



Appendix C: General Plan Whitepapers

Early in the development of the 2040 General Plan update, five whitepapers were developed to provide a “snapshot” in time of the existing conditions and trends for key topic areas. The five General Plan whitepapers developed are as follows:

- Land Use and Community Character,
- Economics,
- Transportation,
- Climate Change, and
- Environmental Justice.

The whitepapers presented physical, social, and economic resource information that was used to support the preparation of the 2040 General Plan. The whitepapers serve as the foundation for understanding the factual context for making policy decisions.

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ENVISION ROHNERT PARK 2040

Land Use and Community Character Whitepaper

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LAND USE AND COMMUNITY CHARACTER

INTRODUCTION

This Whitepaper describes existing conditions related to land use and community character in Rohnert Park. Although the focus is on current conditions, it is important to make sure planning decisions in the General Plan Update process are made within the context of future and regional planning efforts. For instance, land use decisions made in this General Plan Update will inform how the next Housing Element Update will be able to meet new Regional Housing Needs Assessment (RHNA) housing requirements in the next Housing Element Update cycle (due in 2023). Additionally, in 2017, The Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) completed Plan Bay Area 2040. It is an updated long-range Regional Transportation Plan and Sustainable Communities Strategies for the nine counties of the San Francisco Bay Area. Plan Bay Area 2040 is a roadmap for forecasting transportation needs through the year 2040, preserving the character of communities within the Bay Area, and adapting to the challenges of future population growth. This plan will inform land use, transportation, and sustainability policies in the Rohnert Park General Plan Update. MTC and ABAG are now in the process of developing a new initiative, Horizon, which will be the first comprehensive Bay Area planning effort to consider not only transportation and housing, but also economic development, resilience, and emerging technologies through the year 2050. The work completed in the Rohnert Park General Plan Update will be occurring simultaneously to this regional effort, which will provide opportunities for sharing ideas.

To help build a baseline understanding of existing conditions, this Whitepaper discusses the planning boundaries that are used to regulate development in Rohnert Park and the key land use policies and regulations from the City's existing General Plan, Zoning Ordinance, Specific Plans, and other planning and regulatory documents. This Whitepaper also describes the current land uses that can be found within the Planning Area, as well as future development capacity. Unless otherwise noted, references to the current times indicate the year 2018.

MAJOR FINDINGS & IMPLICATIONS

- In 2000, Rohnert Park residents voted to approve Measure N, Urban Growth Boundary (UGB), which limits future development to within the UGB to prevent sprawl and promote efficient and orderly growth patterns, stability and certainty in long-term planning, a well-designed mix of uses, and adequate and efficient delivery of public services and facilities. The UGB and its voter protections expires in June 2020.
- Much of the residential development in Rohnert Park consists of low-density single-family homes; however, the city has the highest proportion of multifamily housing compared with the rest of Sonoma County.
- The mix of commercial, industrial, and office uses seen along Highway 101 have been influenced by the Industrial/Commercial Overlay and Office Overlay zoning districts in those areas. There are also a lot of

commercial and industrial development opportunities in these areas, in addition to the light industrial development planned for the Sonoma Mountain Village Planned Development.

- The existing General Plan states that the City should achieve 5.0 park acres per 1,000 residents. Combining city parks, mini parks, creek corridors, the golf course, and the space provided through shared-use agreements with the Cotati-Rohnert Park Unified School District, Rohnert Park residents have over 5.0 acres of recreational space per 1,000 residents.
- While there are currently few mixed-use areas in Rohnert Park, the Station Center Planned Development plans to offer a centralized, mixed-use, walkable downtown on the former State Farm site.
- Most of the future development capacity is within specific area plans, planned developments, and the Priority Development Area Plan, especially for residential development. Development capacity in the rest of the city will be through strategic infill sites, mostly to the west of Highway 101.
- The growth management ordinance was adopted in 2003 and includes a policy that establishes a "trigger cap" on annual residential development approvals. The ordinance requires that the city restrict development if the growth limits (e.g. trigger cap) established by the ordinance are exceeded. The ordinance, however, allows a carryover of unused capacity from year to year, where the City can build up a bank of unit credits during the years where less than 225 building permits are used for new residential construction. For 2019, the City projects 446 residential units will be completed. Based on the outstanding unit credit and the units available for 2019 under the growth management provisions, the City would still have a remaining residential capacity of 2,709 units (see "Growth Management"). The City therefore does not foresee any limitations to residential construction until the mid- to late-2020s at the earliest.
- The potential for development and transformation on the west side of Highway 101 is attributed to the availability of vacant land, as well as the possibility for the big box shopping centers to transition into different uses based on current retail trends shifting toward online shopping and/or experiential retail.
- As the California Tiger Salamander (CTS) is federally endangered and a California species of special concern, development in areas that overlap with CTS habitat range may potentially be asked to mitigate the effects of development on their habitat. Development west of Highway 101 as well as in the southern half of the SOMO Planned Development is highly constrained by the presence of the CTS.
- Apart from the Graton Resort and Casino, there is additional designated Tribal land southwest of the Casino, as well as Tribe-owned land within city limits immediately east of the Casino. City development west of Highway 101 will be influenced by any development plans of the Tribe.

EXISTING CONDITIONS

The planning of Rohnert Park was based on the planning concept of the "neighborhood unit," which clustered homes around local schools and parks. Each of the original neighborhoods consisted of 200 to 250 homes centered on a 10-acre school and 5-acre park site. The idea behind this design was that no child would have to walk more than one-third of a mile to school, as the school would be the center of a cohesive neighborhood. Commercial and industrial development would be large enough and diverse enough to support the entire community. Rohnert Park became one of the earliest master-planned communities in the country. Recently, however, even though development in Rohnert Park has historically focused on the

"neighborhood unit", there has been more focus creating a dense urban core with an interconnected public realm.

City Limits, Sphere of Influence, Urban Growth Boundary, and Planning Area

Rohnert Park was incorporated in 1962, and has steadily grown since. With the annexation of the Northwest Specific Plan Area in 2015, the city limits of Rohnert Park grew to its current size of 7.3 square miles. Figure 1 illustrates the progression of annexation through the decades. The Sphere of Influence (SOI), which is established by the Sonoma Local Agency Formation Commission (LAFCO) and designates the city's potential future area for growth and services, encompasses and expands beyond the city limits to cover 8.9 square miles. While the SOI does encompass Sonoma State University to the east of city limits, there are no current plans to annex the university campus into the city.

In 2000, Rohnert Park residents voted to approve Measure N, which amends the General Plan to adopt an Urban Growth Boundary (UGB). The UGB is slightly smaller than the SOI at 8.7 square miles and encompasses the city limits as well as surrounding unincorporated areas. It was established to help achieve the following community goals:

- Efficient and orderly growth patterns;
- Stability and certainty in long-term planning;
- A well-designed mix of residential, commercial, business park and open space uses; and
- Adequate and efficient delivery of public services and facilities.

Until June 30, 2020, the UGB can only be changed by a vote of the people, except in certain circumstances outlined in Measure N, giving it a degree of immunity to changes in government leadership. The UGB can also be amended by a majority vote of the City Council to adjust the boundary to comply with housing requirements for low- and very-low income families, to add lands to protect agricultural or open lands, to add lands to protect natural resources, or to add lands to provide exclusively for the disposal of treated wastewater and/or sewage treatment and disposal use. The City Council has indicated that it intends to renew the protections provided by Measure N and will be looking at options for renewal. To stay in continuous effect, the UGB must be renewed before it expires in June 2020.

The process of renewing the UGB may need to occur before the General Plan Update and its associated environmental document are scheduled to be completed in April 2020, as the UGB may need environmental review before being placed on the ballot.

State law requires each city to identify a "planning area" in its General Plan that includes the city limits as well as any land outside the city limits that, in the planning agency's judgment, bears relation to its planning (California Government Code Section 65300). The Planning Area for this General Plan Update is defined as the cumulative area of the city limits, SOI, and UGB.. Figure 2 shows a map of the planning boundaries.

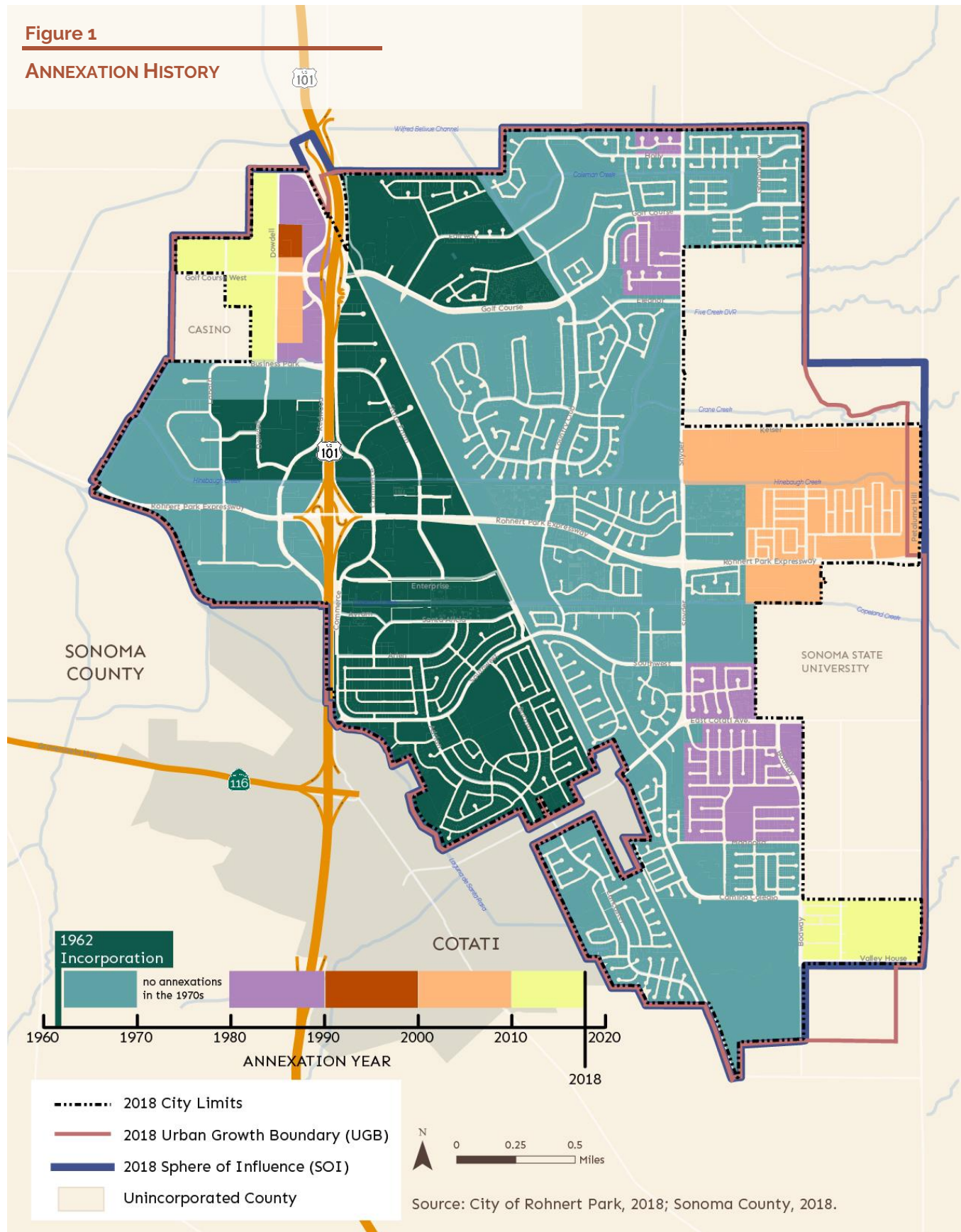
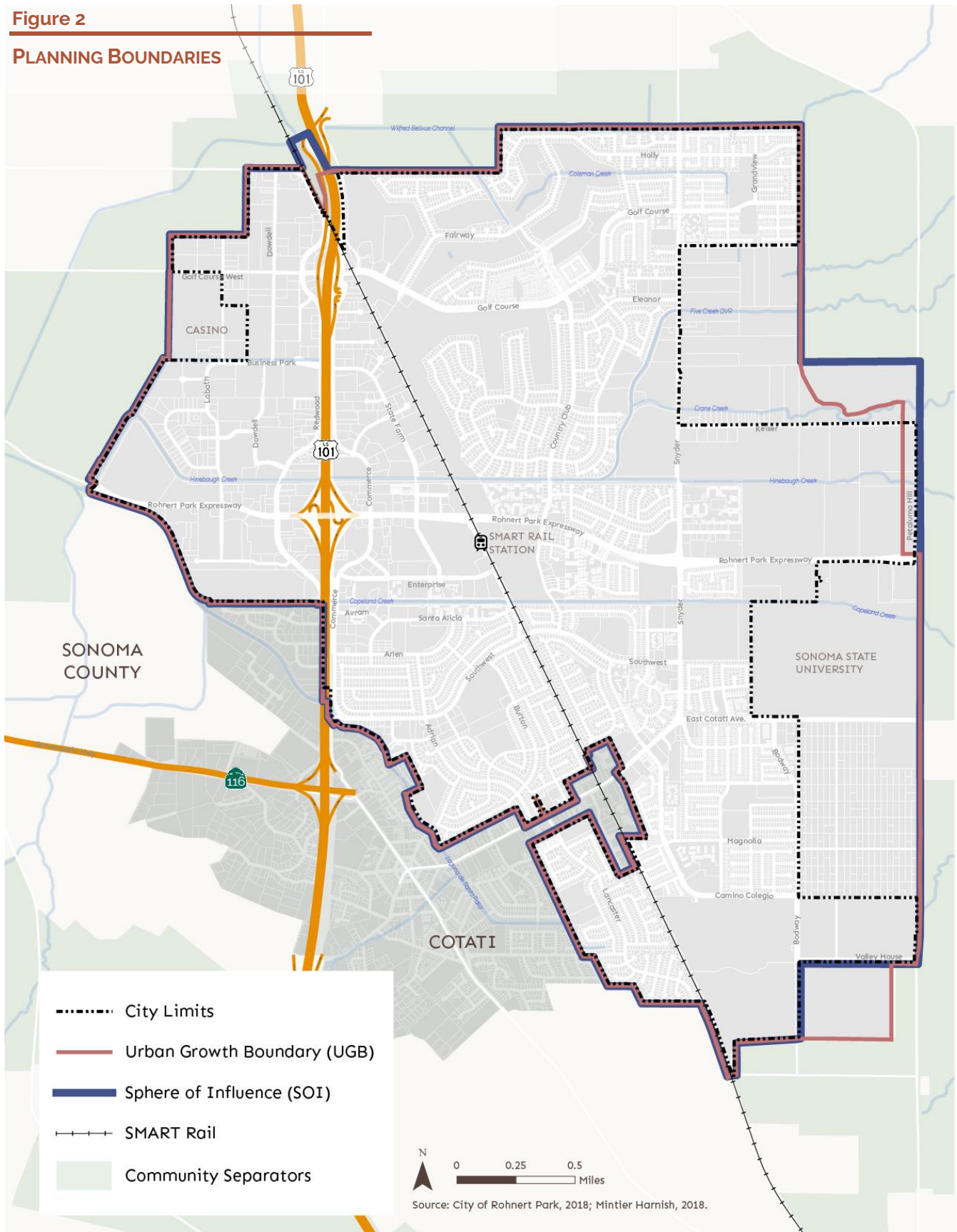


Figure 2

PLANNING BOUNDARIES



Existing General Plan and Zoning

Existing (2000) General Plan Land Use Designations

The land use framework of the General Plan is embodied in the existing General Plan Land Use Diagram, which is a map that designates the proposed location, distribution, and extent of land uses within the Planning Area. The existing General Plan Land Use Diagram (as amended through 2018) embodies several ideas and principles, which include:

- Compact urban form;
- Urban Growth Boundary;
- Close physical integration of the city and Sonoma State University;
- Increased connectivity between and within neighborhoods;
- Designation of mixed-use and pedestrian-oriented activity centers;
- Variety of housing and mix of housing types in all neighborhoods;
- Protection of creeksides and provision of a network of trails and parks; and
- Land use pattern to maximize accessibility to parks and commercial centers.

As required by California State law, each land use designation specifies a range for housing density and building intensity. Residential density is expressed as housing units per gross acre (including public streets and other rights-of-way), while non-residential uses are expressed as a maximum floor area ratio (FAR). FAR is the ratio of permitted building floor area (all building floor area added together) to gross site area. The classifications are meant to be broad enough to give the City flexibility in implementing City policy, but clear enough to provide enough direction to carry out the General Plan. The City's Zoning Ordinance (described in the following section), contains more detailed provisions and standards to implement these land use designations. More than one zoning district may be consistent with a single General Plan land use designation.

The 2000 General Plan contains the following 13 land use designations:

- **Rural Estate Residential** accommodates single-family detached residential developments with densities of 2.0 dwelling units per gross acre (du/ac) or less. This classification serves as a buffer on the northeastern and southeastern border of the city and open space areas.
- **Low-Density Residential** accommodates housing development at a density of 4.0 to 6.0 du/ac. This designation is intended to provide a mix of housing types on traditional single-family lots. This is the predominant land use designation in Rohnert Park.
- **Medium-Density Residential** accommodates housing development at densities from 6.1 to 12.0 du/ac. Dwelling types may include attached or detached single-family housing. This land use designation exists throughout the city. Large Medium-Density Residential parcels are located east of the city center and to the west of the commercial core.

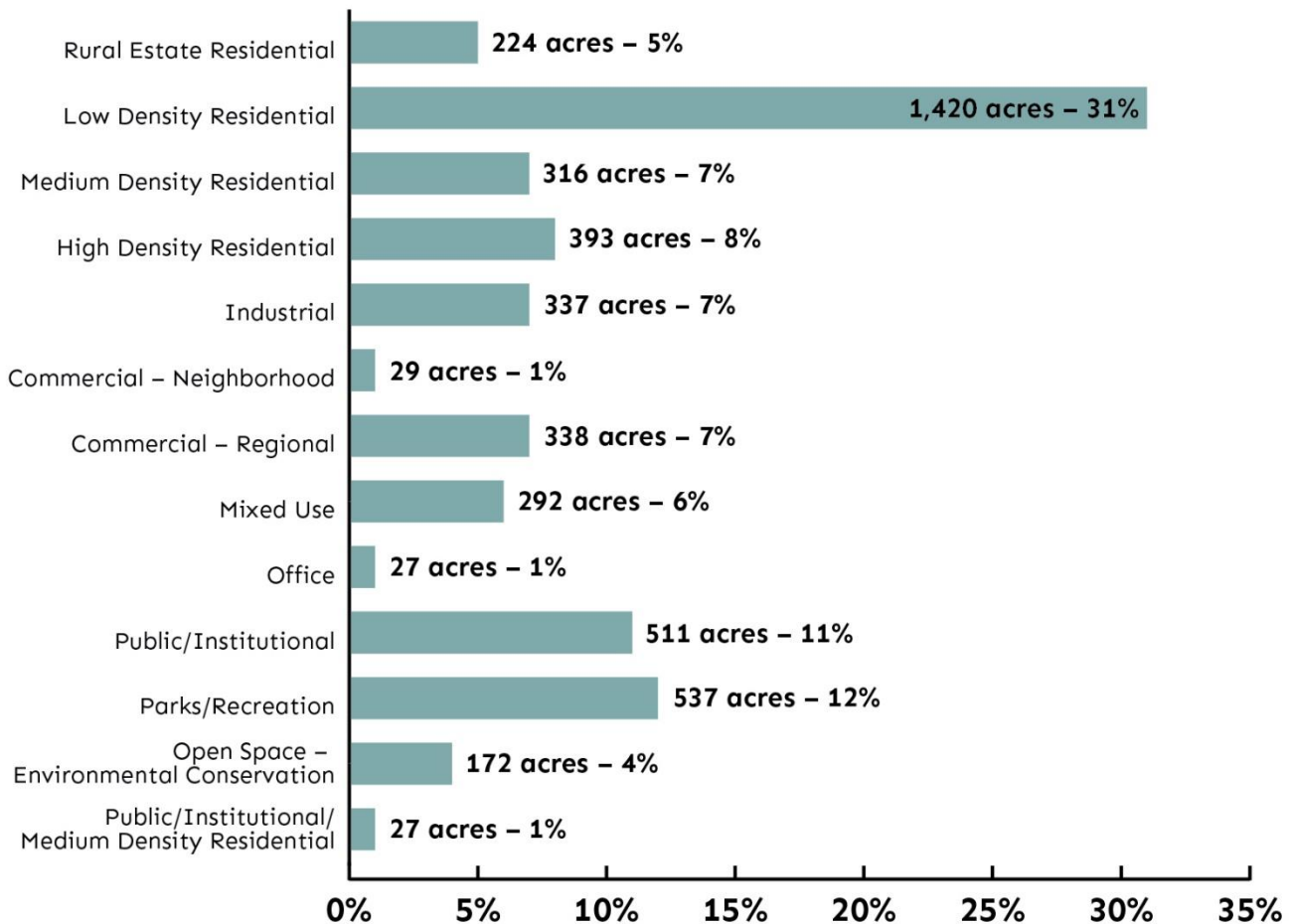
- **High-Density Residential** accommodates densities ranging from 12.1 to 30.0 du/ac. This land use designation is for high-density, compact housing. In Rohnert Park, this designation exists largely to the south of the city center and along Snyder Lane.
- **Industrial** accommodates campus-like environments for corporate headquarters, research and development facilities, offices, light manufacturing and assembly, industrial processing, general service, warehousing, storage and distribution, and service commercial uses. This use is found mainly north of the city center and commercial core, and south of the Graton Casino and Northwest Specific Plan Area.
- **Commercial-N (Neighborhood)** accommodates neighborhood-level commercial that includes stores, personal service establishments, offices, financial businesses, restaurants, and cafes that serve the everyday needs of the surrounding community.
- **Commercial-R (Regional)** accommodates shopping centers that typically include department stores or big-box stores, which attract consumers from outside the city. Automotive uses (i.e., gas stations, auto sales, repair) and drive-throughs are permitted in this designation.
- **Mixed Use** accommodates a variety of compatible businesses, stores, institutions, service organizations, and residences in a pedestrian-oriented setting. Allowable uses include multifamily residences, retail shops, financial, business and personal services, and restaurants. This designation is used in the city center, at the intersection of Adrian Drive and Southwest Boulevard, at Sonoma Mountain Village, in the Northwest Specific Plan Area surrounding the Casino, and within the University District Specific Plan Area.
- **Office** accommodates sites for administrative, financial, business, professional, medical, and public offices, as well as support commercial uses. Limits on retail activities are specified in the zoning code. This designation has one location within the city to the northwest of Sonoma State University.
- **Public/Institutional** accommodates schools, government offices, transit sites, and other facilities that have a unique public character. Although religious facilities are not called out separately in the General Plan Land Use Diagram, they are permitted in this designation, as well as other residential and commercial designations.
- **Parks/Recreation** provides for parks for active and passive recreation, recreation complexes, community fields, public golf courses, stadiums, arboretums, and gateways. Ancillary facilities such as concession stands, clubhouses, and equipment rental facilities are also allowed.
- **Open Space – Environmental Conservation** includes sites with environmental and/or safety constraints, including riparian corridors, sensitive habitats, and wetlands.
- **Open Space – Agriculture and Resource Management** includes orchards, cropland, grassland, and very low-density rural residential areas. Agriculture is permitted with fewer restrictions on keeping animals than in the residential classifications. This classification also accommodates any greenbelts and/or urban buffer areas that may be designated in the future. This designation is not used within the city limits but does apply to a portion of the southeast corner of the UGB.

Figure 3 shows a breakdown of acreage for each land use designation, and Figure 4 is the current General Plan Land Use Diagram (as amended through early 2018). The following summarizes takeaways from a breakdown of the land use designations:

- Low-Density Residential takes up 31 percent of the city, the highest of any designation.
- Combined, residential designations make up 51 percent of the city.
- Designations with employment uses (including mixed use) constitute 22 percent of the city.
- Public/Institutional-designated land makes up 11 percent of the city.
- Parks/Recreation and Open Space designations make up 16 percent of the city.

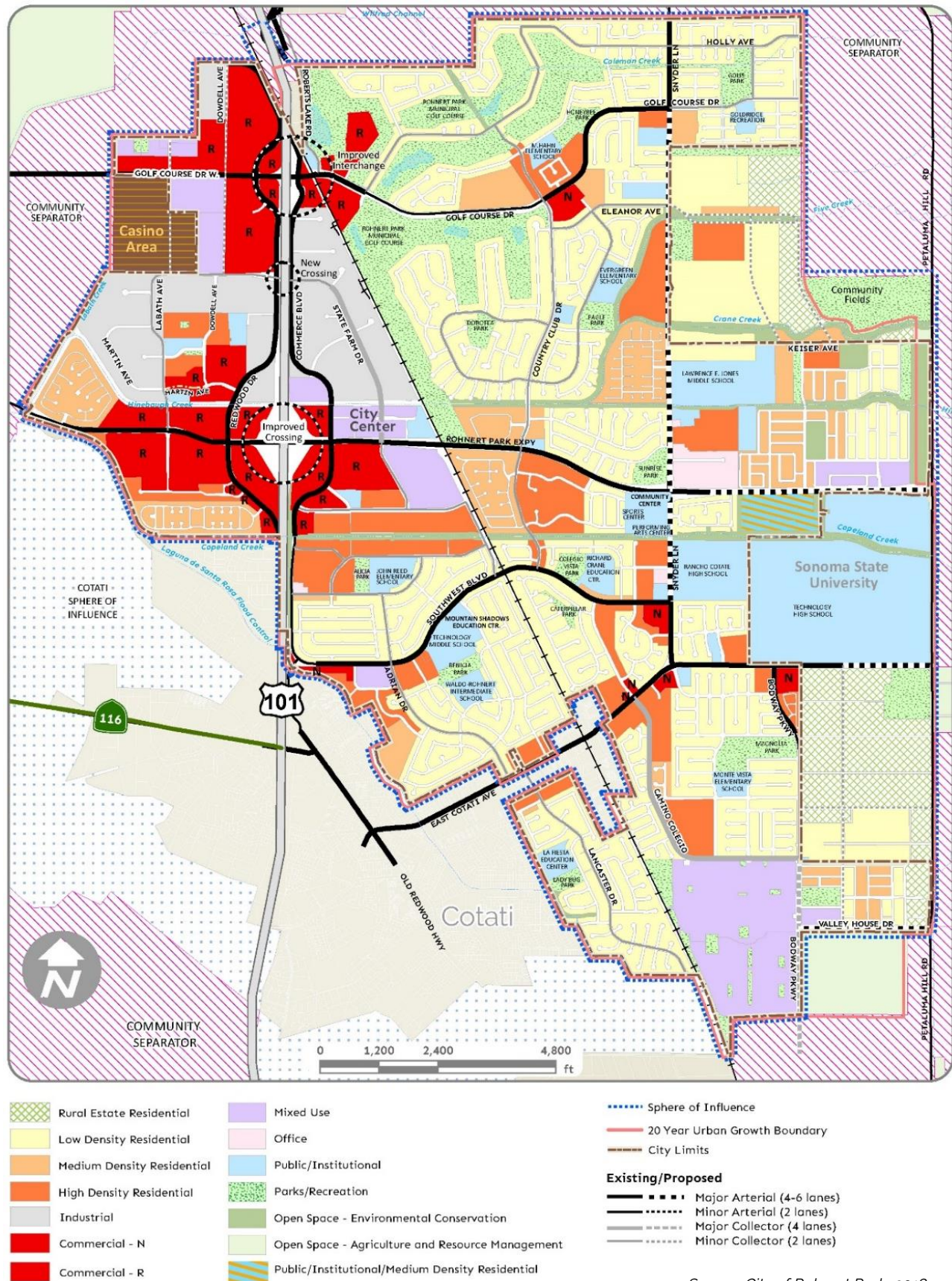
Figure 3

EXISTING GENERAL PLAN LAND USE DESIGNATIONS, ROHNERT PARK CITY LIMITS, 2018



Source: City of Rohnert Park, 2018; Mintier Harnish, 2018.

EXISTING GENERAL PLAN LAND USE DIAGRAM



Source: City of Rohnert Park, 2018

Existing Zoning Ordinance

Zoning is the primary tool used to implement the General Plan. A major difference between the City's General Plan and the Zoning Ordinance is that the General Plan provides broad guidance on the location, type, and density of new growth and development over the long term, while the zoning ordinance provides detailed development and use standards for each parcel of land. The zoning ordinance divides the community into zoning districts and specifies the uses that are permitted, conditionally permitted, and prohibited within each district. Each zoning district has development standards that are designed to protect and promote the health, safety, and general welfare of the community and to implement the policies of the general plan.

The City of Rohnert Park Zoning Ordinance regulates the use and development of property within the city limits, while the Sonoma County Zoning Ordinance regulates land uses on unincorporated lands outside the city limits within the Planning Area/Urban Growth Boundary.

Within a typical district, there are regulations related to land use, lot size and coverage, setbacks, and building heights. The zoning districts for the City of Rohnert Park Zoning Ordinance are described below.

- **Rural Residential (R-R).** Rural Residential is intended for very low-density residential development on large lots of typically 40,000 square feet or more that convey a rural or agricultural character. These districts exist along the perimeter of the city and provide a buffer between urban development and open space agricultural areas outside of the city limits. This district is consistent with the "Estate Residential" General Plan designation.
- **Estate Residential (R-E).** This district is intended for very low-density residential development on large estate size lots of typically 17,000 square feet or more. This district also is located at the perimeter of the city to provide a transition from the more urban development to the open space/agricultural areas outside the city. This district is consistent with the "Estate Residential" General Plan designation.
- **Low Density Residential (R-L).** This district is comprised of four sub-districts: R-L-5,000, R-L-6,000, R-L-8,000, and R-L-10,000 (Note: numbers represent minimum lot size). These sub-districts are intended to promote the development of single-family detached dwellings in a suburban setting with a variety of minimum lot sizes. This district is consistent with the "Low Density" General Plan designation.
- **Medium Density Residential (R-M).** This district is intended for attached and detached single-family housing and duplexes as part of a planned residential development with a minimum lot size of 3,700 square feet. Multifamily housing is not permitted. Side-by-side duplexes not separated by a property line or without individual heating systems are permitted. This district is consistent with the "Medium Density" General Plan designation.
- **High Density Residential (R-H).** This district is comprised of two sub-districts: R-H-2,000 and R-H-1,800 (Note: numbers represent minimum lot area per unit). These subdistricts are intended to permit a wide range of housing types, ranging from single-family attached to multifamily, and are intended for specific areas where higher densities may be appropriate. This district is consistent with the "High Density" General Plan designation.

- **Downtown-High Density Residential (DT-RH).** This district is located within the Central Rohnert Park Priority Development Area (PDA) planning area, as identified in the General Plan, and is intended to allow for residential development proximate to the downtown area. This district is consistent with the "High Density" General Plan designation. Unless otherwise specified, all special provisions, development standards and other requirements and limitations shall be the same as the R-H district.
- **Mobile Home Overlay (-MHP).** A mobile home park overlay district may be combined with any residential district, which allows compatible densities, by a change of district to include the overlay in accordance with the provisions of Chapter 17.25, Article VII of the Zoning Ordinance. A mobile home park overlay district shall be designated by the letters "MHP" following the residential district designation.
- **Neighborhood Commercial (C-N).** This district is intended to accommodate businesses that provide goods and services to nearby residential neighborhoods, generally within an area of a one-mile radius or less. Typical uses found in this district include limited commercial offices, and retail stores and service establishments that are compatible with, and dependent upon, nearby residential developments. This district is consistent with the "Neighborhood Commercial" General Plan designation. The floor area ratio for this district is 0.4.
- **Regional Commercial (C-R).** This district allows operations that provide goods and services that serve the community and outlying areas within an eight- to twenty-mile radius. It is primarily reserved for larger shopping centers and can accommodate "big box" retailers. This district is consistent with the "Regional Commercial" General Plan designation. The floor area ratio for this district is 0.4, and 1.5 for hotel and motel projects.
- **Office Commercial (C-O).** This district allows for the development of administrative, financial, business, professional, medical, and public offices. Retail uses within this district are generally limited to those that provide support services to the office uses. This district is consistent with the "Office" General Plan designation. The floor area for this district is 1.0.
- **Industrial (I-L).** This district allows for campus-like environments for corporate headquarters, research and development facilities, offices, light manufacturing and assembly, industrial processing, general service, warehousing, storage and distribution, and service commercial type uses. Retail activities are generally limited to those that support the industrial type uses. This district is consistent with the "Industrial" General Plan designation. The floor area ratio for this district is 0.5, or 1.0 for projects that meet specific criteria specified in the Rohnert Park design guidelines.
- **Industrial/Commercial Overlay (I-L/C-R).** The Commercial Overlay District is intended to permit additional commercial development with existing industrial areas which are proximate to Highway 101, such as the Commerce Boulevard area. The district would ensure that there are locations for new commercial users within such areas and would allow for their timely approval as principally-permitted uses, while continuing to allow for uses that are more industrial in nature. A Commercial Overlay District may be combined with an Industrial Zoning District by a change of district to include the overlay in accordance with the provisions of Chapter 17.25.070 of the Zoning Ordinance. A Commercial Overlay District shall be designated by the letter "C" following the industrial district designation. In addition to the uses allowed in the underlying zoning district, additional permitted land uses within the commercial overlay designation is listed in Chapter 17.06.640 of the Zoning Ordinance.

- **Office Overlay (-O).** The Office Overlay District is intended to recognize the existing pattern of development within areas designated for industrial use that include many established office uses and buildings designed to support office uses, such as the Commerce Boulevard and Redwood Drive corridors. The district would ensure that there are locations for new office users within such areas and would allow for their timely approval as principally-permitted uses, while continuing to provide space for uses that are more industrial in nature. An Office Overlay District may be combined with an Industrial Zoning District by a change of district to include the overlay in accordance with the provisions of Chapter 17.25.070 of the Zoning Ordinance. An Office Overlay District shall be designated by the letter "O" following the industrial district designation. Projects within the "O" Office Overlay District shall conform to the development standards of the underlying zoning district, as provided for in Chapter 17.10 of the Zoning Ordinance. Off-street parking and other requirements particular to an office use shall be as provided for as specified in this title.
- **Mixed Use (M-U).** This district allows for the development of integrated centers that combine a supportive mix of land uses, either within the same building or in clusters of buildings. This district is consistent with the "Mixed Use" general plan designation. The floor area ratio for this district is 1.5 for non-residential projects, and 2.0 for mixed-residential/residential projects.
- **Downtown Mixed Use (DTM-U).** This district allows for the development of integrated centers that combine a supportive mix of land uses, either within the same building or in clusters of buildings. This district is consistent with the "Downtown Mixed Use" General Plan designation. The floor area ratio for this district is 1.5 for non-residential projects, and 2.0 for mixed residential/residential projects. Non-residential development is required within this designation and residential development is only permitted as part of a mixed-use project.
- **Downtown District Amenity Zone (DDAZ).** The DDAZ is intended to guide downtown-style within a portion of Central Rohnert Park. Development in the DDAZ should be well-designed and supportive of an active, pedestrian-oriented, commercially focused downtown streetscape environment.
- **Public/Institutional (P-I).** This district allows for schools, government offices, transit sites, religious facilities, and other land uses that have a unique public character. Public infrastructure facilities are also permitted in this district. This district is consistent with the "Public/Institutional" General Plan designation.
- **Open Space – Environmental Conservation (OS-EC).** This district includes sites with environmental and/or safety constraints, such as riparian corridors, sensitive habitats, and wetlands. This district is consistent with the "Open Space-Environmental Conservation" General Plan designation.
- **Open Space – Agricultural and Resource Management (OS-ARM).** This district includes orchards and croplands, grasslands, cemeteries, and rural residential areas. It is intended to allow for greenbelts and urban buffers, and consists of open space, park land, and agricultural areas outside urban areas, as opposed to urban parks, which are located within developed areas and provide outdoor recreational opportunities. This district is consistent with the "Open Space-Agriculture and Resource Management" General Plan designation and is not used within the city limits.

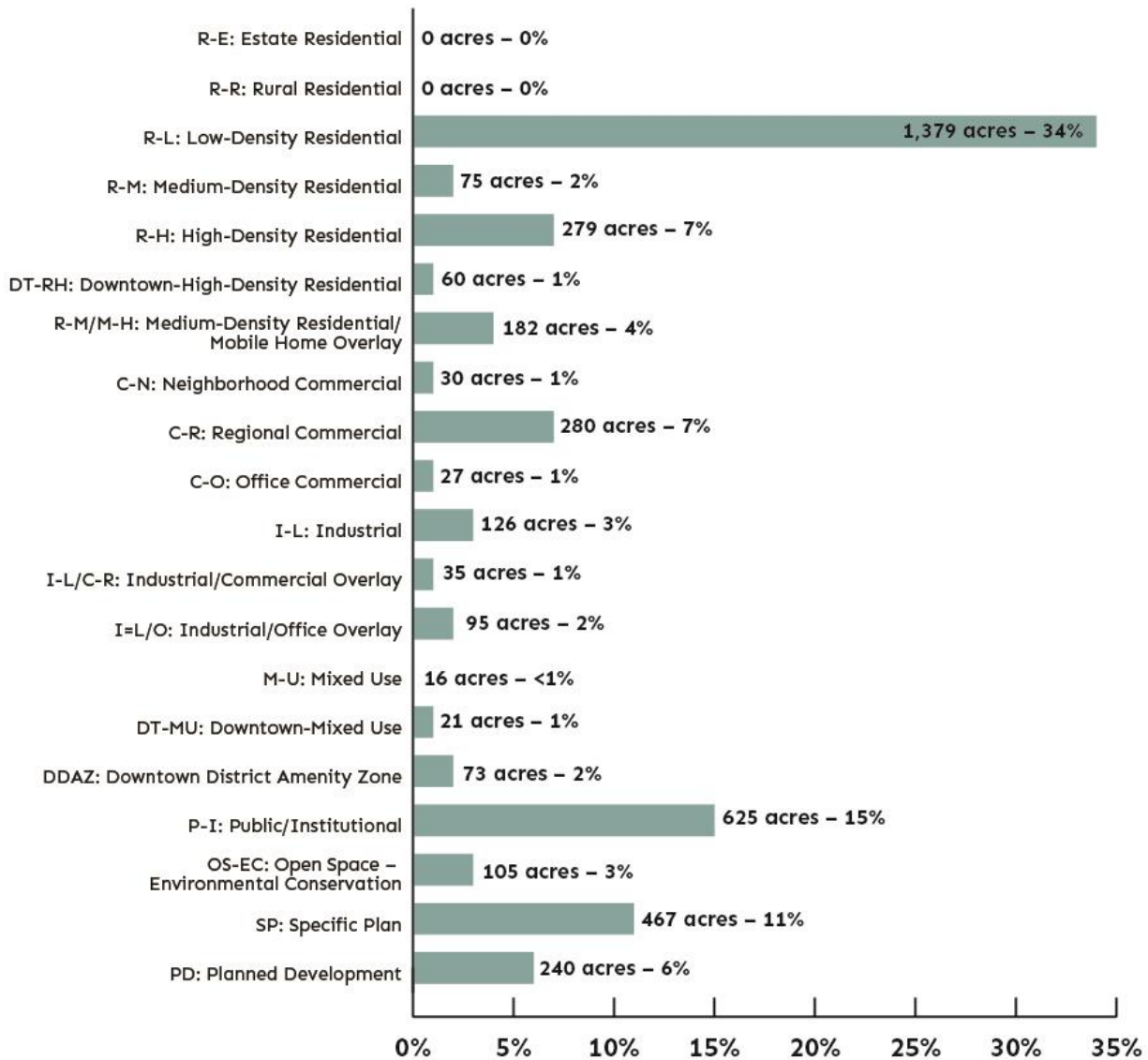
- **Specific Plan (SP).** This district facilitates the General Plan provisions for the preparation, adoption, and implementation of specific plans in certain areas of the community pursuant to Government Code Section 65450.
- **Planned Development (PD).** This district is intended to accommodate a wide range of residential, commercial, and industrial land uses, which are mutually-supportive and compatible with existing and proposed development on surrounding properties. P-D zoning districts shall encourage the use of flexible development standards designed to appropriately integrate a project into its natural and/or man-made setting and shall typically be intended for projects that provide for a mix of land uses to serve identified community needs. Furthermore, the P-D zoning process may be used to implement the various specific plans adopted by the City. Once established, the P-D zoning district becomes, in effect, the zoning for the area within its respective boundaries.
- **Form-Based Codes for Special Areas.** The intent of this section is to continue implementation of the guiding objectives set forth in the Rohnert Park General Plan relating to compact urban form, increased connectivity between neighborhoods, designation of mixed-use and pedestrian-oriented centers, development of a variety of housing types within all neighborhoods, and development of a network of trails, parks, and land use patterns that maximizes accessibility to parks and commercial centers.

Figure 5 shows a breakdown of the zoning districts by acreage, and Figure 6 is the current Zoning Map. Findings from a breakdown of zoning districts include:

- Low-Density Residential covers 34 percent of the city, the highest of any other zone.
- All residential zones combined cover 48 percent of the city.
- Public/Institutional covers 15 percent of the city.
- Land dedicated to specific plans and planned developments cover 17 percent.

Figure 5

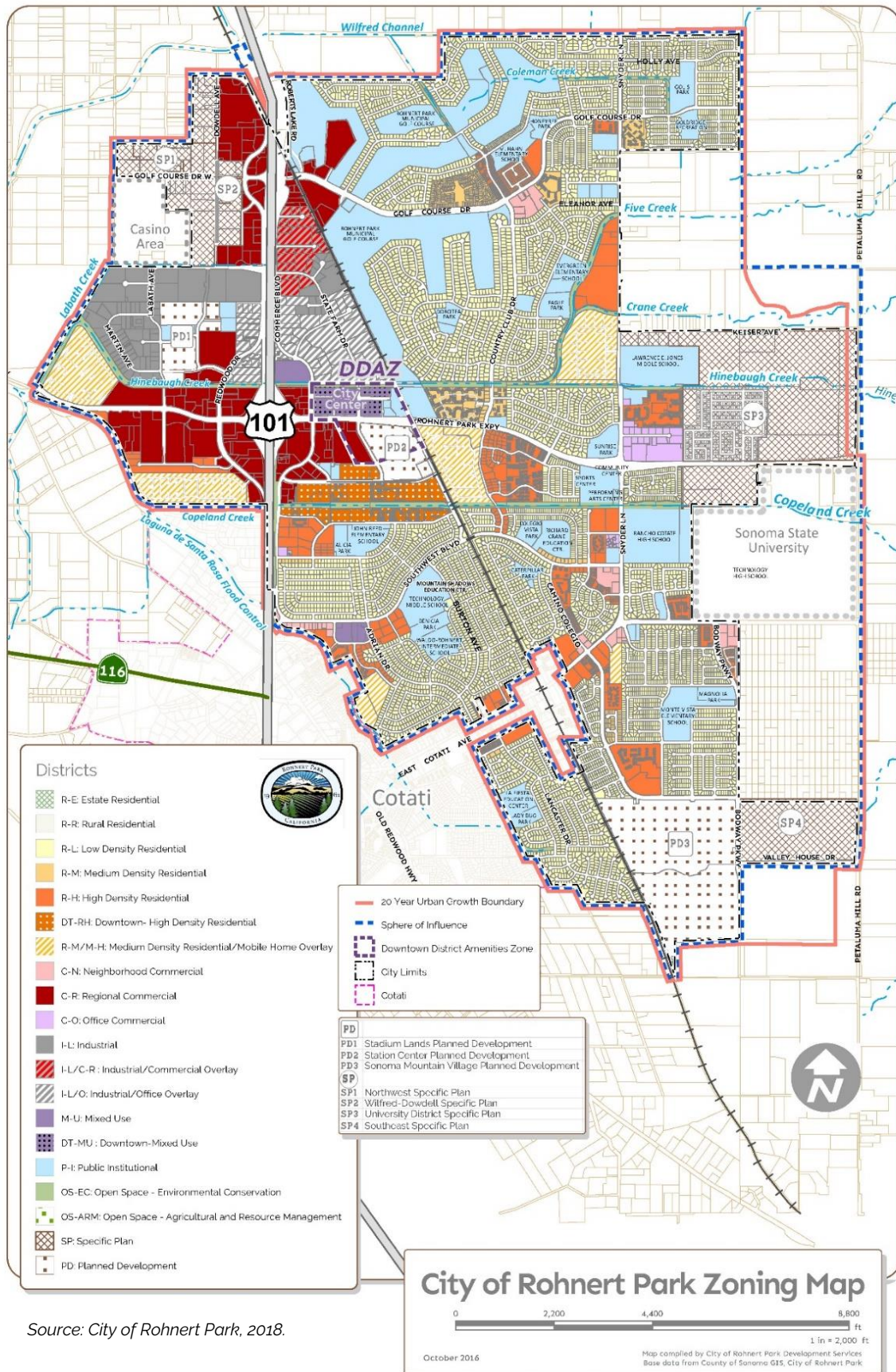
EXISTING ZONING DISTRICTS, ROHNERT PARK CITY LIMITS, 2018



Source: City of Rohnert Park, 2018; Mintier Harnish, 2018

Figure 6

EXISTING ZONING MAP



Source: City of Rohnert Park, 2018.

Existing Land Use

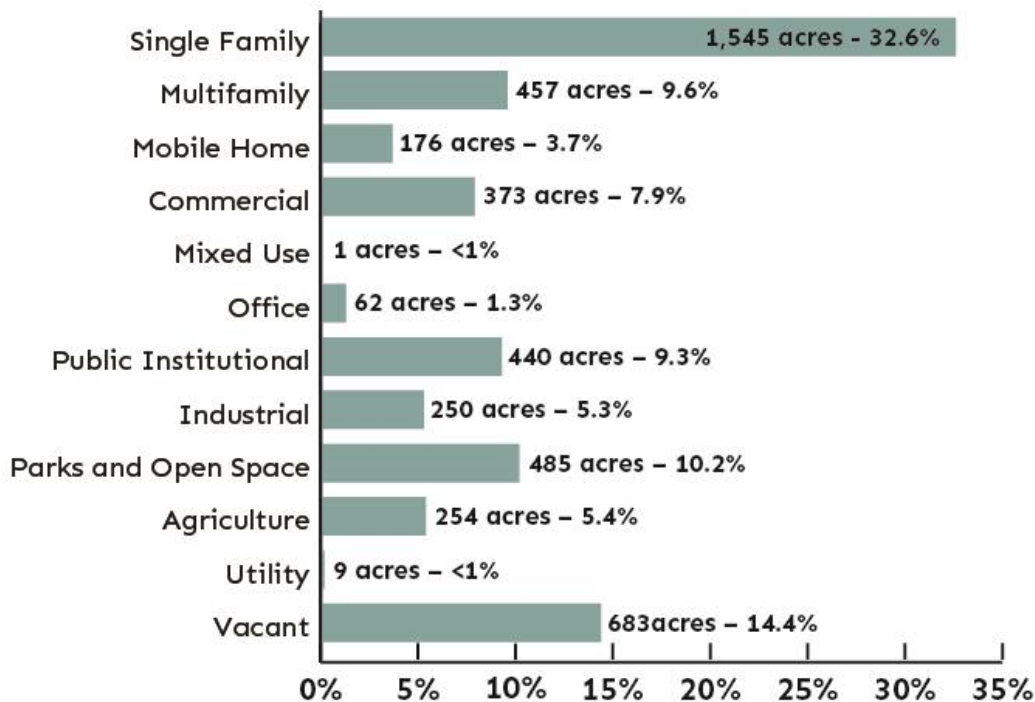
This section discusses the development issues and patterns associated with the existing land uses found in Rohnert Park. The term “existing land use” refers to the on-the-ground use that is built on a property within the Planning Area as of 2018. Figure 7 breaks down land uses by acreages, and Figure 8 shows a map existing land uses. The following list summarizes takeaways from a breakdown of existing land uses:

- Combined residential uses (single family, multifamily, mobile homes) make up around 45 percent of the Planning Area.
- Vacant parcels constitute 14 percent of all land within the Planning Area, although most of these lie within specific plan areas and planned development areas.
- Parks and open space account for 10 percent.
- Employment uses (commercial, mixed-use, office, public/institutional, industrial) account for about 25 percent.
- Agricultural lands outside the city limits account for 5 percent.

The following discussions are grouped into broader categories than is presented in Figures 7 and 8 to provide a more holistic view of trends in the city.

Figure 7

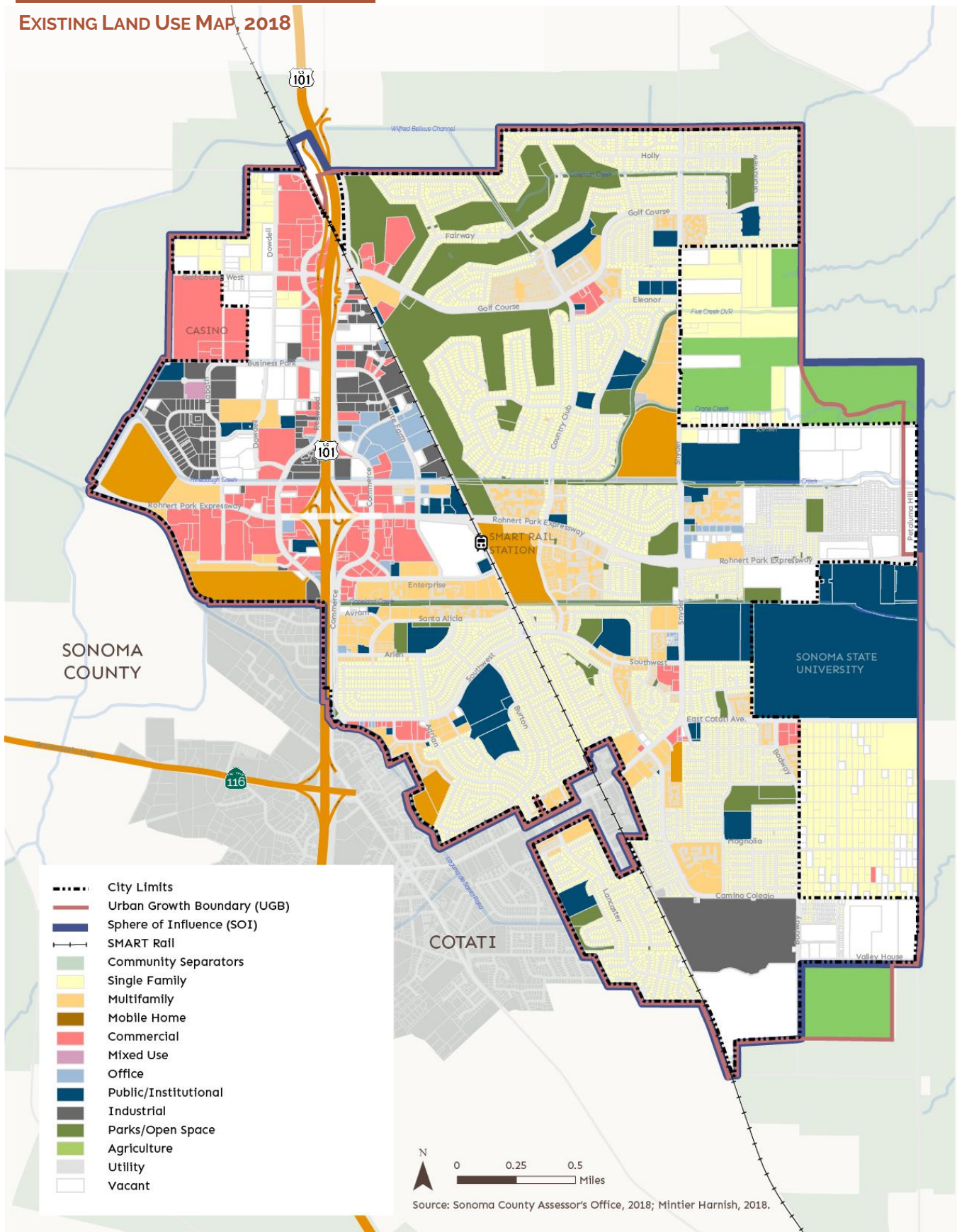
EXISTING LAND USE ACREAGES, ROHNERT PARK PLANNING AREA, 2018



Source: Sonoma County Assessor's Office, 2018; Mintier Harnish, 2018.

Figure 8

EXISTING LAND USE MAP, 2018



Residential Neighborhoods

Rohnert Park is planned on the principles of the "neighborhood unit". Each residential neighborhood (called a "Section") is identified with a letter (see Figure 10), and all streets names within each neighborhood begin with the letter of that neighborhood. For example, Adele Avenue, Allan Avenue, Alden Avenue, and Alma Avenue are all streets found within the A Section. This has resulted in a strong fabric of neighborhood centers linked together with roadways and off-street trails.

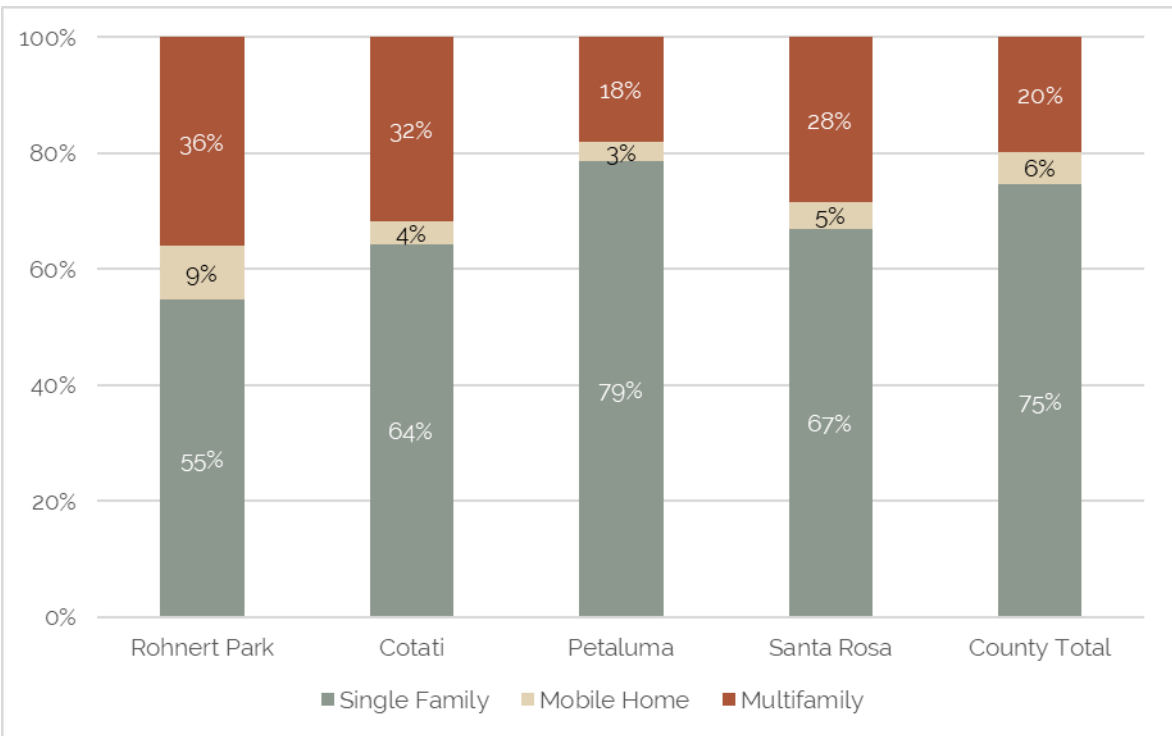


A typical multifamily housing community north of Rohnert Park Expressway East of Highway 101.

While the majority of the residential development is low-density single-family homes, Rohnert Park has the highest percentage of multifamily housing in Sonoma County (see Figure 9 and "Population and Housing" section in Economics Whitepaper) in the form of townhomes and garden apartments. The majority of residential buildings are one to two stories tall with private parking garages or shared parking lots. In addition to conventional housing, the city has five mobile home parks (Rancho Feliz, Rancho Verde, Las Casitas de Sonoma, Valley Village, and Rancho Grande), two of which are senior communities (Valley Village and Rancho Grande). Most of the future residential development will occur in Special Area Plans (see Appendix A for a description of all existing Special Area Plans).

Figure 9

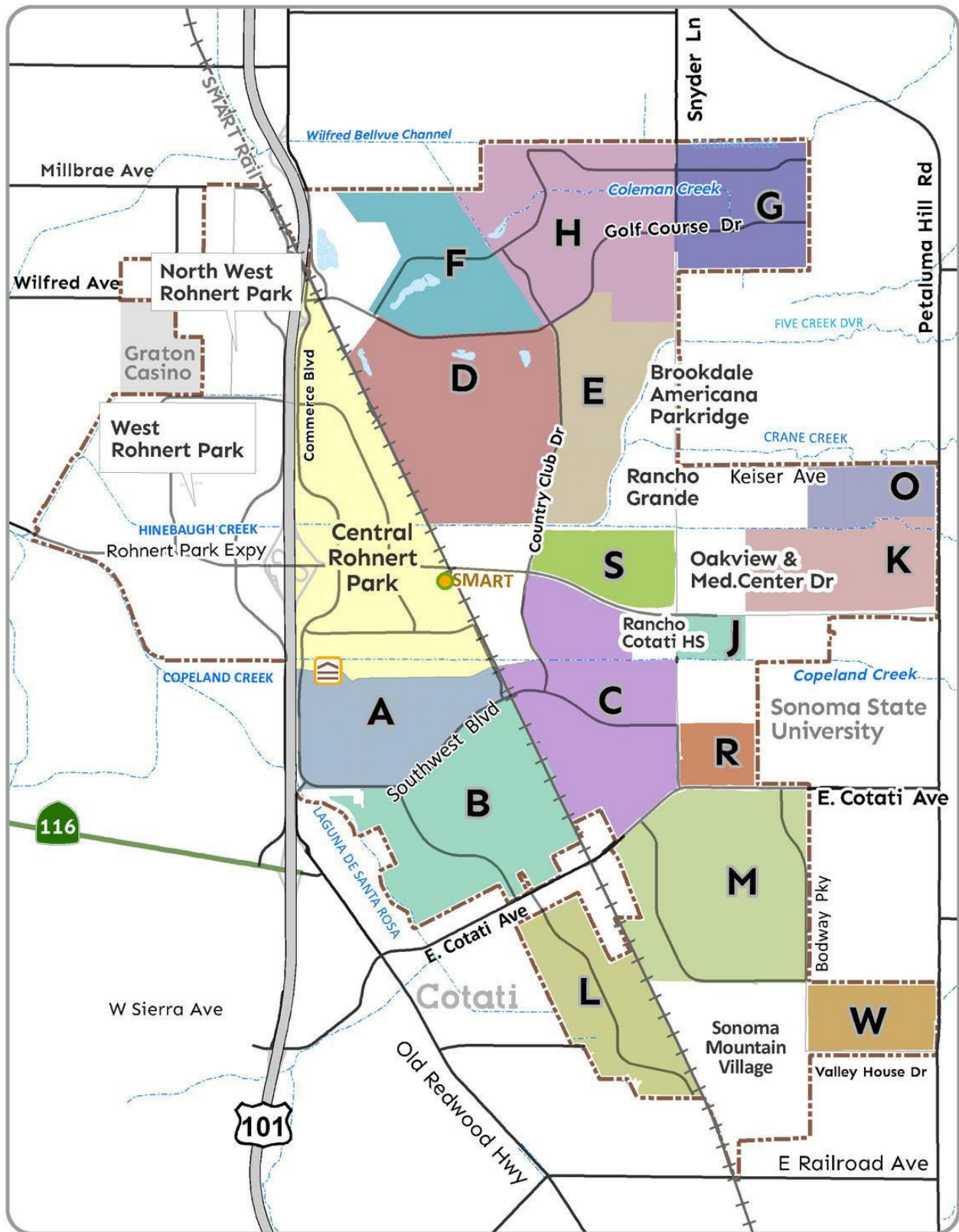
HOUSING TYPE



Source: California Department of Finance, 2018.

Figure 10

NEIGHBORHOOD MAP



Source: City of Rohnert Park, 2018.

Commercial

Neighborhood commercial buildings are found throughout the city and serve the local neighborhoods. They are typically one to two stories tall and set back from the street with large parking lots and landscaping fronting the streets.

Regional commercial uses with large parking lots are concentrated along the Highway 101 corridor, most of which was built in the late 1980s and 1990s, including several big-box retailers, shopping malls, and chain restaurants. Traditional strip centers and some big-box retail may see declining relevance as retailers see a consumer shift toward commercial areas that create experiential retail and a distinctive sense of place (see

"Forward Opportunities" section in the Economics Whitepaper). This shift will be an opportunity for Rohnert Park to tap into underutilized parking areas and redefine how parking lot space is used and converted, as well as how the regional commercial areas along Highway 101 look in the future.

Key hospitality sites in the Planning Area include the Double Tree as well as the Graton Resort and Casino. The City anticipates more hotels to be developed within the plan horizon.

Currently, most of the development potential for commercial uses lie west of Highway 101.

Mixed Use

While there are currently few mixed-use areas in Rohnert Park, the Station Center Planned Development plans to offer a centralized, mixed-use, walkable downtown on the former State Farm site. Additionally, the University District Specific Plan, Sonoma Mountain Village Planned Development, Southeast Specific Plan, and Northwest Specific Plan all have areas set aside for mixed-used development (see Appendix A for a description of the Special Area Plans).

Office

Office uses are mainly found within the Office Overlay of Industrial zones. Additionally, office uses can also be found along Medical Center Drive, next to the University District Specific Plan (see the "Specific Plans and Planned Developments" section in this Whitepaper). Based on its existing zoning and land use designation, there is potential to nearly double the office footprint in this area on the east side of the city.

Industrial

The city's industrial areas are found within three main parts of the city. First, in the area north of the Rohnert Park Expressway and west of the Northern Pacific Railroad right-of-way, there are recreational facilities, fitness establishments, auto-oriented shops, light industrial facilities, a Kaiser medical campus, office parks, Marmot Headquarters, self-storage facilities, in addition to a local distillery and tap room. Second, to the west



Typical neighborhood retail on Golf Course Drive with one-story buildings significantly set back from the streets.

of Highway 101, northeast of the Rancho Verde Mobile Home Park, and along the Rohnert Park city limits, light industrial uses include self-storage, printing, shipping, food processing, electronics manufacturing, and office uses. Because self-storage facilities have oversaturated the city, however, they are no longer a permitted use with commercial or industrial zones.

Third, the Sonoma Mountain Village Planned Development (see "Special Area Plans" section of this Whitepaper) has a number of industrial uses such as Innovative Molding Incorporated, Quarterware Corporation, RESYNERGI, as well as an Xfinity Distribution Center.

Except for the Sonoma Mountain Village Planned Development, there is an Office Overlay and Commercial Overlay over much of these industrial areas, which were put in place to expand the permitted uses within industrial zones and now account for the wide range of uses, from auto shops, to retailers, to medical offices. There is great development potential in industrial areas within the Central Rohnert Park Priority Development Area (see the "Priority Development Areas" section in this Whitepaper), as well as in the area west of Highway 101.



Marmot Headquarters on State Farm Drive in Rohnert Park.

Source: YardiMatrix

Connectors

Connectors do not have a land use designation or zoning district, but are a major part of how residents, visitors, and workers experience and move through the city. Highway 101 is a major north-south freeway in Sonoma County and serves as the primary regional access route to Rohnert Park. Highway 101 also separates the community east-west. Snyder Lane is the only other major street that runs north-south, stopping at East Cotati Avenue on the southern end. Country Club Drive runs north-south between Fairway Drive and Southwest Boulevard, connecting neighborhoods in between. The multi-use path along the SMART rail line serves as another important north-south connection.

In the east-west direction, three streets (Golf Course Drive, Rohnert Park Expressway, and Southwest Boulevard) run the entire length of the city connecting Rohnert Park with neighboring communities, although Southwest Boulevard does not run west of Highway 101. In addition to these streets, the greenways along Copeland Creek, Five Creek, and Hinebaugh Creek also serve as east-west pedestrian connectors, although there are gaps along the corridor.

Public/Institutional

Many of the cultural and education institutions, including Spreckels Performing Art Center, Rancho Cotati High School, Rohnert Park Community Center, and Callinan Sports and Fitness Center are concentrated on the southeastern part of the city in proximity to Sonoma State University. Schools, kindergarten through 12th grade, are spread throughout the residential neighborhoods. Although not within city limits, the Green Music Center, in the north part of the Sonoma State University campus, is a regional cultural attraction.

Parks and Open Space

Parks are a central component of Rohnert Park's identity, as the neighborhoods were designed around parks and schools. While the character and design of parks are similar, the size of parks vary quite a bit in Rohnert Park. The City recently approved a small 0.65-acre park in the Five Creek project, has a number of medium-sized parks ranging from three to 10 acres, as well as large parks such as Magnolia Park (17 acres) and two 18-hole golf courses (310 acres) which are owned by the City, but are leased to Rohnert Park Golf, LLP who operates Foxtail Golf Club on the two golf courses.



Golis Park

According to the 2008 Parks and Recreation Facilities Master Plan (revised 2016), the City provides its 43,598 residents with 175.5 acres of neighborhood and community parks and other recreational facilities, which translates to 4.0 acres per 1,000 residents. The current General Plan states that the city should achieve 5.0 acres per 1,000 residents, however taking the golf courses as well as mini parks and creek corridors into consideration, Rohnert Park provides well over 5.0 acres per 1,000 residents. Additionally, the City of Rohnert Park and the Cotati-Rohnert Park Unified School District have a joint-use agreement for the shared use of park and school facilities, adding even more recreational space for Rohnert Park residents to use and enjoy.

Although Rohnert Park has ample open space and many of the parks feature amenities such as picnic tables, benches, and kids play areas, many of the recreational facilities are aging.

Rohnert Park also enjoys a number of open space resources. At the north end of the city, there is a small reservoir called Roberts Lake. Throughout the rest of the city, there are a number of waterways, including the Laguna de Santa Rosa (which forms part of the border with the city of Cotati), Copeland Creek, Hinebaugh Creek, Crane Creek, Five Creek, Spivock Creek, Coleman Creek, Wilfred Channel, and Labath Channel. The creeks are an important resource to the community both historically and in present day. They flow east to west in a very linear form, as their natural course has been altered to manage storm water. The three major creeks with trails are Copeland Creek, Five Creek, and Hinebaugh Creek. Although all three have trail systems, they could offer more public amenities as an open space system.

Finally, as Rohnert Park was planned on the mostly flat plains of the former seed farm, it sits between the coastal range to the west and Sonoma Mountains to the east, which affords spectacular views from the northeastern neighborhoods.



View of the Sonoma Mountains from Holly Avenue in the northeast corner of Rohnert Park.

Source: Google Earth, 2013.

Development Capacity

Most of the future development capacity, particularly for residential development, is within the special area plans, accounting for over 1,000 acres of land within the Planning Area. Table 1 summarizes the planned development capacity and current status for each project.

Outside the special area plans and approximately 150 units of in-progress housing, there is limited development capacity. Based on existing General Plan development assumptions, there is capacity for approximately 13 residential units and 1.2 million square feet of non-residential development on existing vacant parcels, mainly commercial and industrial uses west of Highway 101, and office uses just west of the UDSP. Table 2 summarizes these results by land use designation.

Figure 11 shows a map of citywide development capacity.

Table 1: Development Potential within Special Area Plans

Rohnert Park, 2018

	Central Rohnert Park PDA Specific Plan	Sonoma Mountain Village Planned Development	University District Specific Plan	Southeast Specific Plan	Northwest Specific Plan	Stadium Area Planned Development	Wilfred-Dowdell Specific Plan	Canon Manor Subdivision ¹	Northeast Specific Plan Area ¹
Total Acreage	330 acres	175 acres	300 acres	80 acres	90 acres	33 acres	25 acres		
Residential Units									
Rural/Estate			26	29					
Large Lot									
Low Density			382	128					
Medium Density			666	237					
High Density	835		218			473			
Mixed Use	(combined with High Density)		150	81	398				
Second Unit									
Total Units	835	1,694	1,645	475	398	473	0		
Affordable Units (included in total)	125	198	238 (additional 9 units met through in-lieu payments)	72					
Non-Residential Square Footage									
Commercial	429,926	825,307	Max. 100,000	10,000	458,700	300,000	302,114		
Office	205,232								

Table 1: Development Potential within Special Area Plans

Rohnert Park, 2018

	Central Rohnert Park PDA Specific Plan	Sonoma Mountain Village Planned Development	University District Specific Plan	Southeast Specific Plan	Northwest Specific Plan	Stadium Area Planned Development	Wilfred-Dowdell Specific Plan	Canon Manor Subdivision ¹	Northeast Specific Plan Area ¹
Industrial	129,315				218,200				
Mixed Use					58,400				
Total Non-Residential Square Footage	761,473	825,307	100,000	10,000	735,300	300,000	302,114		
Other									
Parks		29 acres	20 acres	7.1 acres	5 acres				
Open space	8.5 acres		54 acres						
Hotel		150 rooms			100 rooms				
CURRENT STATUS (as of December 31, 2017)	Approved March 2016; KG Technologies approved; Bella Creek Apartments approved	Approved 2010; 92% non-residential space leased out	Annexed 2007; approx. 120 units left to be built out of 399 total in Vast Oak West (DAP I); Vast Oak East (DAP II) under construction; affordable housing plans under review	Annexed 2011; 200 units of Willowglen Phase I and II under construction; future phases under review	Annexed 2015	Approved 2008; Fiori Estates and The Reserve completed; Residences at Five Creek and Cambria Hotel under construction; Westside Public Safety Facility approval in progress	Annexed 2009; Oxford Suites Hotel and Amy's are open	Canon Manor has 42 vacant lots available for development as single-family homes	Future development area; currently no development

Source: City of Rohnert Park, 2018; Northwest Specific Plan, 2014; Southeast Specific Plan, 2014; University District Plan, 2014; Wilfred Dowdell Specific Plan, 2014; Stadium Area Master Plan, 2017; Sonoma Mountain Village Planned Development Plan, 2010; Central Rohnert Park Priority Development Area Plan, 2016.

Note: ¹Canon Manor Subdivision and the Northeast Specific Plan Area are not specific plans, but areas that could become specific plans.

Table 2: Development Capacity in Areas Outside Special Plan Areas

Rohnert Park, 2018

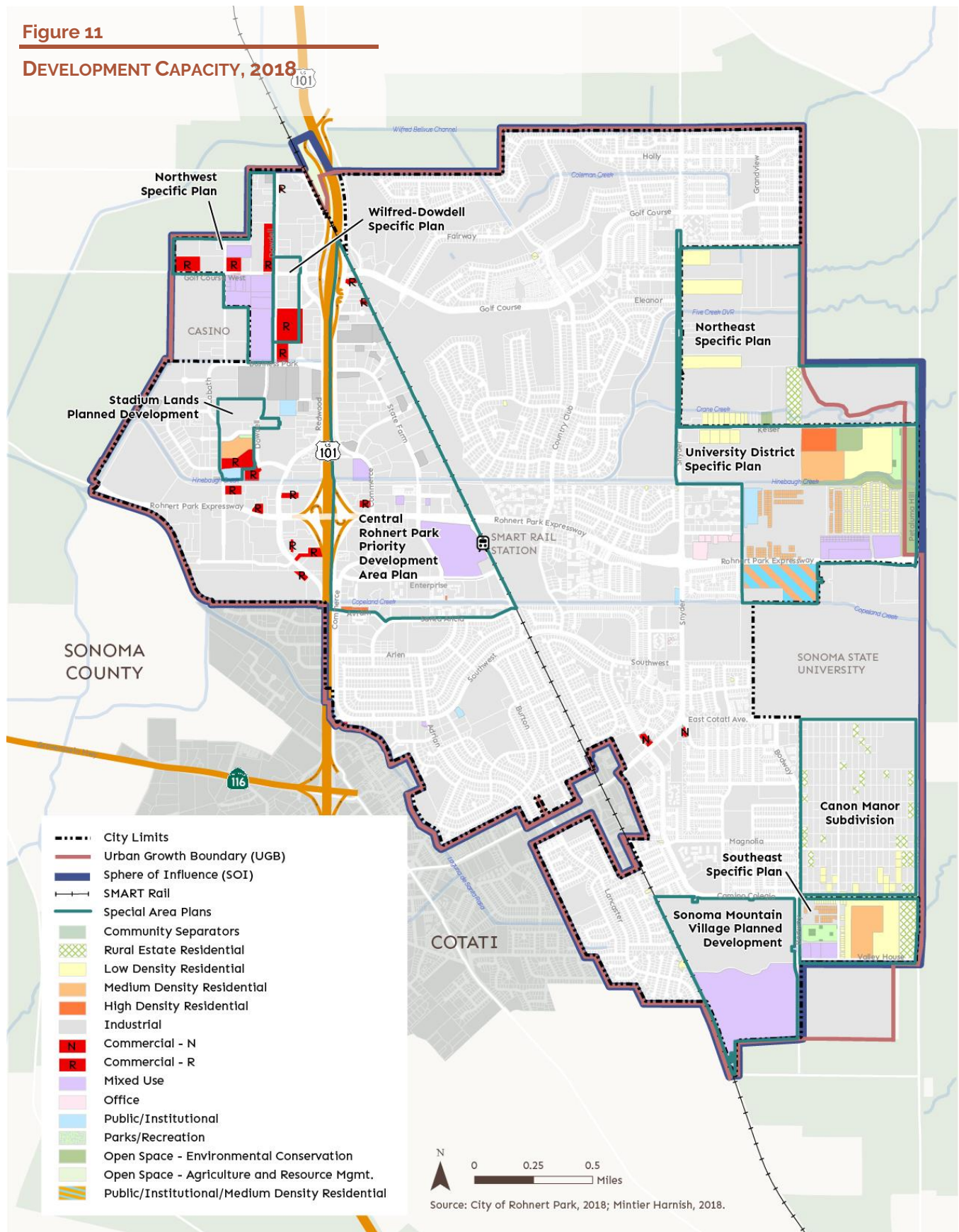
Land Use Designation	Acres	Housing Units						Non-Residential Square Footage				
		Estate	LDR	MDR	HDR	Mixed Use	Total	Commercial	Office	Public/ Institutional	Light Industrial	Total
Residential												
Rural Estate Residential (R-E)	-	-	-	-	-	-	-	-	-	-	-	-
Low Density Residential (R-L)	2.02	-	10	-	-	-	10	-	-	-	-	-
Medium Density Residential (R-M)	-	-	-	-	-	-	-	-	-	-	-	-
High Density Residential (R-H)	0.16	-	-	-	3	-	3	-	-	-	-	-
<i>Residential Subtotal</i>	2.18	-	10	-	3	-	13	-	-	-	-	-
Employment												
Commercial-Neighborhood (C-N)	1.90	-	-	-	-	-	-	24,861	6,281	-	-	31,143
Commercial-Regional (C-R)	10.62	-	-	-	-	-	-	156,533	17,578	-	-	174,110
Mixed Use (M-U) (commercial)	0.50	-	-	-	-	-	-	10,826	7,294	7,371	-	25,492
Mixed Use (M-U) (residential)	-	-	-	-	-	-	-	-	-	-	-	-
Office (C-O)	6.97	-	-	-	-	-	-	57,096	230,812	-	-	287,907

Table 2: Development Capacity in Areas Outside Special Plan Areas

Rohnert Park, 2018

Land Use Designation	Acres	Housing Units						Non-Residential Square Footage				
		Estate	LDR	MDR	HDR	Mixed Use	Total	Commercial	Office	Public/ Institutional	Light Industrial	Total
Industrial (I-L)	27.46	-	-	-	-	-	-	-	-	-	550,174	550,174
<i>Employment Subtotal</i>	<i>47.45</i>	-	-	-	-	-	-	<i>249,316</i>	<i>261,965</i>	<i>7,371</i>	<i>550,174</i>	<i>1,068,826</i>
Public Resources												
Public/Institutional (P-I)	4.90	-	-	-	-	-	-	-	-	82,021	-	82,021
Parks/Recreation (REC)	-	-	-	-	-	-	-	-	-	-	-	-
Open Space-Environmental Conservation (OS-EC)	-	-	-	-	-	-	-	-	-	-	-	-
Open Space-Agriculture and Resource Management (OS-ARM)	-	-	-	-	-	-	-	-	-	-	-	-
<i>Public Resources Subtotal</i>	<i>4.90</i>	-	-	-	-	-	-	-	-	<i>82,021</i>	-	<i>82,021</i>
Total	54.53	-	10	-	3	-	13	249,316	261,965	89,392	550,174	1,150,847

Source: Sonoma County Assessor's Office, 2018; 2020 Rohnert Park General Plan 2017; Mintier Harnish, 2018.



Development Considerations

This section covers major development considerations, including the growth management ordinance, new development (in downtown Rohnert Park, residential development on the east side, development opportunities in the area west of Highway 101, and other key infill sites), the presence of the California Tiger Salamander habitat within Rohnert Park, as well as the development influence of the Federated Indians of Graton Rancheria and Sonoma State University. Specific plans and planned developments are critical components to these development considerations, in addition to the Central Rohnert Park Priority Development Area Plan (PDA Plan). See Appendix A for a description of specific plans, planned developments, and the PDA Plan. Additional considerations, including but not limited to agricultural preservation, the Sonoma County Cannabis Program, and housing pressure from Santa Rosa, can be found in Appendix B.

Growth Management

The growth management ordinance was adopted in 2003 and includes a policy that establishes a trigger cap on annual residential development approvals. The ordinance requires that the City restrict development if the growth limits (e.g. trigger cap) established by the ordinance are exceeded. The ordinance sets an average development pace of 225 housing units per year for any three-year period (or a total of 675 housing units). This was calculated based on the average maximum growth rate of one percent and could result in the maximum addition of approximately 4,450 housing units by 2020.

Between 2000 and 2010, there was very little development activity. The ordinance, however, allows a carryover of unused capacity from year to year, where the City can build up a bank of unit credits during the years where less than 225 building permits are used for new residential construction. As of 2018, the total accumulated outstanding unit credit was 2,930 units. Before limiting growth, the outstanding unit credit can be applied.

In recent years, the rate of development has increased, raising the concern that if all dwelling units approved through development agreements (University District, Sonoma Mountain Village, Southeast Specific Plan, and Stadium Lands) are combined with all the residential units in the development pipeline for 2019, the total number of potential units would exceed the limits established by the growth management ordinance.

This, however, does not suggest that Rohnert Park will need to halt development in the near future. For 2019, the City projects 446 residential units will be completed. Based on the outstanding unit credit and the units available for 2019 under the growth management provisions, the City would still have a remaining residential capacity of 2,709 units (see Table 3). The City therefore does not foresee any limitations to residential construction until the mid- to late-2020s at the earliest.

**Table 3: Growth Management Ordinance Trigger Cap Projections
Rohnert Park, 2011-2022**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Residential Building Permits Implemented ¹	0	0	0	0	244	84	136	165	446	526	480	313
Accumulated Residential Development Cap ^{2, 3}	1,984	2,209	2,434	2,659	2,640	2,781	2,870	2,930	2,709	2,408	2,153	2,065
Surplus units	1,984	2,209	2,434	2,659	2,396	2,697	2,734	2,765	2,263	1,882	1,673	1,752

1) "Residential building permit implementation" means completion of the dwelling unit that a permit pertains to and is deemed to take place one year after the permit is issued. This data (March 2018) projects implemented permits in 2018 and 2019.

2) This value includes the carry-over units accumulated between 2001 and 2010 (10 years x 225 units), minus 491 units permitted in that time frame (1,759 units). For each successive year, 225 units are added to the accumulated development cap, minus the residential building permits implemented that year.

3) This table does not include the two-year totals and three-year averages also used by the growth management ordinance monitor and calculate the cap trigger, as the accumulated residential development cap shown in the table is high enough to have no practical limiting effect on residential construction in the near future.

Downtown Rohnert Park

Central Rohnert Park Priority Development Area Plan

In March 2016, the City of Rohnert Park adopted the Central Rohnert Park Priority Development Area Plan, which is bounded by Highway 101 to the west, the Sonoma-Marín Area Rail Transit (SMART) train rail to the east, and Avram Avenue/Santa Alicia Drive to the south. The PDA Plan aims to transform central Rohnert Park into the heart of city. It establishes a cohesive vision for a vibrant mixed-use area near the new SMART station and incorporates the Station Center Planned Area, as well as focuses attention on the redevelopment of key vacant areas. To achieve this, the PDA Plan includes strategies to support a walkable downtown destination and transportation hub with access to a variety of jobs, housing, shopping, services, and interconnected transportation options, striving to make the central Rohnert Park a distinctive, compact, active, accessible, and business-oriented place (for additional information about the Central Rohnert Park Priority Development Area Plan, see Appendix A).

Station Center Planned Development

The Station Center is an adopted Planned Development in the zoning ordinance, and is a subarea of the PDA Plan. It is comprised of 30 acres from the State Farm Insurance office campus and 2 acres of a City-owned Corporation Yard. This 32-acre site is located centrally on Rohnert Park Expressway and adjacent to the Rohnert Park SMART station, connecting Rohnert Park regionally to other cities in Sonoma and Marin Counties.

State Farm closed its operations in Rohnert Park in 2011 and then sold the vacant property to SunCal in 2013. SunCal had proceeded to develop a Preliminary Development Plan for the site called Rohnert Crossing, which was approved by the Rohnert Park Planning Commission. The property was sold to Laulima Development in 2017, the current developer of the Station Center area. Currently, Laulima is seeking Final Development Plan approval from the City.

The Station Center also overlaps with the Downtown District Amenity Zone district, meaning that development in the Station Center must be consistent with both the Central Rohnert Park PDA Plan goals and Downtown District Amenity Zone (see Articles XII and XIII of the Zoning Ordinance), which will ensure that all development within the DDAZ will be consistent with its intent to guide a well-designed environment that supports an active, pedestrian-oriented, commercially-focused downtown streetscape. Currently, the City, Laulima, and the City's form-based code consultant, Opticos Design, Inc., are working together to develop a Form-Based Code overlay that will regulate the form and architecture of future redevelopment projects in the DDAZ.



The Station Center Planned Development features high-density residential units, civic/office space, commercial and residential mixed-use areas, and public open space.

Source: Central Rohnert Park PDA Plan, 2015.

East-Side Residential Activity

There is currently significant residential development activity in the city, namely within the University District and Southeast Specific Plans. The Sonoma Mountain Village Planned Development and the Northeast Specific Plan are also expected to be completed within the plan horizon of the 2040 General Plan. Canon Manor, a residential subdivision, is also located on the east side of the Planning Area, but is unlikely to be annexed into city limits.

University District Specific Plan

The University District Specific Plan (UDSP) was adopted in 2006 (last amended in 2014) and was annexed to the city in 2007. The plan area is 300 acres and located south of Keiser Avenue, west of Petaluma Hill Road, and north of Sonoma State University, Green Music Center, and Copeland Creek. The University District LLC and Vast Oak Properties make up 87 percent of the land. The Cotati-Rohnert Park Unified School District (CRPUSD) as well as the Bristol and Linden properties comprise the rest. Land within the UDSP is owned by five property owners (University District LLC, Vast Oak Properties, CRPUSD, Bristol, and Linden).

The UDSP is a master planned pedestrian-oriented community that will provide 1,645 housing units in addition to 100,000 square feet of mixed-use space that will include a commercial center with commercial, office, retail, a plaza area, and homes. The plan area adheres to General Plan policies and guidelines by

orienting around a commercial center near education and cultural facilities. Pedestrian and bicycle routes connect the core to public parks and open-space areas, and education and cultural facilities.

The UDSP is comprised of several project neighborhoods, including Linden, Bristol, CRPUSD, Vast Oak North, Vast Oak West, Vast Oak East, and a commercial area. Currently, less than one-quarter of the units and one park have been built. Specifically, Vast Oak West is mostly built, and a portion of Vast Oak East is under construction, although University District LLC (within Vast Oak East) will remain vacant as a temporary detention basin until an upstream basin is built. Vast Oak North and Bristol are vacant, although most recently, the Bristol property's Development Area Plan and tentative map for 42 housing units was approved. Table 4 summarizes the planned number of housing units by residential neighborhood. Figure 12 illustrates the land uses for the UDSP.

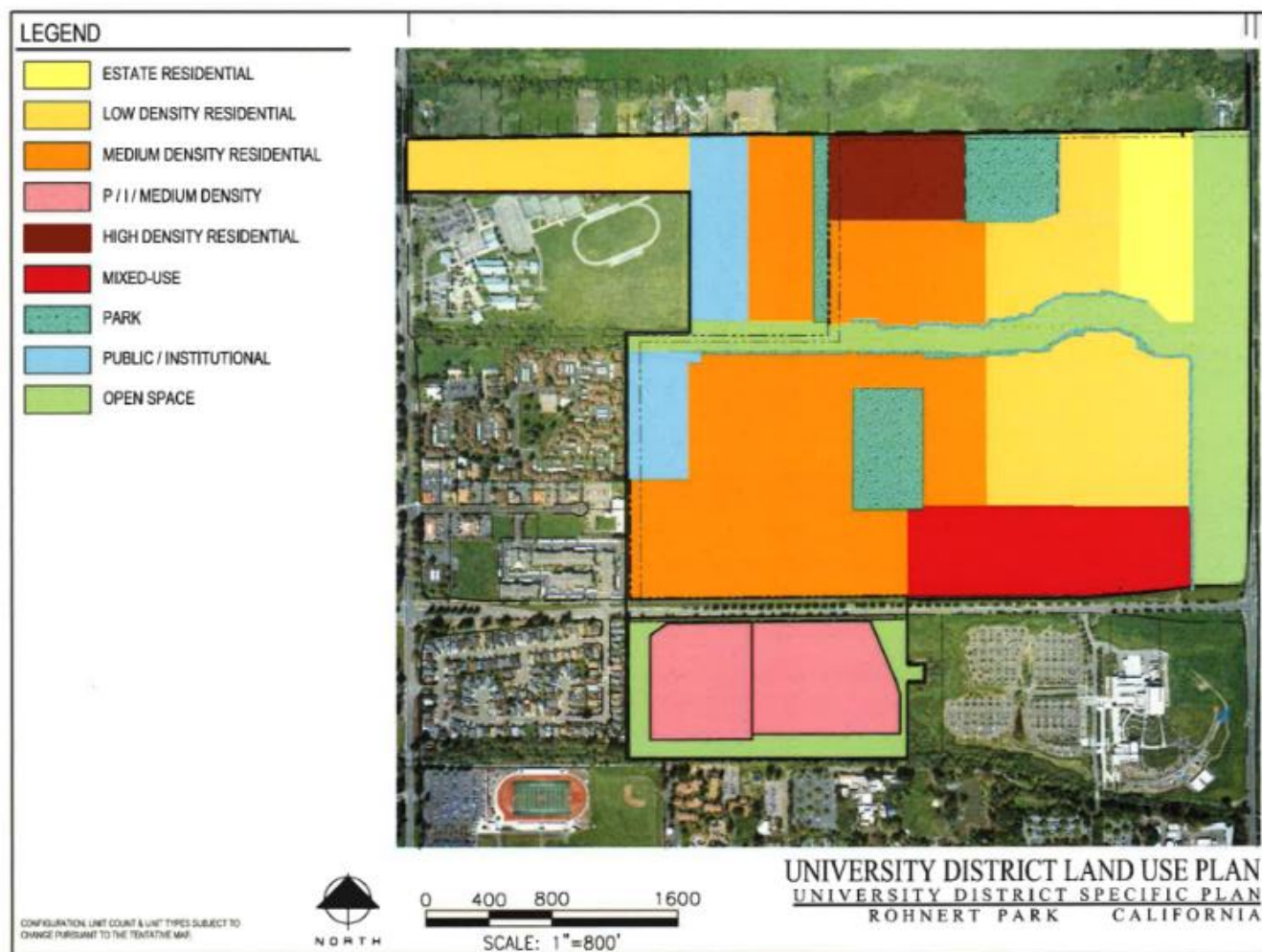
Table 4: Planned Housing Units for UDSP

UDSP Neighborhood	Planned Units	Status
Linden	16	Vacant, no DAP
Bristol	42	Vacant, DAP approved
CRPUSD	133	Vacant, no DAP
Vast Oak North	424	Vacant, no DAP; includes 218 affordable units with approved DAP
Vast Oak West	399	
<i>Cypress</i>	<i>119</i>	<i>Mostly built</i>
<i>Mulberry</i>	<i>164</i>	<i>Mostly built</i>
<i>Magnolia</i>	<i>116</i>	<i>Mostly built</i>
Vast Oak East	428	
<i>Cypress</i>	<i>60</i>	<i>Mostly built</i>
<i>Sycamore</i>	<i>114</i>	<i>Vacant, DAP approved, under construction soon</i>
<i>Live Oak</i>	<i>104</i>	<i>Vacant, DAP approved</i>
<i>Juniper</i>	<i>150</i>	<i>Partially built</i>
<i>University District LLC</i>	<i>203</i>	<i>Vacant</i>
Total	1,645	

Source: City of Rohnert Park, 2018.

Figure 12

UNIVERSITY DISTRICT SPECIFIC PLAN LAND USE DIAGRAM



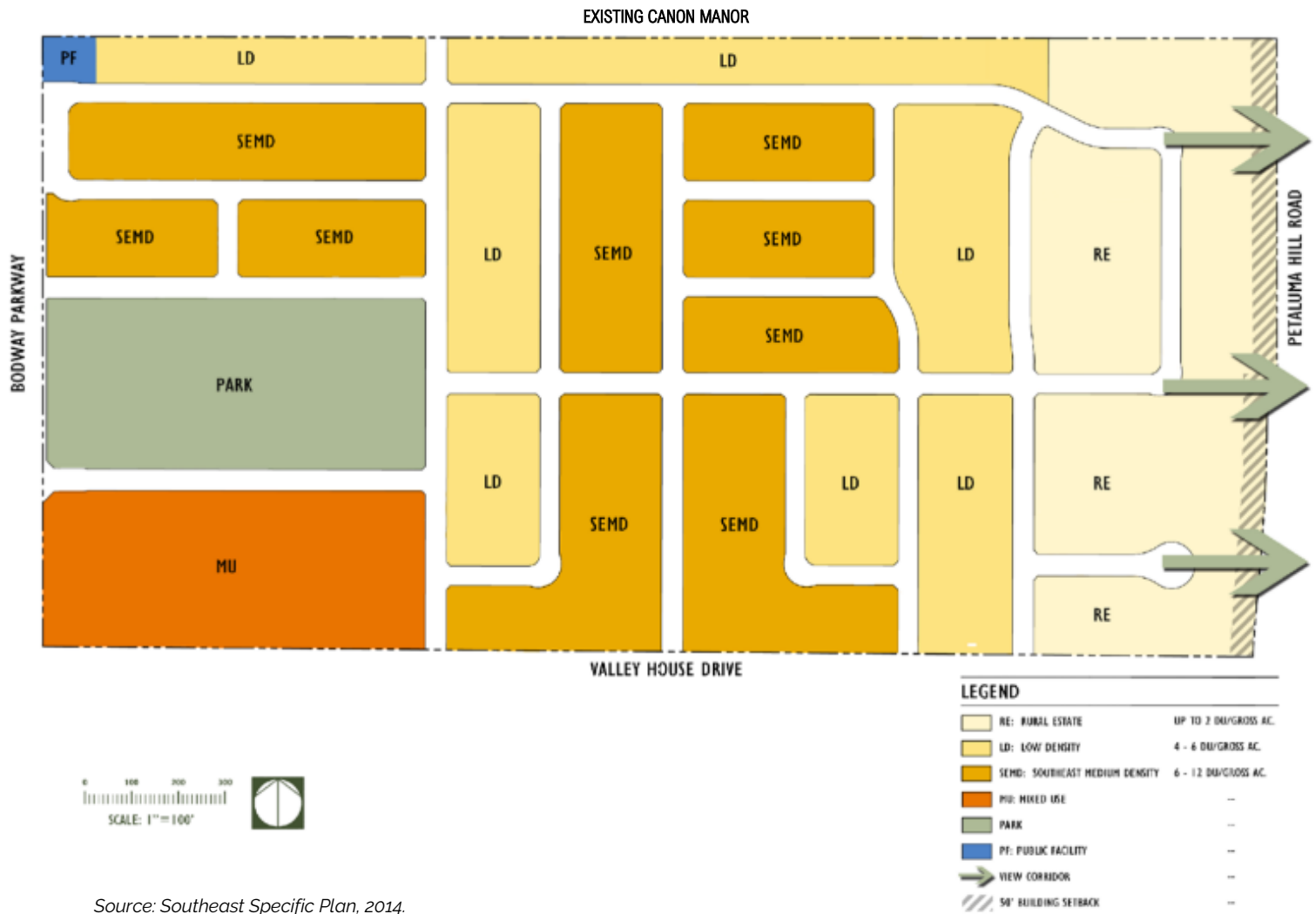
Source: University District Specific Plan, 2014.

Southeast Specific Plan

The Southeast Specific Plan (SESP), adopted in 2010 and amended in 2014, is located south of the Canon Manor Specific Plan Area, west of Petaluma Hill Road, and north of Valley Hill Drive. The plan area was annexed in 2011. The plan provides for 475 housing units through a mix of rural to medium-density residential, as well as 10,000 square feet of non-residential uses within a mixed-use area. Currently, 200 units of Willowglen Phase I and Phase II are under construction and future phases under review. Figure 13 shows the land uses planned for the SESP.

Figure 13

SOUTHEAST SPECIFIC PLAN LAND USE DIAGRAM



Source: Southeast Specific Plan, 2014.

Sonoma Mountain Village Planned Development

In the 1980s, Hewlett Packard developed a technology campus on the norther portion of the project site. Agilent Technologies acquired and occupied the site in the 1990s and undertook grading and construction of drainage improvements on the southern portion of the site. In 2010, the Final Development Plan for the Sonoma Mountain Village Planned Development (SOMO) was approved. The SOMO Planned Development, which is also a Priority Development Area, is a mixed-use sustainable community development adaptive reuse project located on the 175-acre Hewlett Packard/Agilent site.

The project plans 1,675 residential units plus 56 second dwelling units (also referred to as accessory apartments, granny flats, or in-law units) and 700,000 square feet of commercial, retail, and services. The Final Development Plan provides for compact and mixed-use development arranged around a central Village Square. The Plan incorporates pedestrian-friendly streets, a wide variety of mixed-use buildings, and civic spaces adjacent to residential areas.

Currently SOMO has mostly leased out the existing industrial campus on the north half of the project site, with the residential units left to be developed. Figure 14 shows the proposed land use and zoning for the SOMO development.

Northeast Specific Plan Area

The Northeast Specific Plan (NESP) area lies beyond the eastern city limits, north of the University District Specific Plan. The General Plan envisions approximately 1,000 dwelling units of varying densities. The NESP project area involves multiple landowners and the group has experienced challenges in reaching the consensus needed to pursue annexation.

Canon Manor Subdivision

The Canon Manor subdivision is located immediately south of the Sonoma State University campus, north of the Southwest Specific Plan area, and west of Petaluma Hill Road. Although outside the city limits, Canon Manor is within Rohnert Park's SOI and UGB, but it is unlikely that Canon Manor will be annexed.

Currently, the subdivision has partially built out with single-family homes, with undeveloped parcels interspersed. The area does not yet have an accompanying specific plan document; however, the City has an agreement with the County to provide sewer service to Canon Manor.

West of Highway 101

In the area west of Highway 101, there is a diverse mix of land uses but a lack of overarching vision and cohesion. This area includes homes, restaurants, big box commercial stores, industrial and recreational uses, hotels, as well as the Graton Casino and Resort. There is increasing pressure from local land owners to change designated land uses from industrial to residential, however studies show that there is a need for industrial space. This area is in transition and contains the Wilfred-Dowdell Specific Plan, Northwest Specific Plan, and the Stadium Area Master Plan, all of which will have the opportunity to redefine the overall vision and identity of this area.

Wilfred-Dowdell Specific Plan

The Wilfred-Dowdell Specific Plan was adopted in 2008 and last amended in 2014. The 24.8-acre plan area sits west of Highway 101, near Golf Course Drive West and Dowdell Avenue. It is bordered on the north by Home Depot, on the east by commercial businesses, on the south by a self-storage facility and a vacant commercial site, and on the west by the Northwest Specific Plan Area. The project site is divided into Village



Aerial of Canon Manor Subdivision

Source: Google Maps, 2018

North and Village South. Oxford Suites Hotel and Starbucks have been built in Village North. Amy's, a vegetarian-minded fast-food café, has opened in the northeast corner of Village South, however most of Village South consists mostly of annual grassland and two homes.

Since adoption however, there have been extensive changes the surrounding areas, including the construction of the Graton Rancheria Casino, as well as the adoption of the Northwest Specific Plan. These changes offer an opportunity to rethink the vision for this area.

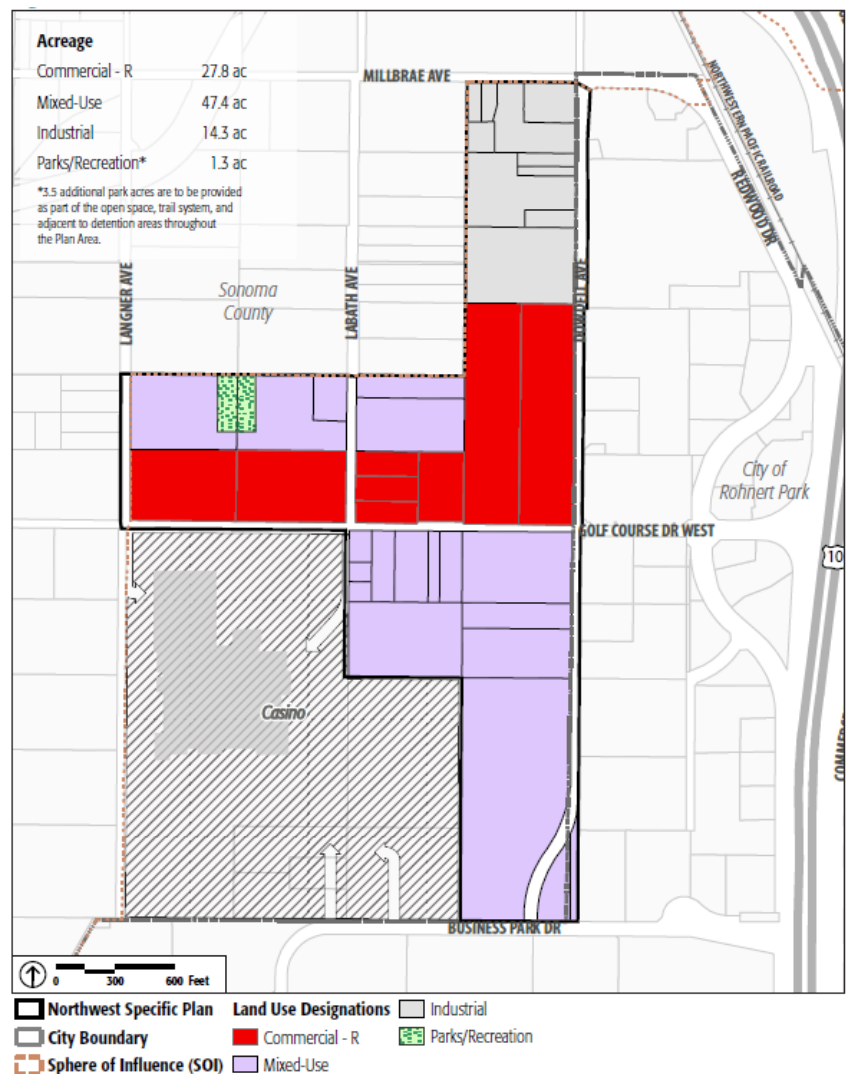
Northwest Specific Plan

The 2014 Northwest Specific Plan Area is located in the northwest area of the city, west of Highway 101, and is bounded by the Graton Rancheria Casino, the city limits, and Dowdell Avenue. The 2000 General Plan identified this area as an expansion and eventual annexation area for the city, and in 2015, the plan area was annexed into Rohnert Park city limits.

The approximately 100-acre plan area currently includes mainly agricultural, vacant, and rural residential uses. The vision of the Northwest Specific Plan is to develop an attractive mix of commercial uses, new higher-density residential uses (especially north of Golf Course Drive West), and a limited amount of light industrial uses (see Figure 15). The plan envisions a significant amount of mixed-use development, which could include a variety of retail, office, hotel, and residential uses. Mixed use is envisioned for almost all the land in the south district and also for some of the properties in the north district. The Specific Plan envisions a “main street” feel with active and transparent ground floor frontages, wide sidewalks, public plazas, and tree-lined streets with parallel on-street parking. In the north district, the mix of uses is envisioned to include higher-density residential uses, small offices (such as medical), and a limited amount of retail uses. It is anticipated that mixed-use

Figure 15

NORTHWEST SPECIFIC PLAN



The Northwest Specific Plan includes industrial, mixed-use, and commercial uses.

Source: Northwest Specific Plan, 2014.

Note: The Rohnert Park city limits were updated to include the Northwest Specific Plan area in 2015, after this plan was adopted.

areas are more likely to accommodate a horizontal mix of uses. There is, however, no current development activity in this plan area.

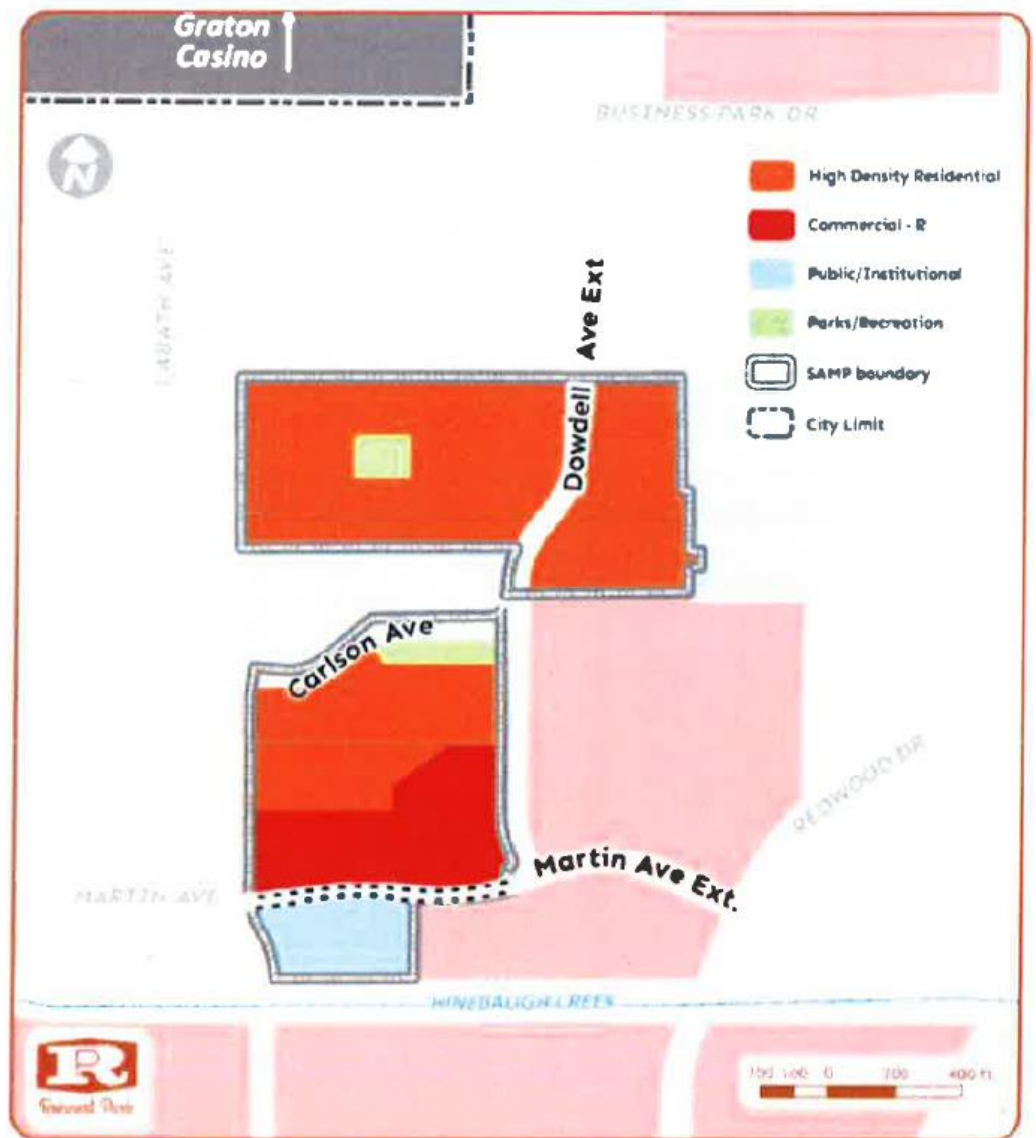
Stadium Area Master Plan

The Stadium Area Master Plan (SAMP) was adopted in February 2008 and last amended in January 2017. The 32.8-acre SAMP plan area lies centrally west of Highway 101. The plan area is bounded to the north by parcels that front onto Business Park Drive, to the east by light industrial and office uses along Redwood Drive as well as Costco and Ashley Furniture, to the south by Hinebaugh Creek, and to the west by Labath Avenue.

Residential uses in the northern half of the area plan were built out as the Fiori Estates Apartments and the Reserve at Rohnert Park in 2015. The southern portion is currently under construction with Residences at Five Creek and the Cambria Hotel. Figure 16 shows the land uses planned for this area.

Figure 16

STADIUM AREA MASTER PLAN



The Stadium Area Specific Plan includes high-density residential, commercial, public/institutional uses, in addition to some park space.

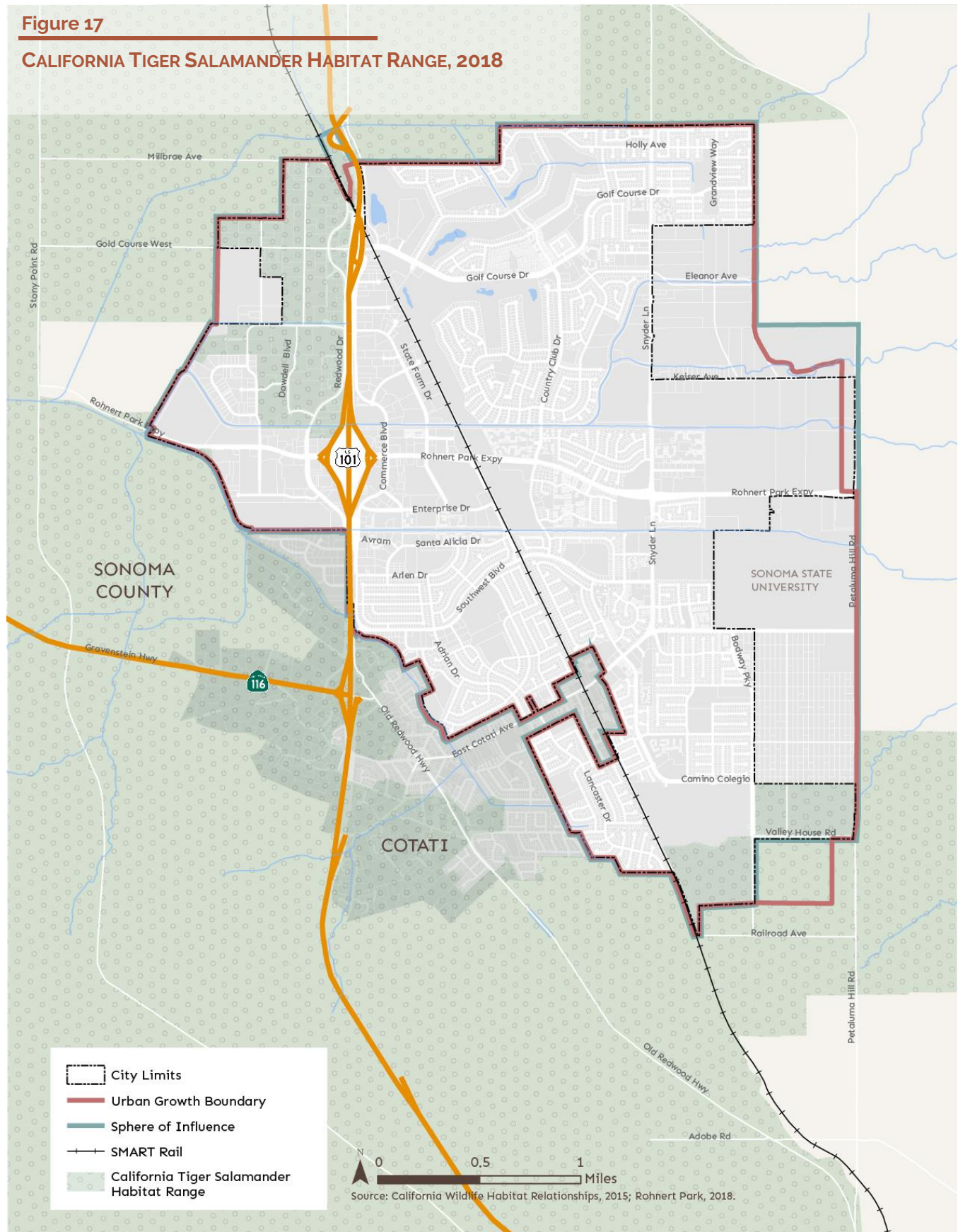
Source: Stadium Area Master Plan, 2008.

Other Key Infill Sites and Redevelopment Opportunities

Aside from the development occurring through the specific plans and planned developments, there are many other infill and redevelopment opportunities within the city. A smattering of vacant industrial parcels (parcels within the PDA Plan and on the west side, including the Yardbird site), mixed-use parcels (such as the shopping center on Southwest Boulevard and Adrian Drive zoned for mixed-use), as well as other underutilized and older shopping centers around town all could be developed and/or retrofitted for an evolving economy (see the Economics Whitepaper for an expanded discussion on forward-looking economic trends).

California Tiger Salamander

Development west of Highway 101 as well as in the southern half of the SOMO Planned Development is highly constrained by the mitigation measures related to the presence of the California Tiger Salamander (CTS) (Figure 17). As the CTS is a Federally endangered and a California species of special concern, development in areas that overlap with CTS habitat range may potentially be asked to mitigate the effects of development on their habitat or be restricted in development potential. Therefore, CTS habitat may constrain development in these areas. Additionally, the entire Rohnert Park Planning Area is within the area covered by the Santa Rosa Plain Conservation Strategy, which is a long-term conservation program to assist in the recovery of CTS, among other species, and which offers strategies to help identify potential impacts to CTS.



Federated Indians of Graton Rancheria

The Graton Rancheria community is a federation of Coast Miwok and Southern Pomo groups recognized as a tribe by the U.S. Congress. Opened in 2013, the Graton Resort and Casino is located off Highway 101 just outside the western city limits (see Figure 18). Apart from the Casino, there is additional designated Tribal land southwest of the Casino, as well as Tribe-owned land within city limits immediately east of the Casino. City development west of Highway 101 will be influenced by any development plans of the Tribe.

The Casino has created more than 2,000 permanent jobs, however there are potential impacts from the Casino's proximity to city limits that the City has worked to understand and mitigate through working with the Tribe. A Memorandum of Understanding (MOU) between the Federated Indians of Graton Rancheria (Tribe) and the City of Rohnert Park was created and entered into in 2003 (amended in 2013) to mitigate the impacts of the Casino on the Rohnert Park community. In the MOU, provisions are made for payments to the City by the Tribe to mitigate potential impacts of the casino's presence adjacent to the city.

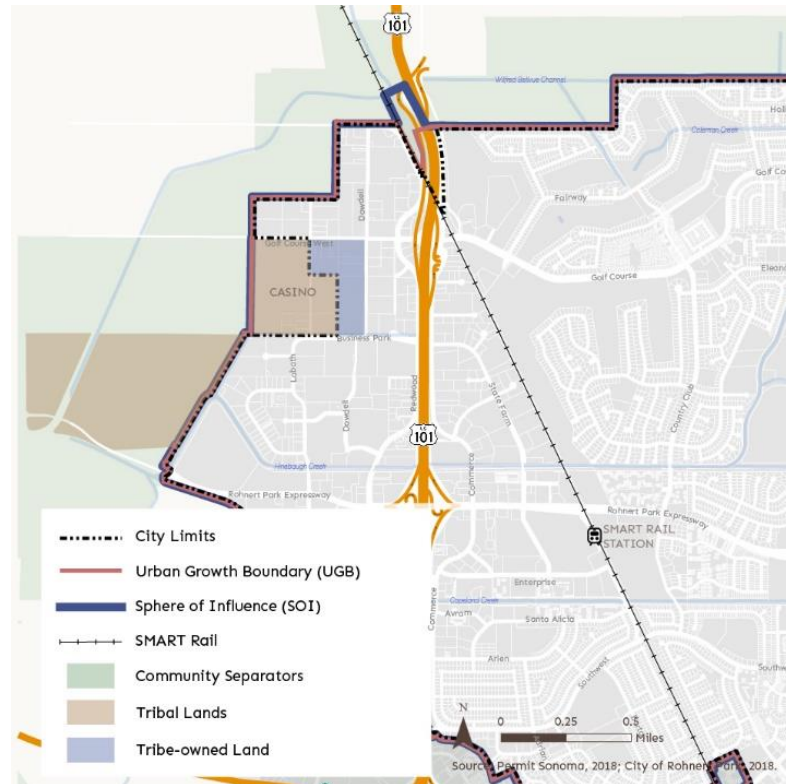
Sonoma State University

The 2000 Rohnert Park General Plan designated land uses and growth areas specifically to foster a close relationship between the city and Sonoma State University (SSU) and had the goal of exploring the possibility and feasibility of annexing the SSU campus into city limits. While SSU contributes strongly to the city's identity, it lies outside the city's eastern boundary. As of 2018, the campus remains outside the city limits and potential incorporation will be evaluated as part of the General Plan Update.

The 214-acre campus supports over 9,000 full-time equivalent students and 1,200 employees, making it one of the largest employers in the area. University students, faculty, and staff are a part of the Rohnert Park community.

Figure 18

TRIBAL LANDS



Tribal Trust Lands are located just northwest of Rohnert Park.



Sonoma State University campus

Source: www.sonoma.edu, 2018.

The 1992 SSU Master Plan featured 880,000 square feet of new classrooms, facilities, parking, and enhanced campus entryways. At buildout, the Master Plan was designed to increase the number of full-time students to 10,000. In 2000, SSU updated the Master Plan, adding classrooms and facilities, as well as new student housing on the existing campus footprint. The 2000 Master Plan update also added 48 acres for the Donald and Maureen Green Music Center, which included a 1,400-seat donor-funded concert hall. The Green Music Center opened its doors in 2012, enhancing the cultural character of Rohnert Park and the region.

Sonoma County Cannabis Program

In December 2016, the Sonoma County Board of Supervisors adopted the Cannabis Ordinance for Land Use, Medical Cannabis Health Ordinance, and Cannabis Business Tax Ordinance. These actions established a comprehensive local permit program to regulate cultivators, nurseries, manufacturers, transporters, distributors, testing laboratories, and dispensaries for medical cannabis. Personal cultivation for medical and adult use is allowed in all unincorporated land use designations within Sonoma County, except for personal outdoor cultivation in multifamily units in R2 and R3 zones. Outdoor, indoor, and mixed light cultivation as well as nurseries are permitted in all three agricultural zones (Land Intensive Agriculture, Land Extensive Agriculture, and Diverse Agriculture).

The city of Rohnert Park is mostly surrounded by Diverse Agriculture and Land Intensive Agricultural Zones, and as a result, may be affected by potential cannabis cultivation uses adjacent to the city limits and on unincorporated areas within the UGB. Cultivation on Williamson Act properties is allowed; however, it is not considered an agricultural product, but rather a compatible use on land designated with agricultural zoning. Community separators in Sonoma County and District-protected lands are still held to underlying County land use designations and allowable land uses, and therefore also allow cannabis cultivation.

REGULATORY SETTING

California Government Code Section 65301. Section 65301 of the California Government Code requires the general plan to identify a Planning Area that addresses the geographic territory of the local jurisdiction and any other territory outside its boundaries that may bear influence on the planning of the jurisdiction. The jurisdiction may determine what areas outside of its regulatory boundary to include within the Planning Area. The State of California General Plan Guidelines state that the Planning Area for a city should include at a minimum all land contained within the city limits and all land within the city's Sphere of Influence.

Cortese Knox Hertzberg Local Government Reorganization Act of 2000 (CKH Act). The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 establishes the current legal authority and mandate for Local Agency Formation Commissions (LAFCOs) in California. Each county in the state has a LAFCO. Under the CKH Act, LAFCOs are permitted to enact local agency boundary changes and adopt spheres of influence. The CKH Act also requires that LAFCOs update their city's spheres of influence every five years. Every SOI update must be accompanied by a municipal service review. The Sonoma County Local Agency Formation Commission (LAFCO) completed a municipal service review for Rohnert Park and adopted Resolution No. 2638, May 7, 2014, confirming the City of Rohnert Park's Sphere of Influence until amendments are made under the 2019 review.

Sustainable Communities Act (SB 375). Under the Sustainable Communities Act, the California Air Resources Board sets regional targets for GHG emissions reductions from passenger vehicle use, which are periodically reviewed and updated. Each of California's MPOs must prepare a "sustainable communities strategy" (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation planning strategies that, if implemented, would allow the region to meet its GHG reduction targets. The land use, housing, and transportation policies of a General Plan therefore are well-positioned to help meet reduction targets.

KEY TERMS

Annexation. The process by which land is incorporated into an existing district or municipality, with a resulting change in the boundaries of the annexing jurisdiction.

City Limits. A political boundary that defines land that has been incorporated into a city.

Density, Residential. The number of housing units per acre.

Floor Area Ratio. Floor area ratio (FAR) means the gross floor area of all buildings on a lot divided by the building site area.

General Plan. A general plan is a city's or county's policy guide for future development. The general plan is a legal document required of each local agency by the California Government Code Section 65300 and adopted by the board of supervisors, city council, or town council.

Local Agency Formation Commission (LAFCO). An agency within each county that reviews and evaluates all proposals for formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts, and merger of districts with cities. Each county LAFCO is empowered to approve, conditionally approve, or deny such proposals.

Municipal Services Review. A study conducted for a city, county, or special district that examines all public service needs for the area and recommends action to promote the efficient provision of public services.

Mixed Use. Mixed land uses include parcels on which various uses such as office, commercial, institutional, and residential are combined in a single building or on a single site in an integrated development project with significant functional interrelationships and a coherent physical design.

Multifamily Residential. Multifamily residential uses include attached dwelling units, such as apartments, condominiums, and duplexes.

Multiple Use. A multiple use parcel(s) includes two or more land uses that are not necessarily functionally related.

Open Space. Open space uses are largely undeveloped and are used primarily for passive recreation, resource protection, and/or farming.

Planning Area. The area directly addressed by a jurisdiction's general plan. The Planning Area generally encompasses all incorporated and unincorporated territory that bears a relationship to the long-term planning of the jurisdiction. Planning Areas for cities typically encompass all areas in the city limits and the unincorporated areas that are within the city's Sphere of Influence.

Single-Family Residential. Single-family residential uses include detached dwelling units such as single-family homes and mobile homes.

Sphere of Influence. A sphere of influence is a planning boundary outside of an agency's legal boundary (such as the city limit line) that designates the agency's probable future boundary and service area.

Urban Growth Boundary. An Urban Growth Boundary is a planning boundary that shows the limits of future urbanization for a city or county over a given time frame.

Vacant. Vacant land is determined through the County Assessor's existing use database and verified through analyzing aerial images of the area. Vacant land is used to calculate development capacity.

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APPENDIX A: OTHER SPECIAL AREA PLANS

The Rohnert Park General Plan provides a comprehensive set of goals and policies that the community uses to guide development. Plans outside the General Plan, which will be referred to as Special Area Plans, also guide development in the city and do so in accordance with the goals and policies set forth in the General Plan. They are categorized as a Specific Plan, Planned Development, and/or Priority Development Area (see Figure A-1). Most of the future development capacity within Rohnert Park lies within these areas, and as such, these plans will shape the future character of Rohnert Park. Both specific plans and planned developments are shown on the Zoning Map.

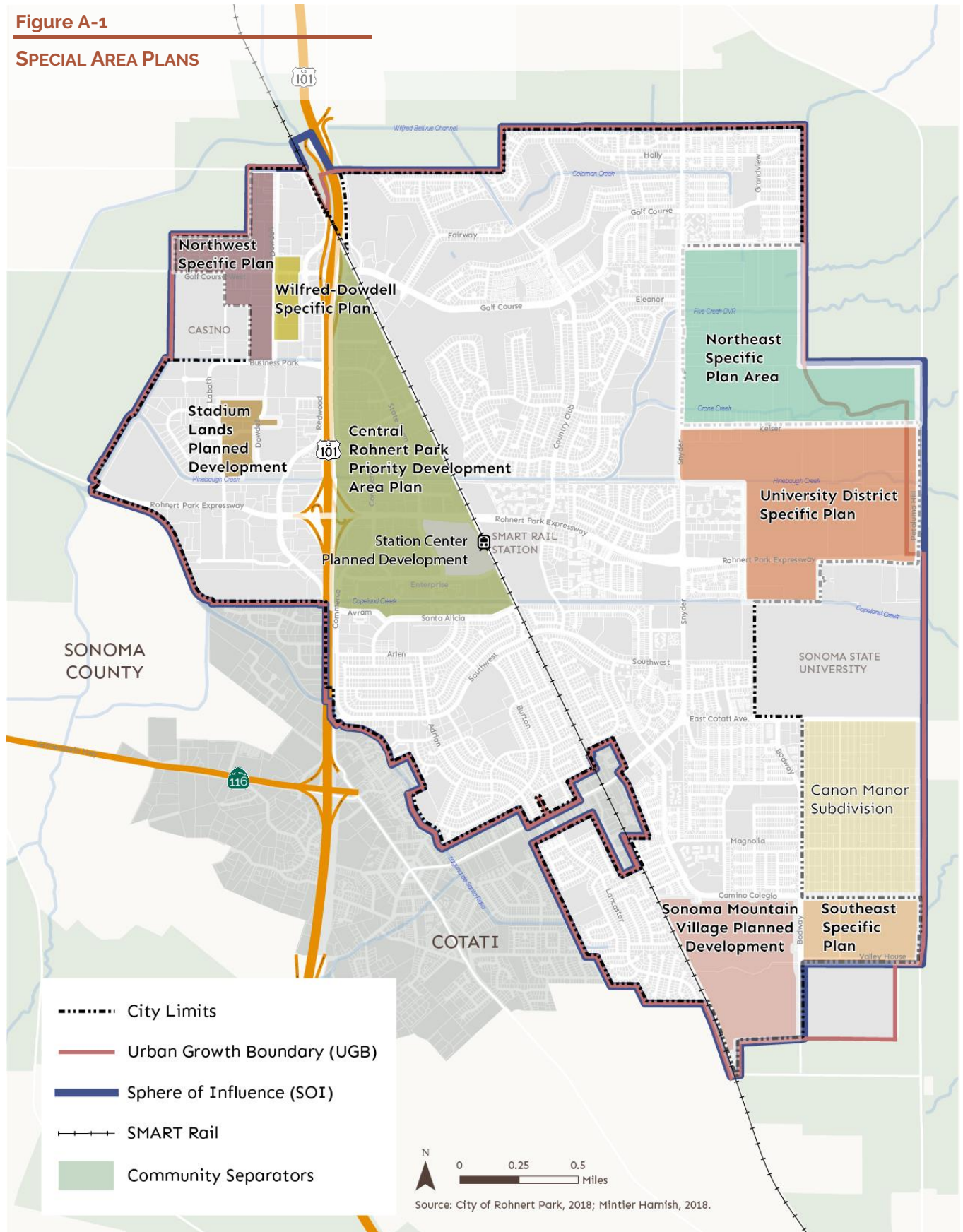
Specific Plans and Planned Developments

A specific plan is a tool for the systematic implementation of the General Plan. It links the policies of the General Plan with the individual development proposals of a defined area. Rohnert Park currently has four specific plans, which are the University District Specific Plan, Southeast Specific Plan, Northwest Specific Plan, and the Wilfred-Dowdell Specific Plan.

A planned development is a zoning district (P-D) and is intended to accommodate a wide range of residential, commercial, and industrial land uses, which are mutually-supportive and compatible with existing and proposed development on surrounding projects. A P-D zoning district is tailored to specific projects, sets specific development standards that help the project integrate into its surroundings, and ensures that zoning and the General Plan are consistent. Once established, the P-D zoning district becomes, in effect, the zoning for the area within its respective boundaries. Rohnert Park currently has adopted three planned developments, which are the Station Center, Stadium Lands Master Plan, and the Sonoma Mountain Village Planned Development.

Figure A-1

SPECIAL AREA PLANS



Priority Development Areas

Priority Development Areas (PDAs) are areas within existing communities that local governments have identified and approved for future growth. Identified areas are typically accessible by one or more transit services and are often located near established job centers, shopping districts, and other services. Local governments with PDAs are eligible for PDA planning funds, staffing assistance, and technical assistance through the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

In the City of Rohnert Park, both Central Rohnert Park and Sonoma Mountain Village are identified PDAs. In 2013, the City of Rohnert Park received a PDA grant from the MTC to plan the Central Rohnert Park community around the Rohnert Park SMART rail station. As mentioned above, Sonoma Mountain Village is both a Planned Development and a PDA; as it has already been discussed in the section above, it will not be discussed in this section.

Central Rohnert Park Priority Development Area Plan

As discussed in the "Development Considerations" section, the PDA Plan aims to transform central Rohnert Park into the heart of city, and does so by establishing a cohesive vision for a vibrant mixed-use area near the new SMART station, as well as focuses attention on the redevelopment of key vacant areas. The PDA Plan divides the area into five subareas, which are the Triangle Business, City Center, Station Center Subarea, Central Commercial, and the Creekside Neighborhood subareas. These are intended to divide the PDA Plan into meaningful study area and are not intended to establish regulatory controls. Figure 13 shows the subareas and Figure 14 shows the land use plan for the PDA Plan Area.

- The **Triangle Business subarea** is located north of Hinebaugh Creek, and fronts Highway 101 and the SMART rail line. It has the potential to be an important mixed-use employment center for Rohnert Park, and especially for industrial, institutional, and retail development. It is characterized by mostly one- and two-story development, consisting primarily of light industrial and office development to the south and more service- and retail-oriented uses in the north. A number of vacant or unused properties provide opportunities for building reuse and development; the most significant is the "Yardbird" site on Cascade Court.
- The **City Center subarea** is bounded on the south by Rohnert Park Expressway, on the north by Hinebaugh Creek, and on the east by the SMART rail line. It has been the focus of earlier planning efforts and is currently the city's civic center and neighborhood-oriented mixed-use area that includes a public safety building, library, community plaza, and new and professional office uses. The subarea has the potential for infill growth that complements the existing land use and circulation framework in the area. The southern part of this subarea overlaps with the Downtown District Amenity Zone (DDAZ) (see above section on Existing Zoning Ordinance for a description of DDAZ).
- The **Station Center subarea** was originally home to the State Farm headquarters until 2011. It is envisioned to be a new mixed-use, transit-oriented community adjacent to the SMART rail station, with a town center, housing, parks, plazas, and open space.
- The **Central Commercial subarea** is centered on Commerce Boulevard, between Rohnert Park Expressway and Enterprise Drive. It includes a cluster of centers providing retail and services to the

community and serves as one of the city's largest retail and service shopping area, including grocery stores, a post office, banks, and restaurants.

- The **Creekside Neighborhood subarea** is south of Enterprise Drive and is centered along Copeland Creek and multi-use trails. It is an established multifamily residential area with neighborhood retail, and connecting this area into the planned downtown area is one way to ensure that vital pedestrian traffic can access to new shops and restaurants.

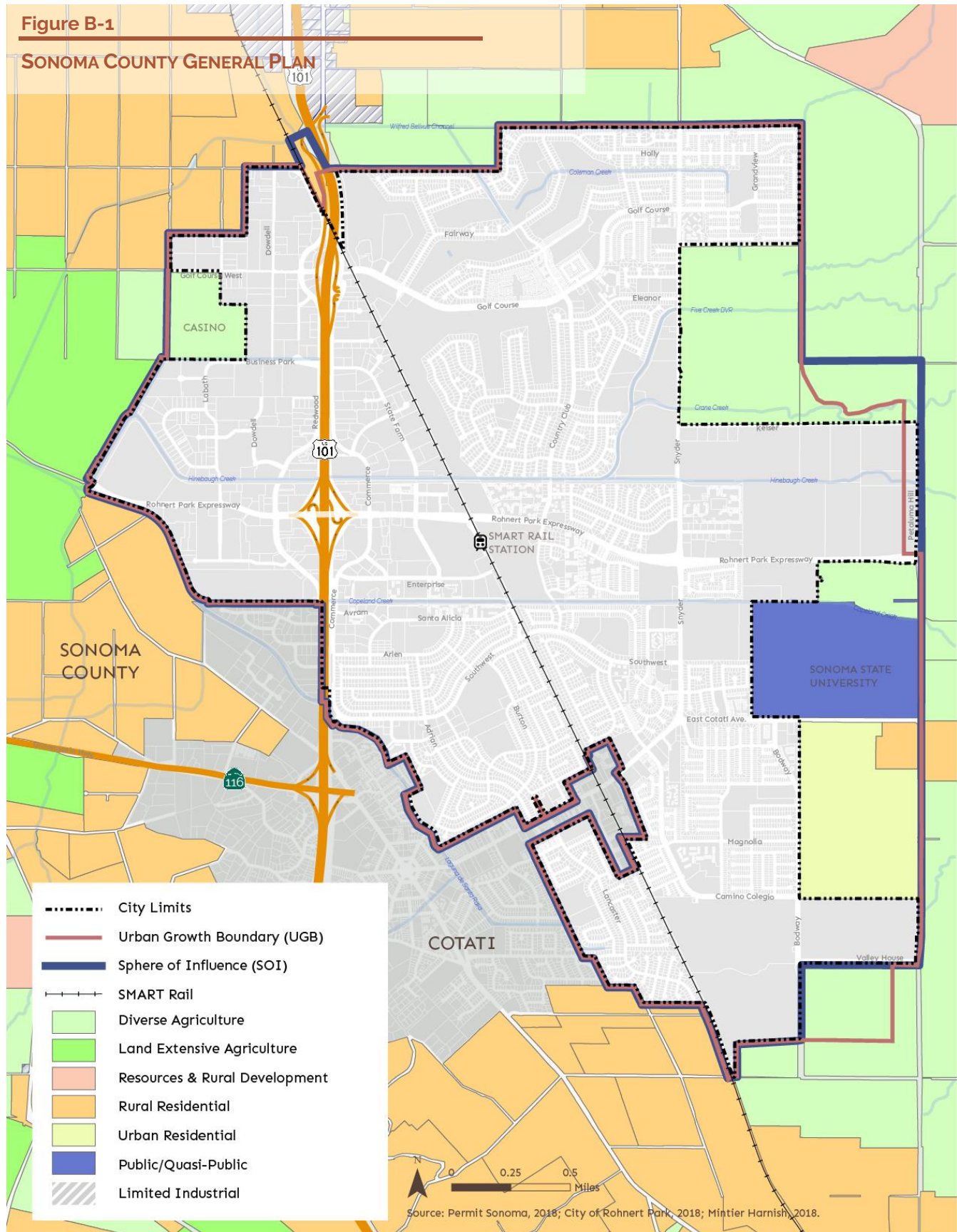
APPENDIX B: PLANS AND PROGRAMS OF SURROUNDING JURISDICTIONS

While planning in Rohnert Park is controlled by the City, it is influenced by actions of the surrounding jurisdictions as well. This section provides an overview of the major plans and programs in place in adjacent jurisdictions.

Sonoma County

Sonoma County General Plan 2020

The Sonoma County General Plan 2020 was adopted in September 2008. In response to strong growth pressures, the Sonoma County General Plan establishes a framework for protecting open space and agriculture and uses a variety of strategies for limiting new development, such as large-lot zoning, community separators, urban service boundaries, and scenic and riparian corridors. The county land surrounding Rohnert Park is mostly designated and zoned Diverse Agriculture with some Rural Residential and Urban Residential, which primarily reflect what is currently on the ground. Figure B-1 shows a map of the Sonoma County General Plan land uses surrounding Rohnert Park.



Community Separators

In 1978, the Sonoma County General Plan first mapped Critical Community Separators. In 1989, Community Separators were designated in the Sonoma County General Plan with a Scenic Resource designation in the Open Space and Resource Conservation Element.

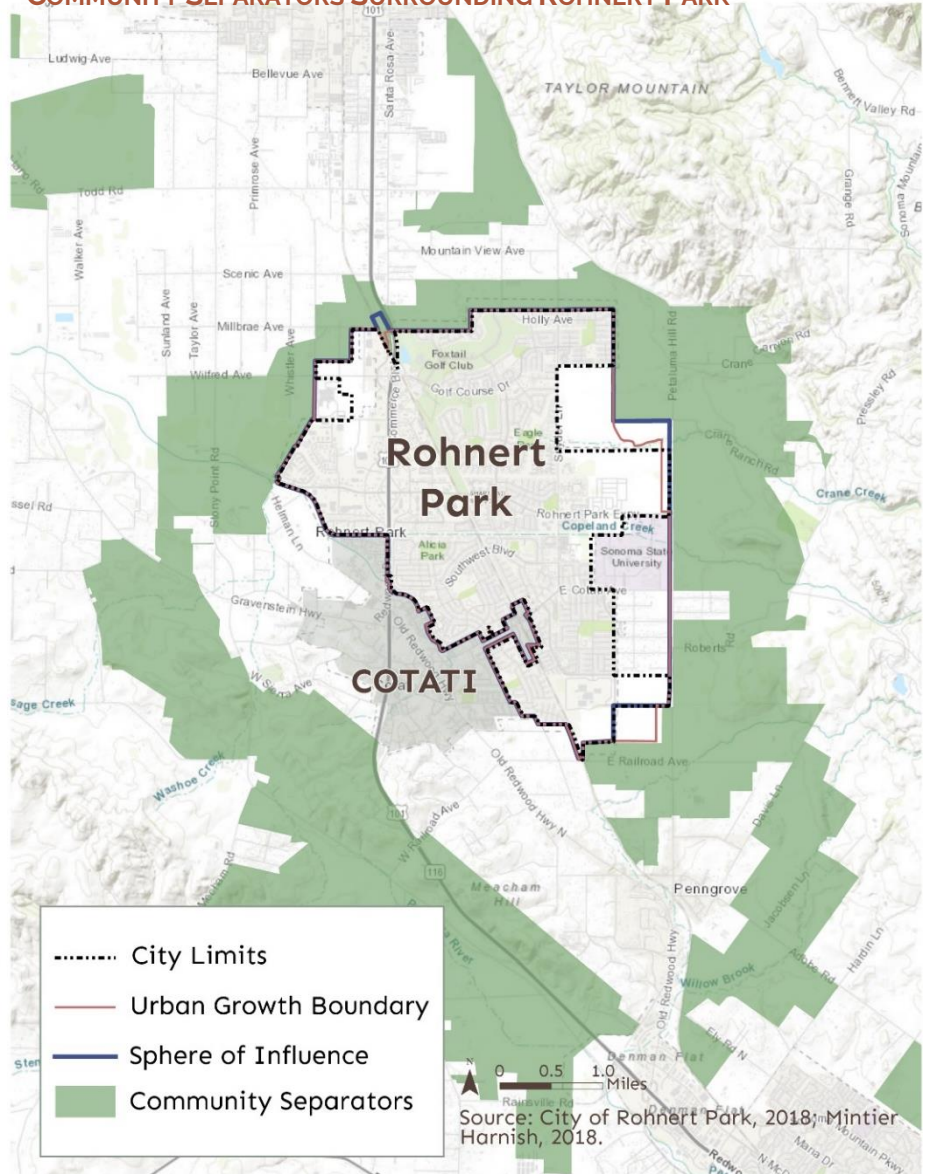
Community Separators are lands that function to separate cities and other communities, to contain urban development, and to provide city and community identity by providing visual relief from continuous urbanization. Two Community Separators are located in the Rohnert Park-Cotati area (see Figure B-2). The Petaluma-Rohnert Park separator is located between Petaluma, Penngrove, and Rohnert Park-Cotati. The second Separator is generally located north and northwest of Rohnert Park, between Rohnert Park and Santa Rosa.

On August 2, 2016, the Sonoma County Board of Supervisors expanded Community Separators and amended the County General Plan to strengthen city-centered growth policies. The Board placed the Community Separators Protection Ordinance on the November 2016 ballot (Measure K) which passed, extending voter protections for Community Separator lands for an additional 20 years.

Community Separators are currently designated on the County General Plan Open Space maps and do not affect the underlying land use designations or the allowable land uses, which generally have an agricultural or rural land use designation.

Figure B-2

COMMUNITY SEPARATORS SURROUNDING ROHNERT PARK

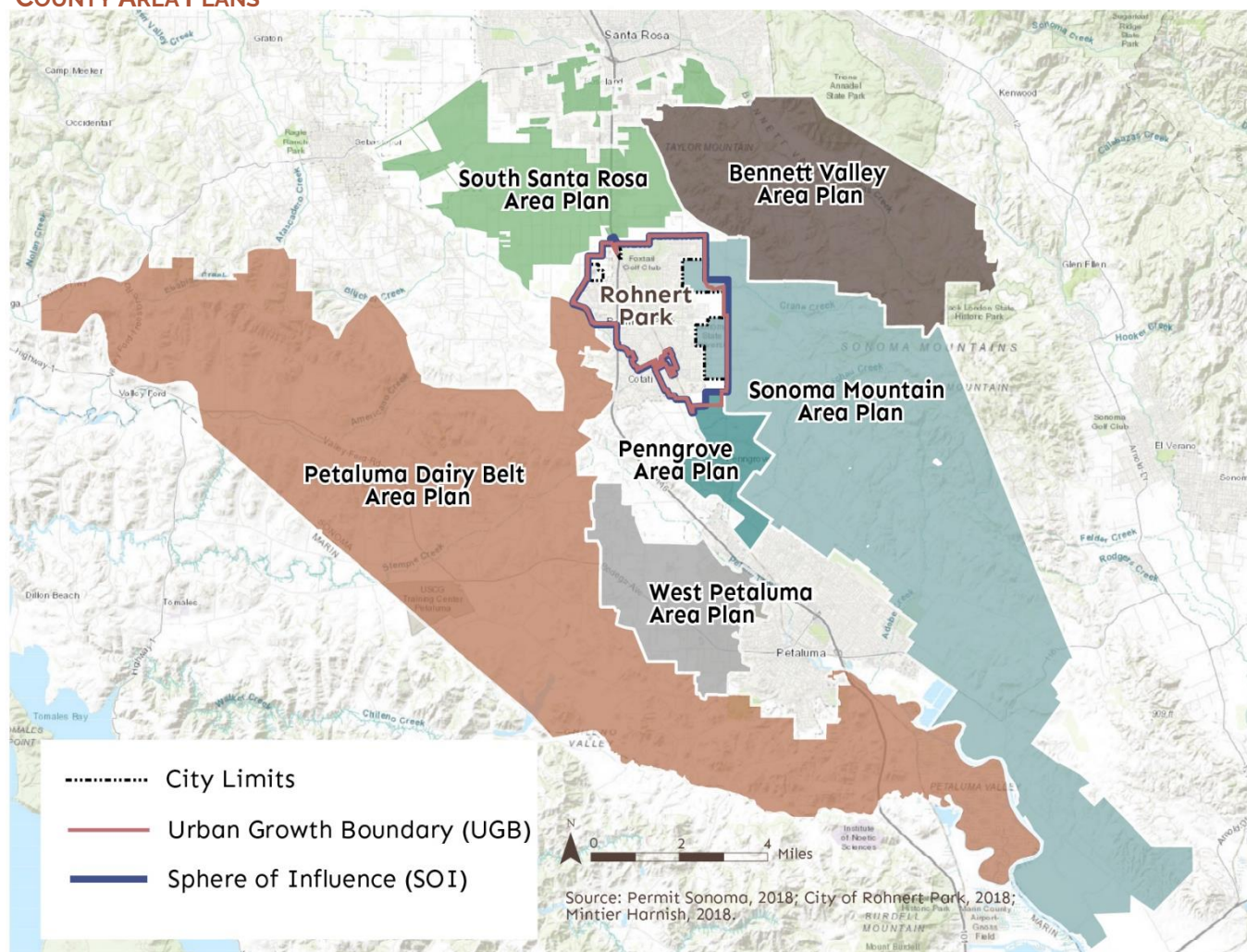


County Area Plans

The County area plans serve to elaborate Sonoma County General Plan goals, policies, and directives. While the focus of the County General Plan is on policies of countywide significance, specific and area plans are intended to provide clear guidelines for development, analysis, and citizen participation on a local basis. Although the South Santa Rosa Area Plan, Bennett Valley Area Plan, Sonoma Mountain Area Plan, Penngrove Area Plan, and Petaluma Dairy Belt Area Plan all lie adjacent or in close proximity to Rohnert Park, only the Sonoma Mountain Area Plan and Penngrove Area Plan areas overlap with Rohnert Park county planning area (i.e., SOI and UGB) and, therefore, may have implications on how Rohnert Park develops at the edges of its city limits. Figure B-3 shows a map of County Area Plans near Rohnert Park.

Figure B-3

COUNTY AREA PLANS



Several County Area Plans surround Rohnert Park, including the Petaluma Dairy Belt Area Plan, West Petaluma Area Plan, Sonoma Mountain Area Plan, Penngrove Area Plan, South Santa Rosa Area Plan, and Bennett Valley Area Plan.

Note: This GIS data was developed for planning purposes and use in publication of maps and/or database creation; the data is for illustrative purpose only and is not suitable for parcel specific decision making.

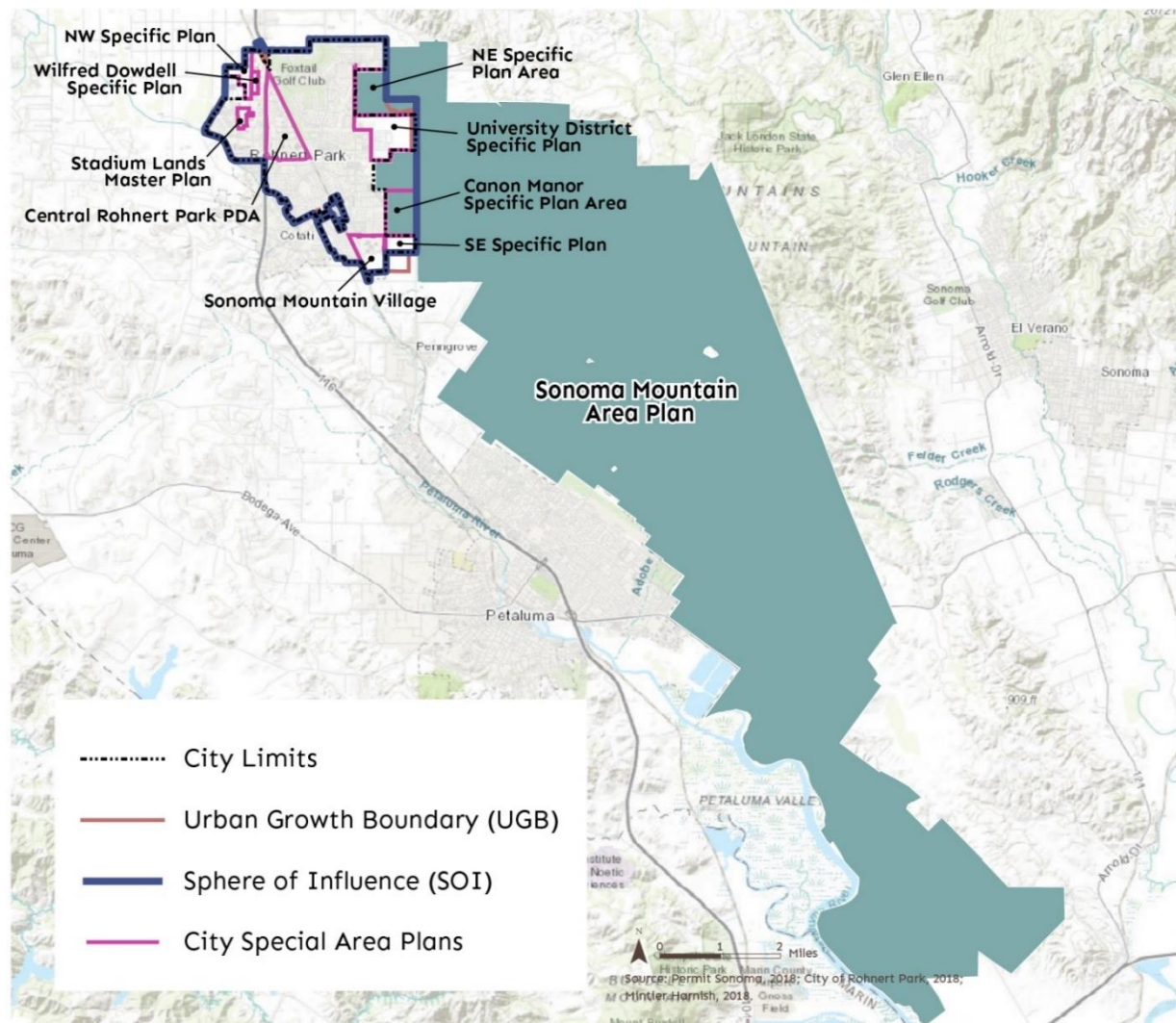
Sonoma Mountain Area Plan

In 1978, the County adopted the Sonoma Mountain Area Plan. The Sonoma Mountain plan area encompasses a 65 square mile land area south of central Sonoma County, stretching along a northwest/southeast axis roughly 18 miles, from Crane Canyon Road south to Highway 37 (see Figure B-4). The area is characterized by very low-density residential development (approximately one dwelling unit per 95 acres). Agriculture is the major land use within the area, with 40 percent of the land in agricultural preserves. The plan's main focus for the Rohnert Park/Cotati County Planning Area is directing urban and rural residential development to preserve community separation, agricultural production, and its distinct land use pattern.

The Sonoma Mountain Area Plan overlaps with the Northeast Specific Plan Area and Canon Manor Specific Plan Area, neither of which has an adopted specific plan, as well as Sonoma State University campus.

Figure B-4

SONOMA MOUNTAIN AREA PLAN



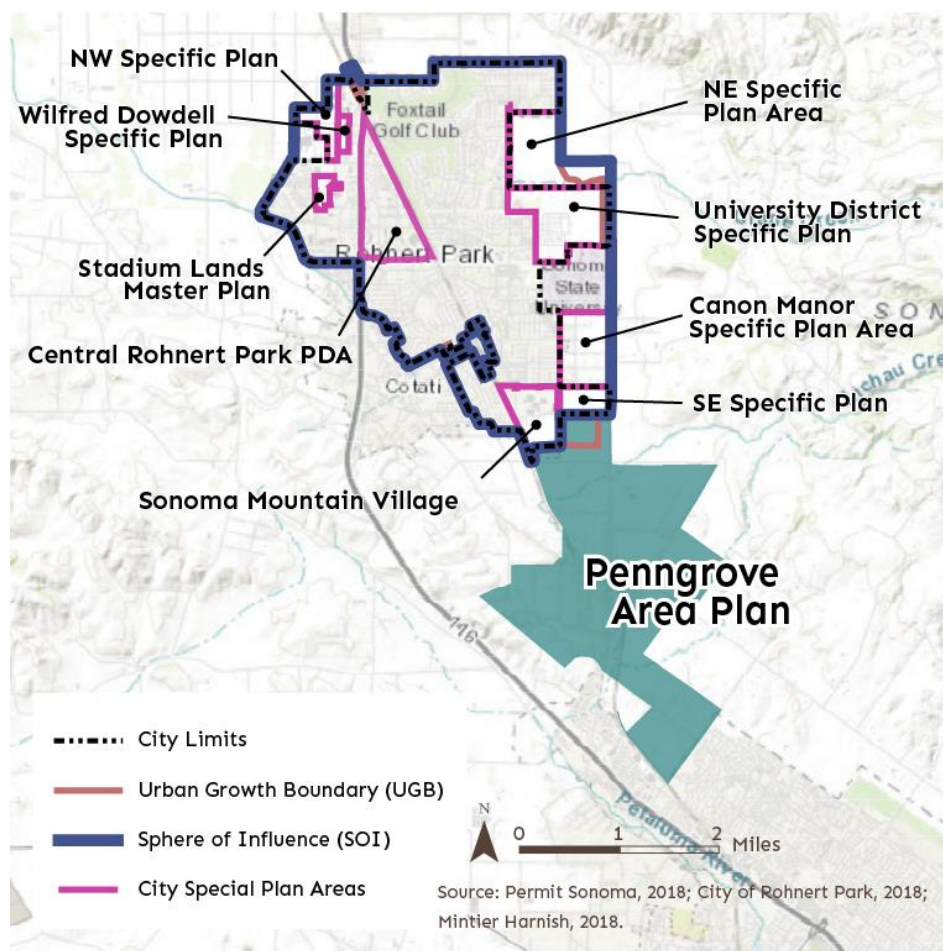
The Sonoma Mountain Area Plan spans 18 miles south and covers 65 square miles, including the Northeast Specific Plan area and Canon Manor Plan area within the Rohnert Park SOI and UGB.

Penngrove Area Plan

Established in 1882, Penngrove is a small, unincorporated, rural town at the foothills of Sonoma Mountain. The Penngrove Area Plan was first adopted in 1984 and last modified in 2008, and the Plan encompasses 2,750 acres located between Petaluma, Cotati, Rohnert Park, and the Canon Manor subdivision to the north (see Figure B-5). The Plan aims to preserve the small-town lifestyle within the community of Penngrove, accommodate a variety of rural living environments while protecting agriculture, recognize septic and water constraints, mitigate traffic impacts, and preserve the area's scenic beauty. The Penngrove Area Plan lies beyond the southeast corner of Rohnert Park, adjacent to the Sonoma Mountain Village Specific Plan and Southeast Specific Plan. A portion of the Penngrove Area Plan overlaps with the Rohnert Park Planning Area; however, this overlapping area is not developed. Additionally, it is not designated as a Community Separator, Williamson Act property, or property protected by the Sonoma County Agricultural Preservation and Open Space District, nor is it part of any City Special Area Plans.

Figure B-5

PENNGROVE AREA PLAN



The Penngrove Area Plan lies southeast of Rohnert Park, and overlaps with the southeast corner of the Rohnert Park SOI.

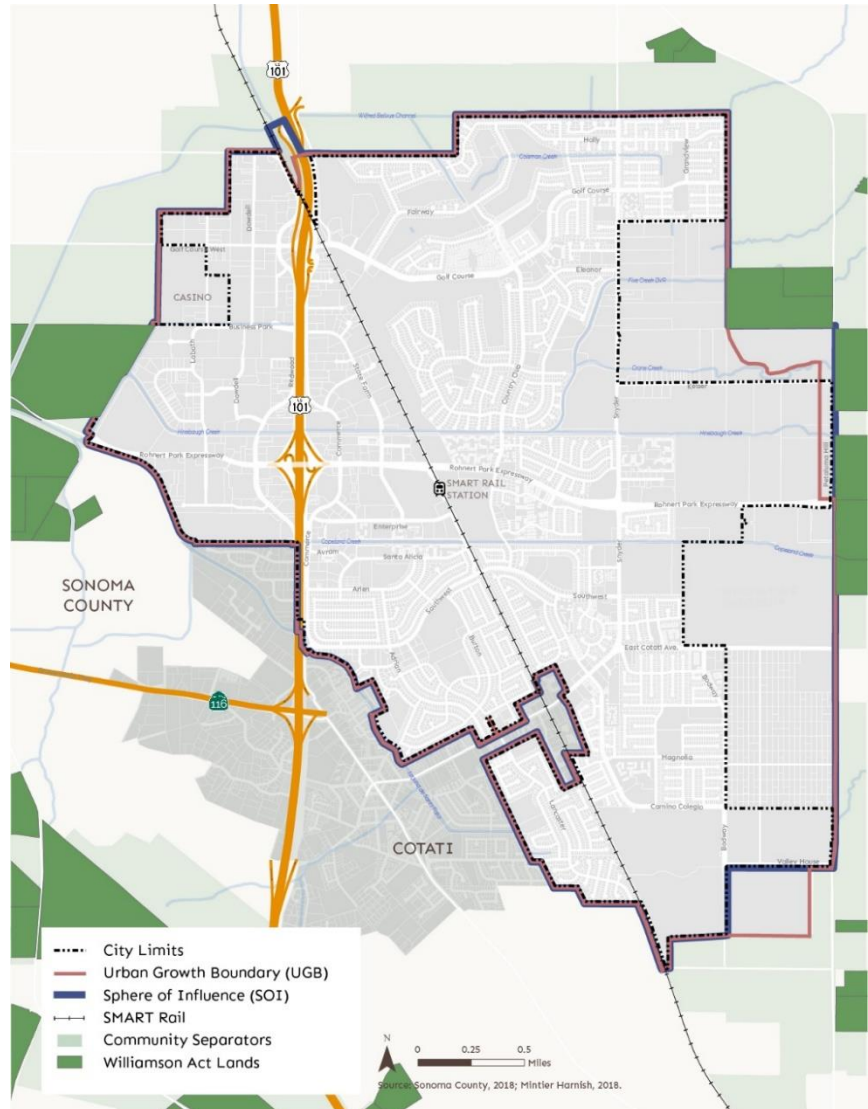
Williamson Act Lands

The California Land Conservation Act of 1965, known as the Williamson Act, permits local government to enter into contracts with private land owners for designating parcels for open space or agriculture, which is intended to discourage the unnecessary conversion of agricultural land to non-agricultural uses and conserve land within a scenic highway corridor or wildlife habitat. In return, private landowners who enter into this agreement receive lower property tax assessments. The initial term of the contract is 10 years and is automatically renewed each year unless cancelled.

There are a handful of parcels just outside the Rohnert Park UGB and SOI that are under Williamson Act contracts (see Figure B-6). There are no Williamson Act protected lands in the Rohnert Park Planning Area.

Figure B-6

WILLIAMSON ACT LANDS



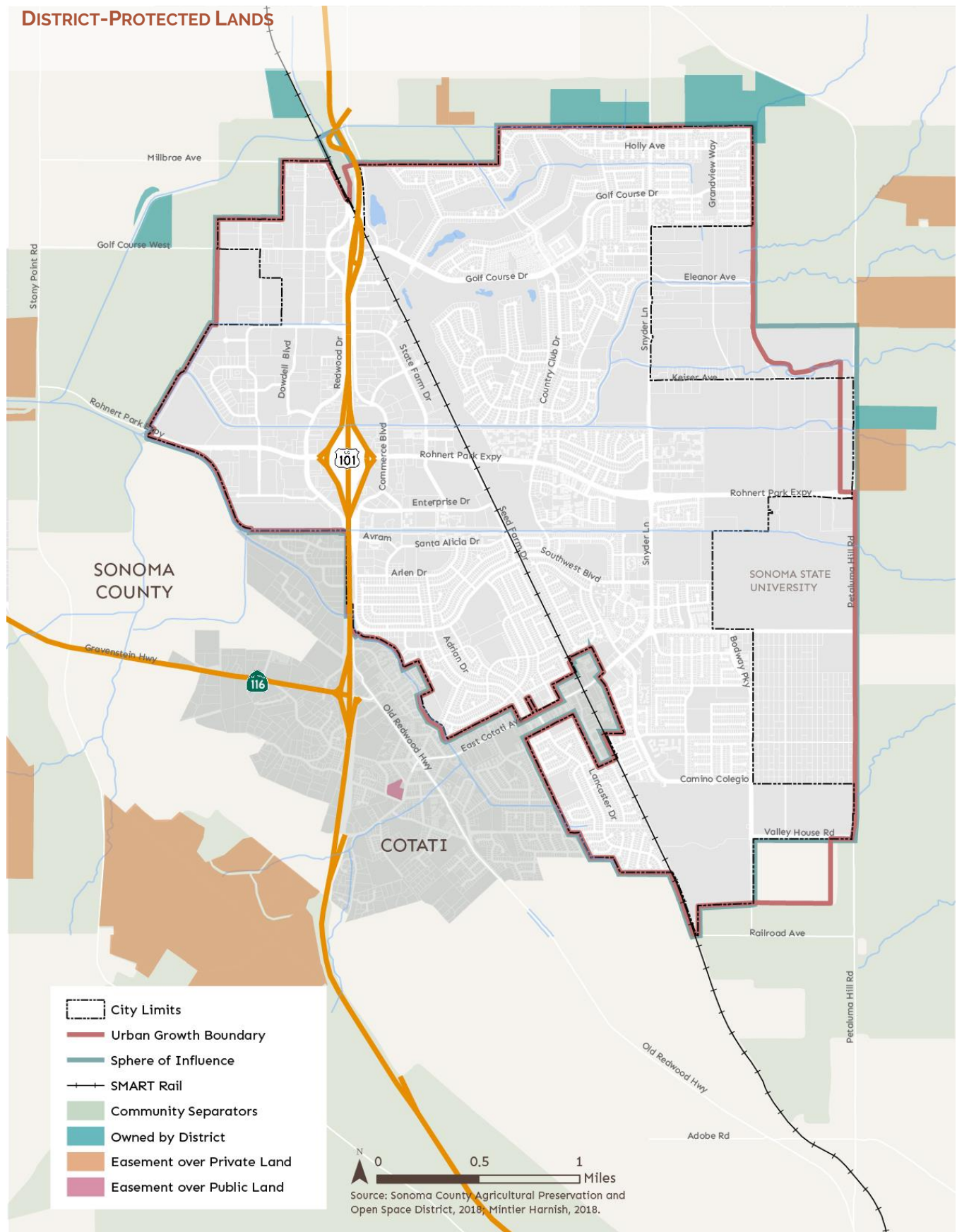
A handful of Williamson Act lands lie just outside of the Rohnert Park planning boundaries.

Sonoma County Agricultural Preservation and Open Space District

In 1990, Sonoma County residents created the Sonoma County Agricultural Preservation and Open Space District (District) to permanently protect the greenbelts, scenic viewsheds, farms and ranches, and natural areas of Sonoma County. Sonoma County voters approved Measures A and C to create the District and to enable a quarter-cent sales tax to fund District operations until 2011. In 2006, 76 percent of Sonoma County voters approved Measure F to extend the quarter-cent tax through 2031.

The Sonoma County Agricultural Preservation and Open Space District administers these funds and has identified a process for determining lands to be preserved. Several sites or easements surrounding Rohnert Park have been purchased for preservation, all of which lie just beyond both the Rohnert Park SOI and UGB (see Figure B-7). Although close in proximity to potential future development area in Rohnert Park, they currently bear little weight in development decisions. The preservation of these lands, in tandem with the Community Separators, County agricultural zoning and land use designations, and Williamson Act contracts will help to ensure that the lands beyond the Rohnert Park UGB will remain in agriculture and open space into the future.

Figure B-7



Santa Rosa

The City of Santa Rosa lies about 8.5 miles to the north of Rohnert Park, separated by open space and agricultural areas. Given the development pace set by the City's Growth Management Program, established in the 2035 Santa Rosa General Plan, Santa Rosa has land within its UGB for urban development through 2035. Between 2007 and 2035, population within the Santa Rosa UGB is expected to reach a total of 237,000, and approximately 25,225 new housing units are expected to be developed within the UGB. Buildout of non-residential land uses designated in the Santa Rosa General Plan is estimated to result in an addition of 34,120 jobs between 2007 and 2035, and that employment would total 132,100 at full buildout.

In October 2017, the Tubbs Fire burned over 36,000 acres and over 5,600 structures, including more than 2,800 homes in the city of Santa Rosa. Santa Rosa Mayor, Chris Coursey, estimated the fires caused \$1.2 billion in damage and destroyed five percent of the city's housing stock. Santa Rosa has been rebuilding in the months following the fire and procedural changes are being made to accelerate the building permit process. Following the fire, Rohnert Park has seen an increase in housing starts, and is producing hundreds of



Coffey Park before and after the Tubbs Fire.

Source: Google Earth, 2017; California Highway Patrol/Golden State Division via Reuters, 2017

homes to meet this demand. More housing is planned in the upcoming years through new development in the Special Area Plans.

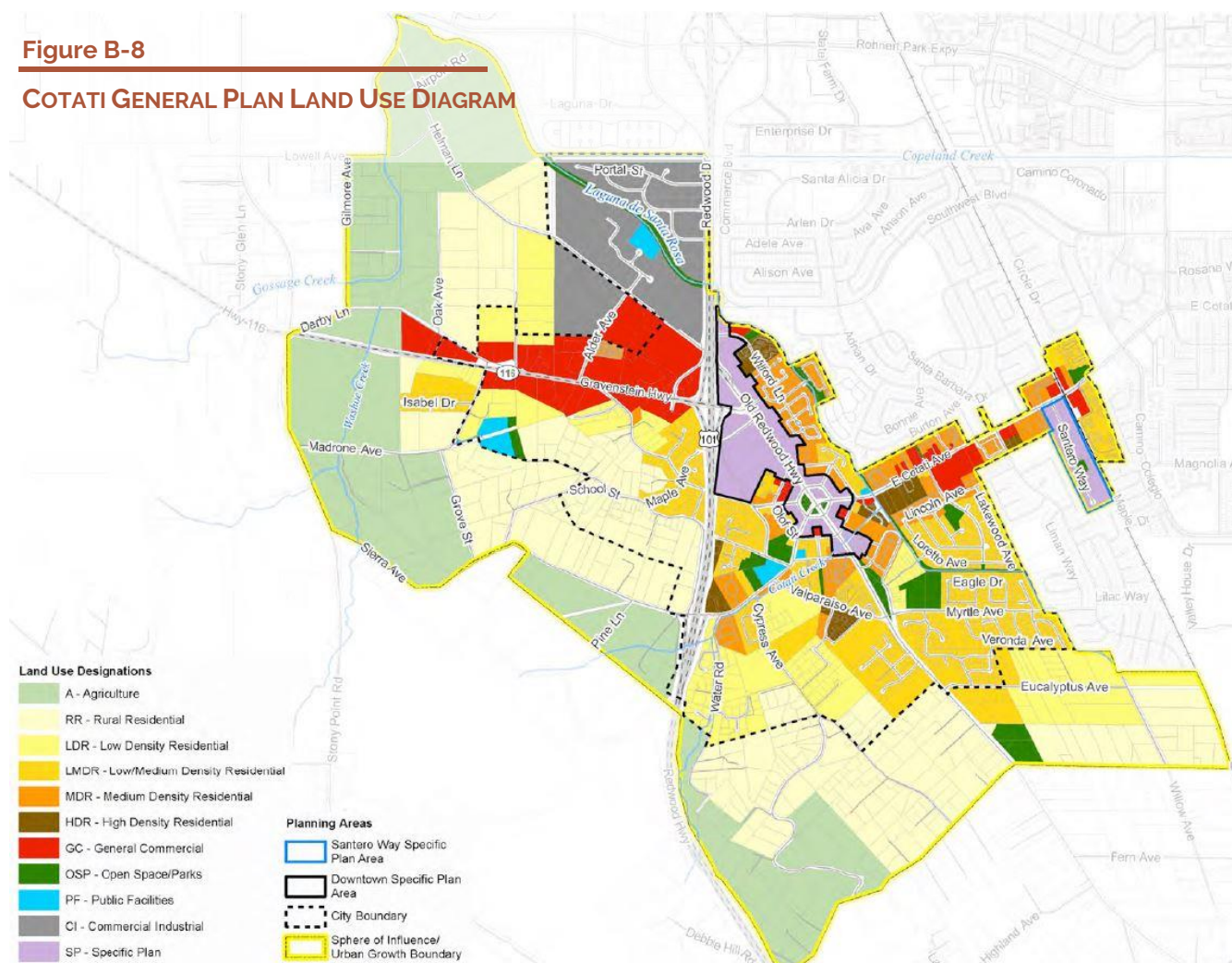
Cotati

Rohnert Park shares its southwest city limits boundary with the city of Cotati. The Cotati General Plan, adopted in 2015, exhibits a strong commitment to ensuring that the small-town and semi-rural quality of life will be maintained, while providing opportunities for economic growth and increasing the tax base to support municipal services. Residential and commercial growth is focused within the city, with higher-density uses focused in central locations and densities decreasing outward from the city core to the UGB and SOI. Land along the Rohnert Park-Cotati boundary is mostly built out with the exception of a few large parcels. Land uses along this boundary are generally compatible with those in Rohnert Park, and do not appear to cause any potential use conflicts (see Figure B-8).

As of 2018, the population of Cotati had surpassed 7,700 and the city had over 3,100 housing units. The majority of the housing units in Cotati are single-family homes.

Figure B-8

COTATI GENERAL PLAN LAND USE DIAGRAM



The Cotati General Plan Land Use Diagram shows land uses at the Rohnert Park-Cotati boundary.

Source: Cotati General Plan Update, 2015



ENVISION ROHNERT PARK 2040

Economics Whitepaper

Prepared for:

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Planning Tomorrow Today[®]



March 2019

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ECONOMICS WHITEPAPER

INTRODUCTION

The Economics Whitepaper focuses on market conditions and projections that may affect the demand for land uses planned under the General Plan Update. Rohnert Park has seen significant changes that were not envisioned in the current General Plan, including the closure of the State Farm office campus, the departure of Agilent Technologies, and the opening of the Graton Casino. The loss of State Farm has created the opportunity for Rohnert Park to design and build a new Downtown, which is proceeding on a separate track from the General Plan Update. The types of development planned on this site may create new kinds of business opportunities that have not been present in Rohnert Park before. Therefore, the past economic trends described in this paper do not necessarily encompass the economic opportunities that may unfold in the future. The paper addresses population and housing growth in Rohnert Park as well as job growth and the characteristics of the employment base in terms of industry characteristics and commute patterns. It describes growing business sectors in the region that may create demand for additional office and industrial space in the city. It also discusses the commercial and visitor-serving businesses in the community and the gaps in retail shopping opportunities that may be met through new development. The paper includes an analysis of hotel occupancy in Rohnert Park and the potential demand for new lodging facilities. The purpose of the paper is to help the City identify land use alternatives for further study in the General Plan Update process and to lay the groundwork for developing General Plan policies to support economic development. The discussion includes comparisons with nearby cities in Sonoma County as well as economic trends in Marin County, to provide a context for regional growth patterns that may affect Rohnert Park.

MAJOR FINDINGS & IMPLICATIONS

- Housing growth has accelerated in Rohnert Park since 2015, with 464 units built in the three years to January 2018. The city has added 2,800 residents, or about 6.9 percent, since 2010, due in part to recent new housing development but also due to increasing household sizes and reduced vacancies in existing units.
- Rohnert Park has a higher proportion of multifamily housing (55 percent) than does the rest of Sonoma County (25 percent), although recent housing development has been mainly single-family units.
- Plan Bay Area 2040 projects about 4,600 new households for Rohnert Park between 2018 and 2040, accounting for past growth in households since 2010. The development capacity in existing plans is approximately 5,300 units, suggesting that the city should have sufficient land supply to accommodate projected residential growth.
- Rohnert Park's recent and projected job growth have tracked very closely with the trends in Sonoma County. Rohnert Park, as well as both Sonoma and Marin counties, each have a lower projected job growth than California as a whole.
- The average wages and salaries for jobs in Rohnert Park are lower than both county and state averages.

- Rohnert Park's job base is heavily weighted towards retail, hospitality, and health care/social assistance jobs that have a lot of low paying positions. Within Rohnert Park, these jobs also have the highest projected job growth through 2027.
- Sonoma County has a more diverse job base, and a very high projected job growth in health care/social assistance. But, the distribution of health care/social assistance jobs in the county is generally in higher paying sectors than those currently present in Rohnert Park.
- As a comparison, Marin County has a notably higher concentration of jobs in professional services and lower concentration in manufacturing than Sonoma County, which explains some of the commute pattern of Rohnert Park residents going south.
- The strength of Rohnert Park's job base is in utilities, metal and electronic manufacturing, telecommunications, social assistance, and visitor-serving industries. By comparison, Sonoma County has a stronger concentration of food and beverage manufacturing, health care, and residential care.
- The Industrial real estate market is quite strong, with low vacancy rates and growing rents. In addition to growth of existing industrial businesses in the area, this market may be further impacted by growth in cannabis businesses in Santa Rosa and elsewhere in Sonoma County, as well as increasing demand from the retail sector for local distribution centers for deliveries direct to consumers.
- Comparing projected job growth out to 2040 with the existing vacant land supply, there appears to be an oversupply of retail land and a deficit of industrial and institutional (mainly for health care) sites. Possibly, commercial and office sites would accommodate institutional uses, but some consideration should be given to converting a portion of the land designated for commercial and office to industrial uses. While commercial development provides a good fiscal benefit for the City with increased sales taxes, the low market support may mean that some of the existing vacant commercial land will remain vacant for extended periods and not generate any taxes. In contrast, industrial development provides good living wage incomes, which support the commercial sector indirectly through household retail purchases.
- The real estate market for offices has been weak in Rohnert Park with a very large vacant inventory and flat rents. However, the market dynamics for office space in Rohnert Park are complex:
 - The lack of a vibrant Downtown work environment and modern office buildings inhibits demand from firms that might otherwise wish to locate in Rohnert Park. While growth in office jobs under existing trends is projected to be very modest, the City has nearly 3,000 residents who commute out to office jobs elsewhere.
 - Development of the Station Avenue project would present the opportunity to create an attractive Downtown office work environment, potentially attracting new kinds of design, technology and professional services firms to the City, allowing some of the existing out commuters, as well as new graduates entering the workforce, to find jobs in Rohnert Park.
 - As development in Downtown proceeds beyond the Station Avenue project, some of the existing older office space will likely be redeveloped into new office product and or may be repositioned to support health care services, for which strong demand is projected.

- Rohnert Park's number of employed residents exceeds the local jobs by about 33 percent. The majority of employed residents (55 percent) commute elsewhere within Sonoma County, while 20 percent both live and work in Rohnert Park.
- The taxable sales in Rohnert Park exceed the local purchasing power by nearly \$200 million. This means that Rohnert Park has a regionally focused commercial business base that attracts spending from well beyond the city limits. This high existing capture also limits the range of potential new business attraction opportunities. Future population growth creates potential for about 103,500 square feet of retail space through 2025, and another 177,500 between 2025 and 2040. Existing retail leakage would potentially support 220,900 square feet of space, if it can be recaptured to Rohnert Park.
- Rohnert Park has an existing inventory of 3.3 million square feet of retail space. The vacancy rate in the Rohnert Park/Cotati submarket is the highest among the Sonoma County submarkets, with some retail centers doing much better than others, and some centers with vacancy rates that indicate a challenging future. The currently vacant retail space is about equal to what effective recapture of all existing leakage would support, although it might not be the correct format or location. With current disruption in the retail sector, and especially big box retail, Rohnert Park faces challenges with potentially having too much available space, or having a predominance of retail formats that are moving toward obsolescence.
- In terms of broad retail industry trends that offer opportunities in Rohnert Park, three consumer categories poised for expansive growth include: shoppers who hunt through boutiques looking for unusual purchases, those looking for enjoyable experiences at restaurants and retail outlets, and fitness buffs. The key is to implement an attractive placemaking design that provides a pedestrian oriented experience at proper scale.
- Rohnert Park is growing faster in the younger age groups than are other cities in Sonoma County, which can lead to greater demand for restaurants, entertainment, and "experiential" retail activities that can help add vibrancy and a more desirable 'brand' to the city. The proposed Station Avenue represents an opportunity for Rohnert Park to re-brand itself, while creating a much-needed focus on the amenities and sense-of-place needed to attract more diverse employers and households.
- The majority of Rohnert Park's nearly 1,100 lodging rooms are classified as "Upper Midscale" and above. The Oxford Suites opened in 2017 with 163 rooms. In addition, the Graton Resort added 200 rooms outside the city limits. Despite the growth in inventory, the occupancy rates have continued growing in Rohnert Park, along with the room rates. This indicates potential support for additional lodging, with the Cambria and Fairfield expected to come online soon.
- Any economic positioning should take greater advantage of partnership and visibility of Sonoma State University which is a major asset, as economies and lifestyles continue to evolve around knowledge.

EXISTING CONDITIONS

Population and Housing

Rohnert Park has a household population of 43,555 as of January 1, 2018. The population has grown 0.9 percent per year since 2010, though it jumped up to 2.6 percent in 2017, adding nearly 3,000 persons during that time. For comparison, household population in Sonoma County as a whole has grown at the rate of 0.5 percent annually (See Appendix Tables A-1 and A-2). Some of the growth in population in Rohnert Park is due to increasing household sizes and reduced vacancies in existing housing, but the city also developed 464 new units between 2015 and January 2018 and expects an additional 2,054 units over the next six years. In addition to the residential population of Rohnert Park, Sonoma State University has over 600 units of housing with about 3,200 students living on-campus just outside of the city limits. In contrast, Sonoma County had been adding new housing at an average of 500 units per year between 2010 and 2016 until the fires in 2017 destroyed more than 5,000 homes.

Rohnert Park has a higher proportion of multifamily housing (55 percent) than does the rest of Sonoma County (25 percent). Real estate brokers suggest that the long slowdown in housing development in the city was due to infrastructure constraints as well as market conditions that impeded the development of more single-family housing. Those constraints have been largely resolved and as a result there is substantial pent up demand and anticipated development activity for single-family units that will help to balance out the city's housing stock.

Rohnert Park has a higher percentage of non-family households than either Sonoma County or the state (Table A-3). This may reflect the demographics associated with Sonoma State University. Rohnert Park has a younger population than either the county or the state, with a median age of 33.6 years (Table A-4). Rohnert Park's percentage of non-family households has dropped slightly since 2010, while the county and the state have remained constant. This may reflect the fact that most of the new housing that has been built recently has been single-family units. The city also has a higher percentage of renter occupied households, which is consistent with the higher proportion of multifamily units and non-family households (Table A-5). The proportion of renters has been increasing since 2010 not only in the city but in the county and state as well.

ABAG Projections and Existing Development Capacity in Rohnert Park

Plan Bay Area 2040 has produced household projections for cities throughout the Bay Area. For Rohnert Park, Plan Bay Area forecasts growth of 5,200 households between 2010 and 2040, 3,605 of which would be in the two Priority Development Areas. Based on the DOF housing data described above, we estimate the city has grown by 600 households since 2010. Mintier Harnish Associates (MHA) has compiled development capacity data for the major growth areas within the city, which are shown in the lower part of Table 1.¹ These estimates show potential for 5,343 new dwelling units, with 56 percent planned to be multifamily units, very similar to the existing proportion. This development capacity would accommodate the citywide Plan Bay Area projection; however, the PDAs show capacity for only 2,529 units, in contrast to the Plan Bay Area projection of 3,605. It should be noted, however, that the PDA Showcase accessible on ABAG's website shows a projected growth for the two PDAs of 2,950 households, somewhat closer to the City's planned capacity in these areas.

Table 1: Existing and Projected Rohnert Park Households, 2010 to 2040

	2010	2018	2040 (Proj.)	2018-2040 Growth
Plan Bay Area Projection				
Planned Development Areas	1,495	1,495	5,100	3,605
Citywide	15,800	16,400	21,000	4,600
City Development Capacity				
PDA				2,529
Citywide				5,343
Single-Family				2,335
Multifamily				3,008

Source: ADE Inc., based on Plan Bay Area Projections, July 2017, ABAG PDA Showcase, 2018, DOF 2018 occupied housing unit data and MHA estimates of development capacity in Rohnert Park.

The Plan Bay Area household projections would produce population growth of nearly 12,000 persons between 2018 and 2040, for a total 2040 population of about 55,600. This is based on an average household size of 2.6, which reflected city averages in 2015. The average household size has been increasing in Rohnert Park and throughout the region, but ABAG forecasts the rate to begin declining again after 2020 and to reach 2015 levels by 2030, remaining steady after that.

Employment

The employment base in Rohnert Park and the surrounding region is important because it supports economic opportunities and personal income for people working in the community. As a matter of informing the General Plan process, the characteristics of the existing and projected jobs will shape the types of built spaces that will be needed in Rohnert Park. Some industry sectors have grown and others have declined.

¹ Mintier Harnish Associates, Land Use and Community Character Whitepaper. Note: Sonoma Mountain Village is projected to develop 50 percent multifamily housing, per Brad Baker, CEO, Sonoma Mountain Village, personal communication, July 18, 2018.

Understanding the nature of these dynamics in Rohnert Park and the surrounding communities will also provide a glimpse into the potential opportunities that will be available to local businesses.

Regional Employment Trends

Existing Jobs

As a whole, Sonoma County had just over 204,700 total jobs in 2017 (Table A-6).² During the same period, Rohnert Park had around 15,100 jobs, or 7.4 percent of the county total. Close to half of the total jobs in Sonoma County are in Santa Rosa (about 90,300 jobs), while nearby Petaluma has nearly 35,900.

By comparison, Marin County had about 115,000 jobs in 2017. Novato and San Rafael combine to create nearly half of the jobs in Marin County.

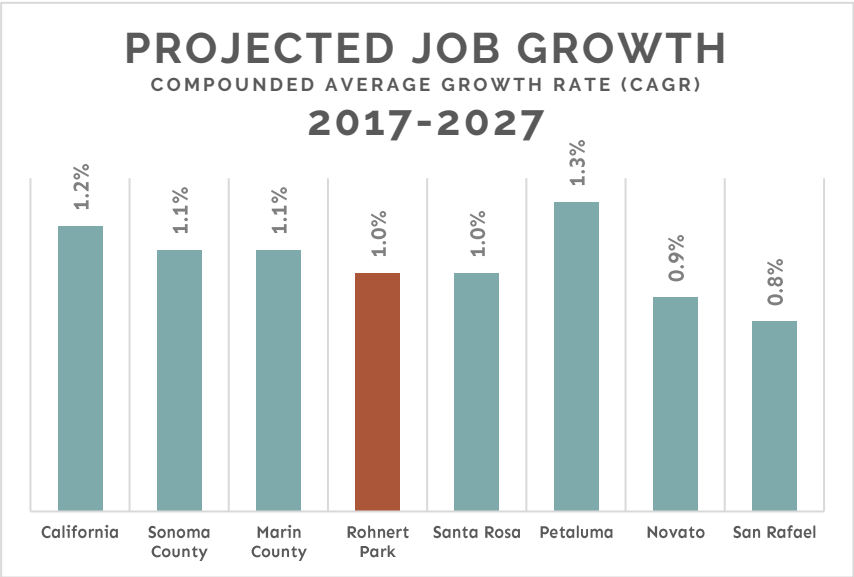
Recent Job Growth

Between 2007 and 2017, Sonoma County added over 11,100 jobs, which represents a compounded average growth rate (CAGR) of 0.6 percent. Rohnert Park added just over 700 jobs during the same period, which represents a similar CAGR of 0.6 percent. By comparison, Santa Rosa had a lower growth rate of 0.3 percent, while Petaluma had a significantly higher job growth rate of 1.3 percent with job growth of nearly 4,300 positions. The growth in Petaluma was generated by expansions in the health care industry, particularly outpatient care clinics and senior care facilities. This sector is growing rapidly in many areas of the country.

Marin County added nearly 6,400 jobs between 2007 and 2017, and had a nearly identical CAGR of 0.6 percent. Both Novato (0.9 percent CAGR) and San Rafael (0.8 percent CAGR) added jobs at a higher rate than the countywide average.

Projected Job Growth

For both Sonoma and Marin counties, projected employment between 2017 and 2027 shows a similar CAGR of about 1.1 percent, according to Emsi, a labor market analytics firm. (Figure 1) This indicates that the projected employment in the region will show a marked increase over this period compared to the previous 10-year period. Sonoma County is projected to add nearly 24,400 jobs, while Marin County expects to add over 12,900 new jobs.



² The jobs referenced in this section are covered employment, which comes from the employers that are in the national unemployment insurance program. The vast majority of employment is covered. This does not include non-covered establishments, or self-employment and other proprietors.

EMSI's employment projections show Rohnert Park's employment base increasing by over 1,500 jobs with a CAGR of 1.0 percent. The growth rate is slightly below the countywide projection. This projected growth rate is the same as Santa Rosa, but lower than Petaluma (1.3 percent) and higher than both Novato (0.9 percent) and San Rafael (0.8 percent).

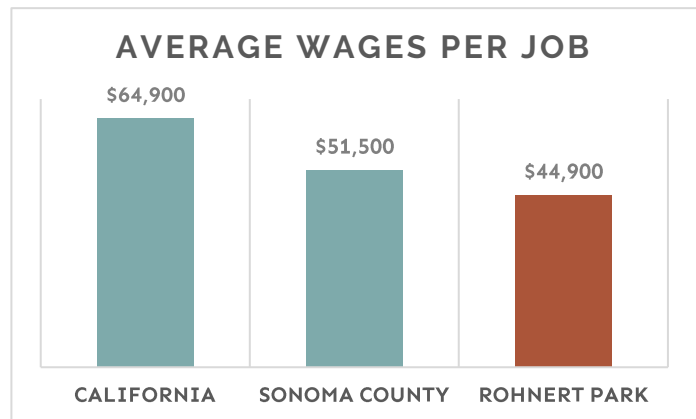
Plan Bay Area has a substantially lower employment projection for Rohnert Park, with a CAGR of 0.5 percent through 2040.

It should also be noted that EMSI projects California as a whole with a 10-year CAGR of 1.2 percent, so Rohnert Park and both Sonoma and Marin counties have a slightly lower projected growth rate.

Existing Wages and Salaries

In terms of wages and salaries, Sonoma County jobs averaged about \$51,500 in 2017, which is slightly higher than the average wages and salaries for jobs in Rohnert Park (\$44,900), as shown in Figure 2. By comparison, the statewide average wage and salary per job is about \$64,900. Both Santa Rosa and Petaluma have average salaries higher than Rohnert Park, but lower than the statewide average.

Marin County's \$68,000 in wages and salaries per job is higher than the statewide average. In addition, Novato (\$80,000) and San Rafael (\$65,700) also have a higher average wage and salary per job than Sonoma County and Rohnert Park. Novato, in particular, has seen growth in the pharmaceutical and biotechnology industries, which has added many higher paying jobs to the local economy.

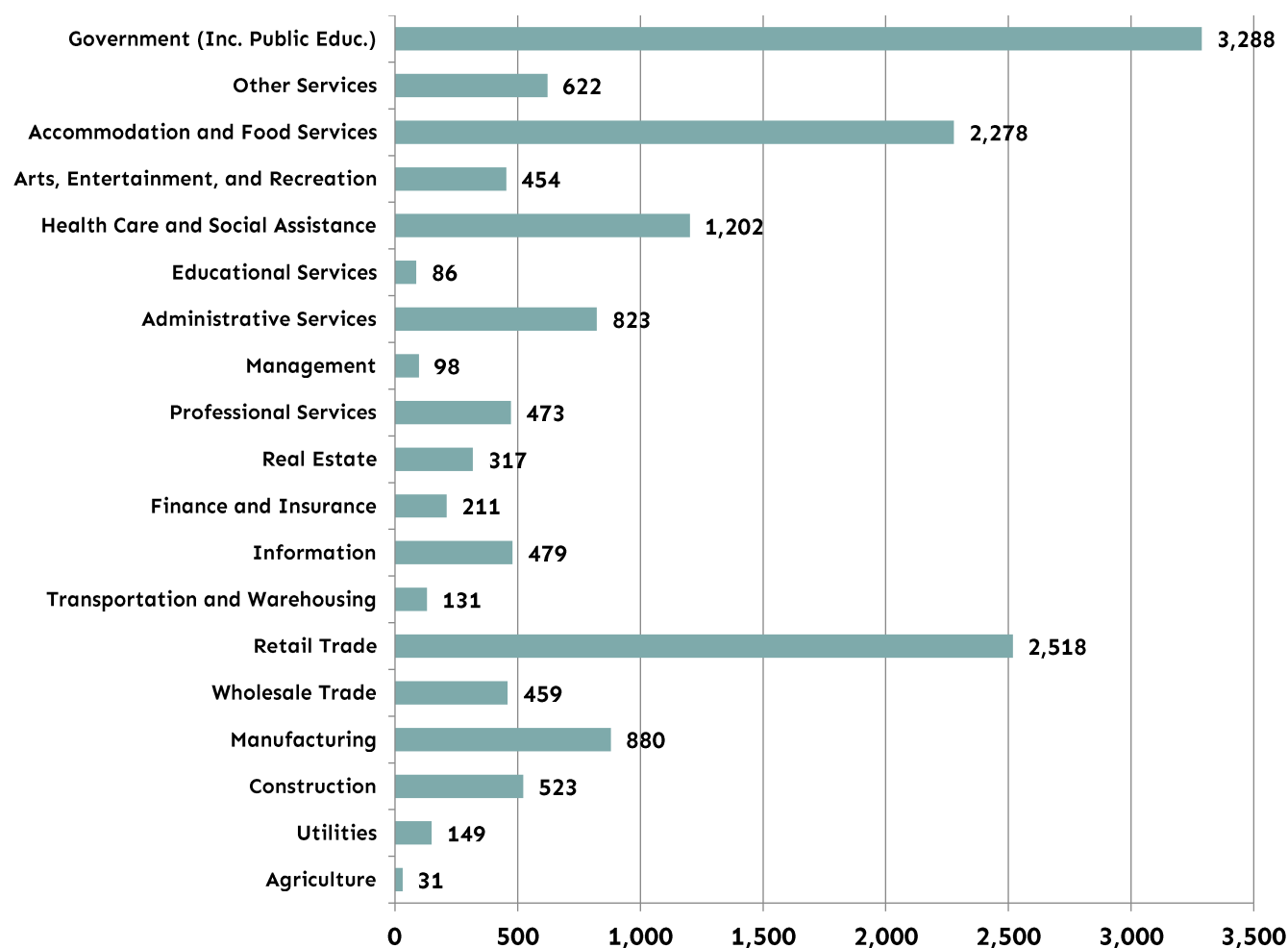


Rohnert Park Employment Base and Projected Growth

Rohnert Park's 15,100 jobs are primarily in manufacturing, retail trade, hospitality, administrative/support services, health care/social assistance, and public sector (Figure 3 and Table A-7).³ Each of these sectors employs more than 800 workers. The public sector jobs also include Sonoma State University.⁴ It should be noted that retail, hospitality, and health care/social assistance also have average wages below the citywide average for all jobs of \$44,900 (Table A-8).

³ The employment data uses ZIP code boundaries for Rohnert Park, so it captures some jobs located in the unincorporated part of Sonoma County.

⁴ The employment data has a public sector employment for colleges and universities of around 1,200 jobs. The statistical summary for Sonoma State University shows around 1,500 jobs. However, those self-reported positions also include temporary faculty, and student employment that might not show up under the covered employment totals.

FIGURE 3: ROHNERT PARK EMPLOYMENT BY SECTOR, 2017

Compared to statewide averages, Rohnert Park has very high concentrations of jobs in utilities, retail trade, real estate, arts/recreation, hospitality, other services, and government. In addition, the relative growth (shift-share) indicates that Rohnert Park has slightly lagged the statewide job growth between 2007 and 2017.

The projected job growth in Rohnert Park between 2017 and 2027 by EMSI shows a CAGR of 1.0 percent and a net job change of nearly 3,800 jobs during this period, with the largest job growth occurring in retail trade, health care/social assistance, and hospitality – relatively lower-wage industries.

Plan Bay Area 2040 shows a considerably lower employment growth projection; however, these projections are not consistent with the PDA Showcase projections on ABAG's website. The PDA Showcase projections show 2,865 new jobs in the two Rohnert park PDA's between 2010 and 2040 while the Plan Bay Area projections show a growth of 1,800 jobs citywide and a decline of 100 jobs in the PDA's. It should be noted that the EMSI data includes some areas outside of the city limits such as Sonoma State University. However, the lower Plan Bay Area projections are not consistent with recent City experience or long-range planning expectations. Table 2 reports the ABAG PDA projections and the citywide EMSI projections, extrapolated to 2040.

Table 2: Employment Growth Projections, Rohnert Park, 2007 to 2040

	2007	2010	2017	2027	2040	2017 to 2040 Growth	CAGR 2017 to 2040
PDA		3,490	3,697		6,355	2,658	2.4%
Rohnert Park	14,370	14,736	15,102	16,639	18,873	3,771	1.0%

Source: ADE, Inc.; data from ABAG PDA Showcase (2017 PDA jobs estimated by ADE) and EMSI.

Notes: The EMSI data for Rohnert Park uses ZIP code boundaries and includes geographic areas outside of the city limits. The EMSI projection goes through 2027, and was extrapolated through 2040.

Sonoma County Employment Base and Projected Growth

Sonoma County's 204,700 jobs are more widely distributed between sectors. Construction, manufacturing, retail trade, health care/social assistance, hospitality, administrative/support services, and government each employ over 10,000 workers (Table A-9). Compared to the rest of the state, Sonoma County has the highest concentration of jobs in agriculture, manufacturing, construction, and retail trade (Table A-10). In addition, the relative growth shows Sonoma County also lagged behind the statewide job growth between 2007 to 2017.

The largest projected growth in Sonoma County is expected to occur in health care/social assistance, construction, retail trade, and hospitality. With over 8,200 projected new jobs, health care/social assistance alone accounts for over one-third of the projected job growth.

Marin County Employment Base and Projected Growth

Marin County's employment base has a notably higher concentration of jobs in professional services than Sonoma County, and a much lower concentration of manufacturing. The largest sectors in Marin County include construction, retail, professional services, health care/social assistance, hospitality, and government (Table A-11). Each of these sectors employ more than 9,000 workers. Compared to the state, the highest concentrations of employment occur in construction, management, educational services, arts/recreation, and other services (Table A-12). The relative job growth in Marin County slightly lagged behind the statewide average at roughly the same rate as Sonoma County.

Projected job growth in Marin County between 2017 and 2027 is expected to occur primarily in manufacturing, health care/social assistance, hospitality, and government. Health care/social assistance is projected to add nearly 3,900 of the 12,900 new jobs in Marin County.

Defining Economic Roles

Rohnert Park's economy is defined by how various industries fit into the overall economy, based on their role within the economy. Rohnert Park is also defined by how the economic roles of its industries are either consistent with or differentiate from trends within Sonoma County. To assess these roles, the industries within both Rohnert Park and Sonoma County were ranked based on two key economic indicators—job growth and employment concentration relative to the state. The economic roles based on these indicators fall into one of four categories:

- **Growing Economic Base Industries:** These industries have shown recent job growth and have an above average employment concentration. They constitute the strength of the economy, and represent opportunities for growth in other areas such as supplier industries.

- **Emerging Industries:** These sectors have shown recent job growth, but still have a below average employment concentration. These industries represent potential future growth opportunities because they have not yet accumulated a high concentration of employment. Industries in this category could be considered business attraction targets.
- **Declining Economic Base Industries:** These industries have an above average concentration of employment, but have shown recent job losses. They represent strong industries in a region that have shown some recent vulnerability, and could be considered business retention targets.
- **Declining Non-Base Industries:** These industries have shown recent job losses and have below average employment concentration. They do not have an especially notable regional presence and do not have growth prospects as strong as the industries in the other categories.

The analysis focuses on the 10-year period between 2007 and 2017. During this time, Rohnert Park and Sonoma County's employment base showed overall growth, but had several specific sectors that drove the economy and others that lost employment. (Figure 4)

Figure 4: Economic Roles for Select Industries in Rohnert Park and Sonoma County, 2017

	Growing Economic Base Industries	Emerging Industries	Declining Economic Base Industries
Rohnert Park	Utilities Metal and electronic/ computer manufacturing Telecommunications Social assistance Visitor-serving industries	Food manufacturing Machinery manufacturing Wholesale trade Real estate Management Administrative services Health care and residential care	Wood product manufacturing Printing Electrical equipment manufacturing Broadcasting State and local government
Sonoma County	Food and beverage manufacturing Health care and residential care	Apparel Paper, chemical, and metal manufacturing Air transportation Data processing Information services Real estate Management Administrative services Performing arts	Agriculture/livestock Construction Ground transportation Wood product manufacturing Printing Machinery manufacturing Furniture manufacturing Miscellaneous manufacturing

Source: ADE, Inc.; data from EMSI.

See Tables A-13 and A-14 in the appendix for a more complete list of industries.

Office and Industrial Real Estate Conditions

The recent real estate market conditions and trends provide some insight into how the existing inventory of office and industrial space addresses current business location needs.

Office Real Estate Conditions

According to Keegan & Coppin Company, Inc., Sonoma County had a total inventory of nearly 14.6 million square feet (SF) of office space, as of the 1st Quarter of 2018 (Table A-15). The vacancy rate was 12.6 percent, which equates to 1.8 million SF of vacant space. Overall, the county has about 722,100 SF of office buildings currently planned.

In the Rohnert Park/Cotati market, the office space totaled nearly 1.5 million SF, with a comparatively high vacancy rate of 27.4 percent (404,200 SF) and 40,000 SF of planned office space.⁵ Among the four office submarkets in Sonoma County, Rohnert Park/Cotati has the highest vacancy rate. Nearly half of the vacant office space in Rohnert Park is in Sonoma Mountain Village. However, this development reports significant progress in leasing its space, with some 40 businesses and 1,000 jobs currently located there. In 2010, ABAG reported only 140 jobs in this Priority Development Area. Petaluma, Santa Rosa, and the North Corridor (Healdsburg, Windsor, Airport Area) markets each had vacancy rates below the countywide average, with the North Corridor having the lowest vacancy rate of 9.3 percent.

Between the 1st Quarters of 2017 and 2018, Sonoma County had a net absorption of nearly 294,900 SF of office space (net results of over 159,900 SF after adjusting for square footage corrections). Rohnert Park had a net absorption of 38,000 SF during this period (30,950 SF net result). Santa Rosa had the largest net absorption during this period, while the North Corridor had the lowest net absorption with less than 3,600 SF.

The office rents for the Rohnert Park/Cotati market are in the \$1.35 to \$1.80 range per SF, which is flat compared to 2017.

Industrial Real Estate Conditions

As of 1st Quarter of 2018, the industrial building inventory in Sonoma County totaled over 24.8 million SF (Table A-16). Compared to office space, the industrial building inventory is considerably tighter with a countywide vacancy rate of 4.2 percent and 1.0 million SF of vacant industrial space. In addition, the Keegan & Coppin data shows no industrial buildings currently planned. Reportedly, the legalization of cannabis has had a measurable impact on utilization of industrial space, particularly in Santa Rosa. While Rohnert Park does not allow cannabis businesses, the shifts in the industrial real estate market have affected vacancies here as well.

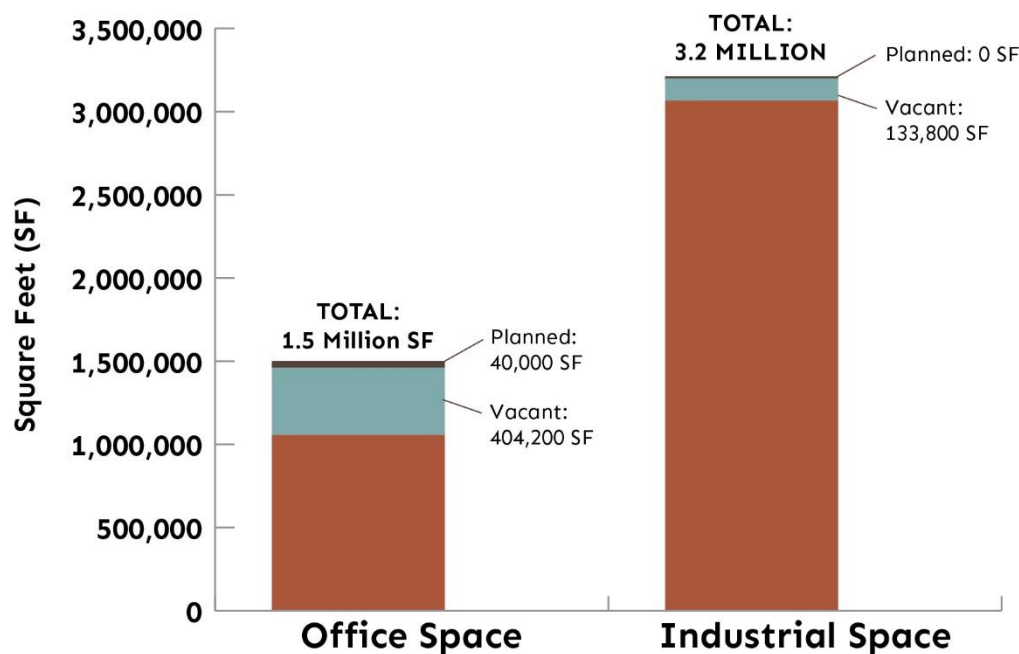
For the Rohnert Park/Cotati market, industrial space totaled about 3.2 million SF with a vacancy rate of 4.2 percent (133,800 SF), which matches the countywide vacancy rate. (Figure 5) Among the Sonoma County submarkets, the North Corridor had the lowest vacancy rate, while Petaluma had the highest vacancy rate. About half of the total vacant industrial space was in Santa Rosa.

Sonoma County had a net absorption of over 321,200 SF of industrial space between the 1st Quarters of 2017 and 2018. The highest net absorption occurred in the Rohnert Park/Cotati and North Corridor markets with over 121,000 SF net absorption in each market.

⁵ The office building inventory does not include the former State Farm office campus.

Industrial rents for the Rohnert Park/Cotati market are in the \$0.90 to \$1.05 range, which is about a 20 percent increase year-over-year from 2017.

FIGURE 5: OFFICE AND INDUSTRIAL REAL ESTATE CONDITIONS, 1ST QUARTER OF 2018 – ROHNERT PARK



Source: ADE, Inc.; data from Keegan and Coppin Company, Inc.

Projected Square Footage Demand

The net growth of nearly 1,500 jobs projected from 2017 to 2027 in Rohnert Park potentially creates demand for over 572,000 SF of business space during this period (Table 3). By comparison, Sonoma County has a projected square footage demand totaling 10.5 million SF, with the majority of the demand occurring in Santa Rosa (4.1 million SF) and Petaluma (2.7 million SF) (Table A-17). Using benchmarks from the International Facilities Management Association (IFMA) measuring average square feet per job for different land uses and industry sectors, the square footage demand projection was further broken down by broad land use categories.

Table 3: Projected Square Footage Demand, 2017 to 2027

Rohnert Park	2017 Jobs	2027 Jobs	2017 to 2027 Job Change	SF Per Job	Square Footage Demand
Total	15,102	16,639	1,537		572,680
Industrial	2,142	2,338	196	658	129,165
Office	2,401	2,636	236	372	87,626
Commercial	5,418	6,050	632	362	228,703
Institutional	4,576	4,854	278	458	127,186

The projected incremental net growth for industrial jobs (manufacturing and transportation/warehousing) over the next ten years would create demand for around 129,200 SF. This represents a broad estimate because some specific industrial uses are more labor intensive than others. In addition, another 25,000 sq. ft. would be needed to achieve an optimal five percent vacancy rate. Also, demand from other categories, such as institutional uses, could potentially utilize industrial spaces as well. The retail sector is also developing local distribution centers for "last mile" delivery to consumers as a way of serving increased online as well as reducing building footprints necessary for in-store shopping. This will increase demand for industrial space even as new retail centers develop with smaller building formats. New industrial business relocations or startups could also create substantially greater demand for industrial development in the future. The increase in cannabis businesses anticipated in Santa Rosa may increase demand from other industrial businesses for space in places like Rohnert Park. Beyond 2027, we estimate demand for industrial space could total about 530,000 SF. Combined with existing demand, there is a need for 40 to 63 acres of industrial property, depending on site coverage of building space. The city currently has 44 vacant acres designated for industrial (Table 4). However, discussions with commercial real estate brokers indicate that marketable industrial sites are becoming scarce in Rohnert Park. This is partially driven by the fact that not all vacant acreage is available on the market. This is one reason why maintaining a healthy vacancy rate and surplus land supply is important.

Table 4: Rohnert Park Non-Residential Vacant Land Development Capacity by Land Use

Land Use	Acres	Assumed FAR	Building Square Footage	Bldg. Sq. Ft. per Job	Jobs
Commercial	39	.25	424,710	362	1,173
Office	7	.35	106,722	372	287
Industrial	44	.40	766,656	658	1,165
Mixed Use	177	.25	1,927,530	362	5,325
Public/Institutional	14	.35	213,444	458	466
TOTAL	282		3,449,952		8,416

Source: ADE, Inc.

For office uses, the projected net job growth creates potential demand for about 87,600 SF. The high existing office vacancy rate in Rohnert Park well exceeds what the projected job growth can absorb. However, most of the existing office space in Rohnert Park can be characterized as suburban business park development. Brokers report limited demand for this type of space in Rohnert Park, although Sonoma Mountain Village has been successful in attracting unique home-grown Sonoma County businesses in high quality food products, environmental technologies and other products and services in the sustainability space.

The existing development capacity for new office space in Rohnert Park totals about 106,700 SF (Table 4). A key concern of the City is to develop a concentrated Downtown core that provides a vibrant and exciting environment to live, work and play. Office space is an important ingredient, not only providing job opportunities but also helping to sustain a viable restaurant trade and other business services that are needed in the mix. This can be accomplished by providing a contemporary office space product to attract start-up technology firms and other design and creative businesses that would value a Downtown location

rather than a business park environment. The extent to which the 87,600 sq. ft. projected supportable office space mentioned above can be provided in the Downtown PDA, it will have a major benefit for the City economic environment. Moreover, this demand projection does not necessarily account for the added demand that could be created with a more attractive office environment in Rohnert Park. As discussed in the next section on Labor Force Commute Patterns, the City currently has nearly 3,000 residents commuting out of the City to office jobs in Information Technology, Professional and Technical Services, as well as traditional office sectors such as Finance and Insurance (Figure 9). With a more attractive office environment, the City would have the opportunity to attract the types of businesses in which the workforce is already employed. As development in Downtown proceeds beyond the Station Avenue project, some of the existing older office space could be redeveloped into new office product and other office space may transition to other uses or be repositioned to support education and health care services, discussed below as institutional uses.

Demand for commercial space over the next ten years totals about 228,700 SF for retail businesses (see Table 3) and another 200,000 SF for planned hotel uses. Over the long-term, household retail demand and visitor hotel demand could add another nearly 600,000 SF of space by 2040. The city has 39 vacant acres designated for commercial development, which could support 424,700 SF (see Appendix Table A-17). In addition, there are 177 vacant acres designated for mixed use development which could support as much as 1.9 million SF of commercial development. Much of this land is in the Sonoma Mountain Village project and it is expected most of the land will be devoted to residential rather than commercial development.

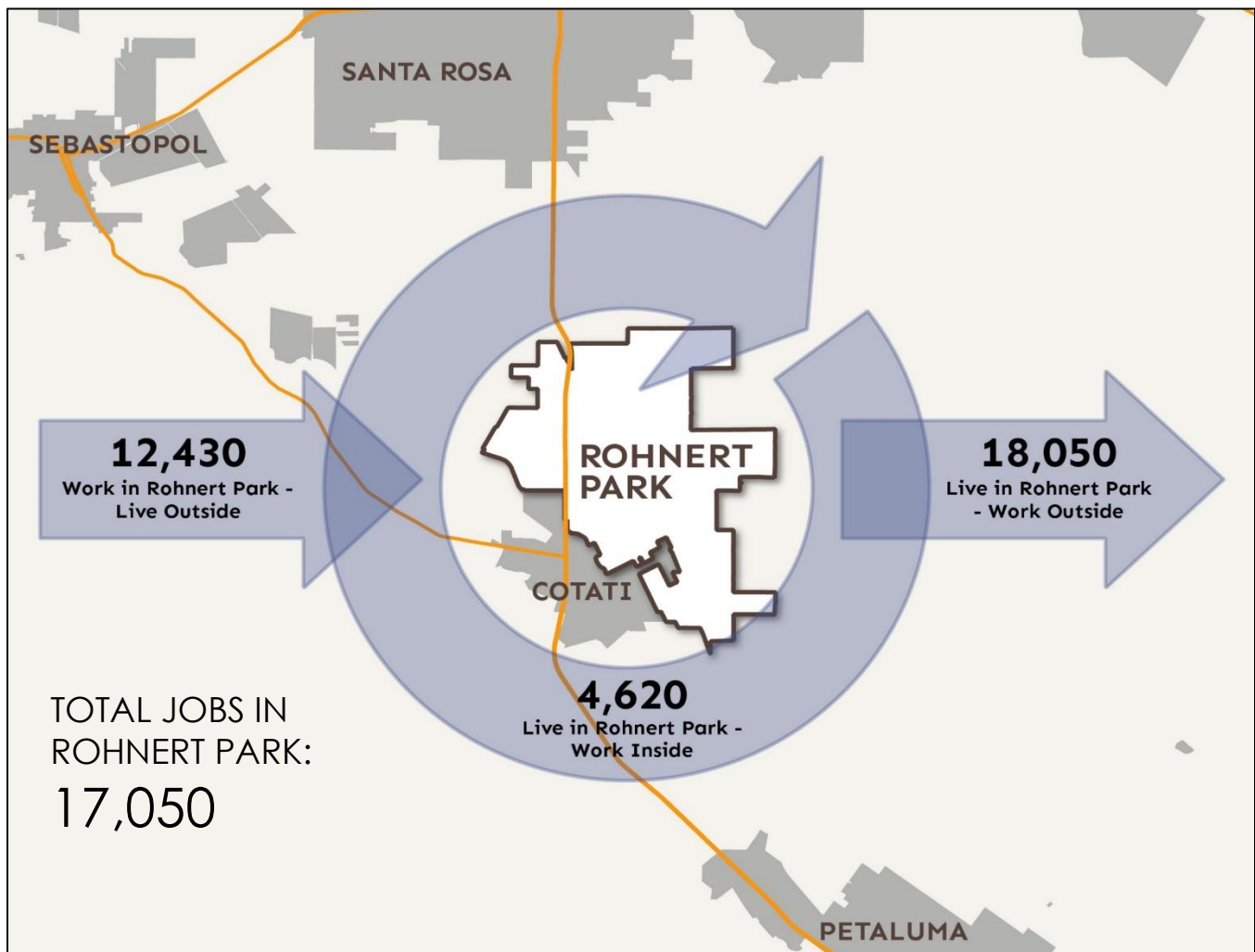
Institutional demand totals about 127,200 SF, while Rohnert Park has an existing development capacity of about 213,444 SF for institutional spaces. However, these types of uses are a component of the broader office space market and in some cases occupy outdated retail spaces or even quasi industrial spaces. Over the longer term to 2040, we project demand for an additional 500,000 SF of institutional uses, suggesting that this type of development may help to absorb some of Rohnert Park's excess suburban style office space. Further analysis of this potential would need to be conducted to determine whether additional specific institutional-designated land should be included in the General Plan. In addition, on a countywide basis, the largest projected square footage demand comes from institutional uses. With nearly 4.5 million SF of demand for institutional space (which includes government, health care, and education), these uses will often locate in office, commercial, or industrial spaces.

Labor Force Commute Patterns

The commute pattern identifies the extent to which local residents work in the city or commute to jobs outside of Rohnert Park. This is important because it serves as an indicator of how Rohnert Park's employment base lines up with its labor force.

When combining covered and non-covered employment with proprietors and self-employment, the total employed residents in Rohnert Park exceeds the number of local jobs by about 33 percent. Of the local jobs, about 4,600 are filled by residents of Rohnert Park (20 percent), with the remaining employed residents (about 18,000) commuting out of the city to work locations elsewhere. Rohnert Park has about 12,400 workers commuting in on an average daily basis, a portion of which would likely be attracted to Transient Oriented Development (TOD) near the SMART Station (Figure 6).

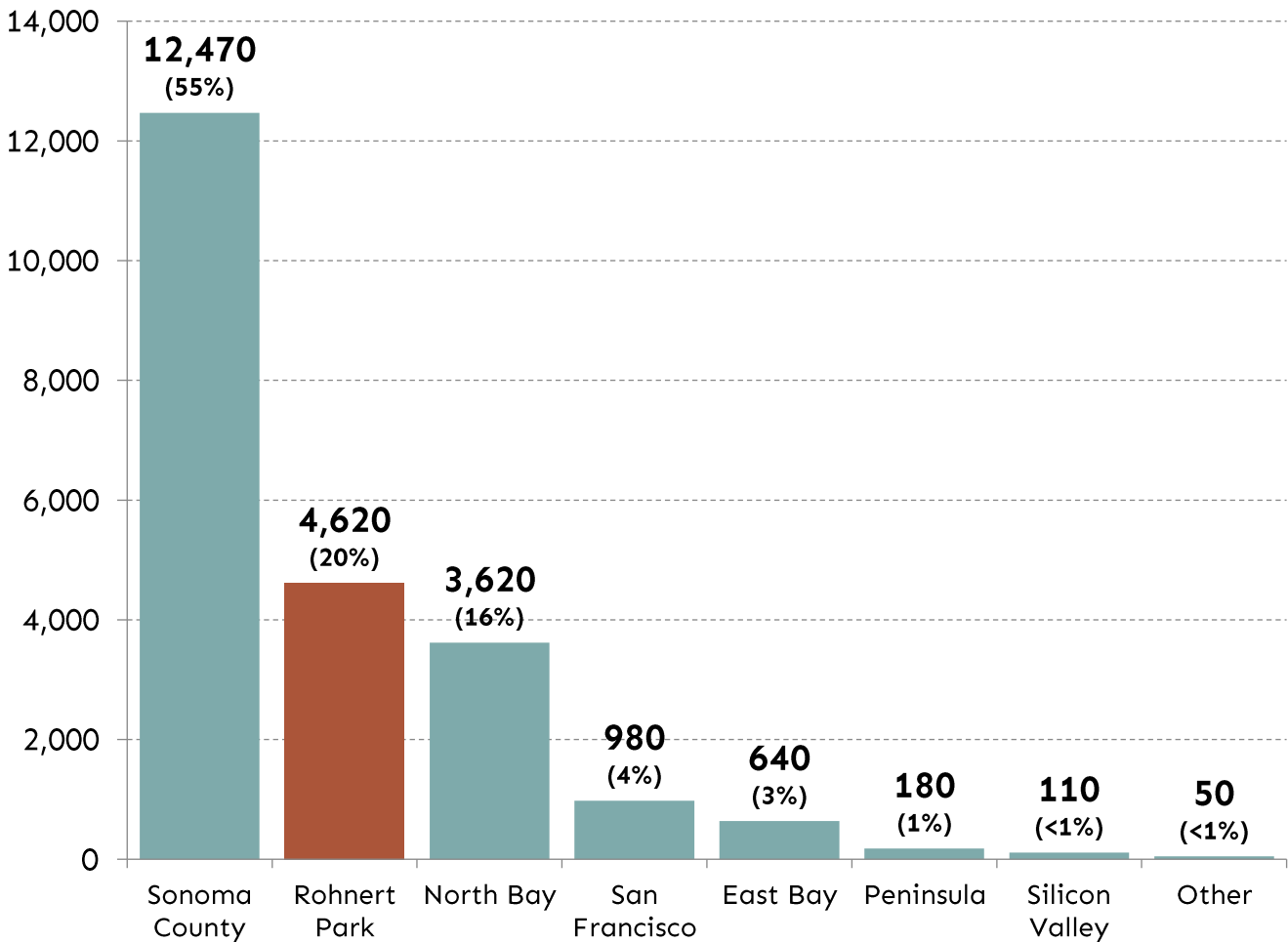
FIGURE 6: COMMUTE PATTERNS FOR ROHNERT PARK, 2017



Source: ADE, Inc., based on US Census ACS 2012-2016, CTPP 2006-2010, and EDD LMID 2017

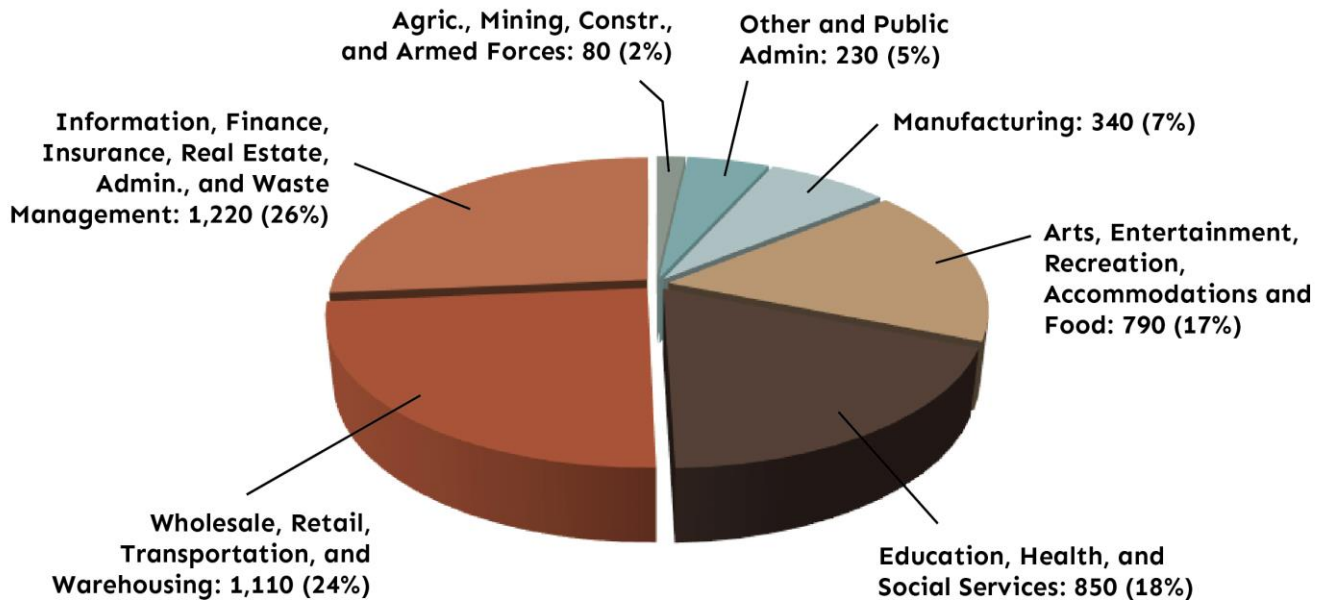
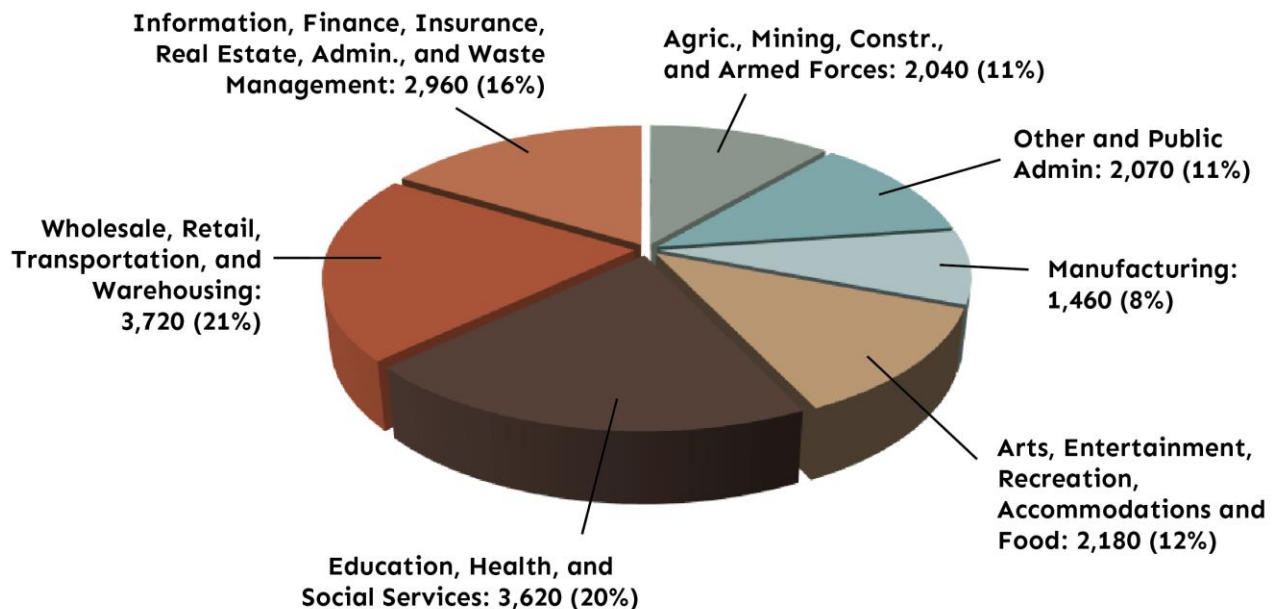
About 55 percent (12,500) of Rohnert Park employed residents work in other parts of Sonoma County, excluding Rohnert Park. More workers commute to San Francisco (1,000) and the Peninsula (200) than to East Bay locations (600); 16 percent (3,600) commute to relatively nearby North Bay counties of Marin, Napa, and Solano (Figure 7).

FIGURE 7: EMPLOYED ROHNERT PARK RESIDENTS AND WHERE THEY WORK



Source: ADE, Inc., based on US Census ACS 2012-2016, CTPP 2006-2010, and EDD LMID 2017

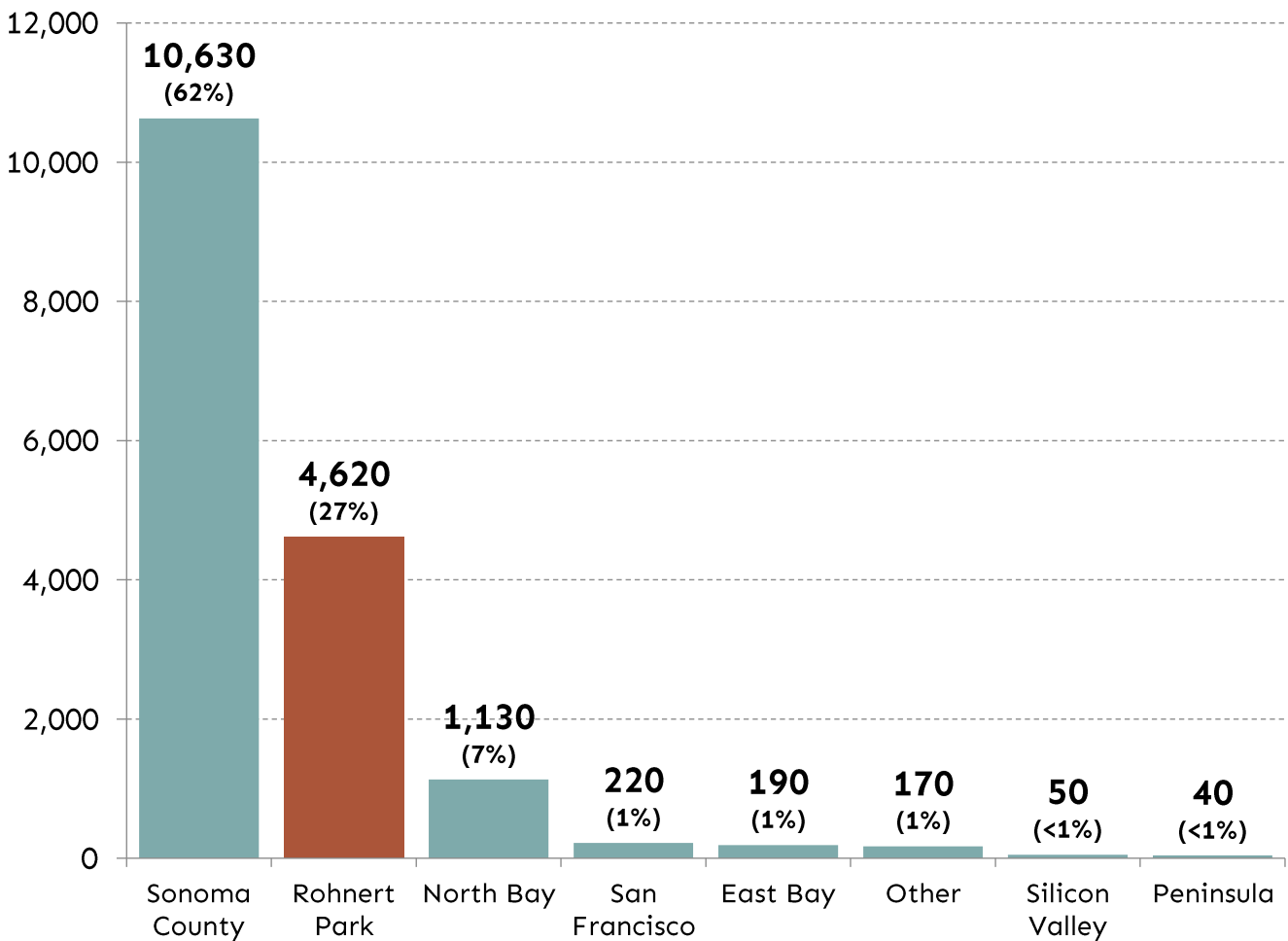
The industries of employment for those who live and work in Rohnert Park vary somewhat when compared to the employment profile for Rohnert Park residents who commute out of the city (Figures 8 and 9). For those who live and work in Rohnert Park, the largest employment sector is office-based jobs in information, finance, professional services and administrative support (26 percent). The second highest employment sector is trade (24 percent), which is mainly retail but also wholesale and transportation, followed by education and health care (18 percent). For residents working outside of the city, the largest employing sector is trade (21 percent), followed by education and health (20 percent). Office-based industries outside of the city are the third largest employers of out-bound Rohnert Park residents (16 percent).

FIGURE 8: RESIDENTS (4,600) THAT LIVE AND WORK IN ROHNERT PARK BY INDUSTRY GROUP**FIGURE 9: RESIDENTS (18,000) WORKING OUTSIDE OF ROHNERT PARK BY INDUSTRY GROUP**

Source: ADE, Inc., based on US Census ACS 2012-2016, CTPP 2006-2010, and EDD LMID 2017

Almost two-thirds of the workers employed in Rohnert Park come from elsewhere within Sonoma County (excluding Rohnert Park). About 27 percent of the workers are residents of Rohnert Park. (Figure 10) Another 1,100 workers come from relatively nearby North Bay counties of Marin, Napa, and Solano.

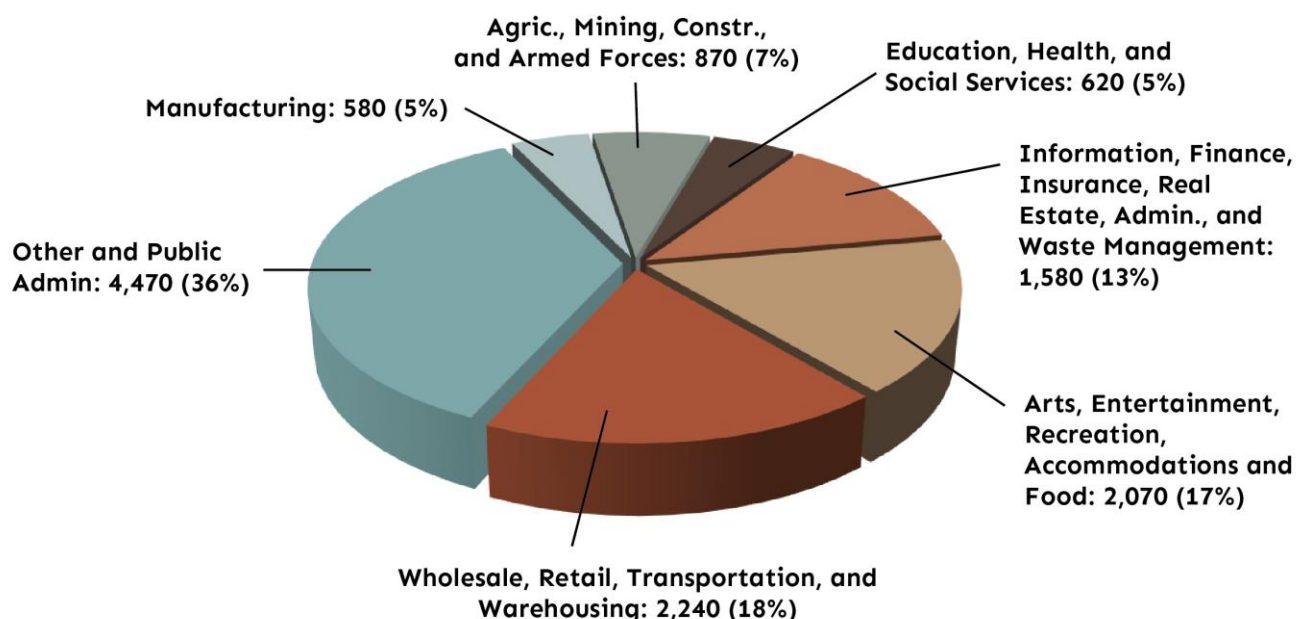
FIGURE 10: PERSONS WORKING IN ROHNERT PARK AND WHERE THEY COME FROM



Source: ADE, Inc., based on US Census ACS 2012-2016, CTPP 2006-2010, and EDD LMID 2017

Figure 11 shows the industry of employment for workers commuting into the city. Comparing that to Figures 8 and 9, the in-commuters are heavily represented in the other services and public administration. There are 4,700 jobs in this broad sector and, of this amount, 95 percent (4,500) are filled by in-commuters. Moreover, of the total number of in-commuters (12,400), other services and public administration is the largest share, at 36 percent. Trade (wholesale, retail, and transportation-warehousing) is the next largest category in terms of the number and share of in-commute workers.

FIGURE 11: IN-COMMUTERS (12,400) BY BROAD ECONOMIC SECTORS



Source: ADE, Inc., based on US Census ACS 2012-2016, CTPP 2006-2010, and EDD LMID 2017

Retail

The retail commercial sector in the city is important for several reasons. The ability of local residents to shop for desirable goods and services in their own town is a major element of the quality of life for any city. In addition, the sales tax generated by retail stores supports a significant portion of the City budget and is fundamental to the fiscal health of the community. Finally, retail centers, particularly restaurants and entertainment venues, help create a sense of place and help define the unique character of Rohnert Park. The City has been particularly focused on its retail sector recently as it plans for a new Downtown at the former State Farm headquarters site, and has commissioned several retail market studies that contribute to the discussion in this whitepaper.

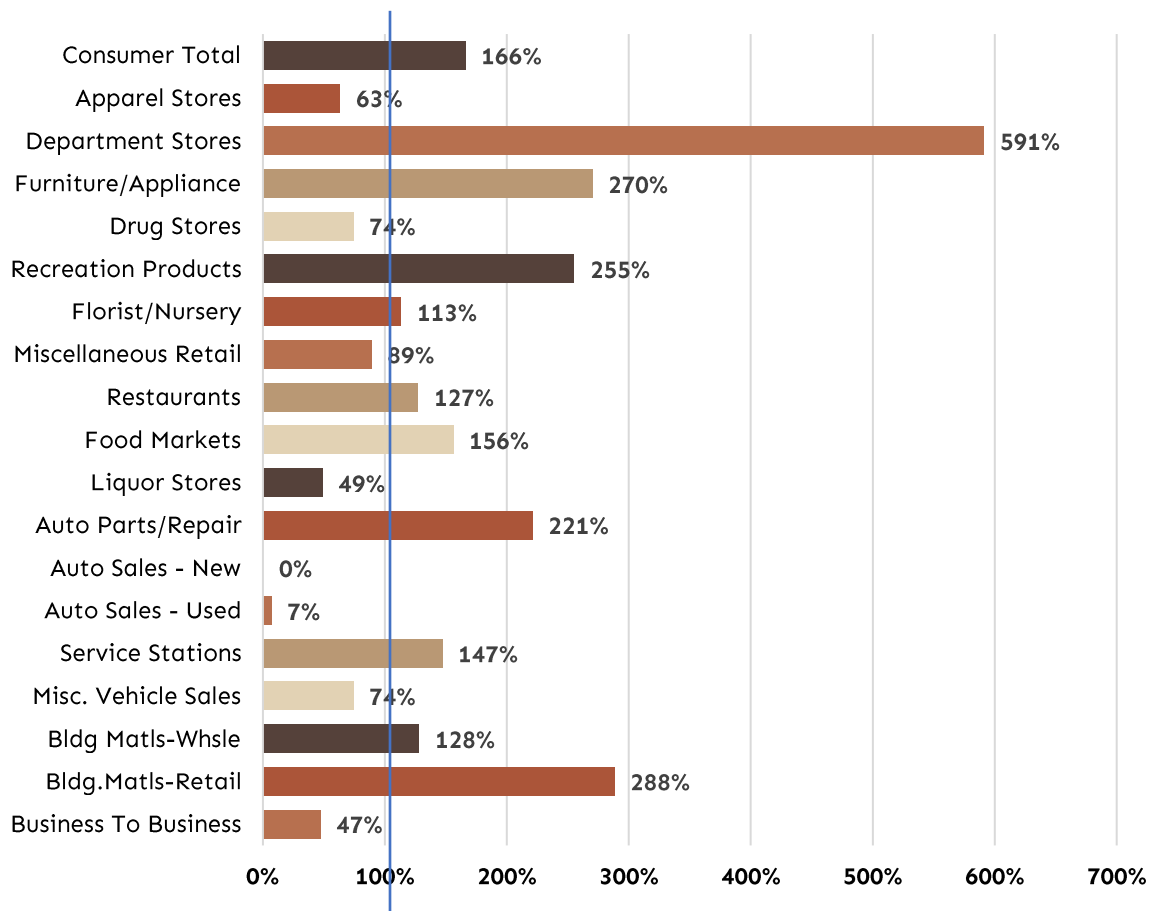
Retail Demand and Supply

The purchasing power in the community is a function of household incomes and demographics, as well as the vitality of the business community. MuniServices monitors sales tax trends for Rohnert Park and reports that in mid-2017 business establishments in the city generated \$681 million in annual taxable sales.

MuniServices estimates that the purchasing power of the residents and businesses in Rohnert Park is about \$483 million, meaning that as a whole the city is capturing an additional \$199 million in taxable sales from shoppers elsewhere in the region as well as visitors (see Appendix Table A-18 for detailed store type sales and estimated demand).

As shown in Figure 12, there is substantial variation in how well different types of stores are meeting local demand. The percentages in the chart show what portion of local demand is being met by Rohnert Park stores. Stores meeting more than 100 percent of demand are drawing sales from shoppers outside Rohnert Park. For example, department and furniture/appliance stores, as well as retail building material stores are exceeding local demand by two to six times, while apparel and drug stores are below the sales expected from local purchasing power. Those store types that are below 100 percent may represent opportunities to attract new stores or expand existing ones, although motor vehicle sales may be an exception. Auto sales typically are concentrated in auto centers with many dealers clustered together. Petaluma and Santa Rosa both have substantial auto sales and it may not be possible at this time for Rohnert Park to attract new dealers.

FIGURE 12: SALES TAX AS A PERCENT OF LOCAL RETAIL DEMAND



Source: ADE, Inc.; data from MuniServices.

Table 5 highlights most of the store types where sales are low, except the transportation category. These store types with existing leakage include apparel, drug stores, liquor stores, miscellaneous retail stores, and business-to-business establishments. Altogether, the estimated shortfall totals about \$69.3 million. Recapturing this leakage would potentially support up to 230,500 SF of retail building space.

The business-to-business category includes office supplies, electronics and a variety of industrial inputs, some of which may be difficult to attract to Rohnert Park. In addition, the apparel category can be difficult to sustain outside of a regional mall setting. But, the table suggests there are some opportunities for retail development in the short-term.

In addition, as the city population and business base grows, additional retail centers will be needed to support demand. Between 2018 and 2040, Rohnert Park is projected to add around 4,600 households. This will result in an increase of about \$88.8 million in retail spending. Not including demand from vehicle dealerships, this increased retail spending would support about 192,100 SF of commercial space.⁶ (Table 6) This increased demand would be in addition to any existing leakage or other unmet retail demand. In addition, a 2010 economic impact study of the California State University system found that out-of-region students at Sonoma State University spent about \$23.8 million annually.⁷ Future increases to the student population, particularly the on-campus residents, would increase this spending accordingly.

It should be noted that these figures are consistent with the projected square footage demand (228,700 SF) that would result from potential job growth in commercial sectors through 2027, when considering both population growth and successful recapture of at least some existing retail leakage. However, the existing development capacity for commercial land uses totals about 1.8 million SF in Rohnert Park, which is well above the projected needs. In addition, there are currently 45,000 SF of retail space, as well as over 200,000 SF of hotel space, permitted or under construction.

In addition, the retail market faces multiple challenges that potentially impact their place in the market. Competition from e-commerce and changes in consumer preferences have begun to contract some segments of the market, which potentially affects the amount of retail space needed, as well as how it is situated physically.

⁶ The supportable square footage is based on sales per square foot benchmarks for individual store types from the Urban Land Institute. The sales per square foot will vary by retail store category.

⁷ California State University; "Working for California: Sonoma State University"; 2010.

Table 5: Existing Retail Sales Leakage and Potential Supportable Retail Space

Rohnert Park, 2017

Business Type	Annual Sales Leakage	Supportable Sq. Ft.
Apparel Stores	\$9,203,000	36,100
Drug Stores	\$4,738,000	9,500
Business to Business	\$49,594,900	165,300
Miscellaneous Retail	\$3,520,100	14,700
Liquor Stores	\$2,237,000	4,900
Total	\$69,293,000	230,500

Source: ADE, Inc., based on data provided by MuniServices.

Table 6: Projected Supportable Retail Space

Rohnert Park, 2018 to 2040

Retail Group	New Household Spending (2018 to 2040)	Supportable Sq. Ft.
Apparel Store Group	\$4,475,500	17,500
General Merchandise Group	\$15,943,100	61,200
Specialty Retail Group	\$4,296,400	17,400
Food, Eating and Drinking Group	\$31,073,800	72,600
Building Materials and Home Furnishings Group	\$6,001,400	13,800
Gasoline Service Stations	\$10,642,000	6,900
Auto Parts & Accessories	\$538,700	2,700
Total	\$88,795,000	192,100

Source: ADE, Inc., based on data from the American Community Survey, Bureau of Labor Statistics, Economic Census, California Department of Finance, and the Urban Land Institute.

The Phase One Retail Strategy the city commissioned at the end of 2017 points out some interesting aspects of the demographic and real estate trends affecting retail in the city. Rohnert Park is growing faster in the younger age groups than are other cities in Sonoma County. This will lead to greater demand for restaurants, entertainment, and “experiential” retail activities that can help add vibrancy to the city’s retail centers. In addition, higher income groups are also growing faster than other groups, generating more disposal income and purchasing power in the future than the current city averages.

In terms of broad retail industry trends that offer opportunities in Rohnert Park, three consumer categories poised for expansive growth include: shoppers who hunt through boutiques looking for unusual purchases, those looking for enjoyable experiences at restaurants and retail outlets, and fitness buffs. The key to capturing these trends is to implement an attractive placemaking design that provides a pedestrian oriented experience at proper scale.

The stakeholder and community outreach for the retail strategy highlighted a number of important observations:

- Rohnert Park has plenty of big box retailers;
- Downtown is a priority;
- Rohnert Park is missing destination retail: clothing stores, boutiques, locally owned businesses;
- The city needs nicer restaurants that have a local feel, as well as more experiential uses like wineries and breweries, music, comedy, theaters (despite the popular city-owned Spreckels Theater and the Green Music Center at SSU); and
- The city needs more entertainment for young people.

Retail Real Estate Conditions

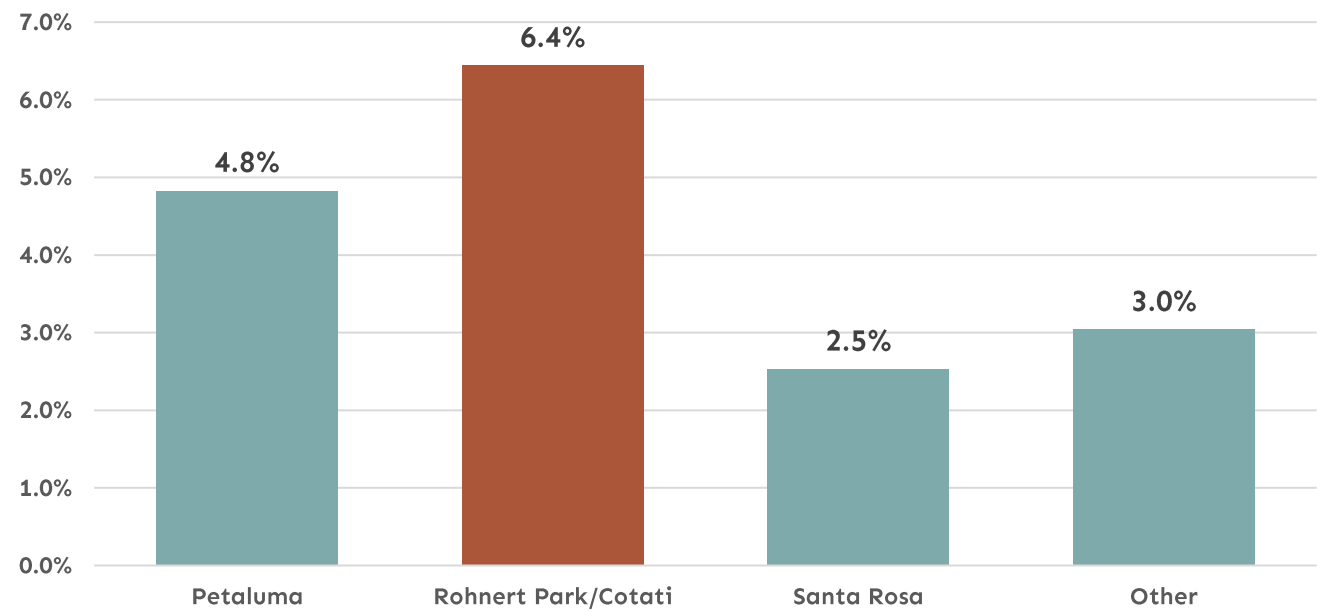
Sonoma County had a total of nearly 18.6 million SF of retail space, as of the 1st Quarter of 2018 (Table A-20). The overall vacancy rate was only about 3.7 percent with about 695,700 SF of total vacant retail space.

When including all types of retail centers and districts, Rohnert Park had a relatively high retail space inventory of nearly 3.3 million SF, with a vacancy rate of 6.4 percent. Among the submarkets in Sonoma County, Rohnert Park had the highest vacancy rate.

At 1.0 million SF, the Expressway Mall, at Rohnert Park Expressway and Labath Avenue in Rohnert Park, is the largest shopping center in Sonoma County. This mall had a below average vacancy rate of only 1.0 percent in the 1st Quarter of 2018. The other large regional center in Rohnert Park is the 350,000 square foot Walmart Plaza, which had a comparatively high vacancy rate (12.7 percent).

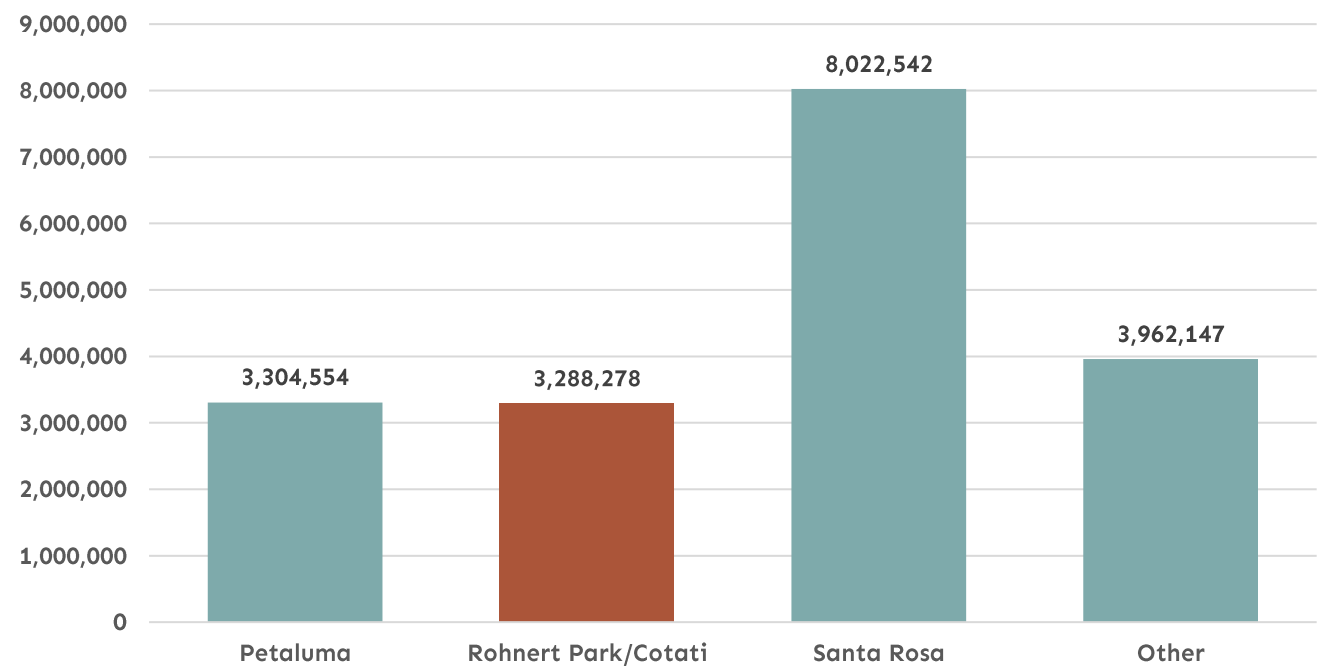
Rohnert Park's neighborhood and community level shopping centers add another nearly 915,000 SF of retail. Compared to other submarkets, these centers have a high vacancy rate of 11.3 percent. In addition, the other 1.0 million SF of retail space in Rohnert Park has a considerably lower vacancy rate of 5.3 percent, compared to regional centers, smaller centers, and other types of retail locations.

Figure 12: Sonoma County Retail Vacancy Rates by Submarket



Source: ADE, Inc.; data from Keegan and Coppin, Inc

FIGURE 13: SONOMA COUNTY RETAIL SQUARE FOOTAGE BY SUBMARKET



Source: ADE, Inc.; data from Keegan and Coppin, Inc.



At 1.0 million SF, the Expressway Mall, at Rohnert Park Expressway and Labath Avenue in Rohnert Park, is the largest shopping center in Sonoma County. Current (2018) retail offerings include: Reading Cinemas, Target, Burlington, Big Lots, PetSmart, 99 Cents Store, JoAnn Fabrics, Fundemonium, Chuck E Cheese's; several restaurants, including Applebee's, Art's Place, Shari's Café and Pies, Subway; and many other stores.

Lodging

With tourism as one of the most prominent industries and job creators in Sonoma County, it is important to identify the market conditions for lodging, which supports and enables tourism. Lodging serves out-of-town visitors, and provides useful services and spaces that local businesses use as well. Rohnert Park, in particular, is situated in a strategic location along the Highway 101 corridor, close to visitor attractions as well as concentrations of office and industrial business activity. Lodging can help create a placemaking opportunity on the west side of the city and also help stimulate the development of Downtown in the center of town. Because of this multifaceted role that lodging serves in Rohnert Park, it is important to understand the extent to which the market can support additional lodging facilities in Rohnert Park and other nearby communities along the Highway 101 corridor.

Altogether, Rohnert Park has a total of 9 hotels and motels with 1,282 rooms (Table A-20). Just over 55 percent room inventory in Rohnert Park is classified as "Upper Midscale" class or above. By comparison, the broader expanded market area that adds Santa Rosa and Petaluma has a total inventory of 4,022 rooms, of which just under 50 percent is classified as "Upper Midscale" class or above. In addition, the Graton resort and casino accounts for 200 out of the 244 rooms in this market that are classified as "Luxury" hotels.

According to Smith Travel Research, the Graton resort and Oxford Suites opened in 2016 and 2017, respectively, with a combined 363 rooms. These were the first hotels added to the inventory in this area since late 2007. These hotels are also the only new hotels that have been added during this time within the expanded market area, including Santa Rosa and Petaluma as well.

Since 2012, lodging demand in both Rohnert Park and the expanded market area has increased at a faster rate than the room supply, with Rohnert Park growing at a slightly faster rate.⁸ (Table A-21) As a result, occupancy rates in Rohnert Park have increased from 68.1 percent in 2012 to 80.9 percent in 2017. During the same period, the occupancy rate for the expanded market area increased from 67.4 percent to 78.2 percent. Average Daily Rate (ADR) has increased from \$76.62 in 2012 to \$141.63 in 2017 in Rohnert Park, while increasing at a somewhat lower rate in the expanded market area (from \$90.26 to \$138.29) during this period. The Revenue per Available Room (RevPAR) for Rohnert Park hotels participating in the Smith Travel Research survey increased from \$52.15 in 2012 to \$114.57 in 2017, while expanding at a slightly slower rate in the expanded market area, going from \$60.87 to \$108.08 during the same period.



Rohnert Park has a total of 9 hotels and motels with 1,282 rooms. Over 55 percent room inventory in Rohnert Park is classified as "Upper Midscale" class or above. Some of the current (2018) lodging offerings in Rohnert Park include the Oxford Suites (upper left), Hampton Inn & Suites (upper right), Double Tree (lower left), and the Graton Resort Hotel (lower right).

⁸ The room supply and demand indicators come from Smith Travel Research. The report is based on a sample of participating properties that includes 859 of the 1,282 total rooms in Rohnert Park, and 2,990 out of the 4,022 total rooms in the expanded market area (Santa Rosa, Rohnert Park, and Petaluma).

Based on these factors, there appears to be potential support for new lodging in Rohnert Park and the surrounding communities. Two hotels have been approved but not yet built in Rohnert Park, totaling 200,665 sq. ft. (estimated 300 rooms).

FISCAL CONSIDERATIONS

Cities in California have few options for raising the revenues they need to provide the level of services expected by their residents. A major focus of many General Plan Updates and economic development strategies is to ensure the continued health of the retail sector and commercial, industrial, and residential property valuations.

The city's economic base provides important benefits in terms of helping to fund municipal services for its residents. Residential and non-residential land uses provide different levels of local tax revenues and also exert differing demands for City services. The two main revenues that cities depend on are property tax and sales tax. Residential uses tend to generate more property taxes while commercial uses are the primary source of sales taxes.

Residential uses require the highest expenditures for services. Comparatively, little service demand is created by non-residential uses, although police protection of retail centers is often higher than for other business uses.

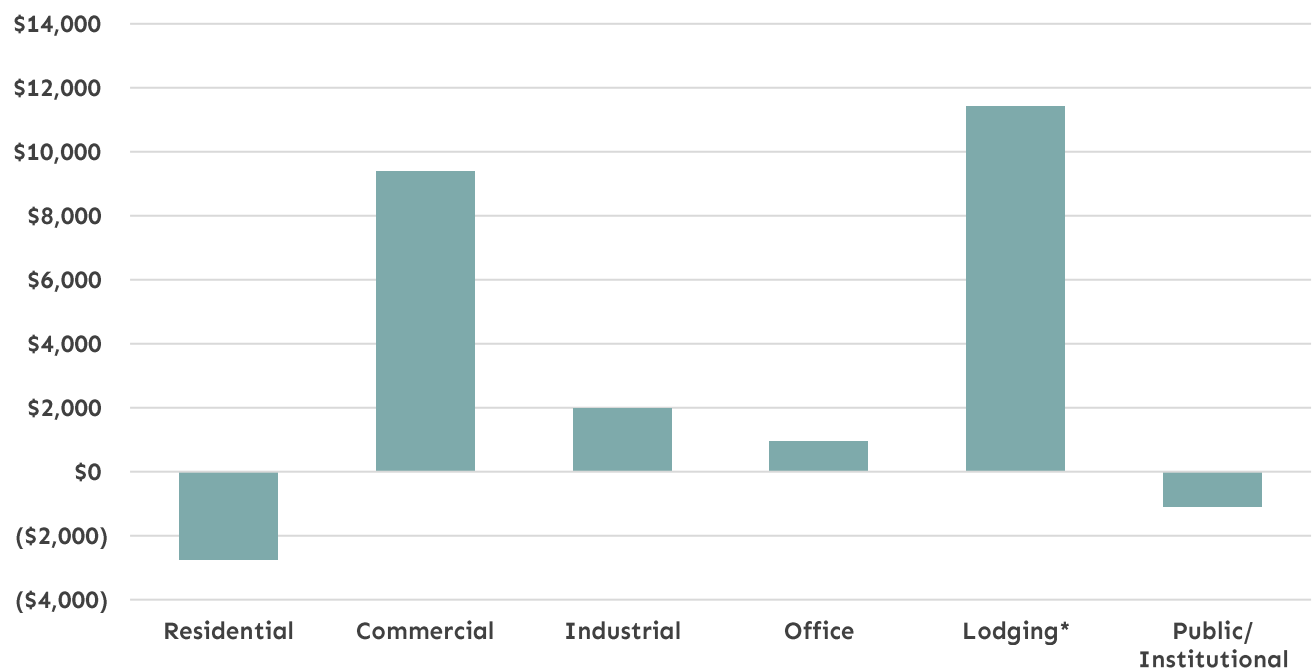
The net effect (see Figure 14) is that most non-residential uses generate surplus revenue over costs for the City's General Fund, which the City uses to help pay for services to the residential neighborhoods. Figure 14 shows the average net revenue or cost for the General Fund **per acre** of development in Rohnert Park. This is typical of most California cities and demonstrates the benefit of having sales tax-producing businesses. In addition to retail and tourism sectors, industrial and office uses typically also contribute significant revenues toward the cost of services in the city.

Industrial development, in addition to the net fiscal benefit in terms of property and sales taxes, and the number and quality of industrial jobs located in the city, provides a significant positive economic impact. Workers' wages are spent at local shops and restaurants and provide a positive multiplier effect for the entire community. Businesses purchase supplies from nearby businesses, further enhancing the multiplier effect.

The average assessed value per residential unit in Rohnert Park is estimated at about \$240,000, including multifamily apartments. It is estimated that if the average assessed value were \$480,000, then the residential neighborhoods would cover the cost of municipal services. It is likely that newer housing that sells at this price or higher does initially generate enough revenue to pay for the services residents consume. Over time, however, due to Prop 13 and other property tax restrictions, the revenue from housing will grow much slower than municipal expenses, resulting in insufficient revenue from housing to provide municipal services. It is therefore important to attract retailers that generate sales tax revenue and lodging establishments that generate transient occupancy tax revenue. It is also important to have a mix of housing unit types and prices that are affordable to all income groups in the community and for the City to plan for a sound balance of residential and non-residential land uses to maintain a strong fiscal foundation. The City has received developer proposals to convert commercial or industrial land to residential uses. These proposals need to be evaluated in the context of the overall City land use mix, as well as the specific site characteristics that

pertain to each proposal. In the Alternatives Phase of the General Plan Update, the balance of fiscal concerns with the need to provide a diverse housing mix will be evaluated in more detail.

FIGURE 14: TYPICAL NET FISCAL IMPACT BY LAND USE (\$000's PER ACRE)



Source: ADE, Inc.

CONCLUSION

Forward Opportunities

While this whitepaper is focused on Rohnert Park current market conditions and data points, it may be instructive to provide a synthesis of this data, through a forward-looking lens. Given disruption underway in retail, housing, hospitality and employment, some of the standard industry metrics used in the past may be less relevant as we look forward two decades. There is value in trying to anticipate the implications of forthcoming disruptors such as autonomous vehicles, online retailing and the housing needs –and limitations – of millennials. The following is a quick synopsis of some of these trends and the opportunities they may provide Rohnert Park, when combined with the findings of this paper.

Changing purpose, face and form of retail – the transition of brick and mortar retail to new formats is happening much as expected, but only in certain sectors. The entry of online retailers into the brick and mortar market has started to counteract some of the downsizing occurring among other retailers. It is unlikely that people will rely 100% on the internet for all shopping needs, but a clear shift is occurring away from utilitarian purchases in mundane strip centers, and more time spent engaged in experiential retail. This means well located centers, that have focused on creating distinctive places and curated tenant mix will continue to be rewarded with solid sales figures and activity. Traditional strip centers, and some big box

retail, may see declining relevance and demand as witnessed by the high vacancy numbers in some of RP's older generation centers. While standard econometric projections can be used to extrapolate future generic retail demand, it does not mean currently vacant space can simply be re-purposed to fill this need. Some sites may be poorly located, or of a form and character that is inconsistent with experiential, place-based retail demands. These sites may fall prey to functional obsolescence and might ultimately be better suited for redevelopment into something other than retail, as demand shrinks. Other sites, that are well located to alternative transportation routes (transit, bike and walking) have the potential to thrive while helping to improve the quality of life in Rohnert Park. Undeveloped sites such as the University District Mixed Use Parcel, and the proposed Station Center redevelopment offer the opportunity to create a real sense of place and differentiated offering amidst Rohnert Park's automobile focused retail centers.

The Graton Casino offers a large entertainment venue that draws significant numbers of visitors to Rohnert Park. The Casino attempts to offer a complete experience to its patrons and has not engaged with the City to broaden its marketing to include other venues and attractions in Rohnert Park. However, it would be in the City's interest to attract these visitors to new retail centers in the City as well as other entertainment and recreation such as golf and the performing arts centers. If the Casino management should express an interest in the future in joint marketing efforts with the City, the City may wish to explore such possibilities.

Downtown Office Development. Just as the face of retail is changing, so too the nature of the workplace has been transformed by many newer companies. As discussed earlier in the market analysis, an opportunity exists to build more contemporary office developments in the Station Center project. In addition, older existing office space in the Downtown planning area may redevelop into more modern building types to attract different kinds of companies than have traditionally located in Rohnert Park. These firms are not only looking for alternate floor plans and onsite amenities but also an ecosystem of public spaces, casual entertainment, food options and interesting locales for after work activities. The daytime employment this would bring to Downtown Rohnert Park would also contribute to supporting a robust restaurant and retail sector. Further analysis of the office market opportunities in Rohnert Park will occur in the Alternatives Phase of the General Plan Update process.

Sonoma State University – Talent Magnet, Branding and Amenity – as our economy shifts from industry to knowledge services, the value of higher education in any community is immeasurable. More than just employment and enhanced spending power, the presence of a higher education campus – especially one endowed with the beauty of SSU – can be a key element of the community's identity and way-of-life (think Davis, CA). The university already generates an economic impact of about \$330 million on the regional economy. SSU appears to be a significantly undervalued asset for Rohnert Park, hidden off on the eastern reaches and rarely integrated physically or economically. And yet with acclaimed facilities such as the Green Music Center and proposed Mondavi Wine Center, it has an opportunity to be recognized as more than just a campus, but a center of culture that is uniquely Sonoma County.

In an era where higher education, and continued learning, is a given for career growth of millennials; and lifelong learning is a highly sought-after lifestyle amenity for retiring boomers; SSU provides a one-of-a-kind amenity and lifestyle branding element for Rohnert Park. Add in the energy, spirit and vitality youthful students can bring to town center and entertainment retail, SSU should be seen as an important component of the city's Economic Development strategy. This could include more intentional co-marketing and signage to let people know the campus exists, more collaborative and integrated use of faculty in community

programs and efforts, to exploration of a 'downtown annex' that provides the vitality and urban energy many millennials are seeking, while spurring economic success of new businesses.

Changing Housing Norms – Rohnert Park's built environment has emerged from an era, and building typology, that gives it a one-dimensional character. The predominance of multifamily housing has created an affordable community, but lacks the diversity, texture and capacity for 'aging in place' or 'move-up' that many enduring communities enjoy. Well balanced communities would typically include split of housing mix of 25-30% multifamily and 70-75% single-family. Rohnert Park's 55/45 mix has made housing more affordable, but as many of these units were built in a similar timeframe, reflect one period of market need. The city's housing stock could be seen to lack the options and variety of products necessary to meet future needs of changing households, including multi-generational housing, single parent households, move-up families, or downsizing empty nesters. To some extent, these needs are being met in the new developments proceeding now in Rohnert Park. However, as the market evolves, new housing typologies may be proposed and it will be important for the City development code to provide flexibility for new housing models.

Active/ Healthy Design – As the City proceeds with the development of its Downtown, it is important to recognize that quality of life elements can often support economic development goals. With rising interest in alternative mobility options and active design techniques, Rohnert Park's trail, rail and pedestrian systems offer an opportunity to enhance the consumer experience there just as contemporary retail and office development will help stimulate new kinds of business growth in the City. Other communities are successfully leveraging their trail systems as armatures to attract new investment, create better places to live and add to the depth and vibrancy of their communities.⁹ Mobility improvements will be addressed in the Circulation Element of the General Plan.

KEY TERMS

Compound Annual Growth Rate (CAGR). The CAGR is the annual year to year growth rate during a period of time.

Covered Employment. This refers to jobs created by entities that pay into the national unemployment insurance program. The unemployment insurance data provides the most complete and detailed tracking information about job trends. This includes the vast majority of employees, but does not include self-employment, business proprietors, and specific sectors, such as railroads, that have self-supporting unemployment programs.

Economic Base Industries. These industries drive regional economic growth because the income they generate by selling outside of the area is then circulated throughout the local area in the form of wages and salaries, investments, purchase of fixed assets, and goods and services, generating more jobs and wealth.

Emerging Industries. Industries that are growing locally faster than the statewide average for their industry, but who currently have a location quotient of less than 1.0, meaning that they represent a lower share of local employment than they do of statewide employment. Often these industries continue to grow and become the next generation of economic base industries.

⁹ Urban Land Institute. *Active Transportation and Real Estate: The New Frontier*. 2016. p. 4.

Employment Concentration (Location Quotient [LQ]). The relative share of employment in an industry in the local economy compared to the same industry statewide. A locational quotient (LQ) of 1.0 means that an industry locally has the same proportion of total employment as it does statewide. An LQ greater than 1.0 means the industry is more concentrated locally than in the state economy and therefore exhibits competitive advantages in the local area.

Industry Employment. Full-time and part-time workers (including employees on paid vacation or paid sick leave) who work or receive compensation from establishments for any part of the pay period including the 12th of the month. Those workers involved in labor-management disputes are excluded. This is a count of the number of jobs, and is available by industry. (Employment Development Department)

Labor Force. The labor force includes all persons classified as employed or unemployed. (Bureau of Labor Statistics)

Relative Growth (Shift-share). The relative growth in employment in local industries compared to the same industries statewide. A positive shift-share means that the local industry grew faster than its counterpart statewide.

Sector. A group of related business types that constitute a broad category in the economy.

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APPENDIX: DATA TABLES

Table A-1: Rohnert Park Population and Housing Trends, January 2010-January 2018

Year	Population			Housing Units							Vacancy Rate	Persons per Household
	Total	Household	Group Quarters	Total	Single Detached	Single Attached	Two to Four	Five Plus	Mobile Homes	Occupied		
2010	40,794	40,574	220	16,551	7,562	1,467	1,289	4,683	1,550	15,808	4.5%	2.57
2011	40,794	40,751	43	16,551	7,562	1,467	1,289	4,683	1,550	15,912	3.9%	2.56
2012	41,124	41,081	43	16,551	7,562	1,467	1,289	4,683	1,550	16,057	3.0%	2.56
2013	41,433	41,390	43	16,551	7,562	1,467	1,289	4,683	1,550	16,091	2.8%	2.57
2014	41,689	41,646	43	16,551	7,562	1,467	1,289	4,683	1,550	16,125	2.6%	2.58
2015	42,325	42,282	43	16,551	7,562	1,467	1,289	4,683	1,550	16,258	1.8%	2.60
2016	42,586	42,543	43	16,817	7,562	1,490	1,291	4,924	1,550	16,590	1.4%	2.56
2017	42,490	42,447	43	16,864	7,583	1,490	1,291	4,950	1,550	16,541	1.9%	2.57
2018	43,598	43,555	43	17,015	7,698	1,490	1,327	4,950	1,550	16,593	2.5%	2.62

Source: California Department of Finance, 2018 E-5 Report 2010 to 2018 and Rohnert Park Growth Management Program. Data for 2015-2017.

Table A-2: Sonoma County Population and Housing Trends, 2010-2018

Year	Population			Housing Units							Vacancy Rate	Persons per Household
	Total	Household	Group Quarters	Total	Single Detached	Single Attached	Two to Four	Five Plus	Mobile Homes	Occupied		
2010	483,878	473,835	10,043	204,572	140,376	14,325	13,421	25,086	11,364	185,825	9.2%	2.55
2011	485,538	475,167	10,371	204,838	140,559	14,328	13,440	25,134	11,377	186,781	8.8%	2.54
2012	487,954	477,233	10,721	205,363	140,823	14,364	13,448	25,342	11,386	187,742	8.6%	2.54
2013	491,980	481,234	10,746	205,865	141,095	14,386	13,494	25,489	11,401	188,291	8.5%	2.56
2014	495,864	485,086	10,778	206,537	141,417	14,441	13,509	25,758	11,412	189,010	8.5%	2.57
2015	500,083	489,646	10,437	206,902	141,689	14,454	13,523	25,808	11,428	189,432	8.4%	2.58
2016	502,475	492,076	10,399	207,406	141,957	14,479	13,527	26,002	11,441	190,295	8.3%	2.59
2017	504,613	494,204	10,409	208,053	142,151	14,531	13,553	26,374	11,444	190,699	8.3%	2.59
2018	503,332	493,014	10,318	203,579	137,394	14,621	13,599	26,520	11,445	186,676	8.3%	2.64

Source: California Department of Finance, 2018 E-5 Report.

Table A-3: Household Type, 2010-2018, Rohnert Park, Sonoma County and California

Jurisdiction	Time	All Households	Married-couple family household	Male householder, no wife present, family household	Female householder, no husband present, family household	Nonfamily household
Rohnert Park	*CAGR	0.5%	-0.2%	6.6%	0.4%	-0.7%
	2018	16,399	41.3%	6.3%	12.5%	40.0%
	2010	15,808	41.9%	3.8%	12.1%	42.2%
Sonoma County	CAGR	0.1%	-0.2%	0.2%	0.7%	0.0%
	2018	186,676	47.5%	5.4%	10.6%	36.6%
	2010	185,825	48.1%	5.3%	10.0%	36.6%
California	CAGR	0.5%	-0.1%	0.4%	0.2%	-0.1%
	2018	13,113,840	49.3%	6.0%	13.5%	31.3%
	2010	12,568,167	49.6%	5.8%	13.2%	31.4%

Source: ADE, Inc, based on California Dept. of Finance E-5 Reports and US Census ACS 5-year samples (2007-2011 and 2012-2016) Tables B11001. *Note: CAGR = compound annual growth rate. CAGR based on discrete actual numbers.

TABLE A-4: NUMBER OF PERSONS DISTRIBUTED BY AGE CATEGORIES: IN ROHNERT PARK, SONOMA COUNTY, AND CALIFORNIA

Jurisdiction	Year	All Persons	Median Age	Age Group						
				<5	5 - 19	20 - 24	25 - 34	35 - 54	55 - 64	65+
Rohnert Park	*CAGR	0.8%	--na	2.0%	-1.4%	1.3%	2.7%	0.3%	0.5%	2.5%
	2018	43,598	33.6	6.4%	15.8%	13.1%	16.6%	25.2%	11.9%	11.0%
	2010	40,794	33.4	5.8%	18.9%	12.6%	14.3%	26.4%	12.3%	9.7%
Sonoma County	CAGR	0.5%	--na	-0.8%	-0.5%	0.1%	1.0%	-0.5%	1.1%	3.1%
	2018	503,332	41.2	5.3%	17.8%	6.4%	13.0%	26.1%	14.6%	16.8%
	2010	483,878	39.7	5.9%	19.2%	6.6%	12.5%	28.3%	13.9%	13.7%
California	CAGR	0.8%	--na	0.1%	0.0%	1.0%	1.3%	0.2%	2.1%	2.5%
	2018	39,809,693	36.0	6.5%	20.0%	7.5%	14.8%	26.9%	11.7%	12.9%
	2010	37,253,956	35.1	6.9%	21.3%	7.4%	14.3%	28.2%	10.6%	11.3%

Source: ADE, Inc, based on California Dept. of Finance E-5 Reports and US Census ACS 5-year samples (2007-2011 and 2012-2016) Tables B01001 and B01002. *Note: CAGR = compound annual growth rate. CAGR based on discrete, actual numbers.

Table A-5: Number of Occupied and Vacant Housing Units, Including Homeownership Rate: in Rohnert Park, Sonoma County, and California

Jurisdiction	Time	Total Units	Total Occupied Units	Owner-Occupied Units	Renter-Occupied Units	Vacant Units
Rohnert Park	*CAGR	0.2%	0.5%	0.04%	0.9%	-7.0%
	2018	16,816	16,399	52.3%	47.7%	417
	2010	16,551	15,808	54.1%	45.9%	743
Sonoma County	CAGR	-0.1%	0.1%	-0.3%	0.7%	-1.3%
	2018	203,579	186,676	59.7%	40.3%	16,903
	2010	204,572	185,825	61.5%	38.5%	18,747
California	CAGR	0.4%	0.5%	-0.1%	1.3%	-0.7%
	2018	14,157,590	13,113,840	54.1%	45.9%	1,043,750
	2010	13,670,304	12,568,167	56.7%	43.3%	1,102,137

Source: ADE, Inc, based on California Dept. of Finance E-5 Reports and US Census ACS 5-year samples (2007-2011 and 2012-2016)
 Tables B25002 and B25003. *Note: CAGR = compound annual growth rate. CAGR based on discrete, actual numbers.

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Table A-6: Overall Employment Trend and Projections, 2007 to 2027

Location	2007 Jobs	2017 Jobs	2027 Jobs (Proj.)	2017 Wages & Salaries	2007 to 2017 Job Change	2017 to 2027 Job Change	2007 to 2017 CAGR	2017 to 2027 CAGR (Proj.)
Sonoma County	193,600	204,711	229,085	\$51,500	11,111	24,374	0.6%	1.1%
Marin County	108,656	115,037	127,942	\$67,965	6,381	12,905	0.6%	1.1%
Rohnert Park	14,370	15,102	16,639	\$44,906	732	1,537	0.5%	1.0%
Santa Rosa	87,766	90,320	100,051	\$50,916	2,554	9,731	0.3%	1.0%
Petaluma	31,584	35,862	41,780	\$59,805	4,278	5,918	1.3%	1.5%
Novato	23,631	25,940	29,902	\$80,005	2,309	3,962	0.9%	1.4%
San Rafael	38,137	41,290	46,122	\$65,694	3,153	4,832	0.8%	1.1%

Source: EMSI

Notes: CAGR represents the compounded average growth rate.

Geographic boundaries for cities are based on ZIP code aggregations and might not exactly match the incorporated city limits.

The job counts include the covered employment from the Quarterly Census of Employment and Wages, and do not include self-employment and non-covered jobs.

Table A-7: Rohnert Park Employment Trend and Projections by Industry, 2007 to 2027

NAICS	Description	2017 Jobs	2027 Jobs	2007 to 2017 Job Change	2017 to 2027 Job Change	2007 to 2017 CAGR	2017 to 2027 CAGR
	Rohnert Park Total	15,102	16,639	732	1,537	0.5%	1.0%
11	Agriculture, Forestry, Fishing and Hunting	31	28	(3)	(3)	-0.9%	-1.0%
21	Mining, Quarrying, and Oil and Gas Extraction	0	0	0	0	n/a	n/a
22	Utilities	149	213	138	64	29.4%	3.6%
23	Construction	523	617	(56)	94	-1.0%	1.7%
31	Manufacturing	880	919	84	39	1.0%	0.4%
42	Wholesale Trade	459	460	(62)	1	-1.3%	0.0%
44	Retail Trade	2,518	2,761	138	243	0.6%	0.9%
48	Transportation and Warehousing	131	129	24	(2)	2.1%	-0.1%
51	Information	479	607	209	129	5.9%	2.4%
52	Finance and Insurance	211	198	(80)	(14)	-3.2%	-0.7%
53	Real Estate and Rental and Leasing	317	389	54	71	1.9%	2.0%
54	Professional, Scientific, and Technical Services	473	400	(750)	(73)	-9.1%	-1.7%
55	Management of Companies and Enterprises	98	108	22	11	2.6%	1.1%
56	Administrative and Support Services	823	934	87	111	1.1%	1.3%
61	Educational Services	86	103	13	17	1.7%	1.8%
62	Health Care and Social Assistance	1,202	1,541	623	339	7.6%	2.5%
71	Arts, Entertainment, and Recreation	454	593	223	140	7.0%	2.7%
72	Accommodation and Food Services	2,278	2,596	405	318	2.0%	1.3%
81	Other Services (except Public Administration)	622	693	29	71	0.5%	1.1%
90	Government	3,288	3,210	(439)	(78)	-1.2%	-0.2%
99	Unclassified Industry	80	140	n/a	59	n/a	5.7%

Source: EMSI

Notes: CAGR represents the compounded average growth rate.

Geographic boundaries for cities are based on ZIP code aggregations and might not exactly match the incorporated city limits. The job counts include the covered employment from the Quarterly Census of Employment and Wages, and do not include self-employment and non-covered jobs.

Table A-8: Rohnert Park Wages and Employment Indicators, 2007 to 2017

NAICS	Description	2017 Wages & Salaries	Location Quotient 2017	Shift-Share 2017
	Rohnert Park Total	\$44,906	1.00	-3.3%
11	Agriculture, Forestry, Fishing and Hunting	\$39,971	0.08	-18.1%
21	Mining, Quarrying, and Oil and Gas Extraction	\$0	0.00	n/a
22	Utilities	\$132,665	2.88	1212.4%
23	Construction	\$58,786	0.74	1.0%
31	Manufacturing	\$74,341	0.76	21.1%
42	Wholesale Trade	\$63,196	0.72	-12.0%
44	Retail Trade	\$31,080	1.69	6.2%
48	Transportation and Warehousing	\$44,182	0.27	-3.3%
51	Information	\$69,804	1.03	66.8%
52	Finance and Insurance	\$77,759	0.43	-15.7%
53	Real Estate and Rental and Leasing	\$54,524	1.27	21.5%
54	Professional, Scientific, and Technical Services	\$63,205	0.44	-76.4%
55	Management of Companies and Enterprises	\$104,845	0.48	18.7%
56	Administrative and Support Services	\$37,206	0.85	2.2%
61	Educational Services	\$26,362	0.31	-1.4%
62	Health Care and Social Assistance	\$30,095	0.61	45.0%
71	Arts, Entertainment, and Recreation	\$23,771	1.68	75.4%
72	Accommodation and Food Services	\$22,093	1.58	-2.8%
81	Other Services (except Public Administration)	\$38,339	1.33	31.9%
90	Government	\$55,713	1.50	-13.0%
99	Unclassified Industry	\$43,156	0.90	n/a

Source: EMSI

Notes: CAGR represents the compounded average growth rate.

Geographic boundaries for cities are based on ZIP code aggregations and might not exactly match the incorporated city limits.

The job counts include the covered employment from the Quarterly Census of Employment and Wages, and do not include self-employment and non-covered jobs.

Table A-9: Sonoma County Employment Trend and Projections by Industry, 2007 to 2027

NAICS	Description	2017 Jobs	2027 Jobs	2007 to 2017 Job Change	2017 to 2027 Job Change	2007 to 2017 CAGR	2017 to 2027 CAGR
	Sonoma County Total	204,711	229,085	11,111	24,374	0.6%	1.1%
11	Agriculture, Forestry, Fishing and Hunting	6,172	6,050	383	(122)	0.6%	-0.2%
21	Mining, Quarrying, and Oil and Gas Extraction	132	125	(79)	(7)	-4.6%	-0.5%
22	Utilities	698	654	(129)	(43)	-1.7%	-0.6%
23	Construction	12,756	14,946	(1,478)	2,190	-1.1%	1.6%
31	Manufacturing	22,672	23,846	688	1,174	0.3%	0.5%
42	Wholesale Trade	7,520	8,414	(215)	894	-0.3%	1.1%
44	Retail Trade	25,019	27,414	1,039	2,394	0.4%	0.9%
48	Transportation and Warehousing	3,259	3,028	(491)	(232)	-1.4%	-0.7%
51	Information	2,680	2,812	(328)	133	-1.1%	0.5%
52	Finance and Insurance	6,423	7,542	(5)	1,119	0.0%	1.6%
53	Real Estate and Rental and Leasing	3,369	4,143	529	774	1.7%	2.1%
54	Professional, Scientific, and Technical Services	8,392	8,233	(3,912)	(160)	-3.8%	-0.2%
55	Management of Companies and Enterprises	2,287	2,532	500	245	2.5%	1.0%
56	Administrative and Support Services	10,259	11,510	981	1,251	1.0%	1.2%
61	Educational Services	1,996	1,902	(169)	(95)	-0.8%	-0.5%
62	Health Care and Social Assistance	31,251	39,511	10,601	8,260	4.2%	2.4%
71	Arts, Entertainment, and Recreation	3,943	4,484	909	541	2.7%	1.3%
72	Accommodation and Food Services	21,433	24,355	3,572	2,922	1.8%	1.3%
81	Other Services (except Public Administration)	6,918	7,639	(1,104)	721	-1.5%	1.0%
90	Government	26,447	28,072	(1,148)	1,624	-0.4%	0.6%
99	Unclassified Industry	1,085	1,874	966	790	24.7%	5.6%

Source: EMSI

Notes: CAGR represents the compounded average growth rate.

Geographic boundaries for cities are based on ZIP code aggregations and might not exactly match the incorporated city limits. The job counts include the covered employment from the Quarterly Census of Employment and Wages, and do not include self-employment and non-covered jobs.

Table A-10: Sonoma County Wages and Employment Indicators, 2007 to 2017

NAICS	Description	2017 Wages & Salaries	Location Quotient 2017	Shift-Share 2017
	Sonoma County Total	\$51,500	1.00	-2.6%
11	Agriculture, Forestry, Fishing and Hunting	\$37,809	1.21	-2.6%
21	Mining, Quarrying, and Oil and Gas Extraction	\$70,496	0.55	-16.9%
22	Utilities	\$132,625	0.99	-16.0%
23	Construction	\$64,268	1.33	0.3%
31	Manufacturing	\$68,544	1.45	13.7%
42	Wholesale Trade	\$66,046	0.87	-2.9%
44	Retail Trade	\$34,943	1.24	4.7%
48	Transportation and Warehousing	\$54,105	0.50	-39.3%
51	Information	\$67,290	0.43	-21.4%
52	Finance and Insurance	\$78,870	0.98	11.7%
53	Real Estate and Rental and Leasing	\$51,559	1.00	19.4%
54	Professional, Scientific, and Technical Services	\$71,897	0.57	-46.9%
55	Management of Companies and Enterprises	\$104,592	0.83	17.0%
56	Administrative and Support Services	\$39,005	0.78	1.0%
61	Educational Services	\$37,363	0.53	-27.8%
62	Health Care and Social Assistance	\$55,314	1.16	-11.3%
71	Arts, Entertainment, and Recreation	\$24,642	1.08	8.6%
72	Accommodation and Food Services	\$22,831	1.10	-4.4%
81	Other Services (except Public Administration)	\$36,348	1.09	13.2%
90	Government	\$56,531	0.89	-5.4%
99	Unclassified Industry	\$43,156	0.89	718.4%

Source: EMSI

Notes: CAGR represents the compounded average growth rate.

Geographic boundaries for cities are based on ZIP code aggregations and might not exactly match the incorporated city limits.

The job counts include the covered employment from the Quarterly Census of Employment and Wages, and do not include self-employment and non-covered jobs.

Table A-11: Marin County Employment Trend and Projections by Industry, 2007 to 2027

NAICS	Description	2017 Jobs	2027 Jobs	2007 to 2017 Job Change	2017 to 2027 Job Change	2007 to 2017 CAGR	2017 to 2027 CAGR
	Marin County Total	115,037	127,942	6,381	12,905	0.6%	1.1%
11	Agriculture, Forestry, Fishing and Hunting	335	201	(180)	(135)	-4.2%	-5.0%
21	Mining, Quarrying, and Oil and Gas Extraction	<10	<10	Insf. Data	Insf. Data	Insf. Data	Insf. Data
22	Utilities	323	353	100	30	3.8%	0.9%
23	Construction	7,001	7,661	(1,305)	660	-1.7%	0.9%
31	Manufacturing	4,695	7,134	2,583	2,439	8.3%	4.3%
42	Wholesale Trade	2,614	2,825	(95)	211	-0.4%	0.8%
44	Retail Trade	14,207	14,652	(456)	445	-0.3%	0.3%
48	Transportation and Warehousing	1,128	1,228	162	100	1.6%	0.8%
51	Information	2,627	3,005	281	378	1.1%	1.4%
52	Finance and Insurance	3,724	3,422	(2,586)	(302)	-5.1%	-0.8%
53	Real Estate and Rental and Leasing	2,123	1,960	(528)	(162)	-2.2%	-0.8%
54	Professional, Scientific, and Technical Services	9,287	8,969	(1,766)	(318)	-1.7%	-0.3%
55	Management of Companies and Enterprises	2,263	2,407	101	144	0.5%	0.6%
56	Administrative and Support Services	5,813	5,672	(611)	(141)	-1.0%	-0.2%
61	Educational Services	3,797	4,300	747	503	2.2%	1.3%
62	Health Care and Social Assistance	16,484	20,362	4,058	3,878	2.9%	2.1%
71	Arts, Entertainment, and Recreation	3,120	3,540	370	420	1.3%	1.3%
72	Accommodation and Food Services	13,225	15,012	2,889	1,787	2.5%	1.3%
81	Other Services (except Public Administration)	5,931	6,391	(57)	459	-0.1%	0.7%
90	Government	15,398	17,257	1,823	1,860	1.3%	1.1%
99	Unclassified Industry	938	1,588	847	650	26.3%	5.4%

Source: EMSI

Notes: CAGR represents the compounded average growth rate.

Geographic boundaries for cities are based on ZIP code aggregations and might not exactly match the incorporated city limits. The job counts include the covered employment from the Quarterly Census of Employment and Wages, and do not include self-employment and non-covered jobs.

Table A-12: Marin County Wages and Employment Indicators, 2007 to 2017

NAICS	Description	2017 Wages & Salaries	Location Quotient 2017	Shift-Share 2017
	Marin County Total	\$67,965	1.00	-2.5%
11	Agriculture, Forestry, Fishing and Hunting	\$39,344	0.12	-44.1%
21	Mining, Quarrying, and Oil and Gas Extraction	Insf. Data	Insf. Data	Insf. Data
22	Utilities	\$224,023	0.82	44.7%
23	Construction	\$71,043	1.30	-5.0%
31	Manufacturing	\$151,382	0.53	132.8%
42	Wholesale Trade	\$93,315	0.54	-3.6%
44	Retail Trade	\$41,727	1.25	-2.7%
48	Transportation and Warehousing	\$54,280	0.31	-9.5%
51	Information	\$115,973	0.74	1.5%
52	Finance and Insurance	\$139,226	1.01	-29.2%
53	Real Estate and Rental and Leasing	\$67,222	1.12	-19.1%
54	Professional, Scientific, and Technical Services	\$102,559	1.12	-31.0%
55	Management of Companies and Enterprises	\$147,040	1.45	-6.4%
56	Administrative and Support Services	\$52,012	0.79	-19.1%
61	Educational Services	\$50,251	1.80	4.5%
62	Health Care and Social Assistance	\$58,522	1.09	-30.0%
71	Arts, Entertainment, and Recreation	\$34,099	1.51	-7.9%
72	Accommodation and Food Services	\$26,943	1.20	3.6%
81	Other Services (except Public Administration)	\$42,664	1.67	26.0%
90	Government	\$73,680	0.92	12.2%
99	Unclassified Industry	\$69,090	1.38	837.9%

Source: EMSI

Notes: CAGR represents the compounded average growth rate.

Geographic boundaries for cities are based on ZIP code aggregations and might not exactly match the incorporated city limits.

The job counts include the covered employment from the Quarterly Census of Employment and Wages, and do not include self-employment and non-covered jobs.

Table A-13: Economic Roles for Industries in Rohnert Park, 2017

Declining Base Industries		Growing Base Industries	
321	Wood Product Manufacturing	221	Utilities
323	Printing and Related Support Activities	332	Fabricated Metal Product Manufacturing
335	Electrical Eq., Appliance, and Component Mfg.	334	Computer and Electronic Product Manufacturing
515	Broadcasting (except Internet)	492	Couriers and Messengers
902	State Government	517	Telecommunications
903	Local Government	532	Rental and Leasing Services
		562	Waste Management and Remediation Services
		624	Social Assistance
		713	Amusement, Gambling, and Recreation Industries
		721	Accommodation
		722	Food Services and Drinking Places
		811	Repair and Maintenance
		813	Religious, Grantmaking, Civic, Professional Org.
Declining Non-Base Industries		Emerging Industries	
111	Crop Production	311	Food Manufacturing
113	Forestry and Logging	333	Machinery Manufacturing
114	Fishing, Hunting and Trapping	424	Merchant Wholesalers, Nondurable Goods
211	Oil and Gas Extraction	485	Transit and Ground Passenger Transportation
212	Mining (except Oil and Gas)	531	Real Estate
213	Support Activities for Mining	551	Management of Companies and Enterprises
236	Construction of Buildings	561	Administrative and Support Services
237	Heavy and Civil Engineering Construction	611	Educational Services
238	Specialty Trade Contractors	621	Ambulatory Health Care Services
313	Textile Mills	623	Nursing and Residential Care Facilities
314	Textile Product Mills	812	Personal and Laundry Services
316	Leather and Allied Product Manufacturing		
322	Paper Manufacturing		
324	Petroleum and Coal Products Manufacturing		
326	Plastics and Rubber Products Manufacturing		
327	Nonmetallic Mineral Product Manufacturing		
331	Primary Metal Manufacturing		

337	Furniture and Related Product Manufacturing
339	Miscellaneous Manufacturing
423	Merchant Wholesalers, Durable Goods
481	Air Transportation
482	Rail Transportation
483	Water Transportation
484	Truck Transportation
486	Pipeline Transportation
487	Scenic and Sightseeing Transportation
493	Warehousing and Storage
511	Publishing Industries (except Internet)
512	Motion Picture and Sound Recording Industries
521	Monetary Authorities-Central Bank
522	Credit Intermediation and Related Activities
523	Securities, Other Financial Investments
524	Insurance Carriers and Related Activities
533	Lessors of Nonfinancial Intangible Assets
541	Professional, Scientific, and Technical Services
622	Hospitals
712	Museums, Historical Sites, and Similar Institutions
901	Federal Government

Source: ADE, Inc.; data from EMSI.

Notes: Growing base industries include sectors with that added jobs between 2007 and 2017, and had a high employment concentration in 2017 (location quotient value above 1.0).

Emerging industries include sectors that added jobs between 2007 and 2017, and had a low employment concentration in 2017 (location quotient value below 1.0).

Declining base industries include sectors that lost jobs between 2007 and 2017, and had a high employment concentration in 2017 (location quotient value above 1.0).

Declining non-base industries include sectors that lost jobs between 2007 and 2017, and had a low employment concentration in 2017.

Table A-14: Economic Roles for Industries in Sonoma County, 2017

Declining Base Industries		Growing Base Industries	
111	Crop Production	113	Forestry and Logging
112	Animal Production and Aquaculture	311	Food Manufacturing
212	Mining (except Oil and Gas)	312	Beverage and Tobacco Product Manufacturing
236	Construction of Buildings	316	Leather and Allied Product Manufacturing
237	Heavy and Civil Engineering Construction	424	Merchant Wholesalers, Nondurable Goods
238	Specialty Trade Contractors	517	Telecommunications
321	Wood Product Manufacturing	523	Securities, Other Financial Investments
323	Printing and Related Support Activities	532	Rental and Leasing Services
333	Machinery Manufacturing	562	Waste Management and Remediation Services
337	Furniture and Related Product Manufacturing	621	Ambulatory Health Care Services
339	Miscellaneous Manufacturing	623	Nursing and Residential Care Facilities
485	Transit and Ground Passenger Transportation	624	Social Assistance
487	Scenic and Sightseeing Transportation	712	Museums, Historical Sites, and Similar Institutions
		713	Amusement, Gambling, and Recreation Industries
		721	Accommodation
		722	Food Services and Drinking Places
		811	Repair and Maintenance
		812	Personal and Laundry Services
		813	Religious, Grantmaking, Civic, Professional Org.
		903	Local Government
Declining Non-Base Industries		Emerging Industries	
211	Oil and Gas Extraction	115	Support Activities for Agriculture and Forestry
221	Utilities	314	Textile Product Mills
313	Textile Mills	315	Apparel Manufacturing
326	Plastics and Rubber Products Manufacturing	322	Paper Manufacturing
327	Nonmetallic Mineral Product Manufacturing	325	Chemical Manufacturing
331	Primary Metal Manufacturing	332	Fabricated Metal Product Manufacturing
334	Computer and Electronic Product Manufacturing	481	Air Transportation

335	Electrical Eq., Appliance, and Component Mfg.	488	Support Activities for Transportation
336	Transportation Equipment Manufacturing	492	Couriers and Messengers
423	Merchant Wholesalers, Durable Goods	518	Data Processing, Hosting, and Related Services
425	Wholesale Electronic Markets	519	Other Information Services
482	Rail Transportation	531	Real Estate
484	Truck Transportation	551	Management of Companies and Enterprises
486	Pipeline Transportation	561	Administrative and Support Services
493	Warehousing and Storage	711	Performing Arts, Spectator Sports, and Related
511	Publishing Industries (except Internet)		
512	Motion Picture and Sound Recording Industries		
515	Broadcasting (except Internet)		
521	Monetary Authorities-Central Bank		
522	Credit Intermediation and Related Activities		
524	Insurance Carriers and Related Activities		
541	Professional, Scientific, and Technical Services		
611	Educational Services		
622	Hospitals		
901	Federal Government		
902	State Government		

Source: ADE, Inc.; data from EMSI.

Notes: Growing base industries include sectors with that added jobs between 2007 and 2017, and had a high employment concentration in 2017 (location quotient value above 1.0).

Emerging industries include sectors that added jobs between 2007 and 2017, and had a low employment concentration in 2017 (location quotient value below 1.0).

Declining base industries include sectors that lost jobs between 2007 and 2017, and had a high employment concentration in 2017 (location quotient value above 1.0).

Declining non-base industries include sectors that lost jobs between 2007 and 2017, and had a low employment concentration in 2017.

Table A-15: Office Real Estate Indicators, 1st Quarter 2018

Sonoma County Location (2018 Q1)	Total Office GLA (SF)	Total Vacancy	Vacancy Rate	Buildings Planned	Net Absorption (Q1 2017-18)
Petaluma	3,448,689	396,988	11.5%	38,904	50,178
Rohnert Park/Cotati	1,473,299	404,241	27.4%	40,000	38,002
Santa Rosa	7,282,457	818,679	11.2%	91,800	203,131
North Corridor	2,368,280	219,425	9.3%	551,396	3,561
Total	14,572,725	1,839,343	12.6%	722,100	294,872

Source: ADE, Inc.; data from Keegan and Coppin Company, Inc.

Table A-16: Industrial Real Estate Indicators, 1st Quarter 2018

Sonoma County Location (2018 Q1)	Total Industrial GLA (SF)	Total Vacancy	Vacancy Rate	Net Absorption (Q1 2017-18)
Petaluma	5,471,621	297,430	5.4%	44,060
Rohnert Park/Cotati	3,166,891	133,814	4.2%	126,643
Santa Rosa	10,365,011	504,300	4.9%	29,094
North Corridor	5,833,131	111,207	1.9%	121,444
Total	24,836,654	1,046,751	4.2%	321,241

Source: ADE, Inc.; data from Keegan and Coppin Company, Inc.

Table A-17: Projected Square Footage Demand, 2017 to 2027

Sonoma County	2017 Jobs	2027 Jobs	2017 to 2027 Job Change	SF Per Job	Square Footage Demand
Total	204,711	229,085	24,374		10,539,105
Industrial	46,904	50,888	3,984	658	2,619,744
Office	33,410	36,772	3,362	372	1,250,802
Commercial	53,371	59,407	6,037	362	2,184,930
Institutional	59,694	69,484	9,790	458	4,483,630
Santa Rosa	2017 Jobs	2027 Jobs	2017 to 2027 Job Change	SF Per Job	Square Footage Demand
Total	90,320	100,051	9,731		4,071,781
Industrial	16,670	17,832	1,162	658	764,171
Office	17,179	18,987	1,808	372	672,725
Commercial	23,312	25,802	2,491	362	901,539
Institutional	29,372	33,157	3,785	458	1,733,346
Petaluma	2017 Jobs	2027 Jobs	2017 to 2027 Job Change	SF Per Job	Square Footage Demand
Total	35,862	41,780	5,918		2,729,087
Industrial	9,264	10,225	961	658	631,991
Office	5,570	5,817	247	372	91,757
Commercial	7,563	8,479	916	362	331,470
Institutional	12,148	15,803	3,655	458	1,673,869

Source: ADE, Inc.; data from EMSI and IFMA.

Notes: 2027 projections are based on Quarterly Census of Employment and Wages (QCEW) data from the Bureau of Labor Statistics, and projections from the California Employment Development Department (EDD) Labor Market Information Division. The square foot (SF) per job benchmark is based on data from the International Facilities Management Association "Space and Project Management Benchmarks" publication. Industrial land uses combine manufacturing and warehousing benchmark data. Office land uses combine data benchmarks for headquarters, mixed-use office, regional office, and call center uses. Commercial land uses combine benchmarks for hospitality, trade, and branch retail uses. Institutional land uses combine benchmark data for government, association, education, religious, and special district uses.

Table A-18: Taxable Sales Performance by Category Mid-2017 Retail Sales and Demand, Rohnert Park

Retail Category	Actual Sales Tax	Potential Sales tax	Capture/Gap	Rate
General Retail	\$3,293,811	\$1,264,427	\$2,029,385	260%
Apparel Stores	\$158,225	\$250,254	(\$92,029)	63%
Women's Apparel	\$15,529	\$40,991	(\$25,463)	38%
Men's Apparel	\$0	\$9,187	(\$9,187)	0%
Family Apparel	\$138,510	\$171,757	(\$33,247)	81%
Shoe Stores	\$4,186	\$28,319	(\$24,133)	15%
Department Stores	\$2,149,450	\$363,634	\$1,785,816	591%
Variety Stores	\$59,668	\$12,322	\$47,346	484%
Department Stores	\$914,864	\$224,380	\$690,484	408%
General Stores	\$1,174,918	\$126,932	\$1,047,986	926%
Furniture/Appliance	\$473,384	\$175,543	\$297,841	270%
Home Furnishings	\$185,077	\$75,456	\$109,620	245%
Appliance Stores	\$285,813	\$89,819	\$195,994	318%
Second Hand Stores	\$2,494	\$10,267	(\$7,773)	24%
Drug Stores	\$51,256	\$68,976	(\$17,720)	74%
Recreation Products	\$142,989	\$56,124	\$86,865	255%
Sporting Goods	\$142,934	\$46,383	\$96,550	308%
Camera Stores	\$0	\$2,386	(\$2,386)	0%
Music Stores	\$56	\$7,355	(\$7,299)	1%
Florist/Nursery	\$33,580	\$29,767	\$3,814	113%
Florists	\$4,390	\$5,196	(\$806)	84%
Nursery	\$29,191	\$24,571	\$4,620	119%
Miscellaneous Retail	\$284,927	\$320,129	(\$35,201)	89%
News Stands	\$0	\$1,870	(\$1,870)	0%
Art, Gift, Novelties	\$6,021	\$19,527	(\$13,506)	31%
Stationery/Books	\$4,251	\$18,833	(\$14,581)	23%
Jewelry Stores	\$3,446	\$30,707	(\$27,260)	11%
Specialty Stores	\$206,644	\$194,932	\$11,712	106%
Personal Services	\$36,788	\$45,735	(\$8,947)	80%
Food Products	\$1,441,021	\$1,082,599	\$358,422	133%
Restaurants	\$983,446	\$772,718	\$210,728	127%
Fast Food Restaurant	\$441,087	\$259,366	\$181,721	170%
Restaurants w/Beer	\$196,590	\$97,411	\$99,179	202%
Restaurants w/Onsale	\$280,703	\$359,433	(\$78,730)	78%

Retail Category	Actual Sales Tax	Potential Sales tax	Capture/Gap	Rate
Hotel Food Sales	\$0	\$1,024	(\$1,024)	0%
Hotel Food/Bar Sales	\$32,767	\$43,759	(\$10,992)	75%
Club Food/Bar Sales	\$32,299	\$11,725	\$20,574	275%
Food Markets	\$333,436	\$214,098	\$119,338	156%
Grocery W/O Onsale	\$0	\$7,661	(\$7,661)	0%
Specialty Food Store	\$21,202	\$24,735	(\$3,534)	86%
Confectionery Stores	\$0	\$773	(\$773)	0%
Grocery w/Beer/Wine	\$103,415	\$29,817	\$73,598	347%
Supermarkets	\$208,819	\$151,111	\$57,707	138%
Liquor Stores	\$21,232	\$43,222	(\$21,990)	49%
Food Processing Eqp	\$102,908	\$52,562	\$50,346	196%
Transportation	\$678,934	\$1,023,087	(\$344,153)	66%
Auto Parts/Repair	\$238,786	\$108,269	\$130,516	221%
Auto Supply Stores	\$140,017	\$44,692	\$95,325	313%
Vehicle Repair	\$98,767	\$49,584	\$49,183	199%
Vehicle Parts Mfg	\$1	\$13,993	(\$13,992)	0%
Auto Sales - New	\$0	\$550,092	(\$550,092)	0%
Auto Sales - Used	\$3,940	\$53,623	(\$49,684)	7%
Service Stations	\$416,019	\$283,774	\$132,246	147%
Misc. Vehicle Sales	\$20,190	\$27,329	(\$7,139)	74%
Trailer & Supply	\$0	\$10,923	(\$10,923)	0%
Boat/Motorcycle	\$20,190	\$13,098	\$7,092	154%
Aircraft & Supply	\$0	\$1,875	(\$1,875)	0%
Transportation Eqp	\$0	\$1,432	(\$1,432)	0%
Construction	\$937,189	\$461,277	\$475,912	203%
Bldg.Matls-Whsle	\$312,420	\$244,183	\$68,237	128%
Constr./Farm Equipmt	\$108,234	\$8,648	\$99,586	1252%
Plumbing & Electric	\$9,034	\$84,180	(\$75,146)	11%
Bldg Matls-Whsle	\$195,151	\$151,355	\$43,797	129%
Bldg.Matls-Retail	\$624,769	\$217,094	\$407,675	288%
Building Matls Store	\$577,147	\$169,351	\$407,796	341%
Hardware Stores	\$6,835	\$34,375	(\$27,540)	20%
Paint/Glass/Wallpapr	\$40,787	\$13,369	\$27,419	305%
CONSUMER-DRIVEN TOTAL	\$6,350,955	\$3,831,390	\$2,519,566	166%
Business To Business	\$440,293	\$936,242	(\$495,949)	47%
Office Equipment	\$75,517	\$193,655	(\$118,137)	39%

Retail Category	Actual Sales Tax	Potential Sales tax	Capture/Gap	Rate
Office Eqpmt Store	\$66,113	\$71,709	(\$5,596)	92%
Office Machines	\$8,545	\$120,759	(\$112,214)	7%
Photo Process'G/Equip	\$859	\$1,186	(\$327)	72%
Electronic Equipment	\$10,645	\$117,814	(\$107,169)	9%
Business Services	\$27,658	\$143,877	(\$116,218)	19%
Energy Sales	\$85	\$37,679	(\$37,594)	0%
Fuel Oil/Ice Sales	\$0	\$1,911	(\$1,911)	0%
Oil & Gas Products	\$85	\$35,768	(\$35,683)	0%
Chemical Products	\$15,012	\$37,810	(\$22,798)	40%
Heavy Industry	\$120,467	\$105,543	\$14,924	114%
Mfg.Matl./Textiles	\$5,099	\$15,474	(\$10,375)	33%
Heavy Industry	\$115,368	\$90,069	\$25,299	128%
Light Industry	\$132,435	\$158,070	(\$25,635)	84%
Rental/Other Repair	\$16,417	\$19,085	(\$2,668)	86%
Light Industry	\$116,018	\$138,985	(\$22,968)	83%
Leasing	\$58,473	\$141,794	(\$83,321)	41%
Miscellaneous	\$24,114	\$61,401	(\$37,287)	39%
Health & Government	\$15,988	\$35,004	(\$19,015)	46%
Health Services	\$11,523	\$19,722	(\$8,199)	58%
Govt./Non-Profit Orgs	\$4,465	\$15,281	(\$10,816)	29%
Miscellaneous Other	\$8,104	\$23,860	(\$15,756)	34%
Non-Store Retailers	\$6,692	\$17,325	(\$10,634)	39%
TOTAL	\$6,815,362	\$4,829,032	\$1,986,330	141%

Source: ADE, Inc.; data from MuniServices.

Table A-19: Retail Real Estate Indicators, 1st Quarter 2018

Sonoma County Location (2018 Q1)	Total Retail GLA (SF)	Existing Vacancy	Vacancy Rate	Buildings Planned
Petaluma	3,304,554	159,581	4.8%	9,345
Rohnert Park/Cotati	3,288,278	211,881	6.4%	145,000
Santa Rosa	8,022,542	203,438	2.5%	280,000
Other	3,962,147	120,801	3.0%	46,400
Total	18,577,521	695,701	3.7%	480,745
Regional Malls				
Walmart Plaza - Rohnert Park	350,000	44,500	12.7%	0
Expressway Mall - Rohnert Park	1,000,000	10,400	1.0%	0
Coddington Mall - Santa Rosa	960,000	5,300	0.6%	0
Montgomery Village- Santa Rosa	300,000	0	0.0%	0
Santa Rosa Plaza	695,000	55,000	7.9%	0
Santa Rosa Town Center	172,320	0	0.0%	0
Santa Rosa Market Place - Santa Rosa	565,000	0	0.0%	0
Shiloh Center/Windsor	297,000	2,000	0.7%	0
Subtotal	4,339,320	117,200	2.7%	0
Neighborhood and Above Centers				
Cloverdale	107,044	6,558	6.1%	900
Healdsburg	218,234	3,500	1.6%	15,000
Petaluma	2,196,399	90,409	4.1%	9,345
Rohnert Park/Cotati	914,571	103,094	11.3%	145,000
Santa Rosa	2,169,679	94,256	4.3%	280,000
Sebastopol	216,976	2,356	1.1%	0
Sonoma	317,353	5,100	1.6%	0
Windsor	712,869	30,164	4.2%	30,500
Subtotal	6,853,125	335,437	4.9%	480,745
Other Retail Space				
Healdsburg	377,080	35,383	9.4%	0
Petaluma	1,108,155	69,172	6.2%	0
Rohnert Park/Cotati	1,023,707	53,887	5.3%	0
Santa Rosa	3,160,543	48,882	1.5%	0
Sebastopol	393,990	26,640	6.8%	0
Sonoma	830,189	7,100	0.9%	0
Windsor	491,412	2,000	0.4%	0
Subtotal	7,385,076	243,064	3.3%	0

Source: ADE, Inc.; data from Keegan and Coppin Company, Inc.

Table A-20: Lodging Room Inventory, Rohnert Park and Expanded Market Area (Santa Rosa, Rohnert Park, Petaluma), 2018

Class	Rooms			
	Rohnert Park	Percent of Total	Region	Percent of Total
Economy Class	430	33.5%	1,560	38.8%
Midscale Class	142	11.1%	464	11.5%
Upper Midscale Class	265	20.7%	489	12.2%
Upscale Class	245	19.1%	917	22.8%
Upper Upscale Class	0	0.0%	348	8.7%
Luxury Class	200	15.6%	244	6.1%
Total	1,282	100.0%	4,022	100.0%

Source: ADE, Inc.; data from Smith Travel Research.

Notes: The data is based on a sample of participating properties that includes 859 of the 1,282 total rooms in Rohnert Park, and 2,990 out of the 4,022 total rooms in the expanded market area (Santa Rosa, Rohnert Park, and Petaluma).

Table A-21: Lodging Market Indicators, Rohnert Park and Expanded Market Area (Santa Rosa, Rohnert Park, Petaluma), 2018

Year	Occupancy (%)		ADR (\$)		RevPAR (\$)	
	Rohnert Park	Region	Rohnert Park	Region	Rohnert Park	Region
2012	68.1	67.4	\$76.62	\$90.26	\$52.15	\$60.87
2013	75.8	73.9	\$82.54	\$96.58	\$62.53	\$71.37
2014	75.2	74.4	\$94.88	\$107.41	\$71.37	\$79.93
2015	79.0	76.8	\$101.24	\$115.89	\$79.94	\$89.00
2016	77.7	78.3	\$113.11	\$126.13	\$87.91	\$98.71
2017	80.9	78.2	\$141.63	\$138.29	\$114.57	\$108.08

Source: ADE, Inc.; data from Smith Travel Research.

Notes: ADR is the Average Daily Revenue per room. RevPAR is the daily Revenue Per Average Room.

The data is based on a sample of participating properties that includes 859 of the 1,282 total rooms in Rohnert Park, and 2,990 out of the 4,022 total rooms in the expanded market area (Santa Rosa, Rohnert Park, and Petaluma).



ENVISION ROHNERT PARK 2040

Transportation Whitepaper

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TRANSPORTATION WHITEPAPER

INTRODUCTION

This Whitepaper describes the existing and planned transportation network of streets, bikeways, sidewalks, trails, and transit routes in Rohnert Park. It describes the latest developments in the field of transportation planning for the purpose of updating the General Plan. This Whitepaper also outlines a framework for the development of new California Environmental Quality Act (CEQA) thresholds of significance in response to the State-mandated transition from automobile delay/Level of Service (LOS) to vehicle-miles traveled (VMT).

MAJOR FINDINGS & IMPLICATIONS

- The field of transportation planning is evolving at a rate not seen since the automobile was first mass produced in the early 20th Century. Transportation planning is entering a new era of planning to support a more sustainable future. Consequently, the General Plan Update represents an opportunity to plan for these new transportation realities and provide flexibility to respond to changing transportation conditions.
- Transportation network companies (TNCs) such as Lyft and Uber are providing mobility as a service, and the prospect of autonomous vehicles (AVs) may result in a transportation future where the vast majority of Americans do not own a vehicle, but still ride in an automobile. Additionally, the population is aging, thus placing a premium on designing a transportation system that accommodates users of all ages.
- There is not yet consensus as to how emerging transportation trends and technologies (e.g., TNCs and AVs) will affect transportation; however, transportation forecasting tools suggest the following potential outcomes over the next 20 years:
 - AV/TNCs could reduce the "first mile/last mile" transit access issue, which might encourage transit use. On the other hand, if travel by TNCs becomes so efficient and cheap, it could reduce transit ridership.
 - If AV/TNCs are traveling on the road between ride requests, there may be many empty vehicles on the road, which could increase VMT.
 - If AV/TNCs become more commonplace, it could reduce the need for on-street and off-street parking. Surface parking lots may be re-allocated to accommodate additional development.
 - Testing of current AV operating parameters suggests that freeways will be able to accommodate more vehicles in the future. Interchanges, ramps, and arterials must be designed to accommodate increased demands entering and exiting from a freeway.
- The transition to VMT per capita as the prescribed CEQA transportation metric (as required by Senate Bill 743) will represent an opportunity to continue to develop a more sustainable land use and transportation system. However, the City will need to take care in setting new CEQA thresholds of impact significance. The thresholds will need to be based on substantial supporting evidence, and

will likely need to take into consideration how the City currently generates VMT per capita relative to the regional (Bay Area) average.

- According to MTC Vital Signs mode choice information, Rohnert Park residents tend to drive alone in much higher numbers than the Bay Area average. Likewise, residents of Rohnert Park are using transit much less than average. Ultimately, driving alone results in increased congestion on the transportation system, and also results in increased generation of vehicle-miles traveled per capita.
- The implementation of Senate Bill 743 represents a challenge to “Day One” implementation of the General Plan as the implementation of vehicle miles traveled (VMT) as the CEQA transportation metric is expected to go into full effect on July 1, 2020.
- The backbone of the bicycle system in Rohnert Park is the system of Class I bike paths that parallel the east-west creek system, as well as the recently opened SMART Trail. The east-west Class I bike paths have historically been disconnected from one another until the opening of the north-south SMART Trail. Class II bike lanes are provided along many of the major east-west and north-south arterial roadways provide vital connections between destinations away from the Class I bike path system. Primary large-scale, linear barriers to bicycle travel across the city include the Highway 101 freeway, the Foxtail Golf Club, locations along the creek system where crossings are not provided at regular intervals, and the SMART rail line.
- In addition to improvements already proposed in the General Plan and Bicycle Master Plans, several other opportunities exist to encourage bicycle usage in Rohnert Park, including:
 - Converting Class II bike lanes to Class IV separated bikeways:
 - Improving wayfinding signage for bicyclists:
 - Encouraging and promoting the development of a dockless bike share system: and
 - Converting intersection controls to protect bicycle movements.
- Sonoma County Transit (SCT) is the primary regional transit provider in Sonoma County. The current route system provides transit access throughout Rohnert Park (i.e., there are many stops and the transit system reaches most areas of the city), but provides poor service as a mobility option due to the time it takes to get from origin to destination (especially versus private automobile travel). Rerouting or enhancements to service may aid in bus-to-rail commutes becoming a more attractive option to intercity travel versus personal automobiles.
- SMART is a commuter rail line that runs from a station near the Sonoma County Airport to the San Rafael Transit Hub. A southerly extension of the line from San Rafael to the Larkspur Ferry Terminal is funded and expected to open in late 2019. A northerly extension of the line from the Sonoma County Airport Station to the proposed Windsor station is anticipated to open in 2021/2022. A further northerly extension of the SMART line to Cloverdale (via Windsor and Healdsburg) is planned in the future. Currently, large time gaps in service exist during the peak periods of commute travel. However, during the first seven months, the service carried about 440,000 passengers. As the line continues to expand and additional train sets come online, headways are expected to be reduced.

EXISTING CONDITIONS

Management and Oversight

Transportation through and within Rohnert Park is provided by a network of facilities stratified by travel mode, function, and capacity. Multiple agencies oversee the planning, development, operation, and funding of these facilities. Nationally, the US Department of Transportation (USDOT) ensures the safety and efficiency of the nation's freeway system, airports, rail lines, and ports. The Federal Railroad Administration regulates freight railroads (including those used for SMART service), by creating and enforcing national rail safety regulations.

At the state-level, Caltrans manages more than 45,000 miles of highway and freeway lanes as well as other transportation facilities across the state. In Rohnert Park, this includes management of US Route 101 (Highway 101) through the city. The California Public Utilities Commission (CPUC) has jurisdiction over safety regulations for common carriers (including trucks and rail) and at-grade railroad crossings.

At the regional level, the Metropolitan Transportation Commission (MTC) and the Sonoma County Transportation Authority (SCTA) are responsible for developing and updating a variety of transportation plans and for allocating federal and state funds to implement them. SMART, Golden Gate Transit (GGT), and Sonoma County Transit (SCT) are transit providers within the city.

At the local level, the Rohnert Park Public Works and Development Services Departments are responsible for overseeing the planning, design, construction, and maintenance of citywide transportation systems including roadways and bicycle, pedestrian, and transit facilities.

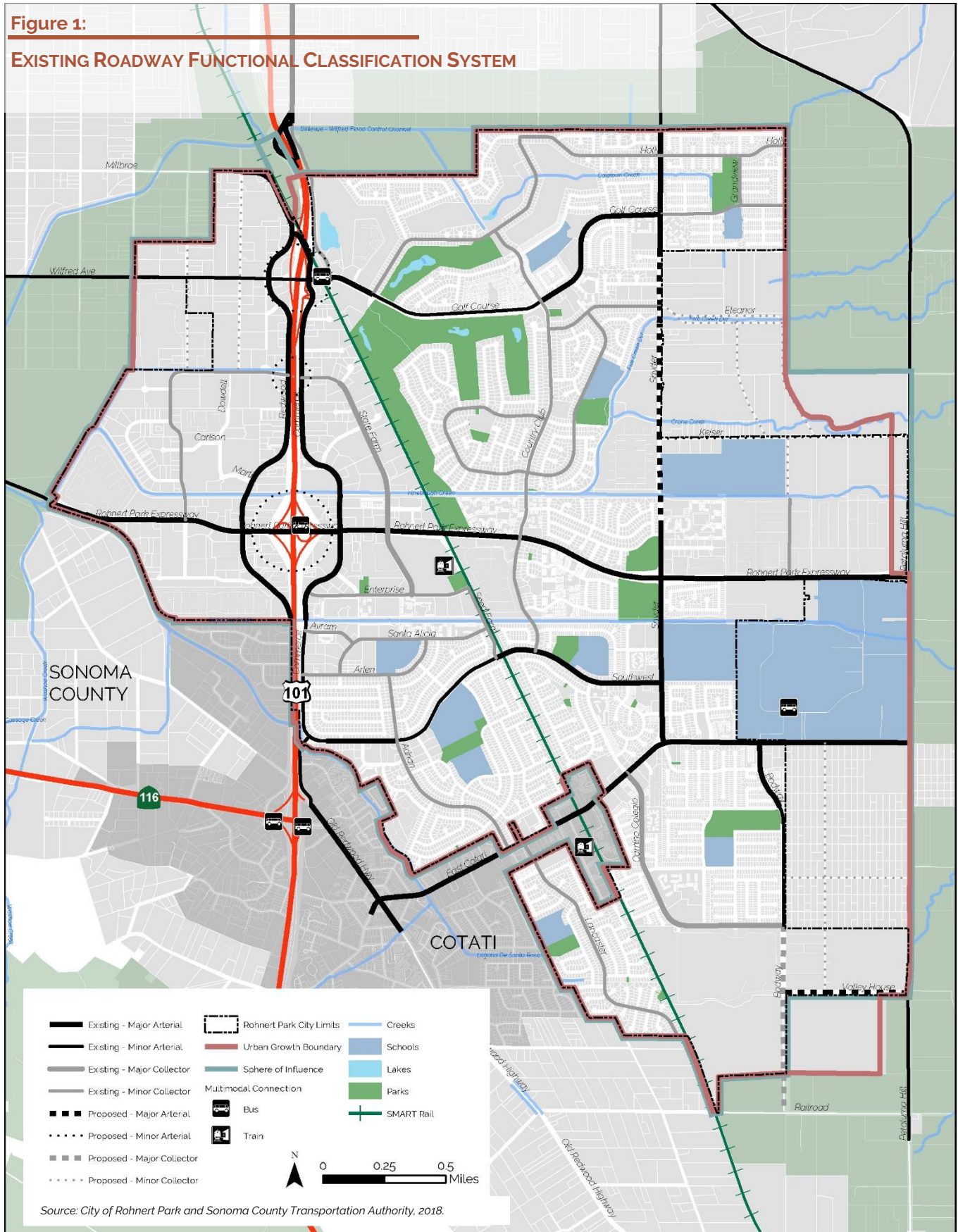
Roadway Network

The roadway network in Rohnert Park is comprised of arterials (major and minor), collectors (major and minor), and local streets. Each of these roadway types is described in detail below with the existing roadway classifications mapped on Figure 1, as previously proposed in the 2020 General Plan.

Roadway System - Freeways

Highway 101 is a major north-south freeway in Sonoma County, as well as a major through travel route along the West Coast of California, Oregon, and Washington. Highway 101 runs through the western portion of the city, generally providing three travel lanes in each direction through Rohnert Park—two general purpose lanes plus one high-occupancy vehicle (HOV) lane. Highway 101 provides regional access to major employment and residential centers in Sonoma County, Marin County, and San Francisco. In Rohnert Park, interchanges with local roadways are provided at Golf Course Drive and Rohnert Park Expressway. Both of these interchanges have undergone major renovations since adoption of the existing General Plan in 2000. The Highway 101/SR 116-Gravenstein Highway interchange also provides indirect access to southern Rohnert Park. On-ramps at these interchanges are metered to prioritize mainline flow. Highway 101 carries about 100,000 vehicles per day near the Rohnert Park Expressway interchange, with the major direction of travel being southbound in the morning and northbound in the afternoon.

Figure 1:
EXISTING ROADWAY FUNCTIONAL CLASSIFICATION SYSTEM



Roadway System - Arterials

The primary function of arterial streets is to connect the regional roadway network (Highway 101) with the local roadway network. Arterial streets are typically higher-volume, higher-speed roadways with limited access to abutting parcels. Arterials with four-to-six travel lanes are called "major" arterials, and "minor" arterials are those with two travel lanes. Currently, the City of Rohnert Park maintains 17 total miles of arterials, with a plan to upgrade 1.6 miles of arterials from minor arterial to major arterial over the course of the buildout of the General Plan. The following roadways are defined in the General Plan as arterials:

North-South Arterials

- Redwood Drive (major)
- Commence Boulevard (major)
- Snyder Lane (major/minor, planned conversion of minor segments to major)
- Bodway Parkway (major)

East-West Arterials

- Golf Course Drive west of Snyder Lane (major/minor)
- Rohnert Park Expressway (major)
- Southwest Boulevard (major/minor)
- East Cotati Avenue (major/minor, current General Plan notes planned conversion of minor segments presently in the County to major)

While major arterial roadways provide maximum capacity for the movement of automobiles, the high traffic volumes coupled with high travel speeds can act as an impediment to bicycle and pedestrian travel along and across the major arterials, especially if safe, comfortable facilities and crossings are not provided. In some instances, the City has converted sections of major arterials to minor arterials to provide bicycle and pedestrian improvements (i.e., Southwest Boulevard near A and B Sections) or retained sections of minor arterial where traffic demands have not justified a capacity expansion (i.e., Golf Course Drive between Fairway Drive and Country Club Drive).

Roadway System - Collectors

Collector streets serve as principal traffic arteries within residential and commercial areas. Major collectors are those with four lanes of travel, and minor collectors are those with two travel lanes. The City currently maintains about 16 miles of collectors. The following roadways are defined as collector streets in the General Plan:

- | | |
|-------------------------------|---|
| • Adrian Drive (minor) | • Golf Course Drive east of Snyder Lane (major/minor) |
| • Arlen Drive (minor) | • Holly Avenue (minor) |
| • Avram Avenue (minor) | • Labath Avenue (minor) |
| • Business Park Drive (minor) | • Lancaster Drive (minor) |
| • Camino Colegio (major) | • Roberts Lake Road (minor) |
| • Country Club Drive (minor) | • Santa Alicia Drive (minor) |
| • Dowdell Avenue (minor) | • Santa Dorotea Circle (minor) |
| • Eleanor Avenue (minor) | • Seed Farm Drive (minor) |
| • Emily Avenue (minor) | • State Farm Drive (major/minor) |
| • Enterprise Drive (minor) | |
| • Fairway Drive (minor) | |

Roadway System – Local Streets

Local streets provide direct connections to residences and businesses. They are typically designed as lower-speed streets and typically allow on-street parking. The City currently maintains about 70 miles of existing local streets.

Planned Roadway System Improvements

The City of Rohnert Park has, and continues to make, investments in the transportation system to expand the capacity and quality of the system. Major roadway improvements that are ongoing or that have been completed over the past two decades include:

- Golf Course Drive interchange improvements (2012)
- Golf Course Drive West roadway expansion (2013, linked to Casino development)
- Rohnert Park Expressway interchange improvements (several projects in the 2000's)
- Snyder Lane widening between San Francisco Drive and Southwest Boulevard (2017)
- Rohnert Park Expressway widening east of Snyder Lane (to be completed in late 2018)
- Southwest Boulevard capacity adjustments to support bicycle usage (2017)
- Dowdell Avenue extension between Business Park Drive and Martin Avenue (2016)
- Street Smart Rohnert Park – Bicycle/pedestrian improvements and associated changes to roadway system (2018)
- On-street bicycle facilities (e.g., bike lanes) on many cross-city arterials (ongoing, also in CIP)
- New/modified traffic signals and intersection improvements (ongoing, also in CIP)
- Citywide roadway maintenance and resurfacing (ongoing, also in CIP)

Current projects funded in the Five-Year Capital Improvement Plan (FY 2017/18 – FY 2021/22) include:

- Snyder Lane widening (San Francisco Drive to Keiser Avenue);
- Reconstruction of Keiser Avenue;
- Intersection improvements at:
 - Commerce Boulevard/Southwest Boulevard,
 - Highway 101 southbound ramps/Wilfred Avenue-Redwood Drive (now Golf Course Drive West), and
 - Commerce Boulevard/State Farm Drive;
- Various traffic signal improvement projects, including new signals, phasing changes and emergency vehicle preemption;
- Traffic improvements associated with the Casino Mitigation Memorandum of Understanding (MOU); and
- Various resurfacing and roadway rehabilitation projects.

The existing General Plan also notes several locations of future capacity expansions:

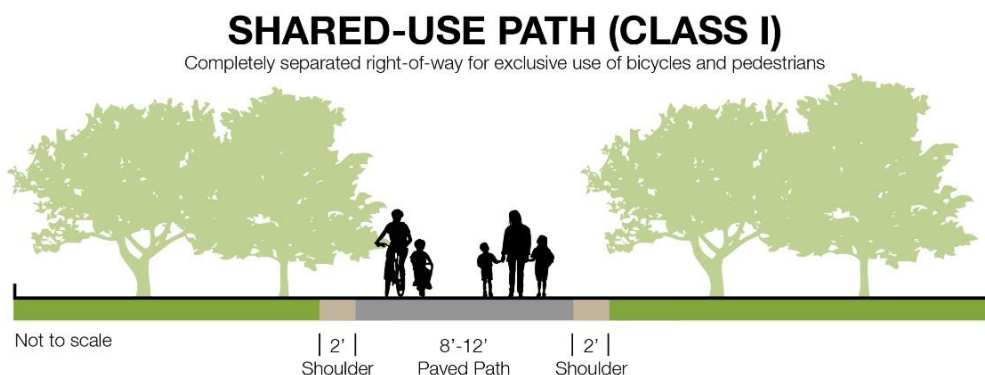
- New Highway 101 freeway crossing at State Farm Drive/Business Park Drive;
- Snyder Lane widening between Golf Course Drive and Southwest Boulevard (widening partially completed in southern portion of corridor as of 2018);
- East Cotati Avenue widening from Bodway Parkway to Petaluma Hill Road;
- Bodway Parkway connection to Railroad Avenue (SOMO Village area); and
- New roadway connections in the Specific Plan and Master Plan areas to support developments.

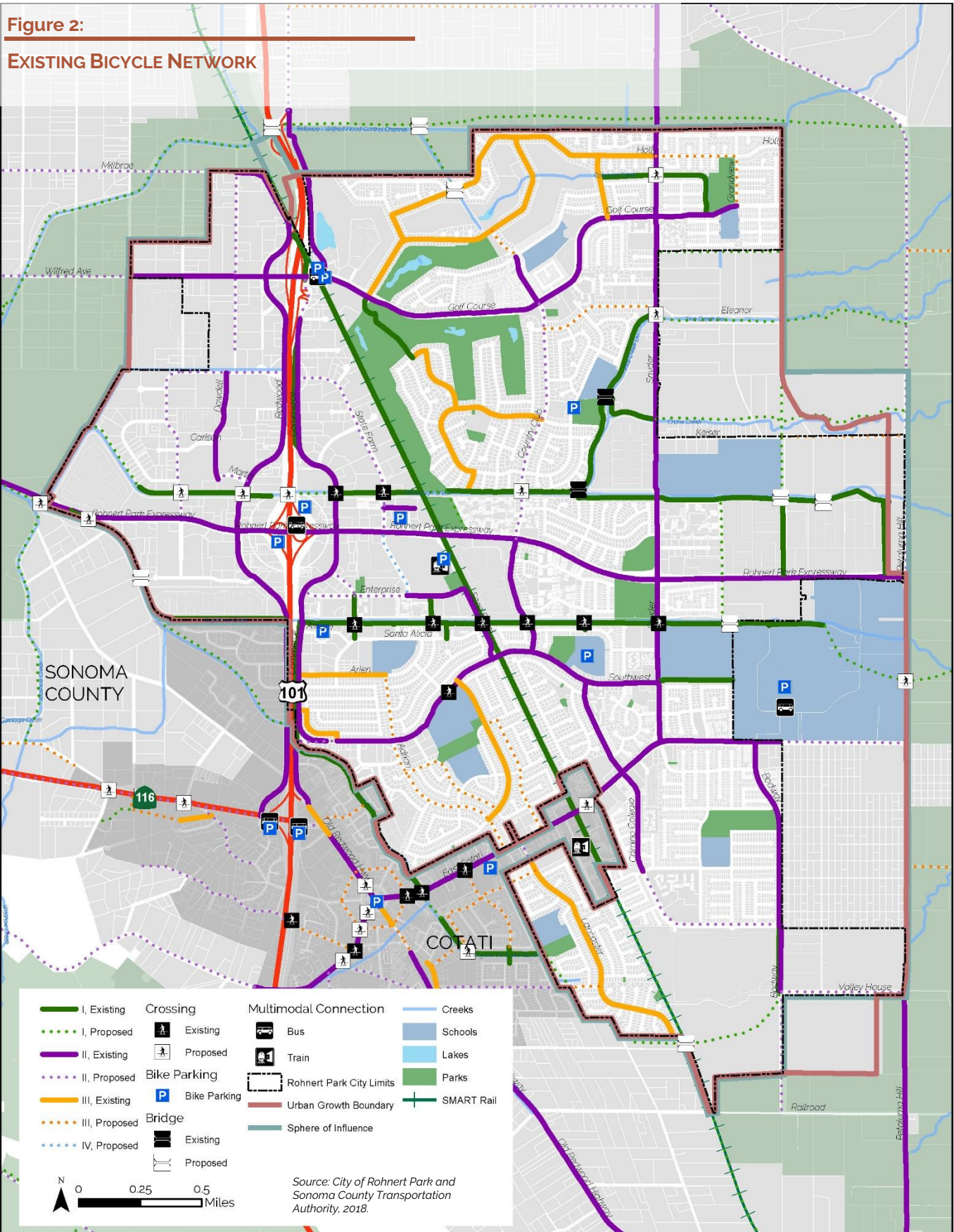
Bicycle Facilities

The City of Rohnert Park provides an extensive network of on-street and off-street bicycle facilities throughout the city. These facilities provide an alternative to driving as well as recreational opportunities for residents and visitors. Bicycle facilities connect residential areas with major destinations, such as schools, parks, Sonoma State University, retail centers, and the planned Downtown Rohnert Park area. The recently-opened SMART station provides an opportunity for increased bicycle travel as users of the transportation system may bicycle to/from the SMART station utilizing existing bicycle facilities to the station. The existing and proposed bicycle facilities in Rohnert Park are shown on Figure 2.

The City's existing General Plan includes numerous policies to encourage bicycle travel throughout the city, and the General Plan provides example street cross sections based on these standards, noting that Class I and Class II bikeways are preferred for both arterials and collectors. Four categories of bikeways are specified in the Caltrans Highway Design Manual and Sections 885.1 et seq. of the California Streets and Highways Code. These categories are presented below, along with updated sample cross-sections detailing the latest design standards for the facilities.

- **Class I Bikeway (Bike Path)** Bike paths provide a completely separate right-of-way and are designated for the exclusive use of people riding bicycles and walking with minimal cross-flow traffic. Rohnert Park has approximately 11.7 miles of existing Class I bikeways, with many such paths located along creeks and adjacent to the SMART rail line.

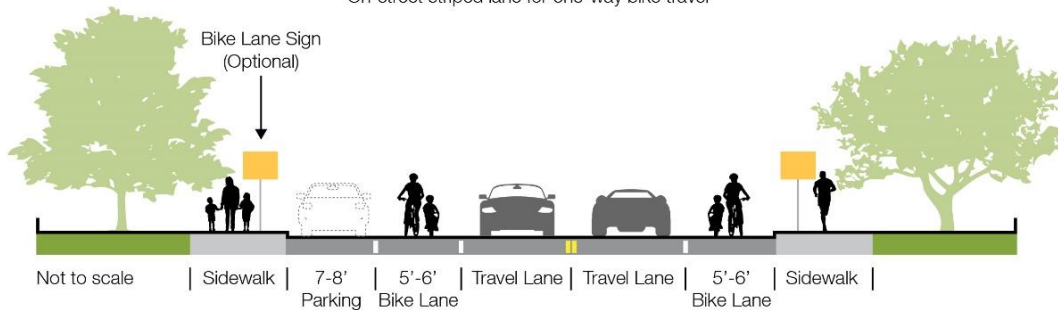




- Class II Bikeway (Bike Lane)** Bike lanes provide designated street space for bicyclists, typically adjacent to the outer vehicle travel lanes. Bike lanes include special lane markings, pavement legends, and signage. Bike lanes may be enhanced with painted buffers between vehicle lanes and/or parking, and green paint at conflict zones (such as driveways or intersections). Rohnert Park has approximately 16.5 miles of existing Class II bikeways.

BICYCLE LANE (CLASS II)

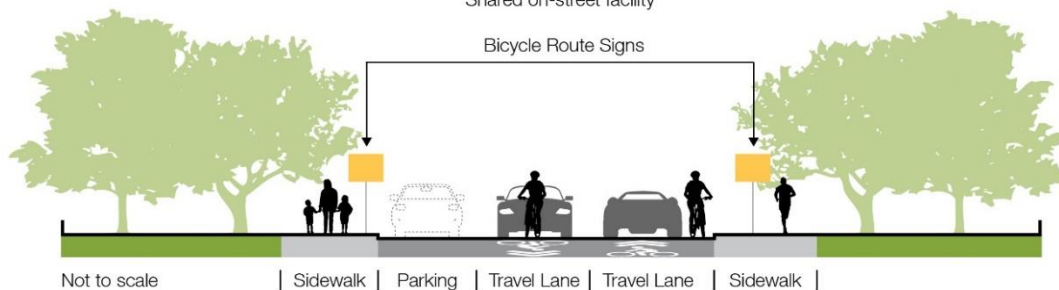
On-street striped lane for one-way bike travel



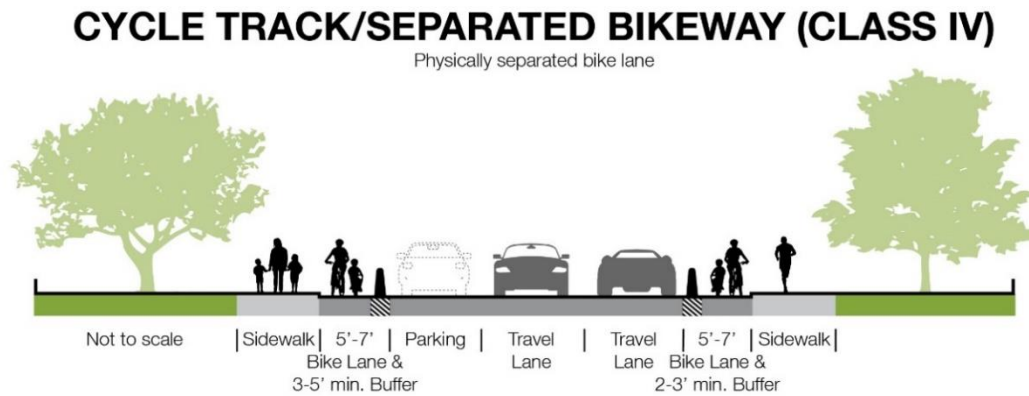
- Class III Bikeway (Bike Route)** Bike routes provide enhanced mixed-traffic conditions for bicyclists through signage, striping, and/or traffic calming treatments, and provide continuity to a bikeway network. Bike routes are typically designated along gaps between bike trails or bike lanes, or along low-volume, low-speed streets. Bicycle boulevards provide further enhancements to bike routes by encouraging slow speeds and discouraging non-local vehicle traffic, often through the use of traffic calming. Bicycle boulevards can also feature special wayfinding signage to nearby destinations or other bikeways. Rohnert Park has approximately 6.7 miles of existing Class III bikeways.

BICYCLE ROUTE (CLASS III)

Shared on-street facility



- Class IV Bikeway (Separated Bikeway)** Separated Bikeways, also referred to as cycle tracks or protected bikeways, are bikeways for the exclusive use of bicycles which are physically separated from vehicle traffic. Separations may include grade separation, flexible posts, physical barriers, or on-street parking. While Rohnert Park does not have Class IV bikeways explicitly stated in the Bicycle and Pedestrian Master Plan, some Class II bike lanes along Country Club Drive and Southwest Boulevard are separated from traffic lanes by hard curb, which is a Class IV characteristic.



Existing Bicycle Facilities

The backbone of the bicycle system in Rohnert Park is the system of Class I bike paths that parallel the east-west creek system, as well as the recently opened SMART Trail. The east-west Class I bike paths have historically been disconnected from one another until the opening of the north-south SMART Trail. Class II bike lanes are provided along many of the major east-west and north-south arterial roadways which provide vital connections between destinations away from the Class I bike path system. Existing signed Class III facilities are present in A, D, F, and H Sections of Rohnert Park, primarily along local, low-volume streets that connect to recreational areas.

Primary large-scale, linear barriers to bicycle travel across the city include the Highway 101 freeway, the Foxtail Golf Club, locations along the creek system where crossings are not provided at regular intervals, and the SMART rail line.

Proposed Bicycle Improvements

The City's *Bicycle and Pedestrian Master Plan* was approved in 2008 and includes an extensive list of additional planned bicycle facilities and crossings of major barriers to bicycle travel. The 2008 plan was augmented by the Sonoma County Transportation Authority's 2014 *Countywide Bicycle and Pedestrian Master Plan*, which incorporated many elements of the 2008 City plan and reflects the progress to date of implementing the improvements described in the 2008 plan. The SCTA 2014 Plan reflects connections to other regional bicycle facilities. Class I facilities are proposed to connect gaps in the creek trail system across Highway 101 and across the southern Foxtail Golf Club. Other connections are proposed in growth areas to connect to the City bicycle system as well as several other regional bicycle projects (i.e., the Crane Creek Regional Park Trail connector and connections to the unpaved Bellevue Creek Trail from H and F Sections).

Additional Bicycle Opportunities

In addition to improvements already proposed in the General Plan and Bicycle Master Plans, several other opportunities exist to encourage bicycle usage in Rohnert Park.

- Convert Class II bike lanes to Class IV separated bikeways: Bicycle lanes in areas with on-street parking or in areas near schools could benefit from conversion to Class IV separated bikeways. For areas with on-street parking, a parking-protected Class IV separated bikeway could be installed. For areas where widening to accommodate buffer space is infeasible, this modification could be

completed by narrowing vehicle lanes (with a benefit of reducing free flow traffic speeds to safer speeds) and installing painted buffers.

- Improve wayfinding signage for bicyclists: The extensive Class I and Class II bicycle facility system provides ample opportunity for bicyclists to reach destinations throughout the city. Additionally, the planned nature of development and Section naming convention used throughout the city provides additional wayfinding guidance. Improving wayfinding signage for bicycle travel throughout the city would encourage bicycling by demonstrating the connectivity of the bicycle network between destinations.
- Encourage and promote the development of a dockless bike share system: The planned Downtown development is located adjacent to the SMART station and several existing and planned bicycle corridors. To encourage visitor/worker transit and bicycle usage, the City could reach out to bike share system operators to determine how/if a bike share system could be implemented in the city. Dockless bike share systems relieve the need for stations in the city, which promotes access to destinations by bicycling.
- Convert intersection controls to protect bicycle movements: At signalized intersections, the addition of dedicated bicycle phases that provide advance green or protected bicycle phases can promote bicycle safety and encourage bicycle usage.
- Standardize the relationship between Class II bike lanes and Class II bike lanes with Class IV separated bikeway characteristics: Some Class II bike lanes in the city include hard curb buffers between the bike lane and automobile travel way.

Pedestrian Facilities

The City has generally required that sidewalks be provided along public roadways, and the vast majority of streets include sidewalks along both sides of the street. The on-street system is supplemented by an off-street trail system (using the multi-purpose Class I bikeways discussed as part of the Bicycle Facilities subsection and shown on Figure 2). Most signalized intersections include a full complement of signalized pedestrian crossings. Key gaps in the sidewalk system are present at the following locations:

- South side of Golf Course Drive between Fairway Drive and Country Club Drive;
- East side of Snyder Lane between Lawrence Jones Middle School and Moura Lane (County);
- South side of East Cotati Avenue from Sequoia Way to Petaluma Hill Road (County);
- East side of Seed Farm Drive from Southwest Boulevard to Enterprise Drive; and
- Gaps along trail system, as noted above in Bicycle Mode subsection.

While the gaps along Snyder Lane and East Cotati Avenue are presently in the County, the current General Plan notes that these sections may eventually be annexed into the city.

Transit Service

Transit providers serving Rohnert Park include local and intercity bus, and passenger rail.

Sonoma County Transit

Sonoma County Transit (SCT) is the primary regional transit provider in Sonoma County. SCT provides local transit services in the city of Rohnert Park along with services to the city of Santa Rosa and other areas of Sonoma County. SCT routes in Rohnert Park are mapped on Figure 3.

Generally speaking, SCT routes within Rohnert Park are somewhat circuitous and have infrequent service (i.e., long headways). Of the seven routes that serve Rohnert Park, only three serve the Rohnert Park SMART station. These three routes do not stop at the station itself, but alongside Rohnert Park Expressway near the SMART crossing.

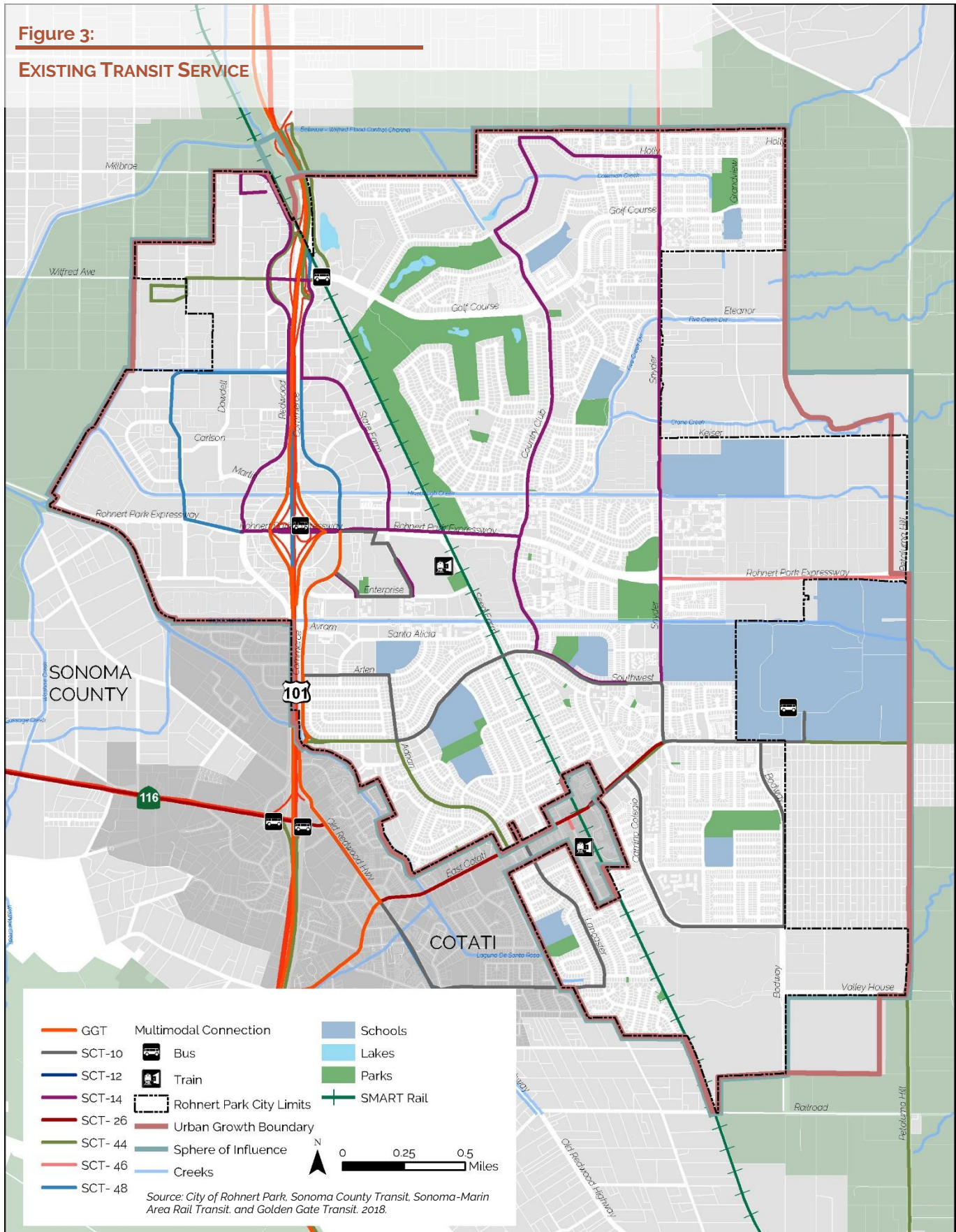
SCT also provides paratransit, or door-to-door dial-a-ride service, for residents who are unable to independently use the transit system because of physical or mental disability. Service days are Monday through Friday from 5:00 a.m. to 11:00 p.m., and Saturday and Sunday from 7:00 a.m. to 9:00 p.m.

The current route system provides transit access throughout the city (i.e., there are many stops and the transit system reaches most areas of the city), but provides poor service as a mobility option due to the time it takes to get from origin to destination (especially versus private automobile travel). Rerouting or enhancements to service may aid in bus-to-rail commutes becoming a more attractive option to intercity travel versus personal automobiles.

Golden Gate Transit

Golden Gate Transit (GGT) is the primary long-distance regional transit provider in Sonoma County. GGT routes are focused to provide peak period, peak direction bus service to destinations in Marin County and San Francisco. Five GGT bus routes serve Rohnert Park (routes are mapped on Figure 3). GGT stops are located at the Roberts Lake Road Park and Ride Lot and the Rohnert Park Expressway Park and Ride Lot. Areas in the southeast portion of Rohnert Park may access GGT services at the Cotati Bus Hub. Headways along GGT routes serving Rohnert Park vary between 30 and 60 minutes.

Figure 3: EXISTING TRANSIT SERVICE



Sonoma-Marin Area Rail Transit

SMART is a commuter rail line serving Sonoma and Marin Counties. The existing SMART line runs from a station near the Sonoma County Airport to the San Rafael Transit Hub. A southerly extension of the line from San Rafael to the Larkspur Ferry Terminal is funded and expected to open in early 2019. A northerly extension to Windsor is anticipated to open in 2021 or 2022. A subsequent northerly extension of the SMART line to Cloverdale (via Healdsburg) is planned in the future. The existing SMART line and planned future service expansions are shown on Figure 4.

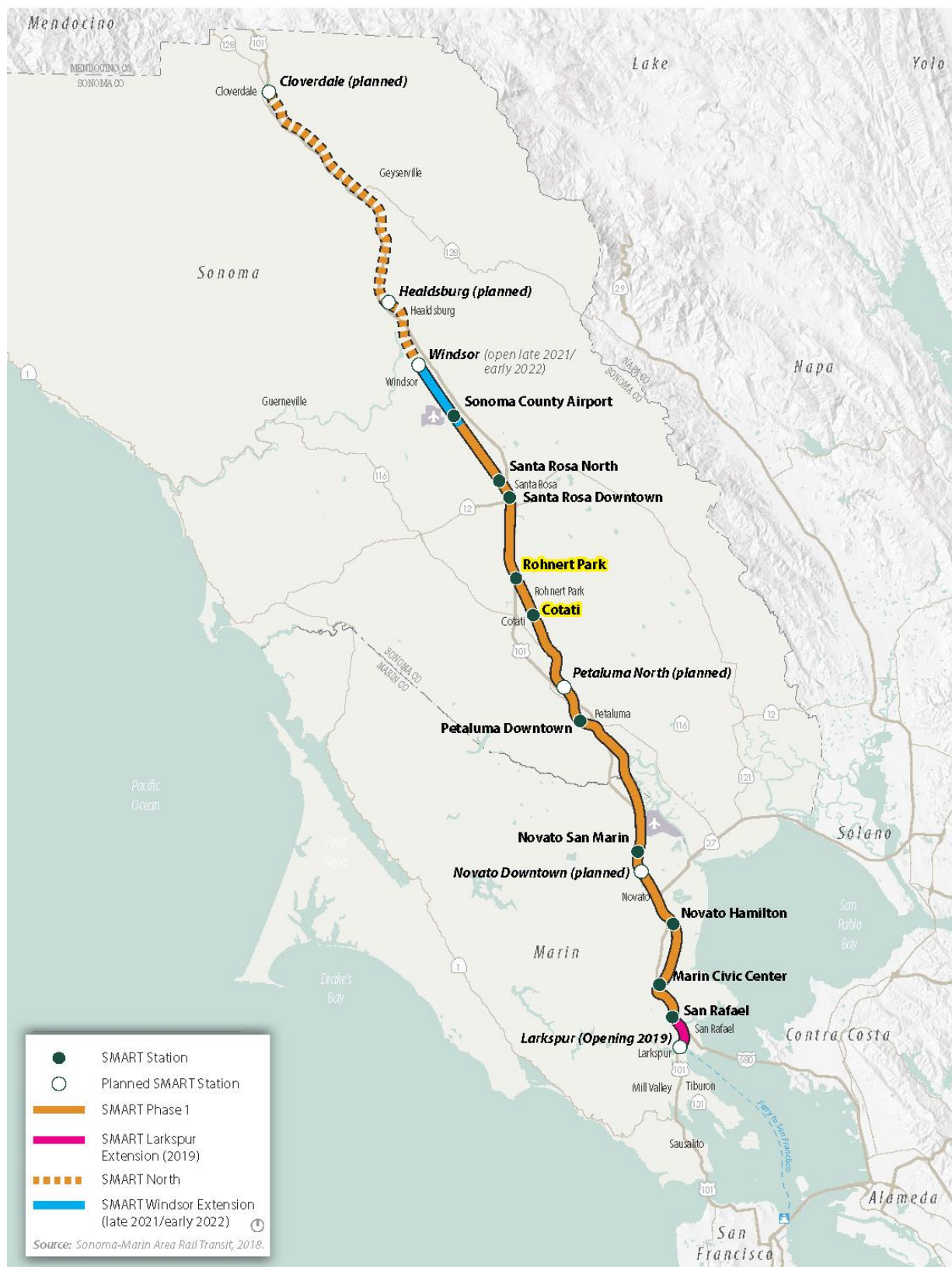
Weekday service operates at 30-90 minute intervals with service focused on the peak commute periods and peak direction of commute travel. Gaps in peak commute service of up to 60 minutes exist during the peak periods of commute travel, which may suppress commute ridership potential. In the first 12 months of service, the service carried about 723,000 passengers system-wide. As the line continues to expand and additional train sets come online, headways are expected to be reduced, which will encourage increased ridership.



Passengers at the Rohnert Park SMART Station during a preview ride for the SMART train. (Photo credit: Gab Meline/KQED)

Figure 4:

SMART COMMUTER RAIL SERVICE



Commuter Mode Choice

According to the United States Census and American Community Survey (2016), only the New York City metropolitan area has a higher non-automobile mode share than the nine-county San Francisco Bay Area. The Metropolitan Transportation Commission's (MTC) Vital Signs program tracks regional and local commute mode choice information for the Bay Area (as well as other transportation performance metrics). Vital Signs notes that counties in the East Bay, South Bay, and Peninsula areas have seen an automobile (drive alone plus carpool) mode share decrease of about four to eight percentage points since 2016. However, automobile mode share in the North Bay counties (except Marin) has largely remained constant versus 2016 conditions. Rohnert Park ranks sixth out of all Bay Area municipalities for highest residential drive-alone mode share (80.5 percent drive alone mode share). Table 1 presents mode share information for residents of and workers in Rohnert Park versus the Bay Area as a whole.

Table 1: Commuter Mode Choice (2016)

Commute Mode	City of Rohnert Park		Bay Area Average
	Residents	Workers	
Drive Alone	80.5%	78.0%	64.5%
Carpool	10.6%	10.0%	10.2%
Transit ¹	1.8%	1.1%	11.9%
Walk	1.3%	3.1%	3.7%
Bike	1.0%	0.9%	3.5%
Other	1.3%	1.0%	
Work From Home	3.4%	5.9%	6.3%

Note 1: Transit mode share for Rohnert Park does not account for SMART ridership, which opened for service in 2017.

Source: Metropolitan Transportation Commission, Vital Signs Commute Mode Choice Report, May 2018

As noted in Table 1, residents of Rohnert Park tend to drive alone in much higher numbers than the Bay Area average. Likewise, residents of Rohnert Park take transit less than average. Workers in Rohnert Park drive and carpool at rates similar to residents, but workers are somewhat more inclined to walk to work. It is important to note that this information reflects mode choice preferences prior to the start of SMART commuter rail service, so it is anticipated that some shift to transit from drive alone has occurred since its start. Ultimately, driving alone results in increased congestion on the transportation system, and also results in increased generation of vehicle-miles traveled per capita (the effects of which are discussed later in this whitepaper). This makes increasing transit usage for trips to/from and within the City critical to achieving the City's goals related to sustainability and reducing congestion.

New State Requirements for Transportation Planning

CEQA Transportation Metrics

On September 27, 2013, Governor Jerry Brown signed Senate Bill 743 (SB 743) into law and started a process that fundamentally changes transportation impact analysis. The key change includes elimination of level of service (LOS), and other measures of traffic congestion as a basis for determining significant impacts under the California Environmental Quality Act (CEQA).

The Governor's Office of Planning and Research (OPR) has prepared a proposed CEQA Guideline implementing SB 743 and transmitted it to the California Natural Resources Agency for formal adoption. The guidance recommends use of Vehicle-Miles Traveled (VMT) as the CEQA transportation metric, along with the elimination of auto delay (i.e., LOS) for CEQA purposes. If the proposed CEQA Guideline is adopted as is, all agencies will need to implement the new methodology for determining the significance of transportation impacts in CEQA no later than July 1, 2020. As such, the City will need to set new thresholds for transportation impacts based on VMT. The California Natural Resources Agency is expected to adopt the new guidelines in late 2018.

Vehicle-Miles Traveled (VMT):

A measure of the number of vehicles and how far they travel. Typically calculated as either roadway volume multiplied by roadway distance, or trips generated multiplied by trip length. Travel demand models may be used to estimate VMT for a land use planning project. VMT is also currently used as an input in CEQA Air Quality and CEQA Greenhouse Gas analysis.

SB 743 will require the City to decide whether to follow guidance recommended by OPR or to establish their own methodology and thresholds for VMT analysis. Since VMT reduction is closely tied to a community's land use form and transportation network, the General Plan Update provides an excellent opportunity to explore fundamental questions about how the State's desire for VMT reduction translates to feasible actions in the city of Rohnert Park. Any action needs to be balanced with other community values and objectives, considering, for example, the needs of public safety, health, social welfare, equity, education, economic development, and infrastructure expansion.

The historic development pattern in Rohnert Park echoes that of a traditional suburban, post-World War II bedroom community – residential neighborhoods containing primarily single family, detached residences served by pockets of neighborhood commercial and a large retail core accessed by multilane arterial roadways. This land use pattern generally contributes to a higher generation of VMT than denser, more mixed-use land use patterns. The City is considering modifications to the land use patterns, especially in the proposed Downtown area, that generally suggests a future reduction in the generation of VMT per capita.

Existing Level of Service Policy

The LOS has been the most widely used standard for evaluating traffic flow in the past. LOS assigns a grade level based on volume-capacity ratios on segments and signal delay at intersections. As shown in Table 2, LOS describes the quality of flow, ranging from free flow (LOS A) to extreme congestion associated with over-capacity conditions (LOS F).

Table 2: Traffic Level of Service (LOS) Definitions

LOS	Traffic Flow Conditions	Maximum Volume-Capacity Ratio	Signalized Control Delay per Vehicle (seconds)	Unsignalized Control Delay per Vehicle (seconds)
A	Free flow. No traffic-related restrictions on vehicle maneuverability or speed. Speed is determined by drivers' desires, speed limits, and physical roadway conditions.	0.6	≤ 10.0	≤ 10.0
B	Stable flow. Operating speeds start to be restricted; little or no restrictions on maneuverability from other vehicles. Slight delays.	0.7	> 10.0 to 20.0	> 10.0 to 15.0
C	Stable flow. Speeds and maneuverability more closely restricted. Occasional backups behind left-turning vehicles at intersections. Acceptable delays per General Plan.	0.8	> 20.0 to 35.0	> 15.0 to 25.0
D	Approaching unstable flow. Queues develop. Temporary restrictions on speed may cause extensive delays. Little freedom to maneuver. Comfort and convenience low. Delays at intersections may exceed one or more signal changes.	0.9	> 35.0 to 55.0	> 25.0 to 35.0
E	Unstable flow. Stoppages of momentary duration. Low operating speeds. Maneuverability severely limited. Intolerable delays. LOS E represents "at-capacity" conditions.	1.0	> 55.0 to 80.0	> 35.0 to 50.0
F	Forced flow. Gridlock conditions. Stoppages for long periods. Low operating speeds. LOS F represents "over-capacity" conditions.	>1.0	> 80.0	> 50.0

Source: Highway Capacity Manual, 6th Edition, Transportation Research Board (2016)

Policy TR-1 in the existing General Plan establishes LOS C as the minimum operating standard for arterial and collector roadway segments and intersections in Rohnert Park. Exemptions from the LOS C policy are made for certain roadway segments and intersections noted in Policy TR-1. Additionally, an exemption is noted for segments and intersections that operate at LOS D or lower at the time of an application for a development project (or when a Specific Plan is submitted) and no feasible improvements exist to improve the LOS. Under this exemption, the LOS is not permitted to deteriorate further beyond the existing deficient LOS value.

The 2015 traffic study for the PDA Plan area included LOS analysis of an area generally bound by Golf Course Drive, the SMART rail line, Enterprise Drive and Highway 101. The study also included analysis of the ramp intersections at the Highway 101/Golf Course Drive and Highway 101/Rohnert Park Expressway interchanges. The study noted that the intersections of Rohnert Park Expressway/Commerce Boulevard and Rohnert Park Expressway/State Farm Drive operate at LOS D under Year 2015 traffic volumes. Several other intersections were estimated to operate in the LOS C range, which indicates that operations may deteriorate to LOS D or worse in the future. Growth in travel demand over the next 20 years – generated from developments under the City's control and developments not under the City's control – may result in additional intersections operating deficiently with respect to the current LOS C policy.

In addition the PDA Plan analysis, the City also completed an arterial system traffic signal synchronization study for Golf Course Drive (from Labath Avenue to Fairway Drive) and Rohnert Park Expressway (from Redwood Drive to Snyder Lane); a short section of Commerce Boulevard from the northbound US 101 ramps intersection to Golf Course Drive was also included in the study. As part of this report, corridor LOS metrics were computed using traffic data from October 2017. Corridor LOS relies on estimated corridor travel speed data in lieu of intersection delay; nonetheless, corridor LOS is a valuable metric in describing the traveler experience along a corridor. The results of the analysis indicate the following:

- Golf Course Drive generally operates at LOS D on weekdays and weekends, with occasional periods of LOS E operations in the eastbound direction (weekday midday and on the weekend between 1:00 PM and 3:00 PM)
- Rohnert Park Expressway generally operates at LOS D or better on weekdays and weekends; operations in the westbound direction deteriorate to LOS E during the weekday AM, midday and PM peak periods.
- Commerce Boulevard typically operates at LOS E, with LOS F operations observed along southbound Commerce Boulevard during the weekday midday period and throughout the weekend period.¹

The *General Plan Guidelines* note that, while SB 743 will remove LOS from CEQA consideration, LOS is an appropriate tool for the planning and sizing of roadway facilities and intersections. The City has discretion to retain a roadway/intersection LOS policy in the General Plan and require that projects and plans analyze traffic operations as a check for project-level General Plan consistency. It is also noted, however, that the implications of a LOS policy include the construction of larger roadway facilities, which may induce automobile travel and discourage the use of alternative modes of transportation.

Additionally, as noted in the *General Plan Guidelines*, “appropriate fiscal analyses” of capital, operations, and maintenance costs must be prepared to demonstrate a reasonable expectation of implementation of the Transportation Element². This is a key step in addressing the consistency and correlation requirements between the Land Use and Transportation Elements. Many jurisdictions around the Bay Area are adopting less stringent LOS policies or differentiating LOS policies by location or facility type to right-size the transportation infrastructure in a jurisdiction.

Existing Vehicle-Miles Traveled Per Capita

The generation of VMT is influenced by a number of factors that may or may not be influenced by City goals, policies, and plans. These factors include, but are not limited to:

- The position of the City with respect to the region (i.e. positions within Sonoma County, the Redwood Empire, and the Bay Area);

¹ It was noted that LOS E and LOS F conditions along Commerce Boulevard in the vicinity of Golf Course Drive may be due to long traffic signal cycle lengths and not over-capacity or congested roadway conditions.

² This portion of the *General Plan Guidelines* was updated to reflect the *Concerned Citizens of Calaveras County v. Board of Supervisors* case (1985). In this case, the Court of Appeals found that the County’s Circulation and Land Use Elements were not sufficiently correlated due to a failure to identify a reasonable funding strategy to implement the improvements proposed in the Circulation Element. While the *General Plan Guidelines* suggest that this fiscal analysis “should” be done, many agencies elect to perform this analysis due to the precedent set by the *Concerned Citizens* decision.

- The mix, density, and locations of land uses internal and external to the city;
- Access to destinations (accessibility) and speed of travel/congestion (mobility) along automobile, bicycle, pedestrian and transit systems; and
- Costs of travel (e.g., gas prices, transit fares, auto/bike maintenance costs).

Ultimately, VMT generation is an outcome of the interaction between the land use pattern and the multimodal transportation system. General Plan Update policies related to VMT will need to target both land use and transportation to be effective.

OPR's latest guidance on the implementation of VMT analysis for CEQA transportation analysis suggests a comparison between a project's VMT per capita generated versus regional averages. The suggested VMT analysis significance threshold for many land uses is 15 percent below the existing regional average VMT per capita. OPR notes, however, that agencies have discretion to set CEQA VMT analysis significance thresholds based on substantial evidence. Further discussion on the development of VMT analysis thresholds are included in Appendix A.

Figure 5 provides VMT per capita estimates for residential and employment land uses using the MTC travel demand model. The Sonoma County Transportation Authority (SCTA) is currently (as of July 2018) in the process of preparing a travel behavior study for Sonoma County that is anticipated to provide additional information for the assessment of VMT.

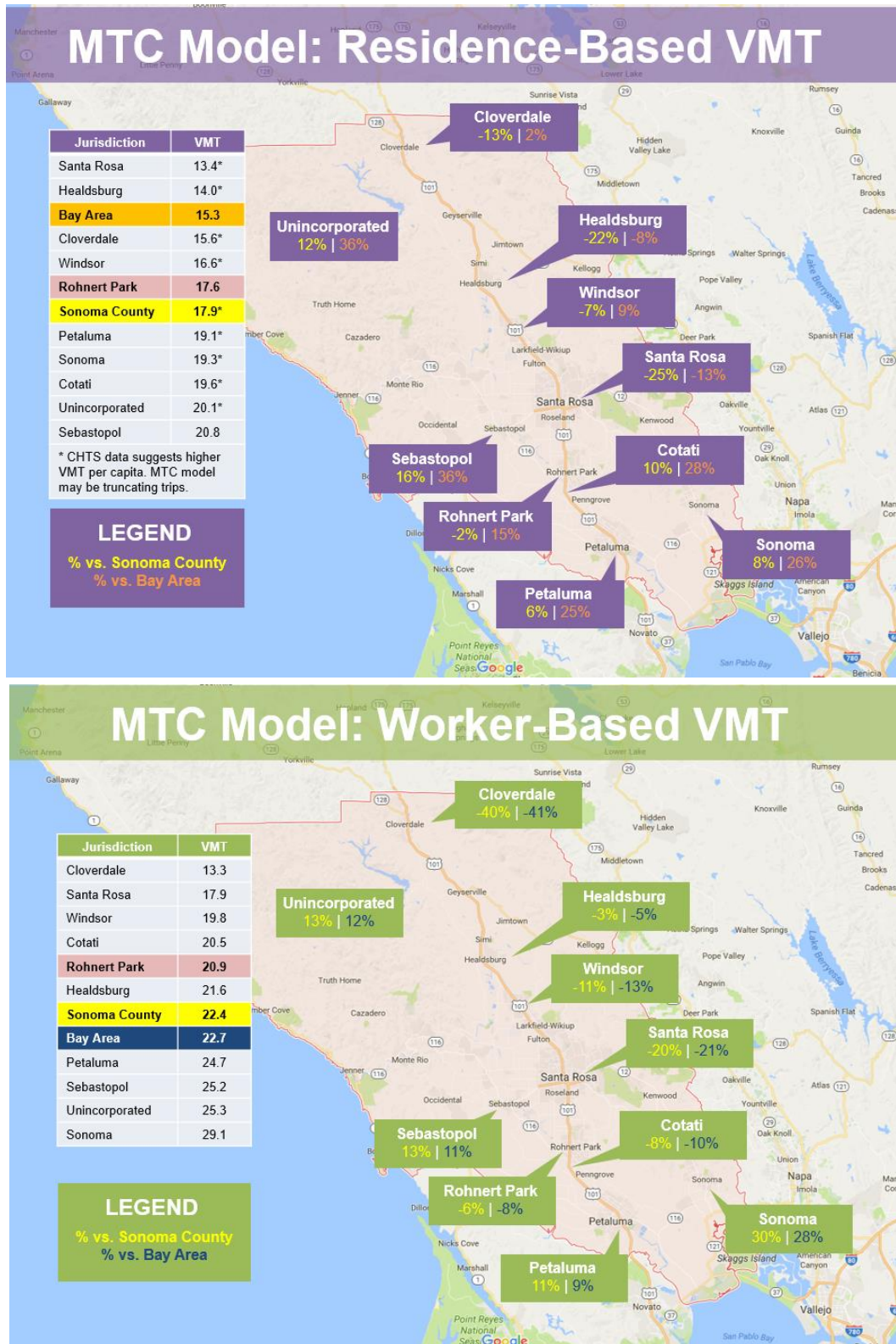
The VMT per capita data from the MTC travel demand model yields the following conclusions regarding the existing state of VMT generation in the city of Rohnert Park:

- Residential VMT per capita (total VMT generated by residential uses divided by the total number of residents) is about 15 percent higher than the Bay Area average (17.6 weekday daily residential VMT per capita for Rohnert Park versus 15.3 weekday daily residential VMT per capita for the Bay Area); Rohnert Park is slightly below the Sonoma County-wide average of 17.9 weekday daily residential VMT per capita.
- Employee VMT per capita (total VMT generated by employment uses divided by the total number of employees) is about eight percent lower than the Bay Area average (20.9 weekday daily employee VMT per capita for Rohnert Park versus 22.7 weekday daily employee VMT per capita for the Bay Area). The Sonoma County-wide employee VMT average is similar to the Bay Area-wide average.

As noted above, the City has the discretion to set CEQA thresholds of significance for VMT analysis based on substantial evidence. The MTC travel demand model data suggests that this effort may be necessary as residential VMT per capita in Rohnert Park is 15 percent above than the regional average, whereas the OPR-suggested significance threshold is 15 percent below the existing regional average. This 30 percent VMT per capita gap is far beyond the maximum expected reductions in VMT if Transportation Demand Management (TDM) strategies are implemented for a given project. A 15 percent threshold may be appropriate for employee VMT per capita as the city is already eight percent below the existing regional average; the attainability of a 15 percent threshold should be explored prior to setting the threshold.

Figure 5:

EXISTING VMT PER CAPITA ESTIMATES FOR ROHNERT PARK AND SONOMA COUNTY CITIES



Source: Metropolitan Transportation Commission Travel Model One, 2015 Horizon Year.

As it relates to the future CEQA evaluation of the General Plan Update, it is noted that the PDA Plan and the overall vision of reshaping the center of the city into a Downtown destination connected by bicycle, pedestrian and transit connections will ultimately aid in reducing future VMT per capita for the city.

Transportation Demand Management as a VMT Reduction Tool

Traditional CEQA mitigation strategies for transportation impacts have involved reducing delay and improving LOS at the intersection or roadway segment level by:

- Increasing capacity by modifying intersection control devices (e.g., signaling a stop-controlled intersection) or adding lanes;
- Modifying a project or plan to reduce the intensity of planned development or improve the mix of uses proposed to encourage interaction between uses; or
- Expanding Transportation Demand Management programs to further encourage travel by other modes (i.e. bicycling instead of driving) or during less congested time periods (i.e., shifting start times so employees do not need to commute during peak periods).

With the shift to VMT as the CEQA transportation metric, the strategies behind CEQA mitigation shift focus from enhancing roadway system operations in favor of reducing the number of automobile trips, reducing the distance of the remaining automobile trips, and increasing vehicle occupancies for automobile trips that do occur. VMT reduction goals can be met through the use of additional TDM strategies or by land use modifications, as noted above.

Chapter 4.2 of the existing General Plan lists several goals and policies related to implementing TDM measures in the city. The implementation of SB 743 VMT analysis may require that the City review the effectiveness of existing TDM strategies and to propose and evaluate future strategies to reduce VMT per capita in the city. A key opportunity resulting from this is that the City may develop a TDM program and use the AB 1600 impact fee program to fund a citywide TDM program, which would allow for projects to link themselves to a VMT reduction program that could mitigate CEQA VMT impacts.

AB 1600 – Mitigation Fee Act (1987):

AB 1600 defines how agencies may institute development impact fees to coordinate capital improvements related to accommodating planned development. In many jurisdictions, project applicants pay these fees in lieu of constructing specific off-site improvements.

Complete Streets Act (AB 1358)

The 2008 Complete Streets Act (AB 1358) requires that the legislative body of a city or county, upon revision of the circulation element of their General Plan after January 1, 2011, identify how the jurisdiction will provide for the routine accommodation of all users of the roadway (i.e., complete streets) including motorists, pedestrians, bicyclists, individuals with disabilities, seniors, commercial goods movement, and users of public transportation.

While the existing General Plan provides strong goals and policies regarding complete street design, some of these newly-required components may not be fully addressed in the current General Plan. For example, the current General Plan does not address freight movement, which is explicitly noted in the text of AB 1358.

Summarizing and Interpreting the Latest Legislation and Guidance

OPR updated the *State General Plan Guidelines* in 2017 to recognize recent laws (including SB 743 and AB 1358), new data resources, and legal decisions. The guidelines for the circulation element (called the Transportation Element in the existing Rohnert Park General Plan) focus on complete streets and reliable funding to ensure the transportation network will adequately support the land use plan. As part of general plan updates, jurisdictions need to demonstrate they have adequate resources to construct, operate, and maintain the transportation network identified to support the population and employment growth planned in the land use element. Other key items addressed in the guidelines include equity considerations related to transportation, as well as emerging transportation trends and technologies (discussed further in this whitepaper).

Several themes have emerged from recent state laws and guidelines that should be considered in the update of the City's Transportation Element.

- The first theme is that a City's decisions must consider the effects on greenhouse gas (GHG) emissions and public health.
- The second theme is that a city's transportation network should be developed, operated, and managed to accommodate all modes and users in a fashion that recognizes the community's land use context.
- The third theme is that compact, infill development is seen as desirable to such an extent that CEQA relief is available through SB 375, SB 226, and SB 743 for those projects that are consistent with Metropolitan Transportation Commission's Regional Transportation Plan and Sustainable Communities Strategy RTP/SCS (i.e., Plan Bay Area 2040) and also meet VMT performance standards.

In addition to these themes, it has become clear that transportation funding constraints must be considered in the development of the Transportation Element improvements. For the purposes of addressing consistency and correlation between the Land Use and Transportation Elements, a General Plan must answer the questions of how much it will cost to build, operate, and maintain the transportation network necessary to support the planned population and employment growth. Further, the General Plan must explain who will pay these costs and when they will be implemented.



AB 1358 and SB 743 shift transportation planning and CEQA from a capacity focus to an accessibility (quality of travel) focus.

The ongoing development of State laws and new court decisions related to GHG emissions and CEQA transportation impact analysis continue to raise new questions for general plans to address. While addressing all the laws and regulations noted above is important, the implementation of SB 743 and complying with the *Newhall Ranch* decision³ are likely to generate the most significant changes in current practice.

Rohnert Park Transportation Fee Program

The City of Rohnert Park Public Facilities Fee includes, in part, funding for transportation improvements in the city that are anticipated to be needed to support planned growth. Improvements covered under the fee include, but are not limited to, capacity improvements and intersection operations improvements (such as traffic signals). Fees for residential developments range from about \$10,000 to \$32,500 per unit, depending on the area of the development and the type of unit developed (single family, multifamily, senior housing, or assisted living). Non-residential developments also pay a fee based on enclosed square footage of building, and the fee for non-residential developments vary by the location of the development and the type of development.

Transportation improvements have historically been identified and funded through a combination of AB 1600 impact fee programs and project-specific mitigation measures identified through CEQA transportation analysis. AB 1600 fee programs typically fund improvements addressing longer-term, cumulative transportation needs, whereas project-specific CEQA analysis may identify the need for improvements that may or may not be included in the AB 1600 fee program. Both of these funding mechanisms have traditionally used automobile LOS to identify needs for the transportation system.

As SB 743 has removed automobile LOS as a consideration for CEQA transportation analysis in favor of a VMT-based analysis, the avenue of using project-specific CEQA mitigation measures for funding project-specific roadway capacity enhancements not covered in the AB 1600 fee program will not be available in its current form. As noted later in this whitepaper, SB 743 does not prevent an agency from requiring analysis of a project's effects on automobile LOS, but this analysis would no longer be incorporated in the CEQA document, nor would it form the basis of mitigating a CEQA VMT transportation impact.

In light of this new CEQA paradigm, agencies are exploring a VMT-based transportation impact fee program that is designed to provide a tie-in to CEQA VMT transportation analysis and provide funding for multimodal transportation improvements that have the benefit of reducing VMT. In some cases, the VMT-based transportation impact fee program may form a basis for a mitigation measure for CEQA VMT impacts. This represents a new opportunity to align the City transportation fee program with elements of sustainable transportation planning and design, while providing a crucial tie-in between CEQA VMT analysis and funding for transportation improvements associated with new development.

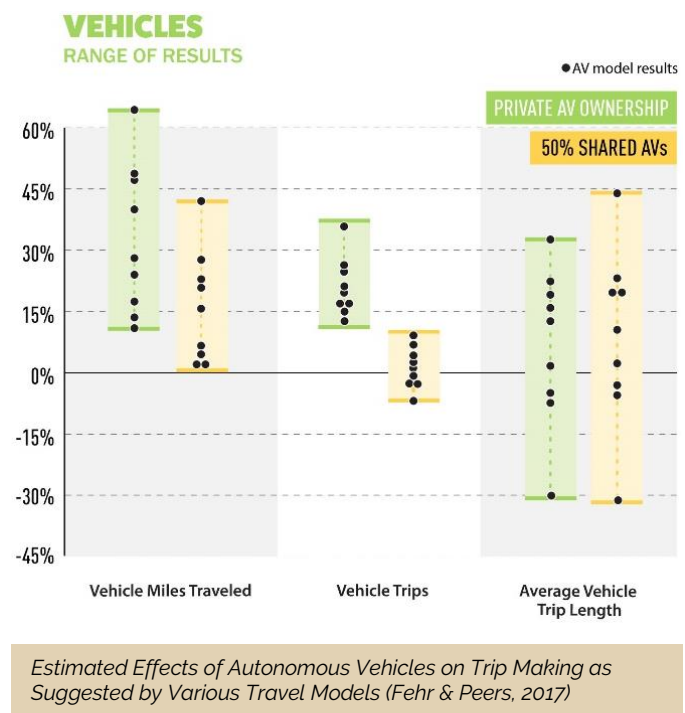
³ The *Newhall Ranch* case established that evaluating the significance of residential or mixed-use greenhouse gas emissions for CEQA purposes may incorporate statewide emissions reductions targets (AB 32) as a measuring stick in determining significance, but that data for a specific project in a specific location must be used in the analysis to provide local context.

Emerging Transportation Trends and Technologies

The field of transportation planning is evolving at a rate not seen since the automobile was first mass produced in the early 20th Century. Transportation network companies (TNCs) such as Lyft and Uber are providing mobility as a service, and the prospect of autonomous vehicles (AVs) may result in a transportation future where the vast majority of Americans do not own a vehicle, but still ride in an automobile. Additionally, the population is aging, thus placing a premium on designing a transportation system that accommodates users of all ages.

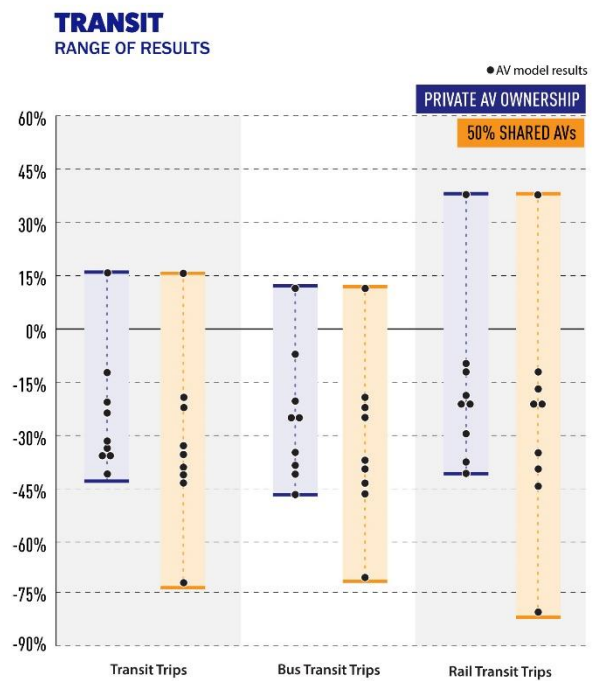
There is not yet consensus as to how emerging transportation trends and technologies will affect transportation. Testing of these evolutionary trends in typical transportation forecasting tools (travel demand models, traffic operations models, etc.) suggests the following potential outcomes over the next 20 years:

- Operational efficiencies associated with electric AVs and the proliferation of mobile connectivity may result in travel by automobile TNCs becoming more commonplace. This could make the trip between transit stations and residences/places of employment more convenient, which would encourage transit use. On the other hand, if travel by AV/TNC may become so efficient and cheap that it could make transit usage less desirable (versus driving). Likewise, since AV/TNCs may always be traveling on the road between ride requests, there may be many empty vehicles on the road. This has large implications for VMT per capita generation and how it would apply to CEQA analysis.



- If AV/TNCs become more commonplace, it could reduce the need for on-street and off-street parking. Surface parking lots may be re-allocated to accommodate additional development. Likewise, increased use of electric vehicles will make the expansion of charging stations a critical need. This may result in the need to adjust parking standards related to the provision of electric vehicle charging stations or other changes made as part of site design requirements.
- If online retail continues to capture market share, the need for traditional retail space may be reduced. Delivery technologies, such as drone delivery and pick up/drop off centers, may reduce the need for private retail trips.

- Testing of current AV operating parameters in freeway traffic simulation models suggests an increase in freeway capacity from about 2,000 vehicles per hour per lane to over 3,000 vehicles per hour per lane. While this suggests that freeways will be able to accommodate more vehicles in the future, the implication is that interchanges, ramps and arterials must be designed to accommodate increased demands entering and exiting from a freeway.
- Equity considerations for transportation may increase the need to demonstrate that programs effectively serve all segments of the community.
- Traditional methods of funding transportation programs (gas tax, etc.) may become less dependable, and new funding streams may be required to fund improvements to, and maintenance of, the transportation system.



Estimated Effects of Autonomous Vehicles on Transit Ridership as Suggested by Various Travel Models (Fehr & Peers, 2017)

As land use and transportation are linked, flexibility in both land use and transportation planning will be critical in responding to the uncertain future of transportation. Policies should be developed and revisited over time to provide the City with the flexibility to meet the community's goals.

REGULATORY SETTING

Federal Agencies and Regulations

Federal Highway Administration

The Federal Highway Administration (FHWA) is the agency of the United States Department of Transportation (DOT) responsible for the federally-funded roadway system, including the interstate highway network and portions of the primary State highway network, such as Highway 101. FHWA funding is provided through the Moving Ahead for Progress in the 21st Century (MAP-21). MAP-21 can be used to fund local transportation improvements in Rohnert Park, such as projects to improve the efficiency of existing roadways, traffic signal coordination, bikeways, and transit system upgrades.

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency for people with disabilities. To implement this goal, the United States Access Board, an independent federal agency created in 1973 to ensure accessibility for

people with disabilities, has created accessibility guidelines for public rights-of-way. While these guidelines have not been formally adopted, they have been widely followed by jurisdictions and agencies nationwide in the last decade. The guidelines, last revised in July 2011, address various issues, including roadway design practices, slope and terrain issues, pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way. The guidelines apply to all proposed roadways in the project area.

State Agencies, Regulations, and Policies

California Department of Transportation

The California Department of Transportation (Caltrans) is the primary State agency responsible for transportation issues. One of its duties is the construction and maintenance of the State Highway System. Caltrans has established standards for roadway traffic flow and developed procedures to determine if State-controlled facilities require improvements. For projects that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken. For projects that would not physically affect facilities, but may influence traffic flow and levels of services at such facilities, Caltrans may recommend measures to mitigate the traffic impacts of such projects. Caltrans facilities within the General Plan Update area includes Highway 101, as well as the on- and off-ramps from this State facility.

The following Caltrans procedures and directives are relevant to the project, particularly State roadway facilities:

- **Caltrans Project Development Procedures Manual.** This manual outlines pertinent statutory requirements, planning policies, and implementing procedures regarding transportation facilities. It is continually and incrementally updated to reflect changes in policy and procedures. For example, the most recent revision incorporates the Complete Streets policy from Deputy Directive 64-R1, which is detailed below.
- **Caltrans Deputy Directive 64.** This directive requires Caltrans to consider the needs of non-motorized travelers, including pedestrians, bicyclists, and persons with disabilities, in all programming, planning, maintenance, construction, operations, and project development activities and products. This includes incorporation of the best available standards in all of Caltrans' practices.
- **Caltrans Deputy Directive 64-R1.** This directive requires Caltrans to provide for the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system. Caltrans supports bicycle, pedestrian, and transit travel with a focus on "complete streets" that begins early in system planning and continues through project construction, maintenance, and operations.
- **Caltrans Director's Policy 22.** This policy establishes support for balancing transportation needs with community goals. Caltrans seeks to involve and integrate community goals in the planning, design, construction, and maintenance and operations processes, including accommodating the needs of bicyclists and pedestrians.

- **Environmental Assessment Review and Comment.** Caltrans, as a responsible agency under the CEQA, is available for early consultation on projects to provide guidance on applicable transportation analysis methodologies or other transportation related issues, and is responsible for reviewing traffic impact studies for errors and omissions pertaining to the State highway facilities. In relation to this role, Caltrans published the *Guide for the Preparation of Traffic Impact Studies* (December 2002), which establishes the Measures of Effectiveness. The Measures of Effectiveness are used to determine significant impacts on State facilities. The Guide also mandates that traffic analyses include mitigation measures to lessen potential project impacts on State facilities and to meet each project's fair share responsibilities for the impacts. However, the ultimate mitigation measures and their implementations are to be determined based on consultation between Caltrans, the City of Rohnert Park, and the project proponent.

California Transportation Commission

The California Transportation Commission (CTC) consists of nine members appointed by the Governor. The CTC is responsible for the programming and allocation of funds for the construction of highway, passenger rail, and transit improvements throughout the State. The CTC is also responsible for managing the State Transportation Improvement Program (STIP) and the State Highway Operation and Protection Program (SHOPP) funding programs.

Assembly Bill (AB) 1358/Complete Streets Act of 2008

The California Complete Streets Act (Assembly Bill 1358) requires cities and counties, when updating their general plans, to ensure that local streets meet the needs of all users.

Assembly Bill (AB) 32

With AB 32, the Global Warming Solutions Act of 2006, the State of California committed itself to reducing greenhouse gas (GHG) emissions to 1990 levels by 2020. The California Air Resources Board (CARB) is coordinating the response to comply with AB 32.

In 2007, CARB adopted a list of early action programs that could be put in place by January 1, 2010. In 2008, CARB defined its 1990 baseline level of emissions, and by 2011 it completed its major rule making for reducing GHG emissions. Rules on emissions, as well as market-based mechanisms like the proposed cap and trade program, took effect in 2012.

On December 11, 2008, CARB adopted its Proposed Scoping Plan for AB 32. This scoping plan included the approval of Senate Bill (SB) 375 as the means for achieving regional transportation related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks can help the State comply with AB 32.

Senate Bill (SB) 743

SB 743 includes the following two legislative intent statements:

- Ensure that the environmental impacts of traffic, such as noise, air pollution, and safety concerns, continue to be properly addressed and mitigated through the California Environmental Quality Act.

- More appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.

These statements are important because they provide direction to OPR and to lead agencies. For OPR, the direction is largely about what new metrics should achieve. For lead agencies, the direction is about expected changes in transportation analysis (and related technical areas) plus what factors to consider for significance thresholds. Further discussion regarding VMT impact analysis, VMT threshold setting, and VMT CEQA mitigation measures is provided in Appendix A.

To implement this intent, SB 743 contains amendments to current congestion management law that allows cities and counties to effectively opt-out of the LOS standards that would otherwise apply. Further, SB 743 requires the Governor's Office of Planning and Research (OPR) to update the CEQA Guidelines and establish, *"... criteria for determining the significance of transportation impacts of projects within transit priority areas."* The new criteria, *"... shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses."* Once the Secretary of the Natural Resources Agency certifies the new guidelines, then *"...automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment..., except in locations specifically identified in the guidelines, if any."*

SB 743 does not prevent a city or county from continuing to analyze delay or LOS as part of other plans (i.e. the general plan), fee programs, or on-going network monitoring, but these metrics will no longer constitute the sole basis for CEQA impacts. Cities or counties that feel that continued use of vehicle LOS is an important part of their transportation analysis process can still use vehicle LOS outside of the CEQA process. The most common applications will likely occur for jurisdictions wanting to use vehicle LOS to size roadways in their general plan or determine nexus relationships for their impact fee programs. Jurisdictions can also continue to condition projects to build transportation improvements through the entitlement process in a variety of ways, such as using general plan consistency findings.

OPR submitted final guidelines in late 2017 to the Resources Agency for rulemaking and is recommending automobile⁴ Vehicle Miles Traveled (VMT) as the preferred CEQA transportation metric and the elimination of auto delay and LOS Statewide. The 2017 OPR documents include specific CEQA Guidelines changes and a Technical Advisory (advisory updated in April 2018) with specifications for VMT methodology and recommendations for significance thresholds and mitigation. As noted above, SB 743 requires impacts to transportation network performance to be viewed through a filter that promotes *"the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses."* VMT can help identify how projects (land development and infrastructure) influence accessibility (i.e., lower VMT may indicate increased multimodal access to places and people) and emissions, so its selection is aligned with the objectives of SB 743.

⁴ Automobile includes passenger cars and light trucks. However, OPR's Technical Advisory allows VMT analysis to include all vehicles (i.e., commercial trucks).

Local Agencies, Regulations, and Policies

Metropolitan Transportation Commission (MTC)

The Metropolitan Transportation Commission (MTC) is responsible for regional transportation planning in the nine-county San Francisco Bay Area. MTC most recently updated its Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), a federally-mandated 20-year blueprint for the region, in 2017. This RTP/SCS is known as Plan Bay Area 2040. RTPs must be developed in cooperation with State and local stakeholders and provide a clear vision of the regional transportation goals, policies, objectives, and strategies. This vision must be realistic and within fiscal constraints. Responsibility for approving and overseeing improvements to the State highway system rests with Caltrans, while each local jurisdiction (cities and counties) is responsible for planning and implementing improvements to the streets within its boundaries.

The RTP/SCS set forth the following goals; each goal has associated supportive strategies to help guide implementation, and performance indicators by which the region can assess its progress.

- **Climate Protection** – Reduce per capita carbon dioxide (greenhouse gas) emissions
- **Adequate Housing** – House the region's population
- **Healthy and Safe Communities** – Reduce adverse health impacts
- **Open Space and Agricultural Preservations** – Direct development within urban footprint
- **Equitable Access** – Decrease share of lower-income households' budgets spent on housing and transportation, increase share of affordable housing, and not increasing the share of households at risk of displacement
- **Economic Vitality** – Increase share of jobs accessible in congested conditions, increase jobs in middle-wage industries, and reduce per-capita delay on freight network
- **Transportation Effectiveness** – Increase non-auto mode share, reduce vehicle operating and maintenance costs due to pavement conditions, and reduce per-rider transit delay due to aged infrastructure

Sonoma County Countywide Bicycle and Pedestrian Master Plan

The Sonoma County Transportation Authority (SCTA) prepared a Countywide Bicycle and Pedestrian Master Plan, which was adopted in 2014. The Master Plan identifies key bicycle and pedestrian connections in each of the nine incorporated cities in Sonoma County, and provides guidance on connectivity between cities in Sonoma County. The document also identifies programs and educational guidelines that encourage a greater shift in bicycle mode share within Sonoma County. More information can be found on the SCTA website.

Shift Sonoma County – Low Carbon Transportation Action Plan

The Sonoma County Transportation Authority/Regional Climate Protection Agency (SCTA/RCPA) prepared a low carbon transportation plan, known as Shift Sonoma County, which was adopted in 2018. Shift Sonoma County identifies key mode shift and fuel shift (i.e. carbon-based fuels to electric) opportunities and provides a framework for interagency coordination. A model Transportation Demand Management (TDM) ordinance is also provided. More information can be found on the SCTA website.

KEY TERMS

AB 1358. Assembly Bill 1358, the Complete Streets Act.

AB 1600. Assembly Bill 1600, the Mitigation Fee Act.

AB 32. Assembly Bill 32, the Global Warming Solutions Act.

ADA. Americans with Disabilities Act.

AV. Autonomous Vehicle. Also known as a "self-driving" vehicle.

Caltrans. California Department of Transportation.

CEQA. California Environmental Quality Act.

CIP. Capital Improvement Plan.

GGT. Golden Gate Transit.

GHG. Greenhouse gasses.

HOV. High-occupancy vehicle.

LOS. Level of Service.

MTC. Metropolitan Transportation Commission

OPR. California State Office of Planning and Research.

PDA. Priority Development Area.

RTP/SCS. Regional Transportation Plan/Sustainable Communities Strategies.

SB 743. Senate Bill 743.

SMART. Sonoma-Marín Area Rail Transit.

SCT. Sonoma County Transit.

SCTA/RCPA. Sonoma County Transportation Authority/Regional Climate Protection Agency.

TDM. Transportation Demand Management.

TNC. Transportation Network Company (i.e. Lyft/Uber).

VMT. Vehicle-Miles Traveled.

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APPENDIX A: SB 743 CEQA VMT ANALYSIS AND THRESHOLD SETTING

The following discussion presents a more detailed background on CEQA VMT impact analysis, threshold setting and mitigation options.

SB 743 VMT Impact Analysis Methodology

The OPR *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* makes it clear that both short-term and long-term projects effects on VMT should be analyzed, but specifically how to perform this analysis is left up to the lead agencies.

"Analyses should also consider both short- and long-term effects on VMT." – Page III:16

The VMT impact analysis methodology should be able to estimate 'project generated VMT' and the 'project's effect on VMT' under both project and cumulative conditions. This statement holds true for land use projects, land use plans (i.e., the general plan), and transportation projects. Regional models such as MTC Travel Model One tend to be the preferred tools for this type of analysis, but spreadsheet or sketch models may also be applicable if populated with accurate and defensible input data. Regional models can often serve as a source of this data, which may be required if the regional model was used to establish VMT impact thresholds. OPR recommends that the VMT analysis methodology used to set thresholds should be the same as that used for project analysis to ensure an apples-to-apples comparison.

"When using models and tools for those various purposes, agencies should use comparable data and methods, in order to set up an 'apples-to-apples' comparison between thresholds, VMT estimates, and mitigation VMT estimates." – Page III:15

Since project generated VMT estimates for land use projects will typically rely on just two variables, vehicle trips and vehicle trip lengths, the methodology used to estimate these two parameters deserve special attention. ITE vehicle trip rates are a common data source but these rates are not calibrated and validated for California jurisdictions, which limits their accuracy and defensibility. In fact, the *ITE Trip Generation Handbook* recommends relying on locally valid data to produce accurate vehicle trip generation estimates, in particular, to account for local land use context effects. One way to accomplish this outcome is to rely on methods such as the [US EPA MXD trip generation tool](#), which modifies ITE vehicle trip generation estimates to account for seven built environment variables related to land use and demographics. Alternatively, jurisdictions can perform local land use specific trip generation studies. For trip lengths, limited data exists typically from aggregate [household travel surveys](#), big data vendors (i.e., [StreetLight](#)), or regional travel forecasting models.

As noted above, the 'project generated VMT' estimates will need to be supplemented with analysis that demonstrates the 'project's effect on VMT'. This type of analysis provides a more complete picture of how a project will influence existing and future VMT associated with the project and the surrounding generators of VMT. This method recognizes that the land use projects and land use plans approved by cities and counties only influence the potential supply of land use types and amounts (and sometimes their form) that can occur on specific parcels. These decisions do not change the long-term projections of population and employment at a regional or even sub-regional scale, but they will influence the future allocation of that growth, which may result in more or less VMT. Since VMT is a composite metric that reflects the combination of influences from the transportation network, land use patterns, travel behavior, etc., the main CEQA question should be whether the changes proposed by the project result in a better or worse VMT outcome

over time (i.e., the cumulative scenario). Otherwise, decision makers and the public will be misinformed about how a project is likely to affect VMT and its related influence on other effects such as emissions. All project generated VMT estimates will show a net positive while the project's effect on VMT could be an increase or a decrease. Judging projects or plans solely on a projected generated threshold could result in significant impacts for projects that would realistically be reducing the potential long-term VMT for the area.

For transportation projects, the OPR *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* includes a spreadsheet methodology for estimating induced VMT using elasticities of VMT to lane miles based on published research. While this methodology is simple to use, it will always show an increase in VMT with any increase in lane miles. Roadway networks can generate more complex relationships especially if a roadway projects helps to fill a gap in the network (i.e., new bridges) such that VMT may decrease. Hence, regional models tend to be preferred if a complete analysis of VMT effects is desired.

Setting VMT Significance Thresholds

In general, the CEQA Guidelines Section 15064.7 allows lead agencies the discretion to select their own transportation impact metrics and thresholds. SB 743 limits that discretion to some degree by directing OPR to select a new transportation impact metric and to provide guidance on thresholds. Further, SB 743 included Section 21099(e), which likely limits the ability of lead agencies to select thresholds less protective of the environment than those recommended by OPR. Another important aspect of Section 15064.7 is that the selection of thresholds needs to be supported by substantial evidence. This means that the selection of VMT thresholds needs to consider data, facts, research, and analysis related to what amount of VMT change would constitute a significant impact.

While OPR has developed specific VMT impact thresholds for project-related impacts (the current guidance does not fully address cumulative impacts), current practice has not sufficiently evolved where a clear line can be drawn between 'acceptable' and 'unacceptable' levels of VMT change for purposes of determining significant transportation impacts. Instead, lead agencies will need to consider a variety of evidence from sources such as those listed below to create the substantial evidence to support a new VMT threshold.

- AB 32 Scoping Plan.
- SB 375 Targets and MTC RTP-SCS.
- SB 743 Objectives and OPR's recommendations.
- ARB Mobile Source Strategy.
- Governor's Executive Orders (EO-S-3-05, EO-B-16-12, and EO-B-30-15).
- Caltrans Strategic Management Plan (SMP) VMT Reduction Target.
- Caltrans Smart Mobility Framework.
- CAPCOA's Quantifying Greenhouse Gas Mitigation Measures.
- ARB's Zero Carbon Buildings.

Given this information, lead agencies have at least two options for setting thresholds.

1) Rely on VMT threshold recommendations developed by OPR.

Lead agencies may rely on the thresholds contained in the OPR SB 743 recommendations once they are final. The current OPR threshold guidance is contained in the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, California Governor's Office of Planning and Research, April 2018. The thresholds cover land use projects, land use plans, and transportation projects.

OPR recommendations for residential and office land use project VMT thresholds are set at fifteen percent below baseline VMT/capita (i.e., resident) and VMT/employee for the city or region (within MPO areas). A typical new suburban development project can expect project changes and transportation demand management (TDM) measures detailed in the *Quantifying Greenhouse Gas Mitigation Measures*, California Air Pollution Control Officers Association (CAPCOA), August 2010 to reduce VMT by a maximum of up to ten percent (fifteen percent in a "suburban center" similar to downtown Rohnert Park). Hence, the OPR threshold is set at the maximum level of potential VMT reduction in a suburban center expected from project design and TDM strategies according to CAPCOA. This maximum was not derived from statistical research about the actual effectiveness of TDM strategies in different community types. Further, available research confirms that TDM strategy effectiveness is heavily influenced by project site location and the ultimate site tenants, which can change over time. Considering this additional information raises questions about whether the TDM effectiveness especially in suburban areas could achieve the CAPCOA maximums. Nevertheless, for projects not able to reach the CAPCOA maximum level of reduction, VMT impacts would be significant and unavoidable.

For land use plans such as the general plan, the OPR recommendation is that a significant impact may occur if the plan is not consistent with the relevant RTP-SCS (i.e., the MTC Plan Bay Area for the City of Rohnert Park). Consistency with the SCS means all of the following are true.

- Development specified in the plan is also specified in the RTP-SCS (i.e. the plan does not specify developing in outlying areas specified as open space in the RTP-SCS).
- Taken as a whole, development specified in the plan leads to VMT that is equal to or less than the VMT per capita and VMT per employee specified in the RTP-SCS.

For transportation projects, the current OPR recommendation is being modified, so it should not be relied upon. In general, transportation projects have the potential to generate induced VMT. The key question regarding induced VMT is whether some or all of it is undesirable such that a threshold can be associated with it.

A key limitation of the OPR recommendations is that they only cover project impact thresholds for residential, office, and retail land uses. Other land uses are not addressed and guidance for cumulative impacts is limited to avoiding inconsistencies with the relevant RTP-SCS.

2) Develop jurisdiction-specific VMT thresholds.

Lead agencies have the option to develop their own VMT thresholds for land use plans, land use projects, and transportation projects. Determining when a VMT change represents a significant impact is

difficult to establish without linking VMT to other environmental resources and considering its relationship to the built environment and economic factors. This determination already occurs for energy, air quality, and GHGs, so agencies will need to consider how VMT is used in these other impact areas in establishing a new threshold specifically for transportation. As such, it will also be important to consider that VMT, by itself, is a composite metric that measures the vehicle travel effect associated with land use patterns, growth, transportation network changes, and human travel behavior. Further, VMT also varies over time as a function of economic activity and travel cost. VMT tends to increase with economic activity and decline with higher costs for vehicle travel (i.e., higher gas prices). New trends associated with growing use of TNCs along with future shifts to automated vehicles are likely to complicate VMT forecasts since the potential change is highly dependent on whether future vehicles are heavily shared.

Under either option, threshold setting is likely to involve consideration of VMT forecasts from the regional MTC travel model. This conclusion is drawn from the combination of OPR recommendations to evaluate projects based on RTP-SCS consistency, VMT forecasts that are not constrained to political boundaries, and threshold benchmarks tied to citywide or region-wide scales.

Complying directly with the OPR recommendations would result in the following thresholds for a typical residential project in Rohnert Park.

- Using the 2015 daily VMT per resident estimates in Table 3 above, the VMT threshold for new residential projects would be either 15 percent below the regional average (i.e., $0.85 \times 15.3 = 13.0$) or citywide average (i.e., $17.9 \times 0.85 = 15.2$).
- Using the 2040 daily VMT per resident estimates in Exhibit 4, the Rohnert Park VMT threshold for new residential projects would be either 15 percent below the regional average (i.e., $0.85 \times 13.8 = 11.7$) or citywide average (i.e., $16.3 \times 0.85 = 13.9$).

Since the OPR recommendations tie the thresholds to 'baseline' conditions, the actual threshold should be based on an interpolation between the 2015 and 2040 values for a project's specific baseline year. Also, note that rounding can matter and the City will also need to decide how many decimal places to include. Given the accuracy of forecasts, more than one decimal place is typically not reasonable. For employment-related land uses, daily VMT per worker would be required. For land uses such as local-serving retail that have the potential to reduce existing VMT, total VMT estimates would be needed. All of this information is available from the regional model and total VMT is typically generated for the air quality, GHG, and energy impact analysis for projects. The proposed SB 743 guidelines include language that would allow for total VMT to be used for all CEQA impact analysis purposes.

As noted above, evaluating project effects on VMT or VMT per resident or worker should consider that most development projects only involve changing land use type or expanding allowed land use supply. As such, project generated VMT effects should rely on constant levels of population growth, employment growth, student growth, and income within the study area unless substantial evidence exists to demonstrate that the project approval will change these variables. In almost all land use decisions, the change in general plan land use designation and underlying zoning will only affect the allocation of future growth within a region.

VMT CEQA Mitigation Alternatives

VMT mitigation typically involves modifying the project to reduce its VMT generation or VMT effect (such as inducing additional vehicle trips through an expanded roadway). This is a different focus compared to current transportation impact practice where the use of vehicle LOS usually involves modification of the external roadway network to increase capacity. This traditional form of mitigation can lead to induced vehicle travel leading to even more VMT.

Mitigation Options for Land Use Plans and Development Projects

As explained above, the use of VMT changes the focus of transportation impact analysis and mitigation. In some cases, this change could be substantial for jurisdictions and developers comfortable with current practice where transportation impacts and mitigation largely affect the external roadway network. With the impact spotlight shining on VMT, more attention will center on the project's physical design and whether it incorporates strategies to reduce vehicle use and encourage active transportation and transit use.

To reduce VMT for mitigation purposes, the type of project matters. For large area land use plans such as general plans and specific plans, mitigation will typically focus on physical design elements related to the ultimate built environment, which includes the density and mix of land uses in and around the project area plus the availability and quality of the transportation network related to transit, walking, and bicycling. As project scale shrinks, TDM strategies become more relevant especially when they can be tied directly to the ultimate project occupants or tenants.

Key references describing the possible built environment and TDM strategies as well as their effectiveness at reducing VMT are listed below.

- [*Quantifying Greenhouse Gas Mitigation Measures*](#), CAPCOA, 2010
- *SB 375 Research on Impacts of Transportation and Land Use-Related Policies*, California Air Resources Board - <https://arb.ca.gov/cc/sb375/policies/policies.htm>
- *Integrating Demand Management into the Transportation Planning Process: A Desk Reference*, FHWA, 2013 - <http://ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf>

The CAPCOA document contains a matrix below organizes various VMT reduction strategies into groups. The matrix generally presents VMT reduction strategies for development projects as one of three basic intervention types:

- Project improvements (such as adding mixed-use components to a project, including affordable housing units, limiting the parking supply, or providing enhanced pedestrian access),
- Transportation programs (such as shuttle service, marketing, and carshare provision), and
- Public amenities (including funding transit service expansion, and land use characteristics of surrounding parcels).

Using groups to organize the strategies helps to identify the maximum level of expected VMT reduction based on community type because strategy effectiveness is directly related to the built environment of an area (e.g., a city center versus rural town). To apply the matrix, users start at the top in the first row to

understand the maximum reduction expectations regardless of the combination of individual strategies. The second row further subdivides the first row to help clarify the specific maximum reduction potential based on specific sub categories. For example, a development project in a suburban area will generally be able to achieve a maximum VMT reduction of about 10 to 15 percent based on the five subcategories of transportation measures in the matrix. To understand how this maximum applies consider a specific strategy such as unbundled parking costs that has a 13 percent reduction potential. In a suburban center with a maximum reduction potential of 15 percent from the four transportation measure categories, the unbundled parking cost effectiveness could be applied fully. In a suburban community such as Rohnert Park, the maximum reduction of 10 percent in the second row would limit the effectiveness of this individual strategy to 10 percent and no further strategies could improve on that outcome with the exception of pricing.

Mitigations external to the project will largely include potential fair-share funding for area-wide or jurisdiction-wide programs such as transit improvements or enhanced active transportation networks. For communities that already embrace goals to reduce VMT, transportation impact analysis for CEQA compliance may become more streamlined with less overall effort associated with impact analysis and mitigation.

Mitigation Options for Transportation Projects

The California Air Resource Board website noted above also contains transportation-related policy options, which can be used as mitigation for land use or transportation projects. Based on the current OPR guidance, the only transportation projects likely to have VMT impacts are larger roadway capacity expansion projects. Transit, bicycle, pedestrian, and smaller roadway modifications would be presumed to have a less than significant impact because they would either help to reduce VMT or cause negligible VMT increases. Mitigation for larger roadway projects may need to consider potential modifications to the project that would minimize VMT increases possibly through managed lane operation (i.e., construction of high-occupancy vehicle lanes instead of general purpose lanes) or integration of transit, bicycle, or pedestrian facilities into a project that increases non-auto travel.

Figure A1:
VTM MITIGATION MEASURES OF EFFECTIVENESS

Transportation Measures (Five Subcategories) Global Maximum Reduction (all VMT): Urban = 75%; Compact Infill = 40%; Suburban Center or Suburban with NEV= 15%; Suburban = 10%					Global Cap for Road Pricing needs further study	
Transportation Measures (Four Categories) Cross-Category Max Reduction (all VMT): Urban = 70%; Compact Infill = 35%; Suburban Center or Suburban with NEV= 15%; Suburban = 10%				Max Reduction = 15% overall; Work VMT = 25%; School VMT = 65%	Max Reduction = 25% (all VMT)	
Land Use/Location Max Reduction: Urban = 55%; Compact Infill = 30%; Suburban Center = 10%; Suburban = 5%	Neighborhood/ Site Enhancement Max Reduction without NEV = 5%; with NEV = 15%	Parking Policy/ Pricing Max Reduction = 20%	Transit System Improvements Max Reduction = 10%	Commute Trip Reduction (assumes mixed use) Max Reduction = 25% (work VMT)	Road Pricing Management Max Reduction = 25%	Vehicles
Density (30%)	Pedestrian Network (2%)	Parking Supply Limits (12.5%)	Network Expansion (8.2%)	CRT Program Required = 21% work VMT Voluntary = 6.2 work VMT	Cordon Pricing (22%)	Electrify Loading Docks
Design (21.3%)	Traffic Calming (1%)	Unbundled Parking Costs (13%)	Service Frequency/Speed (2.5%)	Transit Fare Subsidy (20% work VMT)	Traffic Flow Improvements (45% CO ₂)	Utilize Alternative Fueled Vehicles
Location Efficiency (55%)	NEV Network (14.4) <NEV Parking>	On-street Market Pricing (5.5%)	Bus Rapid Transit (3.2%)	Employee Parking Cash-out (7.7% work VMT)	Required Contributions by Project	Utilize Electric or Hybrid Vehicles
Diversity (30%)	Car Share Program (0.7%)	Residential Area Parking Permits	Access Improvements	Workplace Parking Pricing (19.7% work VMT)		
Destination Accessibility (20%)	Bicycle Network <Lanes> <Parking> <Land Dedication for Trails>		Station Bike Parking	Alt Work Schedules & Telecommute (5.5% work VMT)		
Transit Accessibility (25%)	Urban Non-motorized Zones		Local Shuttles	CRT Marketing (5.5% work VMT)		
BMR Housing (1.2%)			Park & Ride Lots	Employer Sponsored Vanpools/Shuttles (13.4% work VMT)		
Orientation Toward Non-auto Corridor				Ride Share Program (15% work VMT)		
Proximity to Bike Path				Bike Share Program		
				End of Trip Facilities		
				Preferential Parking Permit		
				School Pool (15.8% school VMT)		
				School Bus (5.3% school VMT)		

Source: Quantifying Greenhouse Gas Mitigation Measures, California Air Pollution Control Officers Control Association, 2010.

Continued Use of LOS after Adoption of VMT Methodology and Thresholds

As noted previously, the City of Rohnert Park may continue to use vehicle LOS as part of their transportation planning and entitlement review if the community so desires. The loss of vehicle LOS in CEQA will likely reinforce the importance of the general plan and supporting implementation methods (such as impact fee programs) as the primary means for defining a jurisdiction's policy approach to transportation network operation and expansion. **This is because agencies, for the most part, will no longer be able to use CEQA as a basis for requiring that development projects fund off-site transportation infrastructure improvements.** To the extent that agencies wish to continue to have development projects contribute to off-site transportation improvements, it would occur through collection of traffic impact fees, other funding mechanisms, and/or conditions of approval.

As the importance of general plans increase, it is worth noting that many General Plan Circulation Elements (and resulting traffic impact fees) were developed without consideration of capital, operations, and maintenance financial constraints. Jurisdictions may also find themselves in this situation if the traffic impact fee necessary to fully fund the circulation element exceeds a reasonable level that could be supported within the real estate and development marketplace.

Any general plan LOS expectations (and commensurate development levels) should reflect the amount of infrastructure the jurisdiction can afford to build, operate, and maintain. Development projects consistent with this type of General Plan would require little (or no) vehicle LOS impact analysis for off-site roadways or intersections, but instead could focus on issues such as the adequacy of multi-modal site access and parking provision to comply with applicable design standards. This could substantially reduce the effort required in typical CEQA transportation impact studies.

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ENVISION ROHNERT PARK 2040

Climate Change Whitepaper

Prepared for:

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Planning Tomorrow Today™



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CLIMATE CHANGE WHITEPAPER

INTRODUCTION

This Whitepaper describes current conditions, trends, and regulatory issues pertaining to climate change as it relates to Rohnert Park. It includes an inventory of greenhouse gas emissions (GHG) and an assessment of climate change related vulnerabilities, such as extreme heat, precipitation, drought, wildfire, and flooding. The Whitepaper describes and builds on information from state agencies, utilities, and other organizations. These include the California Air Resources Board, the California Energy Commission, the Governor's Office of Planning and Research, private utilities (such as Pacific Gas and Electric), and local governmental entities including Sonoma Clean Power, Sonoma County Water Agency, Northern Sonoma County Air Pollution Control District, North Bay Climate Adaptation Initiative, and Sonoma County Energy and Sustainability Division.

To address climate change issues in Sonoma County, the Regional Climate Protection Agency (RCPA) was formed in 2009 to coordinate countywide climate protection efforts among the Sonoma County, the nine cities in the county, and State and regional regulatory agencies. As part of this effort, the RCPA developed the Climate Action 2020 and Beyond plan. While the Environmental Impact Report for this plan was litigated and invalidated by the court, the document does provide a good source for information on current conditions and trends relative to climate change factors impacting Sonoma County, and data from this plan has been incorporated, as appropriate, into this Whitepaper. The updated General Plan will address GHG emissions reduction, climate change adaptation and resiliency, and sustainability independent from the Climate Action 2020 and Beyond plan. Changes required by several Executive Orders, as well as changes in State law covered under Assembly Bill (AB) 32, Senate Bill (SB) 375, SB 197, SB 32, and SB 743 will be addressed in the General Plan Update. The environmental implications of the General Plan Update, including its assessment and planning for climate change, will be addressed as part of the program environmental impact report (EIR) that will be prepared for the General Plan Update.

MAJOR FINDINGS & IMPLICATIONS

Greenhouse Gas Emissions

- The top two sources of Rohnert Park's citywide GHG emissions in 2015 were on-road transportation (72 percent) and building energy use (21 percent). Water and wastewater emissions were the lowest. This suggests that citywide policies should continue to target both transportation and building energy GHG reduction strategies. These include the increased use of low-carbon fuel and renewable energy sources along with transportation demand management and energy efficiency measures.
- From 2010 to 2015, greenhouse gas emissions in Rohnert Park decreased, matching a countywide trend. Citywide emissions decreased from 9 percent to 10 percent below 1990 levels. This reflects greater energy and resource efficiency, while also accommodating modest growth, over the five-year period.

- Rohnert Park's pioneering energy and green building initiatives were subsequently expanded by their participation in new regional and local countywide greenhouse gas reduction programs. These include climate change activities conducted by Sonoma Clean Power, the Sonoma County Water Agency, Sonoma County Energy and Sustainability Division and the RCPA.
- As part of the General Plan Update process, a formal GHG inventory and reduction plan, utilizing data provided by the RCPA and other sources, will be prepared and incorporated into the General Plan. Rohnert Park's General Plan Update and program EIR will address climate change as it relates to the city and will not rely on the current *Climate Action 2020 and Beyond* for policy direction or environmental assessment.

Climate Change Vulnerability and Adaptation 2018-2049

- Current monitoring data shows that Sonoma County remains abnormally dry. The data also suggests that Rohnert Park is currently entering a drought, rather than recovering from one. In the future, more variable rainfall, including uncertain timing and intensity, are critical factors along with the total amount of rainfall. Shorter, more intense rainy seasons, may affect the recharge, capture and storage of rainfall for summer use. Thus, despite similar or slightly increased rainfall, less water may be available for use when most needed. Rohnert Park is also projected to be hotter and drier due to rising temperatures and the fire risk is expected to increase over time.
- Average maximum temperatures could increase from 74 to 77 degrees Fahrenheit and the average minimum temperature could rise by almost 3 degrees to 46 degrees Fahrenheit. Extreme heat is expected to double from four days to eight days per year with temperatures above 98 degrees Fahrenheit. After 2040, up to 40 extreme heat days per year may occur, 30 more than previously recorded. In Rohnert Park, this may decrease water availability and increase water demands. Rohnert Park may also experience more stress to energy resources, as well as associated blackouts and brownouts.
- An increase in heat waves is expected for Rohnert Park with up to two four-day heat waves per year occurring after 2020, and up to four four-day heat waves per year towards the end of the century. This, along with higher night time temperatures, will increase the demand for air conditioning. Besides presenting further challenges to reduce energy use and associated greenhouse gas emissions, the higher temperatures will present additional health concerns for vulnerable populations such as the elderly.
- Consecutive heat waves increase fire risk around Rohnert Park. Higher temperatures, along with high winds and dry conditions, may cause fires to spread faster and further as plants dry out and embers travel longer distances. While Rohnert Park has historically enjoyed a low fire risk with decreasing annual burn areas, the severity of fire damage in neighboring areas has substantially increased. Despite a relatively low fuel load, a higher fire risk may develop with climate change. Although Rohnert Park recently prepared a Local Hazard Mitigation Plan, considering nearby devastating fires, the Local Hazard Mitigation Plan should be regularly updated to reflect changing conditions.

EXISTING CONDITIONS

Climate Change Overview

Climate change is already occurring, increasingly destabilizing natural and man-made life support systems. This occurs through increases in historical average temperatures and extreme weather events, such as floods, fires, and the like. Increased global GHG such as of carbon dioxide and methane from over reliance on fossil fuels, along with deforestation and other activities, are a major cause.

Internationally, the United States is, and has been, a participant in the United Nations Framework Convention on Climate Change (UNFCCC) since it was adopted in 1992. The UNFCCC is an international environmental treaty with the objective of stabilizing GHG concentrations in the atmosphere at a level that would prevent dangerous human-caused interference with the climate system. In 1997, the UNFCCC brought nations together to draft the Kyoto Protocol, which established commitments for industrialized nations to reduce their collective emissions of six GHGs (CO₂, CH₄, N₂O, SF₆, HFCs, and PFCs) to 5.2 percent below 1990 levels by 2012. The U.S. is a signatory of the Kyoto Protocol, but Congress has not ratified it. In 2011, parties of the UNFCCC met again to negotiate and adopt a universal legal agreement on climate change called the Durban Platform for Enhanced Action. Then in 2015, at the 21st session of the Conference of the Parties (COP21), parties to the UNFCCC adopted the Paris Agreement, which aims to strengthen the global response to the threat of climate change, increase the ability of countries to deal with the impacts of climate change, and make finance flows consistent with a low GHG emissions and climate-resilient pathway. In June 2017, the United States announced its intent to withdraw from this agreement.

Within the United States, California set the goal of reducing the state's greenhouse gas emissions to 1990 levels by 2020, 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by the year 2050. The California Air Resources Board has been tasked with the responsibility of implementing the California Global Warming Solutions Act (AB 32). In addition to AB 32, in 2016 the California legislature passed SB 32, which codified the 2030 reduction goal above. The Air Resources Board and many other state, regional, and local agencies are also contributing to this effort.

In 2013, SB 743 was signed into law, which began the process of changing how transportation impact is analyzed under the California Environmental Quality Act (CEQA). The California Office of Planning and Research (OPR) has recommended replacing the use of a delay metric (i.e., level-of-service) with Vehicle-Miles Traveled (VMT) as the CEQA transportation impact criteria. VMT is also currently used as an input in CEQA Air Quality and Greenhouse Gas analysis. The reduction of VMT also is a key strategy in greenhouse gas reduction efforts such as SB 375, which requires the California Air Resources Board to set and regularly update per capita GHG emissions reduction targets for each metropolitan planning organization in California.

For a detailed description of AB 32, SB 375, and other regulations, please refer to the Greenhouse Gas Emissions Regulatory Setting section of this Whitepaper. For further discussion on SB 743, please refer to the Transportation Whitepaper.

Greenhouse Gas Emissions

Rohnert Park Greenhouse Gas Inventory

The City of Rohnert Park is part of the Sonoma County RCPA. The RCPA works to coordinate community-wide climate protection activities among County agencies and cities to drive continually declining community-wide GHGs. In accordance with state legislation, it leads projects to help reach County goals of reducing emissions 25 percent below 1990 levels by 2020 and 80 percent below 1990 levels by 2050. To achieve this, RCPA member governments work to implement policies in line with their proportional emissions contributions.

As an early step, RCPA evaluated baseline community-wide emissions for 2010 using internationally accepted community protocols and local emissions data. A comprehensive 2015 emissions inventory update, released in July 2018, provides a reference point for progress towards the 2020 and 2050 emissions reduction goals. This updated inventory will help the City of Rohnert Park develop priority policies to meet countywide goals and identify measures most applicable to current community activities. The following summarizes Rohnert Park's citywide inventory for 2015 based on the preliminary results provided in July 2018. As part of the General Plan Update process, a formal GHG Inventory and reduction plan, utilizing data provided by the RCPA and other sources will be prepared and incorporated into the General Plan. For the purposes of this Whitepaper, the following interim results are to inform the public and decision makers on the existing sources of GHGs in Rohnert Park.

The Environmental Impact Report for RCPA's *Climate Action 2020 and Beyond* Plan was litigated and subsequently decertified. To address the need for environmental review, a program level EIR will be prepared for the General Plan Update in compliance with the California Environmental Quality Act.

The RCPA along with other entities listed below play an important role and provide access to greenhouse gas related information. These include state agencies such as the California Air Resources Board and the California Energy Commission; private utilities such as Pacific Gas and Electric; and local governmental entities including Sonoma Clean Power, the Sonoma County Water Agency, Northern Sonoma County Air Pollution Control District, North Bay Climate Adaptation Initiative, and the Sonoma County Energy and Sustainability Division.

Inventory Results

The Rohnert Park citywide GHG inventory for 2015 prepared by the RCPA analyzes emissions from all activities and city sectors (residential, commercial and industrial). It incorporates municipal jurisdictional activity within community activity. Contributing data sources include utilities, water, and wastewater facilities, waste agencies, off-road transportation and equipment, and on-road transportation within the city of Rohnert Park based on the Sonoma County Travel Model. Data contributing to the 2015 citywide inventory may be subject to change. If necessary, it will be updated accordingly as part of the General Plan Update process as more data becomes readily available.

The RCPA team utilized emission factors provided by each local public and private entity (i.e. PG&E, Sonoma County Water Agency, Sonoma Clean Power); model utilized (i.e. California Air Resources Board [ARB] eGRID CAMX 2014, Offroad 2007); affiliated protocol (ICLEI Community Protocol); and federal and international agencies (i.e., U.S. Environmental Protection Agency [U.S. EPA], Intergovernmental Panel on Climate Change [IPCC]) to estimate citywide emissions. Data sources and methodology are consistent with those of RCPA's 2010 inventory, described in Appendix B of *Climate Action 2020 and Beyond*.

Citywide emissions totaled 263,365 metric tons of CO₂-equivalent (MT CO₂e) in 2015, equal to 6.35 MT CO₂e/person. As Table 1 and Figure 1 below indicate, on-road transportation composed the greatest contribution to citywide emissions (72 percent) in 2015. This was followed by building energy use (21 percent), solid waste (5 percent), off-road transportation (2 percent). Wastewater and water totaled less than 1 percent of total emissions combined.

Table 1: 2015 Citywide Emissions

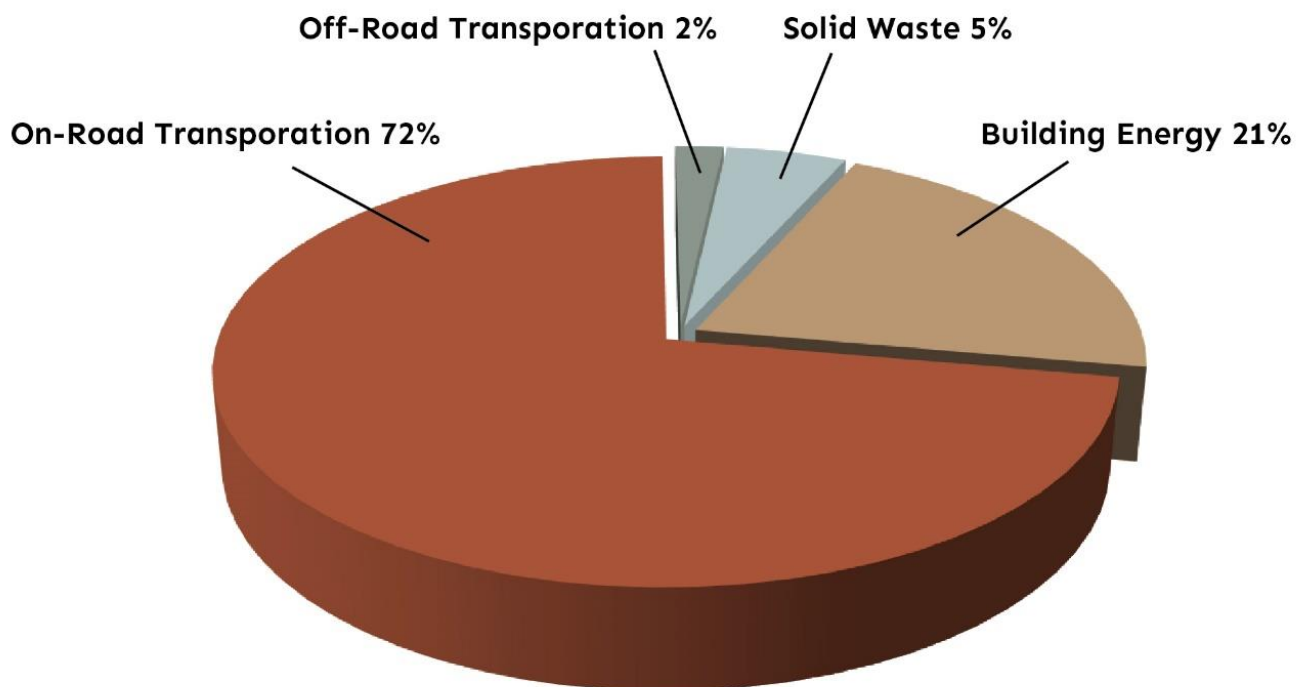
Category	Emissions (MT CO ₂ e)
Building Energy	54,892
On-Road Transportation	190,661
Off-Road Transportation	5,305
Solid Waste	12,183
Wastewater	311
Water	13
Total	263,365

Note: Livestock and fertilizer emissions were fully apportioned to the unincorporated county.

Source: RCPA, 2018.

Figure 1

CONTRIBUTION BY COMMUNITY SECTOR



Source: RCPA, 2018.

Note: Water and Wastewater totaled less than one percent of total emissions combined and are not shown on pie chart.

Data Analysis

While population increased slightly from 2010 to 2015 (1.7 percent), greenhouse gas emissions in Rohnert Park decreased slightly from 9 percent to 10 percent, respectively, below 1990 levels, matching a countywide trend. This reflects greater energy and resource efficiency, while accommodating growth, over the five-year period.

Rohnert Park inventory data for 2015 is for public informational purposes based on RCPA's *Climate Action 2020 and Beyond* inventory. For further information on citywide inventory methodology used for the 2010 and updated 2015 GHG inventories, see Appendix B of *Climate Action 2020 and Beyond*. The full RCPA *Climate Action 2020 and Beyond* plan outlines countywide emissions reduction and climate planning goals and is available on the RCPA website.

Current City Strategies for GHG Emissions Reduction

In 2007, the City of Rohnert Park joined a number of other Sonoma County communities in support of a regional goal of reducing GHG emissions by 25 percent below 1990 levels by 2020. This was to be achieved through the adoption of 22 local GHG reduction measures. These measures correlate with numerous goals, which range from increased building energy efficiency, and renewable energy use to reduction of water consumption, and water and wastewater infrastructure efficiency. On March 13, 2018, the City of Rohnert Park passed a resolution reaffirming its intent to reduce greenhouse gas emissions as part of a coordinated effort

through the Sonoma County Regional Climate Protection Authority and to adopt local implementation measures as appropriate.

Rohnert Park currently has measures in place independent of the RCPA to reduce GHG emissions. These measures target numerous areas, such as building energy, water conservation, and increased use of renewable energy combined with increasingly switching equipment and vehicles from fossil fuels to electricity. Since adoption in 2014, unless they officially opt out, Rohnert Park residents and businesses obtain their electricity from Sonoma Clean Power Clean Start Program, which has 45 percent of their electricity mix from zero emissions renewable energy such as, wind, solar, and geothermal. A 100 percent renewable "evergreen" electricity option is also available.

Among the measures calculated by RCPA Climate Action 2020 and Beyond that may have the biggest impact in Rohnert Park are: Measure 2-L4 (Solar in Existing Non-Residential Buildings), Measure 2-L2 (Solar in Existing Residential Buildings), and Measure 11-L1 (Senate Bill SB X7-7 - Water Conservation Act of 2009). These three measures aim at not only reducing GHG emissions, but also aim at reducing energy use, improving air quality and public health.

For a complete list of Rohnert Park's reduction measures please refer to Appendix B.

CLIMATE CHANGE VULNERABILITY AND ADAPTATION ASSESSMENT

This section provides details about current and future Rohnert Park conditions related to climate change. Each section explains its relation to climate change and the importance of each topic. Air quality will be addressed in the Environmental Impact Report and current policy development in the General Plan Update.

Climate Vulnerability Overview

In light of uncertainties pertaining to future global greenhouse gas emissions and associated vulnerability risk levels, the RCPA and a group of scientists prepared *Climate Ready Sonoma County: Climate Hazards and Vulnerabilities*. The following overview provides brief highlights from Climate Ready Sonoma County that pertain to the City of Rohnert Park.

Climate change poses potentially high costs in terms of community public health, safety, economic vitality, and quality of life. While it is unknown which future GHG emissions scenarios will occur – there is enough confidence in projected trends to begin preparing for climate hazards. Preparing now will be more cost-effective and flexible than delaying action until responding to unprecedented conditions.

An early first step to respond to climate change locally is to assess our exposure to climate hazards. In general, the following outcomes are expected in Rohnert Park:

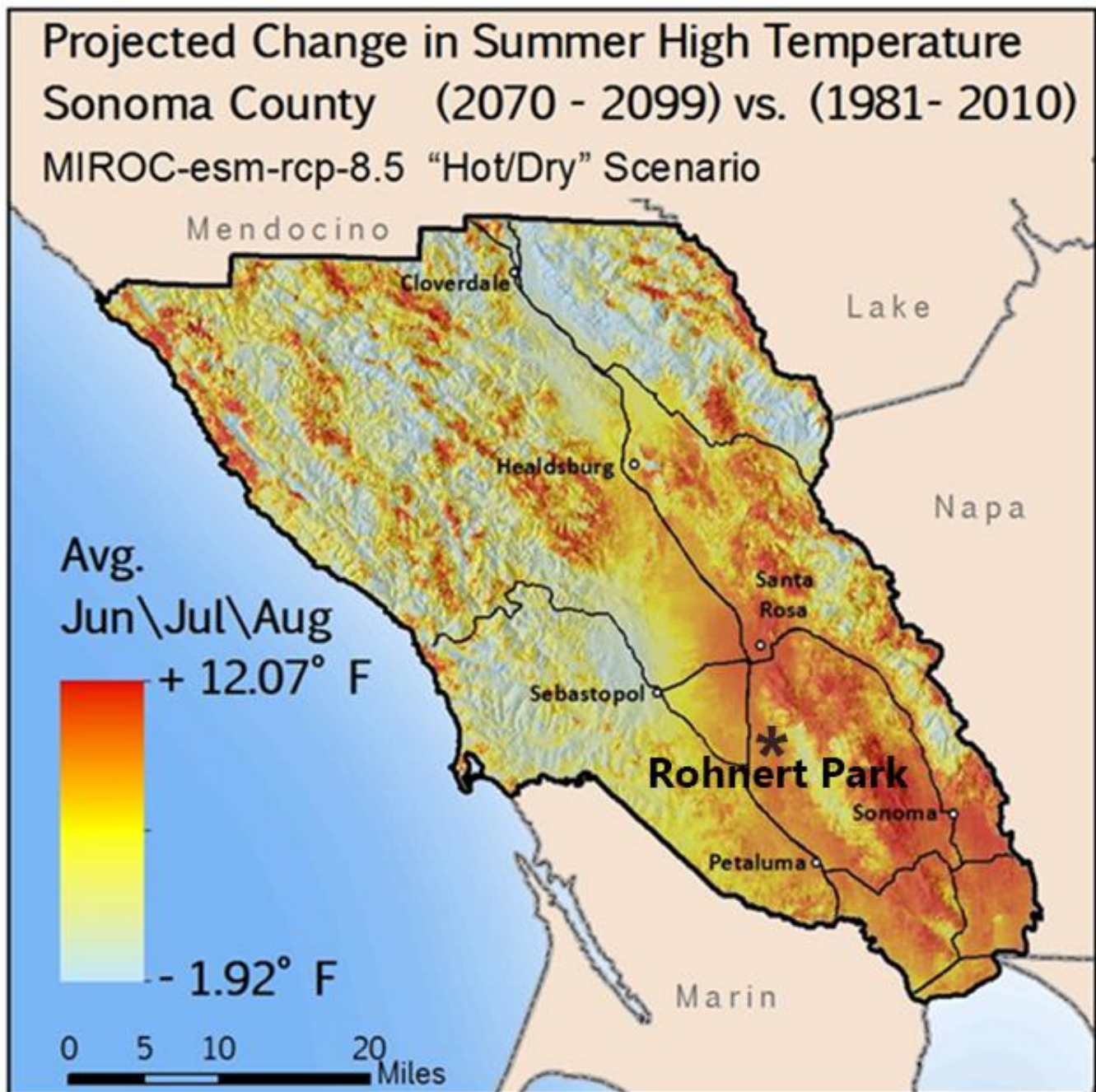
- Hotter, drier weather with longer summers
- More extreme heat events
- Longer and more frequent droughts
- Greater frequency and intensity of wildfires
- Fewer winter nights that freeze
- More variable rain
- Bigger, more variable floods

Projected future changes in air temperatures for Rohnert Park are a 2.8 degrees Fahrenheit increase in high temperatures. See the map on Figure 2 for projected changes in temperatures for Rohnert Park and surrounding areas. Future changes resulting from climate change to Rohnert Park are generally projected to be the same or very similar by CalAdapt and Climate Ready, as indicated in the following sections.

Regardless of whether there is more or less annual rainfall, Rohnert Park will be hotter and drier overall due to rising temperatures and increased evapotranspiration. Climatic water deficit (CWD) (Figure 3) quantifies plants' need for water that exceeds soil moisture. CWD is projected to increase over this century, producing 10-20 percent drier conditions for Rohnert Park in the summer.

Figure 2

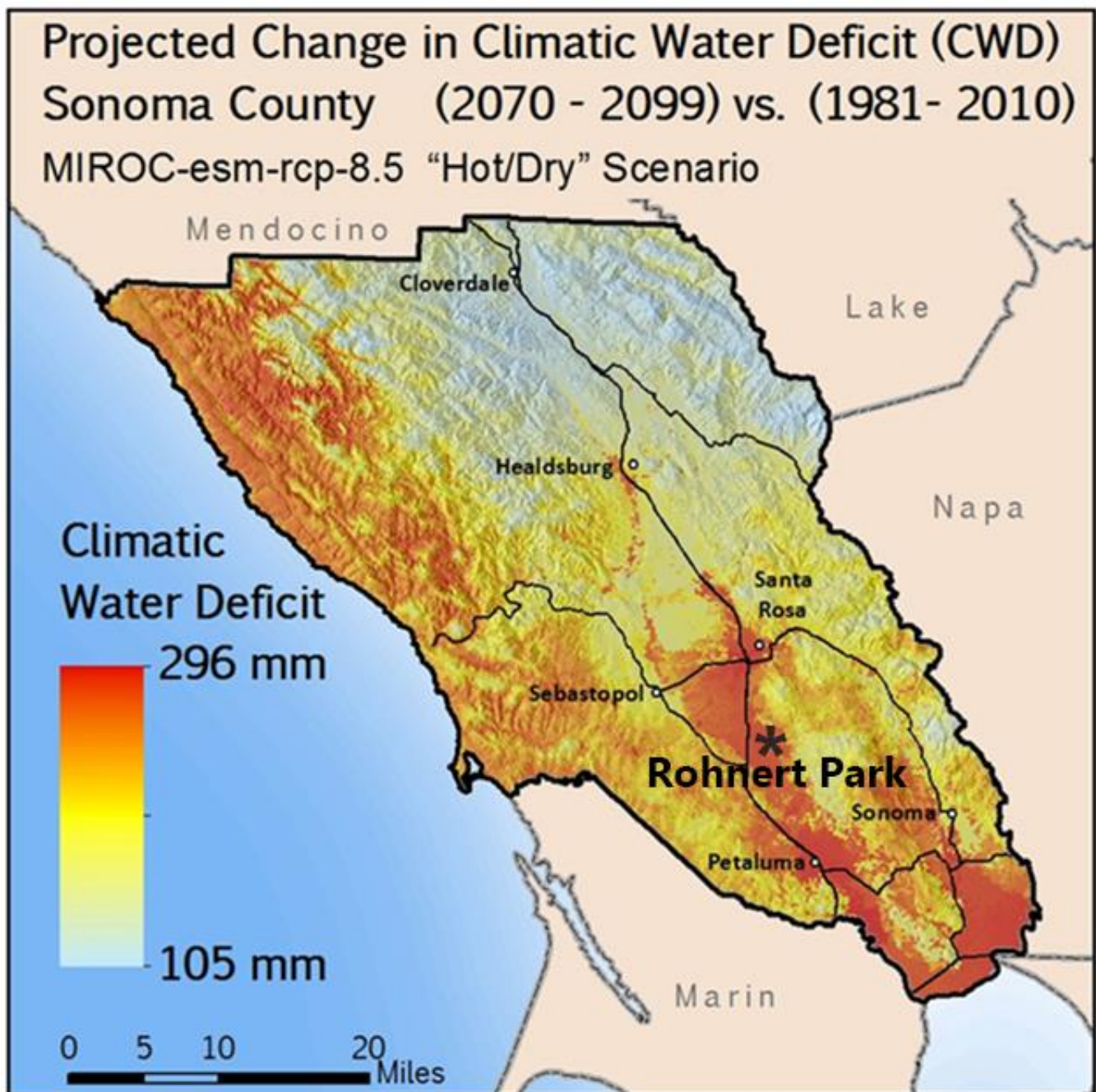
PROJECTED CHANGE IN SUMMER HIGH TEMPERATURE



Source: North Bay Climate Adaptation Initiative, 2014.

Figure 3

PROJECTED CHANGE IN CLIMATIC WATER DEFICIT



Source: North Bay Climate Adaptation Initiative, 2014.

Current Vulnerabilities

Water Supply

A steady and reliable water supply is crucial. As climate change continues, the Mediterranean seasonal precipitation pattern in Rohnert Park is expected to endure. Most of the precipitation falling during the winter is from North Pacific storms. However, even modest changes may have some impact on California's ecosystems, which are conditioned to historical precipitation patterns. Although currently in a dry spell, over time, climate change is projected to result in more variable precipitation in Rohnert Park, along with a slight increase in the amount of rain and a potential for additional flooding and droughts. For more on these risks refer to the vulnerability assessment section on flooding.



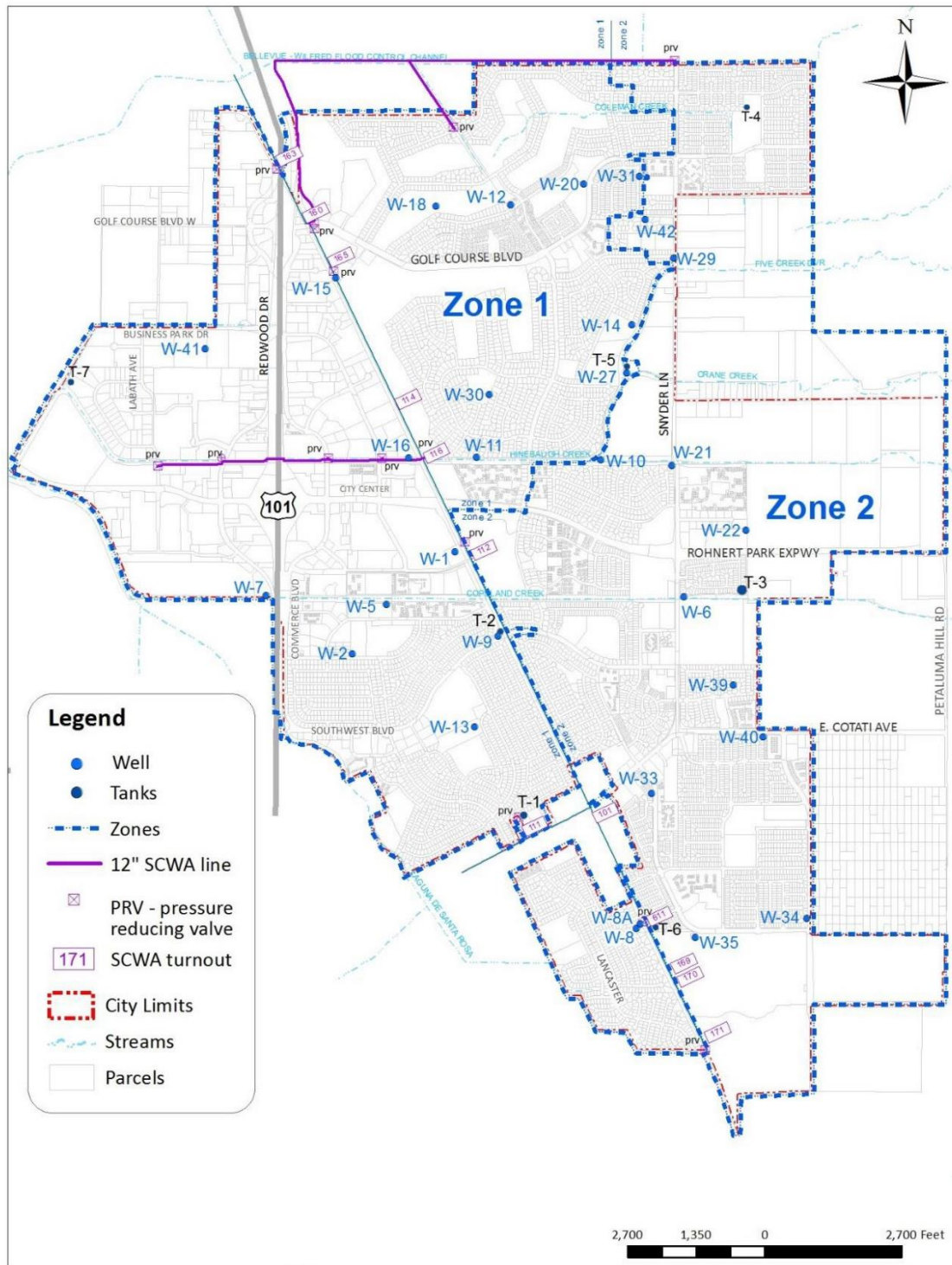
A well site in Rohnert Park

Currently, the City of Rohnert Park receives about 65 percent of all of its water from the Sonoma County Water Agency (SCWA), with much of the water coming from the Russian River and Lake Sonoma. The rest of Rohnert Park's water comes from 30 deep groundwater wells located throughout the city and draw on the local aquifer. These sources in conjunction supply an average of 1.7 billion gallons of drinking water annually, and a daily production average of 4.7 million gallons per day.

Figure 4 shows the potable water system map for Rohnert Park.

Figure 4

ROHNERT PARK POTABLE WATER SYSTEM



Source: City of Rohnert Park, 2016.

Note: Map reflects city limits from 2015.

Fire Risk

Extreme weather events such as higher temperatures and heat waves may increase the risks of wildfires. While Rohnert Park is surrounded by potentially high fire risk area, historically Rohnert Park itself has a low fire risk (Figure 5). According to the Rohnert Park Hazard Mitigation Plan, this is due to compact development patterns, and an urban growth boundary that have prevented Rohnert Park from sprawling out in low densities into the surrounding hillsides where the fuel load and risk of fire is greater.

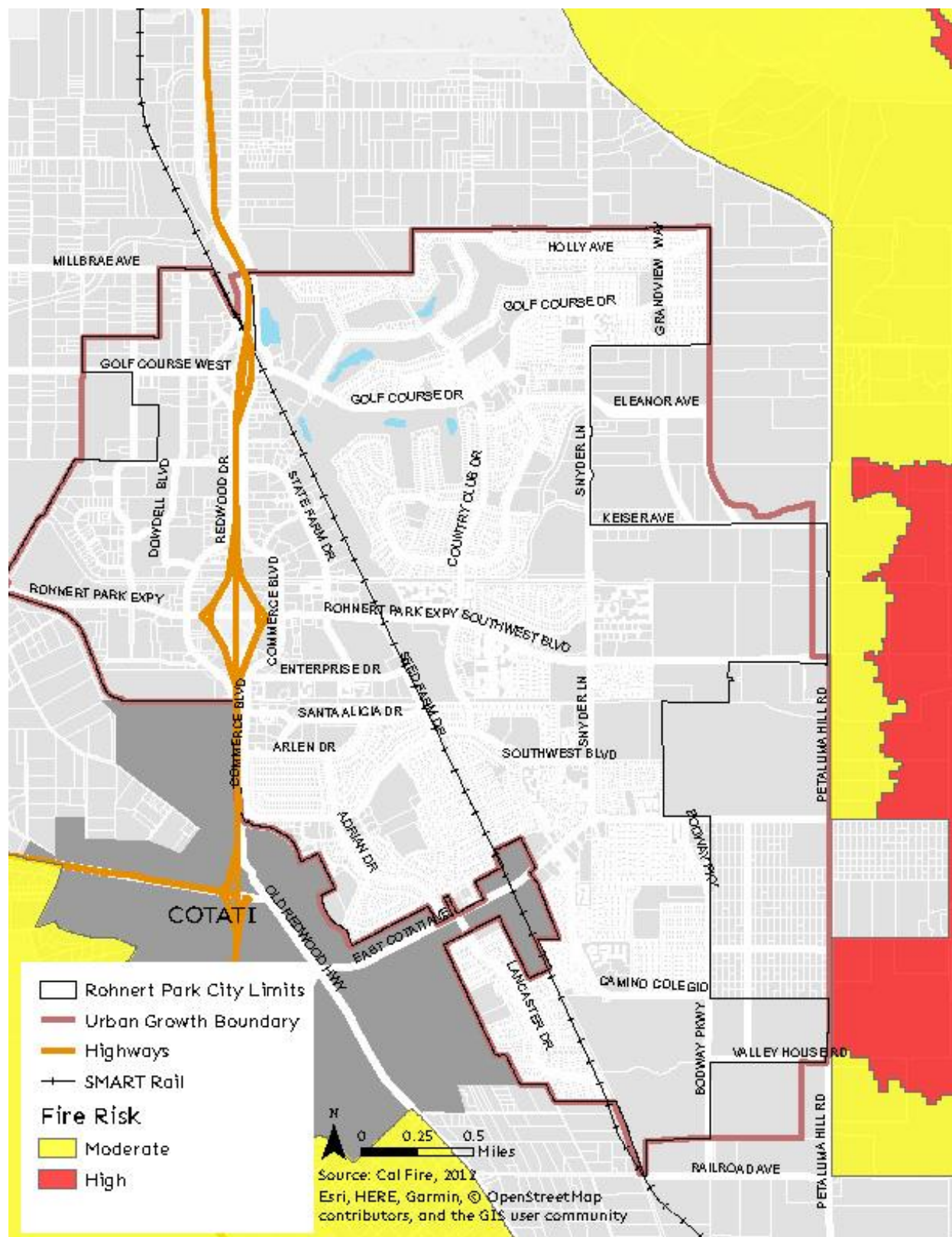
However, with climate change, this could change in the future due to more erratic weather patterns and further development. Short but heavy rains in the winter will accelerate growth of brushland and grassland that quickly dry out during the summer, creating fuel for fires. The stress on plants from drought leaves them susceptible to disease and pests. This adds fuel to fires including grasslands. Strong winds combined with higher temperatures, dry conditions, and variations in precipitation have resulted in recent, nearby fires spreading faster - and further as embers travel longer distances. Future fire severity levels may be subject to change and now is an opportune time to review and adjust fire safety policies as needed. Figure 5 displays the current fire hazard severity in Rohnert Park.



Destruction from the 2017 Tubbs Fire

Figure 5

CURRENT FIRE HAZARD SEVERITY IN ROHNERT PARK



Extreme Weather Events

Extreme weather includes unexpected, unusual, unpredictable, severe or unseasonal weather. Weather at the extremes of the historical distribution, the range that has been seen in the past. With climate change more extreme weather events will occur in Rohnert Park. This can include; extreme drought, fires, floods, extreme heat, etc. These events can have extreme monetary and community damage. Working now to prevent this damage from occurring will help create a more resilient community.

With climate change, these events may become the new "normal". Currently Rohnert Park has established a Hazard Mitigation Plan, where the City set standards for resiliency and handling these new "normals". The plan set guidelines and requirements to meet throughout the document, including the following:

- Meet the federal assistance grant programs
- Work in conjunction with other plans, including the General Plan Update and Emergency Management Plan
- Coordinate and provide transparency throughout all levels of the community
- Identify and prioritize future mitigation projects

The Hazard Mitigation Plan used a compilation of assessments to formulate mitigation actions for extreme weather events and other related natural hazards. The plan used data from hazard profiles, vulnerability assessments, and capability assessments. These assessments allowed Rohnert Park to formulate mitigation actions to prioritize the most important issues to solve for future resiliency. A few examples of mitigation actions related to flooding and drought include the following:

Drought:

- Continue to wisely use, where available, water resources from the recycled water system.
- Continue to participate in the Russian River Watershed Association to provide water conservation guidance, encourage drought-tolerant landscaping, and reduce the consumption of potable water.

Flooding:

- Sustain the City's participation in FEMA's National Flood Insurance program (NFIP).
- Retrofit public areas, including plazas, sidewalks, and parking lots as feasible, to use permeable paving and other low-impact development features that promote infiltration, and reduce stormwater runoff.

Drought

Droughts levels are monitored in five stages from abnormally dry (D0), to an exceptional drought (D4). Rohnert Park reached D3 during the last drought from 2011-2017. Current drought monitoring data shows that Rohnert Park is abnormally dry. This means that Rohnert Park is either leaving a drought or in the process of entering a drought. Current drought data suggests that Rohnert Park may be entering a drought. Figure 6 shows the current drought level in Rohnert Park, and Figure 7 depicts drought conditions in California. Changes to drought frequency and intensity are driven both by hotter weather with longer summers, but also by more variable rain. Whether the Rohnert Park experiences more or less rainfall over the year, our land and watersheds will be hotter and drier overall due to rising temperatures and increased evapotranspiration. Essentially, even with more rain overall, warmer weather causes soils and plants to dry out.

Figure 6

CURRENT DROUGHT IN ROHNERT PARK

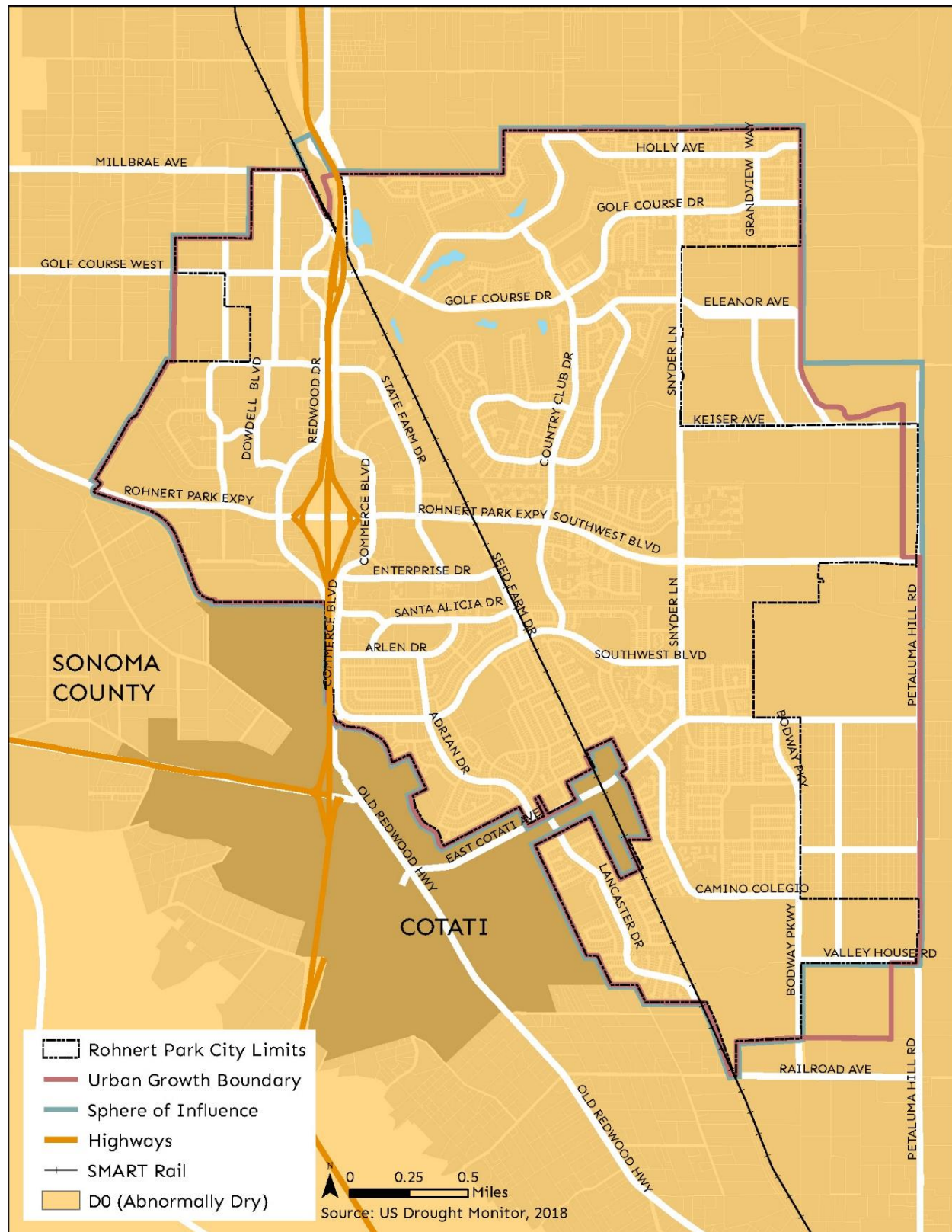
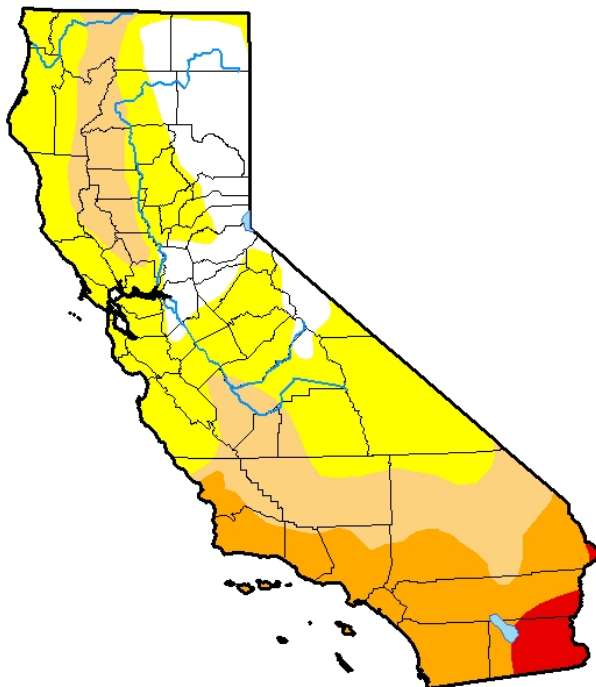


Figure 7**CURRENT DROUGHT CONDITIONS IN CALIFORNIA****Drought Severity Classification**

Category	Description	Possible Impacts
D0	Abnormally Dry	Going into drought: • short-term dryness slowing planting, growth of crops or pastures Coming out of drought: • some lingering water deficits • pastures or crops not fully recovered
D1	Moderate Drought	• Some damage to crops, pastures • Streams, reservoirs, or wells low, some water shortages developing or imminent • Voluntary water-use restrictions requested
D2	Severe Drought	• Crop or pasture losses likely • Water shortages common • Water restrictions imposed
D3	Extreme Drought	• Major crop/pasture losses • Widespread water shortages or restrictions
D4	Exceptional Drought	• Exceptional and widespread crop/pasture losses • Shortages of water in reservoirs, streams, and wells creating water emergencies

U.S. Drought Monitor
California

July 10, 2018
 (Released Thursday, Jul. 12, 2018)
 Valid 8 a.m. EDT

**Intensity:**

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Brian Fuchs
 National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>

Flood Risk

Flooding can pose a threat to human life and property. With the possibility of heavier rain seasons due to climate change, flooding may have an increasing impact to Rohnert Park. Floods can lead to increased erosion and soil instability. In certain areas, Rohnert Park has a history of flooding. The flood risk is particularly acute along some key transportation corridors (e.g., creek paths and some roadways). For instance, a damaging event occurred in 2005/2006 when Rohnert Park received 17.6 inches of rain, causing power outages, blocked roads, and a loss of around 104 million dollars. Figure 8 displays the flood risk within Rohnert Park. The areas damaged in 2005/2006 are in or near the flood risks located on the map.



2017 Flooding on Commerce Boulevard

There is a potential for 100-year (one percent chance for flooding to occur in a given area each year) and 500-year (0.2 percent chance) floods. There are several major creeks that intersect with Rohnert Park that could potentially cause flooding within the 100- to 500-year flood plain and low-lying areas. The creeks identified are Bellvue Wilfred Channel, Coleman Creek, Five Creek, Crane Creek, Hinebaugh Creek, Copeland Creek, and Laguna De Santa Rosa.

According to the Rohnert Park Hazard Mitigation Plan, a few examples of major flood risk areas include the following:

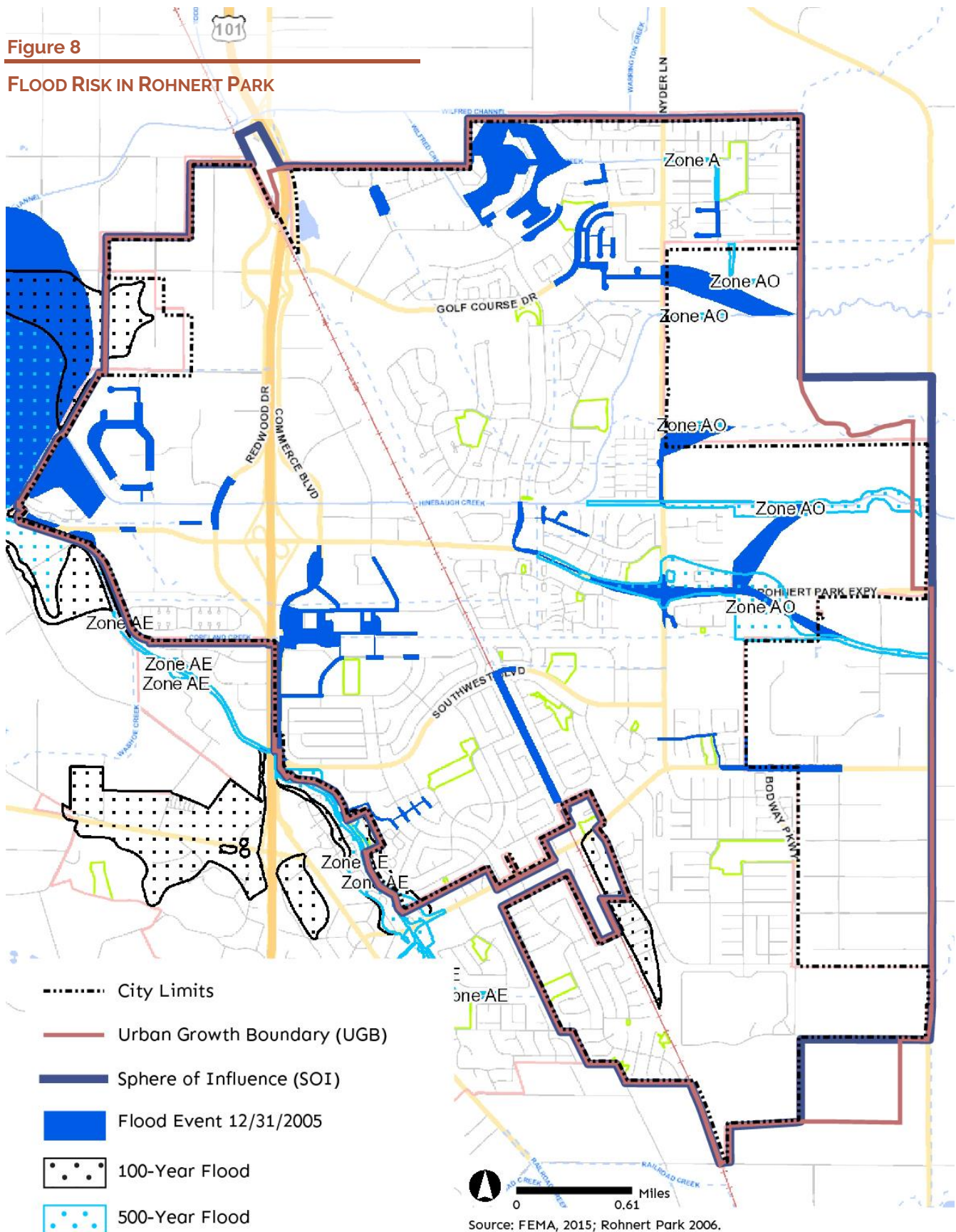
- Residential areas across the Hinebaugh Creek near Labath Avenue
- Areas lining the major creeks, such as Copeland Creek on Avram Avenue where City Hall is located
- The residential areas in northeast corner of the city, near the Foxtail Golf Club
- Along Crane Creek near Lawrence E. Jones Middle School and residential homes.
- The Laguna De Santa Rosa along the Cotati and Rohnert Park border. Mainly residential homes will be affected in these locations.

With the current flood risk and future changes to precipitation, there may be some increased risk to low-lying areas and that could cause physical danger. Reviewing evacuation routes and other safety concerns will be considered during the General Plan Update. Figure 8 below shows the current flood risk in Rohnert Park.

Figure 8 displays the two main flood risks in Rohnert Park, a 100-year flood (AE), and a riparian flood (AE), which is related to streams and the speed at which they flow down the river. Currently, there are only two areas where this occurs: on Copeland Creek and Hinebaugh Creek. While the flood risk in most of Rohnert Park is generally low, major flooding has occurred as noted above.

Figure 8

FLOOD RISK IN ROHNERT PARK



Slope Stability and Soil Erosion

Increased incidences of extreme weather events such as heavy rainfall and increased fires may result in slope instability and erosion. Rohnert Park is located in the Santa Rosa-Petaluma Valley where the underlying geologic structure is characterized by sediments deposited by streams on floodplains, alluvial deposits, and basins. Overall, the geologic conditions of the Rohnert Park do not vary from location to location. Soils within the City are almost entirely Clear Lake clays.

Clear Lake clays typically have relatively low erosion potential. These soils are typical of poorly drained basins and floodplains, and were formed from alluvial sediments which originated from the surrounding highlands. Gravel and silt may wash from the slopes of the region into drainage channels found throughout Rohnert Park, reducing stormwater drain, capacity which can result in localized street flooding.

Landslides are a very small threat in Rohnert Park due to its generally flat landscape.

Figure 9 displays the possible risk for a landslide to occur in Rohnert Park and the surrounding area.

Seismic Hazards

Rohnert Park and California as a whole are a high-risk earthquake area. While earthquakes are not directly related to climate change, it can exacerbate the damages caused by higher temperatures, fires, and other events. Rohnert Park is in proximity to several known active and potentially active earthquake fault lines including the San Andreas, Healdsburg/Rodgers Creek and the Hayward fault line. The potential for the ground shaking in the event of the Rodgers Creek fault line moving is at a high level throughout the community.

Depending on its magnitude and timing, a major earthquake occurring in or near this jurisdiction may result in serious injuries and even fatalities, extensive property damage, fires, hazardous material spills, and other ensuing hazards. The Rodgers Creek fault is considered the greatest earthquake threat to Rohnert Park because of the high probability of rupture and its proximity.



Fault lines throughout California

Figure 10 shows there is some liquefaction risk within Rohnert Park. Liquefaction is an earthquake related hazard where soils behave as a liquid. This can cause buildings to collapse in on themselves. Currently Rohnert Park has a medium to high risk chance for liquefaction. The high-risk areas are located along the eastern end of Copeland Creek and near Valley House Drive. The rest of the city has a medium risk for liquefaction. Depending on its magnitude and weather conditions, damage from an earthquake in Rohnert Park, could be substantial, as the much of the city is at risk for liquefaction.

Figure 9

LANDSLIDE RISK IN ROHNERT PARK

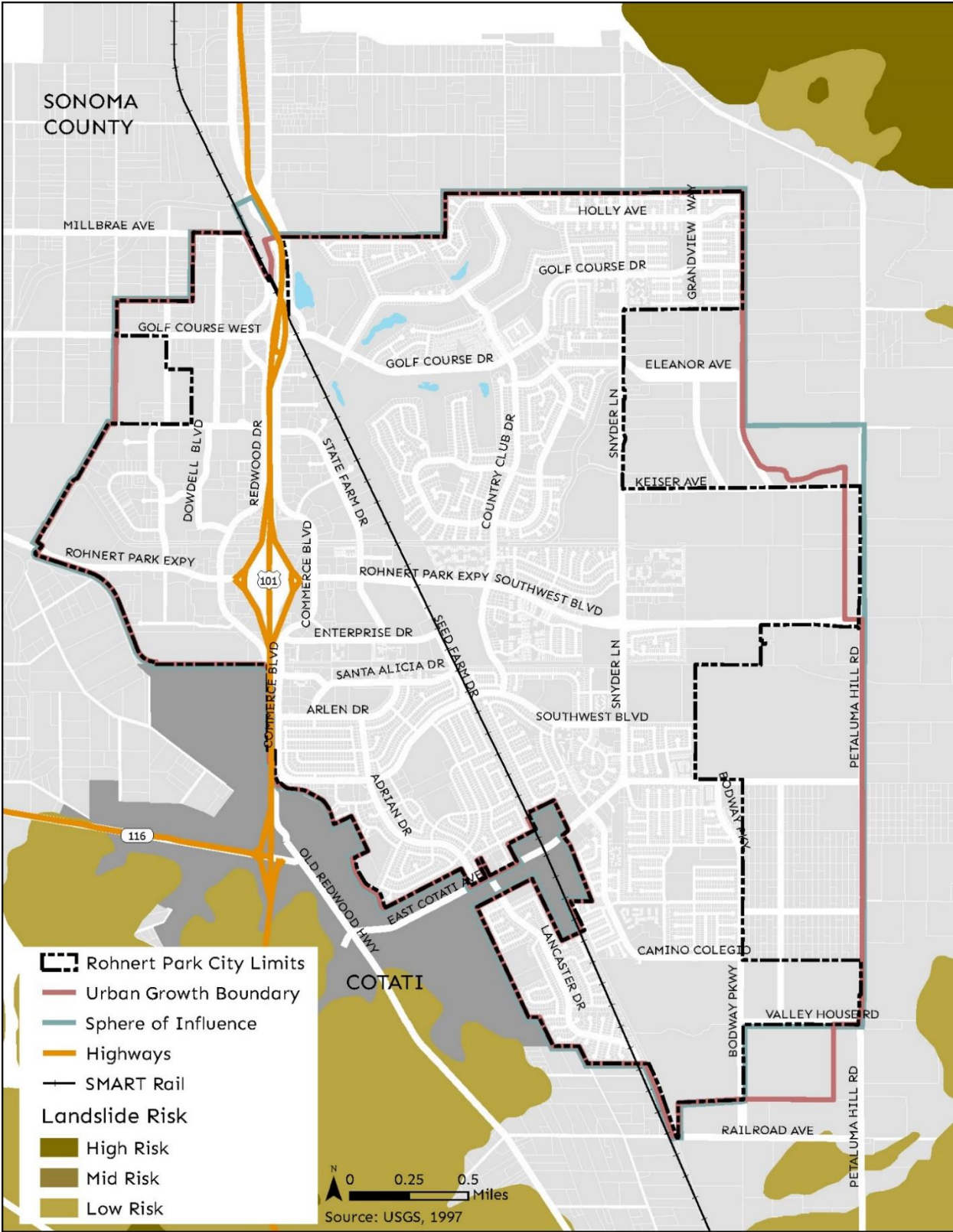
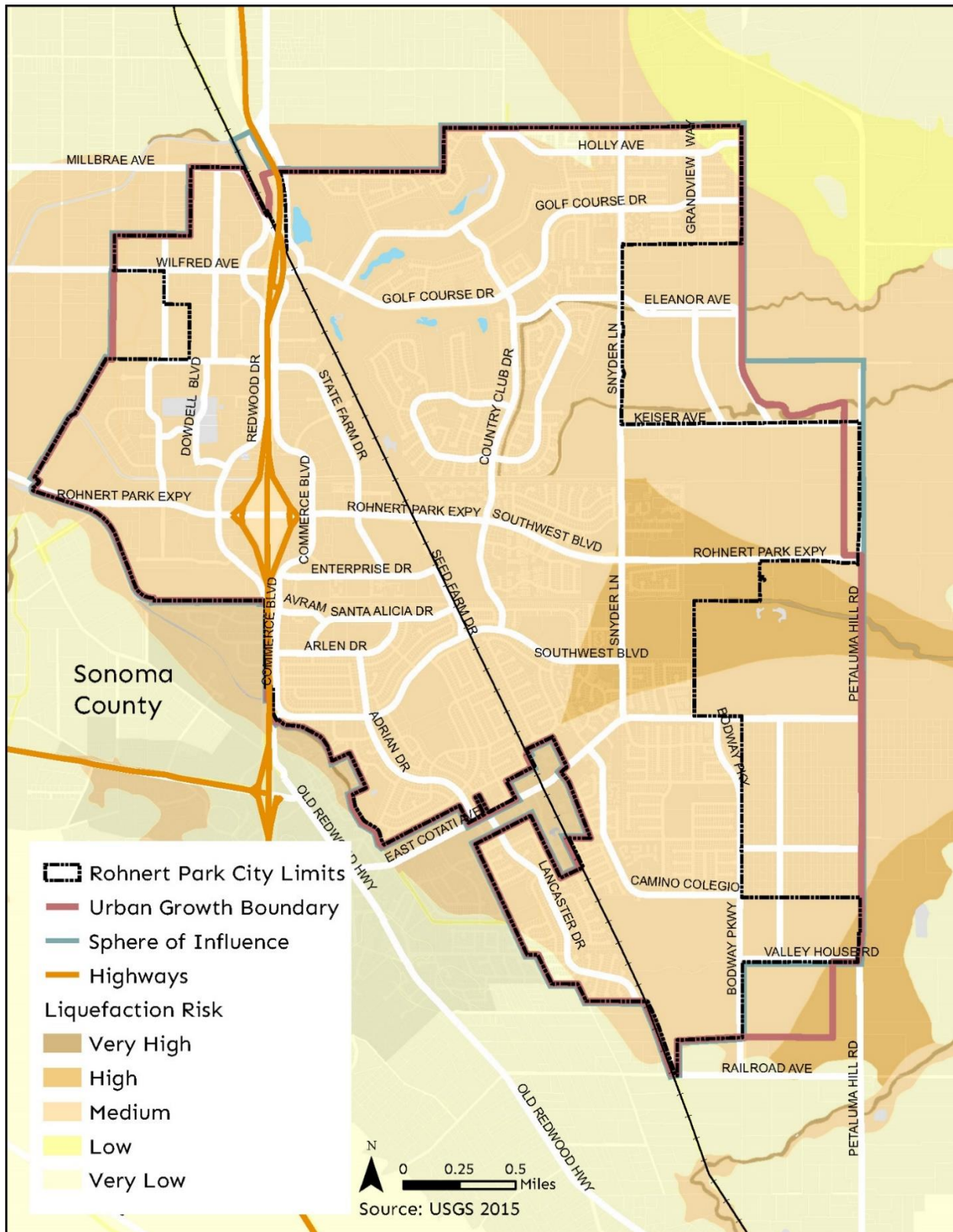


Figure 10

LIQUEFACTION RISK IN ROHNERT PARK



Future Vulnerability Projections

This local vulnerability assessment identifies projected future changes in Rohnert Park's climate. Key topics such as extreme heat, changes in cold weather, changes in precipitation and drought, risk of wildfire, and flooding changes have been assessed. This assessment will help inform SB 379 adaptation measures to be included in the General Plan Policy Document. Additional Cal-Adapt measures can be found in Appendix C

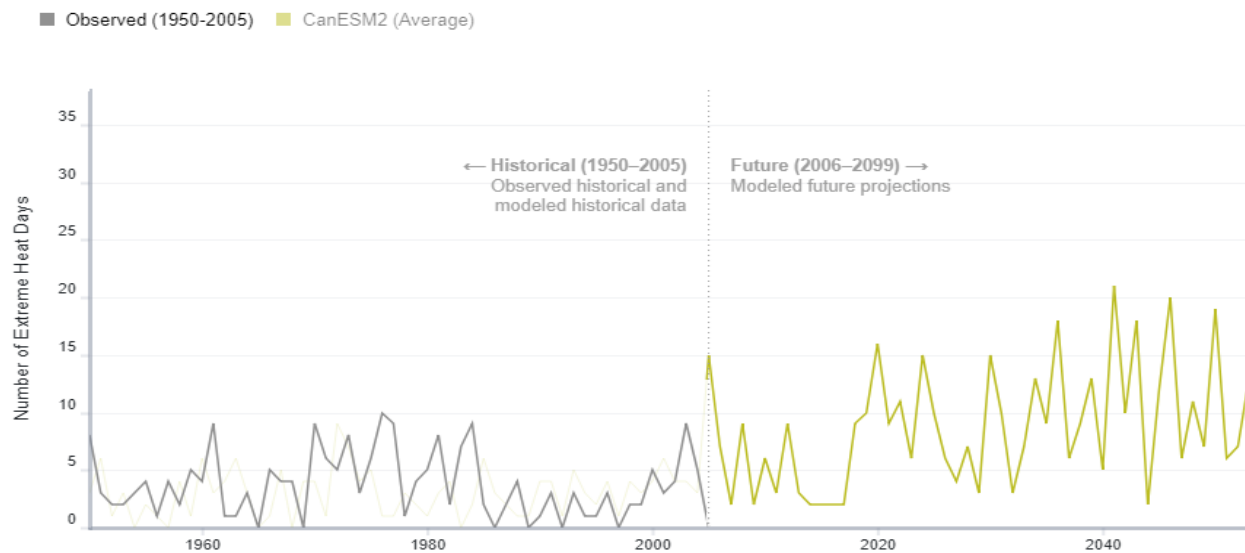
The following data are extracted from models using the Cal-Adapt tool. Cal-Adapt has been designed to provide access to data that shows how climate change might affect California at the local level. It is a key recommendation of the 2009 California Climate Adaptation Strategy. The information and measures selected from Cal-Adapt are intended to assist in policy development most relevant to Rohnert Park's ongoing planning. Projected climate change impacts affecting local concerns regarding fire severity, geologic stability, water and energy use, and quality of life were considered high-priority issues to examine. Accordingly, potential increases in temperature, precipitation and related information were examined. This data is calculated from up to 10 models and averaged together.

There are two scenarios for future projections for the Cal-Adapt tool, called RCP 4.5 (where emissions peak around 2040 and then decline) and RCP 8.5 (where emissions continue to rise throughout the 21st century). These two scenarios are considered possible depending on how much action is taken to address emissions. The graphs below show projections based on the RCP 4.5 scenario. Historical data for this tool were obtained from 1950-2005 databases. All future projections are modeled from 2018-2049.

Extreme Heat Days

Current projections show that the number of extreme heat days will double in the future. An extreme heat day occurs when the daily maximum temperature exceeds 98.7 degrees Fahrenheit (the extreme heat threshold of Rohnert Park). The historic record from 1950-2005 shows four average extreme heat days per year, with a maximum of 10 days in 1976. It is predicted that there will be up to eight extreme heat days per year in Rohnert Park using modeled future projections for 2018-2050 from the Cal-Adapt tool. This is an average increase of four extreme heat days per year, double the historic record (Figure 11). With the RCP 8.5 scenario it is predicted that there could be as many as 9 extreme heat days, and there could be up to 40 extreme heat days in one year in Rohnert Park after 2040, 30 more than recorded historically.

FIGURE 11: NUMBER OF EXTREME HEAT DAYS BY YEAR IN ROHNERT PARK

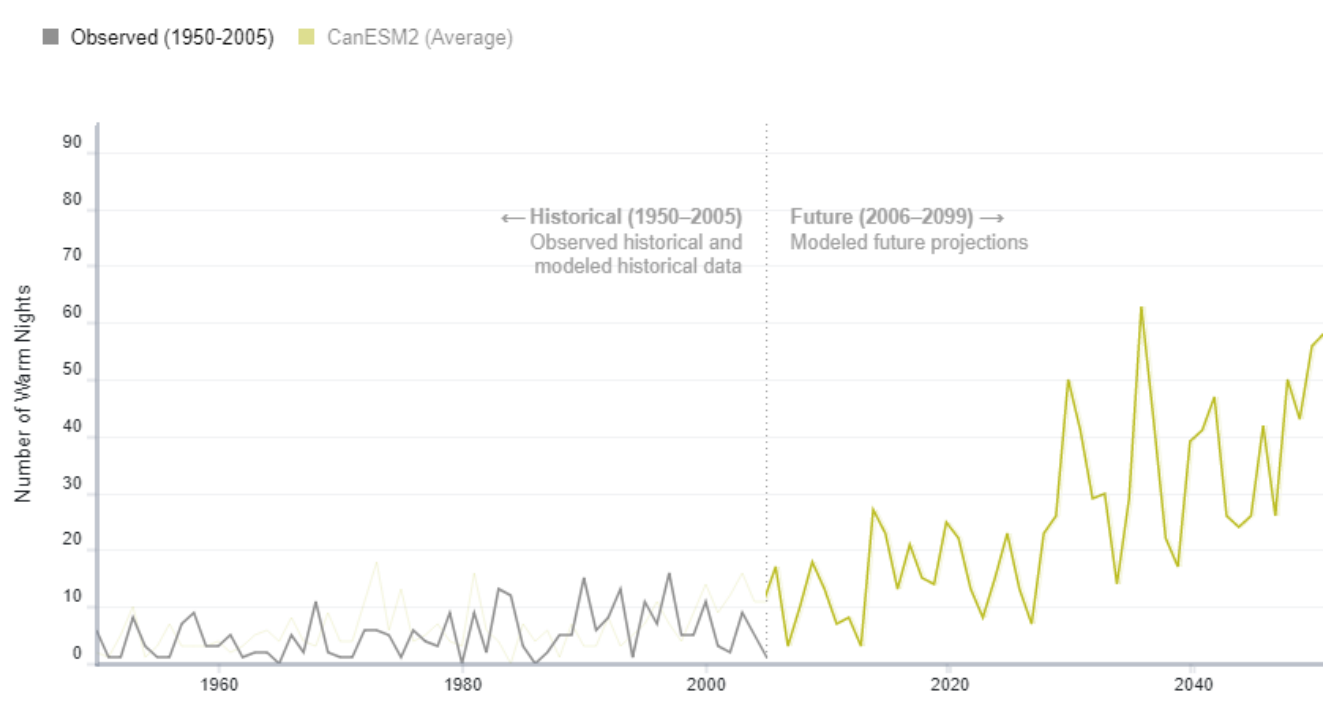


Source: Cal-Adapt Tool, 2018

Warm Nights

An increased number of warm nights per year is also expected. A warm night is defined as a day in April through October when the minimum temperature exceeds 57 degrees Fahrenheit (the 98th historical percentile.) The average number of warm nights by year observed historically was 5 between 1950-2005. The highest number of observed consecutive warm nights was 16 days in 1997. It is predicted that the average number of warm nights by year from 2018-2049 will be 20 more days per year than the historic record. Figure 12 shows the number of warm nights that the average daily minimum temperatures are exceeded. Additionally, warmer nights mean less nights that freeze, freezing temperatures are an important aspect of healthy plant communities and pest control. Warm climate pathogens and disease vectors. Invasive species may thrive under increasing winter minimum temperatures. Warmer nights will likely increase the need for air conditioning presenting an additional demand for electricity. Overall, projected increases in winter low temperatures are greater than projected increases in summer high temperatures.

FIGURE 12: NUMBER OF WARM NIGHTS BY YEAR IN ROHNERT PARK



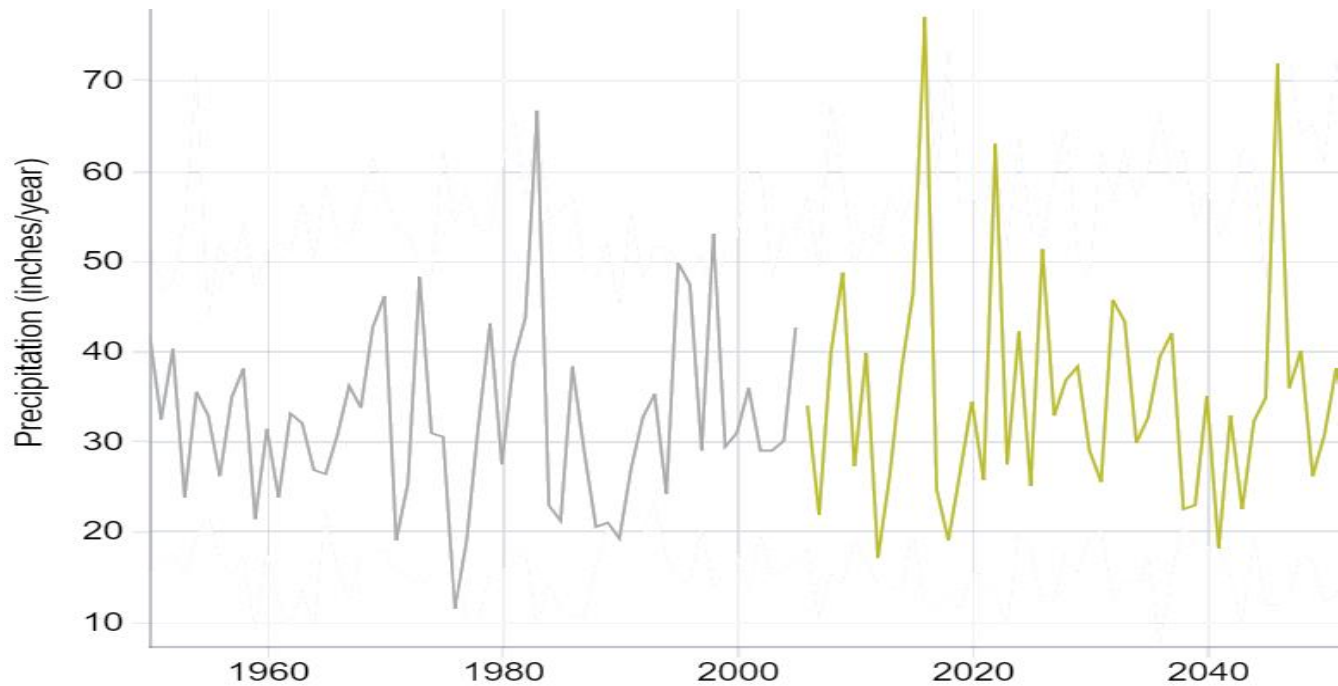
Source: Cal-Adapt Tool, 2018

Precipitation

It is predicted precipitation will increase in Rohnert Park. Precipitation may occur in a short period of time with heavy downpours. The historical annual average precipitation from 1950-2005 was 32.6 inches per year in Rohnert Park. The average predicted precipitation from 2018-2050 is 35.6 inches with the RCP 4.5 scenario. This is a three-inch increase in precipitation. 34.9 inches are predicted with the RCP 8.5 scenario. Figure 13 displays the amount of precipitation per year with the RCP 4.5 scenario. Increased precipitation will elevate the fire risk in Rohnert Park with more brush and grasses in the wet seasons left to burn when it is dry (see Appendix C for expanded discussion on future fire vulnerability).

More variable rain, including uncertain timing and intensity, are critical factors along with the total amount of rainfall. Shorter, more intense rainy seasons, may affect the recharge, capture and storage of rainfall for summer use. Thus, despite similar or slightly increased rainfall, less water may be available for use when most needed. Major storms can be highly disruptive for water systems. While the effect of more variable rainfall on Rohnert Park is hard to predict, water treatment facility managers may face increased challenges regarding stormwater management, water quality maintenance, and impacts to wastewater treatment.

FIGURE 13: PRECIPITATION IN ROHNERT PARK

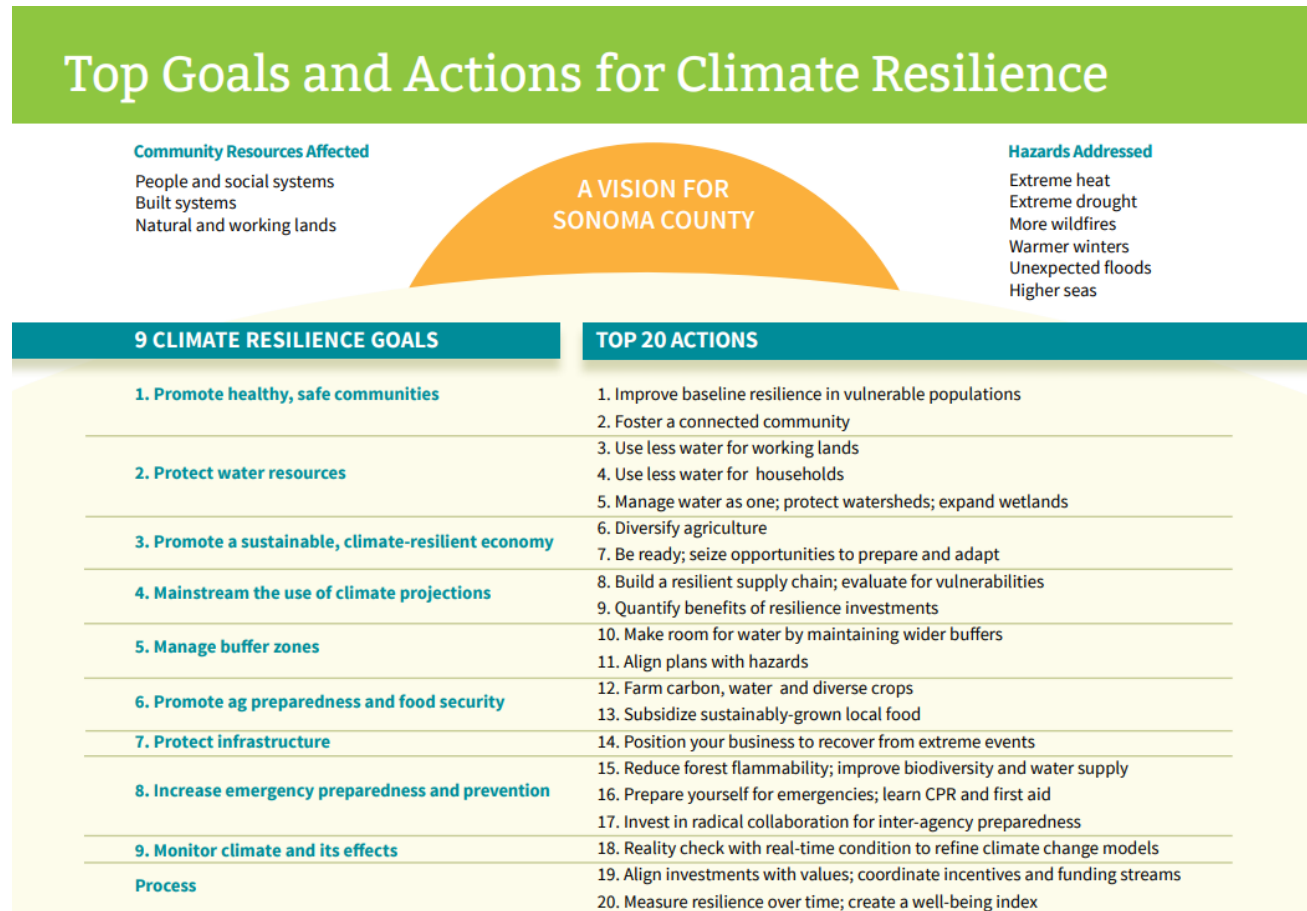


Source: Cal-Adapt Tool, 2018

Current Adaptation Plans and Strategies

Climate resilience or climate readiness means we are prepared to deal with the hazards of climate change by reducing our vulnerabilities to them and preparing to maintain or even improve our quality of life despite climate stresses. To facilitate climate resilience, the North Bay Climate Adaptation Initiative has created a Roadmap with goals, actors, and actions (Figure 14).

FIGURE 14: TOP GOALS AND ACTIONS FOR CLIMATE RESILIENCE



Source: North Bay Climate Adaptation Initiative, 2016; RCPA, 2018.

The City of Rohnert Park Local Hazard Mitigation Plan was recently adopted by the City Council on November 28, 2017. The plan has been submitted to Cal OES and FEMA for final review and approval. A local hazard mitigation plan is a five-year strategic plan that identifies natural hazards and vulnerabilities. These are analyzed to see how they could affect the city and to identify actions that reduce their impacts. In the current LHMP Rohnert Park covers a variety of conditions including, Primary Vulnerabilities; localized flooding (based on local experiences from winter storms), flooding based on FEMA 100 and 500-year flood event maps, earthquake shaking, earthquake liquefaction, drought, and wildland-urban interface fire. Secondary vulnerabilities; dam inundation, landslides, hazardous materials, earthquake fault ruptures. The plan is intended to lead to a safer Rohnert Park especially in the event of a natural disaster.

REGULATORY SETTING

Greenhouse Gas Emissions

Federal Regulations

The U.S. Supreme Court in *Massachusetts et al. v. Environmental Protection Agency et al.* (549 U.S. 05-1120 [2007]) held that the U.S. EPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act. The U.S. EPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines, and requires annual reporting of emissions. In 2012, the U.S. EPA issued a Final Rule that establishes the GHG permitting thresholds that determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

In 2014, the U.S. Supreme Court in *Utility Air Regulatory Group v. EPA* (134 S. Ct. 2427 [2014]) held that the U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a PSD or Title V permit. The Court also held that PSD permits that are otherwise required (based on emissions of other pollutants) may continue to require limitations on GHG emissions based on the application of Best Available Control Technology (BACT).

California Regulations

The ARB is responsible for the coordination and oversight of state and local GHG reduction programs in California, which has several regulations aimed at reducing the state's GHG emissions. The regulations summarized below are directly related to how local jurisdictions, like Rohnert Park, contribute to the statewide reduction of GHG emissions.

Assembly Bill 32

California's major initiative for reducing GHG emissions is outlined in AB 32, the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires the ARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires the ARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, the ARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO₂e. The Scoping Plan was approved by the ARB on December 11, 2008 and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car Program, and Cap and Trade) have been adopted since approval of the Scoping Plan.

In May 2014, the ARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan update defines the ARB's climate change priorities for the next five years and sets the groundwork to reach post-2020 statewide goals. The update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluates how to align the state's longer-term GHG reduction strategies with other state policy priorities, including those for water, waste, natural resources, clean energy and transportation, and land use (ARB 2014).

On December 14, 2017, the ARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 GHG emissions target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap and Trade Program, as well as implementation of recently adopted plans and policies. The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. The 2017 Scoping Plan recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of 6 metric tons (MT) CO₂e by 2030 and 2 MT CO₂e by 2050 (ARB 2017d).

Senate Bill 375

SB 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing the ARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPOs) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On September 23, 2010, the ARB adopted final regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035.

The Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC) were assigned targets of a seven percent reduction in GHGs from transportation sources by 2020 and a 15 percent reduction by 2035. In 2017 ABAG and MTC adopted their RTP/SCS, called Plan Bay Area, which, when implemented, would meet the assigned targets by achieving a 16 percent per capita GHG emissions reduction in 2035 and an 18 percent reduction in 2040.

Senate Bill 32

On September 8, 2016, the governor signed SB 32 into law, extending AB 32 by requiring the state to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the ARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap and Trade Program, as well as implementation of recently adopted legislation and policies. The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of 6 MT CO₂e by 2030 and 2 MT CO₂e by 2050 (ARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, sub regional, or regional level), but not for specific individual projects because they include all emissions sectors in the state.

For more information on the Senate and Assembly Bills, Executive Orders, and reports discussed above, and to view reports and research referenced above, please refer to the following websites:
www.climatechange.ca.gov and www.arb.ca.gov/cc/cc.htm.

Senate Bill 97

SB 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in CEQA documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and climate change impacts.

California Environmental Quality Act

Pursuant to the requirements of SB 97, the Resources Agency has adopted amendments to the *CEQA Guidelines* for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted *CEQA Guidelines* provide general regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. To date, a number of air districts have adopted quantitative significance thresholds for GHGs. The Bay Area Air Quality Management District (BAAQMD) has adopted thresholds for stationary and non-stationary sources.

Climate Change Adaptation

In accordance with the requirements of SB 379, codified at Government Code section 65302(g)(4), climate change adaptation and resilience must be addressed in the general plan safety element in California. Specifically, "upon the next revision of a local hazard mitigation plan (LHMP), adopted in accordance with the federal Disaster Mitigation Act of 2000 (Public Law 106-390), on or after January 1, 2017, or, if a local jurisdiction has not adopted a LHMP, beginning on or before January 1, 2022, the safety element shall be reviewed and updated as necessary to address climate adaptation and resiliency strategies applicable to the city or county. This review shall consider advice provided in the Office of Planning and Research General Plan Guidelines..." (Gov. Code § 65302(g)(4)).

As climatic systems shift away from a historically predictable paradigm, planning policy should adapt to better incorporate the associated impacts of these anticipated environmental shifts. Further, all major policy documents in a jurisdiction should discuss climate adaptation and resilience, as both an input to and implementation of the jurisdiction's general plan. This will lead to consistency within a jurisdiction's policy framework and ensure implementations of policies are occurring in an efficient and appropriate manner.

Emergency managers, planning agencies, private companies, and communities affected by climate change need to plan for the increase in the type, extent, and intensity of natural hazards. Climate change adaptation should be integrated throughout the elements of a general plan to create internal consistency and support holistic consideration of this important issue. A general plan should also provide context for changes in the environmental setting that will occur over time.

KEY TERMS

Alluvial Deposits. Alluvium is typically made up of a variety of materials, including fine particles of silt and clay and larger particles of sand and gravel. When this loose alluvial material is deposited or cemented into a lithological unit, or lithified, it is called an alluvial deposit.

Cooling Degree Days. A measurement designed to quantify the demand for energy needed to cool a building. It is the number of degrees that a day's average temperature is above 65° Fahrenheit, which is the temperature above which buildings need to be cooled.

Heating Degree Days. A measurement designed to quantify the demand for energy needed to heat a building. It is the number of degrees that a day's average temperature is below 65° Fahrenheit, which is the temperature below which buildings need to be heated.

Extreme Heat Threshold. The 98th historical percentile average high temperature for the year.

Hectare. A metric unit of square measure, equal to 100 ares (2.471 acres or 10,000 square meters).

Metric Tons of Carbon Dioxide Equivalent (MTCO_{2e}). A metric measure used to compare the emissions from different greenhouse gases based upon their global warming potential (GWP).

RCP 4.5 Scenario. This is one of two scenarios in the Cal-adapt tool predicting an emissions peak around 2040, Then decline.

RCP 8.5 Scenario. This is one of two scenarios in the Cal-adapt tool predicting emissions continuing to rise strongly through 2050 and plateau around 2100.

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APPENDIX A: ROHNERT PARK CITYWIDE GREENHOUSE GAS INVENTORY

Table A-1: Rohnert Park Citywide Greenhouse Gas Inventory, 2015

Source	Emissions (MTCO ₂ e)	Data Sources
Building Energy	54,892	PG&E
		Sonoma Clean Power
On-Road Transportation	190,661	Sonoma County Travel Model
		CARB EMFAC2014 Web Database
		Highway Performance Modeling System
Off-Road Transportation	5,305	CARB OFFORAD2007 Model
Solid Waste	12,183	Sonoma County Waste Management Agency
		CalRecycle 2014 Waste Characterization Database
Wastewater	311	City of Cloverdale Wastewater Treatment Plant
		Healdsburg Municipal Utilities Department
		City of Petaluma
		Santa Rosa Laguna Wastewater Treatment Plant
		Sonoma County Water Agency

Source	Emissions (MTCO ₂ e)	Data Sources
		Town of Windsor
Water	13	Jurisdiction specific Urban Water Management Plans
		Sonoma County Water Agency
		City of Sebastopol
		City of Cotati
		City of Healdsburg
Livestock and Fertilizer*	N/A	*Livestock and fertilizer emissions were fully apportioned to the unincorporated county.
TOTAL:	263,365	

Source: RCPA, 2015

Table A-2: Rohnert Park's Greenhouse Gas Emissions Breakdown

Source	Emissions (MTCO ₂ e)		Percent of Total Emissions	
	2010	2015	2010	2015
Building Energy	85,749	54,892	32.45%	20.84%
On-Road Transportation	164,228	190,661	62.15%	72.39%
Off-Road Transportation	4,117	5,305	1.56%	2.01%
Solid Waste	9,840	12,183	3.72%	4.63%
Water and Wastewater	329	324	0.12%	0.12%
Totals	264,263	263,365	100%	100%

Source: RCPA, 2015

APPENDIX B: COMPLETE LIST OF CA 2020 GHG MEASURES

Table B-1: Complete List of CA 2020 and Beyond GHG Reduction Measures

State, Local, and Regional Measures	2020 GHG Reductions	Participation Rate	Notes
State and Regional Measures			
Goal 1: Increase Building Energy Efficiency	7,341		
Measure 1-S1: Title 24 Standards for Commercial and Residential Buildings	3,634	N/A	
Measure 1-S2: Lighting Efficiency and Toxics Reduction Act (AB1109)	2,291	N/A	
Measure 1-S3: Industrial Boiler Efficiency	-	N/A	
Measure 1-R1: Community Energy Efficiency Retrofits for Existing Buildings	103	N/A	
Measure 1-R2: Expand the Community Energy Efficiency Retrofits Program	1,313	N/A	
Goal 2: Increase Renewable Energy Use	30,072		
Measure 2-S1: Renewables Portfolio Standard	23,461	N/A	
Measure 5-R1: Improve and Increase Transit Service	122	N/A	
Measure 2-R1: Community Choice Aggregation	6,489	N/A	
Goal 5: Encourage a Shift Toward Low-Carbon Transportation Options	4,142		
Measure 5-R1: Improve and Increase Transit Service	71	N/A	
Measure 5-R2: Supporting Transit Measures	NQ	N/A	
Measure 5-R3: Sonoma-Marín Area Rail Transit	NQ	N/A	
Measure 5-R4: Trip Reduction Ordinance	851	N/A	
Measure 5-R5: Supporting Measures for the Transportation Demand Management Program	NQ	N/A	
Measure 5-R6: Reduced Transit Passes	788	N/A	
Measure 5-R7: Alternative Travel Marketing & Optimize Online Service	630	N/A	
Measure 5-R8: Safe Routes to School	1,803	N/A	

State, Local, and Regional Measures	2020 GHG Reductions	Participation Rate	Notes
Measure 5-R9: Car-sharing Program	NQ	N/A	
Measure 5-R10: Bike Sharing Program	NQ	N/A	
Goal 6: Increase Vehicle and Equipment Fuel Efficiency	54,894		
Measure 6-S1: Pavley Emissions Standards for Passenger Vehicles and the Low Carbon Fuel Standard	51,165	N/A	
Measure 6-S2: Advanced Clean Cars	1,524	N/A	
Measure 6-S3: Assembly Bill 32 Vehicle Efficiency Measures	2,204	N/A	
Goal 7: Encourage a Shift Toward Low-Carbon Fuels in Vehicles and Equipment	2,482		
Measure 7-S1: Low Carbon Fuel Standard: Off-Road	680	N/A	
Measure 7-R1: Shift Sonoma County (Electric Vehicles)	1,874	N/A	
Goal 9: Increase Solid Waste Diversion	3,760		
Measure 9-R1: Waste Diversion Goal	3,760	N/A	
Goal 10: Increase Capture and Use of Methane from Landfills	5,814		
Measure 10-R1: Increase Landfill Methane Capture and Use for Energy	5,814	N/A	
Goal 11: Reduce Water Consumption	NQ		
Measure 11-R1: Countywide Water Conservation Support and Incentives	NQ	N/A	
Goal 12: Increase Recycled Water and Greywater Use	1		
Measure 12-R1: Recycled Water*	1	N/A	
Goal 13: Increase Water and Wastewater Infrastructure Efficiency	113		
Measure 13-R1: Infrastructure and Water Supply Improvement	20	N/A	
Measure 13-R2: Wastewater Treatment Equipment Efficiency*	93	N/A	
Goal 14: Increase Use of Renewable Energy in Water and Wastewater Systems	282		

State, Local, and Regional Measures	2020 GHG Reductions	Participation Rate	Notes
Measure 14-R1: Sonoma County Water 282 Agency Carbon Free Water by 2015	282	N/A	
Local Measures			
Goal 1: Increase Building Energy Efficiency	287		
Measure 1-L2: Outdoor Lighting	276	50%	of outdoor lighting to participate
Measure 1-L3: Shade Tree Planting	11	1000	Trees Planted
Goal 2: Increase Renewable Energy Use	2,792		
Measure 2-L1: Solar in New Residential Development	59	15%	of new houses participate
Measure 2-L2: Solar in Existing Residential Building	949	15%	of existing homes with solar
Measure 2-L3: Solar in New Non-Residential Developments	185	10%	of new non-residential development to participate
Measure 2-L4: Solar in Existing Non-Residential Buildings	1,599	10%	of existing non-residential development with solar
Goal 3: Switch Equipment from Fossil Fuel to Electricity	63		
Measure 3-L1: Convert to Electric Water Heating	63	5%	of households
Goal 4: Reduce Travel Demand Through Focused Growth	1,773		
Measure 4-L1: Mixed-Use Development in City Centers and Along Transit Corridors	862	20%	of growth to result in mixed use
Measure 4-L2: Increase Transit Accessibility	846	75%	of growth to be 25+ units
Measure 4-L3: Supporting Land Use Measures	NQ	Yes	
Measure 4-L4: Affordable Housing Linked to Transit	64	15%	of new development to be affordable
Goal 5: Encourage a Shift Toward Low-Carbon Transportation Options	2,042		
Measure 5-L1: Local Transportation Demand Management Program	630		of employees eligible
Measure 5-L2: Carpool-Incentives & Ride-Sharing Program	1,229		of employees eligible
Measure 5-L4: Supporting Bicycle/Pedestrian Measures	NQ		

State, Local, and Regional Measures	2020 GHG Reductions	Participation Rate	Notes
Measure 5-L5: Traffic Calming	183	100%	of trips affected
Goal 7: Encourage a Shift Toward Low-Carbon Fuels in Vehicles and Equipment	3		
Measure 7-L1: Electric Vehicle Charging Station Program	3	5	Charging station Installed
Measure 7-L3: Reduce Fossil Fuel Use in Equipment through Efficiency or Fuel Switching	NQ	Yes	
Goal 8: Reduce Idling	32		
Measure 8-L1: Idling Ordinance	NQ	2	minutes below state law
Measure 8-L2: Idling Ordinance for Construction Equipment	32	2	minutes below state law
Goal 11: Reduce Water Consumption	4,862		
Measure 11-L1: Senate Bill SB X7-7 - Water Conservation Act of 2009*	4,441	37%	Reduction in per capita water use
Measure 11-L2: Water Conservation for New Construction* ¹	-	100%/50%	Percent of new residential/non-residential development
Measure 11-L3: Water Conservation for Existing Buildings*	421	25%/50%	Percent of new residential/non-residential development
State Measure Reductions in Rohnert Park	85,010		
Regional Measure Reductions in Rohnert Park	23,890		
Local Measure Reductions in Rohnert Park	11,850		
Grand Total Emissions Reductions in Rohnert Park	120,760		

*Measures reduce emissions from multiple sources (i.e. water and energy)

NQ = not quantified

¹ Rohnert Park chose to participate in this measure, but there would be no reductions from this measure due to overlapping reductions with other water measures

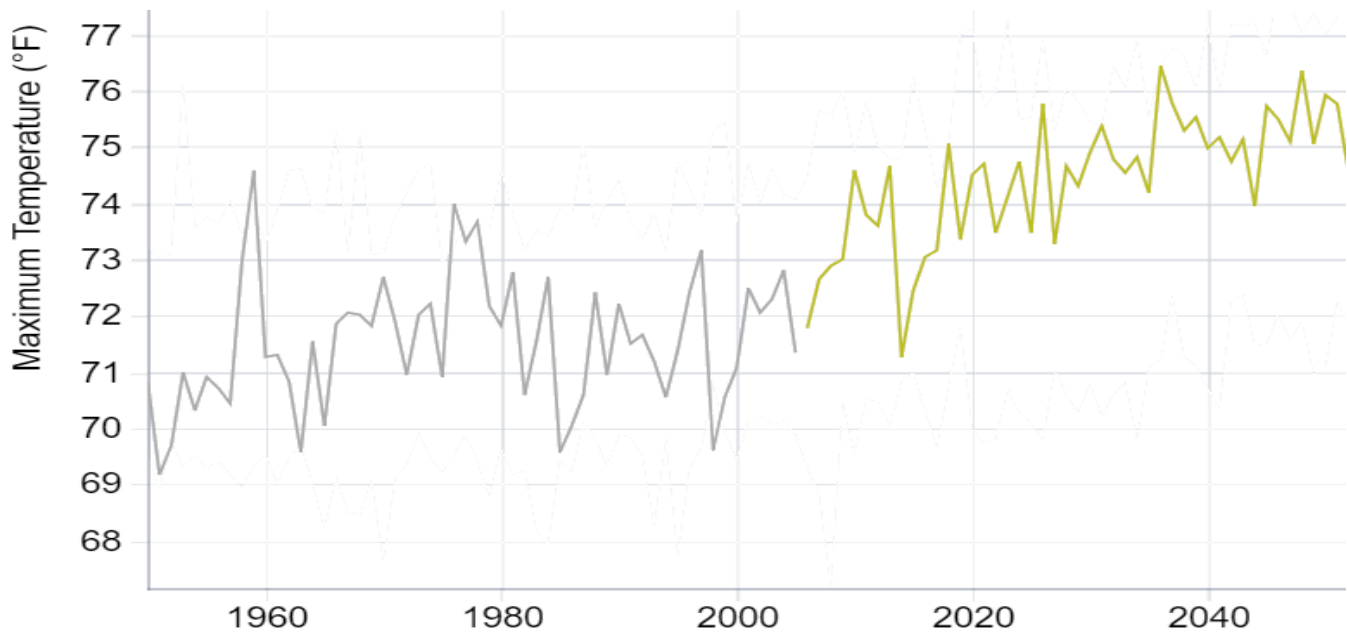
Source: RCPA, 2016

APPENDIX C: ADDITIONAL CAL-ADAPT MEASURES ON FUTURE PROJECTIONS

Maximum Temperature

The maximum temperature is predicted to increase in the upcoming decades. The maximum temperature is the highest temperature averaged throughout the year. Rohnert Park's historical maximum temperature is 74.1 degrees Fahrenheit. With the RCP 4.5 scenario predictions, this maximum temperature could increase to 77.5 degrees during 2018-2050, a 3.4-degree average maximum temperature increase. With the RCP 8.5 scenario up to a 78.0-degree average max temperature is predicted. Higher temperatures are dangerous for the elderly and other vulnerable populations. Figure C-1 shows the predicted increase in maximum temperature.

FIGURE C-1: INCREASED MAXIMUM TEMPERATURE IN ROHNERT PARK

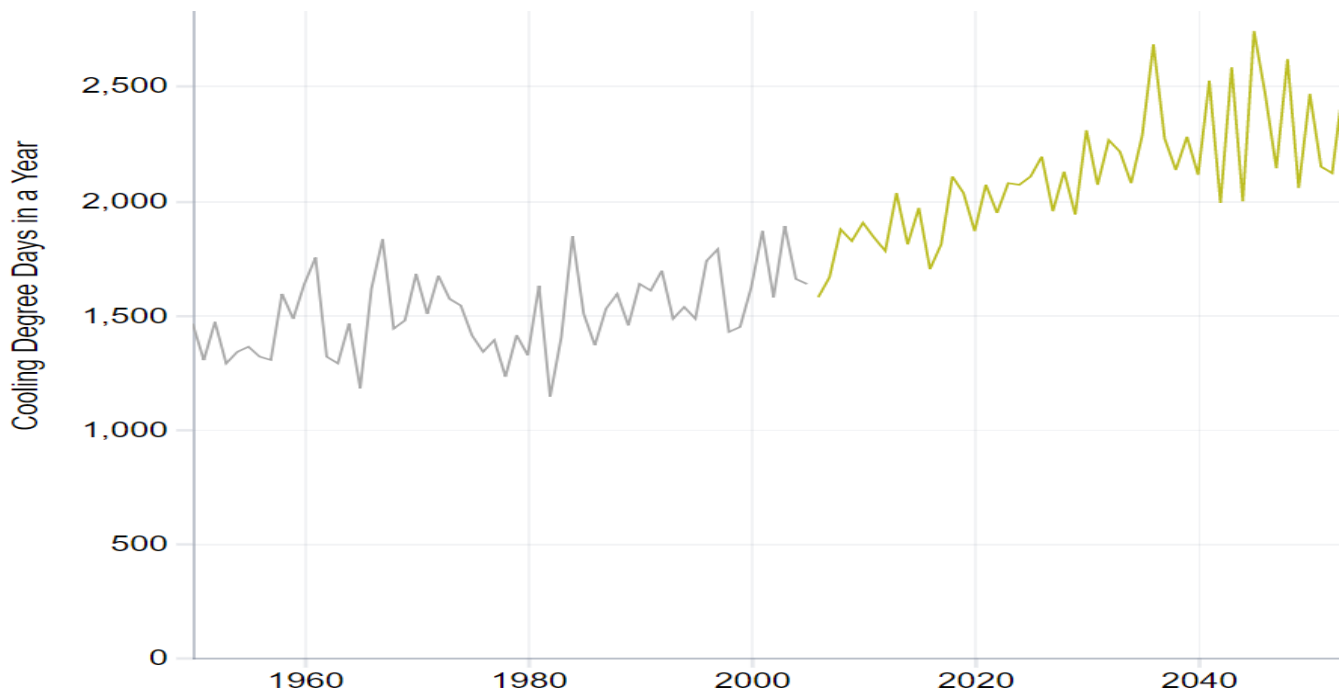


Source: Cal-Adapt Tool 2018

Cooling Degree Days

An increase in cooling degree days is expected. A cooling degree day shows the demand for energy needed to cool a building, this is measured when the temperature is above 65 degrees Fahrenheit, which is the average temperature of a building. The amount of cooling degree days in Rohnert Park from 1950-2005 was 1,465. With the RCP 4.5 scenario there will be an expected increase of 35 percent to 2040 cooling degree days (Figure C-2). With the RCP 8.5 scenario there could be up to 2,138 average cooling degree days. This model predicts a substantial increase in the need for cooling of buildings. This will cause an increased need for electricity during the day to run air conditioners and other cooling devices.

FIGURE C-2: COOLING DEGREE DAYS BY YEAR IN ROHNERT PARK

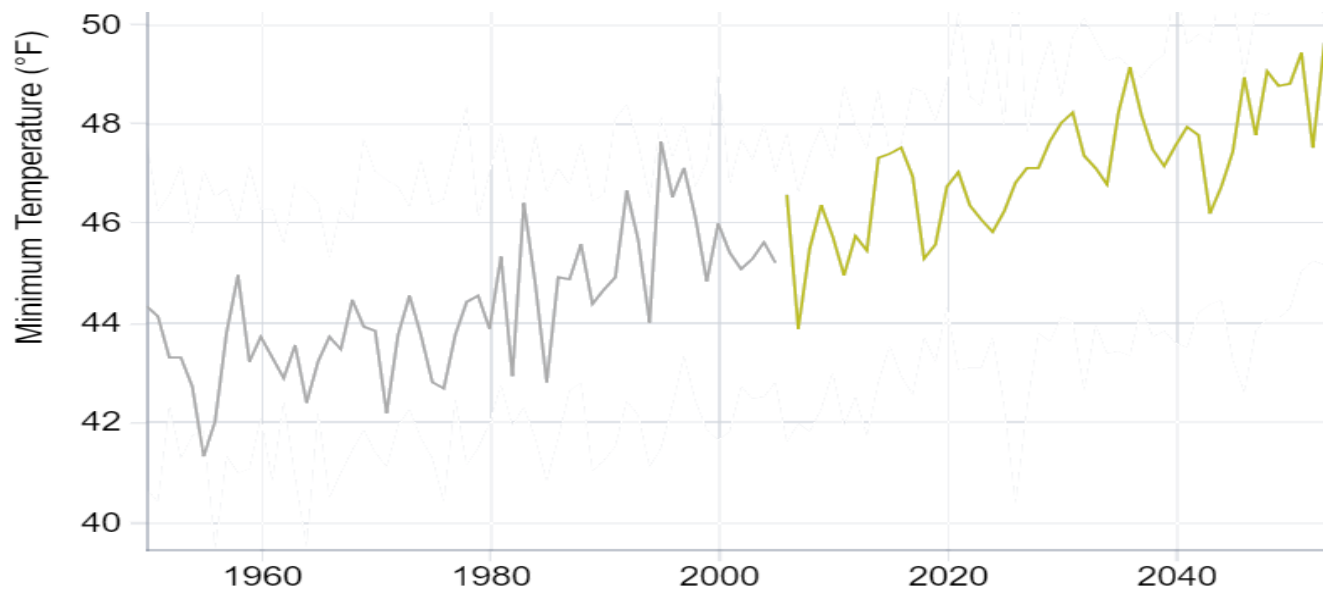


Source: Cal-Adapt Tool, 2018

Minimum Temperature

The current average minimum temperature in Rohnert Park between 1950-2005 is 43.8 degrees Fahrenheit. This is the measurement of the coldest point in each day, averaged over the year. It is projected that during 2018-2050 the average temperature will be 46.6 degrees Fahrenheit, a rise of 2.8 degrees with the RCP 4.5 scenario (Figure C-3). The RCP 8.5 scenario predicts a 3.2 degree rise to 47 degrees Fahrenheit average minimum temperature. This rise in temperature will lead to less heating and more cooling. Additionally, while only a small increase in average temperatures, some vegetation in and around Rohnert Park may be adversely affected by these changes, exacerbating fire, erosion, water quality, and other concerns.

FIGURE C-3: MINIMUM TEMPERATURE BY YEAR IN ROHNERT PARK

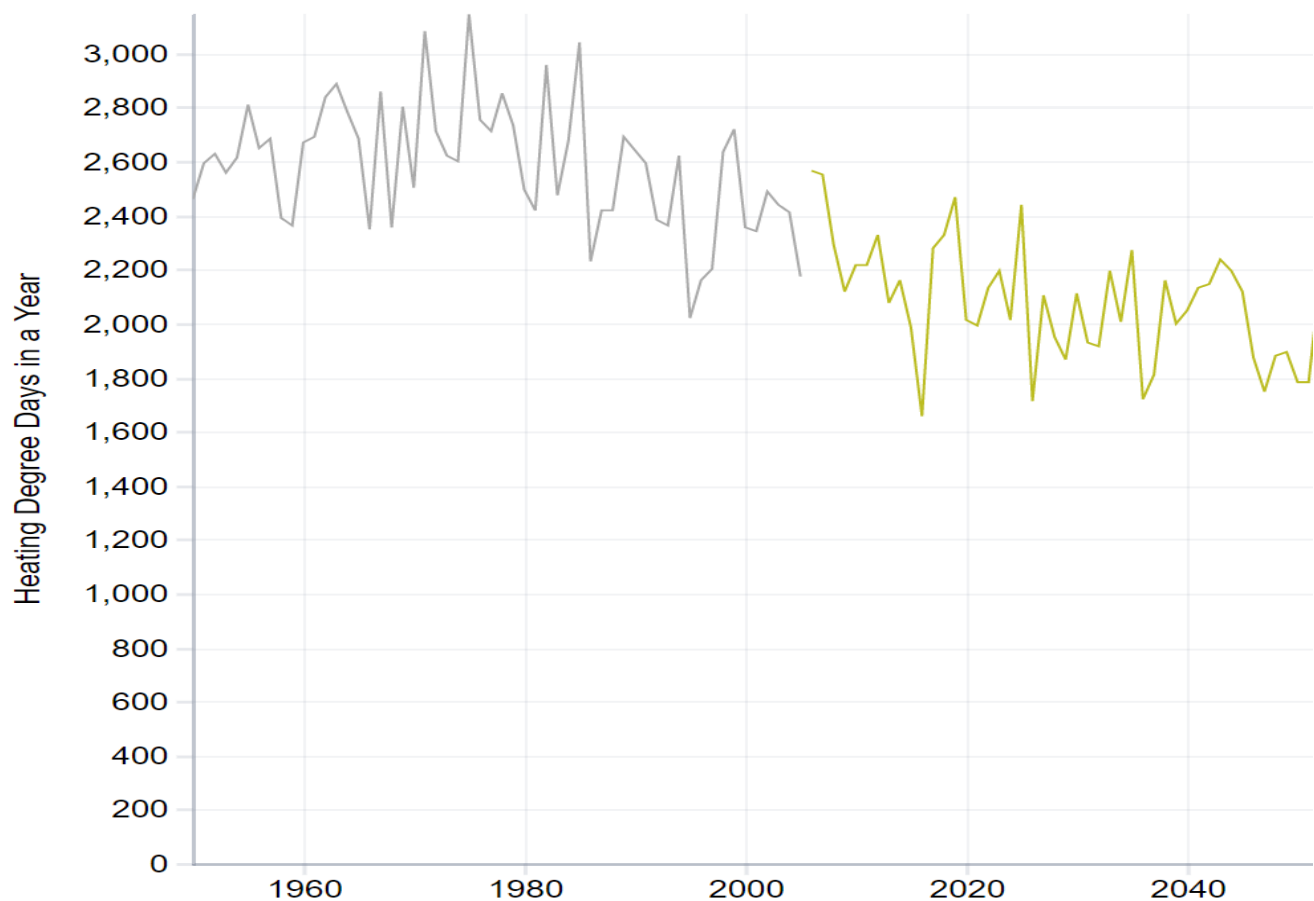


Source: Cal-Adapt Tool, 2018

Heating Degree Days

As temperatures continue to rise, the amount of average heating degree days will lower. The current heating degree days historically is 3,025 in Rohnert Park. This predicts the amount heating that is required for the interior of a building. A decrease in heating degree days means less interior heating will be required throughout the year. There will be an expected decrease of 21.5 percent with the RCP 4.5 scenario. With the RCP 8.5 scenario there could be 2,375 heating degree days. Figure C-4 below displays the predicted amount of heating degree days through 2050.

FIGURE C-4: HEATING DEGREE DAYS BY YEAR IN ROHNERT PARK

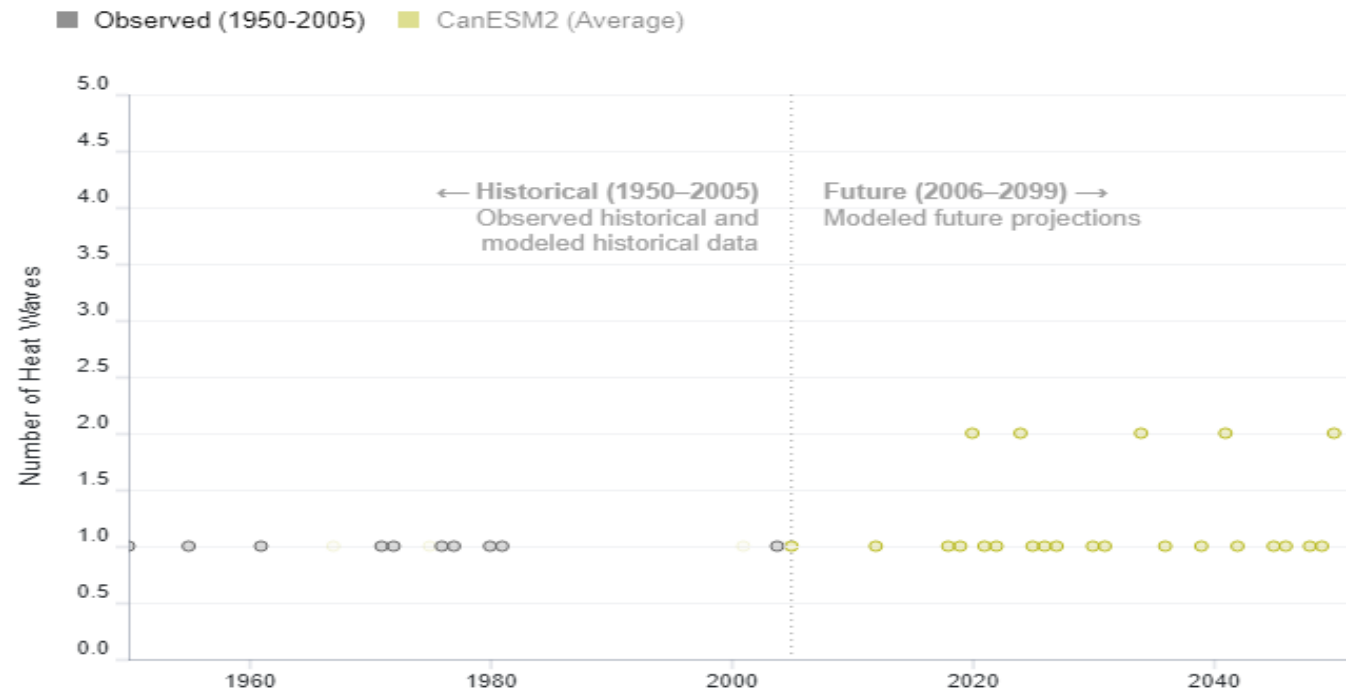


Source: Cal-Adapt Tool, 2018

Four-Day Heatwaves

With rising temperatures, an increase in heat waves is expected. The historical record shows that the heat threshold of Rohnert Park is 98.7 degrees Fahrenheit. When the daily high temperature exceeds this threshold for a prolonged period it is considered a heat wave. Up to two four-day heat waves are expected to occur after 2020, and up to four four-day heat waves towards the end of the century. Figure C-5 shows the number of four-day heatwaves per year.

FIGURE C-5: NUMBER OF FOUR-DAY HEATWAVES BY YEAR

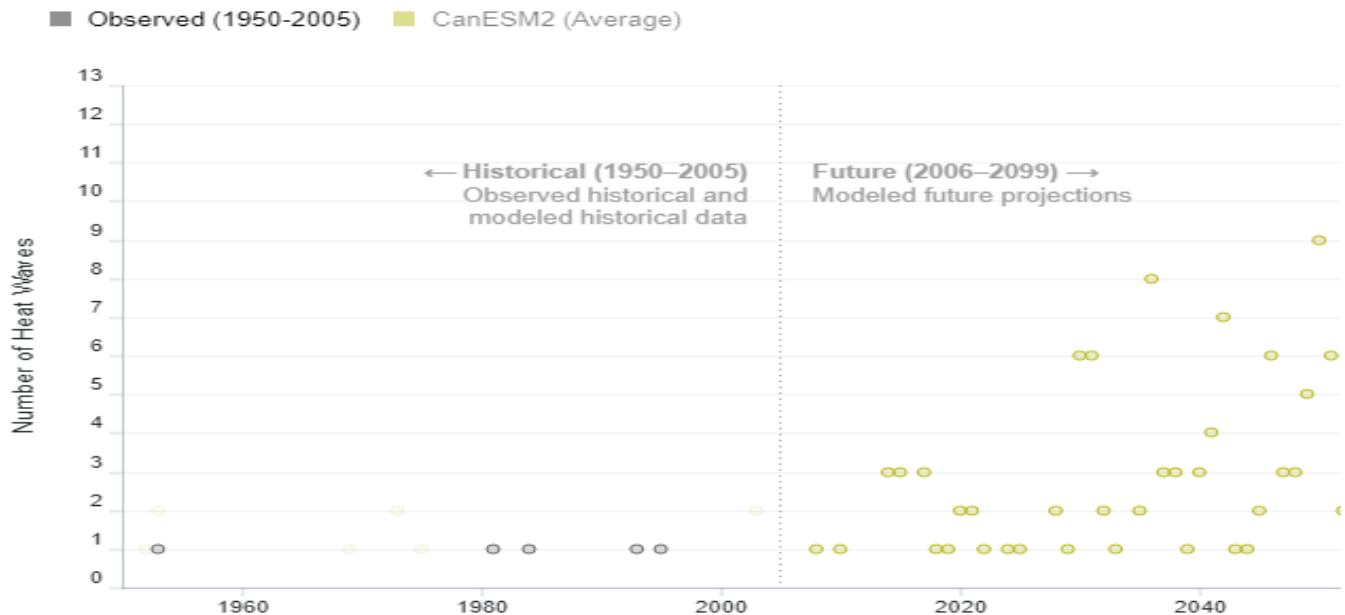


Source: Cal-Adapt Tool, 2018

Four-Day Warm Night

An increase of warm nights throughout the year is expected. The occurrence of multiple warm nights in a row will lead to warm night “heat waves”. Figure C-6 shows that the projected amount of warm night heat waves up until 2050. Historically, warm night heat waves have never been recorded, but future data predicts an exponential growth of warm night heat waves. The higher occurrence will soon jump to up to three to four four-day warm nights per year by 2030. Then to nine or even higher as we reach 2049.

FIGURE C-6: NUMBER OF FOUR-DAY WARM NIGHT HEAT WAVES BY YEAR



Source: Cal-Adapt Tool, 2018

Fire

While California as a whole is expected to see increases in the size and frequency of areas burned, thus far Rohnert Park has been relatively safe from fire damage. There will be more frequent and intense fires throughout the state, as well as much longer fire seasons. Rohnert Park as stated before is generally in a safer area from fire risk, due to its lower fuel load and compact development pattern. Areas around Rohnert Park have suffered devastating fires, and this may continue to increasingly affect Rohnert Park in the future. For example, smoke and ash affects both air quality and water quality. Depending on how Rohnert Park continues to grow, development patterns could expand closer to areas with higher fuel loads, potentially resulting in higher fire severity level.

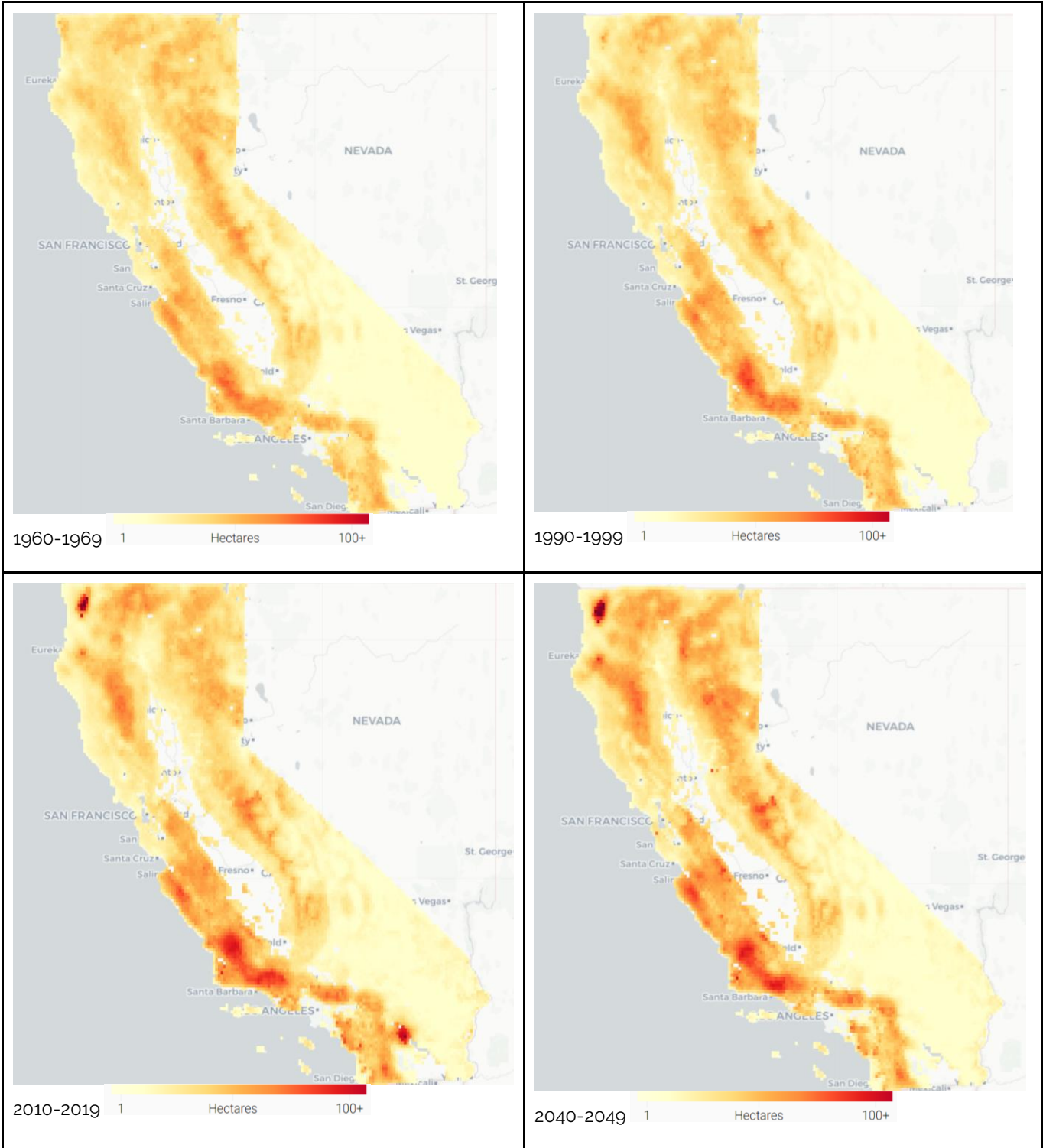


Fire in Sonoma County, 2017

Figure C-7 below shows an increase in the average mean area burned per 10 years in the State of California since 1960 and projected to 2049. Hotspots in red show areas with over 100 hectares burned per 10 years. The severity of hotspots will continue to grow throughout the century.

Figure C-7

INCREASE IN FIRE HAZARDS BY DECADE IN CALIFORNIA



Source: Cal-Adapt Tool, 2018

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ENVISSION ROHNERT PARK 2040

Environmental Justice Whitepaper

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ENVIRONMENTAL JUSTICE WHITEPAPER

INTRODUCTION

Environmental justice concerns have been part of the legislative landscape in California for two decades. In 1999, the California Government Code defined environmental justice as, “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies” (Government Code Section 65040.12(e), Senate Bill 115 (Solis)). In 2001, Assembly Bill 1553 (Keeley) required the Office of Planning and Research (OPR) to provide guidance for local jurisdictions regarding environmental justice considerations. The *2003 General Plan Guidelines*, released by OPR, included several environmental justice considerations.

In 2016, California Senate Bill 1000 (SB 1000) was enacted. Starting January 1, 2018, it requires cities and counties to, upon the adoption of their general plan or the concurrent update of two or more general plan elements, to identify disadvantaged communities and, if identified, include an environmental justice element or, alternatively, environmental justice goals, policies, and objectives within other elements. This bill aims to address the statewide problem of certain communities bearing a disproportionate burden of pollution and environmental hazards more than others; residents in these communities face higher rates of asthma, birth defects, cancer, and other health problems, and incompatibility in land uses and lack of infrastructure are at the forefront of environmental inequities.

An updated edition of the *2003 General Plan Guidelines* was released in 2017 and includes the statutory requirements of SB 1000. However, OPR is currently in the process of a public outreach process to develop detailed guidance for how jurisdictions can incorporate environmental justice into their general plans. As a result, the practice of identifying disadvantaged communities and writing policies to mitigate the disproportionate effects of environmental impacts on these communities may change in the upcoming years.

In accordance with SB 1000, this Whitepaper identifies two potential disadvantaged communities (DAC) within Rohnert Park that may experience environmental inequities based on the SB 1000 definition. This Whitepaper additionally includes a third community based on the Plan Bay Area 2040 equity analysis. Although this third community area does not fit the SB 1000 definition, it may warrant a discussion and consideration in policy development later in the General Plan Update process.

The process of identifying DACs is based on Census tract level data. For the two DACs identified, a large portion of these areas lie outside of Rohnert Park and within unincorporated portions of Sonoma County. Due to the limitations of the data and the approach taken by the State relative to the identification process, the information presented below should only be used to identify potential areas with possible environmental burdens, but does not precisely identify disadvantaged communities within Rohnert Park. As a result, it is possible that the City of Rohnert Park does not contain disadvantaged populations that experience a disproportionate amount of environmental burden.

Nonetheless, this analysis is useful in providing a baseline understanding of potential environmental conditions within the city. Unless otherwise stated, references to the current day indicate the year 2018.

MAJOR FINDINGS AND IMPLICATIONS

- The census tract containing DAC 1, which includes a large unincorporated county area and the Roseland neighborhood of Santa Rosa, received scores indicating that it has high pollution burden with drinking water contaminants, groundwater threats, and solid waste sites and facilities, although a 2017 Water Quality Report reported no water quality violations in Rohnert Park. Additionally, it has a high burden of asthma, cardiovascular disease, and housing burden.
- The census tract containing DAC 2, which contains unincorporated Sonoma County, portions of Cotati, and a small area of Rohnert Park, received scores indicating that it has high pollution burden with drinking water contaminants, groundwater threats, impaired water bodies, and solid waste sites and facilities, although a 2017 Water Quality Report reported no water quality violations in Rohnert Park. This community has a relatively low population burden, however, this is a low-income area based on the American Community Survey.
- The third census tract discussed in this analysis is a low-income area based on the American Community Survey, and is identified by the Metropolitan Transportation Commission as a Community of Concern, which reflects a variety of community characteristics that may suggest, but does not establish itself as, a disadvantaged community under the terms of SB 1000.

Health and Safety Code Section 39711

codifies the Greenhouse Gas Reduction Fund Investment Plan and Communities Revitalization Act (SB 535), and identifies disadvantaged communities based on geographic, socioeconomic, public health, and environmental hazard criteria, and may include, but are not limited to, either of the following:

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

CalEnviroScreen was developed to carry out SB 535, and uses 20 indicators that represent the SB 535 definition of disadvantaged communities and identifies areas, by census tract, that are disproportionately burdened by, and vulnerable to, multiple sources of pollution.

Funds collected through California's cap-and-trade program (AB 32), are collected in the Greenhouse Gas Reduction Fund (AB 1532), and through SB 535, is invested in disadvantaged areas as identified through CalEnviroScreen.

EXISTING CONDITIONS

Defining Disadvantaged Communities

According to SB 1000, a disadvantaged community is defined as an area identified by the California Environmental Protection Agency (CalEPA) pursuant to Health and Safety Code Section 39711 (SB 535), or a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation. SB 1000 defines "low-income area" to be an area with household incomes at or below 80 percent of the statewide median income or with household incomes at or below the threshold designated as low-income by the Department of Housing and Community Development's list of state income limits.

California Communities Environmental Health Screening Tool (CalEnviroScreen) identifies low-income census tracts in California that are disproportionately burdened by and vulnerable to multiple sources of pollution. In January 2017, CalEPA, released Version 3.0, and most recently updated it in June 2018. CalEnviroScreen was originally developed to carry out SB 535 and uses 20 indicators to identify areas, by census tract, that are disproportionately burdened by, and vulnerable to, multiple sources of pollution. As such, CalEnviroScreen is also used to determine disadvantaged communities for this environmental justice analysis. CalEnviroScreen identifies those census tracts scoring in the top 25th percentile.

SB 1000 Requirements

SB 1000 assures local governments will proactively plan for and address environmental justice when developing their long-term goals, policies, and vision for land use and any future growth. As such, SB 1000 requires that city and county general plans must identify any disadvantaged communities within the general plan planning area, and for the communities identified, do the following:

- Identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities by means that include (but are not limited to) the reduction of pollution exposure, including the improvement of air quality, as well as the promotion of public facilities, food access, safe and sanitary homes, and physical activity.
- Identify objectives and policies to promote civil engagement in the public decision-making process.
- Identify objectives and policies that prioritize improvements and programs that address the needs of disadvantaged communities.

These components must be incorporated into city and county general plans either as an environmental justice element, or as related goals and policies integrated in other elements. This Whitepaper aims to provide the context necessary for these requirements to be met in the General Plan Update process.

Analysis of Disadvantaged Communities

CalEnviroScreen reports out scores at the census tract level, where the higher the percentile score, the higher the burden. For instance, a census tract that has a groundwater threats percentile score of 90 bears a greater pollution burden (i.e., has greater groundwater pollution threats) than a census tract with a groundwater threats percentile score of 80. Similarly, a census tract poverty percentile score of 80 bears a greater population burden (i.e., is more impacted by poverty) than a census tract with a poverty percentile score of 75. A high pollution burden percentile score indicates that a community experiences multiple effects of pollution. A high population burden percentile score indicates that a community is more vulnerable to the effects of pollution, based on sensitive population characteristics socioeconomic factors.

What is a census tract?

SB 1000, including its designation of "disadvantaged communities," utilizes "census tracts." The U.S. Census Bureau delineates census tracts, which typically have a population of 1,200 to 8,000. Geographic size can vary widely, based on population density. Census tracts provide a set of geographic units for the presentation of statistical data.

Two of the identified census tracts, however, lie only partially within the Rohnert Park Planning Area. Due to limitations of the CalEnviroScreen data, the characteristics of communities within each census tract may not be effectively represented by the CalEnviroScreen scores. The discussion below therefore aims to bring nuance to these scores in the context of Rohnert Park communities.

It is also relevant to consider communities of concern (CoC) as defined by the Bay Area's Metropolitan Transportation Commission (MTC). MTC defines CoCs as census tracts that have a concentration of both minority and low-income households at specified thresholds of significance, or that have a concentration of three or more of six additional factors if they also have a concentration of low-income households (e.g., people with disability, seniors 75 years and over, and cost-burdened renters). This community of concern designation does not, by itself, establish a disadvantaged community under the terms of SB 1000. However, a CoC designation bears some weight in deciding how to address issues in this area.

This Whitepaper discusses two identified DACs and one CoC. Figure 1 shows the relationship between identified census tracts and the DACs/CoC.

- The southeast corner of Census Tract 1532 will be labeled "DAC 1"
- The northeast corner of Census Tract 1512.01 will be labeled "DAC 2"
- Census Tract 1513.05 falls entirely within Rohnert Park and will be labeled "CoC 1"

Figure 1

POTENTIAL DACs AND CoC

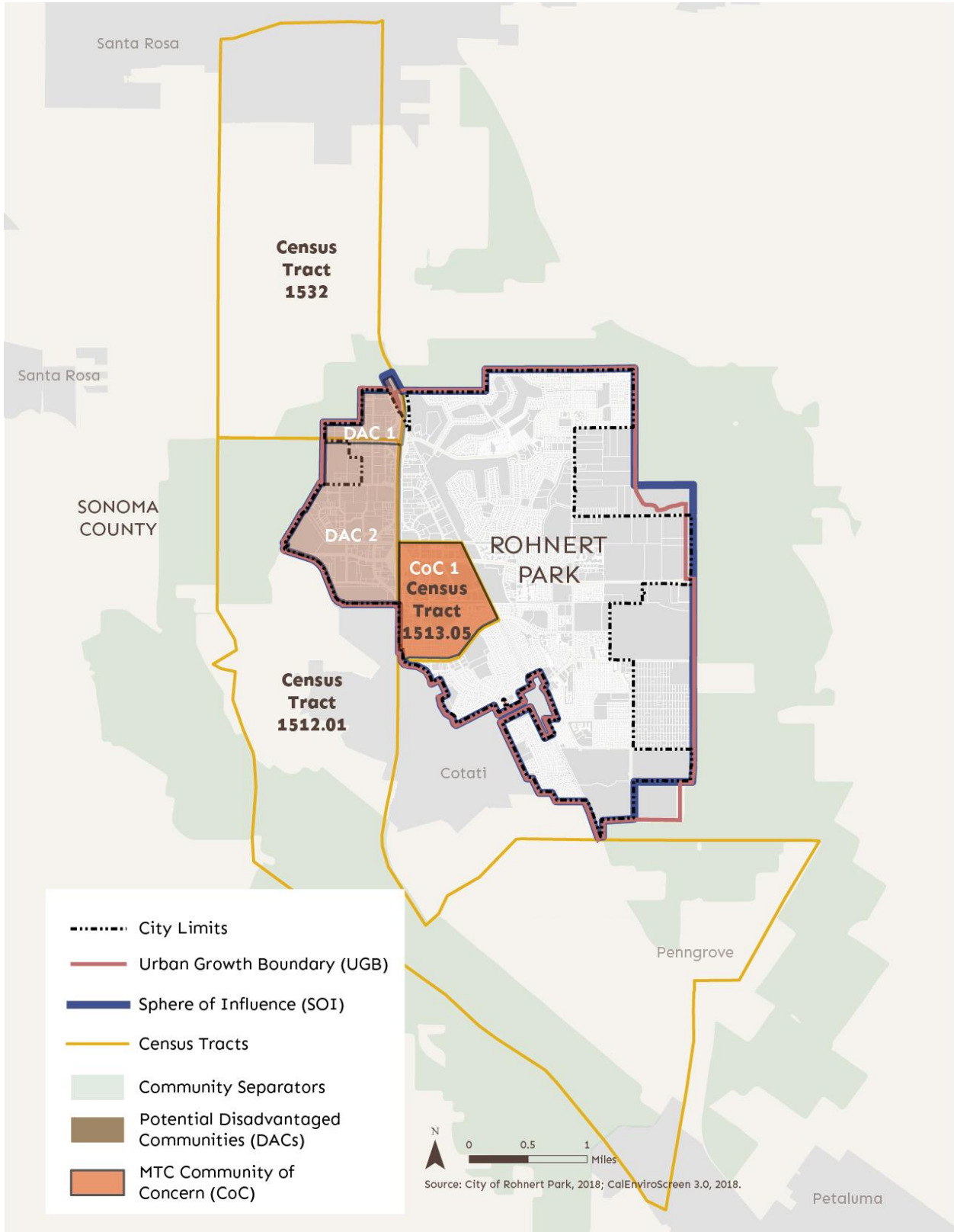


Table 1 shows all indicator percentile scores. CalEnviroScreen defines a disadvantaged community when percentile scores reach 75 or higher. For this Whitepaper, a percentile score between 0 and 25 indicates low burden, and a percentile score between 25 and 75 indicates moderate burden. Based on CalEnviroScreen definitions, percentile scores 75 or higher are considered to indicate high burden.

Only high burden indicators are discussed in this section. For an expanded discussion of all indicator scores, see Appendix A.

Table 1: CalEnviroScreen 3.0 Percentile Scores (Rohnert Park 2018)

	Census Tract 1532	Census Tract 1512.01	Census Tract 1513.05
Exposure Indicators			
Air Quality - Ozone	8	8	8
Air Quality - PM 2.5	8	8	8
Diesel Particulate Matter	31	22	45
Pesticide Use	24	68	0
Toxic Releases From Facilities	22	40	27
Traffic Density	73	67	62
Drinking Water Contaminants	85	85	47
Environmental Effect Indicators			
Cleanup Sites	57	65	3
Groundwater Threats	95	91	58
Hazardous Waste Generators and Facilities	55	55	0
Impaired Water Bodies	49	81	49
Solid Waste Sites and Facilities	88	81	79
Sensitive Population Characteristics			
Asthma	81	34	56
Low Birth Weight Infants	39	16	46
Cardiovascular Disease	81	17	61
Socioeconomic Factors			
Education Attainment	64	51	51
Linguistic Isolation	61	29	44
Poverty	72	54	69
Unemployment	49	58	20
Housing Burden	83	46	68
Aggregate Scores			
Pollution Burden	64	80	23
Population Burden	75	27	53

- 0-25: Low Burden
- 25-75: Moderate Burden
- 75-100: High Burden

Source: CalEnviroScreen 3.0, 2018

DAC 1

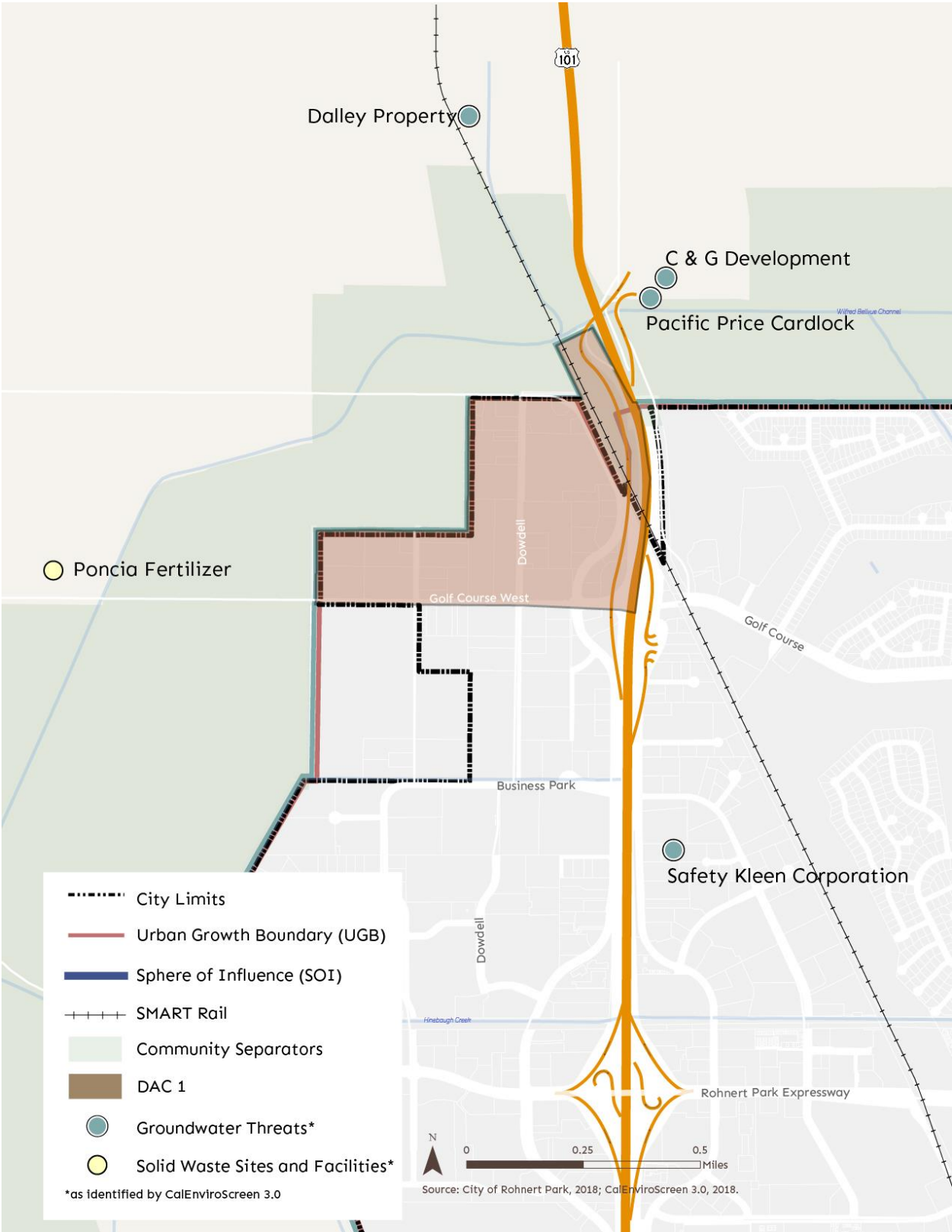
DAC 1 covers the northwest corner of Rohnert Park, which is only a small portion of Census Tract 1532. Census Tract 1532 also includes the southern portion of Santa Rosa, as well as rural residential and industrial development in the unincorporated county between the two cities. Within Rohnert Park, DAC 1 covers approximately 145 acres, or 5 percent of the entire census tract (3,130 acres) included in this analysis. There are an estimated 11 homes within DAC 1, which is 0.4 percent of the total number of housing units within this census tract (2,624 total housing units). Applying the 2017 average household size in Rohnert Park (2.64 persons per household), almost 30 people live in DAC 1, which is 0.4 percent of the entire census tract population (8,040 people) that was included in this analysis.

Census Tract 1532 has a 75.9 CalEnviroScreen percentile score, which qualifies it as a disadvantaged community. Census Tract 1532 is also an MTC CoC, but for the purposes of this analysis, will be called a DAC. However, since DAC 1 represents such a small proportion of Census Tract 1532, any findings presented at the census tract level should be applied to Rohnert Park with caution.

Scores (Table 1) for Census Tract 1532 suggest that it may have a high pollution burden with drinking water contaminants, groundwater threats, and solid waste sites and facilities. Additionally, it has a high burden of asthma, cardiovascular disease, and housing burden. Overall, Census Tract 1532 has a moderate pollution burden and a high population burden. Based on a database maintained by the State Water Resources Control Board, groundwater may be threatened by certain sources of pollution such as Pacific Pride Cardlock Stock and Safety Kleen Corporation. Solid waste sites and facilities, based on information maintained by CalRecycle, includes Poncia Fertilizer. Figure 2 shows the discussed pollution burdens near DAC 1.

The Rohnert Park 2015 Urban Water Management Plan states that groundwater produced from the City's wells meets primary state drinking water standards, although arsenic concentrates at the upper end of the range of detected concentrations occur in City wells completed in the northwestern area in the deep and lower zones. A 2017 Water Quality Report reported no water quality violations.

Figure 2
POLLUTION BURDENS IN DAC 1



DAC 2

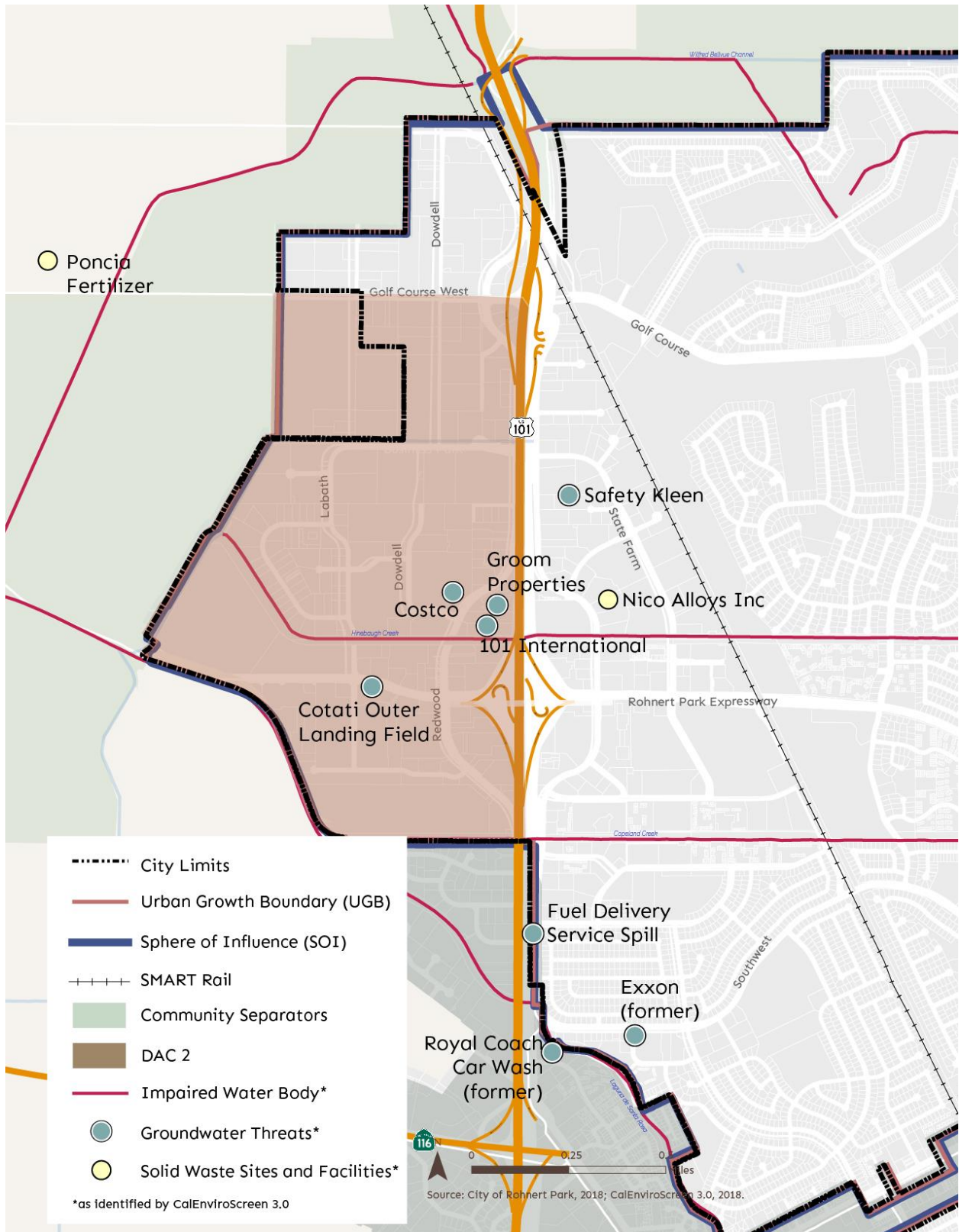
DAC 2 is part of Census Tract 1512.01, and covers most of Rohnert Park west of Highway 101. This census tract also covers portions of unincorporated county and Cotati. Within Rohnert Park, DAC 2 covers approximately 660 acres, or 9 percent of the entire census tract (7,020 acres) analyzed. There are over 1,400 homes estimated within DAC 2, which is 45 percent of the total housing units within the census tract included in this analysis (3,140 housing units). Applying the 2017 average household size in Rohnert Park (2.64 persons per household), nearly 3,700 people live in DAC 2 and are potentially exposed to pollution sources in the area, which is 51 percent of the entire census tract population (7,290 people).

Census Tract 1512.01 has a 47.4 CalEnviroScreen percentile score, but according to the 2012-2016 American Community Survey 5-Year Estimates, has a median household income (\$49,554) less than 80 percent (77.7 percent) of the State median household income (\$63,783) and an environmental burden percentile score of 80, therefore qualifying as a disadvantaged community under SB 1000. However, since DAC 2 represents a small proportion of Census Tract 1512.01, any findings presented at the census tract level should be applied to Rohnert Park with caution.

Census Tract 1512.01 scores (Table 1) indicate that it has high pollution burden with drinking water contaminants, groundwater threats, impaired water bodies, and solid waste sites and facilities. As stated above, however, there are no reported water quality violations in Rohnert Park. Overall, Census Tract 1512.01 has a high pollution burden and a low population burden, indicating a relatively low vulnerability to environmental pollution. Potential groundwater threats include Costco, 101 International, and Groom Properties. Impaired water bodies include Five Creek, Hinebaugh Creek, and the Laguna De Santa Rosa. Solid waste sites and facilities include Poncia Fertilizer and Nico Alloys. Figure 3 shows the discussed pollution burdens in and around DAC 2.

Figure 3

POLLUTION BURDENS IN DAC 2



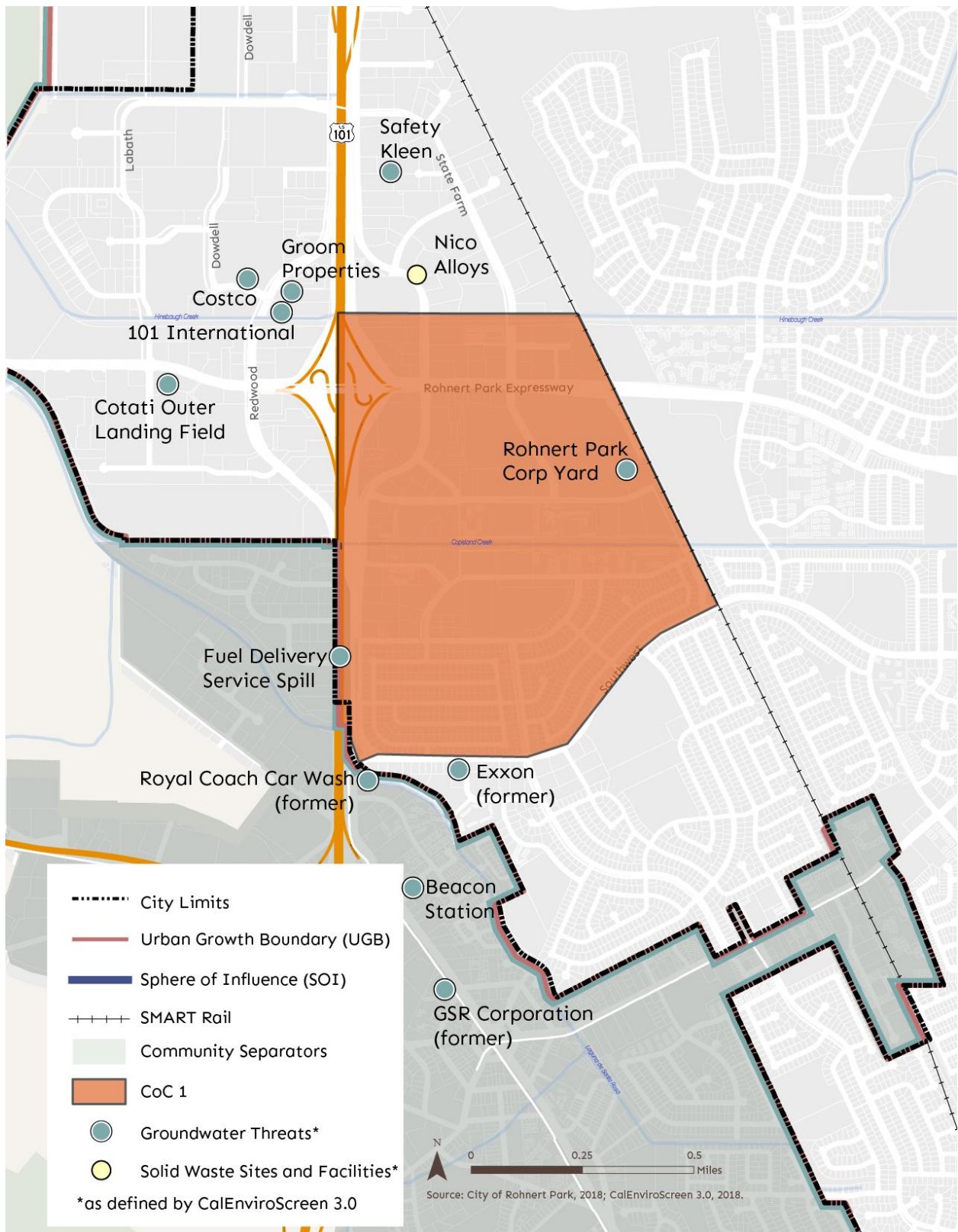
CoC 1

CoC 1 is Census Tract 1513.05 and lies entirely within Rohnert Park. It is approximately 435 acres, and is bounded to the west by Highway 101, Commerce Creek Path to the north, the SMART rail to the east, and Southwest Boulevard to the south, and encompasses the southern portion of the Central Rohnert Park Priority Development Plan Area. CoC 1 has a 40.47 CalEnviroScreen percentile score, but according to the 2012-2016 American Community Survey 5-Year Estimates, has a median household income (\$43,867) less than 80 percent (68.8 percent) of the State median household income (\$63,783). Despite its status as a low-income area, CoC 1 has a low environmental burden percentile score of 23, which does not qualify this census tract as a disadvantaged community as defined by SB 1000. Based on the 2017 ACS, there are approximately 2,435 housing units and over 6,100 people live in CoC 1; unlike DAC 1 and DAC 2, residents in CoC 1 are less likely to be exposed to pollution sources.

The only indicator with a high pollution burden in CoC 1 is solid waste sites and facilities (Table 1). Figure 4 shows that Nico Alloys is a solid waste pollution source situated near CoC 1. While there are several potential groundwater threats surrounding CoC 1 identified by CalEnviroScreen, CoC 1, overall, has a low pollution burden.

Figure 4

POLLUTION BURDENS IN CoC 1



INFORMING OBJECTIVES AND POLICIES TO REDUCE HEALTH RISKS

As mentioned above, SB 1000 requires that for any identified disadvantaged community within the area covered by the general plan, the environmental justice element should identify objectives and policies to reduce unique or compounded health risks by:

- Reducing pollution exposure (including the improvement of air quality);
- Promoting public facilities, food access, safe and sanitary homes, physical activity, and civil engagement in the public decision-making process; and
- Prioritizing improvements and programs that address the needs of disadvantaged communities.

Because pollution exposure has already been discussed in the Analysis of Disadvantaged Communities section, and because the prioritization of improvements and programs is carried out later in the General Plan Update process, this section focuses on a preliminary exploration of promoting public facilities, food access, safe and sanitary homes, physical activity, and civil engagement in the decision-making process.

The following indicators are taken from the California Healthy Places Index, where, unlike CalEnviroScreen, a higher percentile indicates a better score. Like CalEnviroScreen, however, the data is reported at the census tract level, and so ground-truthing would be necessary to ensure the proper application of these findings to the potential disadvantaged communities.

Promote Public Facilities

SB 1000 offers these examples of public facilities relevant for this purpose: public improvements, public services, and community amenities, as defined in Government Code Section 66000(d).

A key indicator for this purpose is park access, or the proximity of residents to parks. Parks can encourage physical activity, reduce chronic diseases, improve mental health, and foster community connections. Figure 5 shows that Census Tract 1513.05, which includes DAC 3, has the best park access out of all other census tracts.

DAC 1

DAC 1 is part of Census Tract 1532, where 64.92 percent of residents live within walkable distance (defined for this purpose as a half-mile) of a park, beach, or other public open space greater than one acre. This is higher than 30.3 percent of California census tracts.

DAC 2

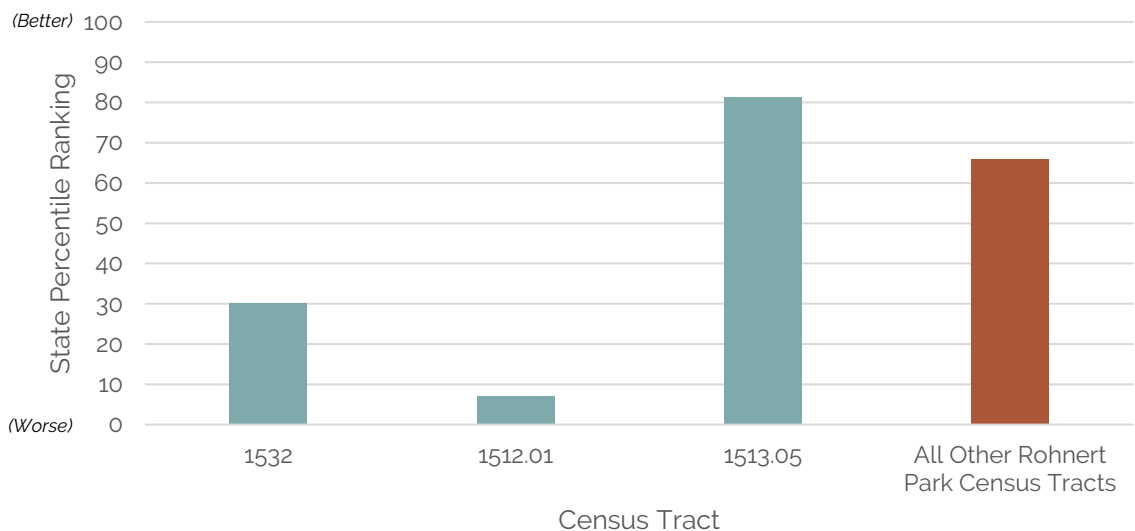
DAC 2 is part of Census Tract 1512.01, where 6.29 percent of residents live within walkable distance (half-mile) of a park, beach, or other public open space greater than one acre. This is higher than seven percent of California census tracts.

CoC 1

CoC 1 is Census Tract 1513.05, where 100 percent of residents live within walkable distance (half-mile) of a park, beach, or other public open space greater than one acre. This is higher than 81.4 percent of other California census tracts. (It is not clear from the data source used here why having 100 percent of residents living within walkable distance of a park results in only an 81.4 percentile score.)

Figure 5

PARK ACCESS



Source: California Healthy Places Index, 2018.

Promote Food Access

Access to healthy food options is an important component of eating healthier, reducing the costs associated with obtaining food, and lowering the risk of food insecurity. A basic and frequently used measure for this purpose is the percentage of residents living within a half-mile of a full-service grocery store. Figure 6 shows that all three census tracts that include DACs have better food access than other surrounding census tracts.

DAC 1

DAC 1 is a part of Census Tract 1532, where 33.72 percent of residents live less than a half-mile from a supermarket/large grocery store. This is higher than 38.8 percent of California census tracts.

DAC 2

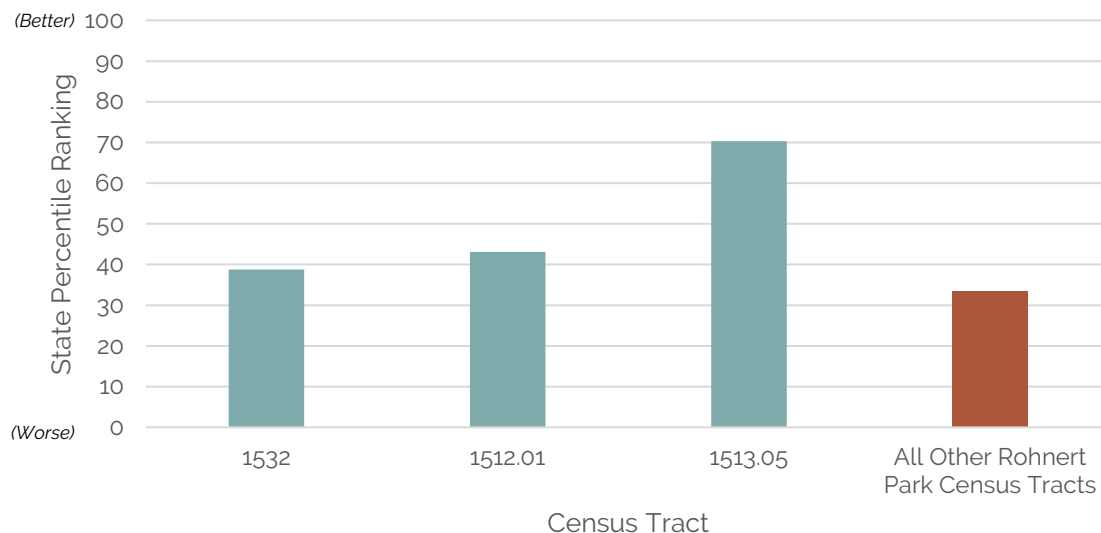
DAC 2 is a part of Census Tract 39.71 percent of residents live less than a half-mile from a supermarket/large grocery store. This is higher than 43.1 percent of California census tracts.

CoC 1

CoC 1 is Census Tract 1513.05, where 78.01 percent of residents live less than a half-mile from a supermarket/large grocery store. This is higher than 70.3 percent of California census tracts.

Figure 6

FOOD ACCESS



Source: California Healthy Places Index, 2018.

Promote Safe and Sanitary Housing

Over-crowded housing, defined for this purpose as households with more than one occupant per room, is a measure of safe and sanitary housing. Uncrowded housing can improve mental health by avoiding stress and depression, decreasing the spread of communicable diseases, and improving children's wellbeing and educational outcomes. Figure 7 compares shows that Census Tract 1512.01, which includes DAC 2, has the most uncrowded housing compared with surrounding census tracts.

DAC 1

DAC 1 is part of Census Tract 1532, where 81.9 percent of households have one or fewer occupants per room. Compared with other census tracts in California, Census Tract 1532 has more uncrowded housing than only 16.4 percent of other California census tracts.

DAC 2

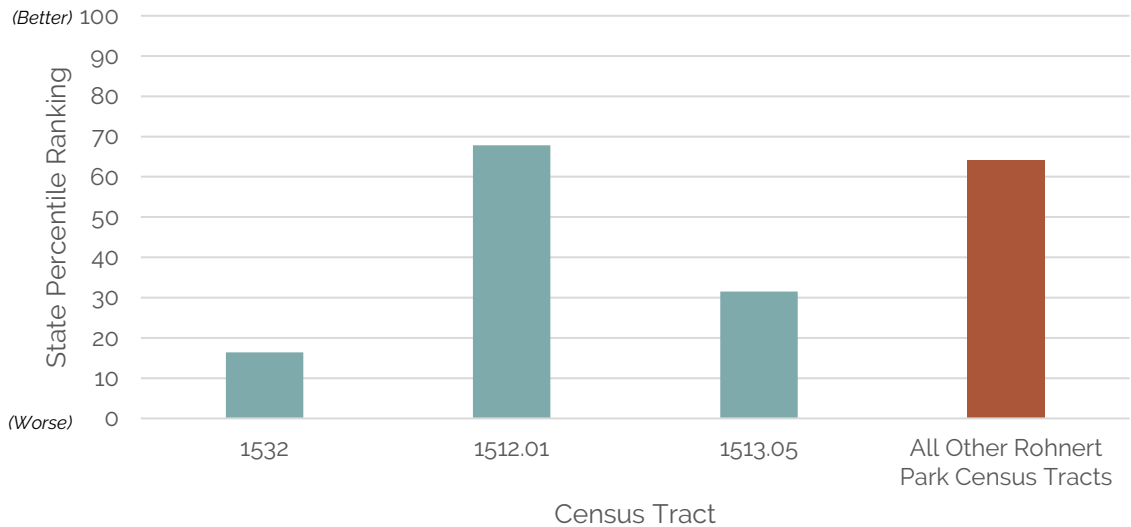
DAC 2 is part of Census Tract 1512.01, where 97 percent of households have one or fewer occupants per room. Compared with other census tracts in California, Census Tract 1512.01 has more uncrowded housing than 67.8 percent of other California census tracts.

CoC 1

CoC 1 is Census Tract 1513.05, where 89.1 percent of households have one or fewer occupants per room. Compared with other census tracts in California, Census Tract 1513.05 has more uncrowded housing than 31.5 percent of other California census tracts.

Figure 7

UNCROWDED HOUSING



Source: California Healthy Places Index, 2018.

Promote Physical Activity

The prevalence of active commuting – by foot, bike, or transit – is a useful indicator of this aspect of active living. Active commuting by foot, bike, and transit creates opportunities for physical activity within everyday life. Figure 8 shows that Census Tract 1513.05, which includes DAC 3, has the highest score in active commuting. Each of the census tracts including DACs have active commuting levels higher than the average for other census tracts in Rohnert Park.

DAC 1

DAC 1 is a part of Census Tract 1532, where 5.8 percent of workers 16 years old and older commute to work by transit, walking or cycling. This is higher than 49.9 percent of California census tracts.

DAC 2

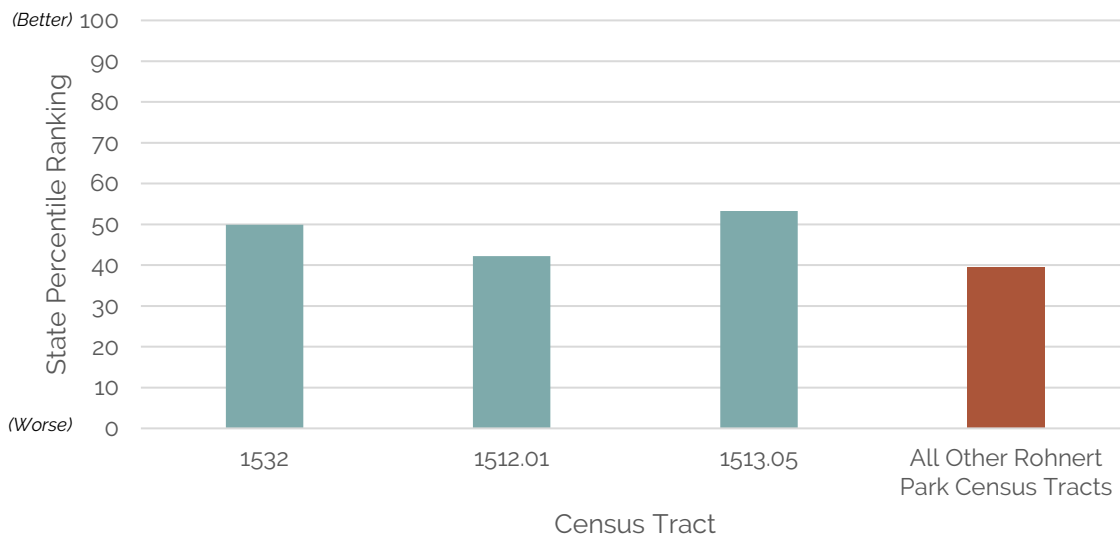
DAC 2 is part of Census Tract 1512.01, where 4.74 percent of workers 16 years old and older commute to work by transit, walking or cycling. This is higher than 42.2 percent of California census tracts.

CoC 1

DAC 3 is Census Tract 1513.05, where 6.31 percent of workers 16 years old and older commute to work by transit, walking or cycling. This is higher than 53.3 percent of other California census tracts.

Figure 8

ACTIVE COMMUTING



Source: California Healthy Places Index, 2018.

Promote Civil Engagement

One clear measure of civil engagement is voter participation. Voting is an indicator of social power and social cohesion, which have been linked to a variety of health outcomes at the individual and community levels. Figure 9 shows that all census tracts containing DACs, as well as all other census tracts covering Rohnert Park, have voting participation levels higher than at least two-thirds of all other California census tracts.

DAC 1

DAC 1 is part of Census Tract 1532, where 74 percent of registered voters voted in the 2012 general election. This is higher than 67.9 percent of California census tracts.

DAC 2

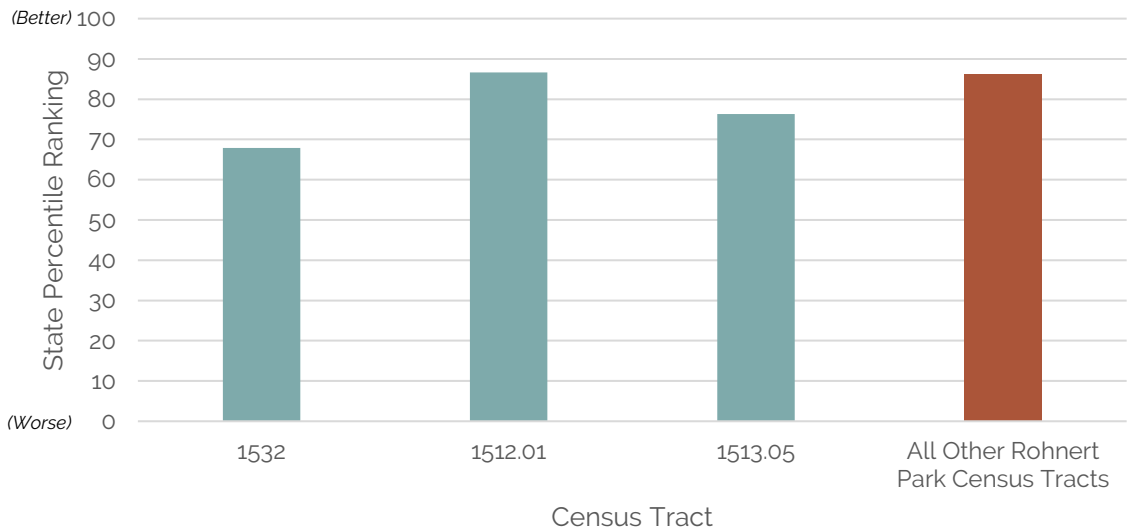
DAC 2 is part of Census Tract 1512.01, where 79.93 percent of registered voters voted in the 2012 general election. This is higher than 86.69 percent of California census tracts.

CoC 1

CoC 1 is Census Tract 1513.03, where 76.37 percent of registered voters voted in the 2012 general election. This is higher than 76.3 percent of California census tracts.

Figure 9

VOTER PARTICIPATION



Source: California Healthy Places Index, 2018.

Key Terms

CalEnviroScreen. CalEPA has adopted CalEnviroScreen as a tool to help identify communities disproportionately burdened by sources of pollution and with population characteristics that make them more sensitive to pollution. CalEnviroScreen identifies “disadvantaged communities” based on a system that calculates combined scores for Pollution Burden and Population Characteristics by census tract. As described in the Regulatory Setting section of this Whitepaper, CalEnviroScreen provides that any census tract scoring at the 75th percentile or higher is a disadvantaged community.

CalEPA. The California Environmental Protection Agency (CalEPA) is a cabinet level agency that includes the Air Resources Board, the Department of Resources Recycling and Recovery (CalRecycle), the Department of Toxic Substances Control, the Department of Pesticide Regulation, the Office of Environmental Health Hazard Assessment, and the State Water Resources Control Board.

Census tract. SB 1000, including its designation of “disadvantaged communities,” utilizes “census tracts.” The U.S. Census Bureau delineates census tracts, which typically have a population of 1,200 to 8,000. Geographic size can vary widely, based on population density. Census tracts provide a set of geographic units for the presentation of statistical data.

Disadvantaged community. This term is fundamental to SB 1000, as environmental justice elements are only required for general plans with one or more “disadvantaged communities.” SB 1000 includes a definition of the term, discussed in detail in the Regulatory Setting section of this Whitepaper.

Environmental justice. In 1999, a definition of “environmental justice” was added to the California Government Code: “The fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” (Gov’t Code Section 65040.12(e)) While the Governor’s Office of Planning and Research has included a discussion of environmental justice in the *General Plan Guidelines* since 2003, SB 1000 establishes the first requirement that California general plans include “EJ”-related goals, policies, and objectives.

REGULATORY SETTING

SB 1000

Senate Bill 1000 requires local jurisdictions to add an environmental justice element, or goals, policies, and objectives related to environmental justice to their general plans. For a more detailed description, please see the SB 1000 Requirements section of this Whitepaper.

AB 32

Assembly Bill 32, or the California Global Warming Solutions Act of 2006, requires a sharp reduction of greenhouse gas (GHG) emissions. The California Air Resources Board (ARB) must adopt regulations to achieve maximum feasible and cost-effective GHG emissions reductions. One important source of funding is the Greenhouse Gas Reduction Fund (GGRF), which is used to fund a variety of projects that provide long-term reductions in GHG emissions. Funding for the GGRF comes from ARB's Cap-and-Trade program.

AB 1532

Assembly Bill 1532, approved in 2012, requires that all moneys, except for fines and penalties, collected by the state board from the auction or sale of allowances as part of a market-based compliance mechanism to be deposited in the Greenhouse Gas Reduction Fund (GGRF) and be available upon appropriation by the Legislature (e.g., Cap-and-Trade program).

SB 535 and AB 1550

In 2012, Senate Bill 535 was passed, directing 25 percent of the proceeds from the GGRF to go to projects that provide a benefit to disadvantaged communities. CalEPA was tasked with identifying those communities. In 2016, the State Legislature passed AB 1550 which requires that 25 percent of proceeds from the GGRF be spent on projects located in disadvantaged communities. In 2018, CalEPA released an update of CalEnviroScreen 3.0 results, which is used to identify disadvantaged communities.

SOURCES

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APPENDIX A: CALENVIROSCREEN 3.0 RESULTS

As described in the Regulatory Setting section of this Whitepaper, CalEnviroScreen 3.0 utilizes 20 indicators to identify census tracts in California as “disadvantaged communities.” These indicators are of two groups: those that measure 12 “Pollution Burdens” and those that measure eight “Population Characteristics.” Together, these Indicators are associated with increased vulnerability to pollution’s health effects. A complete description of each indicator can be found in the CalEnviroScreen 3.0 report (<https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>). The following describes how each of these 20 Indicators applies to Census Tracts 1532, 1512.01, 1513.05, which include DAC 1, 2, and 3 respectively.

Pollution Burden

CalEnviroScreen 3.0 utilizes 12 indicators to evaluate pollution burden:

- Air Quality: Ozone
- Air Quality: PM 2.5
- Air Quality: Diesel particulate matter
- Drinking water
- Pesticides
- Toxic releases
- Traffic density
- Cleanup sites
- Groundwater threats
- Hazardous waste
- Impaired water bodies
- Solid waste

Air Quality: Ozone

Ground-level ozone is a main ingredient in smog and, in California, is among the most widespread and significant air pollution health threats. The main sources of ozone are trucks, cars, planes, trains, factories, farms, construction, and dry cleaners. It can cause lung irritation, inflammation, and worsening of existing chronic health conditions such as asthma. Children and the elderly are the most susceptible to these effects. The CalEnviroScreen Ozone Indicator uses air-monitoring data from the California Air Resources Board.

Census Tract 1532

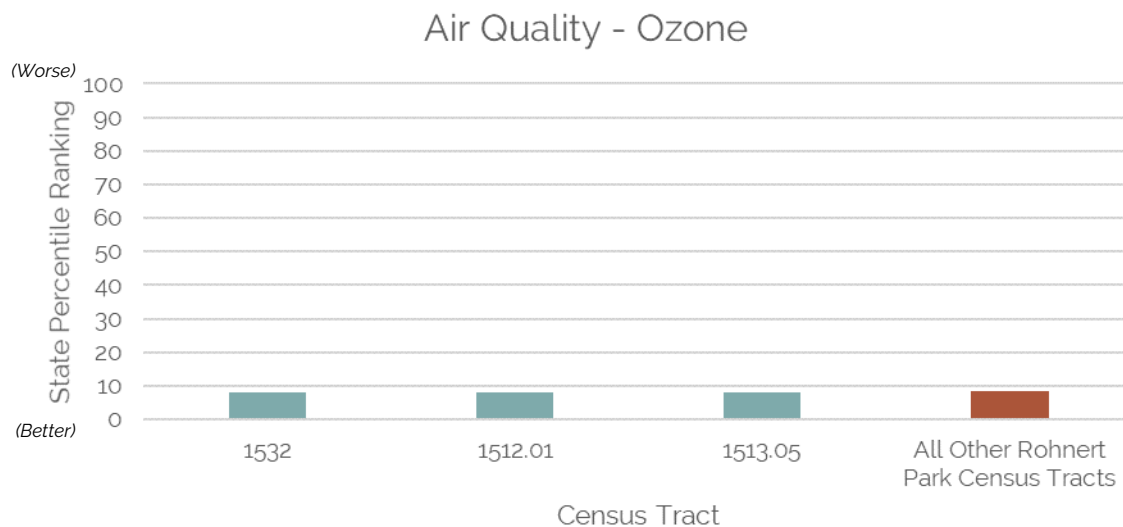
Census Tract 1532 has an ozone concentration of 0.030 parts per million, resulting in a percentile of eight, meaning it is higher than eight percent of the census tracts in California.

Census Tract 1512.01

Census Tract 1512.01 has a concentration of 0.030 parts per million, resulting in a percentile of eight, meaning it is higher than eight percent of the census tracts in California.

Census Tract 1513.05

Census Tract 1513.05 has a concentration of 0.030 parts per million, resulting in a percentile of eight, meaning it is higher than eight percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Diesel Particulate Matter

Diesel particulate matter is emitted from trucks, buses, trains, ships, and equipment with diesel engines. Many of the chemicals found in diesel particulate matter are harmful to human health. People living in cities and industrial areas and near heavy truck or train traffic are most likely to come in contact with diesel particulate matter. As with PM2.5, diesel particulates are small, can reach deep into the lungs, and are especially problematic for children and the elderly.

The CalEnviroScreen Diesel Particulate Indicator uses California Air Resources Board data on emissions from on-road (trucks and buses) and off-road (ships and trains, for example) sources.

Census Tract 1532

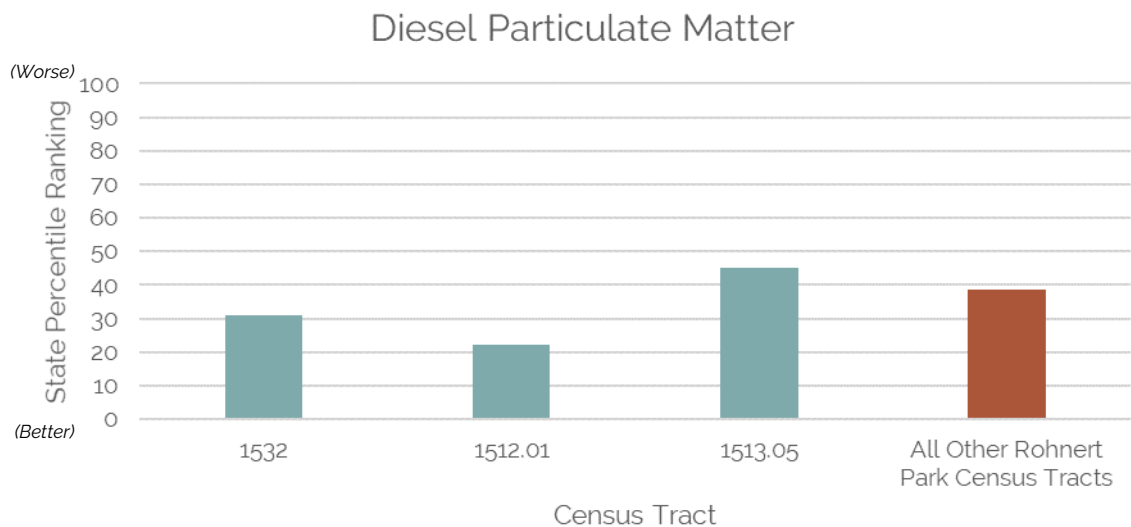
Census Tract 1532 emits 10.84 kilograms of diesel particulates per day, resulting in a Diesel Particulate percentile of 31, which means it is higher than 31 percent of the census tracts in California.

Census Tract 1512.01

Census Tract 1512.01 emits 7.99 kilograms of diesel particulates per day, resulting in a Diesel Particulate percentile of 22, which means it is higher than 22 percent of the census tracts in California.

Census Tract 1513.05

Census Tract 1513.05 emits 14.66 kilograms of diesel particulates per day, resulting in a Diesel Particulate percentile of 45, which means it is higher than 45 percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Air Quality: PM_{2.5}

"PM_{2.5}" is air-born particulate matter 2.5 micrometers (about one ten-thousandth of an inch) or less in diameter. Particulate matter has many sources, including cars, trucks, industrial processes, wood burning, and other activities involving combustion. PM_{2.5} can travel deep into the lungs. Children, the elderly, and those suffering from cardiopulmonary disease, asthma, and other chronic illnesses are more susceptible to its effects.

The CalEnviroScreen PM_{2.5} Indicator uses air-monitoring data from the California Air Resources Board.

Census Tract 1532

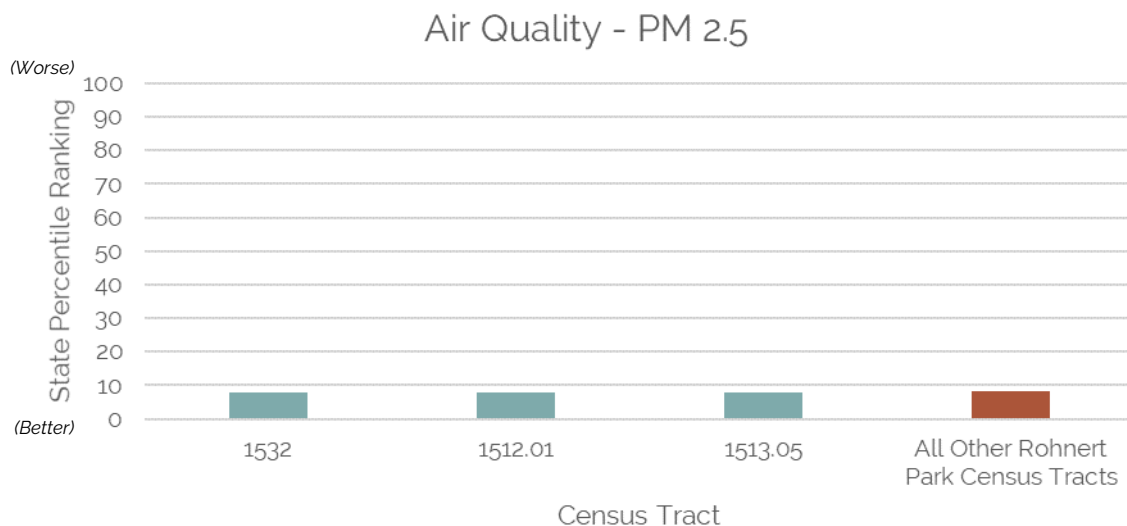
Census Tract 1532 has a PM_{2.5} concentration of 6.183 micrograms per cubic meter, resulting in a PM_{2.5} percentile of eight, which means it is higher than eight percent of the census tracts in California.

Census Tract 1512.01

Census Tract 1512.01 has a PM_{2.5} concentration of 6.183 micrograms per cubic meter, resulting in a PM_{2.5} percentile of eight, meaning it is higher than eight percent of the census tracts in California.

Census Tract 1513.05

Census Tract 1513.05 has a PM_{2.5} concentration of 6.183 micrograms per cubic meter, resulting in a PM_{2.5} percentile of eight meaning it is higher than eight percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Drinking Water

Drinking water can be contaminated with chemicals or bacteria from both natural and human sources. Human sources include factories and sewage, as well as runoff and leaching from farms (e.g., nitrates from fertilizer and animal manure).

The CalEnviroScreen Drinking Water Indicator combines information about 13 contaminants and two types of water quality violations sometimes found in drinking water.

Census Tract 1532

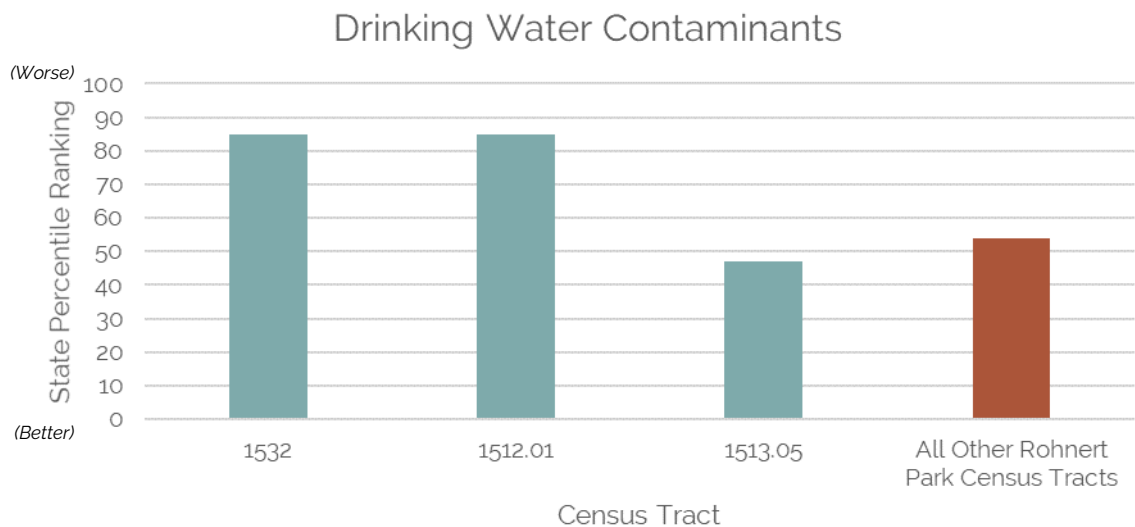
The CalEnviroScreen Drinking Water percentile for Census Tract 1532 is 85, meaning it is higher than 85 percent of the census tracts in California.

Census Tract 1512.01

The CalEnviroScreen Drinking Water percentile for Census Tract 1512.01 is 85, meaning it is higher than 85 percent of the census tracts in California.

Census Tract 1513.05

The CalEnviroScreen Drinking Water percentile for Census Tract 1513.05 is 47, meaning it is higher than 47 percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Pesticide Use

Pesticides are used to control insects, weeds, and plant or animal diseases. Farmworkers and people who live near agricultural fields can be exposed to agricultural pesticides, both outdoors and inside homes. Exposure to high levels of some pesticides can cause immediate illness or longer-term problems such as birth defects and cancer.

Census Tract 1532

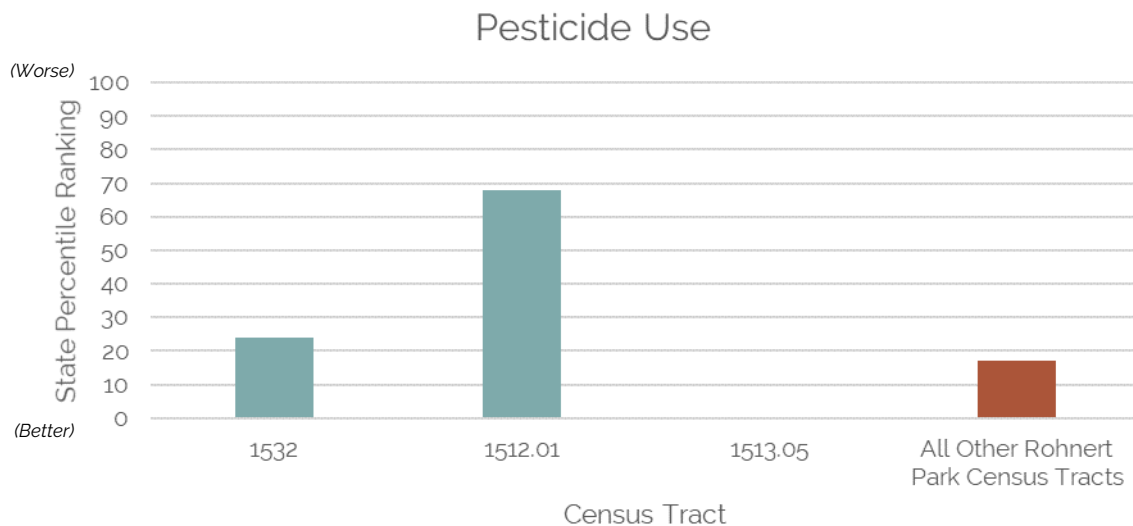
Census Tract 1532 has an estimated 0.156 pounds of active ingredients used per square mile. The percentile for this census tract is 24, meaning it is higher than 24 percent of the census tracts in California.

Census Tract 1512.01

Census Tract 1512.01 has an estimated 30.079 pounds of active ingredients used per square mile. The percentile for this census tract is 68, meaning it is higher than 68 percent of the census tracts in California.

Census Tract 1513.05

Census Tract 1513.05 has no active pesticide ingredients applied on agricultural commodities and has a percentile of 0.



Source: CalEnviroScreen, 2018.

Toxic Releases from Facilities

Facilities that make or use toxic chemicals can release those chemicals into the air.

The CalEnviroScreen Toxic Releases from Facilities Indicator relies on the U.S. Environmental Protection Agency for information on toxic release facilities. This data estimates where toxic releases occur and have spread, taking into account the relative toxicity of released chemicals, weather conditions, and the landscape around facilities.

Census Tract 1532

There are no Toxic Release Facilities within Census Tract 1532. However, one, the Parker Hannifin Corporation, is adjacent (and within the Downtown Rohnert Park census tract).

Based on this adjacent facility, the Bellevue census tract has a 70.06 Toxic Release score. The Toxic Releases percentile for this census tract is 22, meaning it is higher than 22 percent of the census tracts in California.

Census Tract 1512.01

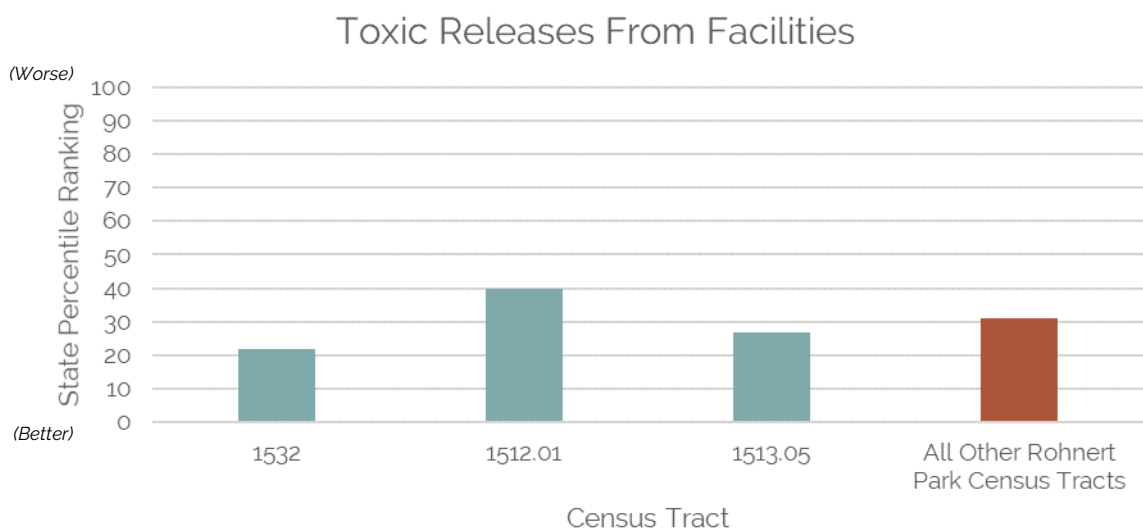
There is one toxic release facility located in Census Tract 1512.01, which is the Parker Hannifin Corp, located at 5500 Business Park Drive in Rohnert Park. U.S. EPA reports that Parker Hannifin Corp.'s main on-site and off-site chemical disposal is lead, which is transferred off-site for further waste management.

The Census Tract 1512.01 has a 255.74 toxic release score. The toxic release percentile for this census tract is 40.47, meaning it is higher than 40.47 percent of the census tracts in California.

Census Tract 1513.05

CalEnviroScreen relies on U.S. EPA data regarding facilities that are expected to produce, release, or manage Toxic Release Inventory chemicals. U.S. EPA identifies one such facility within Census Tract 1513.05, which is the CVS Pharmacy located at 6378 Commerce Boulevard.

Census Tract 1513.05 has a 120.72 toxic release score. The Toxic Release percentile for this census tract is 27.29, meaning it is higher than 27.29 percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Traffic Density

Traffic density is a measure of vehicle traffic on identified roads. Exhaust from cars and trucks is the main source of air pollution in much of California. Thus, proximity to vehicle traffic is a useful measure of exposure to certain types of air pollution. Vehicle exhaust fumes contain toxic chemicals that can damage DNA, cause cancer, make breathing difficult, and cause low birth weight and premature births. Children who live or go to schools near busy roads have higher rates of asthma and other lung diseases than other children.

The CalEnviroScreen Traffic Density Indicator represents the average traffic volumes per miles of major roadways and some local roadways within a census tract.

Census Tract 1532

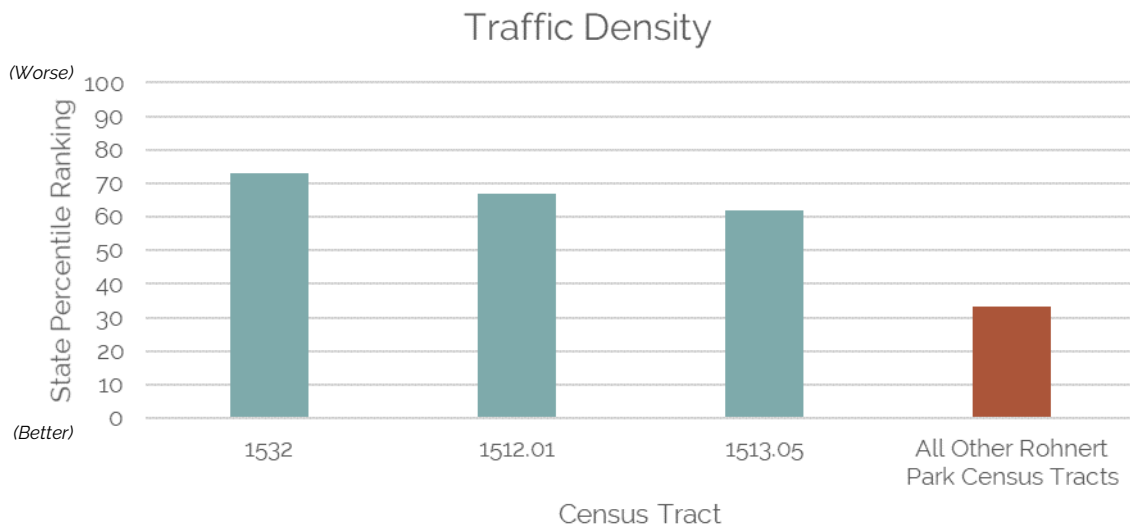
Census Tract 1532 has a Traffic Density of 1,147.48. The Traffic Density percentile for this census tract is 73, meaning it is higher than 73 percent of the census tracts in California.

Census Tract 1512.01

Census Tract 1512.01 has a Traffic Density of 984.36. The Traffic Density percentile for this census tract is 67, meaning it is higher than 67 percent of the census tracts in California.

Census Tract 1513.05

Census Tract 1513.05 has a Traffic Density of 884.11. The Traffic Density percentile for this census tract is 62, meaning it is higher than 62 percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Cleanup Sites

Cleanup sites are contaminated with harmful chemicals and require cleanup. People living near these sites are more likely to be exposed to harmful chemicals. Chemicals in buildings, soil, or water at cleanup sites can move into nearby communities through the air or by movement of water.

The State Department of Toxic Substances Control maintains records of contaminated sites and their cleanup.

The CalEnviroScreen Cleanup Sites Indicator combines the sites in or near a given census tract into a single measure, taking into account the type of site and its proximity to residences.

Census Tract 1532

Census Tract 1532 contains two cleanup sites and is adjacent to an additional seven sites.

Cleanup sites in Census Tract 1532:

- Wilkinson Steel Inc.
- Meadowview Elementary School Expansion

Cleanup Sites Adjacent to Census Tract 1532:

- Optical Coating Lab Inc.
- New Roseland Area Elementary School
- Santa Rosa Plating Works
- Golden Tech Site
- Burt Street Development
- Syar Industries
- Outer Landing Field

The CES Cleanup Sites percentile for this Census Tract is 73, meaning it is higher than 73 percent of the census tracts in California.

Census Tract 1512.01

Census Tract 1512.01 contains two cleanup sites and is adjacent to an additional two sites. The map below shows these sites while the CalEnviroScreen link below provides the ability to access additional information for each of the sites.

Cleanup Sites in Census Tract 1512.01:

- Outer Landing Field
- Cotati Rod and Gun Club

Cleanup Sites Adjacent to Census Tract 1512.01:

- Wilkinson Steel Inc.
- Meadowview Elementary School Expansion

The CalEnviroScreen Cleanup Sites percentile for this Census Tract is 65, meaning it is higher than 65 percent of the census tracts in California.

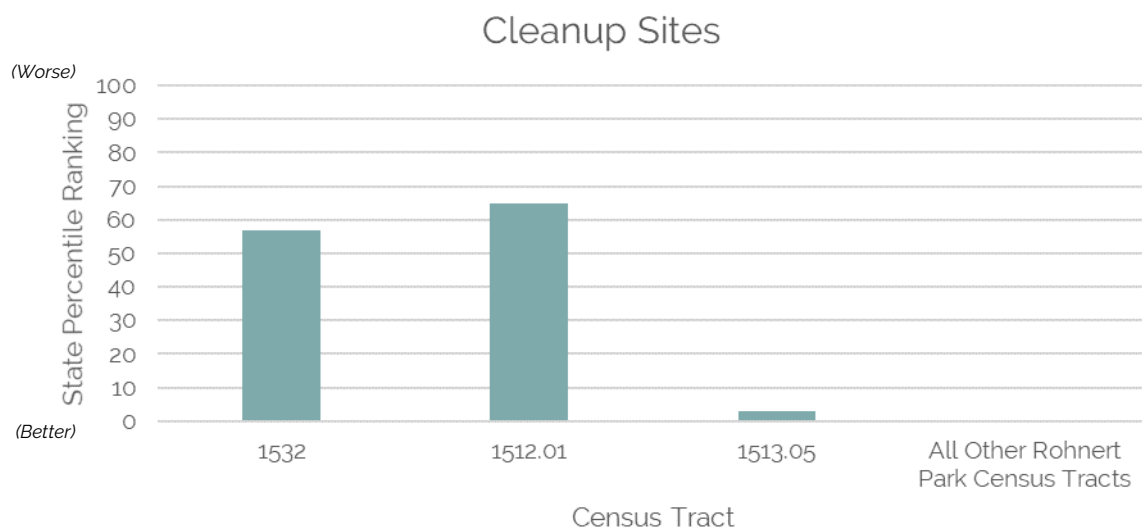
Census Tract 1513.05

Census Tract 1513.05 contains no cleanup sites; it is adjacent to one cleanup site.

Cleanup Sites Adjacent to Central Rohnert Park census tract:

- Outer Landing Field

The CalEnviroScreen Cleanup Sites percentile for the Census Tract 1513.05 is 3, meaning it is higher than three percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Groundwater Threats

Common groundwater pollutants include gasoline and diesel fuel from gas stations and leakage from other facilities with underground storage tanks, as well as solvents, heavy metals, and pesticides. Manmade ponds containing water produced from oil and gas activities may also contain pollutants.

The State Water Resources Control Board maintains a database of sites where groundwater may be threatened by certain sources of pollution.

The score for the CalEnviroScreen Indicator for Groundwater Threats is based on information about the type of site and its proximity to residential neighborhoods. The scores for these sites are aggregated for each census tract.

Census Tract 1532

These groundwater threat sites have been identified within Census Tract 1532:

- Scenic Avenue residence leaking underground storage tank
- Dalley Property Site
- Bepex Corporation Site
- JEMCO Site

These groundwater threats have been identified adjacent to Census Tract 1532:

- Outer Landing Field
- Costco Site
- 101 International Site
- Groom Properties Site
- Safety Kleen Corporation Site
- C & G Development Site
- Pacific Pride Cardlock Site

The groundwater threats percentile for this Census Tract is 73, meaning it is higher than 73 percent of the census tracts in California.

Census Tract 1512.01

Five Groundwater Threat sites have been identified within Census Tract 1512.01:

- Costco Wholesale
- Groom Properties
- 101 International
- Outer Landing Field
- BP Service Station

Six Groundwater Threat sites have been identified adjacent to Census Tract 1512.01:

- Fuel Delivery Service Spill on Highway 101
- Royal Coach Car Wash
- Shell Service Station
- Beacon Station
- GSR Corporation Property
- Safety Kleen Corporation

The groundwater threats percentile for this Census Tract is 91, meaning it is higher than 91 percent of the census tracts in California.

Census Tract 1513.05

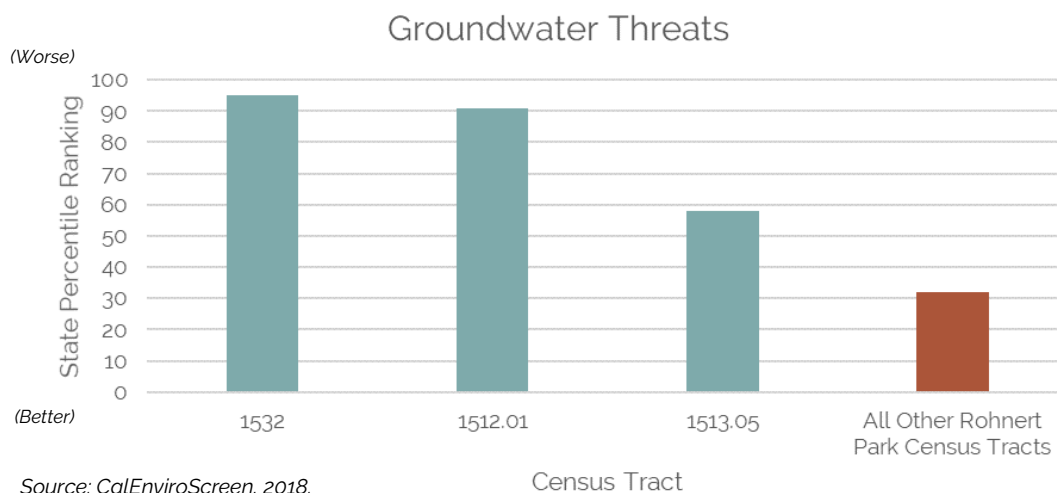
Two Groundwater Threat sites have been identified within Census Tract 1513.05:

- Fuel Delivery Service Spill on Highway 101
- Rohnert Park Corporate Yard

Six Groundwater Threat Sites have been identified adjacent to Census Tract 1513.05:

- Exxon #7-0248
- Royal Coach Car Wash
- Costco Wholesale
- 101 International
- Groom Properties
- Safety Kleen Corporation

The groundwater threats percentile for this Census Tract is 58, meaning it is higher than 58 percent of the census tracts in California.



Hazardous Waste

"Hazardous waste" is generated by a variety of commercial and industrial activities and contains substances that may contaminate air, water, and soil, and be harmful to human health. In addition to generation, certain regulated facilities treat, store, recycle, or dispose of hazardous waste.

The California Department of Toxic Substances Control maintains information on where hazardous waste is generated and the facilities that handle it.

The CalEnviroScreen Hazardous Waste Indicator totals the number of permitted hazardous waste facilities and large generators of hazardous waste in each census tract. The score also reflects the proximity of facilities to residential neighborhoods.

Census Tract 1532

The only hazardous waste site in Census Tract 1532, is Carrera Plating, located at the northern edge of the tract. The next closest is Sonoma State University, to the east of Rohnert Park.

The hazardous waste percentile for this Census Tract is 73, meaning it is higher than 73 percent of the census tracts in California.

Census Tract 1512.01

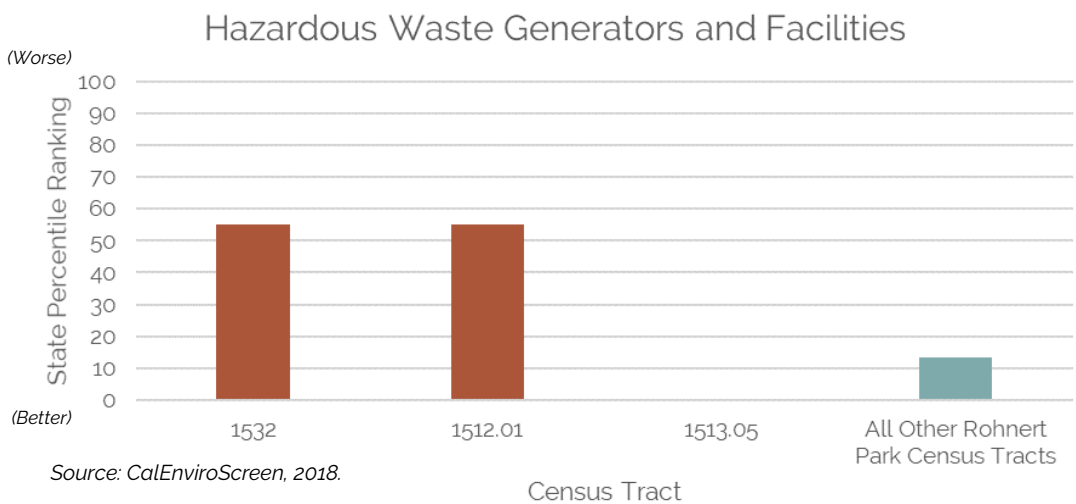
There are no hazardous waste sites in Census Tract 1512.01 within the city limits of Rohnert Park. The PG&E site, although located within this Census Tract, is well south of Rohnert Park in Penngrove. Sonoma State University to the east, and Carrera Plating to the north are the closest hazardous waste sites.

The hazardous waste percentile for this Census Tract is 55, meaning it is higher than 55 percent of the census tracts in California.

Census Tract 1513.05

There are no hazardous waste sites in Census Tract 1513.05. Sonoma State University to the east is the closest hazardous waste site.

The hazardous waste percentile for this Census Tract is 0, meaning it is higher than 0 percent of the census tracts in California.



Impaired Water Bodies

When streams, rivers, and lakes are contaminated by pollutants, the water bodies are considered "impaired." Impairment can affect recreational and agricultural uses of the water body, harm wildlife habitats and affect the number and types of plants and animals in the environment, present risks to people who eat contaminated fish and shellfish, and affect use as drinking water.

The State Water Resources Control Board maintains information on water bodies in California that are impaired by pollutants.

The CalEnviroScreen Impaired Water Bodies Indicator combines the pollutants in each census tract.

Census Tract 1532

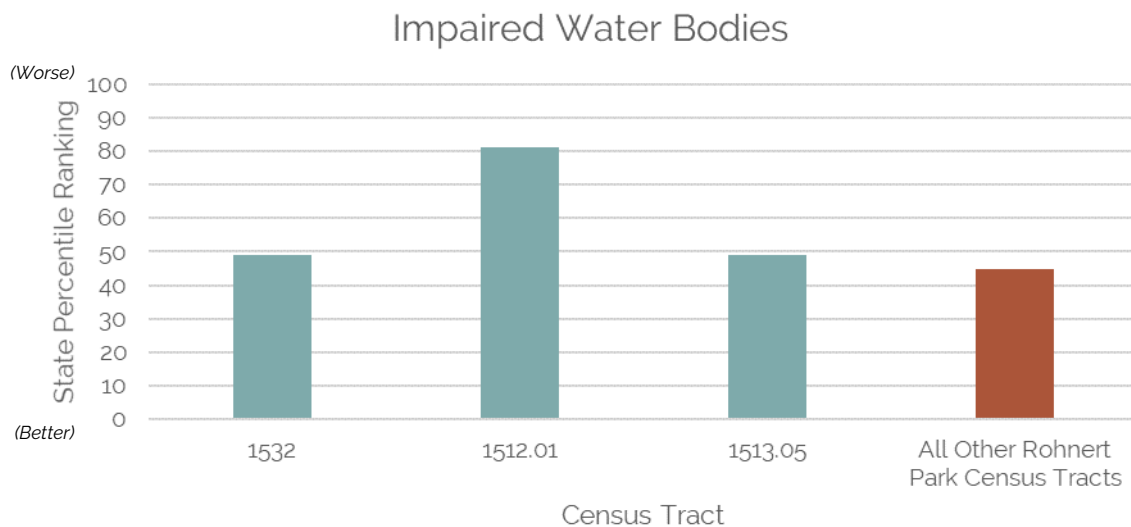
CalEnviroScreen lists four creeks/streams in or near Census Tract 1532, as impaired, including Colgan Creek, Five Creek, Hinebaugh Creek, and the Laguna De Santa Rosa. The impaired water bodies percentile for this Census Tract is 49, meaning it is higher than 49 percent of the census tracts in California.

Census Tract 1512.01

CalEnviroScreen lists nine creeks/streams in or near Census Tract 1512.01 as impaired, including Colgan Creek, Five Creek, Hinebaugh Creek, Copeland Creek, Laguna De Santa Rosa, Crane Creek, and Washoe Creek. The impaired water bodies percentile for this Census Tract is 81, meaning it is higher than 81 percent of the census tracts in California.

Census Tract 1513.05

CalEnviroScreen lists four creeks/streams in or near Census Tract 1513.05 as impaired, including Hinebaugh Creek, Copeland Creek, Laguna De Santa Rosa, and Crane Creek. The impaired water bodies percentile for this Census Tract is 49, meaning it is higher than 49 percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Solid Waste

Solid waste facilities process and/or store household garbage and waste from industrial and commercial sources. These include landfills, transfer stations, and composting facilities. Regulated facilities (as well non-permitted sites) can expose people to hazardous chemicals, toxic gases, and contaminated soil, even after they are closed. In addition, they may produce odors, attract pests, and increase local truck traffic.

CalRecycle, a state agency, maintains information on solid waste facilities in California.

For the CalEnviroScreen Solid Waste Indicator, each solid waste facility within a census tract is given a value based on its type, how much waste it handles, and whether there have been any violations. Closed, illegal, and abandoned disposal sites are also included. The values for all the solid waste facilities in or near each census tract are totaled, taking into account proximity to residences.

Census Tract 1532

There are three solid waste processing facilities located in Census Tract 1532 and an additional three located immediately adjacent.

Solid Waste Processing Sites in Census Tract 1532:

- Poncia Fertilizer
- North Bay Disposal Corporation
- Redwood Empire Disposal

Solid Waste Processing Sites adjacent to Census Tract 1532:

- Global Material Recovery Systems
- Nico Alloys Inc.
- Daniel O. Davis Inc (wood debris, chip-grinding business)

The solid waste percentile for this Census Tract is 88, meaning it is higher than 88 percent of the census tracts in California.

Census Tract 1512.01

There are no solid waste processing facilities located in Census Tract 1512.01; four are located immediately adjacent.

Solid Waste Processing Sites adjacent to the Census Tract 1512.01:

- Poncia Fertilizer
- Nico Alloys Inc.
- Central Transfer Station

The Solid Waste percentile for this Census Tract is 81, meaning it is higher than 81 percent of the census tracts in California.

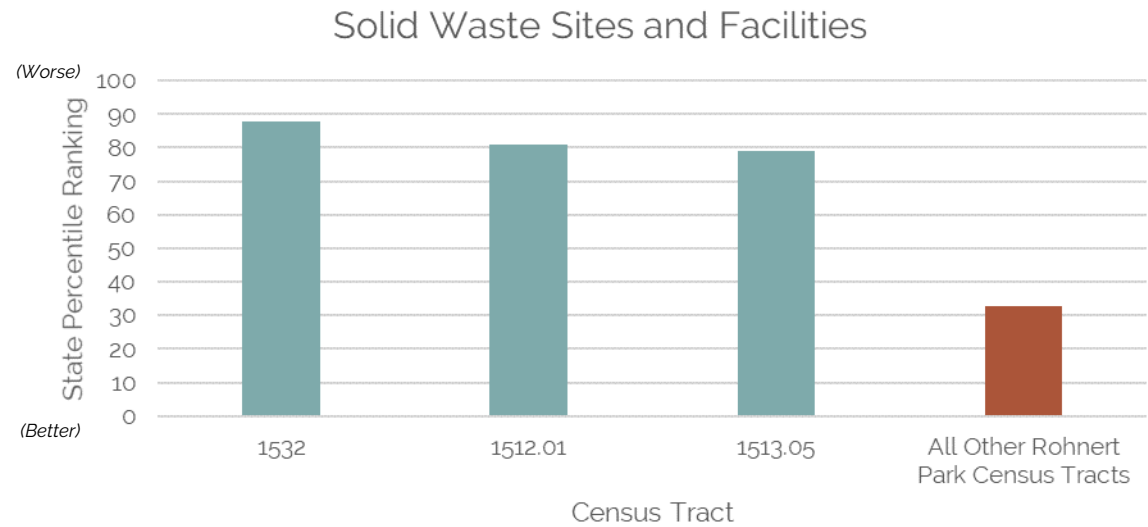
Census Tract 1513.05

There are no solid waste processing facilities located in Census Tract 1513.05 and two located immediately adjacent.

Solid Waste Processing Sites adjacent to Census Tract 1513.05:

- Nico Alloys Inc.

The Solid Waste percentile for this Census Tract is 79, meaning it is higher than 79 percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Sensitive Population Characteristics

CalEnviroScreen 3.0 utilizes these three Sensitive Population Characteristics Indicators.

- Asthma
- Low birth weight
- Cardiovascular disease rate

Asthma

Asthma is a disease that causes spasms and mucus in the bronchi of the lungs, creating difficulty breathing. The cause of asthma is believed to be a combination of environmental factors, such as air pollution, and genetic factors.

CalEnviroScreen relies on information on asthma-related emergency department visits and hospitalizations across the state from the California Office of Statewide Health Planning and Development.

The CalEnviroScreen 3.0 Asthma Indicator is the number of asthma-related emergency department visits per 10,000 people.

Census Tract 1532

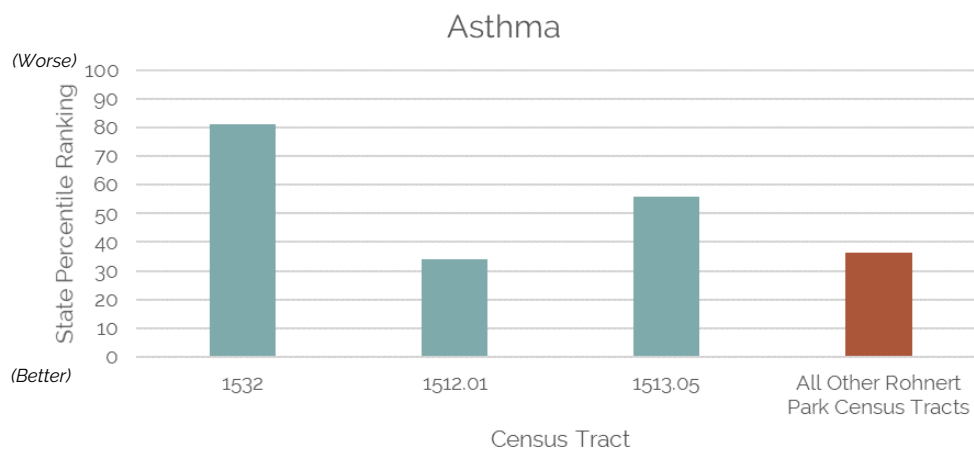
In Census Tract 1532, the number of asthma-related emergency department visits per 10,000 people is 74.08. The percentile for this Census Tract is 81, meaning asthma-related emergency department visits are higher than 81 percent of the census tracts in California.

Census Tract 1512.01

In Census Tract 1512.01, the number of asthma-related emergency department visits per 10,000 people is 35.31. The percentile for this Census Tract is 34.09, meaning asthma-related emergency department visits are higher than 34.09 percent of the census tracts in California.

Census Tract 1513.05

In Census Tract 1513.05, the number of asthma-related emergency department visits per 10,000 people is 50.04. The percentile for this Census Tract is 56.25, meaning asthma-related emergency department visits are higher than 56.25 percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Low Birth Weight Infants

Babies born weighing less than five and a half pounds are considered low birth weight infants. Among the reasons for infants to be low birth weight are lack of prenatal care, inadequate nutrition, stress, and maternal smoking. Environmental factors can also affect low birth weight, such as exposure to lead, air pollution, and pesticides. Long term consequences include chronic health conditions, such as asthma.

The California Department of Public Health collects information on where low birth weight infants are born in California.

The CalEnviroScreen Indicator for Low Birth Rate Infants is the percentage of low weight births.

Census Tract 1532

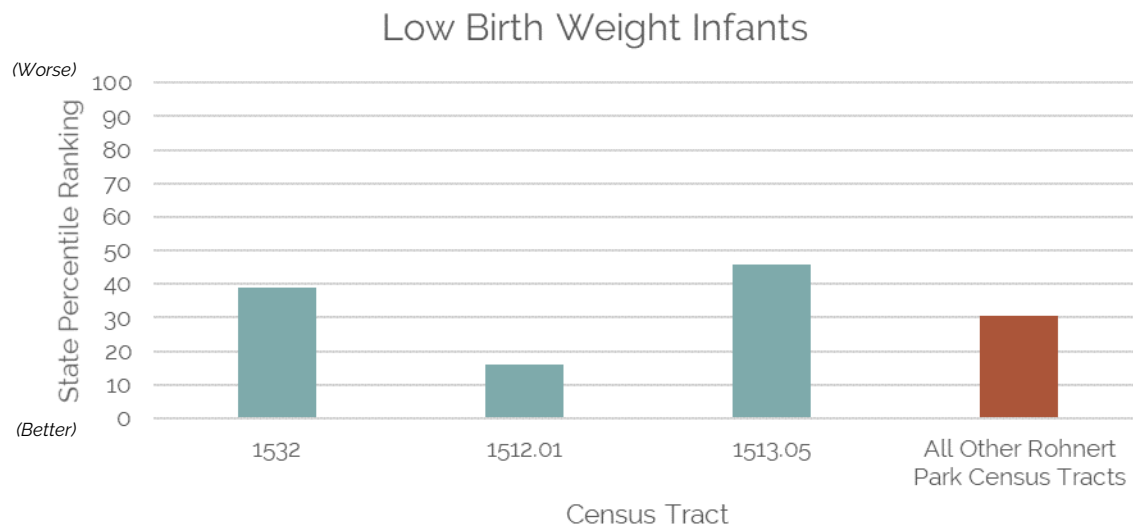
In Census Tract 1532, 4.52 percent of births are low birth weight. The low birth weight percentile for this Census Tract is 39, meaning the percent of low birth weight infants is higher than 39 percent of the census tracts in California.

Census Tract 1512.01

In Census Tract 1512.01, 3.46 percent of births were low birth weight. The low birth weight percentile in this Census Tract is 16, meaning the percent of low birth weight infants is higher than 16 percent of the census tracts in California.

Census Tract 1513.05

In Census Tract 1513.05, 4.78 percent of births are low birth weight. The low birth weight percentile in this Census Tract is 46, meaning the percent of low birth weight infants is higher than 46 percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Cardiovascular Disease Rate

Cardiovascular Disease is the leading cause of death in California and occurs when blocked or narrowed blood vessels prevent blood from reaching the heart. The most common cardiovascular event is heart attacks. Poor diet, lack of exercise, smoking, and air pollution are factors in developing cardiovascular disease.

The California Office of Statewide Health Planning and Development collects information on emergency department visits and hospitalizations from heart attacks in California.

The CalEnviroScreen Indicator for Cardiovascular Disease is the number of heart attack emergency department visits per 10,000 people.

Census Tract 1532

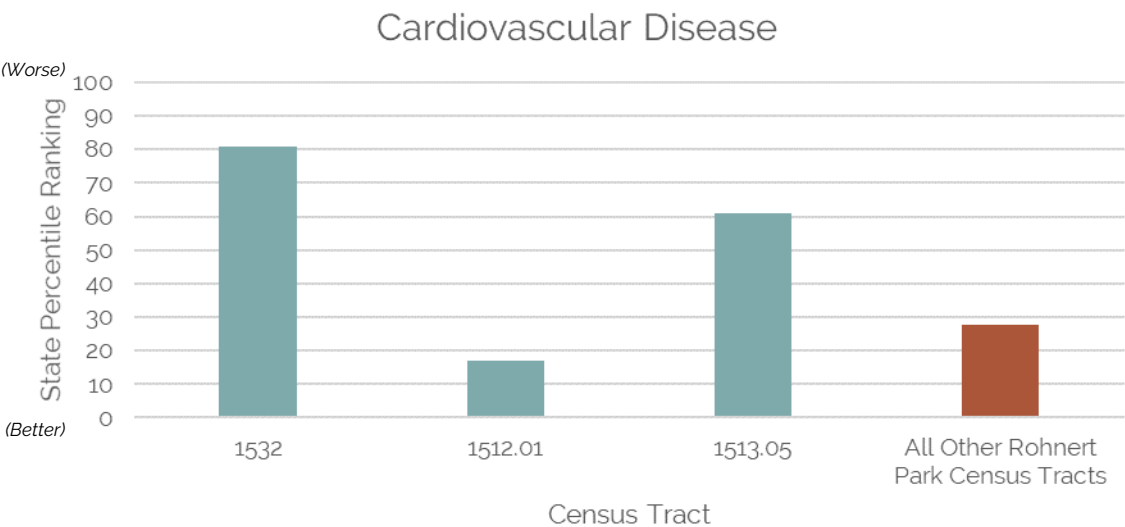
In Census Tract 1532, 10.76 out of 10,000 people visited an emergency department for a heart attack. The cardiovascular disease percentile in this Census Tract is 81, meaning this score is higher than 81 percent of the census tracts in California.

Census Tract 1512.01

In Census Tract 1512.01, 5.42 out of 10,000 people visited the emergency department for a heart attack. The cardiovascular disease percentile in this Census Tract is 17, meaning this score is higher than 17 percent of the census tracts in California.

Census Tract 1513.05

In Census Tract 1513.05 census tract, 8.78 out of 10,000 people visited the emergency department for a heart attack. The cardiovascular disease percentile in this Census Tract is 61, meaning this score is higher than 61 percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Socioeconomic Factors

CalEnviroScreen 3.0 utilizes these five Socioeconomic Factor indicators.

- Educational attainment
- Linguistic isolation
- Poverty
- Unemployment
- Housing burden

Educational Attainment

Educational Attainment is defined as the highest education level a person has completed. The U.S. Census Bureau's American Community Survey maintains information on the rates of educational attainment across California.

The CalEnviroScreen Educational Attainment Indicator is the percent of the population over age 25 with less than a high school education.

Census Tract 1532

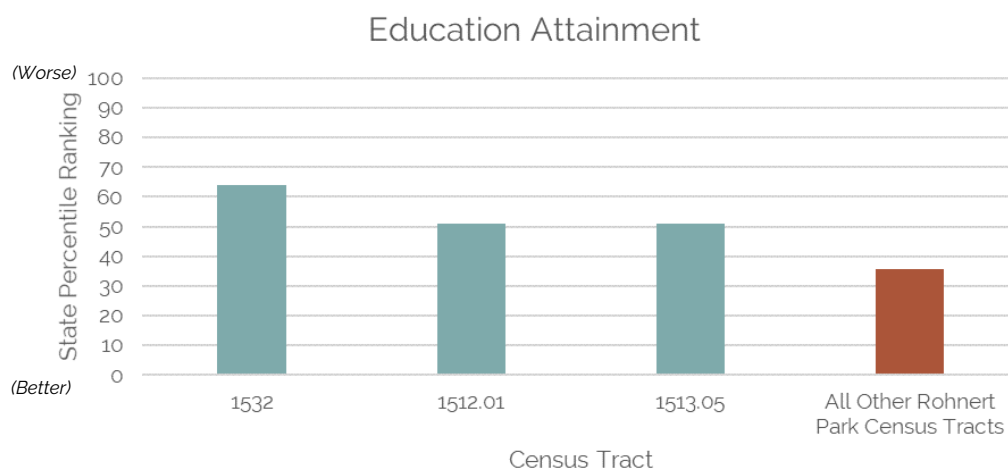
In Census Tract 1532, 21 percent of adults have less than a high school degree. The educational attainment percentile in this Census Tract is 64, meaning the percent of adults without a high school education is higher than 64 percent of the census tracts in California.

Census Tract 1512.01

In Census Tract 1512.01, 14 percent of adults have less than a high school degree. The educational attainment percentile in this Census Tract is 51, meaning the percent of adults without a high school education is higher than 51 percent of the census tracts in California.

Census Tract 1513.05

In Census Tract 1513.05, 14 percent of adults have less than a high school degree. The educational attainment percentile in this Census Tract is 51, meaning the percent of adults without a high school education is higher than 51 percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Linguistic Isolation

Linguistic isolation is a term used by the U.S. Census Bureau for limited English-speaking households. More than 40 percent of Californians speak a language other than English at home. About half of those do not speak English well or at all.

The U.S. Census Bureau's American Community Survey maintains information on the rate of linguistic isolation in different areas in California.

The CalEnviroScreen Linguistic Isolation Indicator is the percent of limited speaking households, which are households where no one over age 14 speaks English well.

Census Tract 1532

In Census Tract 1532, the three main languages spoken by people who do not speak English well are:

- Spanish (~ 1813 people)
- Tagalog (~ 191 people)
- Cambodian (~ 70 people)

Eleven percent of households in the Bellevue census tract do not speak English well. The percentile for this Census Tract is 61, which means that the percentage of linguistically isolated dwellings is higher than in 61 percent of the census tracts of California.

Census Tract 1512.01

In Census Tract 1512.01, the three main languages spoken by people who do not speak English well are:

- Spanish (~ 325 people)
- Chinese (~ 80 people)
- Portuguese (~ 76 people)

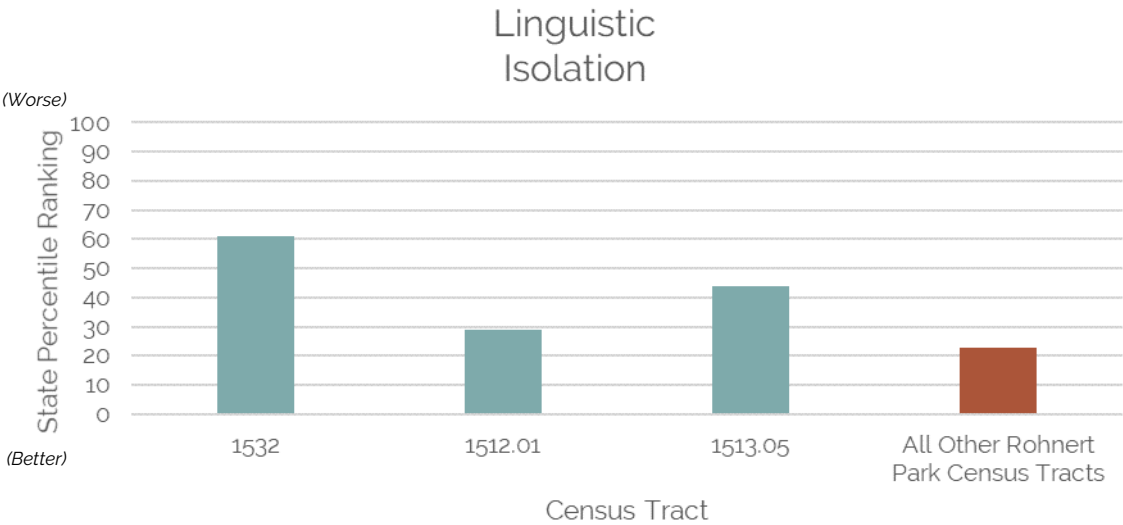
Four percent of households in this Census Tract do not speak English well. The percentile for this census tract is 29, which means that the percentage of linguistically isolated dwellings is higher than in 29 percent of the census tracts of California.

Census Tract 1513.05

In Census Tract 1513.05, the two main languages spoken by people who do not speak English well are:

- Spanish (~ 691 people)
- Tagalog (~ 31 people)

Six percent of households in Census Tract 1513.05 do not speak English well. The percentile for this Census Tract is 44, which means that the percentage of linguistically isolated dwellings is higher than in 44 percent of the census tracts of California.



Source: CalEnviroScreen, 2018.

Poverty

The U.S. Census Bureau determines the Federal Poverty Level each year. This level is based on the size of the household and the ages of family members. The Census Bureau's American Community Survey maintains information on the rate of poverty in different areas in California.

The CalEnviroScreen Poverty Indicator is the percent of the population with incomes less than two times the federal poverty level.

Census Tract 1532

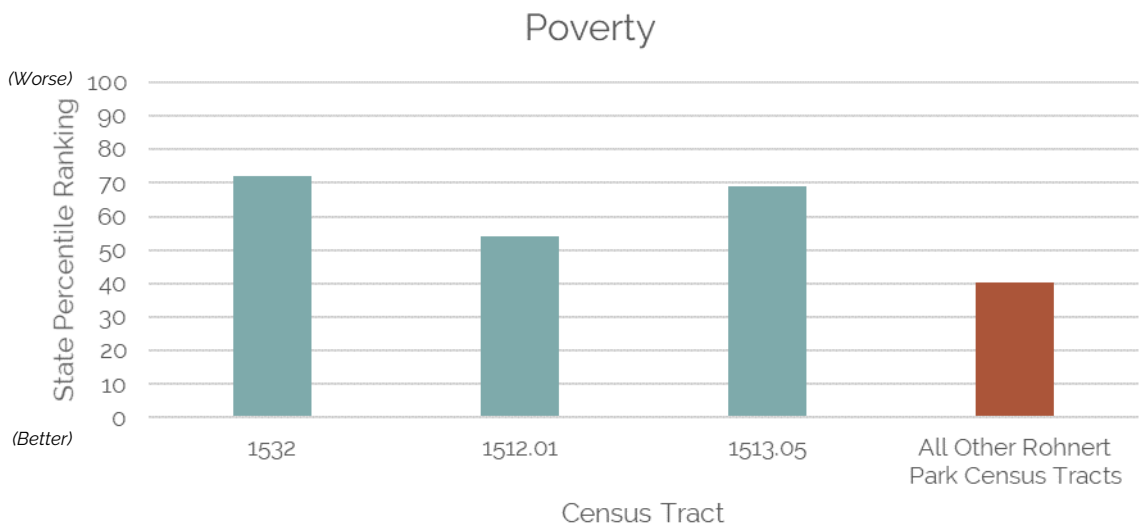
Forty-nine percent of people in Census Tract 1532 are living below twice the federal poverty level. The percentile for this Census Tract is 72, meaning the number of people living below twice the federal poverty level is higher than 72 percent of the census tracts in California.

Census Tract 1512.01

Thirty-six percent of people in Census Tract 1512.01 are living below twice the federal poverty level. The percentile for this census tract is 54, meaning the number of people living below twice the federal poverty level is higher than 54 percent of the census tracts in California.

Census Tract 1513.05

Forty-seven percent of people in Census Tract 1513.05 are living below twice the federal poverty level. The percentile for this Census Tract is 69, meaning the number of people living below twice the federal poverty level is higher than 69 percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Unemployment

The U.S. Census Bureau counts people who are over 16 years old, out of work, and able to work as unemployed. It does not include students, active duty military, retired people, or people who have stopped looking for work.

The U.S. Census Bureau's American Community Survey maintains information on the rate of unemployment in California census tracts.

The CalEnviroScreen Unemployment Indicator is the percent of the population over the age of 16 that is unemployed and eligible for the labor force.

Census Tract 1532

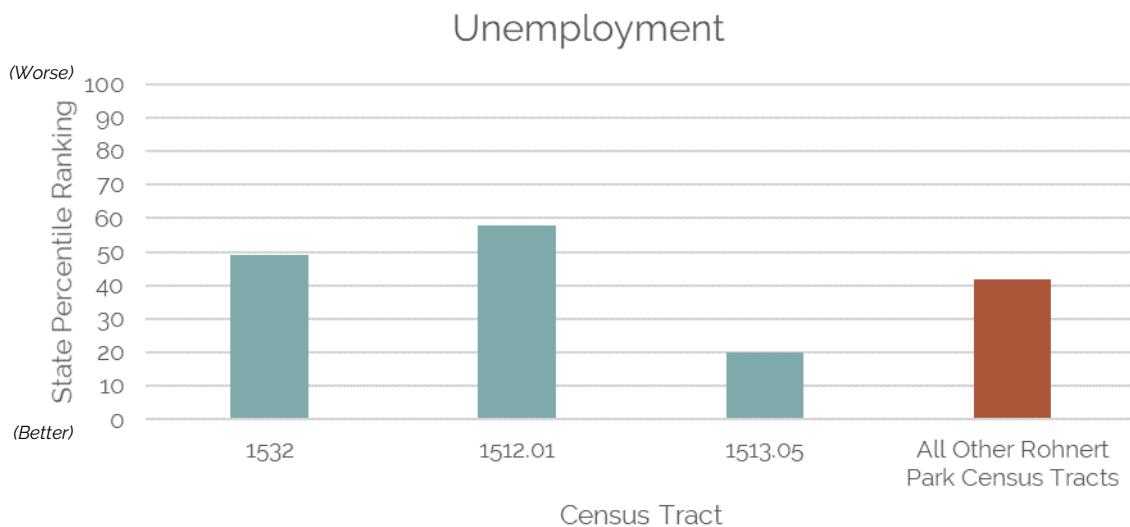
In Census Tract 1532, nine percent of adults are unemployed. The percentile for this Census Tract is 49, meaning the rate of unemployment is higher than 49 percent of the census tracts in California.

Census Tract 1512.01

In Census Tract 1512.01, 10 percent of adults are unemployed. The percentile for this Census Tract is 58, meaning the rate of unemployment is higher than 58 percent of the census tracts in California.

Census Tract 1513.05

In Census Tract 1513.05, six percent of adults are unemployed. The percentile for this Census Tract is 20, meaning the rate of unemployment is higher than 20 percent of the census tracts in California.



Source: CalEnviroScreen, 2018.

Housing Burden

Housing burdened low income households are households that are both low income and burdened by housings costs. The Housing Burden Indicator takes into account the regional cost of living for both homeowners and renters.

CalEnviroScreen 3.0 utilizes data from the U.S. Department of Housing and Urban Development (HUD) Comprehensive Housing Affordability Strategy (CHAS) for the Housing Burden Indicator.

The CES Housing Burden indicator is the percent of households in a census tract that are both low income (making less than 80 percent of the county's median family income) and severely burdened by housing costs (paying more than 50 percent of their income for housing costs).

Census Tract 1532

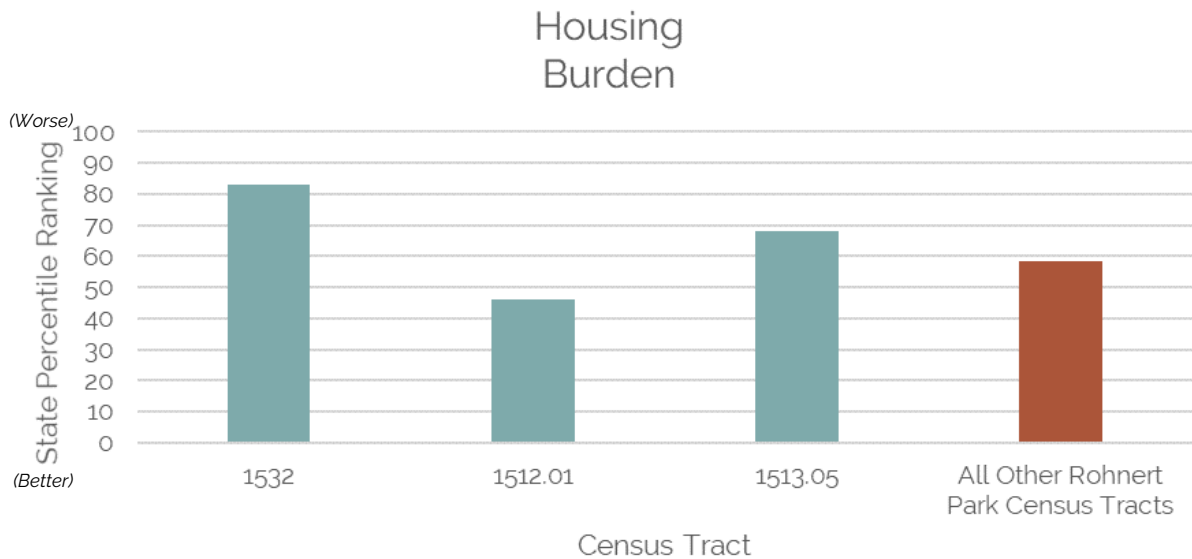
In Census Tract 1532, 28 percent of people are in housing burdened low income households. The percentile for this Census Tract is 83, meaning this number is higher than 83 percent of census tracts in the state.

Census Tract 1512.01

In Census Tract 1512.01, 17 percent of people are in housing burdened low income households. The percentile for this Census Tract is 46, meaning this number is higher than 46 percent of the state.

Census Tract 1513.05

In Census Tract 1513.05, 22 percent of people are in housing burdened low income households. The percentile for this Census Tract is 68, meaning this number is higher than 68 percent of the census tracts in the state.



Source: CalEnviroScreen, 2018.

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