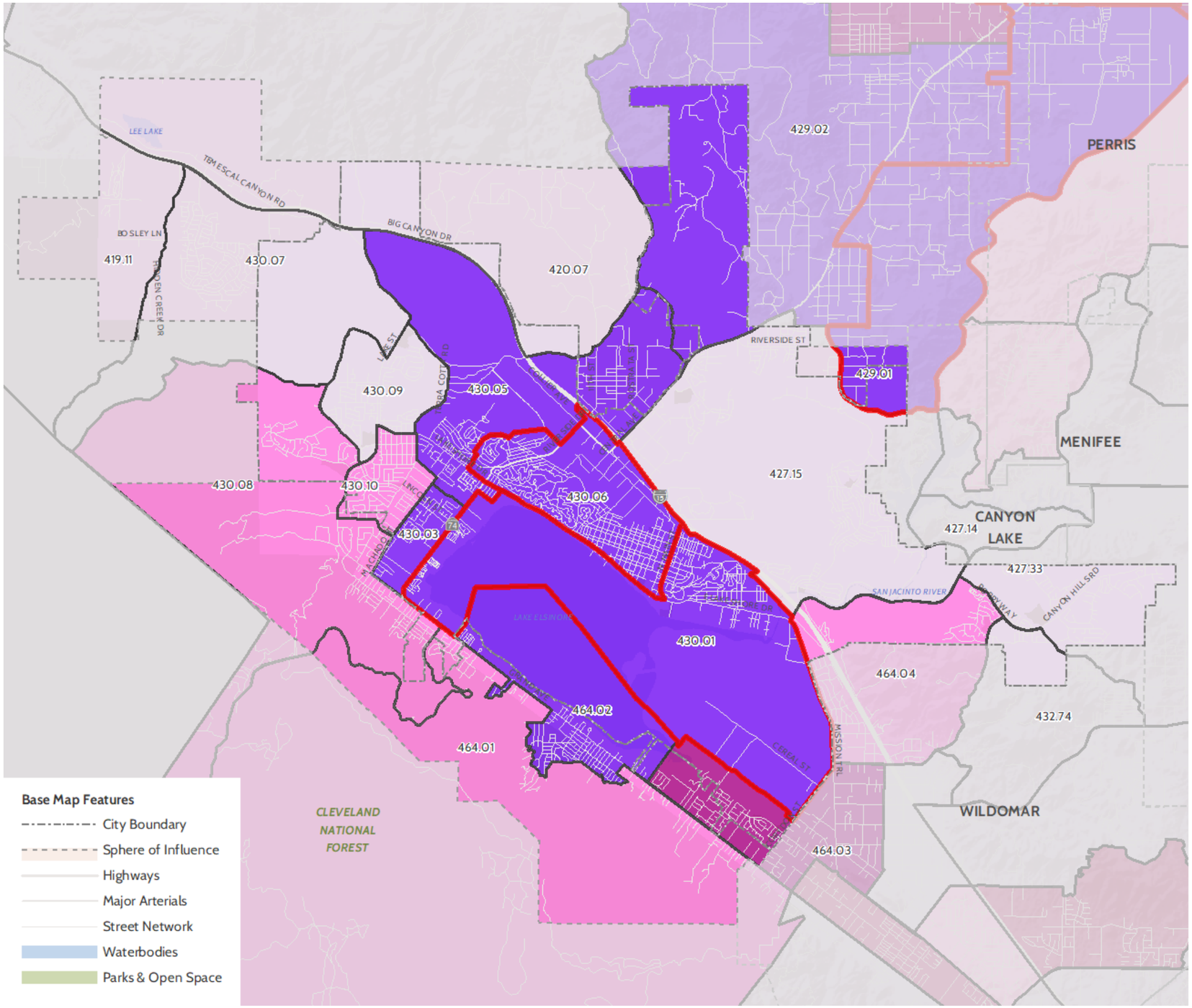


Figure EJ-3

POPULATION CHARACTERISTICS

Population Characteristics Percentile Scores

- 54% or Lower
- 55 - 59%
- 60 - 64%
- 65 - 69%
- 70 - 74%
- 75% or Higher
- Disadvantaged Community

Prepared by MIG, October 2023.
Source: California Health Hazard Assessment, Public Health Alliance of Southern California, 2021

Miles
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Key Considerations

- Three census tracts within the Planning Area qualify as a Disadvantaged Community, as defined by State of California. One of these is largely located outside of the Planning Area.
- The Planning Area is not heavily impacted by pollution, but does have considerable health and socioeconomic burdens, such as high rates of cardiovascular disease, poverty, and unemployment.

Healthy Places Index

This Health and Wellness section presents data and analysis that identify the relationship between economic, education, healthcare, housing, transportation, and environmental decisions and their effects on health and wellness of disadvantaged communities and populations that historically have experienced inequities, institutionalized racism, exclusion, and/or isolation.

One's health is shaped dramatically by community characteristics—housing, education, economic, and other social factors, which often are shaped through policy. The California Healthy Places Index 3.0 (HPI) combines eight indicators comprising 23 community characteristics with weighted scoring into a single indexed HPI Score, as seen in Table EJ-5. Within the datasets, scores are displayed in quartiles, allowing for straightforward comparisons within a specific geography and across the State.

The results shown in Figure EJ-4 and Table EJ-6 can be used to explore, identify, and strategize existing healthy community conditions. In contrast to the CalEnviroScreen 4.0 data, where higher percentiles equate to worse conditions, lower HPI percentiles equate to worse conditions for both the overall HPI score and contributing indicators.

Table EJ-5: Healthy Places Index Indicator Weights and Community Characteristics

<table>
<tr>
<td>Economic
Above Poverty
Employed
Per Capita Income</td>
<td>Education
Pre-School Enrollment
High School Enrollment
Bachelors Attainment</td>
<td>Transportation
Automobile Access
Active (healthy) Commuting</td>
</tr>
<tr>
<td>Social
2020 Census Response
Voting</td>
<td>Neighborhood
Retail Density
Park Access
Tree Canopy</td>
<td rowspan="2">Clean Environment
Clean Air - Diesel PM
Clean Air - Ozone
Clean Air - PM 2.5
Safe Drinking Water – Contaminants</td>
</tr>
<tr>
<td>Housing
Low Income Homeowner Severe Housing Costs Burden
Low Renter Severe Housing Costs Burden
Homeownership
Housing Habitability
Uncrowded Housing</td>
<td>Healthcare
Insured Adults</td>
</tr>
</table>

Source: The California Healthy Places Index (HPI), Public Health Alliance of Southern California, 2020.

Table EJ-6: Healthy Places Index Percentile Scores (Citywide)

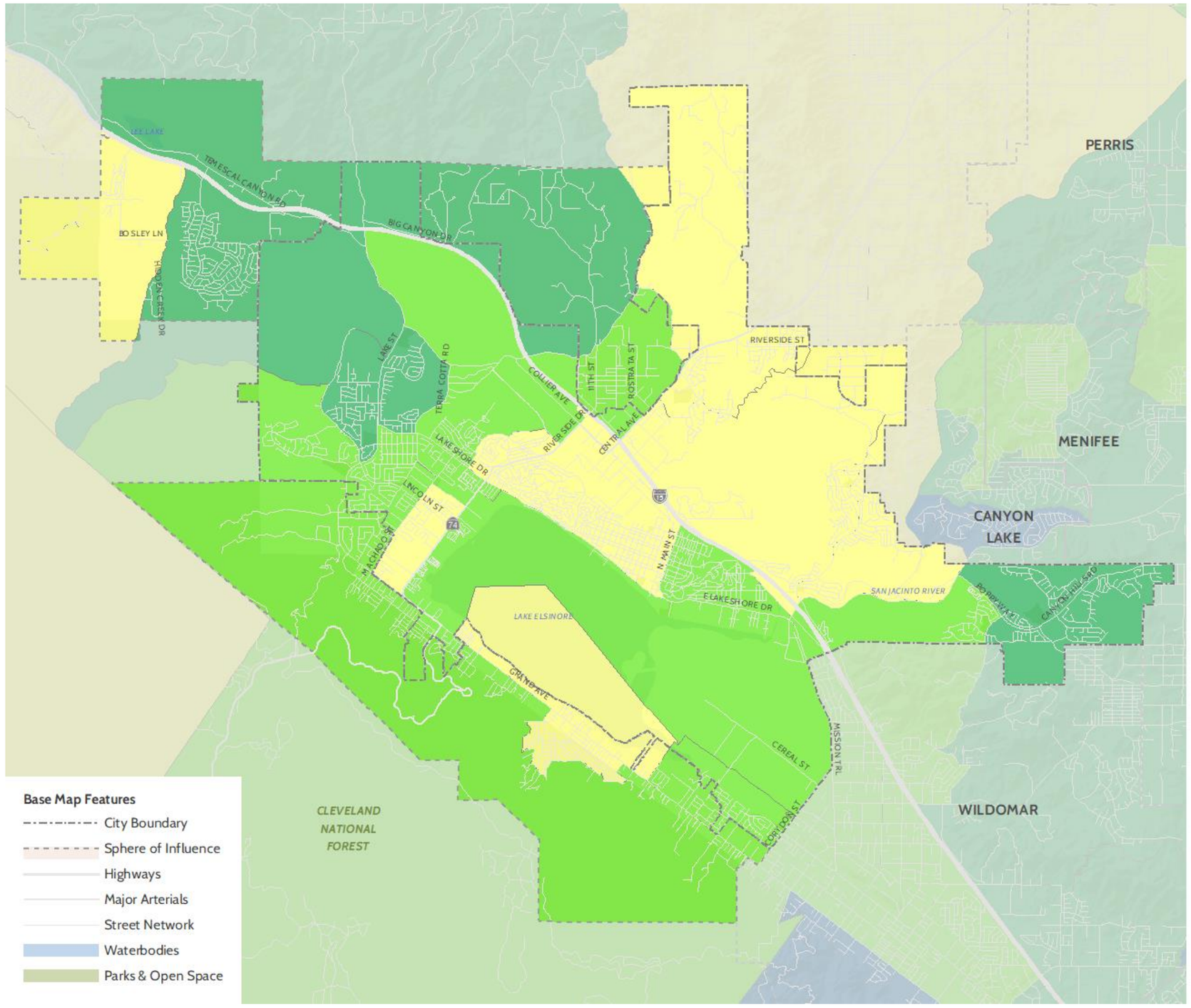
Healthy Places Index Indicators and Community Characteristics	Percentiles
Economic	34.8
Above Poverty	33.1
Employed	43.3
Per Capita Income	31.9
Education	23.4
Pre-School Enrollment	33.0
High School Enrollment	19.7
Bachelor's Degree Attainment	43.8
Transportation	31.9
Active (Healthy) Commuting	12.1
Automobile Access	64.0
Social	49.8
2020 Census Response	54.5
Voting	33.5
Neighborhood	31.0
Retail Density	48.7
Park Access	59.2
Tree Canopy	11.3
Healthcare Access	28.3
Insured Adults	33.0
Housing	34.8
Low-Income Homeowner Severe Housing Costs Burden	47.6
Low-Income Renter Severe Housing Costs Burden	31.8
Homeownership	53.5
Housing Habitability	52.0
Uncrowded Housing	25.1
Clean Environment	28.3
Clean Air - Diesel PM	42.8
Clean Air - Ozone	17.6
Clean Air - PM2.5	28.1
Safe Drinking Water – Contaminants	57.3
HPI Score for City of Lake Elsinore	32.6

Source: The California Healthy Places Index (HPI), Public Health Alliance of Southern California, 2022.
Note: Lower percentiles equate to worse conditions when compared to the rest of the State.

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Figure EJ-4

HEALTHY PLACES INDEX



Prepared by MIG, October 2023.
Source: Public Health Alliance of Southern California, 2022

Miles
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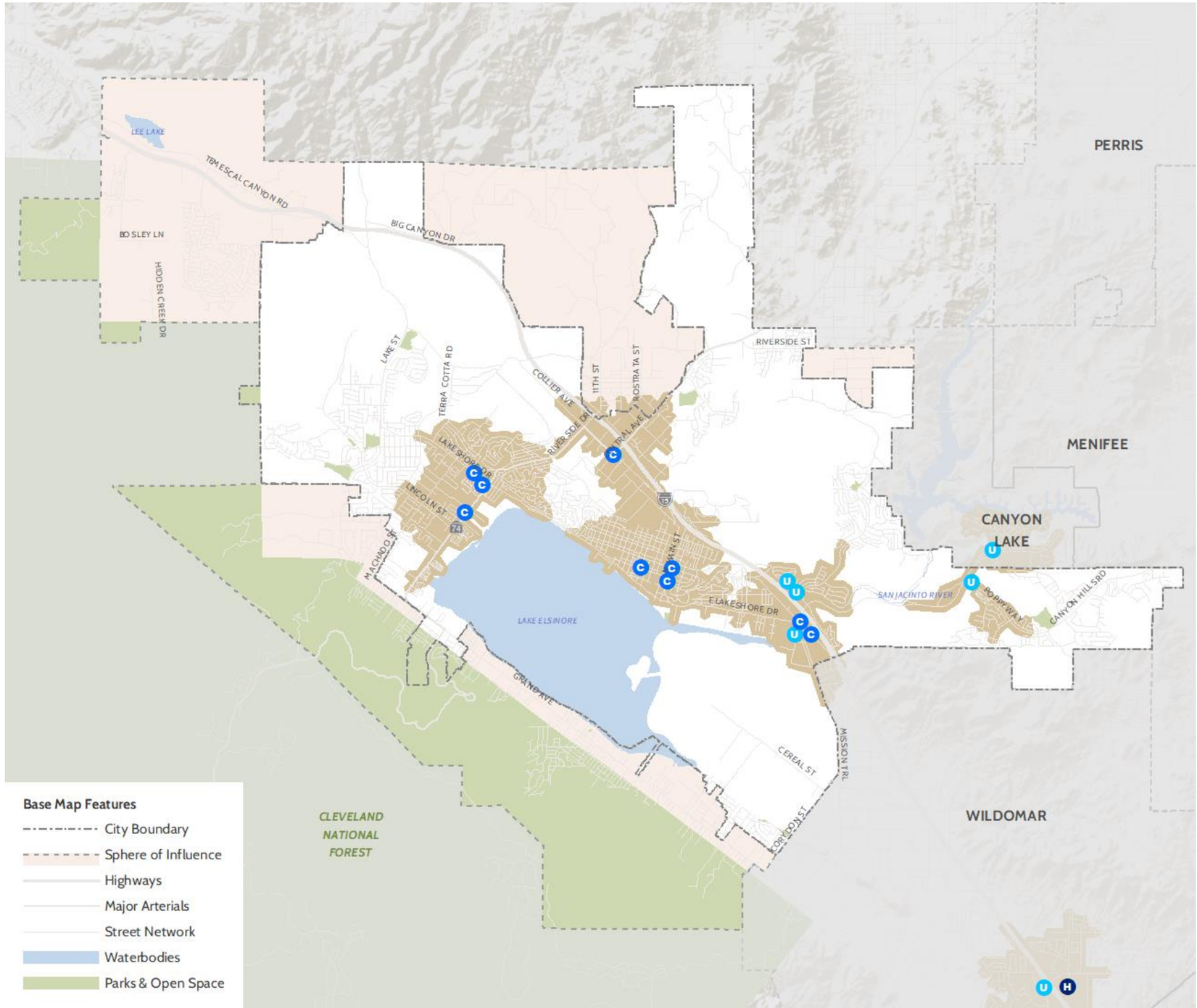


Figure EJ-5

HEALTHCARE AND MEDICAL ACCESS

Health Care and Medical Facilities

- Hospital
- Clinic
- Urgent Care

Healthcare and Medical Access

- One-Mile Access

Prepared by MIG, October 2023.
Source: MIG, 2023.

Miles
0 ¼ ½ 1 1½ 2

COMPARATIVE HEALTH INDICATORS

Lake Elsinore's HPI Score of 32.6 means the City has healthier community conditions than just 32.6 percent of other California cities (meaning that 67.4 percent of other cities in California have healthier community conditions). Particularly, the Education indicator and its contributing community characteristics score in the bottom 25 percent of California cities. Compared to other communities in Southwestern Riverside, Lake Elsinore scores lower than most of its neighbors. See Table EJ-7 for a comparison of Lake Elsinore to surrounding communities (with higher scores being more favorable).

Table EJ-7: Healthy Places Index Score

Jurisdiction	Healthy Places Index Score
Eastvale	75.8
Temecula	68.4
Canyon Lake	61.8
Murrieta	61.2
Corona	55.1
Menifee	53
Wildomar	44.9
Riverside	39.5
Lake Elsinore	32.6
Moreno Valley	27.3
Jurupa Valley	26.2
Perris	20
Hemet	12.5

Source: The California Healthy Places Index (HPI), Public Health Alliance of Southern California, 2020.
Note: Lower percentiles equate to worse conditions when compared to the rest of the State.

GENERAL HEALTH CONDITIONS

Table EJ-8 provides health estimates from UCLA Health Policy Center's California Health Interview Survey (CHIS), the largest state health survey in the United States. Survey respondents in Lake Elsinore show comparatively similar outcomes as other large neighboring cities, county, and State.

Table EJ-8: Health Condition and Healthcare Service Comparisons

Health Conditions (2016) for Population Age 18 and Older in Past 12 months	Lake Elsinore	Hemet	Eastvale	Riverside County	State of California
Fair or poor health	17.4%	18.4%	13.4%	15.6%	13.3%
Needed help for mental health problems	19.4%	20.0%	17.4%	19.7%	21.2%
Delayed prescriptions/medical services	23.9%	23.8%	21.3%	23.6%	22.0%
Serious psychological distress	12.1%	12.0%	11.7%	12.1%	12.6%
Ever diagnosed with:					
Diabetes	12.8%	16.3%	13.3%	12.9%	11.1%
Asthma	12.8%	14.3%	14.9%	13.0%	16.1%
Heart Disease	5.2%	8.0%	4.3%	6.0%	6.9%

Source: AskCHIS Neighborhood Edition, California Health Interview Survey (CHIS), UCLA, 2020.

HEALTH INSURANCE AND HEALTHCARE ACCESS

Access to comprehensive, quality health care services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans. People without medical insurance are more likely to lack a usual source of medical care, such as a primary care provider, and are more likely to skip routine medical care due to costs, increasing their risk for serious and disabling health conditions. When they do access health services, they are often burdened with large medical bills and out-of-pocket expenses. Increasing access to both routine medical care and medical insurance is vital toward improving health.

Table EJ-9 shows the percentage of Lake Elsinore's population with health insurance coverage. Lake Elsinore residents generally have good health insurance coverage and is on par with Riverside County. Additionally, Lake Elsinore residents have reasonable access to medical care facilities, as shown in Figure EJ-5. About 34 percent of residents live within one mile of a health clinic or urgent care facility. These medical facilities are small in scale and offer various outpatient services. The closest hospital is Southwest Healthcare Inland Valley, located six miles south of Lake Elsinore in the City of Wildomar.

Table EJ-9: Health Insurance Coverage

	Lake Elsinore	Riverside County
	Percent	
With Health Insurance Coverage	91.6%	91.5%
No Health Insurance Coverage	8.4%	8.5%
Demographics – With Health Insurance Coverage		
Age		
Under 19 years	95.8%	95.9%
19-64 years	88.7%	87.7%
65 years and older	96.3%	98.8%
Race and Ethnicity		
White Alone	94.5%	93.0%
Hispanic/Latino (of any race)	89.8%	88.3%
Black or African American Alone	87.8%	93.6%
Asian Alone	91.5%	94.2%
Native American Alone	92.7%	87.6%
Nativity and U.S. Citizenship Status		
Native Born	94%	93.8%
Foreign Born – Naturalized Citizen	90.9%	91.8%
Foreign Born – Not a Citizen	75.0%	73.7%

Source: U.S. Census, American Community Survey 5-Year Estimates, 2020.

Food Access

FOOD INSECURITY

The U.S. Department of Agriculture defines food insecurity as a lack of consistent access to enough food for an active, healthy life. A household being unable to afford sufficient, quality food correlates with experiences of unemployment and poverty. Participation in programs designed to address hunger, such as the Supplemental Nutrition Assistance Program (SNAP or food stamps), rises in response to food insecurity.

Approximately 10 percent of households in Lake Elsinore received Food Stamps/SNAP (also known as CalFresh, California's food stamp program) in 2020 compared to about nine percent in Riverside County.[1] SNAP can buffer participants against food insecurity and poor health.

Additionally, Supplemental Security Income (SSI) is a federal income supplement program designed to help aged, blind, and disabled people who have little or no income and to meet basic needs for food, clothing, and shelter. Participation in disability assistance programs is relatively high among adults with disabilities, particularly those who are unable to work due to their disability. Food insecurity is more prevalent among SSI recipients, including higher rates of food insecurity due to more severe disabilities. About 4 percent of households in Lake Elsinore receives SSI income compared to about 3 percent of Riverside County residents.[2]

Families with school-aged children may receive free and reduced-price meals as part of the National School Lunch Program (NSLP), a federally assisted meal program that provides free, nutritionally balanced lunches to children whose families meet eligibility income requirements. The NSLP provides nutritious foods that help reduce the harmful impact of food insecurity and improve outcomes for children. Research sponsored by U.S. Department of Agriculture's Food and Nutrition Service found that children receiving free or reduced price NSLP lunches consume fewer empty calories and more fiber, milk, fruit, and vegetables than income eligible nonparticipants, both at lunch and during a full 24 hours. Free and reduced-price school meals also free up some household resources for other necessary purchases. Table EJ-10 summarizes the portion of students eligible for free or reduced priced meals at school districts located within and in close proximity to the Planning Area. These school districts, except for Perris Elementary and Union High, have eligibility rates either on par or lower than the County and State, which have only 65 percent and 59 percent eligibility, respectively.

Table EJ-10: Students Eligible for Free or Reduced Priced Meals

	Percentage of Students Eligible for Free/Reduced Priced Meals
Lake Elsinore Unified	65.4%
Murrieta Valley Unified	35.2%
Corona-Norco Unified	42.6%
Menifee Union Elementary	45.8%
Temecula Valley Unified	27.7%
Perris Elementary	75.6%
Perris Union High	75.3%

Source: California Department of Education, Free and Reduced Prices Meals, 2020.

GROCERY STORE ACCESS

Limited access to supermarkets, grocery stores, farmers' markets, and other sources of healthy and affordable food may make it harder for some residents to eat a healthy diet. Expanding the availability of nutritious and affordable food by developing and equipping grocery stores, small retailers, corner markets, and farmers' markets in communities with limited access is an important part of creating a

[1] *2020 ACS 5-Year Estimates Detailed Tables, S2201: Food Stamps/Supplemental Nutrition Assistance Program (SNAP)*

[2] *2020 ACS 5-Year Estimates Detailed Tables, B19057: Public Assistance Income for Households*

healthy community. Food deserts are areas in which it is difficult to buy affordable or good-quality fresh food.

Figure EJ-6 shows the locations where healthy food options (e.g., produce, fresh meats and seafood, dairy) can be purchased. Twenty-four percent of residents live within one-mile from an establishment that sells healthy foods and even fewer (7 percent of residents) live with a 10-minute walk.

Physical Activity and Park Access

PHYSICAL ACTIVITY

Research demonstrates that participating in regular moderate to vigorous physical activity provides many health benefits. Some benefits of physical activity can be achieved immediately, such as reduced feelings of anxiety, reduced blood pressure, improvements in sleep, some aspects of cognitive function, and insulin sensitivity. Other benefits—such as increased cardiorespiratory fitness, increased muscular strength, decreases in depressive symptoms, and sustained reduction in blood pressure—require a few weeks or months of participation in physical activity.

Physical activity can also slow or delay the progression of chronic diseases, such as hypertension and Type 2 diabetes and public health professionals recommend at least 30-minutes of daily moderate to vigorous exercise. Benefits persist with continued physical activity. Table EJ-11 shows the level of self-reported physical activity in the City and surrounding areas per the CHIS survey. Respondents in Lake Elsinore fair similarly to Riverside County and neighboring cities.

Table EJ-11: Weight and Physical Activity

Weight and Physical Activity	Lake Elsinore	Hemet	Eastvale	Riverside County	State of California
Obese Adults (BMI> 30) (Ages 18+)	32.6%	34.4%	24.5%	30.4%	28.2%
Overweight or Obese Teens (Ages 12 to 17)	31.3%	42.9%	25.6%	32.1%	31.2%
Overweight Children (Ages 2 to 11)	17.0%	19.0%	14.5%	16.9%	13.9%
Regular Physical Activity* (Ages 5 to 17)	12.6%	14.9%	15.6%	13.0%	16.5%
Walked at least 150 Minutes in Past Week (Ages 18+)*	36.8%	35.1%	37.3%	36.9%	38.9%

Source: AskCHIS Neighborhood Edition, California Health Interview Survey (CHIS), UCLA, 2020.
*Latest data available is from 2016.

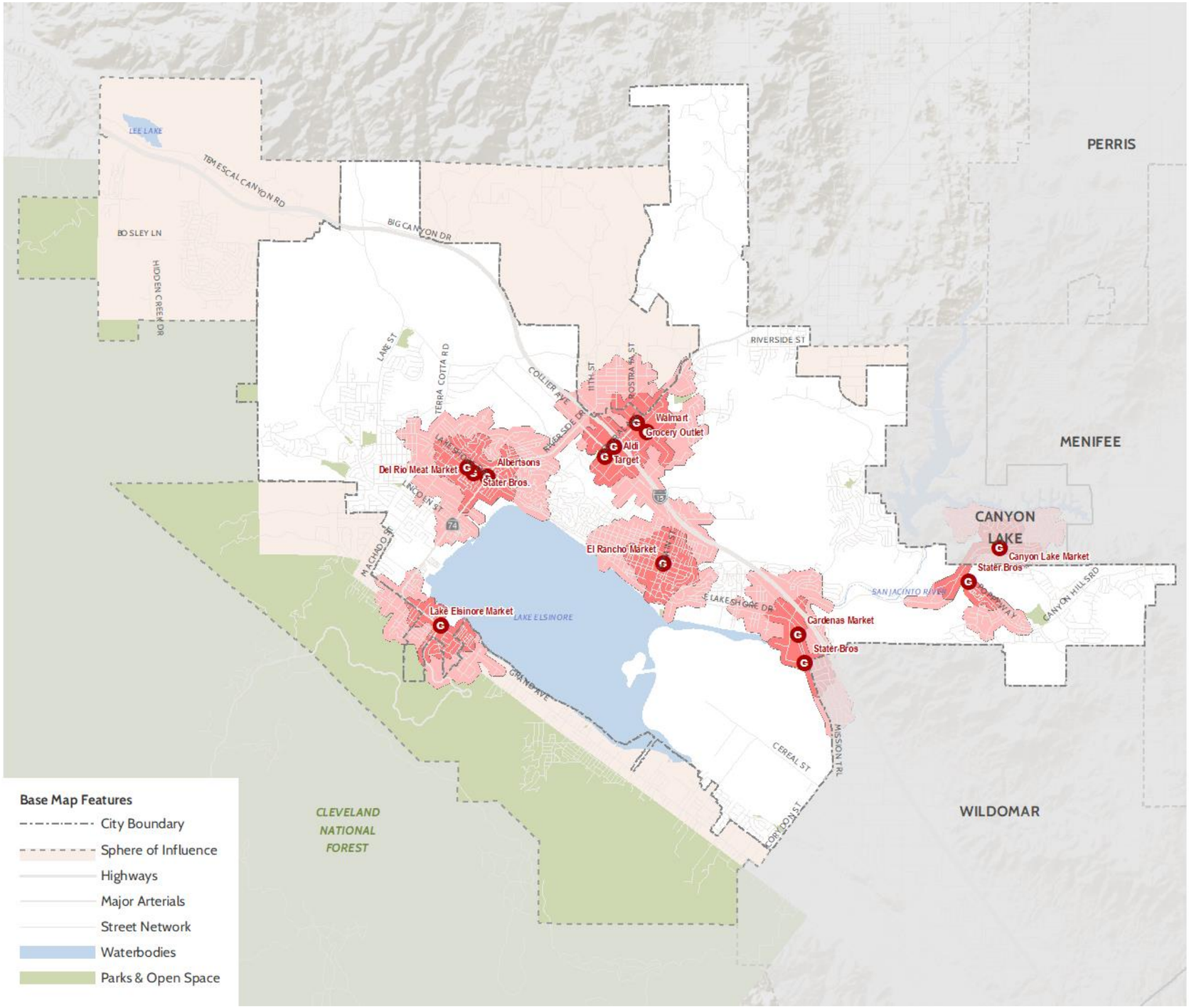


Figure EJ-6
GROCERY STORE ACCESS

Grocery Stores

Grocery Store

Grocery stores selected based on offerring or availability of fresh produce.

Grocery Store Access

Half-Mile Access (10-Minute Walk)

One-Mile Access (20-Minute Walk)

Prepared by MIG, October 2023.
Source: MIG, 2023.

0 ¼ ½ 1 1½ 2 Miles

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PARK ACCESS

Parks, playgrounds, greenways, trails, and community open spaces help keep residents fit and healthy by providing access to places that support physical activity. Physical activity increases strength, flexibility, and endurance; relieves symptoms of depression and anxiety; improves mood; and enhances psychological well-being.

According to the Centers for Disease Control and Prevention (CDC), 25 percent of American adults engage in recommended levels of physical activity, and 29 percent engage in no leisure-time physical activity at all. This sedentary lifestyle is contributing to an increased incidence of obesity along with obesity-related diseases, such as high blood pressure, diabetes, congestive heart failure, and stroke. As one solution to the increased incidence of obesity, the CDC has called for more parks and playgrounds. Studies have shown that when people have access to parks, they exercise more. Parks provide children with opportunities for play, and play is critical in the development of muscle strength and coordination, language, and cognitive abilities.

In Lake Elsinore, 22 percent of City residents live within one-half mile—or a 10-minute walk—to one of the 20 City parks in the City limits (see Figure EJ-7). While this number is lower than the national average of 55 percent, there are a number of recreational and open space opportunities found throughout Lake Elsinore, particularly in the Hillsides.[3] The City is adjacent to the Ortega Mountains and Cleveland National Forest, which provide opportunities for hiking, skydiving, and paragliding. The Lake is also a key recreational destination.

Key Considerations

- Many residents live farther than a 10-minute walk from key community resources such as healthcare facilities, grocery stores, and city parks.
- The General Plan should focus on creating more walkable and economically vibrant neighborhoods to improve health and socioeconomic outcomes.

[3] Trust for Public Land, 2018.

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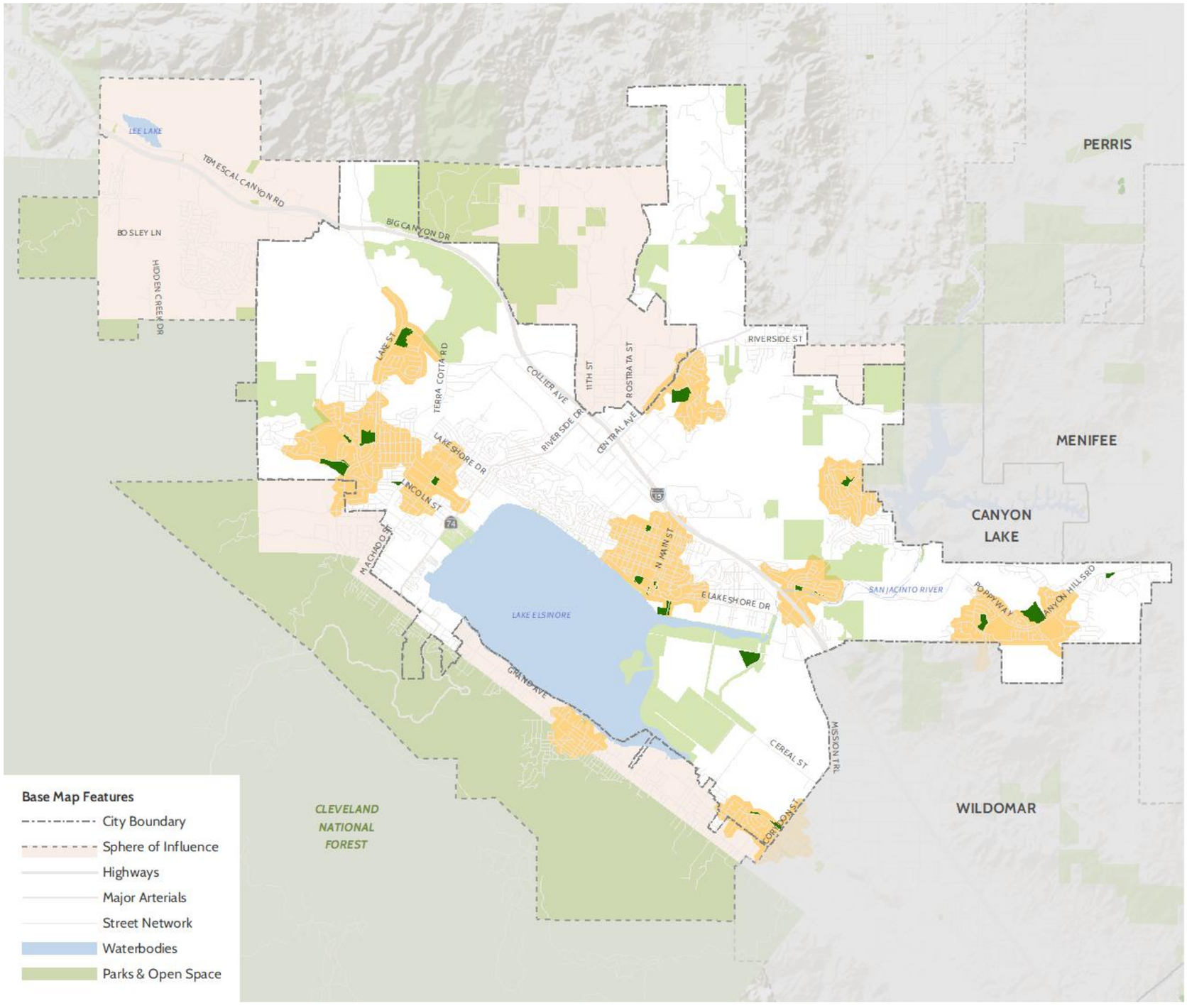


Figure EJ-7

PARK ACCESS

Parks and Open Space

- Lake Elsinore Parks
- Other Open Space

Park Access

- Park Half-Mile Access (10 Minute Walk)

Prepared by MIG, October 2023.
Source: City of Lake Elsinore and Riverside County, 2023.

0 ¼ ½ 1 1½ 2 Miles

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