EL RIO / DEL NORTE AREA PLAN








Background Evaluation and Technical Report

COUNTY of VENTURA
Resource Management Agency

June 18, 2025

--- PUBLIC REVIEW DRAFT ---

Table of Contents

APPENDICES

Land Acknowledgment

Ventura County lies within the traditional territories of at least six greater Chumash Tribal Nations, including the following[1]: Micqanaqa'n (Ventureño), Shmuwich (Barbareño), Fernandeño Tataviam, Tongva (Gabrieleno), Kuyam, and Michumash (made up of the Channel Islands 'Anyapax, Limuw, Wi'ma, and Tuqan tribes). Ventura County honors their connection to this region and pays its respects to the Chumash ancestors, elders, and community, as well as future generations.

In the footsteps of the Chumash people, this Area Plan Update is intended to carry forward traditions of coming together to grow as an inclusive and equitable community. This acknowledgment is written in the spirit of collaboration and community.

[1] Native Land Digital. https://native-land.ca/

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Prologue

The Ventura County 2040 General Plan states: "*Ventura County is an exceptional place to live, work, and play…and the General Plan reflects the County's ongoing commitment to collaborate with residents, cities, businesses, and non-profit organizations to meet our social and economic needs in a sustainable manner, to protect the environment and address climate change, and to encourage safe, healthy, vibrant, and diverse communities to thrive*." The General Plan includes goals, policies and programs for the County to meet this vision for local communities. The General Plan also contains appendices that focus on a particular region or community, called Area Plans, and the El Rio/Del Norte Area Plan is one of nine such Area Plans.

The El Rio/Del Norte Area Plan, originally adopted in 1980, includes goals policies and programs specific to the approximately 7,000-acre plan area (Figure 1). The Area Plan's last comprehensive update was in 1996, and the General Plan Land Use Element Program F (LU-F) directs the County to conduct another comprehensive update today. Additionally, Housing Element Program D (HE-D) directs the County to plan for infrastructure and affordable housing in El Rio/Del Norte.

This Background Report is the first step in the Area Plan Update. It provides a comprehensive review of the existing conditions in the community and a tool for engagement to confirm, add to, or provide different perspectives for the County Planning Division to consider. So far, Planning Staff has identified four main overarching topics arose that will influence the Area Plan update:

- **Housing:** It is well known that the State of California and Ventura County generally face a lack of affordable housing that affects the ability for residents to live locally and for employers to find workers. The current Area Plan needs to be updated to incorporate new State laws approved over the past 10 to 15 years which aim to help increase the production of housing while also respecting the cultural and physical characteristics that make the communities in El Rio/Del Norte plan area unique.

- **Water Infrastructure:** New housing and even some additions to existing structures are not currently allowed in many areas of El Rio/Del Norte because there is inadequate water supply to combat fires and ensure the new development will be safe. This Background Report includes a water study with potential recommendations regarding how current water systems could be upgraded and/or possibly consolidated to meet existing and future demand in the El Rio/Del Norte plan area. A goal for the Area Plan update is to consider reducing barriers to development so that households can add an additional dwelling unit for a family member, add a room or bathroom onto an existing house, or for a business owner to build a new office or store. While the extent of lack of water supply varies among the communities in the plan area, the water technical appendix in Appendix A of this Background Report was funded by the State and it examined potential water system upgrades (individually, consolidation, or a combination of the two) that could be explored to accommodate new development and ensure fire safety.

- **Environmental Justice:** The El Rio/Del Norte plan area has been identified as a designated disadvantaged community (DDC) by the State and the County. This generally means it is a low-income area that has historically been disproportionately affected by pollution and other hazards. The General Plan provides guidance about how to address environmental justice and DDC's which is to plan for physical development that benefits the community and to promote civic engagement during

that planning process. By incorporating environmental justice into the Area Plan update, the process will be more inclusive of all groups, with the objective to improve community wellbeing over time.

- **Parks and Recreation, Transportation and Access:** Many of the neighborhoods in the plan area could benefit from more public parks, more sidewalks and bike lanes, and improved access to other services (medical, food, etc.). As many of the communities within the Area Plan were developed in the 1940's and 1950's, it was expected that park spaces would be created as the areas experienced continued growth. However, not as many parks were built and the construction of Highway 101 became a barrier to access to new medical services and grocery stores in the City of Oxnard. Improvements to recreational opportunities and access will be important topics for the Area Plan update.

Community Engagement

This Background Report will function as the backbone of the Area Plan update as it examines many facets of the community, from its historical roots, to the demographics and socioeconomics of the area, to the public facilities and transportation network. The information contained in this report will be presented to the public and be used to collect residents, businesses, stakeholder groups and the El Rio Del Norte Municipal Advisory Council comments and feedback so that this community engagement will help guide future discussions and decisions.

Introduction

The communities of El Rio, Strickland, and Nyeland Acres comprise the Planning Area referred to as El Rio-Del Norte, which also includes agricultural, industrial, and some natural lands in the Santa Clara riverbed. The area was originally settled by the Chumash for thousands of years prior to the arrival of the Spanish in 1542. European colonization started in earnest in Ventura County during the construction of Mission San Buenaventura in 1782. Consistent with all of modern-day California, the area was governed by Mexico starting in 1821 and was later incorporated as part of the United States in 1848 as part of the Treaty of Gudalupe Hidalgo. During this period, development was focused in the area that is now the City of San Buenaventura (Ventura) which was connected to Los Angeles via Conejo Road. EL Rio was originally established in 1875 by Simon Cohn near what was the intersection of Vineyard Avenue and Conejo Road; this road was eventually improved to become Highway 101 during the 1950's and 1960's. The community was colloquially known as New Jerusalem until it was officially recognized in 1895 as "El Rio" in a reference to the adjacent Santa Clara River.

Starting in the 1950's, construction of Highway 101 replaced the core of the thriving and distinct El Rio community. Some remnants of the community continued to exist but were now substantially cut off from the larger and faster growing City of Oxnard due to the highway alignment. El Rio continued to grow during the post-World War II building boom due to affordable real estate that attracted individuals and families who could afford the area mostly due to employment in local commercial and industrial development, agriculture, and growth at the Port of Hueneme.

Today, the communities of El Rio, Strickland, and Nyeland Acres are identified by state and federal governments as disadvantaged communities due to various factors such as lower-incomes and environmental pollution. This is in part due to the proximity to Highway 101 and also the four arterial roads that serve as State designated truck routes traversing the Plan Area. Underutilized buildings and vacant lots are dispersed through some of the neighborhoods. A limited network of amenities for pedestrians, bicyclists, and transit users indicates the Plan Area is primarily auto oriented. Community improvements, growth, and redevelopment are generally hampered by water availability constraints. A patchwork of small local water purveyors, some of which do not have any additional service capacity, limits new development and redevelopment potential.

During the 2020 Ventura County General Plan Update, the Board of Supervisors adopted Program LU-F which calls for a comprehensive update to the El Rio-Del Norte Area Plan to ensure it meets community needs and expectations. The Planning Division also received a grant from the Department of Housing and Community Development to assist with planning affordable housing and conduct an evaluation of existing infrastructure constraints that limit the construction of housing projects in designated disadvantaged communities consistent with General Plan Program HE-D.

This Area Plan Update is broken down into the following four phases:

- *Phase I – Background Report:* This report summarizes existing conditions, population and economic growth forecasts, socioeconomics and infrastructure constraints to help to inform the Area Plan update.
- *Phase II – Visioning and Community Outreach:* This phase includes community outreach events and presentations to the Municipal Advisory Council and other community groups that are intended to develop a cohesive vision and goals for the Area Plan update.

- *Phase III – Public Review Draft Area Plan:* This phase includes drafting an updated Area Plan, analysis of environmental impacts, and an opportunity for public review and input prior to adoption hearings.
- *Phase IV – Adoption Hearings:* After the completion of the above phases, the final draft of the Area Plan will go before the Planning Commission and eventually the Board of Supervisors for final adoption.

This Background Report contains the following chapters:

Chapter 1 summarizes the history of the Area Plan in the context of local, state, and national events.

Chapter 2 summarizes existing conditions in terms of land use and community character. This analysis is based upon research of relevant County documents and physical survey of the community that included walking and driving.

Chapter 2 reviews the existing regulatory framework that guides current and past development in the Plan Area. These include numerous State laws, as well as County and City policy and regulatory documents such as the Ventura County General Plan, the existing Ventura County El Rio-Del Norte Area Plan, the City of Oxnard General Plan, and the Ventura County Non-Coastal Zoning Ordinance.

Chapter 3 provides a snapshot of the community's socio-economic, health, and wellness indicators, describing the income levels, race, ethnicity, poverty, and educational attainment of residents. In addition, it describes the overall health conditions including causes of death, levels of obesity and diabetes, and asthma hospitalizations.

Chapter 4 summarizes the existing land use patterns as well as reviews the regulations within the agricultural and open space land uses. This section also covers economic vitality and environmental justice as each of topic relates to land uses.

Chapter 5 provides an overview of the public facilities and services within the Plan Area. Most notably, this section contains a review of the water and wastewater infrastructure which have been identified as a constraint to affordable housing, economic development, and other current and future needs.

Chapter 6 summarizes the Plan Area's vehicle circulation (road) network and mobility options.

Chapter 7 provides an overview of safety and hazards, including pollution levels reported by the State of California Office of Environmental Health Hazard Assessment. This chapter also reviews emergency and other essential services, specifically health care services, fire protection, and police statistics regarding crime.

Project Location

The El Rio-Del Norte Plan Area encompasses lands in unincorporated Ventura County bound on the south by Highway 101 and the northern limits of the City of Oxnard. The western boundary ends with City of Oxnard's Riverpark Neighborhood, the Santa Clara River and the City of Ventura. The northern and eastern boundaries are comprised of agricultural lands and Los Angeles Avenue/Highway 118. Figure 1 shows the boundaries of the entire approximately 7,000-acre Plan Area, which includes the unincorporated communities of El Rio, Strickland, Del Norte Industrial Center, and Nyeland Acres. All of the urbanized areas are within City of Oxnard's sphere of influence, which means the long-term goal for

the Plan Area's existing communities is to annex into and become incorporated within the City of Oxnard, although there are no current proposals for this action.

The Plan Area is predominantly composed of rural agricultural and open space lands, as well as the following four distinct urban communities: El Rio, Strickland, Nyeland Acres and the Del Norte Industrial Center. The Plan Area location on the northern edge of the City of Oxnard places it near major commercial and shopping districts such as The Collection in Riverpark, the Esplanade Shopping Center, the Oxnard Auto Center, and major employment centers such as the Topa Financial Plaza, the Solar Drive/Rice Avenue Industrial Corridor, and the Sakioka Farms Business Park. The area also is accessible to 1) Highway 101, via four major interchanges at Vineyard Avenue, North Rose Avenue, Rice and Santa Clara Avenues, and North Del Norte Boulevard, 2) Highway 118/West Los Angeles Avenue, and 3) and the 126, indirectly, via Highway 118/West Los Angeles Avenue/Wells Road. The terminus of Pacific Coast Highway/Highway 1 also joins Highway 101 at the interchange of Rice and Santa Clara Avenues, which is directly south of the Area Plan Boundary.

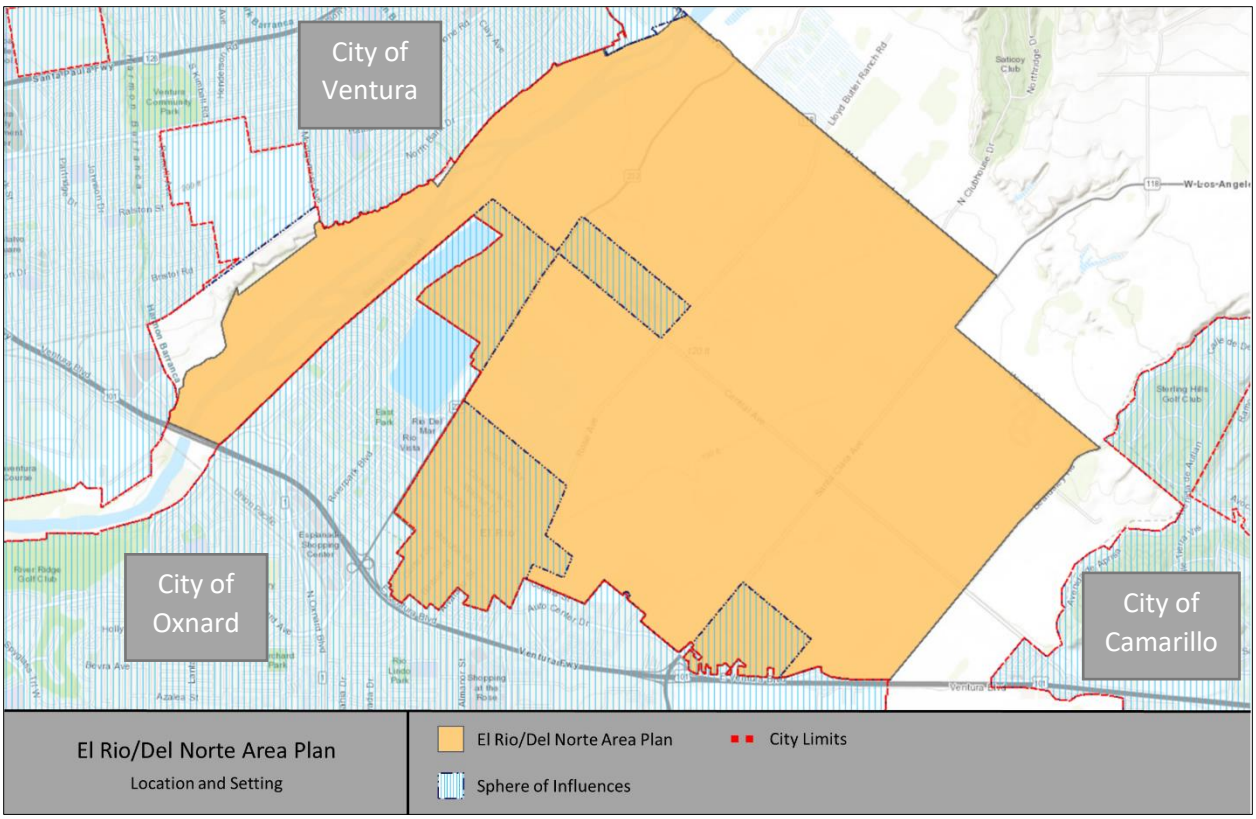

Figure 1: Map showing the El Rio-Del Norte Area Plan Boundary.

The boundaries of each of the smaller communities are shown in Figure 2 below. These communities are also briefly described as follows:

1. *El Rio:* Agricultural lands and ground water infiltration basins above Lemar Avenue lie to the north, Ventura Boulevard and the City of Oxnard to the south, North Rose Avenue to the east, and East Vineyard Avenue to the west.

The El Rio community is the oldest in the Plan Area and constitutes the largest urbanized area of approximately 500 acres and population of about 6,447 residents. The community also contains the greatest diversity of land uses and includes the primary location of the sites identified for new low- and moderate-income housing in the General Plan's 2021-2029 Housing Element.

2. *Del Norte Industrial Center:* A groundwater infiltration basin to the north separates this economic hub from the Santa Clara River, and another basin is located to the south, East Vineyard Avenue is located to the east, and small portions of the City of Oxnard's Riverpark neighborhood is to the west.

   Consisting of approximately 188 acres, the Del Norte Industrial Center is the second largest urbanized area of the Area Plan and a major employment and industrial center. It comprises one of the largest concentrations of industrial land in the unincorporated County.

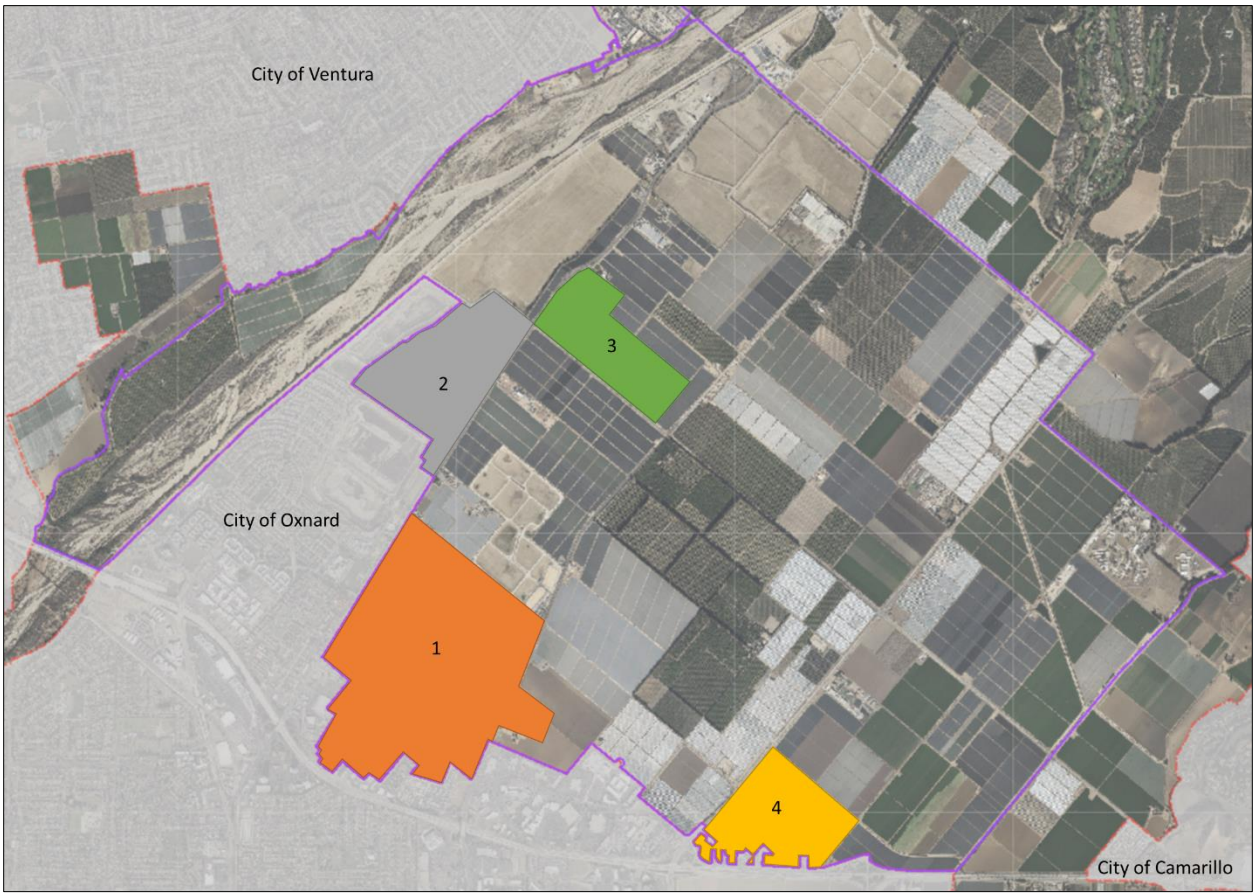

Figure 2: Communities within the Area Plan.

3. *Strickland:* This community is bound by Strickland Drive to the north, Central Avenue to the south, Rio Mesa High School to the east, and East Vineyard Avenue to the west.

   The Strickland is the smallest urban area of the Plan Area covering approximately 118 acres, with about a third of the area comprising Rio Mesa High School and the remainder single-family residential.

4. *Nyeland Acres:* Friedrich Road is the northern boundary, Ventura Boulevard in the City of Oxnard is aligned parallel to Highway 101 to the south, Fredrich Road wraps around to the eastern boundary, and Santa Clara Avenue is the western boundary.

   The Nyeland Acres community is approximately 144 acres and is the second oldest community in the Plan Area. It consists of some commercial uses along Highway 101 and the remainder is single-family residential.

The Plan Area also contains a few institutional uses that are allowed in Open Space and Agriculture designated lands such as a 110-acre State owned campus for the now shuttered California Department of Corrections Ventura Youth Correctional Facility, and also the California Conservation Corps Camarillo Center, the Cal Fire Ventura Fire Camp of the San Luis Obispo Unit. There are also approximately 600-acres of groundwater infiltration basins.

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1 | HISTORY

While specific historic resources within the existing communities of the Area Plan boundary have not been comprehensively inventoried, the area has been shaped by the same major historical events experienced throughout the county and the state. Areas outside of the Plan Area to the north and east have a high likelihood of archaeological sites due to identified Chumash settlements, but additional studies are needed to further understand the archaeological sensitivities within the Plan Area. The 2014 Eastern Oxnard Plain Historic Context and Reconnaissance Survey, conducted by San Buenaventura Research Associates, identified no sites in the Plan Area and primarily focused on the agricultural portions of the Oxnard Plain that did not include urbanized communities. As described below, many structures in the original settlement of El Rio were destroyed during the construction of Highway 101. The purpose of this section is to generally describe local history and historic sites.

1.1 Chumash Era

The entire Oxnard Plain falls within the area historically occupied by the Micqanaqa'n (Ventureño) tribe of the Chumash, Archeological evidence indicates that the ancestors of the modern Micqanaqa'n (Ventureño) settled along the coastal regions of southern and central California between 13,000 to 9,000 years ago[2].

The Oxnard Plain was identified as a portion of a paramount Chumash capital and ceremonial center at the village of Muwu at modern-day Point Mugu[3]. This served as a center of Lulapin, one of the two known historical chiefdoms, and was a domain whose limits stretched from the southeastern extreme of Chumash territory which is now Point Mugu, to just beyond modern boundaries of the County of Santa Barbara. Additionally, the Chumash community of Sa'aqtik'oy used to be located on the western side of the Santa Clara River and is generally now the unincorporated community of Saticoy[4]. However, there is no direct or recorded evidence of Chumash settlement or inhabitation within the Area Plan boundary. Additionally, no evidence of direct habitation were identified in the Environmental Impact Reports created for the adjacent communities in the City of Oxnard, specifically Riverpark to the west and the Oxnard Auto Center (Rose-Santa Clara Corridor Specific Plan). Additional information may be provided during engagement with tribal representatives given that the Plan Area was located in between significant Chumash settlements.

1.2 Spanish Colonization

The first known entry of Europeans into the area, including a brief encounter with the Chumash, was the expedition of Juan Rodríguez Cabrillo in 1542 as they sailed north from Mexico along the West Coast. Accounts of the voyage state the expedition anchored near the large village at Muwu (Point Mugu). A second Spanish expedition led by Sebastian Vizcaíno encountered the Chumash in 1602[5].

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[2] Santa Ynez Band of Chumash Mission Indians. *Threatened Chumash Coastal Heritage: An Assessment of the Severity of Coastal Exposure* (July 2024). Not for Circulation.

[3] National Park Service. *Cultural Affiliation and Lineal Descent of Chumash Peoples in the Channel Islands and Santa Monica Mountains* (December 1999). https://www.nps.gov/parkhistory/online_books/chis/chumash.pdf

[4] County of Ventura. *Ventura County Historical Landmarks & Points of Interest* (May 2016). https://www2.vcrma.org/wp-content/uploads/2024/06/ventura-county-historical-landmarks-and-points-of-interest.pdf

[5] Monterey County Historical Society. Sebastian Vizcaíno's Exploration of Monterey in 1602-1603. https://mchsmuseum.com/local-history/early-explorations/sebastian-vizcaino/

By the 1760s, the Spanish government established a series of presidios (military garrisons), pueblos (towns), and missions throughout California (know at the time as Alta California in New Spain) to counter against English and Russian encroachment. An expedition left the colony at San Diego in the summer of 1769 under the command of Gaspar de Portola, the governor of Baja California. The objective was to locate an overland route to Monterey Bay and prospect for presidio locations along the route.

Figure 3: Depiction of Mission San Buenaventura in 1855; Source: Research Library at the Museum of Ventura County.

Portola's expedition passed through the Oxnard area on its return to San Diego. Also, during the expedition, Father Juan Crespi named the Santa Clara Valley and River for Saint Clare of Assisi. Following Portola's expedition, Spanish visits and activity increased. An expedition led by Juan Bautista de Anza passed through the Oxnard area in spring of 1776. In 1782, the Spanish government established the Santa Barbara presidio and Father Junipero Serra founded Mission San Buenaventura in Ventura (Figure 3).

During this period of Spanish colonization, the Chumash people and their way of life were decimated due to the introduction of new diseases, enslavement for labor, and persecution of those who practiced traditional religious rituals. By 1810, most traditional Chumash towns and villages were abandoned. The remaining segments of the population that did not retreat inland primarily built and maintained the Spanish Missions that eventually were centers for the future Mexican and American ranches.

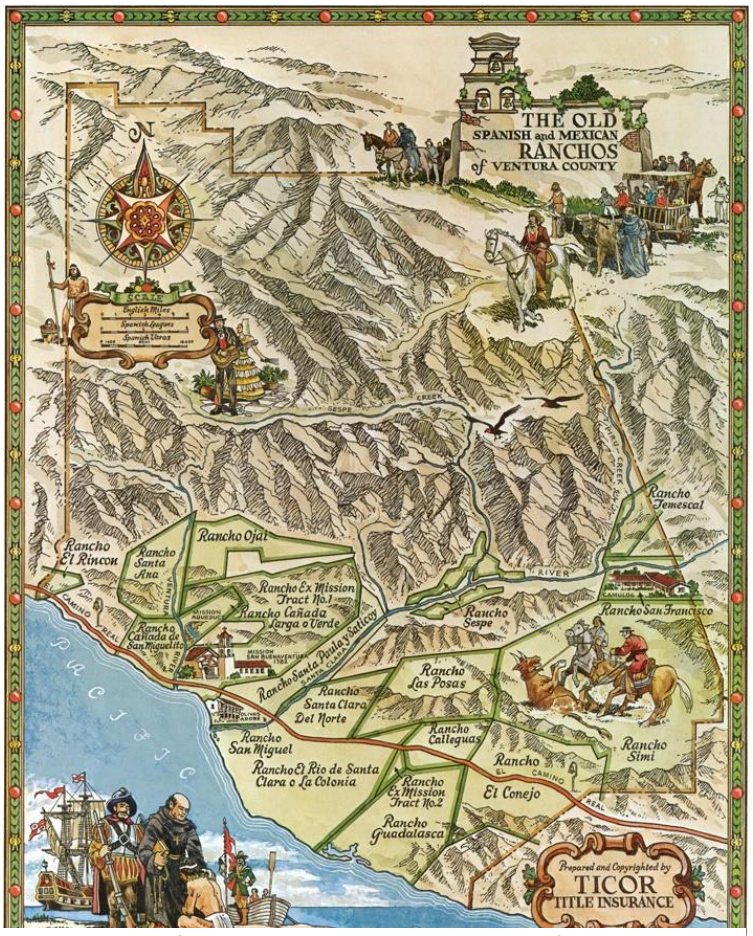

Figure 4. Map of Old Spanish & Mexican Ranchos of Ventura County. Source: Research Library at The Museum of Ventura County.

1.3 Mexican Independence and the Rancho Era

After Mexico's independence from Spain in 1821, it gained substantial new territory including all of modern California. By 1834 the Mexican government began to secularize the mission properties which entailed turning missions into parish churches, redistributing the properties, and resettling the Native Americans affiliated with the missions. Although the secularization plan called for distributing land among the surviving mission Chumash, this was not carried out by Mexico and the majority of land grants went to well-connected

families[6]. Thus began the Rancho period of Southern California in which a class of wealthy landowners known as rancheros or Californios worked large ranches based on cattle hide and tallow production. Within Ventura County, nineteen such ranchos were created.(Figure 4). While the Spanish Crown had previously awarded land grants to soldiers during the Mission Era of Spanish Colonization, this only accounted for approximately 30 of the more than 800 grants awarded in the entire State of California and one of these 30 was awarded within the modern-day Plan Area.

Juan Maria Sanchez was granted Rancho Santa Clara Del Norte, comprised of 13,989-acres, in 1837 and this land grant included a majority of today's El Rio-Del Norte Area Plan. The land grant area was bordered by Rancho Santa Paula y Saticoy to the northwest, on the east by Rancho Las Posas, on the north by the Santa Clara River, and on the south by present day State Route 101 (originally, the Old Conejo Road). Juan Maria Sanchez was a soldier for the Spanish and then Mexican governments for 30 years and applied for this land grant before his retirement. The historic adobe residence is located outside of the Area Plan boundaries just north of Los Angeles Avenue/Highway 118.

1.4 Mexican-American War

In January 1846, the United States invaded Mexico and occupied the disputed Nueces Strip, which was claimed by Texas but recognized as Mexican territory[7] and eventually declared war in May later that same year. During June 1846, American pioneers staged the Bear Flag Revolt which started the larger California Campaign of the War with the occupation of Monterey on July 7th[8] by Commodore John D. Sloat with the help of Captain John C. Fremont (Figure 5). According to the Museum of Ventura County[9], Captain Freemont started to march his garrison down California toward the Los Angeles basin capturing the Santa Barbara Presidio in December 1846 and arriving in what would become Ventura County in January 1847. A few miles from the Mission San Buenaventura a garrison of 60-70 Mexican horsemen confronted Freemont and exchanged light cannon fire before the Mexican garrison fell back. Fremont then captured the Mission and continued to Saticoy Springs (present day Saticoy) where he again faced off in a skirmish with Mexican forces, led by Don Jose Carrillo. This skirmish consisted of the American forces on the Saticoy side of the Santa Clara River and the Mexican forces on the El Rio side with an exchange of cannon fire across the river. Carrillo's forces eventually retreated to Rancho Las Posas while Fremont marched on Rancho Sespe and eventually went on to occupy Los Angeles. The American Conquest of California ended with the signing of the Treaty of Cahuenga on January 13, 1847, which set out Articles of Capitulation between the

Figure 5. Image of the original Bear Flag raised over Sanoma, CA after the American insurgents captured the City; Source: National Park Service.

[6] State of California Native American Heritage Commission. *Short overview of California Indian History*. https://nahc.ca.gov/native-americans/california-indian-history/

[7] National Park Service. *The Mexican-American War.* https://www.nps.gov/places/the-mexican-american-war.htm, Accessed on May 17, 2023.

[8] California State Parks. *Monterey State Historic Park.* https://www.parks.ca.gov/pages/575/files/montereyshpfinalweb080814.pdf, accessed on May 17, 2023.

[9] Rogers, Hannah. "RE: Unincorporated El Rio." Received by Donald Nielsen, 22 June 2023.

California Forces and the United States[10]. The war concluded in September of 1847 when Mexico City fell to the American invasion and Mexico was forced to surrender and enter peace talks.

After the Treaty of Guadalupe Hidalgo in February of 1848, many of the Spanish and Mexican land grants were brushed aside even though the Treaty protected property and civil rights of Mexican nationals. Additionally, the United States Congress Land Act of 1851 and the Homestead Act of 1862 attracted settlers, squatters, and migrants to California and Ventura County looking for farmland to claim which caused conflict between the rancho owners and the new migrants.

1.5. New Jerusalem and Simon Cohn

Among the new migrants of the late 19th century was a man named Simon Cohn, a native of Germany, who acquired a seven-acre parcel of land at the intersection of the Conejo Road (later to be called Ventura Boulevard/State Route 101) and the Hueneme and Saticoy Road (later to be called Vineyard Avenue) around 1876, which had been subdivided from Rancho Santa Clara Del Norte. Cohn had immigrated to Ventura County to join his brother Morris Cohn who operated a general merchandise store in Saticoy. Simon worked in his brother's store until he was able to raise the money to open his own store.

Simon Cohn opened his first store at the southwest corner of Vineyard Avenue and Ventura Boulevard (Figure 6). At this time, no other commercial buildings were located in the area, and just scattered farmhouses were located along Conejo Road (Ventura Boulevard). Cohn gradually acquired more land on three of the four corners at the intersection and two of Cohn's brothers constructed businesses here.

Figure 6. Images From Left to Right: Simon Cohn General Merchandise Market, date unknown; Mr. and Mrs. Simon Cohn; New Jerusalem, 1896. Source: Musuem of Ventura County

As the pioneer merchant in the area, Simon Cohn is considered the founder of New Jerusalem/El Rio. It has been reported that the town was given its name by the first Superior Court Judge J.D. Hines, who in 1876[11] named it to honor the first Jewish merchants in the area. Simon Cohn painted the name New Jerusalem on his store. In 1882 the first post office was opened in New Jerusalem with Simon Cohn serving as the postmaster. In 1895, the post office shortened the name of the town to Jerusalem, and a few months later in the same year, the name was changed to Elrio (all one word). In 1905, the post office name was changed to El Rio and stayed that way until it closed in 1911[12].

[10] California State University Monterey Bay, "Treaty of Cahuenga" https://digitalcommons.csumb.edu/hornbeck_usa_2_b/7/, Accessed on July 5, 2023.

[11] According to the Online Archive of California's E.M. Sheridan Papers, a Ventura County Star article also identified the naming as happening in 1879.

[12] https://archive.org/details/cvtmha_000017/page/n181/mode/2up?q=new+jerusalem

Simon Cohn enjoyed success as a businessman and continued to purchase additional land in the 1880s and 1890s, including a 47-acre parcel where Wagon Wheel Junction was located, and the land where the Esplanade Shopping Center is today. In 1921 Simon Cohn built an arena for boxing and wrestling matches on one of the four corner properties which allowed for easy access from the state highway yet was far enough away from the City of Oxnard to avoid complaints from residents. It was described as a 1,500-seat facility called Legion Stadium and matches were often between athletes of different nationalities, but most notably hosted Sam McVey (or McVea), a star African American boxer nicknamed the "Oxnard Cyclone" (Figure 7). The end to Simon Cohn's New Jerusalem came with the construction of the State Route 101 freeway in the mid-1950s. The widening of the old Conejo Road (Ventura Boulevard) combined with the construction of the Vineyard overpass demolished the entire original crossroads where Simon Cohn's General Merchandise Market, other stores, the boxing stadium, and farmhouses once stood.

Figure 7: Photo of Boxer Sam McVey.

1.6. World War II

The bombing of Pearl Harbor by the Japanese in December 1941 brought the United States into the Second World War. Military bases were established at Port Hueneme in 1942 and later at Point Mugu, bringing more than 21,000 military personnel and 10,000 civilian workers to the region and kickstarting the local economy. However, this influx of workers also created a housing shortage in the county and led to the construction of suburban single-family home subdivisions during the 1940's.

INTERESTNG FACT

For the 1932 Los Angeles Summer Olympics, Ventura County was selected to host the Cross-Country Cycling Race. The course started close to Moorpark (near the intersection of Los Angeles Avenue and Balcom Canyon Road) moving west along Los Angeles Avenue. The race went through El Rio on Vineyard Avenue before continuing on to Oxnard and then eventually ending in Santa Monica (Figure 8 below).

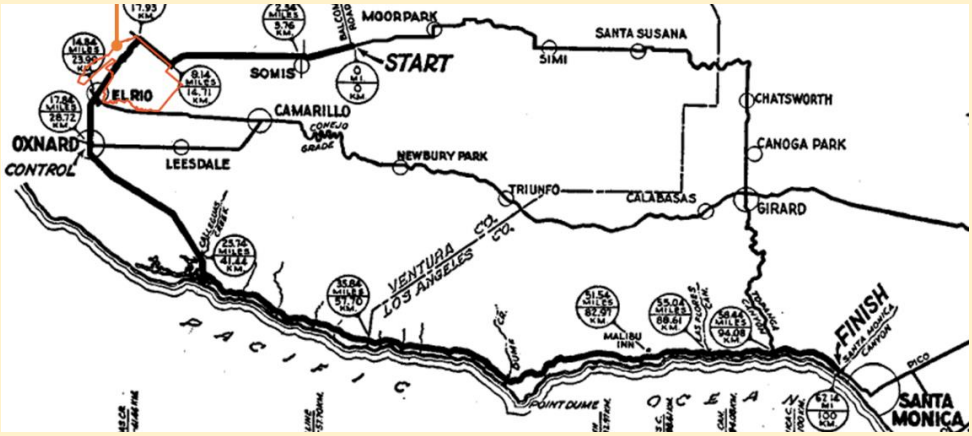

Figure 8. Cross-Country Cycling Race route (left), Cyclists Eddie Testa and Eddie Lorrain participating in the Cross County-Cycling Race (right). Source: 1932 Xth Olympiad Official Report (left) and Getty Images (right).

A. NAS Point Mugu and NCBC Port Hueneme

While not located within the Area Plan boundaries, Naval Air Station (NAS) Point Mugu, and Naval Construction Battalion Center (NCBC) Port Hueneme (now combined with San Nicholas Island to form Naval Base Ventura County) had a significant impact on the development of the region during and after the war. While the development of these bases had the greatest impact on the City of Oxnard, El Rio and Nyeland Acres also saw growth during this period. To this day, the military bases remain one of the largest employers in Ventura County.

In 1942, the Navy dispatched survey teams up and down the Pacific Coast looking for new locations for naval facilities. With Port Hueneme being the only deep-water port between San Francisco and Los Angeles, the site was selected for a base that supported Navy construction operations at advance bases in the Pacific theater. NCBC Port Hueneme was officially established on May 18, 1942, as a temporary depot to train, stage and supply the Navy's construction battalions nicknamed the Seabees (Figure 9). During the War, 20 million tons of supplies and equipment and more than 200,000 soldiers were staged and shipped out from the Port. During that time, more construction supplies and equipment were shipped from Port Hueneme than from any other port in the United States[13]. Originally known as Camp Rousseau, the Advance Base Receiving Barracks was established in Port Hueneme in September 1942. During World War II about 175,000 Seabees were trained for duty with the construction battalions[14].

Figure 9: Naval Construction Battalion at Port Hueneme during World War II. Source: https://seabeemagazine.navylive.dodlive.mil/History/Article/2610232/harbor-base-neighbors-when-the-navy-came-to-port-hueneme-1942-1945-and-beyond/ (Accessed April 2023).

[13] Naval Education and Training Command. "NCTC Port Hueneme - History" (accessed April 2023) https://www.netc.navy.mil/Commands/Center-for-Seabees-and-Facilities-Engineering/NCTC-Port-Hueneme/History/#:~:text=Established%20in%20September%201942%20at,within%20NBVC%20at%20that%20time.

[14] Naval History and Heritage Command. "Seabee History: Formation of the Seabees and World War II." (accessed April 2025). https://www.history.navy.mil/research/library/online-reading-room/title-list-alphabetically/h/history-of-seabees/ww2.html

B. Saticoy Prisoner of War Branch Camp

During World War II, with 15 million Americans having been called into military service, agricultural labor was scarce. The labor shortage was particularly acute for Ventura County fruit producers whose harvesting was hand-labor intensive. The US Army came up with an unusual solution; it brought German prisoners of war (POWs) from England to America to fill the labor gap.

Figure 10: A leaflet in German about how to pick lemons that was handed out to German prisoners of war at the Saticoy POW labor camp during World War II. Source: Museum of Ventura County.

Thousands of German POWs were brought to America and housed in camps throughout the South and Southwest, including the Ventura County area (Figure 10). Early in 1945, the Saticoy Lemon Association requested POW labor from the Army. The nearest POW camp was Camp Cooke (on the site of Present-day Vandenberg Air Force Base). With the long commute, the Army established a series of "branch camps" (16 from Camp Cooke) so that the POWs could be closer to their work. Saticoy had one of the largest branch camps and it was the last to be closed.

After an initial location for the camp in modern day Ventura was rejected, 18 acres of land in the Plan Area was selected at the intersection of Central and Rose Avenues in Oxnard[15]. POW labor was used to

INTERESTING FACT

The former site of the Saticoy Prisoner of War Camp is now the Strickland Drive Subdivision comprised of 36 single family homes (See Figure 11 below).

Figure 11. Images of the Saticoy German POW Camp location in 1945 and 2022. Source: Ventura County RMA.

[15] Ludlum, "Saticoy's Prisoner of War Camp." https://venturamuseum.org/research-library-blog/saticoys-prisoner-of-war-camp/

construct the camp. It was occupied from May 1945 until Spring of 1946, after which prisoners were returned to Camp Cooke and then repatriated.

In September of 1946, the Saticoy Lemon Association put the buildings and equipment up for sale. The Moorpark Enterprise described the liquidation, "Included in items for sale are 17 Quonset barracks and buildings [and] a carpenter shop[16]." These buildings were purchased and relocated to sites presumably in Ventura and other parts of the county.

1.7. Post-World War II (1945-1960)

The immediate post-World War II era was a boom period for the United States. Postwar optimism and prosperity, unprecedented population growth, and the burgeoning middle class brought significant changes to cities throughout the Country. World War II was a catalyst for the transformation of the cities and unincorporated communities within Ventura County because it transformed the area from a rural agriculturally and oil-based region into an affordable Mid-Century suburban community. The communities of El Rio and Strickland predominantly expanded during the 1950's while Nyeland Acres had more mixed growth but still experienced significant construction in the 1940's and 1950's (Figures 13 and 14).

With the end of World War II, wartime industries in Southern California successfully converted to civilian manufacturing and offered good jobs to thousands of returning servicemen. Fueled by the postwar prosperity, thousands of young families flocked to Ventura County, making it the fastest growing county in California by 1964.

Figure 12: Photo of Construction of the Vineyard Avenue and Highway 101 Interchange; Source: Oxnard Public Library Photograph Collection.

Additionally, the establishment of the California freeway system was a key catalyst for Ventura County's growth and development in the postwar period. Although this program is most often associated with the transformation of Los Angeles and cities in Orange County, its impact on Ventura County was equally transformative (Figure 12). The expansion of the old Conejo Road State Route into Highway 101 during the mid-1950's made the County more accessible from Los Angeles, expanding the possibility of suburban living and goods movement that were previously constrained to areas in proximity to the railroad and smaller and slower two-lane highways. The cities of Oxnard and Ventura expanded rapidly during this time with large suburban subdivisions spurred on by the expansion of the Home Savings and Loan banks that would provide affordable mortgages to potential buyers. This also opened up a significant amount of land for new development and the creation of additional cities (e.g. Thousand Oaks). While the El Rio Communities enjoyed early expansion after the War and construction of Highway 101, changing regulations shifted focus away from developing in unincorporated areas and into the cities. This abrupt growth changes can be seen in year built data of El Rio and Nyeland Acres which shows little to no new development beyond the 1960's.

[16] "Saticoy War Camp Material on Sale Soon," *Moorpark Enterprise,* August 15, 1946

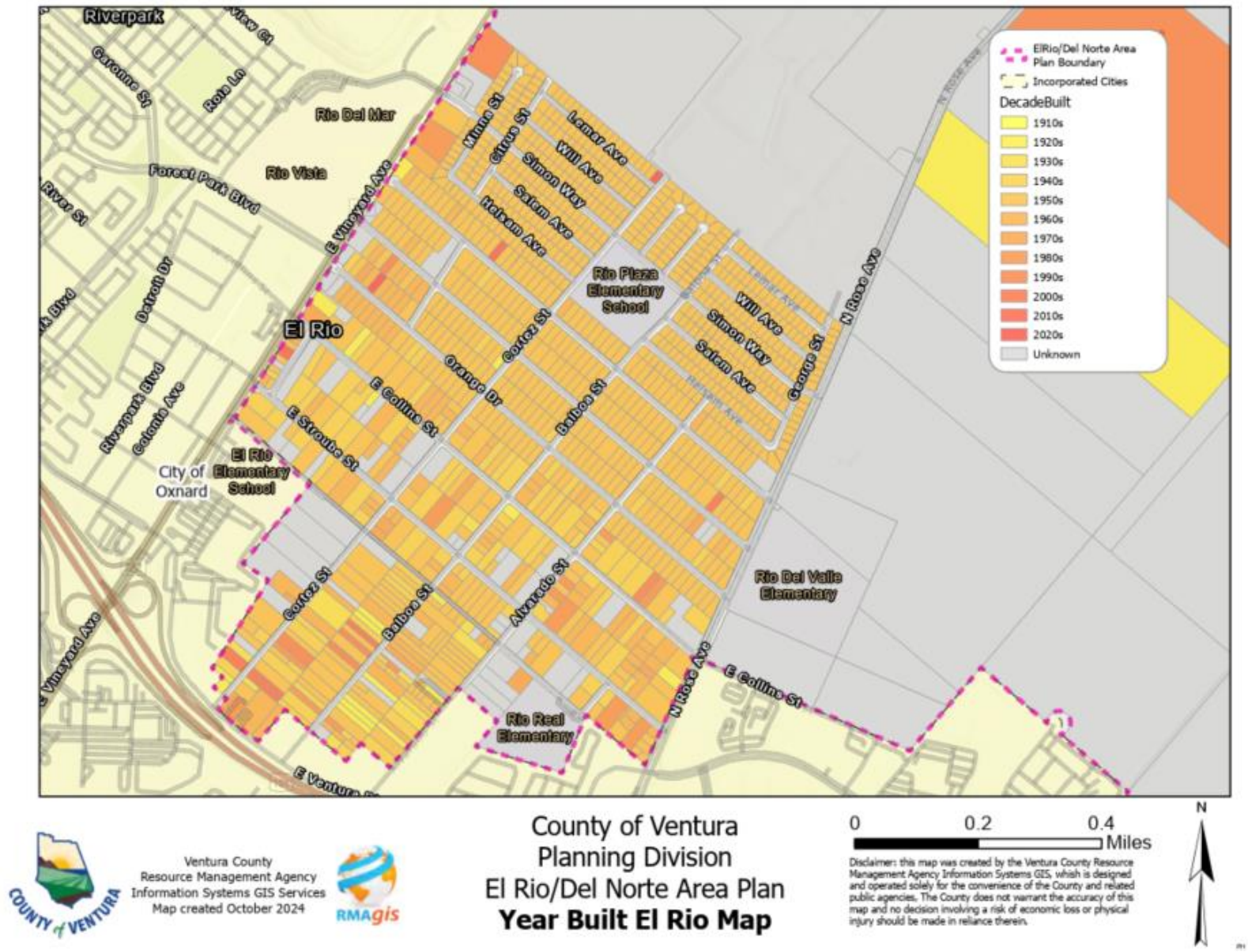

Figure 13: Structures in El Rio According to Year Built.

Figure 14: Structures in Nyeland Acres According to Year Built.

1.8 Midcentury and Beyond (1960's to Present)

During this period, Ventura County experienced further rapid growth and expansion of the cities, however the communities in the Area Plan did not geographically change much with the exception of the construction of the Del Norte Industrial Center in the 1980's. Interestingly, the adoption of a comprehensive County zoning ordinance in the 1960's and the first comprehensive General Plan in 1964[17] (Figure 15) called for almost the entire Area Plan to be turned into "Low Density Residential" with 19 new schools and accessed by two new freeways in addition to Highway 101. Even with those regulations in place, growth was still focused into the cities and not in the unincorporated areas.

Then in 1969, Ventura County, the local cities, and the Local Agency Formation Commission (LAFCo) adopted the Guidelines for Orderly Development (Guidelines) which directed development to occur within urban areas. This was then followed by the adoption of the County's General Plan Open Space and Conservation Element in 1973. This Element superseded and conflicted with the zoning ordinance because it designed the Plan Area for predominantly Agriculture and Open Space. When combined with the adoption of the Guidelines, the 1973 Open Space and Conservation Element reduced the long-term potential conversion of open space and agricultural lands to urban uses and at the same time directed the urban growth into the cities. In terms of how this impacted the Area Plan, it prevented new subdivisions from being built and effectively limited the urban development to its present-day existing community boundaries.

As stated previously, the only exception to the General Plan limitation on development in the Plan Area was the development of the Del Norte Industrial Center west of Vineyard Avenue and north of the Riverpark community in the City of Oxnard. This area was predominantly built out during the 1970's and 1980's (Figure 16) and represents one of the largest concentrations of industrial land under County jurisdiction.

[17] "Planning History." County of Ventura Resource Management Agency. https://vcrma.org/en/planning-history (accessed April 2023)

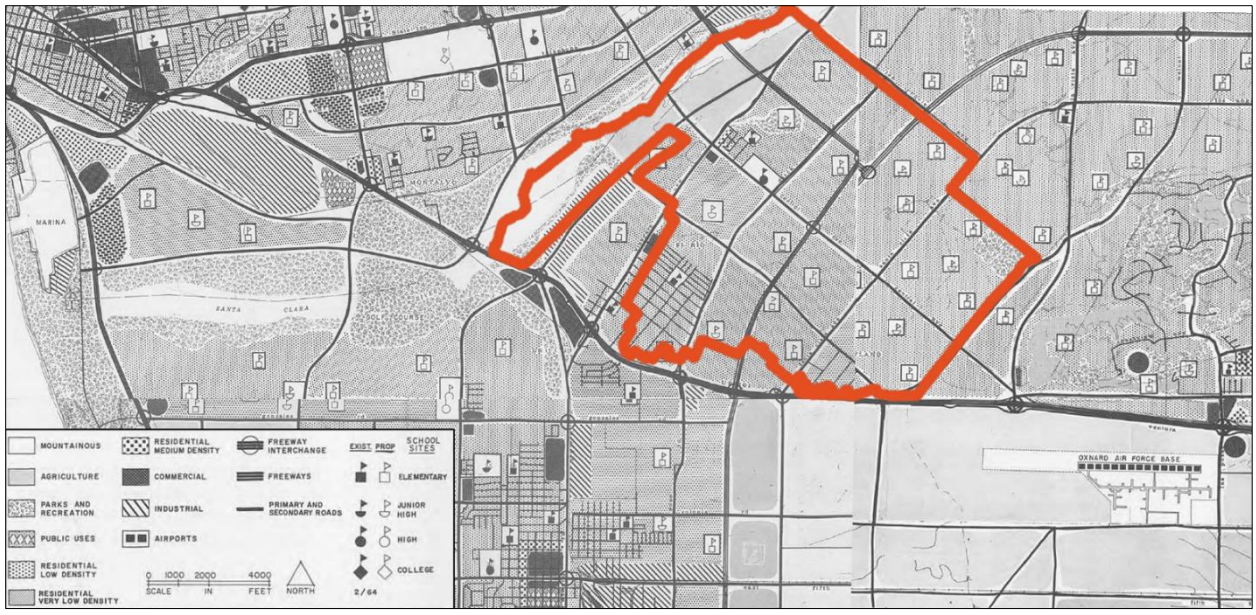

Figure 15: Map of the 1964 Ventura County General Plan Land Uses. Map comprises of the Ventura-Oxnard Urban Area and the Camarillo Area. Source: 1964 Ventura County General Plan Land Use Element.

Figure 16: Map of the Del Norte Industrial Center (orange outline) on January 1, 1980. Source: UCSB Frame Finder.

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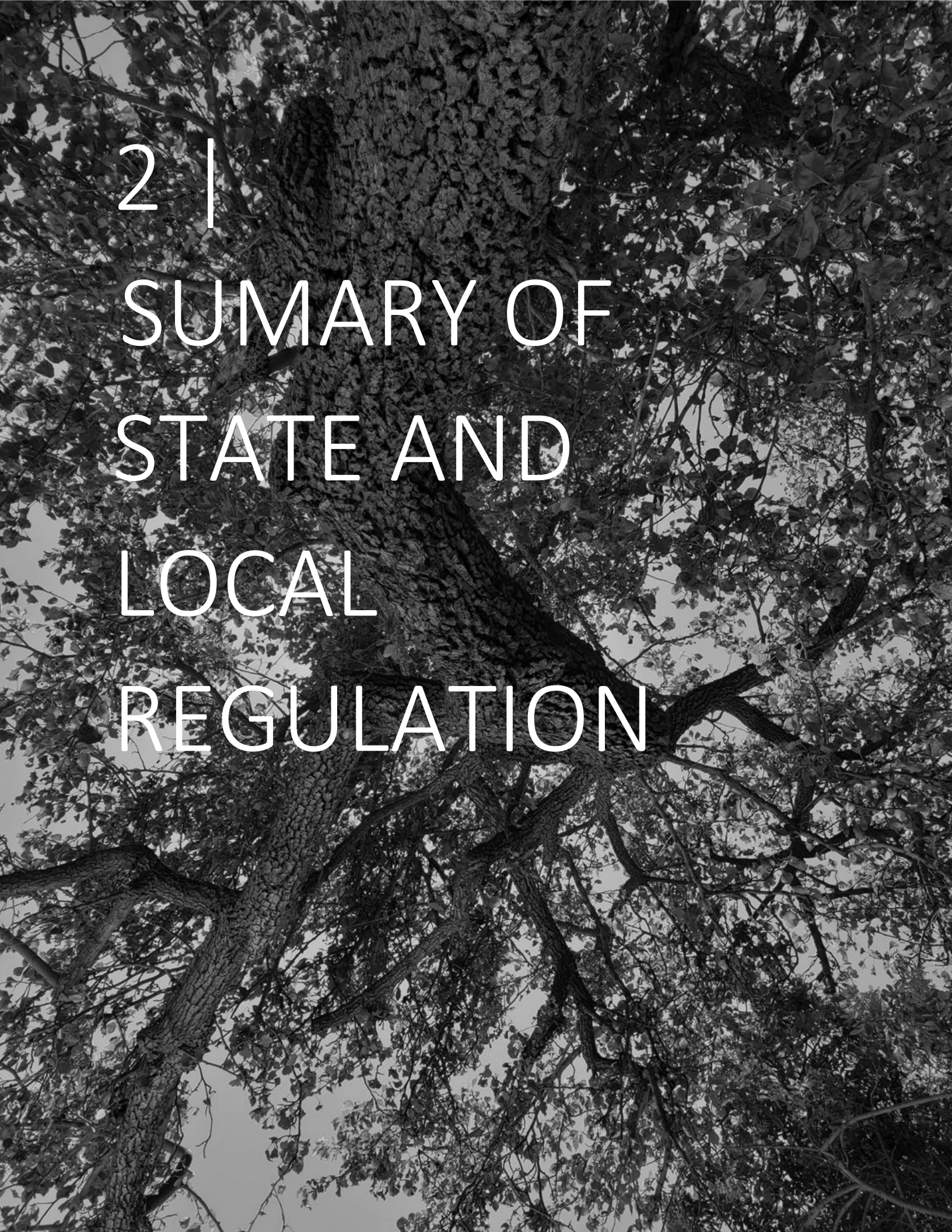


2 | SUMARY OF STATE AND LOCAL REGULATION

2.1 California Laws and Legislation

The California Constitution authorizes a county to enact and enforce local ordinances that do not conflict with the State's general laws, so while the County of Ventura is the primary regulator for the Plan Area, the County and Plan Area are still subject to the laws the State legislature passes. The main purpose of this section is to identify State laws that may impact this Area Plan update's proposed goals, policies, and regulations, primarily focusing on affordable housing development.

A. Density Bonus Law

Originally enacted in 1979, California's Density Bonus Law (Gov. Code §§65915 -65918) allows a developer to increase density on a property above the maximum set under a jurisdiction's General Plan land use plan and zoning[18]. In exchange for the increased density, a certain number of the new affordable dwelling units must be reserved for residents to own or rent at below market rate (BMR). Qualifying applicants can also receive exceptions to required development standards. Greater benefits are available for projects that reach higher percentages of affordability (with unlimited density available for certain transit-adjacent, 100-percent BMR projects).

Besides granting rights to housing and mixed-used developers to increase density, the law provides the following three provisions that require local governments to approve qualifying projects: 1) incentives (or concessions) that provide cost reductions; 2) waivers of development standards that would physically preclude the development of a project at the density permitted and with the incentives granted; and 3) reductions in parking requirements.

AB-2334 (2021-2022): Incentives or Concessions in Very Low Vehicle Travel Areas

AB 2334 amended the State Density Bonus Law to include several changes and clarifications including the following:

- Expanded the applicable locations to include very low vehicle travel areas where significant bonuses are provided for 100 percent affordable housing developments,
- Updated the definition of maximum allowable residential density,
- Revised the resident age requirement to support the elimination of parking standards, and
- Clarified the maximum rent levels allowed in 100% affordable projects.[19]

AB 2334 expanded the ministerial development bonuses created by AB 1763 (2019) for 100% affordable housing developments. The applicable area where these incentives can be utilized has been significantly expanded from areas within a half-mile of a major transit stop to include developments within a "very low vehicle travel area." Eligible housing development projects are permitted unlimited density and are granted an additional three stories, or 33 feet in height, as well as four incentives/concessions. A "very low vehicle travel area" is defined as an urbanized area "where the existing residential development

[18] Density Bonus Law: What are Incentives/Concession and Waivers. Southern California Area Governments. https://scag.ca.gov/sites/main/files/file-attachments/density_bonus_law_-_what_are_incentives_concessions_and_waivers.pdf?1667860893. Accessed on June 14, 2023.

[19] City of Los Angeles Inter-Departmental Correspondence. City of Los Angeles. https://planning.lacity.org/odocument/ce5fae12-a3da-4046-a8b8-2ceb858cbb40/AB%202334,%201551,%20682%20(2022)%20Density%20Bonus%20Memo.pdf, Accessed on June 20, 2023.

generates vehicle miles traveled (VMT) per capita that is below 85 percent of either regional vehicle miles traveled per capita, or city vehicle miles traveled per capita."

The law also made changes to the definition of "maximum allowable residential density" in the Density Bonus law. This term is used to identify a project's base density, which is the number of units used to calculate the number of density bonus units and affordable units. The definition was updated to mean the maximum number of units allowed under the zoning ordinance, specific plan, or General Plan land use designation, including the greater amount if a range of density is permitted or if there is an inconsistency. The density of dwelling units permitted by the General Plan is based on the land use designation for a property and this density range should not conflict with the zoning. However, if the zoning designation allows for greater density than the General Plan, then that zoning shall be used to calculate maximum allowable residential density for density bonus projects. This definition also applies to properties that may have zoning limitations (such as an overlay zone) or other local restrictions on residential development (such as parking standards).

AB-682 (2021-2022): Shared Housing Buildings

This bill added "shared housing building" as a new category in State Density Bonus Law. A "shared housing building" is defined as a residential or mixed-use structure, with five or more "shared housing units" and one or more common kitchens and dining areas designed for tenants with residence of more than 30 days. A "shared housing unit" means one or more habitable rooms not contained within another dwelling unit, that includes a bathroom, sink, refrigerator, and microwave within the unit, and complies with the definition of "guestroom" per the California Building Code. This change allows shared housing buildings to be built in areas where density bonus projects are permitted and to receive incentives and density bonuses under the State Density Bonus Law.

AB 682 also allows for a shared housing building to include ground floor commercial uses (if otherwise permitted by local regulations) as well as dwelling units that are not shared housing units. Non-shared housing units are limited to no more than 25 percent of the floor area of the shared housing building.

B. SB-330 (2019-2020) and SB-8 (2021-2022): Housing Crisis Act of 2019

SB 330 prohibits jurisdictions from enacting new laws that would have the effect of increasing the locally-imposed regulatory limits on the development of new housing or delay new housing development through administrative or other regulatory barriers. The bill also prevents jurisdictions from reducing the development potentially allowed under zoning unless they increase an equivalent amount of development potentially allowed under zoning elsewhere within the same jurisdictional boundaries. It also established housing permit timelines, and ensures that the demolition/removal of housing units does not result in a net loss of zoning for allowable residential units across the jurisdiction.

C. AB-2097 (2021-2022): Residential, Commercial, or Other Development Types Parking Requirements

This law prohibits a public agency from imposing minimum automobile parking requirements on residential, commercial, or other development projects that are located within one-half mile of public transit (major transit stop or high-quality transit corridor). Parts of the EL Rio community are located within a half-mile buffer of a high-quality transit corridor.

However, a jurisdiction may impose minimum automobile parking requirements on a project that is located within one-half mile of public transit if the public agency makes written findings, within 30 days of the receipt of a completed application, that minimum automobile parking requirements are needed for the development otherwise there would be a substantially negative impact on any of the following:

1) The jurisdiction's ability to meet its share of the regional housing need in accordance with Section 65584 for low- and very low-income households.
2) The jurisdiction's ability to meet any special housing needs for the elderly, persons with disabilities, large families, farmworkers, families with female heads of households, and families and persons in need of emergency shelter, as identified in the analysis required pursuant to paragraph (7) of subdivision (a) of Section 65583.
3) Existing residential or commercial parking within one-half mile of the housing development project.

There are three exceptions that a housing development project applicant may use to preempt the local findings requiring minimum parking standards. The applicant would need to confirm that the project meets one of the following criteria:

- 20% or more of the total dwelling units in the proposed project are reserved for very low-, low-, or moderate-income households, students, the elderly, or persons with disabilities,
- The project contains fewer than 20 dwelling units; or,
- The Project is subject to other parking reductions of any other applicable law.

This law does not include a project where any portion is designated for use as a hotel, motel, bed and breakfast inn, or other transient lodging, except where a portion of a housing development project is designated for use as a residential hotel.

D. SB-6 (2021-2022): Middle Class Housing Act of 2022

This law deems a housing development project is an allowable use on a parcel that is within a zone where office, retail, or parking are a principally permitted use, if specified conditions are met.

E. SB-4 (2023-2024): Housing Development – Higher Education and Religious Institutions

This law allows a housing development project to be a use approved by right (i.e., approved through a faster, simpler permit process) on land owned by an independent institution of higher education or religious institution. The institution must have owned the property on or before January 1, 2024. The housing development project would require 100% of the units to be affordable to lower income households with the following exceptions:

- Manager units;
- 20% of the units may be for moderate-income households; and,
- 5% of the units may be for staff of the institution that owns the land.

Additionally, the law limits the maximum required vehicle parking spaces to one space per unit. However, a jurisdiction cannot impose a parking requirement on a qualifying housing development project if it is located within one-half mile walking distance of either a "high-quality transit corridor" or a major transit stop, or it is within one block of a car share vehicle.

F. Proposition 1 (2014): Water Quality, Supply, and Infrastructure Improvement Act

This law requires planning for the State's long-term water needs. Proposition 1 funds an array of sustainable water related projects, including drinking water protection, public water system improvements, water recycling, wastewater treatment, drought relief, emergency water supply management, and watershed protection. The Integrated Regional Water Management Planning Act (SB 1672, 2002) has provided over $1.5 billion in State funding dedicated to support and advance integrated, multi-benefit regional projects. In the Area Plan, this funding contributed to projects including groundwater recharge, the El Rio Forebay Groundwater Contamination Elimination Project, and the Iron and Manganese treatment plant.

2.2 Ventura County General Plan

A. Jurisdiction and Purpose

In 2020, the County of Ventura completed a comprehensive update to its General Plan for the first time in almost 30 years. The adopted "2040 General Plan" guides the next 20 years of Ventura County's land uses, growth, and services. The El Rio-Del Norte Area Plan is included within Element 11 of the 2040 General Plan and when this Area Plan is updated, it will be enacted as a General Plan amendment. In total, there are nine area plans for more urban areas of unincorporated Ventura County and these plans are designed to reflect the needs and desires of those individual communities. The El Rio-Del Norte Area Plan, which was last comprehensively updated in 1996, provides locally-specific policy guidance for decisions affecting the community, while the General Plan provides broader policy guidance.

B. Goals and Policies

The 2040 General Plan is comprised of a "Goals, Policies, and Programs" document that is divided into the following chapters, sometimes referred to as "elements", most of which are required by the State to be included:

1. Land Use and Community Character
2. Housing
3. Circulation, Transportation and Mobility
4. Public Facilities, Services, and Infrastructure
5. Conservation and Open Space
6. Hazards and Safety
7. Agriculture
8. Water Resources
9. Economic Vitality
10. Nine Area Plans

The 2040 General Plan was prepared based on community input and a background report that included a chapter focusing on each of these elements, containing information, data, and maps that were used to support goals, policies, and programs. There are also appendices for Land Use Maps, Climate Change, Save Open Space and Agricultural Resources Initiative-2050, and the Guidelines for Orderly Development.

The 2040 General Plan includes a program that calls for a comprehensive update to the El Rio-Del Norte Area Plan during the 2020-2025 time period under Land Use Element Program "F." Additionally, Housing Element Program "D" identifies the El Rio-Del Norte area as the first Area Plan to be updated, because it is a disadvantaged community and has sites identified for affordable housing that are currently limited by infrastructure constraints (Table 1).

Table 1: General Plan Programs supporting the El Rio Del-Norte Area Plan Update

Program Name	Description
Program LU-F: Comprehensive Area Plan Update	The County shall review and periodically prepare a comprehensive update to each of the Area Plans to ensure that they reflect community needs and expectations.
Program HE-D: Infrastructure Constraints	The County's Land Use and Community Character Element identifies the El Rio-Del Norte Area, a designated disadvantaged community, to be updated first and will assist in planning appropriate infrastructure for at least 179 multifamily units identified in the Sites Inventory, Background Report Appendix 5.A. Additionally, the County has been approved for $300,000 in state Local Early Action Planning grant funds for various projects, one of which is to facilitate the El Rio-Del Norte Area Plan update.

C. General Plan Land Use

The 2040 General Plan contains 19 total land use designations, which guide the allowed density of new development as well as conserve open space and natural resources such as agriculture. Only 10 of these designations are found within the Area Plan boundaries (Figure 17). These applicable designations are defined as follows:

Agricultural designation is applied to lands which are suitable for the cultivation of crops and the raising of livestock.

Open Space designation encompasses land, as defined under Section 65560 of the Government Code, as any parcel or area of land or water which is essentially unimproved and devoted to an open-space use as defined in this section and which is designated on a local, regional or State open space plan.

Existing Community or Urban (ECU)-Rural provides a physical transition between the outer edges of an Existing Community or Urban Area and nearby agricultural and open space areas and uses.

Very Low Density Residential provides a physical transition between the outer edges of an Existing Community or Urban Area and nearby agricultural and open space areas and uses.

Low-Density Residential provides for a variety of single-family homes and neighborhoods.

High Density Residential provides for residential development in more intensely developed residential and commercial areas. Development at the higher end of the density allowed should occur along major transportation routes and within major commercial centers.

Residential Planned Development provides areas for residential communities which will be developed using modern land planning and unified design techniques that can be adjusted to better fit the unique needs of the project site.

Commercial Planned Development provides areas for vibrant commercial centers which will be developed utilizing modern land planning and unified design techniques that can be adjusted to better fit the unique needs of the project site.

Industrial provides for a range of industrial employment-generating uses, including production, assembly, warehousing, and distribution, that are conducted within enclosed buildings or in appropriately sited and screened outdoor workspaces that are designed for compatibility with surrounding land uses.

State of Federal Facility designation applies to those state- and federally-owned parks, forests, rangelands, coastal resources, and/or recreation areas.

While the El Rio-Del Norte Area Plan has a large boundary of nearly 7,000 acres, it includes three distinct communities named El Rio, Strickland, and Nyeland Acres, which are each identified as an "Existing Community" in the 2040 General Plan. Existing Communities are urban residential, commercial, or industrial enclaves located outside of incorporated areas (e.g., cities). Existing Communities may include various zones including, but not limited to, residential, commercial, and industrial, and they allow for a range of land uses, population densities, and building intensities. State laws require the General Plan land use designations, Area Plan land uses, and zoning, to be consistent.

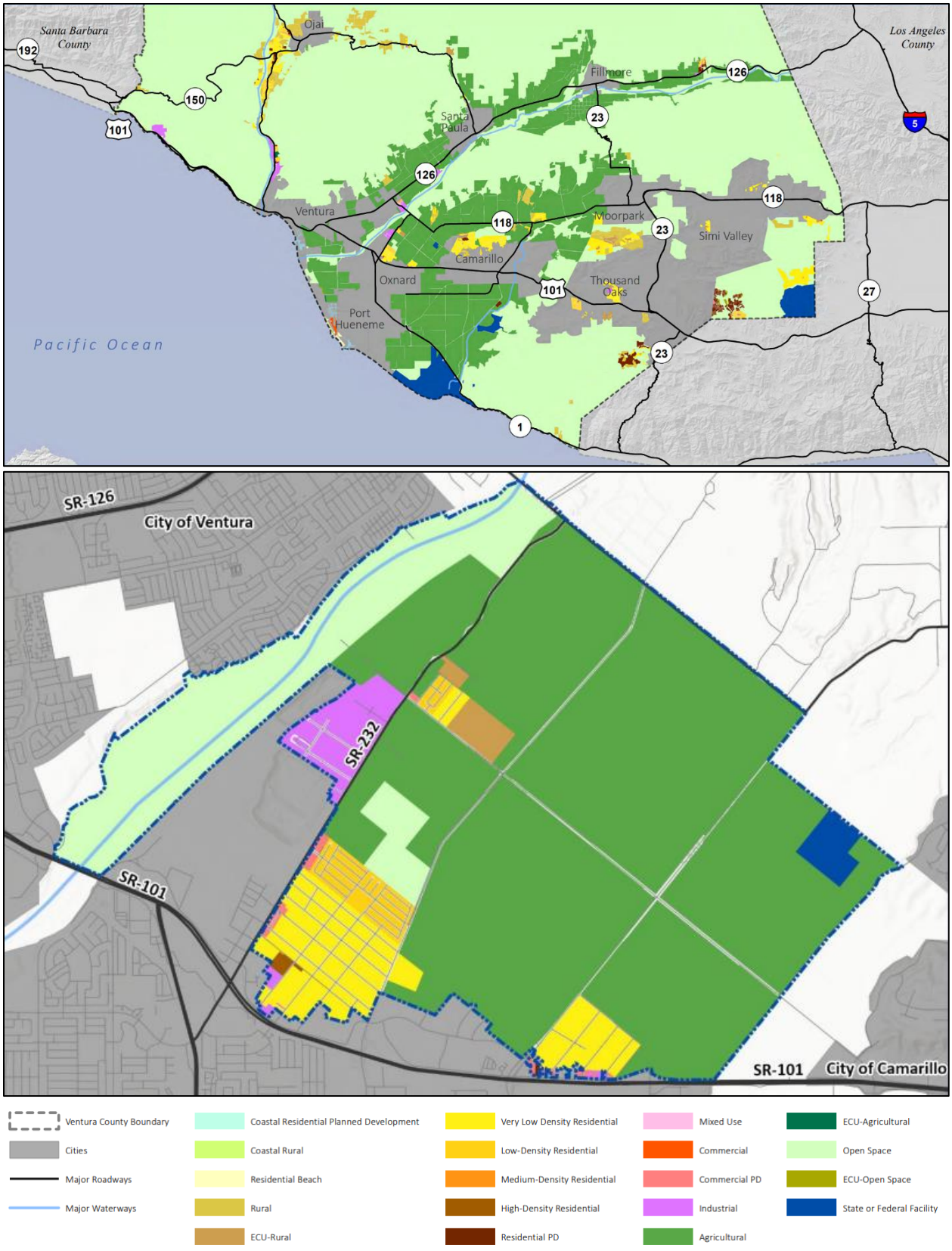


Figure 17: Ventura County General Plan Land Use Designation map (top) and the El Rio-Del Norte Area Plan General Plan Land Use Designation map (bottom). Source: Figure 2-5, Ventura County General Plan 2020.

D. Housing Element Guidance

Given high costs and low supply of new housing, the Housing Element is an important chapter of the General Plan because it identifies lands to accommodate new housing. Table 2 below summarizes the Housing Element goals, policies and programs relevant to the El Rio-Del Norte Area Plan.

Table 2: Housing Element Goals, Policies, and Programs

Housing Element Goal, Policy and/or Program	Policy or Program Description
Goal HE-2: Provide suitable sites for housing development that can accommodate a range of housing type, size, location, price, and tenure to meet the requirements of the regional housing need allocation.	
Policy HE-2.2: Increase Housing Opportunities within Area Plan Boundaries	The County shall pursue the following policies in Area Plan updates to increase housing opportunities: ▪ Identify opportunity sites for higher density housing near job clusters and transit stops to support housing for the County's special needs population. ▪ Identify County surplus land that can accommodate residential development and consider re-designation, if feasible. ▪ Enhance existing residential areas by seeking opportunities and funding sources for public infrastructure improvements such as installing sidewalks and other pedestrian networks, bicycle facilities, neighborhood parks, and planting street trees, with priority given to designated disadvantaged communities.
Goal HE-3: Increase special needs housing opportunities and supportive services for lower income households, seniors, persons with disabilities, persons with mental illness, large families with children, female-headed households, and people who are experiencing homelessness.	
Policy HE-3.8: Support Farmworker Housing Needs	The County shall support and work actively to identify the housing needs of farmworkers in Ventura County and cooperate with public and private agencies to seek funding to identify and implement strategies leading to the provision of housing for farmworkers.
Goal HE-4: Continue to reduce and, where feasible and practical, remove County-imposed constraints that impede the development of affordable housing.	
Policy HE-4.3: Adequate Infrastructure	The County shall encourage water and sanitation providers to pursue available funding to upgrade, expand, or develop utilities including wastewater/sewer, water, broadband and other necessary utilities to serve existing and future housing at all income levels.
HE Program D: Infrastructure Constraints	As Area Plans are updated, especially in designated disadvantaged communities, the County shall apply for funding as funding sources are available from the Community Development Block Grant, Infill Infrastructure Grant Program, or other funding programs as available, to fund infrastructure design plans and infrastructure construction improvements supporting residential development in designated disadvantaged communities.

	The County's Land Use and Community Character Element identifies the El Rio-Del Norte Area, a designated disadvantaged community, to be updated first and will assist in planning appropriate infrastructure for at least 179 multifamily units identified in the Sites Inventory, Background Report Appendix 5.A.

E. Transportation and Mobility

The General Plan contains the following goals, policies and programs (Table 3) that support the development of multimodal transportation options to give residents, workers, and visitors transit choices and to help reduce traffic. Table 4 also lists the roads and transportation projects within the Area Plan that were identified on the Ventura County Public Works Agency Capital Improvement Plan for fiscal years 2023/2024 through 2027/2028.

Table 3: General Plan Goals, Policies, and Programs Related to Multimodal Transportation

Circulation, Transportation, and Mobility Element's Goal, Program, or Policy Name	Description
Goal CTM-2	To facilitate the safe, efficient, and cost-effective movement of all users, including bicyclists, pedestrians, public transportation riders, children, older people, and disabled people, as well as motorists through the provision of an integrated multimodal system.
Policy CTM-2.1: Complete Streets	The County shall prepare and adopt Complete Streets Design Guidelines to be used when constructing new roadways or improving existing roadways where Complete Streets would be appropriate/feasible. The Complete Streets Design Guidelines shall employ a context-sensitive approach to planning and designing the road and street network to reflect the distinct agricultural, rural, or urban character of a particular location.
Policy CTM-2.10: Safe Routes to School	The County shall work with public and private schools to identify and expand safe routes to school, where feasible.
Policy CTM-2.11: Efficient Land Use Pattern	The County shall establish land use patterns that promote shorter travel distances between residences, employment centers, and retail and service-oriented uses to support the use of public transportation, walking, bicycling, and other forms of transportation that reduce reliance on single-passenger automobile trips.
Policy CTM-2.15: Bicycle/Pedestrian Design	The County shall rely on the guidelines and design standards for bicycle and pedestrian facilities established by the California Manual on Uniform Traffic Control Devices (CAMUTCD) and supporting guidelines provided the Federal Highway Administration, Caltrans, and the American Association of State Highway and Transportation Officials (AASHTO).

Policy CTM-2.18: Complete Streets Standards in Existing Communities	The County shall require discretionary development in designated Existing Communities to construct roadways to urban standards and Complete Streets principles, including curb, gutter, sidewalks, and bike lanes when there is a nexus for improvement. The County shall rely on the guidelines and design standards for Complete Streets design established by the California Manual on Uniform Traffic Control Devices (CAMUTCD), Caltrans in the Highway Design Manual, and Complete Streets Guidelines (pursuant to Deputy Directive-64-R2), Federal Highway Administration, American Association of State Highway and Transportation Officials (AASHTO).
Policy CTM-2.27: Discretionary Development and Conditions of Approval to Minimize Traffic Impacts	The County shall require that discretionary development be subject to permit conditions of approval, where feasible, to minimize traffic impacts by incorporating pedestrian and bicycle pathways, bicycle racks and lockers, ridesharing programs, transit improvements (bus turnouts, shelters, benches), and/or transit subsidies for employees or residents of the proposed development.
Policy CTM-2.21: Pedestrian/Bicycle Conflicts along Overweight Vehicle Corridor and Surface Transportation Assistance Act (STAA) Routes	Within Existing Communities, the County shall provide/retrofit separated or buffered pedestrian and bicycle paths from the outside travel lane along County Road Network roads that are designated Overweight Vehicle Corridors and STAA designated Terminal Access Routes. Where the application or retrofitting of separated or buffered facilities is not feasible, the County shall prioritize alternative pedestrian and bicycle connections that encourage and attract pedestrian and bicycle traffic off designated Overweight Vehicle Corridors or STAA designated truck routes.
Goal CTM-4	To ensure that land use and transportation planning efforts in the county are cohesive, mutually supportive, and reduce Vehicle Miles Traveled (VMT) per capita within the unincorporated areas of the County.
Policy CTM-4.2: Alternative Transportation	The County shall encourage bicycling, walking, public transportation, and other forms of alternative transportation to reduce Vehicle Miles Traveled (VMT), traffic congestion, and greenhouse gas emissions.
Program CTM-H: Complete Streets Guidelines	The County shall prepare and adopt Complete Streets Design Guidelines/standards to be used when constructing new roadways or improving existing roadways where Complete Streets would be appropriate/feasible. Complete Streets Design Guidelines/standards should be consistent with the pedestrian and bicycle design guidelines and design standards established by Caltrans and supporting state/federal guidelines when designing bicycle/pedestrian facilities. These include the California Manual on Uniform Traffic Control Devices (CAMUTCD), Highway Design Manual, Federal Highway Administration, American Association of State Highway and Transportation Officials (AASHTO).

	The County shall improve pedestrian safety at intersections and mid-block locations in developed communities by providing pedestrian crossing treatments where appropriate.

Table 4: Ventura County Public Works Five-Year Capital Improvement Projects for roads and transportation from fiscal years 2023/2024 through 2027/2028; Source: Ventura County Public Works Agency

Project	Location and Description
El Rio Sidewalk Improvements, FY 2023/2025	Construction of sidewalks and intersection improvements on various roads within the El Rio area.
Rose Avenue Bike Lanes (Central Avenue to SR 118), FY 2029/2030	Construct Class II Bike Lanes on Rose Avenue from Central Avenue to SR 118.
Santa Clara Avenue Widening (SMP Priority Rank #3)	Oxnard City Limits to Highway 118 – widen to 4 lanes (Feasibility Study).
Rose Avenue Bike Lanes (Collins St – Simon Wy), FY 2029-2030	Construct Class II Bike Lanes on Rose Avenue from Collins Street to Simon Way.
Traffic Safety Improvements	• Construction of dual left turn lanes on Rose Avenue at SR118 (2028)Replace signal poles to install protected left turn signals for Central Avenue and include other intersection enhancements to improve safety (2025).

F. Environmental Justice and Designated Disadvantaged Communities

According to California Code section 65040.12, "environmental justice" is 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." Throughout California, communities with lower incomes, lower levels of education, and higher proportions of minority residents often bear a disproportionate burden of environmental hazards. These environmental inequities are largely a result land use and development decisions that have led to higher levels of exposure to air and water pollution in lower income communities. Environmental justice laws seek to eliminate these inequities by ensuring that people of all socioeconomic backgrounds are treated equitably in the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. The focus of such laws is protection of and improvements for socioeconomically disadvantaged communities that are historically and disproportionally burdened.

Consistent with Senate Bill (SB) 1000 (2016), the 2040 General Plan includes goals, policies, and objectives addressing health risks within "designated disadvantaged communities" and these goals and policies are listed in Table 5 below. As shown in 2040 General Plan Figure 18, the El Rio-Del Norte Area Plan is identified as a Designated Disadvantaged Community because, in accordance with the California Environmental Protection Agency findings, household incomes are at or below 80 percent of the statewide median. Also see Section 4.8 of this report for further discussion of environmental justice topics applicable to the Plan Area.

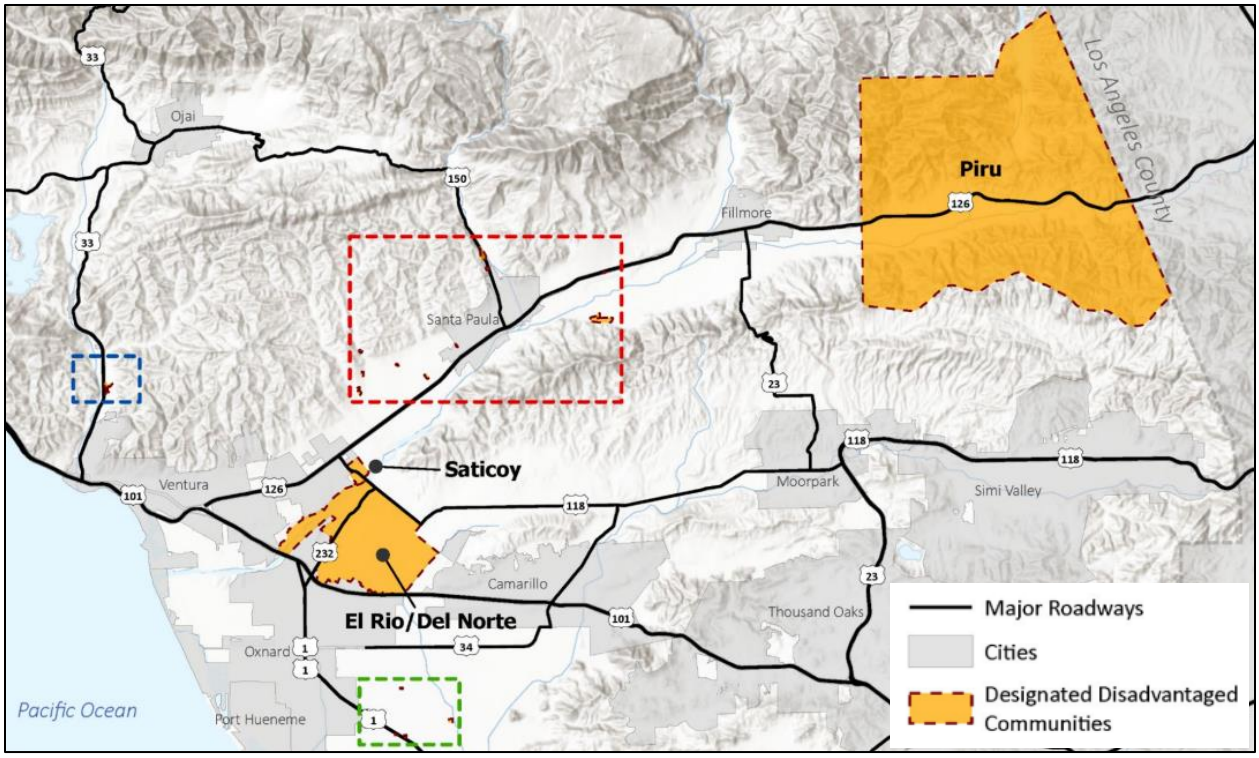


Figure 18: Map of Designated Disadvantaged Communities in Ventura County; Source: Ventura County General Plan, Land Use Element, Figure 2-6.

Table 5: General Plan Goals, Policies, and Objectives Related to "Designated Disadvantaged Communities"

Land Use Element – Environmental Justice Goals, Policies and/or Programs	**Policy or Program Description**
Goal LU-17: Within designated disadvantaged communities, to plan for and provide public facilities, services, and infrastructure that provide fair treatment and quality of life to all people regardless of race, color, national origin, or income.	
Policy LU-17.1: Providing Equitable Public Services	Within designated disadvantaged communities, the County shall consider environmental justice issues as they relate to the equitable provision of public services and infrastructure such as parks, recreational facilities, community gardens, public safety facilities, and other beneficial uses that improve the overall quality of life.
Policy LU-17.2: Siting if Uses	Within designated disadvantaged communities, the County shall consider environmental justice issues as they relate to potential health impacts associated with land use decisions to reduce the adverse health effects of hazardous materials, industrial activities, and other uses that may negatively impact health or quality of life for affected county residents.
Policy LU-17.5: Placement of New Residential Uses	Within designated disadvantaged communities, the County shall discourage the establishment of new residential and other sensitive

	land uses near incompatible industrial land uses unless appropriate mitigations or design consideration can be included.
Policy LU-17.8: Limit Concentration of Unhealthy Food Providers	Within designated disadvantaged communities, the County shall encourage farmer's markets and healthier food options within neighborhoods or near child-oriented uses (e.g., schools, family day care, parks).
Program LU-H: Limit Alcohol and Tobacco Outlets	The County shall explore establishing zoning code limitations on the density of alcohol and tobacco outlets near sensitive receptors such as schools, childcare facilities, senior housing, parks, etc., and especially in designated disadvantaged communities, that is consistent with State law.
	To promote meaningful dialogue and collaboration between members of designated disadvantaged communities and decision-makers to advance social and economic equity.
Policy LU-18.2: Input on Proposed Planning Activities	Within designated disadvantaged communities, the County shall facilitate opportunities for community members and stakeholders to provide meaningful and effective input on proposed planning activities early on and continuously throughout the public review process.
Policy LU-18.3: Times and Locations of Public Engagement Opportunities	Within designated disadvantaged communities, the County shall aim to hold meetings, workshops, and other public engagement opportunities at times and locations that make it convenient for community members to attend, particularly stakeholders who are the most likely to be directly affected by the outcome.
Policy LU-18.4: Variety of Public Communications Methods	Within designated disadvantaged communities, the County shall continue to share public information across a variety of media, technological, and traditional platforms, and languages based on the demographics of the community.

G. Save Open Space and Agricultural Resources (SOAR) Initiative

The General Plan incorporates the Save Open Space and Agricultural Resources (SOAR) Initiative that was most recently adopted by Ventura County voters in 2016. The initiative is intended to conserve open space and agricultural lands, and it does so by requiring county-wide voter approval for any changes to General Plan land use designations involving the "Agricultural," "Open Space," or "Rural" land use designations. SOAR also restricts the extension of urban services (e.g. sewer and water) into rural areas. The SOAR ordinance, which expires in 2050, restricts urban development in unincorporated areas of the County, including Open Space and Agricultural designated land in the Plan Area.

These Guidelines, originally adopted in 1969, established an interjurisdictional agreement that encourages urban development to be located within incorporated cities and their "Spheres of Influence" while conserving greenbelts of sparsely developed rural lands between the cities. The guidelines are intended to limit urban sprawl and facilitate the orderly planning and development of Ventura County.

The Guidelines have been adopted by the Board of Supervisors and all incorporated cities, and do not have an expiration date.

2.3 Ventura County El Rio-Del Norte Area Plan

A. Jurisdiction and Purpose

The El Rio-Del Norte Area Plan functions as the land use plan for approximately 6,984 acres of unincorporated land adjacent to the City of Oxnard and City of Ventura, with the urbanized portions lying within the City of Oxnard's Sphere of Influence. The El Rio-Del Norte Area Plan was originally adopted in 1980, underwent a comprehensive update in 1996, and had minor updates in 2011 and 2020.

B. Potential Annexation of El Rio, Strickland, and Nyeland Acres

The Existing Communities of El Rio, Strickland, and Nyeland Acres are within the City of Oxnard's Sphere of Influence, and it is reasonable to expect that ultimately the City of Oxnard boundaries will be extended to encompass these communities after a process known as annexation. Annexation into the City could help to standardize municipal services such as emergency response, water and sewer services. However, annexation is not currently proposed and until it is, the County's 2040 General Plan, El Rio-Del Norte Area Plan, and Non-Coastal Zoning Ordinance are the prevailing land use regulations.

C. El Rio-Del Norte Area Plan Introduction

The current El Rio-Del Norte Area Plan is similar to the 2040 General Plan because it includes goals, policies, and programs but it differs in that it provides a more detailed land use planning and land use designations that are specific to the unique needs, resources, and history of the area. The 2040 General Plan update included the Area Plans in Element 11, but did not make any substrative changes and only formatted them for consistency with the format of the General Plan.

The current Area Plan consists of the following eight sections:

1. Land Use Designations and Standards
2. Land Use and Community Character
3. Circulation, Transportation, and Mobility
4. Public Facilities, Services, and Infrastructure
5. Conservation and Open Space
6. Hazards and Safety
7. Water Resources
8. Economic Vitality

As directed by the General Plan programs described above, the Area Plan Update is intended to identify infrastructure constraints that inhibit new development, especially residential housing, and to refine or replace portions of the existing Area Plan that are out of date or inconsistent with community needs.

D. El Rio Area Plan Land Use Designations

The existing EL Rio Area Plan contains seven land use designations as defined below, and this section also includes descriptions of where these land uses are generally located within the Plan Area:

Open Space. The purpose of the Open Space designation is to preserve the essentially undeveloped lands which surround the Existing Community designated areas of the El Rio-Del Norte area to protect lands which contain biological and mineral resources and water recharge/storage basins. Open Space is further broken down into two categories based on minimum lot size: OS-40 and OS-80.

Existing Development Comparison: This use designation is primarily reserved for the Santa Clara River and the water infiltration basins directly adjacent to the El Rio Community. As such, this designation predominantly covers the last remaining natural lands in the whole are plan.

Agricultural. The purpose of the Agricultural designation is to preserve irrigated agricultural lands in the El Rio-Del Norte area. Land outside the Existing Community or Rural designated areas within the El Rio-Del Norte Area Plan boundary which is currently in, or suitable for agricultural production shall be designated Agricultural.

Existing Conditions Comparison: This use designation comprises the bulk of the land within the Area Plan and contains agricultural and related uses in addition to water infiltration basins. The agricultural lands are served primarily by five roads which allows for large uninterrupted blocks suitable for large scale agricultural production.

Institutional. The purpose of the Institutional designation is to recognize the educational and institutional uses in the El Rio-Del Norte area that require large acreage. The principal uses allowed in the Institutional designation shall be institutional and educational facilities. Other permitted uses include those uses which are found to be necessary to maintain the principal uses, or other accessory uses that are customarily incidental, but subordinate to the principal permitted use.

Existing Community Comparison: Only three parcels have this land use designation, two contain schools and one contains the California Department of Corrections Ventura Youth Correctional Facility and the Cal Fire Ventura Fire Camp of the San Luis Obispo Unit. However, there are two other schools within the Area Plan that meet the intent of this designation. It should be noted that this designation does require a 10-acre minimum size. This size requirement is unusual in that institutional uses typically take on a size that is need of them and by requiring a minimum size requirement it deters additional uses and can promote conversion of greenfield agricultural lands instead of redeveloping existing sites in urban areas.

Rural Residential. The purpose of the Rural Residential designation is to recognize and plan for low density, large lot residential development and other compatible and ancillary land uses in a rural setting.

Existing Conditions Comparison: The Area Plan only contains one parcel that has this designation and is currently in active agricultural production.

Urban Residential. The purpose of the Urban Residential designation is to ensure that existing and future Urban Residential land use patterns result in cohesive and consolidated neighborhoods which preserve the community character of the El Rio-Del Norte area. Urban Residential is further broken down into six (6) categories based on density: UR 1-2, UR 2-4, UR 4-6, UR 6-10, UR 10-15, and UR 20.

Existing Conditions Comparison: The majority of parcels within this land use designation appear to contain a single-family residence, however there are a significant number of parcels that exceed their maximum allowed density particularly in El Rio and Nyeland Acres. One particular oddity in terms of allowed density is within the El Rio community where the lowest density (UR 1-2) is located adjacent to the City of Oxnard

and the highest density in the County (UR20) but then the density increases (UR 2-4 and UR 4-6) as development gets closer to agricultural lands. This is inverse of what is typically found in fringe urban development.

Commercial. The purpose of the Commercial designation is to provide sufficient commercially designated land to meet shopping and service needs of the community.

Existing Conditions Comparison: The remaining commercials properties are predominantly built out, however there are some large vacant or underutilized parcels that offer up the potential for in-fill or redevelopment opportunities. Most notable though is the saw-tooth City-County boundary along Ventura Boulevard where the City of Oxnard annexed certain commercial properties but not the residential uses.

Industrial. The purpose of the Industrial designation is to provide sufficient industrially designated land to meet the employment needs of the community.

Existing Conditions Comparison: All of the parcels, except for one as of the time of this writing, within this land use have been built out or are being utilized for industrial purposes. Development is characterized by the presence of one or more large building(s) and/or large paved areas for open storage and large vehicle parking.

As shown in the maps in Figure 19 below. The Plan Area is predominately designated for Open Space and Agriculture, but also includes three residential themed Existing Communities, an Industrial hub, and some Commercial and Institutional land use designations.

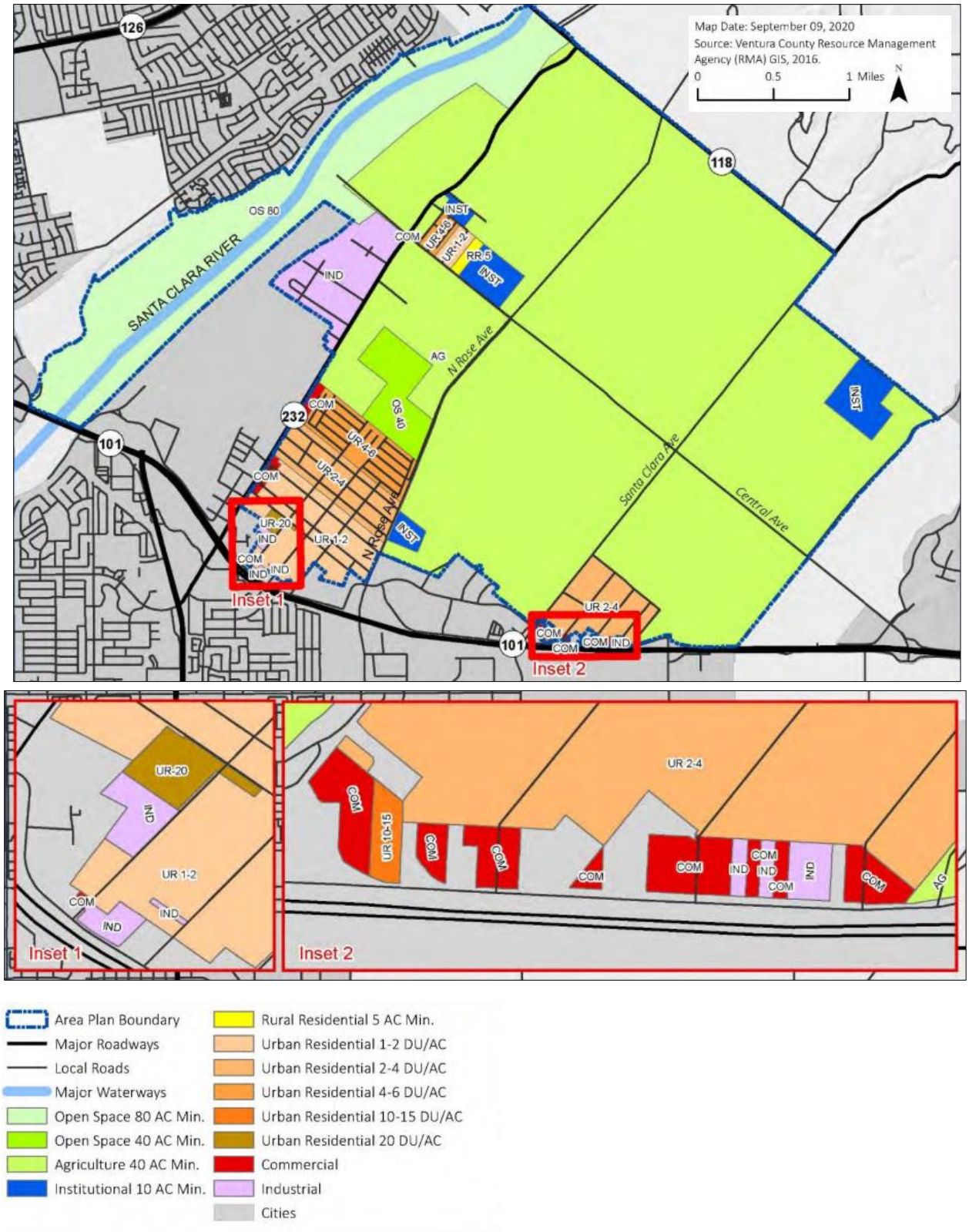


Figure 19: Maps showing Area Plan Land Use Designations for El Rio and Nyeland Acres.

2.4 City of Oxnard General Plan

The City of Oxnard updated its General Plan in October 2011 and the updated included discussion of the City's intentions for future growth within the City boundary and for areas within its Sphere of Influence (SOI), as shown in Figure 20 below. While all of the El Rio-Del Norte Area Plan is located outside of Oxnard City limits, all of the communities in the Area Plan are included within the City's SOI and City Urban Restriction Boundary, meaning these communities may eventually be annexed into the City, but the Open Space and Agriculture would remain in the unincorporated County.

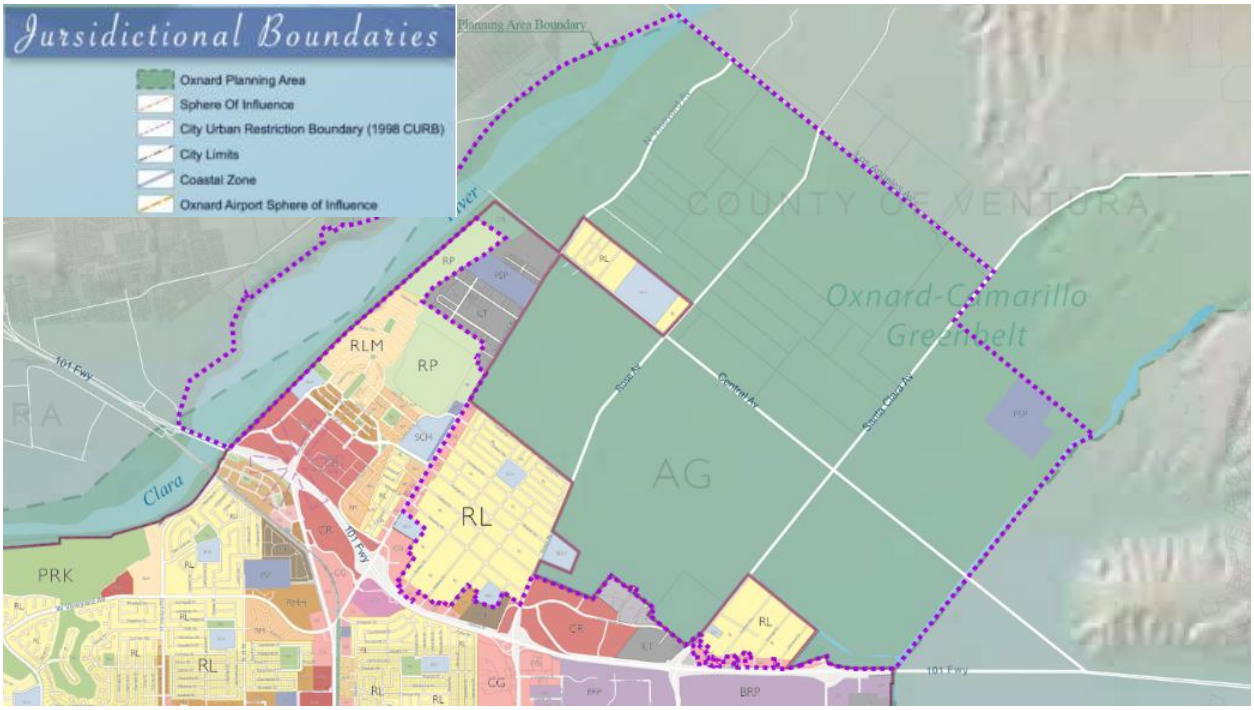


Figure 20: Map showing the City of Oxnard's General Plan Land Use Map, focused on the El Rio-Del Norte Plan Area.

The following discussion compares each of the City's land use designations to the County's General Plan and Area Plan land use designations for the Plan Area.:

Residential Low: This designation is intended for single-family detached housing built with up to 7 dwelling units per acre (du/ac) with front, side and rear yard setback requirements, but may also include patio and zero lot line homes and planned unit developments. Live/work style units are prohibited.

County General and Area Plan Comparison: The County's General Plan designates most of the residential uses as either Very Low- or Low-Density Residential, which have a maximum density of either 4 du/ac or 6 du/ac, respectively. The residential land designations in the Plan Area are predominantly Urban Residential with densities of 1-2 du/ac, 2-4 du/ac, and 4-6 du/ac. This means that the County's current designations are a lower land use intensity than what the City has planned for this area, and that any future annexation would probably include an increase in the allowed residential unit densities.

However, both the County General Plan and Area Plan also identify certain sites for High-Density Residential and Urban Residential, respectively. These designations allow up to 20 du/ac and could be

eligible for additional density bonuses in accordance with State laws described in Chapter 2. While development at these high intensities is restricted by current water service availability, the County has planned for higher densities than the City at a few specific locations.

Commercial General: This designation is intended for retail centers and free-standing commercial uses along arterials, may also include office, live/work, mixed use, and residential use up to 30 units per acre on some parcels.

County General and Area Plan Comparison: The County's General Plan includes a Commercial Planned Development land use designation that is meant to encourage the development of innovative, and efficient commercial sites that provide a wide range of retail and business uses, including shops and offices. The Area Plan includes a Commercial designation which is intended for the shopping and service needs of the surrounding community. The main difference between the County designations and the City's designation is that the County does not allow for residential or mixed uses within the commercial areas. Additionally, the County designations regulate commercial development density based on height standards and lot coverage whereas as the City relies on a floor area ratio (FAR).

Industrial Light: This designation is intended for manufacturing uses where the principal activity occurs within a building, but also permits outdoor assembly, fabrication, work/live, public services, and storage. Uses must follow high development and performance standards. Wholesale and retail sales and services related to the principal uses are permitted.

County General and Area Plan Comparison: Both the County's General Plan and El Rio Area Plan contain a land use designation for industrial purposes that is meant to allow for a range of industrial employment-generating uses. Uses typically include production, assembly, warehousing, and distribution, but do not include work/live or outdoor events.

School: This designation is intended for elementary and secondary public school districts campuses that serve Oxnard. Post-secondary institutional public uses are included under the Public/Semi-Public designation. Private schools may occur in other zone designations.

County General and Area Plan Comparison: The County's General Plan does not contain a land use designation for schools. The Area Plan does contain an Institutional land use designation that is applied to both public and private educational and institutional uses.

Public/Semi Public: This designation is intended for private, quasi-public, and public buildings and facilities owned by the City, County, State, Federal agencies, or other organizations that serve the general public such as a civic center, flood control channels, rail lines, community college, museum, performing arts center, community center, city yard, library, fire station, public school and /or district support facility, private and parochial school, cemetery, or hospital.

County General and Area Plan Comparison: The County's General Plan includes a land use designation of State or Federal Facility land use designation and is meant to be applied to state and federally owned lands in which the County has no land use authority. This land use however is not applied to land owned by local jurisdictions or the County. The Area Plan does contain an Institutional land use designation that has been applied to both public and private educational and institutional uses.

Agriculture: This designation is intended for row and tree crops, grain products, ornamental horticulture (green houses, nurseries, etc.) hydroponic agriculture and the growing of sod.

County General and Area Plan Comparison: Both the County's General Plan and El Rio Area Plan contain a land use designation intended for agricultural purposes that is applied to lands suitable for the cultivation of crops and the raising of livestock.

Open Space: This designation is intended for passive and active recreation uses, resource management, flood control management, wetlands, intended for wetlands restoration, and stormwater management facilities and buffer zones separating urban development and other sensitive resources.

County General and Area Plan Comparison: Both the County's General Plan and El Rio Area Plan contain a land use designation intended for open space purposes that is meant for the preservation of natural resources, the managed production of resources, and the provision of outdoor recreation.

Overall, the County and City General Plan land use designations are fairly consistent with each other, with some exceptions. Additionally, Ventura County Land Use Element Policy LU-1.4 – Land Use Patterns, directs that the new land use patterns emphasize efficient use of land and infrastructure, walkable neighborhoods, contemporary development practices, and a sense of place consistent with the Guidelines of Orderly Development. Any potential future land use changes would have to implement this Policy while also taking into account new state legislation that could impact development, specifically housing.

2.5 Existing County Zoning Regulations

The 2040 General Plan and El Rio-Del Norte Area Plan are implemented through the Non-Coastal Zoning Ordinance (NCZO) which prescribes development standards intended to protect and promote the public health, safety and general welfare because of orderly development and well-planned uses of resources. The NCZO regulates numerous aspects of land use and development, most notably allowed uses and structures by zone (Article 5), development standards (Article 6), standards for specific uses and zones (Articles 7 and 9 respectively), parking (Article 8), and the entitlement process (Article 10).

The following NCZO zones and overlay zones are located within the Area Plan's boundaries:

- ***Zones***
  - **Open Space (OS):** This zone has the following purpose statement: *The purpose of this zone is to provide for any of the following on parcels or areas of land or water that are essentially unimproved:*
    - *The preservation of natural resources including, but not limited to: areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and, coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.*
    - *The managed production of resources, including but not limited to: forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber; areas required for recharge of groundwater basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries; and, areas containing major mineral deposits, including those in short supply.*

- *Outdoor recreation, including but not limited to: areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and, areas which serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.*
- *The public health and safety, including, but not limited to areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.*
- *The formation and continuation of cohesive communities by defining the boundaries and by helping to prevent urban sprawl.*
- *The promotion of efficient municipal services and facilities by confining urban development to defined development areas.*
- *Support of the mission of military installations that comprises areas adjacent to military installations, military training routes, and underlying restricted airspace that can provide additional buffer zones to military activities and complement the resource values of the military lands.*
- *The protection of places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.*

The OS zone also contains the following suffix additions to the main zone: 40ac and 80ac. This means that that the minimum parcel sizes be at least 40- and 80-acres respectively.

- **Agricultural Exclusive (AE).:** This zone has the following purpose statement: *The purpose of this zone is to preserve and protect commercial agricultural lands as a limited and irreplaceable resource, to preserve and maintain agriculture as a major industry in Ventura County and to protect these areas from the encroachment of nonrelated uses which, by their nature, would have detrimental effects upon the agriculture industry*.

- **Rural Exclusive (RE):** This zone has the following purpose statement: *The purpose of this zone is to provide for and maintain rural residential areas in conjunction with horticultural activities, and to provide for a limited range of service and institutional uses which are compatible with and complementary to rural residential communities.*

  The RE zone also contains the following suffix additions to the main zone: 10,000-sqft; 20,000-sqft; and 20ac. These suffixes place the minimum parcel size for properties, for example the 10,000 square feet (sqft) suffix requires that the minimum parcel size be at least 10,000-sqft.

- **Single Family Estate (RO):** This zone has the following purpose statement: *The purpose of this zone is to provide areas exclusively for single-family residential estates where a rural atmosphere is maintained by the allowing of a range of horticultural activities as well as animals for recreational purposes.*

- **Single Family Residential (R1):** This zone has the following purpose statement: *The purpose of this zone is to provide for and maintain areas which are appropriate for single-family dwellings on individual lots.*

- **Residential Planned Development (RPD):** This zone has the following purpose statement: *The purpose of this zone is to provide areas for communities which will be developed utilizing modern land planning and unified design techniques; this zone provides a flexible regulatory procedure in order to encourage:*
  - *Coordinated neighborhood design and compatibility with existing or potential development of surrounding areas;*
  - *An efficient use of land particularly through the clustering of dwelling units and the preservation of the natural features of sites;*
  - *Variety and innovation in site design, density and housing unit options, including garden apartments, townhouses and single-family dwellings;*
  - *Lower housing costs through the reduction of street and utility networks; and*
  - *A more varied, attractive and energy-efficient living environment as well as greater opportunities for recreation than would be possible under other zone classifications.*
- **Residential High Density (RHD):** This zone has the following purpose statement: *The purpose of this zone is to make available parcels that are appropriate for multifamily residential projects at densities considered by state law to be affordable by design to lower-income households.*
- **Commercial Planned Development (CPD):** This zone has the following purpose statement: *The purpose of this zone is to encourage the development of coordinated, innovative and efficient commercial sites and to provide areas for a wide range of commercial retail and business uses, including stores, shops and offices supplying commodities or performing services for the surrounding community.*
- **Limited Industrial (M2).** This zone has the following purpose statement: *The purpose of this zone is to provide suitable areas for the development of a broad range of industrial and quasi-industrial activities of a light manufacturing, processing or fabrication nature, while providing appropriate safeguards for adjoining industrial sites, nearby nonindustrial properties and the surrounding community.*

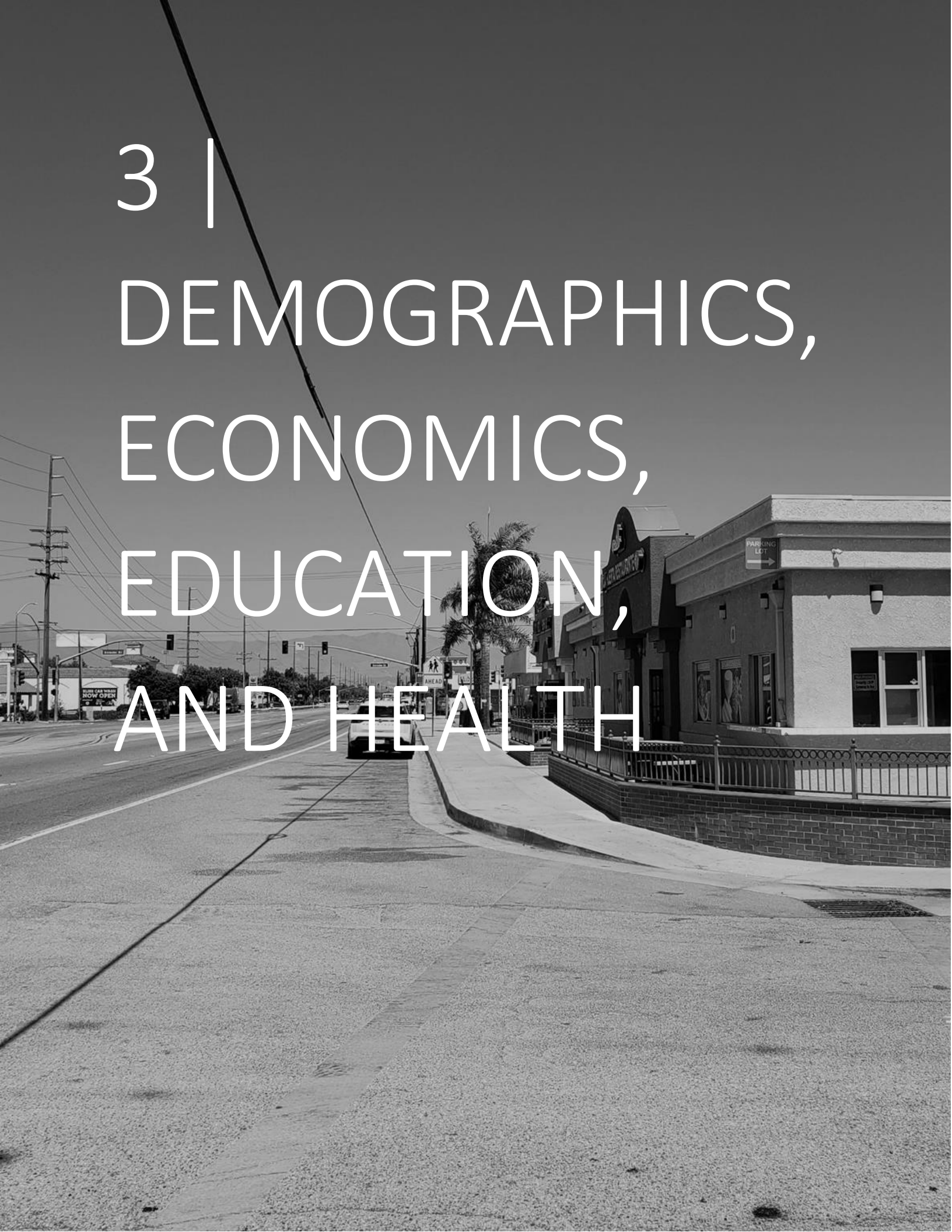
- ***Overlay Zones***
  - **Mineral Resource Protection (MRP):** This zone has the following purpose statement:
    - *To safeguard future access to an important resource.*
    - *To facilitate a long-term supply of mineral resources within the County.*
    - *To minimize land use conflicts.*
    - *To provide notice to landowners and the general public of the presence of the resource.*
    - *The purpose is not to obligate the County to approve use permits for the development of the resources subject to the MRP Overlay Zone.*
  - **Habitat Connectivity and Wildlife Corridor (HCWC):** This overlay zone has the following purpose statement: *The general purposes of the Habitat Connectivity and Wildlife Corridors overlay zone are to preserve functional connectivity for wildlife and vegetation throughout the overlay zone by minimizing direct and indirect barriers, minimizing loss of vegetation and habitat fragmentation and minimizing impacts to those areas that are narrow, impacted or otherwise tenuous with*

respect to wildlife movement. More specifically, the purposes of the Habitat Connectivity and Wildlife Corridors overlay zone include the following:

- *Minimize the indirect impacts to wildlife created by outdoor lighting, such as disorientation of nocturnal species and the disruption of mating, feeding, migrating, and the predator-prey balance.*
- *Preserve the functional connectivity and habitat quality of surface water features, due to the vital role they play in providing refuge and resources for wildlife.*
- *Protect and enhance wildlife crossing structures to help facilitate safe wildlife passage.*
- *Minimize the introduction of invasive plants, which can increase fire risk, reduce water availability, accelerate erosion and flooding, and diminish biodiversity within an ecosystem.*
- *Minimize wildlife impermeable fencing, which can create barriers to food and water, shelter, and breeding access to unrelated members of the same species needed to maintain genetic diversity.*

- **Mobile Home Park (MHP):** This overlay zone has the following purpose statement:

  - *To promote the continued use of mobilehomes and manufactured homes in the unincorporated County as an accessible housing option for households of all income levels.*
  - *To respect the interests of tenants and owners of mobilehome parks in maintaining parks of desirable character, stable operation, and economic viability.*
  - *To recognize mobilehome parks as communities in which residents are substantially invested, and to provide for security of tenancy comparable to that of other residential communities less vulnerable to redevelopment.*
  - *To establish that for all land in the unincorporated County occupied by mobilehome parks, and as long as this ordinance is in effect, mobilehome parks shall be the primary land use allowed.*
  - *To ensure a sufficient supply of land for this type of use in the future.*
  - *To promote and preserve residential development that is high density and single family in character.*



3 | DEMOGRAPHICS, ECONOMICS, EDUCATION, AND HEALTH

This chapter summarizes the existing conditions for the demographics, economics, health, and other relevant information within the Plan Area. Understanding the socioeconomics of the community will inform updates to the El Rio-Del Norte Area Plan.

The United State Census Bureau is the principal data source for information about populations. Given the availability of data and geographic extent of some of the census tracts, the information summarized below provides an approximate snapshot in time of the community, but the information does not precisely cover the Plan Area. To best capture the needed information in this Chapter the El Rio Census Designated Place (CDP) and Census Tract 50.02 were selected as this covers all of the urbanized areas in the Plan Area. As such the tables contained in this Chapter reflect these designations with the following superscript:

> **This information is comprised of the El Rio Census Designated Place (CDP), which includes the areas of El Rio and Strickland, however it does not include Nyeland Acres.*
>
> **** Composed of Census Tract 50.02 which includes parts of Nyeland Acres and the City of Oxnard. In total there are 155 housing units located in the City of Oxnard's jurisdiction included in this Census Tract, and they consist of mobile homes and apartments. Census Trace 50.02 was used to represent Nyeland Acres because more accurate block level information for Nyeland Acres exclusively was not included in Census data.*

Figure 21 below depicts the geographic Plan Areas most closely covered by the Census data. The agricultural lands predominately north of Central Avenue are not included because Census Tract 93, which stretches from the Oxnard Plain to the City of Moorpark, would not accurately reflect the small population that resides in this rural northern portion of the Area Plan.

Figure 21: Maps of the applicable Census tracts and Community Designated Place (CDP). Left: The United States Census El Rio CDP covers the communities of El Rio, Strickland, and the Del Norte Industrial Center. Right: Census tract 50.02 includes all of Nyeland Acres and portions of the City of Oxnard.

3.1 Socio-Economic Conditions

This section summarizes the socio-economic and demographic conditions with the Area Plan boundary and covers the following: Demographics, Economics, and Education.

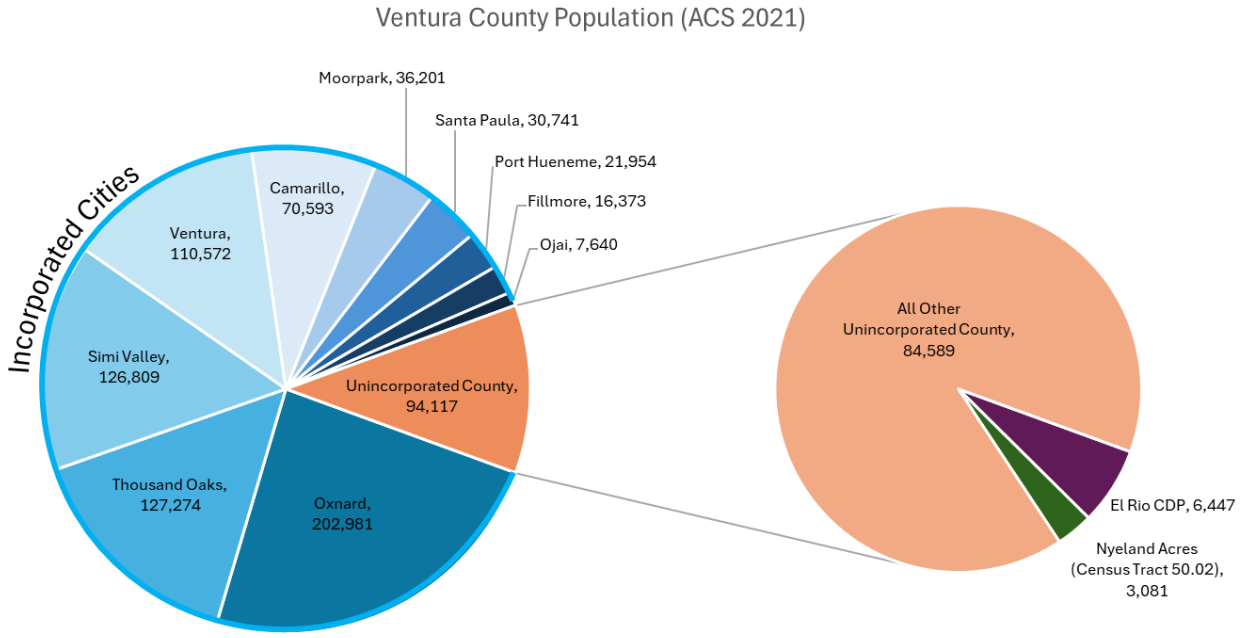
A. Demographics

This section summarizes the demographic data for the Plan Area in comparison to California, the County, and the City of Oxnard, and focuses on the following: 1) Population and Age Distribution, and 2) Race.

Major Findings

- According to the 2021 American Community Survey, the Plan Area had a population of approximately 9,528, which accounted for 1.1% of Ventura County's total population and approximately 10.9% of the unincorporated population (Table 6).
    - The El Rio CDP, which contains the communities of El Rio, Strickland, and the Del Norte Industrial Center, has a population of 6,447 persons. This means that the El Rio CDP has a population almost the size of the City of Ojai at just 84%.
    - Census Tract 50.02 which contains Nyeland Acres has a population of 3,081 persons.
    - *Population Density*. The combined population of the Area Plan, 9,528 persons, is larger than that of the City of Ojai, 7,640 persons. Ojai has a geographic size of 2,841.6 acres, whereas the geographic area for the Area Plan is approximately El Rio CDP (1,295.4 acres) and Census Tract 50.02 (1,984 acres). This means that El Rio has a high population density at approximately three (3) persons per acre, whereas the City of Ojai is at 2.7 persons per acre. However, Census Tract 50.02 predominantly covers agricultural lands with the urbanized area accounting for only 405 acres of the 1,984 acres. Using this revised acreage, the population density of the El Rios CDP and Nyeland Acres area is approximately 5.6 persons per acre, more than double the City of Ojai's population density.

Table 6: Ventura County population breakdown; Source: American Community Survey, 2021



- According to the 2020 Decennial Census, the ethnic composition of the Area Plan indicates that 90.2% as Hispanic or Latino (any race).
- According to the 2021 American Community Survey, and as shown in Figure 22 below, the age distribution of the El Rio CDP indicates that the population includes many families because the graph clearly shows two main generations (between ages 40 to 59 and 5 to 19). There is an interesting gap in persons aged 20 to 24 and 35 to 39, although there is not enough information to determine if there is a specific reason to explain these gaps.

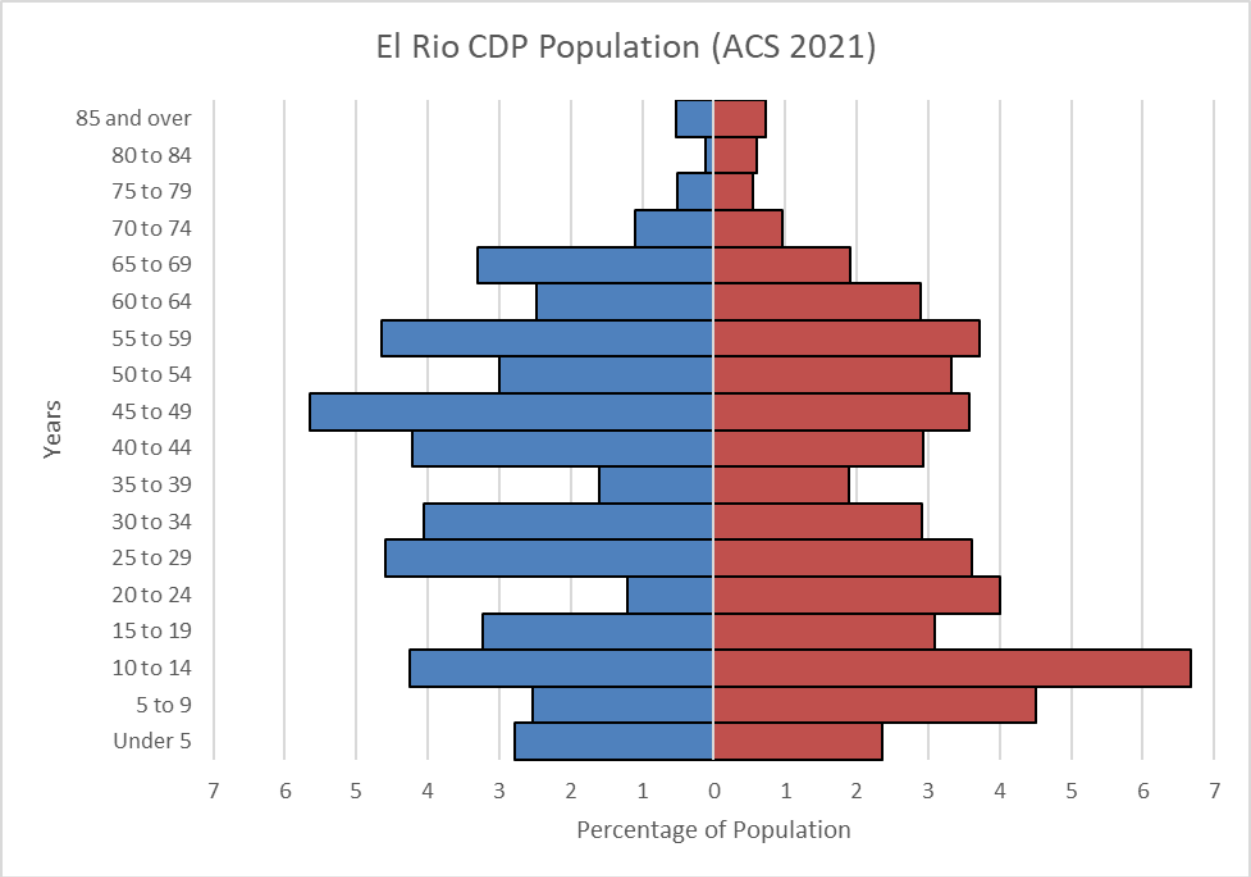


Figure 22: Population Pyramid for the El Rio CDP (blue color bars represent males and red color bars represent females).

- According to the 2021 American Community Survey, and as shown in Figure 23 below, the age distribution of Census Tract 50.02 indicates that the population of the Nyeland Acres area tends to be younger than El Rio. A relatively uniform pyramid shape indicates there is a growing population base of young residents.

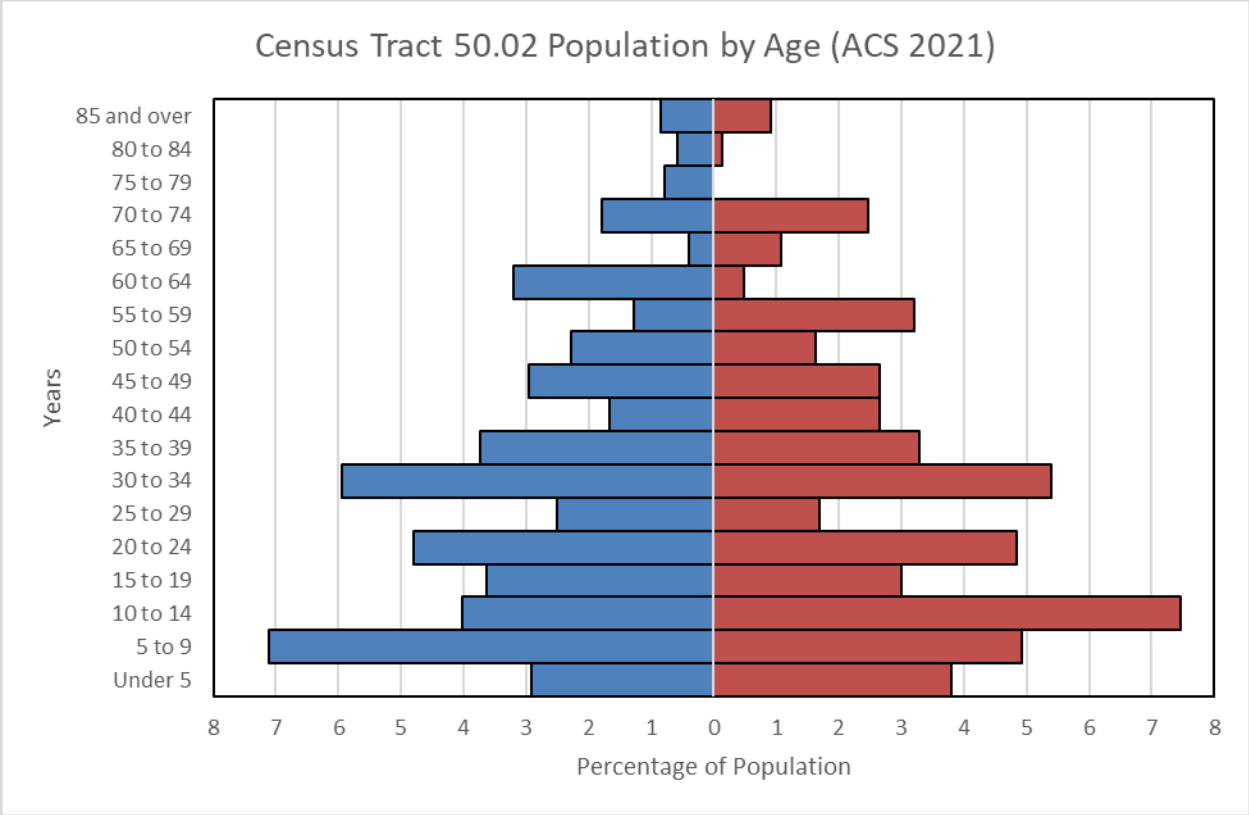


Figure 23: Population Pyramid for Census Tract 50.02. (blue color bars represent males and red color bars represent females)

B. Economics

The median household income, as shown in Table 7, for the El Rio CDP and the Nyeland Acres Census Tract are approximately 35- to 50-percent lower than the average median household income for Ventura County. Renters in the Area Plan pay about 10 percent more on average than the median gross rents for units in the City of Oxnard and the statewide average rents. The El Rio CDP and the Nyeland Acres Census Tract also have a higher population living below the federal poverty line, on average 11- to 16-percentage points above the Ventura County average of 9.1-percent. Poverty rates in the El Rio CDP and the Nyeland Acres Census Tract are basically double the comparable rates in Oxnard, across Ventura County, and statewide. Furthermore, the low median household income rates correlate with a higher percentage of households receiving food stamps/SNAP benefits, 13.7- and 25.7-percent respectively (Table 8), compared to the Ventura County and the State averages, 7.2- and 9.1-percent respectively.

Table 7: Economic Comparison of El Rio/ Del Norte to Surrounding Areas.

	Area Plan Communities				
	El Rio CDP*	**Nyeland Acres Census Tract*****	**Oxnard**	**Ventura County**	**California**
Median Household Income	$57,096	$44,769	$77,050	$89,295	$78,672
Median Gross rent, 2016-2020	$1,843	$1,289	$1,659	$1,854	$1,586
Population living below Federal Poverty Level	20.4%	25.1%	11.6%	9.1%	12.3%

Source: U.S. Census Bureau, American Community Survey, 2020.

Table 8: Food Stamps/Supplemental Nutrition Assistance Program (SNAP)

	El Rio CDP*	Nyeland Acres Census Tract***	Oxnard	Ventura County	California
Percent households receiving food stamps/SNAP	13.7%	25.7%	13.8%	7.2%	9.1%

Source: U.S. Census Bureau, American Community Survey, 2021.

Additionally, access to high-speed internet/broadband is an indicator of economic prosperity and supports higher educational attainment[20] as it potentially allows for increased access to training and education, or could be used to produce technological products and wider access to goods and services. Per Strategy E.3 of the Ventura County Economic Vitality Strategic Plan, encouraging broadband infrastructure installation in desirable areas helps to increase the competitiveness of the region. Internet Access in the El Rio CDP and Nyeland Acres Census Tract lags behind the averages for Oxnard, Ventura County, the State when considering persons and households with an internet subscription as shown in Table 9 below. Improved Internet access may increase economic prosperity and reduce educational constraints for residents in these communities could allow residents to work in online services and/or attend school from home, therefore opening up additional opportunities that may not have been fully available before.

Table 9: Households and Persons with an Internet Subscription

	Area Plan Communities				
	El Rio CDP*	Nyeland Acres Census Tract***	Oxnard	Ventura County	California
Households with an Internet Subscription	77.3%	78.3%	85.3%	89.8%	89.1%
Persons with an Internet Subscription	82.9%	79.3%	86.1%	91.5%	91.3%

Source: American Community Survey 5-Year 2016-2020, Health Matters Ventura County, 2022.

Occupational data representing residents in the El Rio, Strickland, and Nyeland Acres communities compared to that of Ventura County shows that there are approximately 20 to 34 percentage points less for jobs in management, business, science and arts occupations, as shown in Table 10 below. This occupational category tends to include high-paying professions and the lower rate of occurrence in the Plan Area may be a contributing factor to lower than average household income levels. On the other hand, the percentage rate is between 2 and 3 times higher in El Rio, Strickland, and Nyeland Acres for jobs in the natural resources, construction, maintenance, production, transportation, and material moving occupations compared to the countywide rates.

Table 10: Civilian Employed Population 16 years and over -Occupation

[20] Kokmaz, Ö., Erer, E. Erer, D. *Internet access and its role on educational inequality during the COVID-19 pandemic.* Telecommunications Policy. https://pmc.ncbi.nlm.nih.gov/articles/PMC9008096/

	El Rio CDP*	Nyeland Acres Census Tract***	Ventura County
Management, business, science, and arts occupations	20.5%	6.5%	40.5%
Service occupations	18.9%	19.6%	16%
Sales and Office occupations	19.2%	17.1%	19.5%
Natural Resources, construction, and maintenance occupations	24.1%	36.0%	13%
Production, transportation, and material moving occupations	17.3%	20.9%	10.8%

Source: U.S. Census Bureau, American Community Survey, 2021.

The means of transportation to work data summarized in (Table 11) shows that most residents drive alone to work. There are also approximately 5 percent less workers who work from home in El Rio, Strickland, and Nyeland Acres than in Ventura County and the State of California on average. The decline in the numbers of individuals who work from home may also be contributed to fewer households in El Rio, Strickland, and Nyeland Acres with internet service then in Ventura County and nearby areas.

Table 11: Means of Transportation to Work

	Area Plan Communities				
	El Rio CDP*	Nyeland Acres Census Tract***	Oxnard	Ventura County	California
Drove alone	85.6%	86.6%	78.6%	76.1%	70.1%
Carpooled	8.0%	8.3%	14.5%	9.5%	9.6%
Worked at home	5.5%	5.1%	4.3%	10.7%	11.4%

Source: U.S. Census Bureau, American Community Survey, 2021.

C. Education

There are five schools located within the El Rio, Strickland, and Nyeland Acres Plan Area including a public high school, elementary school, middle school, and one Kindergarten through 8th grade school, and one private school-- Linda Vista Adventist Elementary in the Strickland area (See Figure 24).

The level of educational attainment is considerably lower in El Rio, Strickland, and Nyeland Acres communities than the county and statewide rates (see Table 12). There are about 20 percent fewer high school graduates than the county and the statewide percentages.

Compared to the percentage of people in the El Rio CDP with a college bachelor's degree, Oxnard's percentage rate is more than double, and the county and the state bachelor's degree rates are nearly four times greater. Specifically, the Nyeland Acres Census Tract has the lowest educational attainment, with a rate of only about one in 20 working-age residents having received a bachelor's degree; however, the data does not describe specific barriers to educational attainment in the Plan Area. Disadvantaged

communities have historically faced financial barriers to higher education[21], sometimes due to the need to generate income in the short term to provide for immediate household needs.

Table 12: Educational Attainment Comparison of El Rio/Strickland CDP and Nyeland Acres to Surrounding Areas

	Area Plan Communities		Oxnard	Ventura County	California
	El Rio/ Strickland CDP*	Nyeland Acres Census Tract***			
High School graduate or higher, percent of persons age 25 years+ 2016-2021	63.7%	N/A	70.5%	85.6%	84.2%
Bachelor's degree or higher, percent of persons age 25 years+, 2016-2021	8.1%	4.4%	18.9%	34%	35.3%

Source: U.S. Census Bureau, American Community Survey, 2021.

In addition to low education attainment, disadvantaged and low-income communities often have disparities in access to affordable, nutritious foods[22]. California Education Code Section 49501.5 requires public school districts, county offices of education, and charter schools serving students in grades transitional kindergarten through grade 12 to provide two meals free of charge (breakfast and lunch) during each school day to students requesting a meal, regardless of eligibility for federally free or reduced-price meals. Comparing the numbers of "Free or Reduced Price Meals" provided in the Rio School District to the county and the statewide averages shows that there is a significantly higher percentage of students who accept free or reduced-price meals, as summarized in Table 13 below.

Table 13: Acceptance of Free or Reduced Price Meals for Rio School District

School	Percent of Students who Accept Free or Reduced Price Meals
Rio del Mar	52.5%
Rio del Norte	53.0%
Rio del Sol	34.1%
Rio de Valle Middle*	**69.1%**
Rio Lindo Elementary	66.2%
Rio Plaza Elementary*	**77.0%**
Rio Real Elementary*	**55.6%**
Rio Rosales	58.4%
Rio Vista Middle	48.8%
Rio School District:	56.3%
Countywide:	51.8%

[21] N/A. (2017). *Education and Socioeconomic Status*. American Psychological Association. https://www.apa.org/pi/ses/resources/publications/education

[22] Odoms-Young, A., Brown, A. G. M., Agurs-Collins, T., & Glanz, K. (2024). *Food Insecurity, Neighborhood Food Environment, and Health Disparities: State of the Science, Research Gaps and Opportunities*. The American journal of clinical nutrition, 119(3), 850–861. https://doi.org/10.1016/j.ajcnut.2023.12.019

Rio Mesa High School**	60.7%
Oxnard Union High School District**	62.6%
Statewide:	57.8%

Source: California Department of Education, Data Quest, 2022.

**Schools that are bolded and display an asterisk are located within the El Rio/ Del Norte Area Plan. All other schools are located within the Rio School District that spans into the City of Oxnard to the South.*

***Rio Mesa High School is a part of the Oxnard Union High School District that is composed of 11 schools. The Oxnard Union High School District has schools that are located within the cities of Oxnard and Camarillo.*

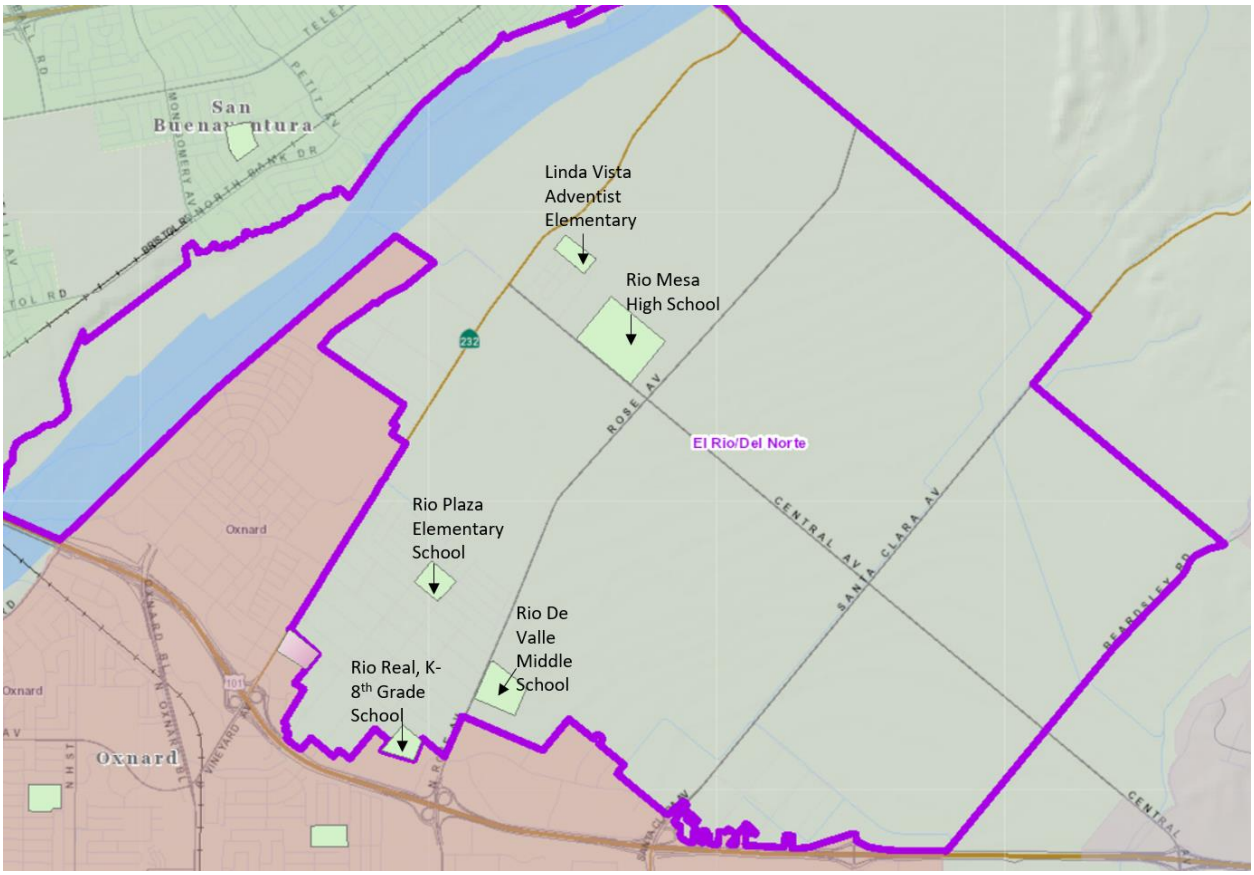


Figure 24: Map of Schools Located within the El Rio/Del Norte Planning Area. Source: Resource Management Agency GIS Viewer, 2022.

3.2 Health Conditions

A. Causes of Death

Causes of death for residents of the El Rio, Strickland, and Nyeland Acres communities are not available through the Census and only countywide level data is available. The Ventura County Health Needs Assessment 2022 (CHNA 2022) conducted by Ventura County Public Health summarizes that the top 10 leading causes of death in Ventura County for the 2019-2021 three-year period were diseases of the heart, cancer, Alzheimer's disease, accidents, COVID-19, stroke, chronic lower respiratory disease, drug-induced deaths, diabetes, and chronic liver disease and cirrhosis (Table 14). It is notable this list includes deaths

from the COVID-19 pandemic and that the county fared better than the statewide rate (CHNA 2022). Table 15 shows the leading causes of premature death by gender.

Table 14: Leading Causes of Death, 2019-2021 VC and 2020 CA

Rank	Ventura County 2019-2020	California
1	Diseases of the Heart	Diseases of the Heart
2	All Cancers	All Cancers
3	Alzheimer's Disease	Injuries
4	Accidents (Unintentional Injuries)	COVID -19
5	COVID-19	Alzheimer's Disease
6	Cerebrovascular Disease (Stroke)	Cerebrovascular Disease (Stroke)
7	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease
8	Drug-Induced Deaths	Drug-Induced Deaths
9	Diabetes	Chronic Kidney Diseases
10	Chronic Kidney Disease and Cirrhosis	Diabetes

Source: Vital Records Business Intelligence System (deaths 2019-2021) and Claritas Pop-Facts (2020), analysis by Ventura County Public Health, April 2019 for Ventura County. California Community Burden of Disease Engine (2020 for California), National Vital Statistics Reports, Mortality in the United States, 2020, Ventura County Health Needs Assessment 2022.

Table 15: Leading Causes of Premature Death by Gender. 2019-2021

Rank	Ventura County			California		
	Total	Male	Female	Total	Male	Female
1	All Cancers	All Cancers	All Cancers	Diseases of the Heart	Diseases of the Heart	All Cancers
2	Diseases of the Heart	Diseases of the Heart	Diseases of the Heart	All Cancers	All Cancers	Diseases of the Heart
3	Accidents (Unintentional)	Accidents (Unintentional)	Accidents (Unintentional)	Accidents (Unintentional)	Accidents (Unintentional)	Alzheimer's
4	Drug-Induced Deaths	Drug-Induced Deaths	Drug-Induced Deaths	Cerebrovascular diseases	Cerebrovascular diseases	Cerebrovascular diseases
5	COVID-19	COVID-19	COVID-19	Alzheimer's	Alzheimer's	Chronic lower Respiratory
6	Chronic Liver Disease and Cirrhosis	Chronic Liver Disease and Cirrhosis	Breast Cancer	Chronic lower Respiratory	Chronic lower Respiratory	Accidents (Unintentional)
7	Cerebrovascular Disease (Stroke)	Suicide	Alzheimer's Disease	Diabetes	Diabetes	Diabetes
8	Diabetes	Cerebrovascular Disease (Stroke)	Cerebrovascular Disease (Stroke)	Chronic Liver Disease	Chronic Liver Disease	Renal Disease
9	Suicide	Motor Vehicle Crashes	Chronic Liver Disease and Cirrhosis	Renal Disease	Renal Disease	Influenza and pneumonia
10	Alzheimer's Disease	Diabetes	Lung Cancer	Influenza and pneumonia	Influenza and pneumonia	Parkinson's

Source: Vital Records Business Intelligence System (deaths 2019-2021) and Claritas Pop-Facts (2020), analysis by Ventura County Public Health, March 2022, Ventura County Health Needs Assessment 2022.

B. Obesity

Obesity in the United States is a growing epidemic and major health concern. It is also a primary risk factor for most of the leading causes of death in Ventura County. Table 16 below summarizes data regarding obesity rates in El Rio, Strickland, and Nyeland Acres. These rates are approximately six to eight percentage points higher than the countywide average rate.

Table 16: Adult Obesity Rates

	Area Plan Communities				
	El Rio CDP*	**Nyeland Acres Census Tract*****	**Oxnard (2020)**	**Ventura County (2020)**	**California (2020)**
Adults Who are Obese	31.7%	33.3%	29.8%	25.6%	28.5%

Source: California Health Interview Survey, CDC Places, California Health Interview Survey, Neighborhood Edition, Health Matters Ventura County, 2022.

C. Asthma

Asthma is a condition in which a person's air passages become inflamed, and the narrowing of the respiratory passages makes it difficult to breathe. Asthma is one of the most common long-term diseases of children, and it also affects millions of adults nationwide. These symptoms are often brought on by exposure to inhaled allergens, such as dust, pollen, mold, cigarette smoke, and animal dander, or by exertion and stress. Reducing exposure to poor housing conditions, traffic pollution, secondhand smoke and other factors impacting air quality can help prevent asthma and asthma attacks (VC Health Matters 2022). The El Rio and Nyeland Acres communities are located near a high traffic corridor being Highway 101 and local truck routes cross through the Plan Area.

Accordingly, residents in Plan Area communities may have comparatively higher exposure to particulate matter pollution from vehicle exhaust; however, the County's asthma rate data appears to be inconclusive. Asthma rate data for the El Rio CDP was last updated between 2017 to 2018 and about 11 percent of adults have asthma (Table 17). The Nyeland Acres Census Tract did not have data available per the VC Health Matters website. This asthma rate for the El Rio CDP area is lower than that of the county and statewide average in 2020. One such factor that may play a role in the survey data is that disadvantaged communities tend to be undercounted in surveys as there are less English speakers and less individuals willing to give input.

Table 17: Asthma Rates of Adults, 2018

	Area Plan Communities				
	El Rio CDP*	**Nyeland Acres Census Tract*****	**Oxnard**	**Ventura County**	**California**
Adults with Asthma	10.8% (2018)	N/A	10.8% (2020)	12.6% (2020)	16.1% (2020)

Source: California Health Interview Survey, Neighborhood Edition, Health Matters Ventura County, 2022.

D. Health Insurance

The residents of El Rio and Nyeland Acres tend to have lower rates of health insurance when compared to the City of Oxnard, county, and statewide rates. Nyeland Acres in particular has a high rate of uninsured compared to the county and statewide rates, and more than one in five residents do not have health insurance (Table 18).

Also, the percentage of adults with Medicaid health insurance is between 4 to 11 percent higher in El Rio, Strickland, and Nyeland Acres as compared to the County average of 8 percent as summarized in Table 19. Medicaid health insurance is a Federal and State program that helps with healthcare costs for low-income families, qualified pregnant women and children, and individuals receiving supplemental Social Security Income. Lastly, 26 percent of adults in the El Rio CDP had delayed or had difficulty obtaining medical care, and this rate is 6 to 7 percentage points higher than in Oxnard and countywide rates.

Table 18: Health Insurance and Disability in Population of El Rio, Strickland, and Nyeland Acres to Surrounding Areas

	Area Plan Communities				
	El Rio CDP*	**Nyeland Acres Census Tract*****	**Oxnard**	**Ventura County**	**California**
Percentage of Population with a Disability , under age 65 years	7.7%	N/A	6.1%	6.8%	6.8%
Percentage of Population Without Health Care Coverage	13.6%	21.0%	18.2%	8.2%	8.1%

Source: U.S. Census Bureau, American Community Survey, 2021.

Table 19: Adults with delayed or difficulty obtaining medical care and adults with health insurance

	Area Plan Communities				
	El Rio CDP*	**Nyeland Acres Census Tract*****	**Oxnard**	**Ventura County**	**California**
Adults delayed or had difficulty obtaining medical care	26.1%	N/A	18.2%	19.8%	22.0%
Adults with Health Insurance (5-year) Age 19+	80.1%	57.0%	75.6%	86.1%	89.8%
Adults with Medicaid Health Insurance	12.1%	19.5%	12.9%	8.0%	9.9%

Source: California Health Interview Survey, Neighborhood Edition 2019-2020, American Community Survey 5-year 2016-2020, Claritas Consumer Profiles 2022, Health Matters Ventura County, 2022.

E. Adolescent Birth Rates

According to the California Department of Public Health, adolescent birth rates continue to decline in California. Despite this progress, adolescent births remain an important public health issue as most pregnancies are unintended and can lead to socioeconomic and health related challenges for adolescents

and their children relative to their peer group. In California, adolescents with a live birth are more likely to be food and housing insecure, experience intimate partner violence during pregnancy, and experience two or more hardships in their childhood compared to the adult birthing population.

While efforts were made to secure adolescent birth rates for the El Rio CDP, Nyeland Acres Census Tract, and the City of Oxnard, these rates could not be provided to reflect recent years. Ventura County as a whole did not differ much from the state, having an adolescent birth rate of 9.5 births per 1,000 females as compared to the states rate of 9.8 (Table 20). However, this is a significant decline for both the state and County which had a high of almost 40 births per 1,000 females between 2006 and 2008 (Figure 25).

Table 20: Adolescent Birth Rate, births per 1,000 females 15-19 years of age (2022)

	Area Plan Communities				
	El Rio CDP*	**Nyeland Acres Census Tract*****	**Oxnard**	**Ventura County**	**California**
Adolescent Birth Rate (births per 1,000 females aged 15-19)	N/A	N/A	N/A	9.5 [A]	9.8[B]

[A] California Department of Public Health, Adolescent Births. https://www.cdph.ca.gov/Programs/CFH/DMCAH/surveillance/Pages/adolescent-births.aspx

[B] CDC National Center for Health Statistics – California. https://www.cdc.gov/nchs/pressroom/states/california/ca.htm

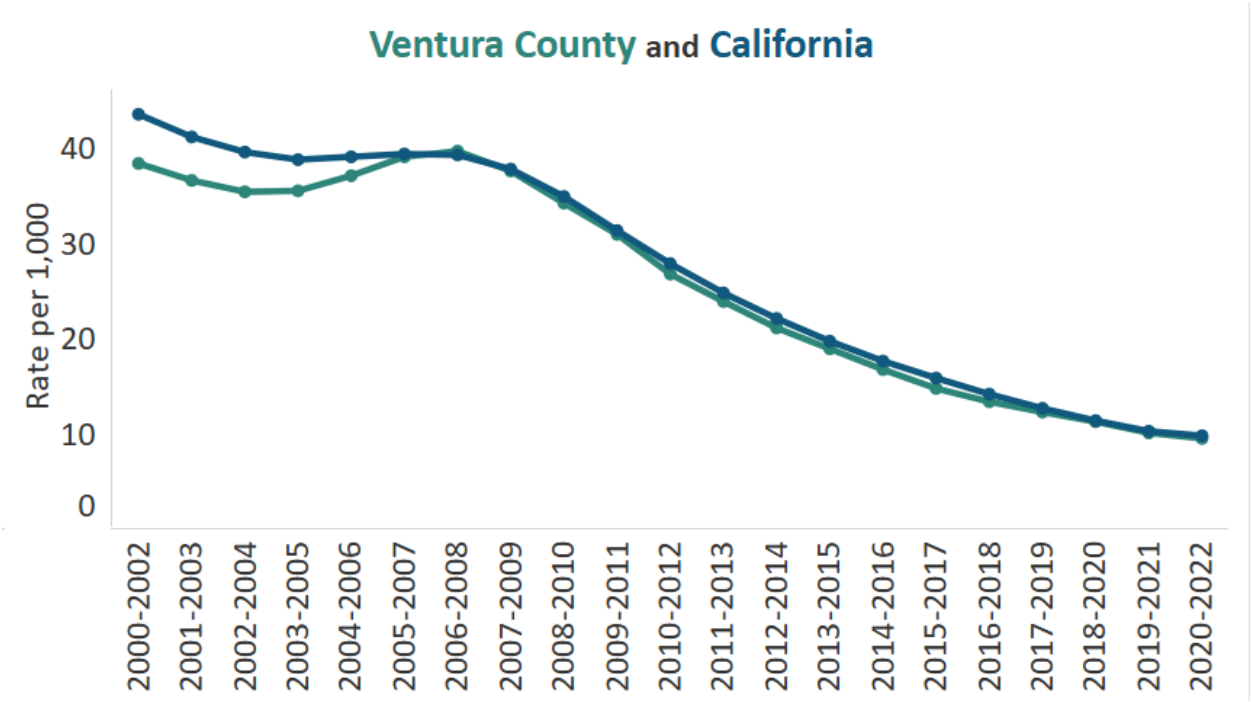


Figure 25: Graph of California and Ventura County adolescent birth rates per 1,000 females 15-19 years of age (2000 to 2022). Source: https://www.cdph.ca.gov/Programs/CFH/DMCAH/surveillance/Pages/adolescent-births.aspx.

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4 | LAND USE AND COMMUNITY CHARACHTER

4.1 Existing Physical Conditions

A. Existing Setting

The Santa Clara River, its water supply, and the rich soils of its vast southeast bank offered resources for Native American Tribes, ranchers, and farmers. The flat topography allowed for long, straight roads to cross through undeveloped rural lands and the creation of communities that served the crossroads and provided housing. The physical layout and development patterns throughout the Plan Area date back to the original platting of the land lots in the late 1800's, with the survey of Rancho Santa Clara del Norte, but really took shape in the 1920's, and more or less concluded during the rapid growth of the postwar period of the 1950's (with the exception of the Del Norte Industrial Center built in the 1970's). This section reviews how historical and modern development shapes the unique character of each community.

El Rio

As described in Chapter 1, New Jerusalem/El Rio was established and grew because of the amount of traffic on the Old Conejo Road/State Highway intersecting with Vineyard Avenue, and was spurred on by the surrounding agricultural production. This differed from many other cities and towns being established in the County at that time which were established and or grew due to proximity to the railroads (e.g. Fillmore and Oxnard). This logical difference affected how the town and area initially started to develop, particularly once the original Rancho Santa Clara de Norte was broken up and subdivided. The subdivision of the area focused on large lots that could accommodate small farms and were primarily sold off to new American and European immigrants. El Rio was built in the lands that once belonged to Simon Cohn (Figure 26), Gea C. Power, A.C. Vickers, and Alfha (Alpha) Adams, and Fred C. Snodgrass.

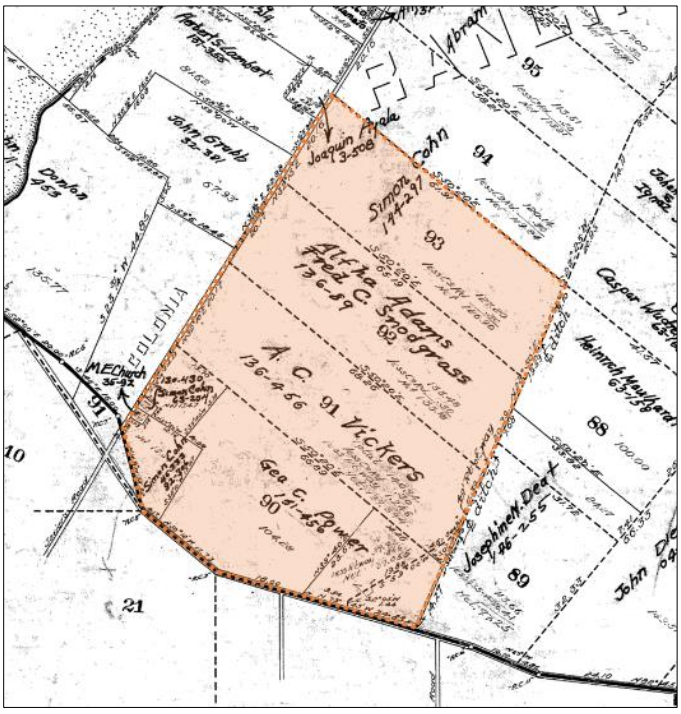

Figure 26: Map of El Rio area subdivision in 1919. The current extent of the community of El Rio is highlighted in orange. Source: County of Ventura, Public Works Agency

The original establishments by Simon Cohn near the intersection of Vineyard Avenue and Conejo Road were eventually demolished to make way for the construction and expansion of Highway 101. El Rio was significantly expanded in 1919 with the approval of the Cloverdale Subdivision (Figure 27) which established the large lot grid pattern for the area. These lots ranged between 1.24-acres to 2.84-acres, with lot widths of approximately 200 feet and depths averaging between 375 to 400-feet. This represents a significant departure from the tight urban grids the County was experiencing at that time, as seen in the Cities of Ventura and Oxnard and the Town of Saticoy (470-ft by 460-ft, 300-ft by 400-ft, and 400-ft by 320-ft respectively; (Figure 28) because the depth of a single lot is about the same size an entire city block depth and they were still geared toward small scale agricultural production. All these large lots

have now been further subdivided into smaller components typically ranging between 50-ft to 100-ft wide.

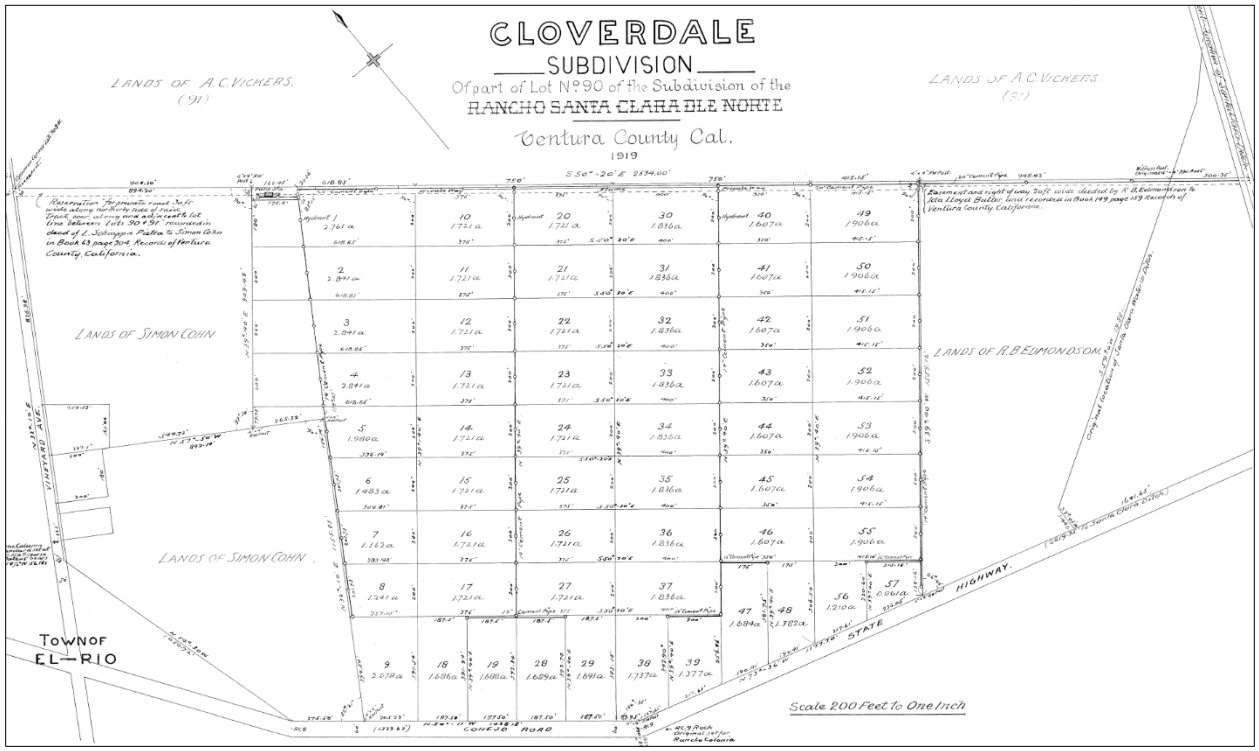

Figure 27: Original Cloverdale Subdivision platt map.

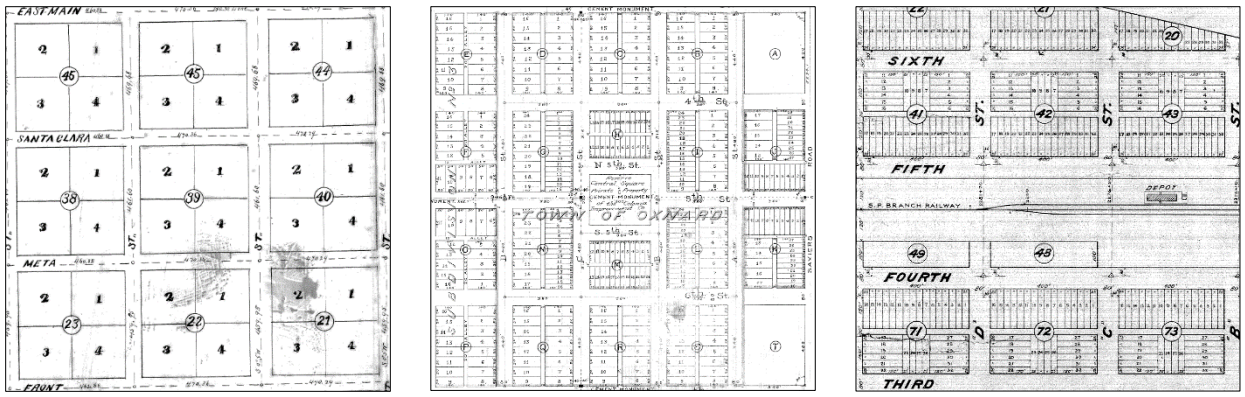

Figure 28. The cities of San Buenaventura (Ventura) and Oxnard and Town of Saticoy original grid pattern. Source: Ventura County RMA.

Strickland

This community was entirely built out during the post war period of the 1950's. The Strickland Tract of the community is an excellent example of suburban style development that was starting to move away from the traditional gridiron pattern with slightly larger lots (approximately 6,000 – 6,500 square feet). The last major growth this community saw was the construction of Rio Mesa High School in 1964.

Del Norte Industrial Center

As previously stated in Section 1.8 above, this area was predominantly built out during the 1970's and 1980's and represents one of the largest concentrations of industrial land under County jurisdiction.

Nyeland Acres

Nyeland Acres was developed from lands previously owned by Samuel S. Furrer, L.F. Roussey, E. B. Arneill, and Elizabeth Arneill. Most of the development occurred primarily in the 1940's, with slower development in the 1950's and 1960's.

4.2 Land Use and Community Character

The Area Plan designates five basic land use types: residential, commercial, industrial, civic, and agricultural. Agriculture, open space, and residential account for over 95 percent of the Area Plan land uses, comprising approximately 70%, 17%, and 8%, respectively, of the total area (Figure 29).

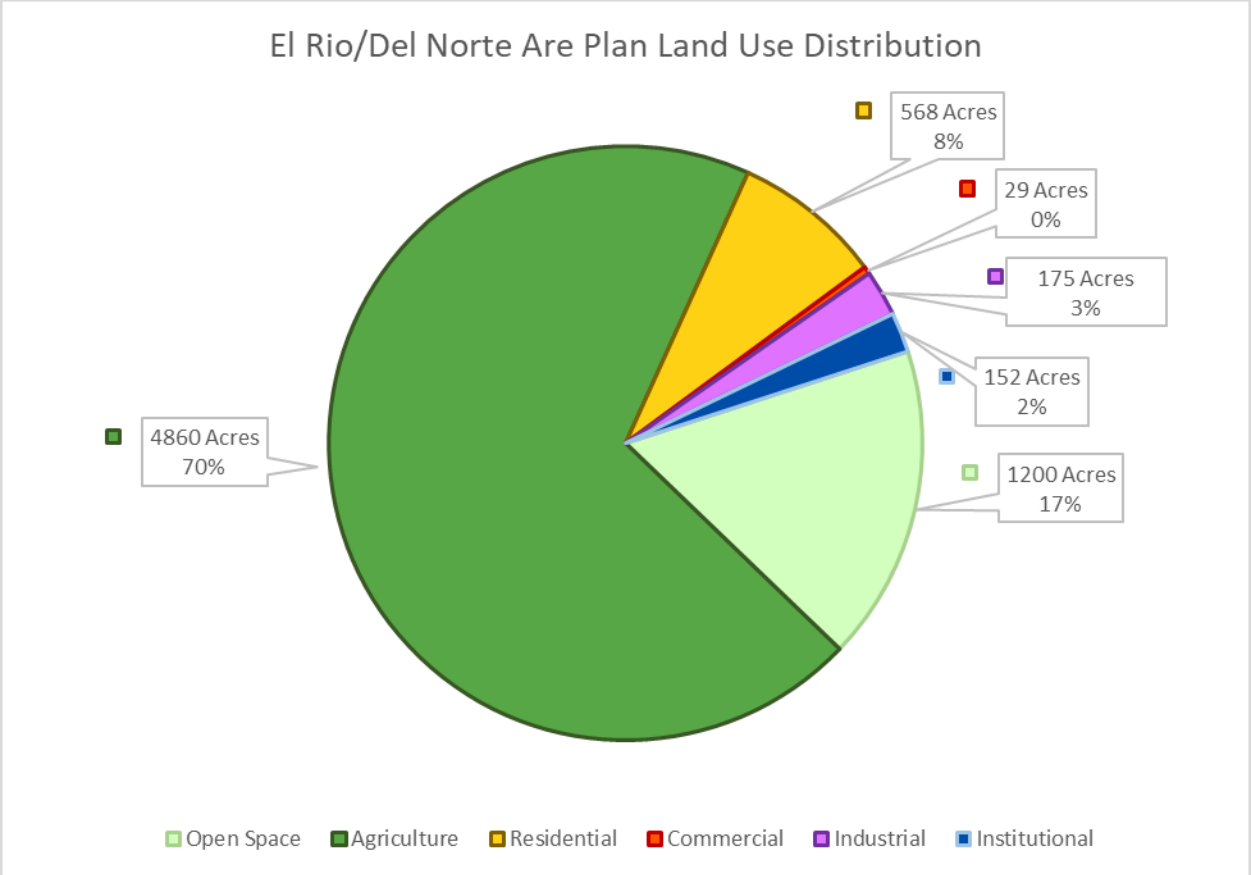

Figure 29. Pie chart of El Rio-Del Norte Area Plan Land Use distribution. Source: El Rio-Del Norte Area Plan, September 2020.

Given that approximately 87% of the Area Plan is designated Agriculture and Open Space, which are limited from intensive new development by the General Plan and the Save Open Space and Agricultural Resources (SOAR) initiative, that leaves 13% (924 acres) of Existing Communities to be reviewed and

assessed during the Area Plan Update for goals and policies pertaining to various types of housing, commercial, and other land uses.

A. Land Use Explanations

This section briefly explains the land use designations within the Area Plan.

Figure 30: Images showing different land uses within the Area Plan; Source: Staff Photos.

A.1 Agriculture

The purpose of the Agricultural (Figure 30, top left) designation is to preserve irrigated agricultural lands. The vast majority (91.1%) of the lands designated as agriculture have an Important Farmland Inventory designation of Prime or Statewide Importance. Additional information regarding agricultural uses within the Area Plan may be found in Section 4.3 – Agriculture.

A.2 Open Space

The Open Space (Figure 30, top center) designation encourages the preservation of undeveloped lands that contain biological and mineral resources. Within the Area Plan, this designation is primarily found within the Santa Clara River. Additional information regarding open space uses within the Area Plan may be found in Section 4.4 – Conservation and Open Space.

A.3 Residential

Residential uses (Figure 30, top right) within the Area Plan range from large lot single family dwellings to apartment buildings, which is seen in the breadth of the allowed densities, from a 5-acre minimum lot size for Rural Residential to 20 dwelling units per acre for the Urban Residential – UR 20 designation (Table 21). The main purpose of these designations is to encourage existing and future residential land use patterns result in a cohesive and consolidated neighborhood.

Table 21: Table of El Rio-Del Norte Area Plan Residential Designations

Designation	Rural Residential (RR 5)	Urban Residential (UR 1-2)	Urban Residential (UR 2-4)	Urban Residential (UR 4-6)	Urban Residential (UR 6-10)	Urban Residential (UR 10-15)	Urban Residential (UR 20)
Density	5-ac min. lot size	1-2 du/ac	2-4 du/ac	4-6 du/ac	6-10 du/ac	10-15 du/ac	20 du/ac

A.4 Industrial

The Del Norte Industrial Center (Figure 30, bottom left) is one of the largest concentrations of industrial uses in the unincorporated county and contains a wide array of uses from mechanical/autobody shops to warehousing to self-storage. The primary purpose of the Industrial designation is to provide sufficient industrially designated land to meet the employment needs of the community.

A.5 Commercial

The Area Plan only contains approximately 29 acres of commercial zones (Figure 30, bottom center), the smallest of any designation, and is primarily located along the Vineyard Avenue Corridor. Uses within these areas vary from restaurants to small local markets to gas stations. The purpose of the Commercial designation is to provide sufficient commercially designated land to meet shopping and service needs of the community. It should be noted that the Area Plan's commercial designations are also in direct competition with nearby large commercial retail centers, most notably The Collection in Riverpark and The Esplanade Shopping Center are designed to attract city-wide and regional visitors. Each are larger than El Rio's 29 acres of Commercial land--the Collection hosts 59 acres and the Esplanade hosts 44 acres of retail use.

A.6 Institutional

The purpose of the Institutional (Figure 30, bottom right) designation is to recognize the educational and institutional uses in the El Rio/Strickland area that require large acreage. The principal uses allowed in this designation are institutional and educational facilities.

B. Permitted Uses

The majority of land uses within the Area Plan are consistent with the General Plan and Area Plan land use designations as well as the Non-Coastal Zoning Ordinance, however there are a few notable exceptions. The first exception is a handful of industrial operations located within residential zones that may conflict with neighboring uses and, if unregulated and unpermitted, may introduce harmful substances into the surrounding environment that includes homes. There are also small commercial operations, primarily along Vineyard Avenue, which are located within residential zones.

Both of these examples could be a result of a combination of unpermitted development and/or evolving zoning regulations that allowed the uses in the past (i.e., legal non-conforming uses). The historic development and subdivisions of the Area Plan that occurred before a County-wide zoning ordinance was implemented in 1947, and unpermitted development in more recent years, have resulted in some inconsistencies with zoning, in terms of both uses and densities.

C. Density

One purpose of the El Rio-Del Norte Area Plan is to preserve the character of the area, described in ED-14 as an area "defined by its small town, semi-rural qualities." However, there are a significant number of properties, specifically within the El Rio and Nyeland Acres communities, that appear to exceed the maximum allowed density. For instance, one 0.95-acre property is zoned for a maximum density of two to four units per acre, and would be allowed to have one to three units, appears to have seven units[23]. While this example of a property having two times the allowed density is extreme, a sampling of 200 properties in El Rio and Nyeland Acres revealed that approximately 48 percent appeared to exceed the maximum zoning density. If this trend is consistent throughout the Plan Area communities, updates to residential zoning designations may be needed.

F. Housing Element Sites

The 2020 General Plan Housing Element identified four parcels within the Area Plan in the Sites Inventory as potential locations for the development of 159 low-income affordable units (Table 22).

Table 22: Housing Element sites located within the Area Plan

Assessor's Parcel Number (APN)	Address	Potential Units
145-0-180-040	N/A	55
145-0-180-050	2667 Cortez St	53
145-0-180-060	2609 Cortez St	55
145-0-190-390	2712 Cortez St	16
Total		**179**

4.3 Agriculture

This section describes characteristics of agricultural uses within the Plan Area, including the growing environment, production characteristics, and economic impacts of agriculture. Within the El Rio-Del Norte Area Plan, there is 4,860 of acres in zoned "Agricultural-Exclusive", that constitutes approximately 70% of the land area. These agricultural lands contain approximately 17 acres of commercial greenhouses, which are required to obtain a Conditional Use Permit. There are also hoop houses, row crops, and orchards, which are exempt from permits.

A. Important Farmland

The California Department of Conservation established the Important Farmland Mapping and Monitoring Program in 1984 to gather information on agricultural land and provide data when planning for the state's agricultural resources. There are five classifications of agricultural soil: prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, and grazing land, as described below:

- **Prime Farmland**: Has the best combination of physical and chemical features to sustain long-term agricultural production.
- **Farmland of Statewide Importance**: Similar to Prime Farmland but with minor shortcomings, such as greater slopes and less ability to store soil moisture.

[23] A property's existing density was based upon a combination of the following factors: permit records, visual inspection (e.g. windshield survey and digital street view's), satellite imagery, and the number of observed mailboxes).

- **Unique Farmland**: Consists of lesser quality soils used for the production of the State's leading agricultural crops.
- **Farmland of Local Importance**: Consists of local soils that are listed as Prime or Statewide Importance that are not irrigated, and soils growing dryland crops (i.e. beans, grain, dryland walnuts and apricots).
- **Grazing Land**: Land with existing vegetation suited to livestock grazing.
- **Urban and Built up Land**: Land that has been developed with urban uses.
- **Other Land**: Land not included in any other mapping category.

Based on data from year 2020, the distribution of Important Farmland is summarized in Table 23 and shown in Figure 31 below.

Table 23: Important Farmland Soils, 2020; Source: California Farmland Mapping and Monitoring Program.

Soil Classification Category	Acres	Percentage of Total Land	Percentage of Agricultural Land
Prime Farmland	1,768	25.9%	39.1%
Farmland of Statewide Importance	2,348	34.4%	52.0%
Unique Farmland	174	2.6%	3.9%
Farmland of Local Importance	222	3.3%	4.9%
Grazing Land	3	0.0%	0.1%
Urban and Built up	1,447	21.2%	N/A
Other Land	855	12.5%	N/A

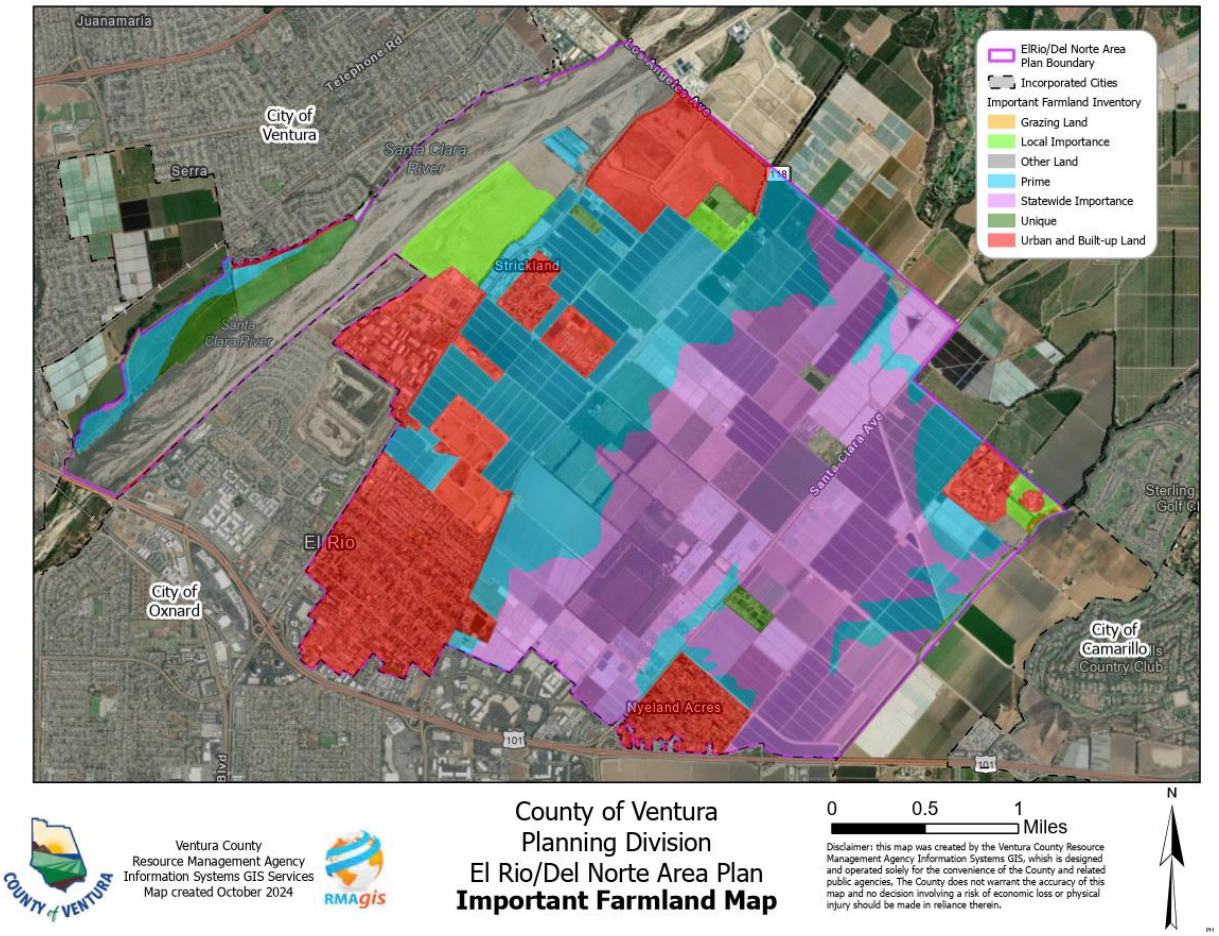

Figure 31: Map of the Distribution of Important Farmland.

B. Resilient Agricultural Lands Initiative

In 2021, the County partnered with the Ventura County Farm Bureau and the Natural Conservancy to assess and report on the agricultural lands in the County. This collaboration culminated in the Ventura County Resilient Agricultural Lands Initiative (Initiative), a community-led effort to plan ways to support local agriculture into the future. The Initiative identified four cornerstones to support local agriculture:

1. Secure a resilient future for agriculture;
2. Support the growth of a robust agricultural economy;
3. Ensure a viable agricultural land base; and
4. Catalyze community co-stewardship of agriculture.

As a part of this Initiative, in 2022, the Conservation Biology Institute conducted a risk assessment of the agricultural lands in the county. This assessment focused on physical threats to agriculture (e.g., soil characteristics and sea level rise) and modeled the stress of climate change for 2010-2039, assuming that greenhouse gases continued to rise throughout the 21st century without mitigation. This model assumed that temperatures would increase in California by four to seven degrees Celsius by 2100.

The risk assessment projected the impact that the changing climate would have on the agricultural stressors. Agricultural stressors included low soil resilience, high climate stress, and high-water stress. Low

soil resilience included water runoff, impaired soil chemistry, and poor water storage. High climate stress included extreme heat days (defined as more than 90 degrees Fahrenheit), and annual and seasonal temperature and precipitation. Water stress was modeled using climate moisture, groundwater stress, and surface water stress.

The map in Figure 32 below shows the worst-case scenario risk assessment results that assumed the greatest temperature increase, the least amount of precipitation, and the highest number of extreme heat days. Compared to other agricultural areas that are generally located further inland and were ranked as highly "stressed," the agricultural lands in the Plan Area were ranked as low to medium "stressed".

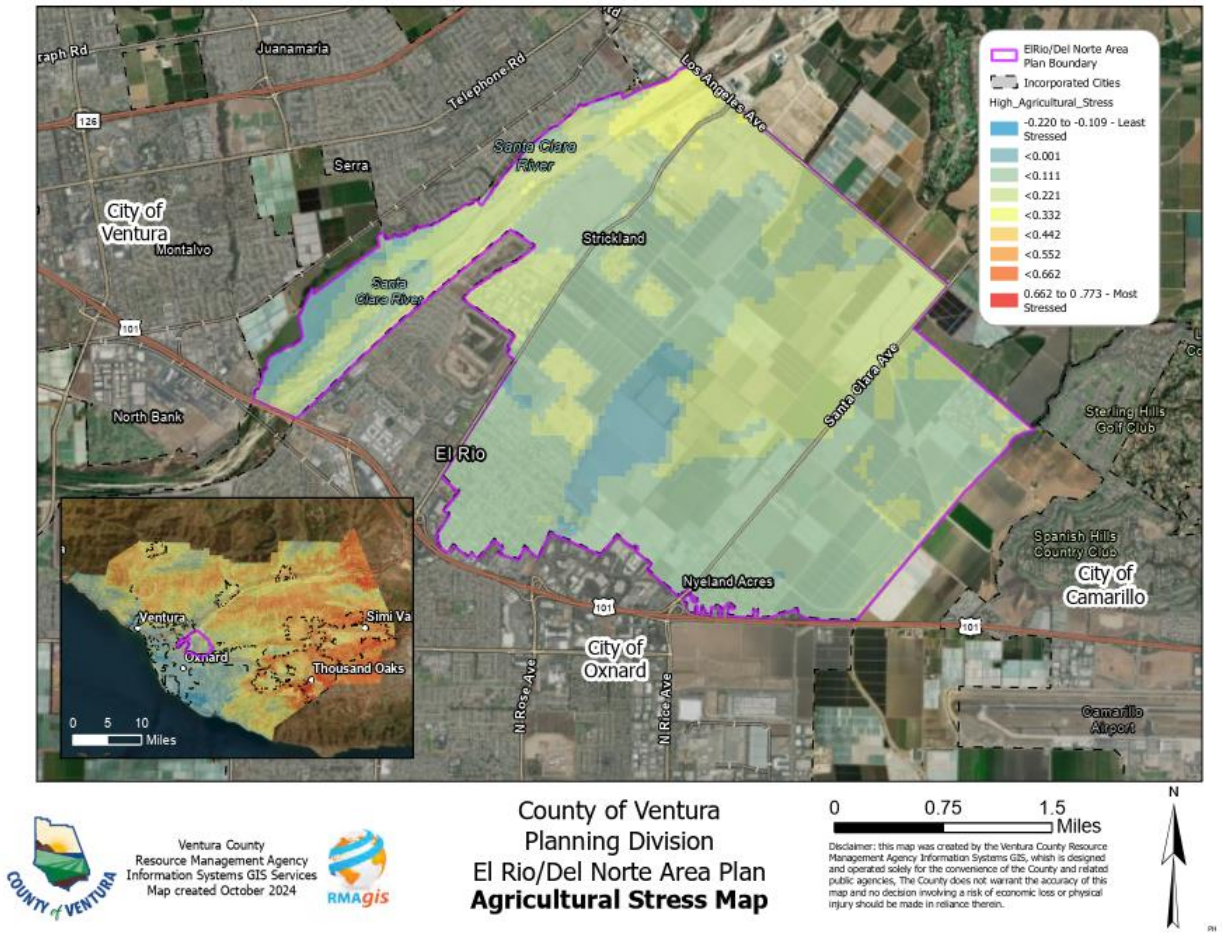

Figure 32: Map of the Projected Agricultural Stress. Source: Ventura County Risk Assessment Report released by the Conservation Biology Institute (2022).

C. Crop Types and Land Conservation Act Contracts

Agriculture production in the County contributed $2.1 billion in crop value in 2023 with strawberries as the top producing cash crop. The top crops produced in the Plan Area between 2019 and 2023 are identified in Figure 33. In 2023 rotation crops and strawberries accounted for nearly 7,000 acres of agricultural production (Figure 34).

Figure 33: Photos of row crops (left), sign for strawberries (middle), and an orchard (right); Source: Staff photo taken in August 2022.

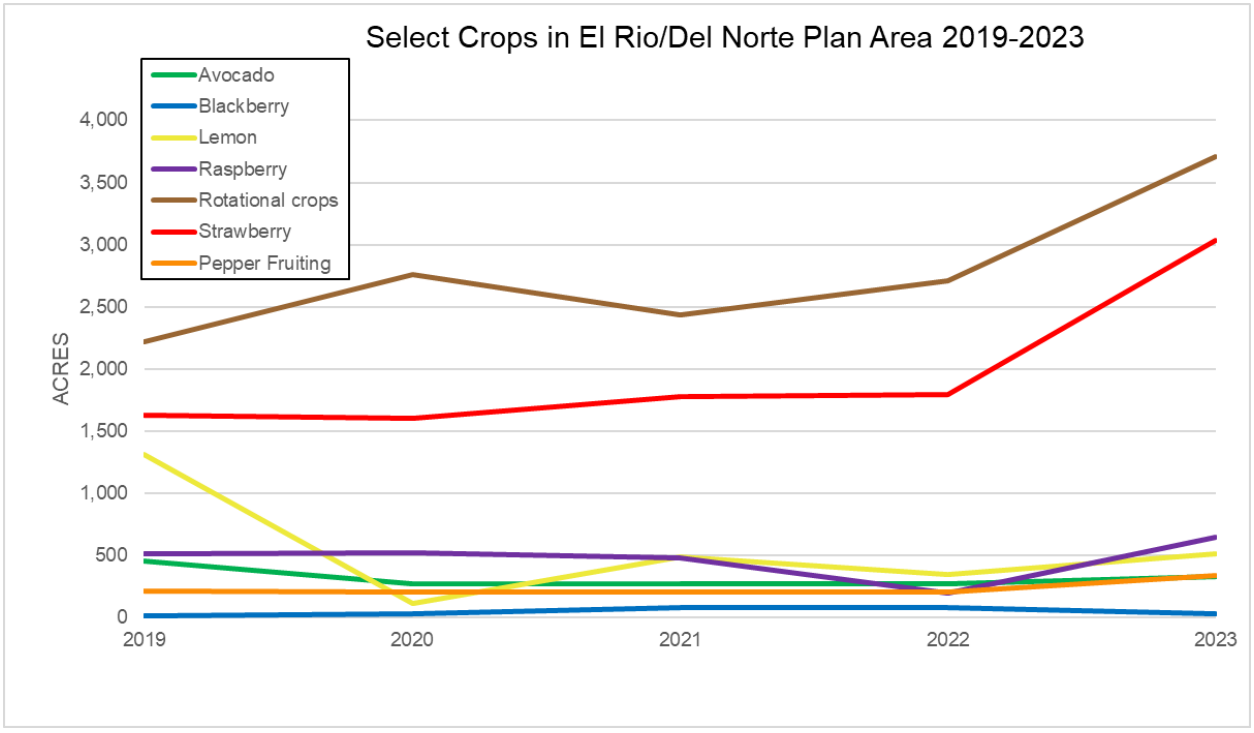

Figure 34: Chart of Top Cash Crops in El Rio-Del Norte Plan Area 2019-2023. This chart shows the crops produced in the Plan Area for a five-year period from 2019 to 2023. This graph only includes land where crop types were identified-e.g., excludes nursery grown.

In 1969 the County adopted the California Land Conservation Act (LCA) and implemented a program to preserve the limited and diminishing supply of agricultural land, encourage the production of agricultural products, and discourage the premature conversion of agricultural land to non-agricultural uses.

Participating property owners are allowed a property tax deduction in exchange for executing a contract with the County that restricts the land to agricultural or open space uses for a period of 10 or 20 years. As of 2024, there are 2,162 acres in the Plan Area that are under an LCA contract. These properties are shown in Figure 35.

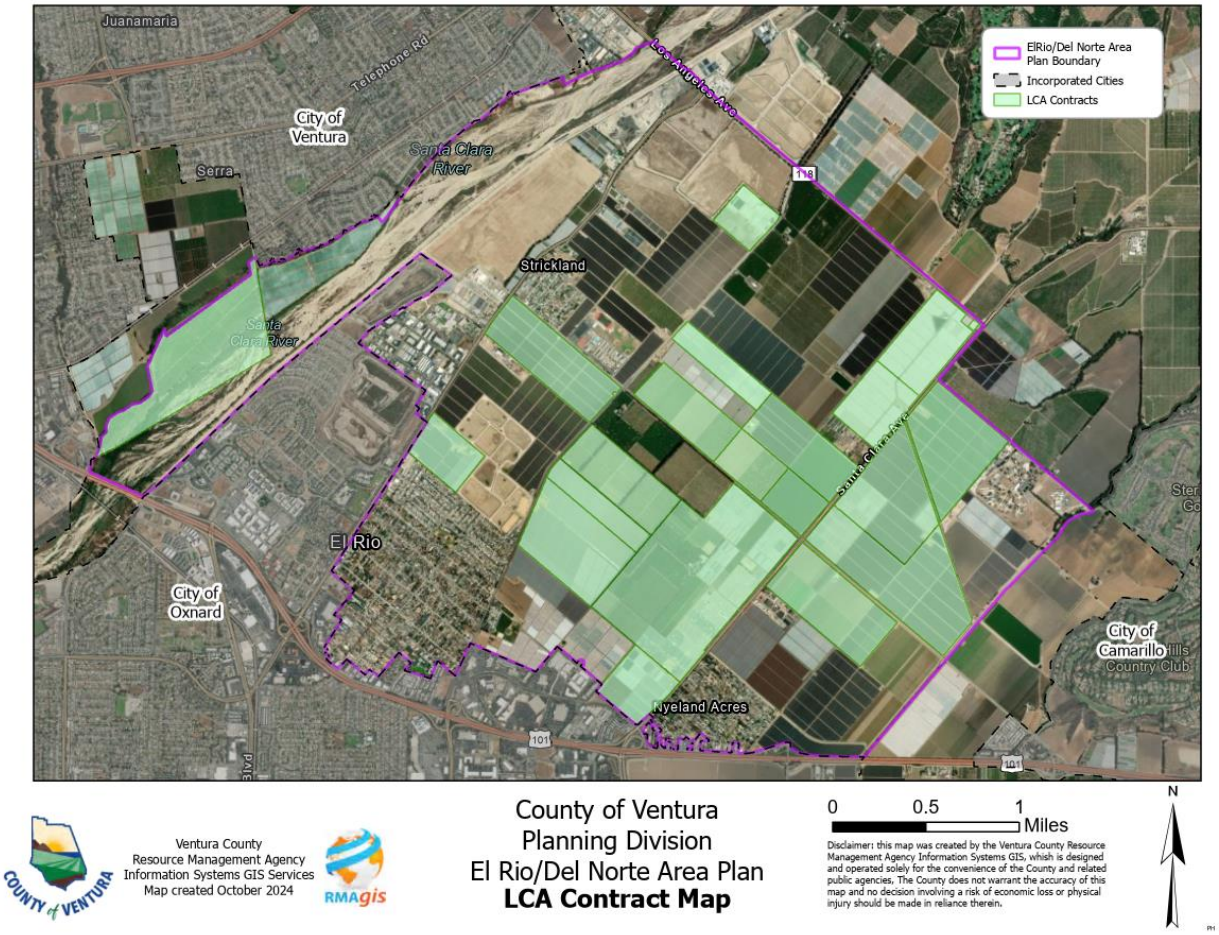

Figure 35: Map that identifies the properties under a Land Conservation Act contract, 2024.

D. Pesticides

The agricultural production results in the usage of pesticides to control plants, insects, and animals that may cause damage or transmit disease. According to the United States Environmental Protection Agency, pesticides are substances intended destroy and deter pests, intended to regulate, defoliant, or desiccate plants, or nitrogen stabilizer. CalEnvironScreen 4.0 lists the top five pesticides used for agricultural activities within the Plan Area are[24]:

- Chloropicrin
- Metam-sodium
- Potassium n-methyldithiocarbamate
- 1,3-dichloropropene
- Captan

[24] https://oehha.ca.gov/calenviroscreen/indicator/pesticide-use

According to the CalEnvironScreen 4.0 Indicator map on pesticide usage, the agricultural pesticide usage in the Plan Area is among the highest of the census tracts measured in California. The census tracts with high agricultural usage in the County, such as the Oxnard Plain, have higher pesticide usage compared to the urbanized census tracts. Pesticides used for non-agricultural purposes, such as for golf courses or home pesticides, are not included in the results shown on CalEvironScreen 4.0 map.

The urbanized communities in the Plan Area are generally dense and this helps to reduce potential conflicts with agricultural uses. However, each community is separated by agriculture. Two schools (Rio Mesa High School and Rio de Valle Middle School) directly abut agricultural production on at least three sides. Over the long-term, there may be conflicts between agricultural production that utilizes pesticides and adjacent residential and institutional uses.

4.4 Conservation and Open Space

A. Sensitive Habitats and Lands

The Area Plan includes 1,200 acres designated as Open Space, which is mostly along the Santa Clara River floodplain. An exception is the United Water Conservation water treatment and groundwater recharge facility along Rose Avenue and the former youth detention facility at 3100 Wright Avenue. As of 2024, approximately 220 acres of the designated Open Space is currently being utilized for agricultural purposes.

The most significant biological resource areas within the Area Plan includes the Santa Clara River and its associated ecosystems on the northwestern side of El Rio (Appendix B). The Santa Clara River headwaters originate near Acton in Los Angeles County and the river flows westward across the southern half of Ventura County along the north side of the Santa Susana Mountains, through the Oxnard Plain, and empties into the Pacific Ocean. The upper watershed is composed of hard rock formations and is heavily faulted, while the Oxnard Plain and the El Rio area contains deep, unstable alluvial deposits—some of the deepest in the world—within the Ventura Syncline. These unstable sediments pose challenges for managing erosion, flood control, and watershed infrastructure. Its 1,634-square-mile watershed is the largest relatively undeveloped natural river system in Southern California; however, it was listed as a critically endangered river by the American Rivers in 2005 due to threats from development and invasive species.

The Santa Clara River is part of the larger Santa Monica–Sierra Madre Wildlife Corridor[25] and the Ventura County Habitat Connectivity and Wildlife Corridor (HCWC) overlay zone which links critical habitats between the Sierra Madre and Santa Felicia Mountains to the north and the Santa Susana-Simi Hills and Santa Monica Mountains to the south. The purpose of the HCWC overlay zone regulations is to minimize physical and indirect barriers to wildlife, prevent habitat fragmentation, and maintain corridor widths to facilitate species movements between natural areas. Properties within the Area Plan that fall within 200 feet of the floodplain and its associated riparian vegetation are subject to the overlay zone. Overall, the river supports 17 federally listed species and sits at the junction at five of California's ten bioregions, making it a biodiversity hotspot.

[25] https://vcrma.org/en/habitat-connectivity-and-wildlife-movement-corridors

B. Special Status Species

Biological resources within the Plan Area primarily occur in the Santa Clara River and surrounding streambanks, which is an area designated as Open Space. As of June 2025, there are 16 special-status plant and 35 animal species that are known to occur in this area that are protected by a federal or state laws as administered through the California Department of Fish and Wildlife.

Figure 36: Photo of Foothill Yellow-Legged Frog. Source: United States Fish and Wildlife Service.

The Santa Clara River has also been designated critical habitat by the United States Fish and Wildlife Service (USFWS) for the Southwestern willow flycatcher, a federal and state listed endangered species[26]. USFWS critical habitats are specific areas within the geographical areas that contain physical or biological features essential to conservation of the endangered or threatened species. The federally and state listed Least Bell's vireo can also be found along the Santa Clara River within the same critical habitat area designated for the flycatcher. The vireo prefers habitats with flowing water and dense shrubbery like willow, wild rose, and other similar plants. The Southwestern Willow flycatcher prefers vegetation with a dense twig structure and a mix of tall canopy trees (like cottonwood and willow) and a dense understory of shrubs. Critical habitat may require special management considerations or protection.[27] In addition, this stretch of the Santa Clara is a designated Important Bird Area (IBA), which are areas identified using an internationally agreed set of criteria as being globally important for the conservation of bird populations (BirdLife International/Audubon).[28] There is one animal species and 19 plant species on the Ventura County's Locally Important Species List that occurs with the El Rio/ Del Norte Area Plan area. Locally Important Species are animal and plant species that are associated with limited, localized, and/or rare habitat types and environmental conditions within the County. These species are known as Locally Important Species that are protected through the County's 2040 General Plan (COS-1 and Policy 1.1). These sources were used to generate the table (Tables 24 and 25) of special-status species below.

Recent changes in the federal or state status of special status species, includes the foothill yellow-legged frog, south coast population, was listed by the USFWS as endangered in August 2023 (Figure 36). The foothill yellow-legged frog is rarely seen far from streams and its range extends from the northwestern headwaters of the Santa Clara River to the middle of the portion of the river that flows through the Plan Area.

In 2024, the Southern California steelhead population within the Santa Clara was listed endangered under the California Endangered Species Act (CESA). It was listed as federally endangered (Endangered Species Act (ESA)) in 1997 by the National Oceanic and Atmospheric Administration[29]. Southern California steelhead utilize portions of the river within the Plan Area during seasonal high flows to access tributaries and spawn. Several other federally and state listed (ESA, CESA) fish and wildlife species associated with

[26] Federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA).
[27] https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat
[28] https://en.wikipedia.org/wiki/Important_Bird_Area
[29] https://www.fisheries.noaa.gov/west-coast/endangered-species-conservation/southern-california-steelhead

the river are found adjacent to the area and up river including arroyo chub and tidewater gobi have adapted to the seasonal and daily changing conditions of the river.

Table 24 below lists the special status animal species and Table 25 lists the special status plant species from the California Natural Diversity Database maintained by the California Department of Fish and Wildlife in the Plan Area. Figure 37 depicts special status animal species and Figure 38 shows images of special status plant species.

Table 24: Special Status Animal Species

Scientific Name	Common Name	Federal Status	State Status	Ventura County Status (Locally Important Species (LIS))
Accipter cooperi	Coopers Hawk		Species of Special Concern	
Actinemys pallida	Southwestern pond turtle	Proposed Threatened	Species of Special Concern	
Agelaius tricolor	Tricolored blackbird		Threatened	
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow		Species of Special Concern	
Anniella spp.	California legless lizard		Species of Special Concern	
Anniella stebbinsi	Southern California legless lizard		Species of Special Concern	
Antrozous pallidus	Pallid bat		Species of Special Concern	
Aspidoscelis tigris stejnegeri	Coastal whiptail		Species of Special Concern	
Athene cunicularia	Burrowing owl		Species of Special Concern	
Bombus pensylvanicus	American bumble bee		Species of Special Concern	
Bombus crotichii	Crotch's bumble bee		Candidate Endangered	
Catostomus santaanae	Santa Ana sucker	Threatened	Species of Special Concern	
Clemmys marmorata pallida	southwestern pond turtle	Proposed Threatened	Species of Special Concern	
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	Threatened	Endangered	
Danaus Plexippus Plexippus pop. 1	Monarch-California overwintering population	Candidate	Species of Greatest Conservation Need	

Dendroica petechia	Yellow warbler		Species of Special Concern	
Elanus leucurus	White-tailed kite		Fully Protected	
Empidonax traillii extimus	Southwestern willow flycatcher	Endangered	Endangered	
Eremophila alpestris actia	California horned lark		Watch List	
Eucyclogobius newberryi	Tidewater goby	Endangered	Species of Special Concern	
Falco peregrinus anatum	American peregrine falcon	Delisted	Sensitive	
Gasterosteus aculeatus microcephalus	Partially armored stickleback			LIS
Gasterosteus aculeatus williamsoni	Unarmored threespine stickleback	Endangered	Endangered	
Gila orcutti	Arroyo chub		Species of Special Concern	
Icteria virens	Yellow-breasted chat		Species of Special Concern	
Laterallus jamaicensis coturniculus	California black rail		Threatened	
Passerculus sandwichensis beldingi	Belding's savannah sparrow		Endangered	
Phrynosoma blainvillii	Coast horned lizard		Species of Special Concern	
Polioptila californica californica	Coastal California gnatcatcher	Threatened	Species of Special Concern	
Rana boylii pop. 6	Foothill yellow-legged frog - south coast	Endangered	Endangered	
Riparia riparia	Bank Swallow		Threatened	
Setophaga petechia	Yellow warbler		Species of Special Concern	
Sternula antillarum browni	California least tern	Endangered	Endangered	
Taxidea taxus	American badger		Species of Special Concern	
Thamnophis hammondii	Two-striped gartersnake		Species of Special Concern	
Trimerotropis occidentiloides	Santa Monica grasshopper		Species of Special Concern	

Trimerotropis sirtalis pop. 1	South coast gartersnake		Species of Special Concern	
Tryonia imitator	Mimic tryonia (California brackish water snail)		Species of Special Concern	
Vireo bellii pusillus	Least Bell's vireo	Endangered	Endangered	

Source: California Natural Diversity Database accessed in November 2024. This chart includes species that have been observed in the Plan Area.

Figure 37: Photos of Least bell's vireo (far left), Western yellow-billed cuckoo (middle left), Unarmored threespine stickleback (middle right), and Tricolored blackbird (far right). Source: United States Fish and Wildlife Service.

Table 25: Special Status Plant Species

Scientific Name	Common Name	Federal Status	State Status	Native Plant Society Rare Plant Rank*	Ventura County Status (Locally Important Species (LIS))
Acmispon tomentosus var. tomentosus	Roundleaf heermann lotus or hosackia				LIS
Amaranthus powellii	Powell's amaranth				LIS
Andropogon glomeratus var. scabriglumis	Southwestern bushy bluestem				LIS
Aristida purpurea var. purpurea	Purple three-awn grass				LIS
Astragalus brauntonii	Braunton's milk-vetch	Endangered		Rare, threatened, or endangered in California and elsewhere	
Astragalus curtipes	Morro milkvetch				LIS
Astragalus pomonensis	Pomona locoweed, Pomona milk vetch				LIS
Atriplex argentea var. expansa	Mojave silverscale				LIS
Atriplex dioica	Thickleaf orach				LIS
Bidens frondosa	Sticktight				LIS
Bolboschoenus robustus	Seacoast bullrush				LIS
Chenopodium berlandieri var. zschackei	Pitseed goosefoot				LIS
Cyperus laevigatus	Smooth flatsedge				LIS
Cyperus odoratus	Flatsedge				LIS
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya			Rare, threatened, or endangered in California and elsewhere	
Eragrostis pectinacea var. miserrima	Gulf lovegrass				LIS

Hornungia procumben	Prostate hutchinsia				LIS
Hydrocotyle verticillata	Marsh pennywort				LIS
Lemna turionifera	Turion duckweed				LIS
Myriopteris newberryi	Newberry's lip fern				LIS
Salicornia depressa	Pickleweed,Virginia glasswort				LIS
Suckenia striata	Broadleaf pondweed			Plants presumed extirpated in California but common elsewhere	
Calochortus catalinae	Catalina mariposa-lily			Plants of limited distribution	
Senecio aphanactis	Chaparral ragwort		Threatened	Plants presumed extirpated in California but common elsewhere	
Lasthenia glabrata ssp. coulteri	Coulter's goldfields			Rare, threatened, or endangered in California and elsewhere	
Eriogonum croacatum	Conejo buckwheat			Rare, threatened, or endangered in California and elsewhere	
Monardella sinuate ssp. gerryi	Gerry's curly-leaved monardella			Rare, threatened, or endangered in California and elsewhere	
Atriplex serenana var. davidsonii	Davidson's saltscale			Rare, threatened, or endangered in California and elsewhere	
Malacothrix similus	Mexican malacothrix			Plants presumed extirpated in California but	

				common elsewhere	
Calochortus plummerae	Plummer's mariposa-lily			Plants of limited distribution	
Calochortus clavatus var. gracilis	Slender mariposa-lily			Rare, threatened, or endangered in California and elsewhere	
Astragalus pycnostachyus var. lanosissimus	Ventura Marsh milk-vetch	Endangered	Endangered	Rare, threatened, or endangered in California and elsewhere	
Dudleya verity	Verity's dudleya	Threatened		Rare, threatened, or endangered in California and elsewhere	
Pseudognaphalium leucocephalum	White rabbit-tobacco			Rare, threatened, or endangered in California, but more common elsewhere	
Texosporium sancti-jacobi	Woven-spored lichen			Plants of limited distribution	

*Source: California Natural Diversity Database accessed in November 2024. Data is cross-referenced with the California Native Plant Society Rare Plant Rank website. All plant species listed are also on the Ventura County Plant Species of Local Concern. *The data from the California Native Plant Society Rare Plant Rank only includes the first rare plant threat rank and not the additional threat ranks assigned to each plant*



Figure 38. Photos of Catalina Mariposa Lily (left), Davidson's Saltscale (middle), and White Rabbit-Tobacco (right); Source: Calflora.

C. Mineral Resources

Mining and oil and gas operations are allowed uses in the open space and agricultural zoned properties. Approximately 2,148 acres are within the NCZO's Mineral Resource Protection Overlay, covering 35% of the open space and agricultural zoned properties.

The Mineral Resource Protection overlay aims to facilitate a long-term supply of mineral resources, provide notice of landowners and the public of the mineral resources, and safeguard future access to mineral resources. The General Plan includes one goal and five policies that aim to ensure compatibility between mineral extraction, oil and gas operations, and other land uses.

C.1. Minerals

The Santa Clara floodway has been historically mined for sand and gravel. However, in 1983, the County imposed limitations on river mining operations to address impacts within the Santa Clara River floodway.

The County previously permitted six[30] Conditional Use Permits (CUP) to mine from the Santa Clara floodway in the Plan Area, however, all these river mining operations ceased in the 1990s. As part of a CUP approval the mine operator is required to create Reclamation Plan where the land is restored to allow for a beneficial use after mining operations cease. This includes filling in the excavated areas of the mine. Portions of the mining sites have reclaimed the land used for mining back to a floodway that provides habitat for native species. One mine site has been converted to a concrete recycling facility for imported concrete materials. This facility previously produced one million tons of concrete from the sand and gravel from the Santa Clara floodway.

C.2. Oil and Gas

There are two oil fields in the Plan Area: the El Rio oil field and the Santa Clara Avenue oil field. The Santa Clara Avenue oil field has two distinct pools along Santa Clara Avenue and the El Rio oil field crosses the southern point of the Plan Area into the City of Oxnard.

An oil disposal facility was approved in the Plan Area in 1954, predating the first oil wells. The first oil drilling in the Plan Area was approved in 1958. The wells in this permit were abandoned in 1971 and the permit was revoked in 1981. Since then, there were seven permits approved for oil and gas and auxiliary operations.

As of 2024, there are six idle wells, twenty plugged wells, and twenty-eight active wells in the Plan Area. The active wells are concentrated in two locations and owned by the same operator. Figure 39 maps the two active operations.

[30] The six CUP's that the County previously authorized were CUP-1942, CUP-2425, CUP-4294, CUP-4843, CUP-4623, and CUP-2006.

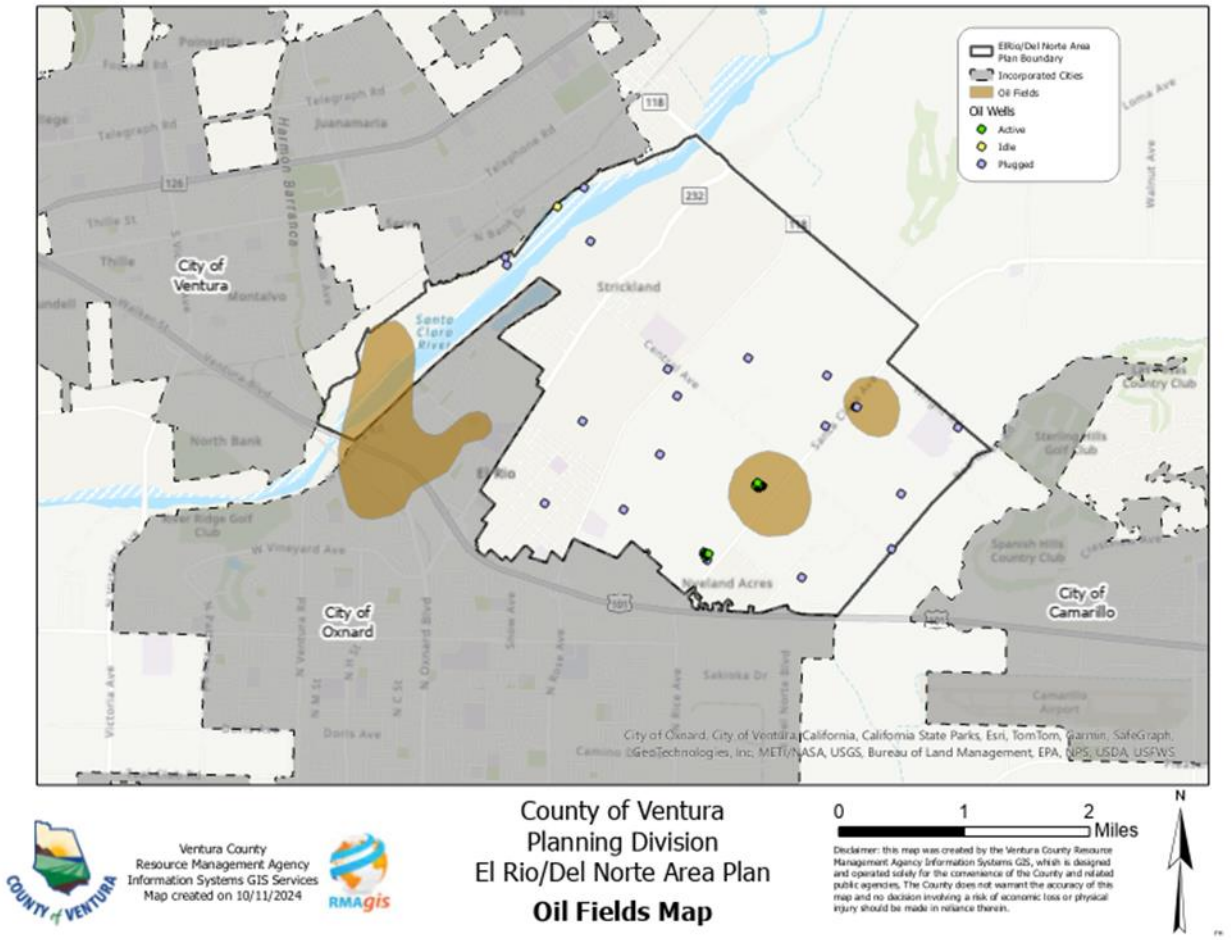

Figure 39: Map of oil fields and wells in the Plan Area. Source: California Department of Conservation well finder map, accessed in September 2024.

In 2021, the Santa Clara Avenue oilfield produced 12,306 barrels of oil and condensate and 6,035 one-thousand cubic feet of gas through two oil and gas locations.

The El Rio oilfield does not have any active oil and gas wells.

4.5 Economic Vitality

Economic vitality in Ventura County encourages economic advancement and quality of life by supporting and encouraging businesses to stay and grow in the County. The General Plan Economic Vitality Element focuses on prioritizing investments in infrastructure, services, safety net programs, and other assets that are critical to future economic vitality for the Plan Area. The 2017 Economic Census[31] found that there were 80 businesses in the El Rio CDP employing 346 people with an annual payroll was $14.7 million and revenue of $94.4 million. Out of the businesses that were surveyed, 67.6 percent were profitable, 91.9 percent did not receive government grants, and 70.3 percent did not need additional financing. Table 26

[31] The 2022 Economic Census data was not yet available. The 2017 Economic Census data surveyed 37 out of 80 businesses in the El Rio CDP (46%), 1,300 out of 2,720 businesses in the City of Oxnard (48%) and approximately 10,000 out of 17,600 businesses in the County (57%).

below shows select survey responses about the characteristics of businesses in the El Rio CDP, City of Oxnard, and the County of Ventura.

Table 26: Business Characteristics

	El Rio CDP (%)	City of Oxnard (%)	County of Ventura (%)
$0 from outside investors	89.2	87.8	89.2
$0 from government grants	91.9	89.8	92.2
Business did not need additional financing	70.3	82.9	83.8
Business had profits	67.6	67.3	67.9
Negative impact from finding qualified labor	86.5	21.5	17.8
Full-time paid employees	94.6	82.3	70.8

Source: Census Bureau Annual Business Survey: Business Characteristics, 2017.

The business characteristics between the El Rio CDP, City of Oxnard, and the County of Ventura are similar except for the negative impact from finding qualified labor. The El Rio CDP includes the Del Norte Industrial Center. The Federal Reserve stated that the manufacturing sector was facing labor shortages up to 17.4 percent in the third quarter of 2017[32]. This need for specialized labor in the manufacturing sector could explain why the El Rio CDP retains a higher percentage of full-time paid employees over the City of Oxnard and the County.

According to the Bureau of Labor Statistics, the percentage of private sector manufacturing businesses with vacancies in August-September 2022 remained high, with 30.3 percent of businesses attempting to fill vacancies[33]. This publication showed that 29.2 percent of manufacturing businesses hired new employees, and 11.5 percent of manufacturing businesses increased their starting pay rates. Unemployment in the Oxnard-Thousand Oaks-Ventura metropolitan area from July 2023 to August 2024, increased from 4.3 to 5.2 percent.[34]

Traditional employment sectors, agriculture, manufacturing, retail and construction, employ over forty percent of the Area Plan community residents. Table 27 below shows the civilian employment by industry for the population 16 years old and older as tracked by the Census Bureau for the 2022 American Community 5-year survey in all sectors.

Table 27: Employment by Industry Characteristics

	Area Plan Communities				
	El Rio CDP*	Nyeland Acres Census Tract**	Oxnard	Ventura County	California
Agriculture, forestry, fishing and hunting and mining	5.7%	23.1%	12.5%	5.0%	2.1%

[32] https://www.federalreserve.gov/econres/notes/feds-notes/evaluating-labor-shortages-in-manufacturing-20180309.html. Accessed on October 2024.
[33] https://www.bls.gov/spotlight/2024/private-sector-hiring-and-vacancies-in-summer-2022/home.htm. Data from the 2022 Business Response Survey on Telework, Hiring, and Vacancies. Accessed on October 2024.
[34] https://www.bls.gov/news.release/metro.t01.htm. Accessed on October 28, 2024.

Construction	14.6%	11.6%	6.5%	6.2%	6.7%
Manufacturing	9.6%	8.9%	11.0%	9.9%	8.9%
Wholesale Trade	3.0%	2.3%	3.4%	2.9%	2.6%
Retail Trade	14.2%	11.1%	10.4%	10.3%	10.3%
Transportation and warehousing, and utilities	7.7%	3.0%	4.4%	3.8%	5.9%
Information	0.7%	1.8%	1.0%	2.5%	2.9%
Finance and insurance, and real estate and rental and leasing	2.7%	1.4%	3.9%	6.7%	5.8%
Professional, scientific, and management, and administrative and waste management services	5.8%	14.8%	10.6%	12.8%	14.1%
Educational services, and health care and social assistance	18.5%	10.0%	16.5%	20.1%	21.4%
Arts, entertainment, and recreation, and accommodation and food services	4.5%	4.2%	9.1%	9.4%	9.7%
Other services, except public administration	8.7%	4.1%	5.0%	4.9%	4.9%
Public administration	4.3%	3.7%	5.6%	5.4%	4.7%

Source: Census Bureau American Community 5-Year Survey: Industry by Sex for the Civilian Employed Population 16 Years and Older, 2022.

Twenty-three percent of residents in the Nyeland Acres community work in agriculture, forestry, fishing and hunting and mining industries compared to approximately six percent of residents in the El Rio CDP and five percent of residents in the County. As the Nyeland Acres community is surrounded by agricultural fields, this percentage may indicate that twenty three percent of residents work in the local agricultural fields. The percentage of residents employed in the arts and entertainment industries in both Area Plan communities, are half the percentage of residents in the City and County. The Area Plan communities employ almost double the percentage of residents in construction compared to the City and County.

4.6 Environmental Justice and Foods

Environmental justice is the equal treatment of all people for a healthy environment. For planning purposes, this means that environmental justice is 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. While the General Plan covers several environmental justice topics, this section focuses on 1) food access, and 2) exposure to extreme heat days.

A 2022 study[35] found that the walkability of an area can be an indicator of social inequity. The study found that if an area has a lower walkability score it generally correlates to locations that have a lower socioeconomic status and non-white majority. This concept, known as mobility justice, is an element of environmental justice and is examined below. The EL Rio Plan Area's walkability was estimated using the United States Environmental Protection Agency's national walkability index tool that shows the walkability across census blocks. The walkability of the following Plan Area neighborhoods was evaluated as follows:

- Portion of El Rio directly and along Highway 101 is more walkable than average;
- Nyeland Acres is more walkable than average; and,
- Northern portions of El Rio and Strickland are less walkable than average.

A. Food Access

According to the National Library of Medicine, where people live have a major impact on their overall health status and wellness in relation to access to healthier food options. This relationship can be analyzed and characterized into two main categories for neighborhoods – those that are food secure and those that are food insecure. Food security is defined as stable access to sufficient, affordable food for an active, healthy life. Food insecurity is defined as a lack of access to affordable food. Areas with high food insecurity are commonly referred to as "food deserts." Another intersection of public health and food access is how readily accessible unhealthy food is to the community. Areas with easy access to unhealthy food are commonly referred to as "food swamps." These food swamps tend to have high concentrations of unhealthy food (e.g., fast food and junk food) in a localized environment and along highway exits. Both food deserts and unhealthy food swamps are subjects of ongoing research in their relationship to human health. [36]

A.1. Retail Food Environment-Grocery Stores

The General Plan Economic Vitality Policy EV-1.10 strives to retain grocery stores and other healthy food stores in existing communities and adjacent urban areas. A search of the grocery stores in the Plan Area[37] identified a produce stand on Vineyard Avenue but otherwise, there are limited grocery store options within the Area Plan boundaries. Table 28 shows the grocery stores or markets in the Plan Area or within one-half mile from the Plan Area and provides scores for how accessible the store is. There is a fruit stand located at 491 Central Avenue, Camarillo that provides fresh produce but is not considered a grocery store or market.

Within the Area Plan boundary, there are no large grocery stores or markets, but there are two small convenience stores in Nyeland Acres and a small local grocery market in El Rio (Table 28). The closest supermarket to the Area Plan is Vallarta's within the City of Oxnard and is located adjacent to the Area Plan's boundary on Vineyard Avenue (Figure 41). The next closest supermarkets (Whole Foods and Target) are located within the Oxnard neighborhood of Riverpark, approximately one-half mile to the west. There is a Costco Wholesale warehouse located in between the El Rio and Nyeland Acres communities; however it is within the City of Oxnard's Auto Center neighborhood. While transit to these supermarkets is possible,

[35] Burger, D.; Tofte, E.; Willson, D. 2022. Walkability as an indicator of social inequity: examining the neighborhoods of the Buffalo Olmsted Parks System. CELA.

[36] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10160992/

[37] Search was conducted using Google Maps, accessed in September 2024.

access to them from Nyeland Acers would require 30 to 45 minutes each way and a possible bus transfer, while from EL Rio it would take approximately 25 to 30 minutes each way. However, the Strickland community has no access to transit to and from these supermarkets. Additionally, there is minimal bicycle and pedestrian infrastructure which limits safe alternate transportation modes for residents in each community. It is notable that the grocery store with the highest walkability score, El Rio Produce, is located along Vineyard Avenue, a four-lane state highway (Highway 232) and on the edge of the Plan Area.

Figure 40: Photo of produce at the grocery store Vallarta with a sign that reads "¡COME BIEN, VIVE BIEN!" Source: Staff photo taken in October 2024.

Access to supermarkets outside of the Plan Area would require crossing over or through a handful of physical barriers, specifically Highway 101, at three major interchanges located at the following:

- Vineyard Avenue, which is seven vehicle lanes wide, has no designated bicycle infrastructure, and there are two approximately five-foot wide sidewalks that require six vehicle crossing points.
- Rose Avenue, which is also seven vehicle lanes wide, has two Class-Two bicycle lanes that require six vehicle crossing points, and there are two approximately five-foot wide sidewalks that require six vehicle crossing points.
- Rice Avenue (Highway 1)/Santa Clara Avenue, which is eight vehicle lanes wide, has no designated bicycle infrastructure, and there are two approximately seven-foot wide sidewalks that require six vehicle crossing points.

The Federal Highway Administration (FHA) recognizes that transportation infrastructure has the potential to negatively affect communities' access to healthy foods[38]. The FHA also recognizes that diversifying and encouraging public and active transportation, as well as making routes more friendly, is an essential component is addressing access to healthy foods and reducing health inequalities.

[38] https://highways.dot.gov/public-roads/summer-2023/05; Accessed October 2024.

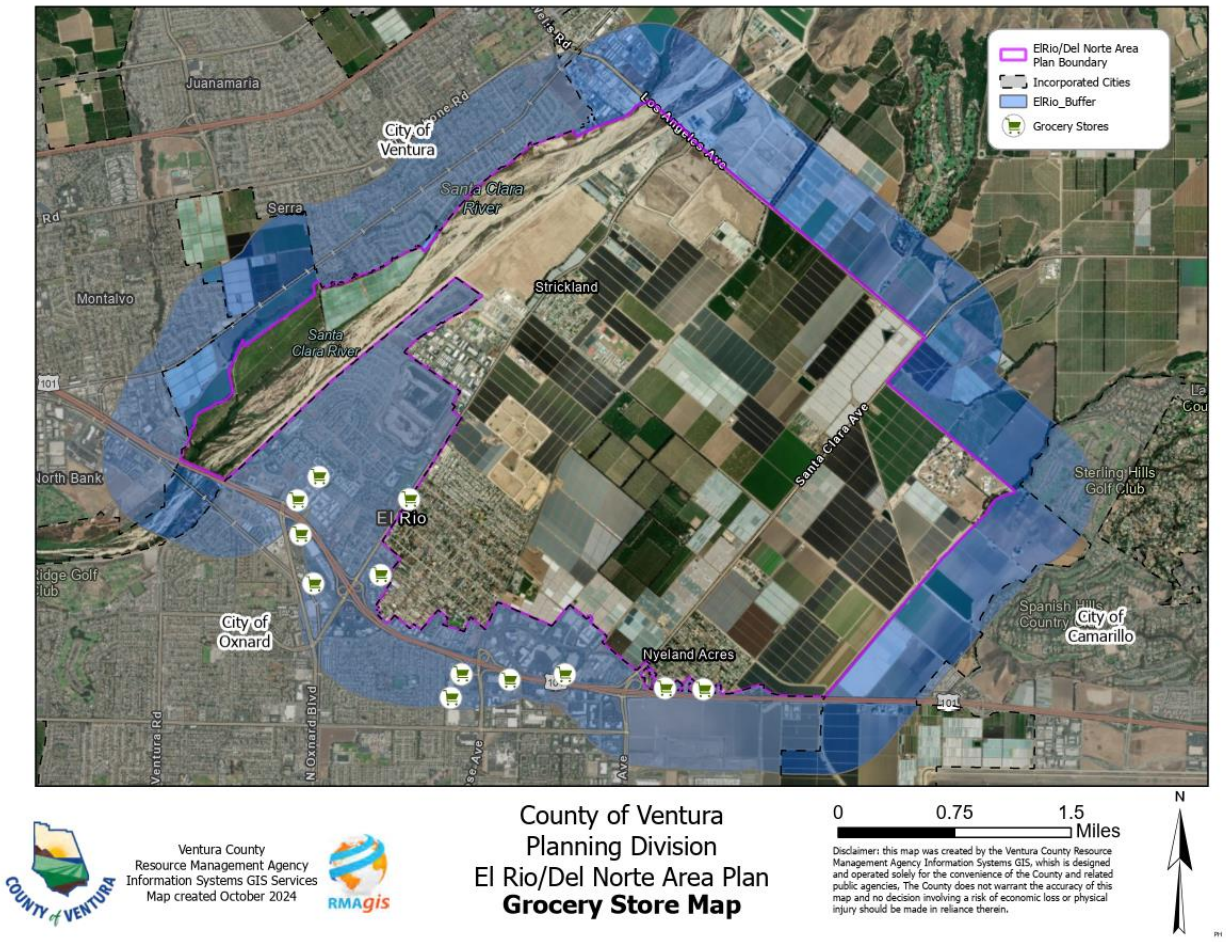

Figure 41: Map of Grocery Stores in the Plan Area and Within One-Half Mile. The blue boundary shows the one-half mile buffer around the Plan Area. Source: Google Maps search of grocery stores and markets in September 2024.

Table 28: Walkability, Transit, and Biking Infrastructure Scores for Grocery Stores in the Plan Area and Within One-Half Mile from Plan Area*

Within Plan Area				
Store	*Address*	*Walkability*	*Transit*	*Biking*
El Rio Produce	3098 E Vineyard Ave, Oxnard	78	n/a	51
Los Amigos Market	2929 Ventura Blvd, Oxnard	36	n/a	39
Wright's Market	2691 Ventura Blvd, Oxnard	40	n/a	40
Outside of Plan Area but Within ½ Mile, North of Highway 101				
Store	*Address*	*Walkability*	*Transit*	*Biking*
Costco Wholesale	2001 Ventura Blvd, Oxnard	31	28	39
Target	2850 N Oxnard Blvd, Oxnard	91	32	50
Vallarta Supermarket	2690 E Vineyard Ave, Oxnard	67	38	49
Whole Foods Market	650 Town Center Dr, Oxnard	90	33	51

Outside of Plan Area but Within ½ Mile, South of Highway 101				
Store	*Address*	*Walkability*	*Transit*	*Biking*
Food 4 Less	250 W Esplanade Dr, Oxnard	72	39	52
Sam's Club	2401 N Rose Ave, Oxnard	56	33	53
Seafood City Supermarket	2340 N Rose Ave, Oxnard	36	32	49
Vons	2101 N Rose Ave, Oxnard	69	34	53

Source: Google Maps search of grocery stores and markets in September 2024.

**Walkability, transit, and biking scores were calculated from the website Walk Score on a 100-point scale. The lower the score, the location had fewer options for transit, minimal infrastructure for biking and required the car for errands (walkability). The address of the grocery store was entered into the website to get the scores.*

The United States Department of Agriculture tracks access to supermarkets for the residential areas in the Plan Area through their Food Access Research Atlas[39]. The 2019 data shows that while there may be low access and low-income residents in the Plan Area, most residents have access to a vehicle[40]. In the El Rio Census Tract 50.02, only 2.9 percent of households lacked a vehicle and were more than one-half mile from a supermarket. In the Nyeland Acres Census Tract 50.03, only 4.4 percent of households lacked a vehicle and were more than one-half mile from a supermarket.

A.2. Retail Food Environment-Fast Food Providers and Convenience Stores

Recent scientific research is finding that access to unhealthy foods predicts obesity rates more accurately than lack of access to healthy foods[41]. Communities with high concentrations of fast-food outlets and relatively high-priced convenience stores have been shown to have higher rates of obesity and diabetes, which can lead to other chronic diseases such as cardiovascular disease, stroke, and arthritis.[42]

The Ventura County General Plan Land Use Policy 17.8 encourages healthier food option and aims to limit concentrations of unhealthy food providers. Unhealthy food providers sell highly processed food and include fast-food restaurants and convenience stores. There locations were identified by a Google Map search of fast food in the area. Figure 42 maps unhealthy food providers in the Plan Area and within one-half mile from the Plan Area and Table 29 provides scores for how accessible the store is using different modes of transit. In general, unhealthy food providers were concentrated along Vineyard Avenue, a seven-lane highway that provides access to the highway. The number of unhealthy food providers in the Plan Area outnumbered grocery stores and markets.

[39] https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas/
[40] The Del Norte residential area, including the Strickland community, was excluded because it is a part of a large census tract that includes Somis, the Saticoy Country club neighborhood, and other neighborhoods not covered by this Background Report.
[41] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5708005/
[42] https://letsgethealthy.ca.gov/goals/creating-healthy-communities/increasing-access-to-healthy-food-outlets/

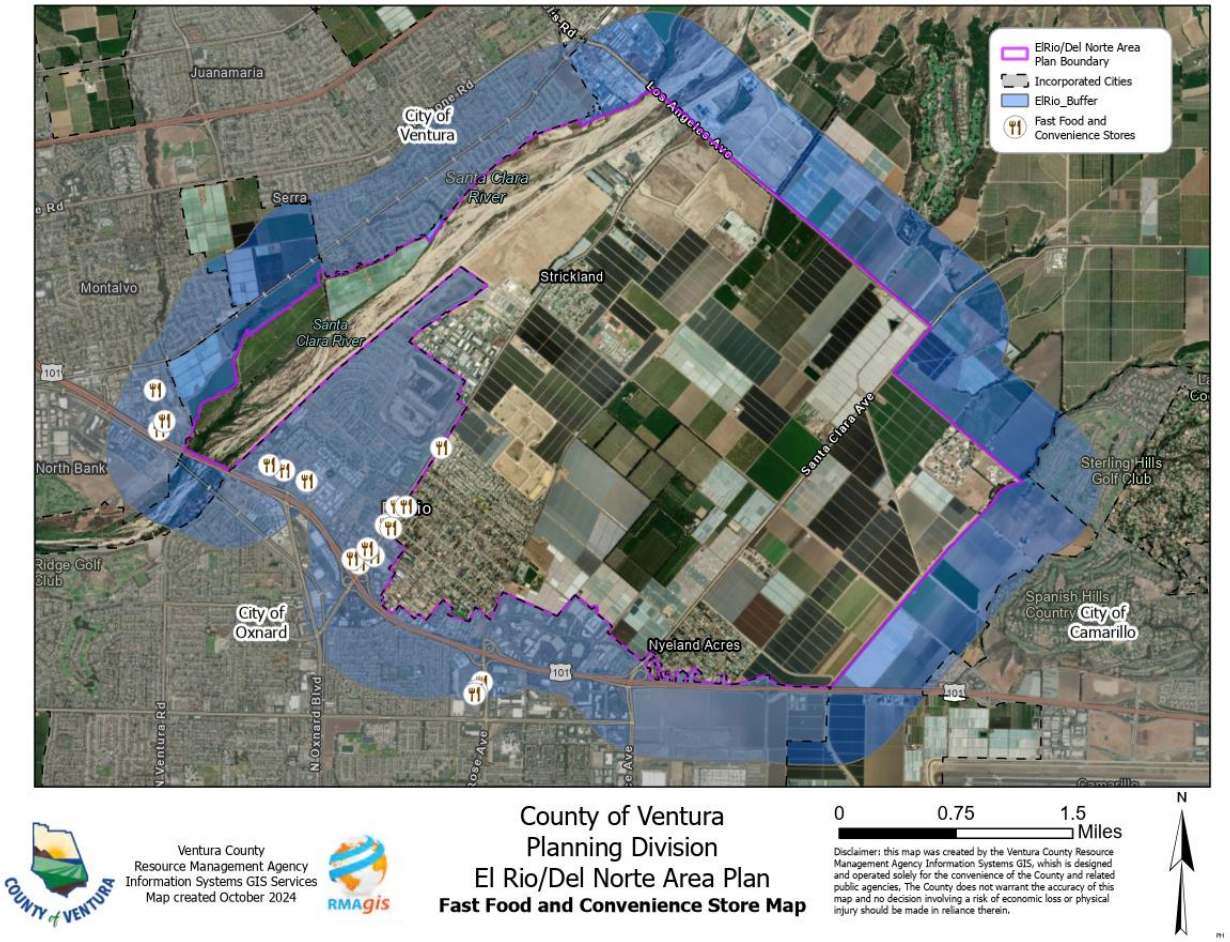

Figure 42: Map of Fast Food and Convenience Stores in the Plan Area and Within One-Half Mile Buffer. Source: Google Maps search of fast food, convenience stores, and liquor stores in September 2024. The blue boundary shows the one-half mile buffer around the Plan.

Table 29: Walkability, Transit, and Biking Infrastructure Scores for Unhealthy Food Providers in Plan Area and Within ½ Mile*

Within Plan Area				
Store	*Address*	*Walkability*	*Transit*	*Biking*
Central Market	2765 E Vineyard Ave, Oxnard	88	37	52
El Rio Liquor Inc	2910 E Vineyard Ave, Oxnard	84		52
Food Mart (Convenience)	2778 E Vineyard Ave, Oxnard	81		52
Rocket Convenience Store	3402 E Vineyard Ave, Oxnard	54		43
Outside of Plan Area but Within ½ Mile, North of Highway 101				
Store	*Address*	*Walkability*	*Transit*	*Biking*
Carl's Jr	3015 Johnson Dr, Ventura	40	29	74

Chick-fil-A	851 Town Center Dr, Oxnard	76	32	54
Domino's Pizza	2581 E Vineyard Ave, Oxnard	78	39	52
El Rio Oxnard Market (Liquor)	2585 E Vineyard Ave, Oxnard	81	38	52
Extra Mile (Convenience)	6762 Northbank Dr, Ventura	36	29	72
Five Guys	2730 Portico Way, Oxnard	90	33	50
Jack in the Box	2580 N Vineyard Ave, Oxnard	79	37	52
Krispy Kreme	220 Riverpark Blvd, Oxnard	79	38	51
McDonalds	110 Riverpark Blvd, Oxnard	76	39	52
Panda Express	731 Town Center Dr, Oxnard	85	32	52
Taco Bell	2800 Johnson Dr, Ventura	58	31	83
Outside of Plan Area but Within ½ Mile, South of Highway 101				
Store	*Address*	*Walkability*	*Transit*	*Biking*
McDonalds	2201 N Rose Ave, Oxnard	65	33	55
Panda Express	2121 N Rose Ave, Oxnard,	68	33	56
Raising Cane's Chicken Fingers	2161 N Rose Ave, Oxnard	68	34	56

Source: Google Maps search of fast food, convenience stores, and liquor stores in September 2024.

**Walkability, transit, and biking scores were calculated from the website Walk Score on a 100-point scale. The lower the score, the location had fewer options for transit, minimal infrastructure for biking and required the car for errands (walkability). The address of the convenience store or fast food restaurant was entered into the website to get the scores.*

A.3. Food Assistance

Food Share Ventura County was established in 1978 and today has 190 pantry and program partners in Ventura County (Figure 43). As Ventura County's regional food bank, Food Share provides food for 250,000+ hungry residents annually. Food Share is a member of Feeding America, the nation's largest hunger-relief network of food banks, as well as the California Association of Food Banks [43].

Figure 43: Photo of a Foodshare Warehouse in the Del Norte Industrial Center. Source: Staff photo taken in January 2024.

[43] https://foodshare.com/

The main warehouse for Food Share is located at 4156 Southbank Road in the industrial area of El Rio and includes three warehouses with a combined 46,000 square feet. The Food Share website lists options for people including drive-thru meals, hot meals, senior kits, food pantries, and pop-up distribution centers. Food Share pantry partners in the Plan Area are located at: First Baptist Church of El Rio food pantry, Rio School food pantry, Seventh Day Adventist Church El Rio, Nyeland Promise at the Nyeland Acres community Center, and Nyeland Promise at the Garden Acres Mutual Water Company.

Figure 44 maps the food pantry partners, and Table 30 lists the food pantry partners with their walkability and biking scores. No transit scores were provided for the food pantries. Food pantry locations were identified through the Food Share webpage named "Find a Pantry."

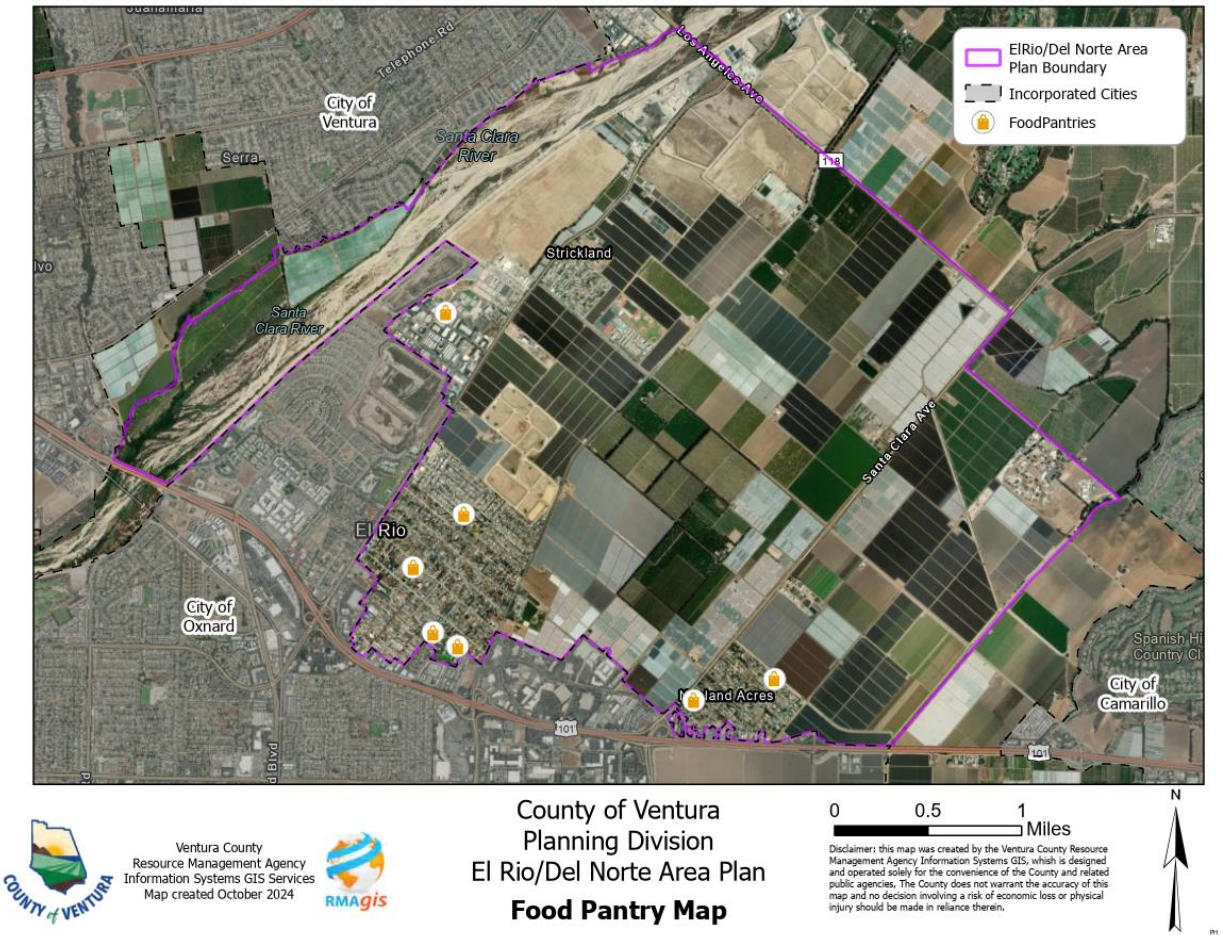

Figure 44: Map of Food Pantry Partners in Plan Area. Source: FoodShare website for Food Pantries.

Table 30: Walkability, Transit, and Biking Infrastructure Scores for Food Pantry Partners in Plan Area.*

Food Pantries in Plan Area**				
Pantry	*Address*	*Walkability*	*Transit*	*Biking*
El Rio Pop-Up Distribution	1140 Kenney St, Oxnard	41		46
First Baptist Church El Rio	2857 Cortez St, Oxnard	67		51

Food Share [Main Warehouse]	4156 Southbank Road, Oxnard	14		31
Garden Acres Mutual Water Company	2838 Friedrich Rd, Oxnard	30		34
Nyeland Acres Community Center	3334 Santa Clara Ave, Oxnard	27		
Rio School	3300 Cortez St, Oxnard	38		38
Seventh Day Adventist Church El Rio	2670 Alvarado Street, Oxnard	41		46

Source: FoodShare website for Food Pantries.

**Walkability, transit, and biking scores were calculated from the website Walk Score on a 100-point scale. The lower the score, the location had fewer options for transit, minimal infrastructure for biking and required the car for errands (walkability). The address of the food pantry was entered into the website to get the scores.*

*** The Food Share warehouse located on Southbank Road was excluded since it distributes food to the various pantries across the county but does not provide food directly to the public.*

The "Seamless Summer Option" Program provides food for schoolchildren in low-income areas during summer vacation and when there are school vacations longer than ten days. This program is funded by the Federal and State government and offers breakfast and lunch to the community schoolchildren. There were eighty-nine summer meal sites in Ventura County in 2024. The sites that offered the meals in in the Plan Area included Nyeland Acres Community Center, Rio Mesa High School, Rio Real Elementary, and Rio Plaza Elementary.

B. Extreme Heat Days

The General Plan Background Report recognized that the County would be vulnerable to the effects of climate change in the coming century. The main consequence of climate change that the Plan Area may experience is an increase to the number of extreme heat days, which is defined in the General Plan as days with peak temperatures of 88 degrees Fahrenheit or hotter. The General Plan Hazards and Safety Policy Section 11 is dedicated to improving community resilience from increasing temperatures due to climate change. The General Plan Hazards and Safety Policy 11.3 aims to limit impacts of climate change on Designated Disadvantaged Communities by focusing on planning efforts, interventions (policy or physical development) on communities with the highest need, and ensuring that community representatives have a role in the decision-making process. The Plan Area includes the Designated Disadvantaged Communities El Rio and Strickland.

The Background Report found that the County may experience up to 79 extreme heat days a year by 2100. Data from the California Healthy Places Index: Extreme Heat Edition indicate that Ventura County is more likely to experience 46 extreme heat days a year by 2064 (Table 31). The Area Plan communities are projected to have around 31 extreme heat days a year. The City of Oxnard may have fewer extreme heat days since it is adjacent to the Pacific Ocean and experiences the "maritime climate" with less extreme temperature swings. The Area Plan communities have less heat days than Ventura County because they are surrounded by agriculture and open space and are still comparably close to the coast.

Table 31: Extreme Heat Days in Ventura County and Area Plan Communities

	Area Plan Communities				
	El Rio CDP*	**Nyeland Acres Census Tract****	**Oxnard**	**Ventura County**	**California**
Extreme heat days projected (2035-2064)	31.4	31.6	12.9	45.8	79.9

Source: California Healthy Places Index: Extreme Heat edition. The California Healthy Places Index definition of an extreme heat day is a day above 90 degrees Fahrenheit.

**This information is comprised of the El Rio Census Designated Place (CDP), which includes the areas of El Rio and Strickland, however it does not include Nyeland Acres.*

*** Composed of Census Tract 50.02 which includes parts of Nyeland Acres and the City of Oxnard. In total there are 155 housing units located in the City of Oxnard's jurisdiction included in this Census Tract, and they consist of mobile homes and apartments. Census Trace 50.02 was used to represent Nyeland Acres because more accurate block level information for Nyeland Acres exclusively was not included in Census data.*

Nearly all County libraries serve as cooling centers, which are air-conditioned spaces that provide a place for the public to cool down during hot summer days. The Albert H. Soliz library branch on 2820 Jourdan Street is in El Rio and is available as a cooling center.

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5 | PUBLIC FACILITIES AND SERVICES

5.1 Public Facilities

A. Parks and Recreation

The County owns and manages a wide variety of parks, open spaces, golf courses, and trails which are in addition to federal and state public recreational areas. Public parks provide mental and physical health benefits that support a high quality of life for residents. When communities are planned, parks are essential uses to include. Neither the 2040 General Plan nor the El Rio-Del Norte Area Plan have established a target ratio of park space to population, but the issue is included in environmental (CEQA) review for new projects. The discussion below describes types of parks and the populations they are intended to serve.

- **Regional Parks/Facilities:** Five acres park land per 1,000 population is a standard planning metric. These parks and often characterized as follows:
    - *Regional Park:* Provides recreation facilities that serve both general and specialized interests. It affords the opportunity for recreation experiences of a scope and quality that will attract attendance from the widest possible range of population ages and interests.
    - *Preserve:* An extent of land preserved from development in order to protect unique scenic resources, unusual native plants and animals, geologic phenomena, or historical sites and buildings. It may be included as part of another Regional Park/Facility class or preserved as a single unit.
    - *Regional Open Space:* Includes the preservation of land in its natural condition to maintain or enhance the aesthetic and environmental qualities of a region. This type of park land can also be used to buffer and manage urban development.
    - *Specialized Facility:* A singular facility or area that provides specialized recreation opportunities that are of regional or County-wide significance. It may be an individual element, or it may be a unit of a larger or more inclusive Regional Park/Facility.
- **Local Parks/Facilities:** Five Acres of developed land (less than 15% slope) per 1,000 population is a standard planning metric and should be provided in addition to the regional parks described above. These parks and often characterized as follows:
    - *Neighborhood Park:* Primarily designed for children and facilities typically include open lawns, play apparatus, shaded areas, specialized buildings for activities, and game/sports courts. Joint use with school facilities is common and desirable and facilities should be provided for the specific needs of the neighborhood areas within a 1-mile radius.
    - *Community Park Facilities and Playfields:* These attract community level patronage and serve neighborhoods within a 1.5-to-2-mile radius. Facilities may include community centers to serve social and cultural needs, crafts, meetings, special events and senior programs; passive areas for family and group picnics; children play facilities; indoor gym; health and fitness centers; pools; and other similar recreation features.
- **Regional Trails/Corridors:** Trail lengths of 2.5 miles per 1,000 population is a standard planning metric and should be provided in addition to and included in the parks described above. These trails are intended to accommodate non-motorized recreational travel through areas that are separated from vehicular traffic. Regional trails should link major park and recreation facilities. They may be designated as single purpose and/or multi-purpose by design, and major access points should be marked by a trailhead and provide amenities. Trails can be developed with natural or paved surfaces.

There is limited access to regional parks from the Plan Area. Steckel Park is a County-owned regional park near Santa Paula that is about 11 miles from the Plan Area, measured as the bird flies. The beach is a little over five miles from the Plan Area, measured as the bird flies.

There are few local parks with community serving facilities within the Plan Area. The El Rio community has the 1.24-acre Roger Jones Community Center and Park which also includes the Albert H. Soliz Library. This community park also includes a playground, basketball court, and a picnic area (Figure 45). Nyeland acres contains the 2.28-acre John C. Zaragoza Nyeland Acres Community Center and Park. This facility contains a community center, playground, a half basketball court, and playfields. The communities of Strickland and Del Norte Industrial Center do not have any community centers or parks. There are no local or regional trails within the Plan Area.

Figure 45: Photos of the amenities in small park in El Rio. There is a basketball court (left), children's play area (center) and children's swings (right). Source: Staff photos taken in October 2024.

Given the above park planning metrics and the amount of park space currently within the Plan Area, there may be a need for additional local parks/facilities and more regional trails (Table 32). The Public Works Agency is considering a bikeway that provides public recreation and education features along the Santa Clara River levee.[44]

Table 32: Balance of needed parks and recreation facilities within the Plan Area

	Regional Parks/Facilities (Acres)		Local Parks/Facilities (Acres)		Regional Trails/Corridors (Miles)	
	El Rio CDP	**Census Tract 50.02**	**El Rio CDP**	**Census Tract 50.02**	**El Rio CDP**	**Census Tract 50.02**
Required Parks/Facilities	32.24	15.41	32.24	15.41	16.12	7.70
Existing Parks/Facilities	142 (Steckel Park)		1.24	2.28	0	0
Balance of Needed Parks/Facilities	*0*	*0*	*31*	*13.13*	*16.12*	*7.70*

[44] https://www.vcpublicworks.org/wp/santa-clara-river/santaclarariverlevee/

B. Library

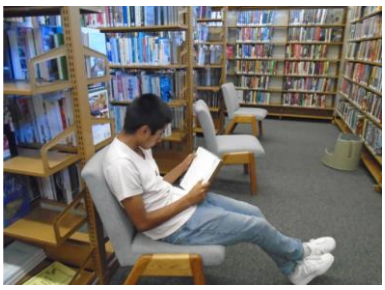


Figure 46: Photos of the amenities in Albert H. Soliz library. Source: Staff photos taken in October 2024

The 2040 General Plan describes that the County shall ensure that library facilities are designed and renovated to best meet community needs, such as collaborative and flexible workspaces, sufficient public meeting room spaces, computers and other technological tools (Policy PFS-9.3). Library staff consistently explores new approaches to providing and expanding access and removing barriers to library services and facilities. The Albert H. Soliz library is located at 2820 Jourdan Street within El Rio and is open to the public during weekdays. The library offers homework assistance, access to computers, and Internet and Wi-Fi access. The library hosts family story times and other early childhood literacy programs, English language classes and one-on-one literacy tutoring for adults, arts and crafts classes, STEAM programs, access to print and electronic collections, a teen advisory group, and serves as a cooling center during heat waves during normal hours of operation.

5.2 Water and Wastewater

This section provides an overview of the potable water and wastewater infrastructure within the Area Plan's boundaries. The 2040 General Plan Housing Element Program HE-D directs the County to identify infrastructure constraints within the EL Rio/Del Norte Area Plan and potential solutions to support the development of the affordable housing units. In some cases, the infrastructure constraints also restrict economic development, institutional uses, and the ability for current homeowners to expand and add improvements.

A. Water Supply

This section was predominately written using information in the El Rio-Del Norte Area Plan Update Background Report Technical Appendix for Water Infrastructure (Appendix A). This Technical Appendix was created in September 2024 by consultant engineering firm NV5 pursuant to Program HE-D and was funded with a grant from the California Department of Housing and Community Development. The analysis evaluated potable water demands from existing, urbanized areas within the El Rio/Del Norte Plan Area and compared potable water demands with sources, storage facilities, and other infrastructure. It also projected potential changes to future potable water demand in the Plan Area communities where new development could be permitted.

Water demand for the Plan Area is expected to grow as vacant and underutilized parcels are developed (infill development), as the State laws described in Chapter 2 are utilized by developers, and as high-density development may occur on identified Housing Element sites and sites that are located in the High-Quality Transit Corridor in El Rio. As described in Chapter 2 recently enacted state laws, including Senate

Bill (SB) 4, SB 6, SB 9, and Assembly Bill (AB) 2011 allow increases in the number of dwellings beyond what local regulations permit. Needs for potable water includes maximum daily demands and daily peak-hour demands, as well as the supply and pressure required for instantaneous flow needed to fight fires.

Potable water supply in the Plan Area is provided by twelve water purveyors that supply water directly to individual properties (Figure 47). Most of these systems are public mutual water companies, where property owners within each water system's service area are shareholders of the respective corporation. One of these systems (Rio Plaza) is owned and operated by an investor-owned utility, and three are schools (Rio Del Valle Middle School, Rio Real School, and Rio Mesa High School) that own and operate public water systems on their respective campuses. There are also five independent single-user water purveyors within the Plan Area as well. As these are private, single-user systems that do not provide water to the public, they were not included in the Technical Appendix unless otherwise noted. Six industrial zoned parcels south of Vineyard Mutual Water Company and North of Beedy Water Company were included in the water demand calculations in the Technical Appendix.

The twelve water purveyor systems are generally not physically interconnected, and each has its own well(s), pipelines, storage tank(s), and pumping systems. Similarly, each water system has its own governing body and management system. This is a comparatively high number of water systems for the size of the Study Area (approximately 6,984 acres). Each system is responsible for maintaining compliance with drinking water regulations set forth by state and federal law, which is monitored, regulated, and permitted by the Division of Drinking Water of the State Water Resources Control Board. Additional compliance requirements are set forth by the California Secretary of State, Franchise Tax Board, and the Fox Canyon Groundwater Management Agency. The Division of the State Architect requires review of improvements on the school properties. The investor-owned utility, Rio Plaza, is also regulated by the California Public Utilities Commission (CPUC).

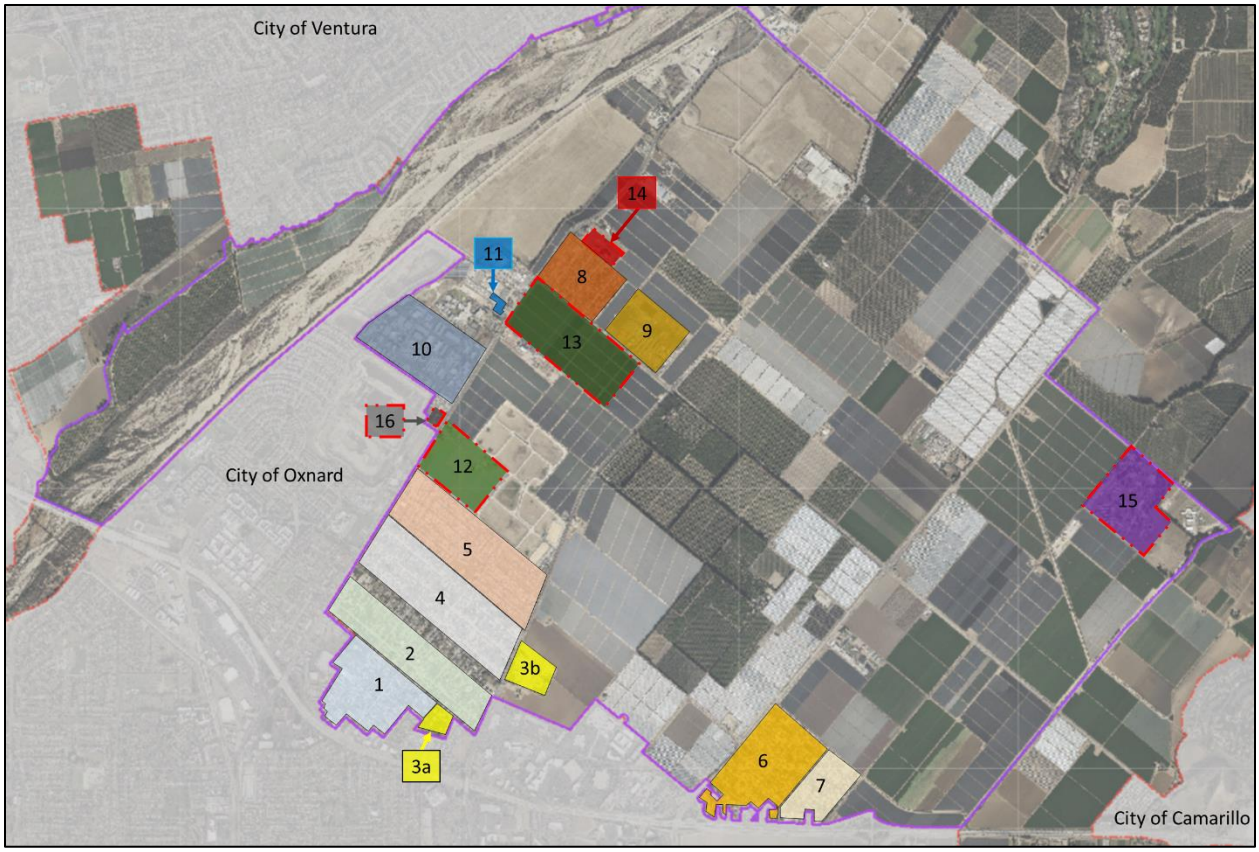

Figure 47: Map and corresponding table showing the location of water purveyors in the El Rio/Del Norte Area Plan

Table 33 below lists the public-serving water systems in the Plan Area, as well as a few of the larger private, single use systems. A "PWA Will Serve Letter" is needed for new development approvals, and generally indicates which water purveyors have potable water availability for individual projects. The status of which systems are able to provide will serve letters is dynamic and subject to change based on overall demand and supply.

Table 33: List of Water Purveyors in the Plan Area and which are currently able to provide "will serve" letters for new development projects.

Number	Public Water Systems	PWA Will Serve Letter
1	Cloverdale Mutual Water Company	No
2	Vineyard Avenue Acres Mutual	No
3a	Rio School District – Rio Real School	No
3b	Rio School District – Rio del Valle School	No
4	The Mutual Water Company of Vineyard Avenue Estates	Yes
5	California American Water - Rio Plaza	No
6	Nyeland Acres Mutual	No
7	Garden Acres Mutual	Yes
8	Strickland Acres Mutual Water Company	No

9	Oxnard Union High School District	No
10	Vineyard Mutual Water Company	Yes
11	Beedy Water Company	No
	Single User Purveyors (red dashed outline)	
12	Alger Family Trust	N/A
13	El Rio Processing	N/A
14	Linda Vista Junior Academy*	N/A
15	Ventura Youth Correctional Facility	N/A
16	Ventura Oil Company Inc.	N/A

* Linda Vista Junior Academy as part of Strickland Acres Mutual Water Company's service area and water demands as they are supplied by the MWC

Source: Ventura County Public Works Agency.

A.1 United Water Conservation District

United Water Conservation District (UWCD) (Figure 48) owns and operates the Oxnard-Hueneme System, which is a groundwater extraction, treatment, and conveyance system for providing wholesale water supplies to the City of Oxnard, Port Hueneme Water Agency, Rio School District schools, and several mutual water companies within El Rio and southwest of the Study Area. The service area of UWCD encompasses all of the Study Area. UWCD is a State Water Project (SWP) contractor with the California Department of Water Resources. UWCD has the ability to import SWP water to the Study Area from northern California, but primarily uses groundwater extracted from its El Rio well field.

UWCD owns and operates a well field and treatment facility in the El Rio area (El Rio Well Field) that supplies its Oxnard-Hueneme System (O-H System), supplying potable water to select public water systems within and southwest of El Rio. UWCD has historically, on a case-by-case basis during emergencies, supplied some local water from the O-H System. Sometimes nitrate concentrations in local groundwater have exceeded the maximum contaminant levels set by the State. Within El Rio, the O-H Pipeline regularly supplies potable water to Rio School District (Rio Real School and Rio Del Valle Middle School) and The Mutual Water Company of Vineyard Avenue Estates.

UWCD also owns and operates several groundwater recharge basins within and immediately northeast of the Study Area. The typical source of water for the recharge basins is surface water flows from the Santa Clara River, diverted by UWCD to the recharge basins at the Freeman Diversion Dam. Additionally, UWCD has the ability to divert water from the State Water Project (SWP) to the recharge basins. However, UWCD seldom utilizes water from the SWP, principally due to the costs and water losses when evaporation occurs.

A.2 Calleguas Municipal Water District

Calleguas Municipal Water District (Calleguas) is a water wholesaler (Public Water System No. CA5610050) that provides water to 19 water purveyors in Ventura County that are not served by UWCD. Calleguas provides water to 93 service connections and an approximate population of 640,000. Calleguas obtains its water from Metropolitan Water District of Southern California (MWD) via the State Water Project (SWP). Limited portions of the Study Area are within the service area of Calleguas. Based on the 2022

Annual Water Quality Report, all chemicals and/or constituents were below primary and secondary drinking water standards MCLs.

Portions of the Plan Area that are within Calleguas' service area are mostly undeveloped. Calleguas does not provide water to any of the public water systems in the Plan Area. Property owners and water purveyors desiring to receive water from Calleguas would need to be annexed into the service areas of both Calleguas and MWD. However, Calleguas is planning to construct a new pipeline to the City of Ventura under the State Water Interconnection Project that would run parallel to Central Avenue, approximately 2,300 feet north of Strickland Acres Mutual Water Company (SAMWC).

A.3 Fox Canyon Groundwater Management Agency

Fox Canyon Groundwater Management Agency (FCGMA) was formed in 1982 to manage and preserve groundwater resources within the lands overlying the Fox Canyon Aquifer. FCGMA is the Groundwater Sustainability Agency for the regulation of groundwater basins within the Fox Canyon Aquifer. The entirety of the Plan Area is within the FCGMA's boundaries.

There is an adjudication of groundwater within the Oxnard and Pleasant Valley Groundwater Basins (Superior Court of the State of California, County of Santa Barbara, Case No. VENCI00555357), which means that there are legal proceedings underway that intend to reduce overconsumption of water supplies from the local groundwater basins. The Technical Analysis in Appendix A did not evaluate groundwater basin capacity, impacts to the groundwater basins, identify new sources of water, or evaluate the suitability of groundwater in the area to meet projected demands. As of October 2024, the adjudication is in nascent stages and the litigation is likely to continue until a final decision is reached.

B. Water Resources

Water for potable purposes, including water sold by the twelve operating potable water systems in the Plan Area, is primarily sourced from groundwater wells located within each water system's service area.

The Santa Clara River watershed is the primary source of natural groundwater recharge in the area. This watershed encompasses approximately 1,200 square miles within Los Angeles and Ventura counties and extends approximately 100 miles from the San Gabriel Mountains to the Pacific Ocean. The Plan Area is in the lower portion of the river's watershed.

C. Water Constraints

Both in the past and present, the El Rio/Del Norte and Nyeland Acres communities have had water quality and availability constraints. Some of the challenges for comprehensive planning purposes stem from varying water quality due to nitrate contamination and the limitations of multiple small water purveyors with undersized, aging facilities and infrastructure.

Figure 48: Image showing UWCD sign at their primary groundwater recharge facility off Rose Avenue. Source: Staff photo taken August 2022.

C.1 Water Quality

In terms of water quality, the wells within the Plan Area that serve the public are normally compliant with state and federal drinking water requirements (Table

34). However, nitrate levels have exceeded maximum contaminant levels (MCL) and is the most common contaminant of concern in the Plan Area. Nitrate contamination is primarily caused by human induced (anthropogenic) activities such as the operation of antiquated septic systems and fertilizer used for agriculture, and thus impacts broad groundwater basins in the Upper Aquifer System (UAS). Nitrate has been identified as a drinking water contaminant that presents a risk to human health by the United States Environmental Protection Agency (EPA). In particular, elevated levels of nitrate can cause a condition called methemoglobinemia, which is of greatest concern in infants. Some groundwater wells in the area also contain elevated concentrations of secondary contaminants, which are not health threatening but may cause drinking water to appear cloudy, or to have a foul taste or odor. Secondary contaminants in the area include iron, sulfate, manganese, and total dissolved solids. Additionally, trace levels of lead and copper have been detected but the levels did not exceed State thresholds.

Table 34: Summary of Water Contamination Thresholds by Purveyor.

Public Water Systems	Exceeded Primary Contamination Thresholds	Exceeded Secondary Contamination Thresholds
Cloverdale Mutual	No	No
Vineyard Avenue Acres Mutual	Yes (nitrate)	Yes (iron, total dissolved solids)
Rio School District – Rio Real School	No	No
Rio School District – Rio del Valle School	No	No
Vineyard Avenue Estates Mutual Water Company	Yes (nitrate, selenium)	Yes (sulfate, total dissolved solids)
California American Water - Rio Plaza	No	No
Nyeland Acres Mutual	No	No
Garden Acres Mutual	No	No
Strickland Acres Mutual Water Company	No	Yes (iron, manganese, sulfate, total dissolved solids, turbidity)
Oxnard Union High School District	Yes (gross alpha)	Yes (sulfate, total dissolved solids)
Vineyard Mutual Water Company	No	Yes (iron, sulfate, total dissolved solids)
Beedy Water Company	No	Yes (iron, sulfate, total dissolved solids)

Source: El Rio-Del Norte Area Plan Update Background Report Technical Appendix for Water Infrastructure and State Water Resources Control Board Sanitary Survey's.

C.2 Water Supply

Due in part to the fact that the communities within the Plan Area developed independently with their own water purveyors, multiple small facilities have limited water pumping, transmission, and storage capacity. This results in a significant constraint on property owners from being able to expand their current homes and businesses, add additional units (such as an accessory dwelling unit), and for the more

extensive redevelopment projects, demonstrate a proposed project will have enough water to meet the maximum day demand and/or the required water for fire suppression systems (fire flow). Table 35 below summarizes which purveyors can meet the existing water demand and storage requirements.

In order to demonstrate “fire flow” standards can be met for new development, a "will serve" letter is required from the local purveyor that shows there is sufficient capacity to connect to the existing water system. For example, a single-family residence is required to have access to a 1,000 gallon per minute (gpm) water flow for 2 hours for (see Appendix A Table 5 for the fire flow requirements for commercial, industrial, trailer parks, and isolated residential uses). Based on this information, only two purveyors currently can meet fire flow requirements. Thus, due to water supply and conveyance capacity constraints, the current water systems, as operational under the standards for state/local regulations, severely limit the potential for new development in the Plan Area.

Table 35: Water Purveyors ability to meet the current demand and storage requirements.

Water System	Adequate Supply for Average Day Demand[1]?	Adequate Supply for Maximum Day Demand[1]?	Adequate Storage for Maximum Day Demand[2]?	Adequate Supply Flow for Fire Flow[3]?	Adequate Storage for Fire Flow[4]?
Beedy Water Company	Yes	No	Yes	No	No
California American Water – Rio Plaza	Yes	Yes	No	No	No
Cloverdale Mutual Water Company	Yes	Yes	No	Yes	No
Garden Acres Mutual Water Company	Yes	No	Yes	Yes	Yes
Nyeland Acres Mutual Water Company	Yes	No	Yes	No[3]	No
Strickland Acres Mutual Water Company	Yes	Yes	No	No	No
Vineyard Avenue Acres Mutual Water Company	Yes	Yes	No	No	No
Vineyard Avenue Estates Mutual Water Company	Yes	No	Yes	No[3]	Yes
Vineyard Mutual Water Company	Yes	Yes	Yes	No[3]	Yes
Rio School District – Rio Del Valle School	Yes	No	Yes	No	No
Oxnard Union High School District – Rio Mesa High School	Yes	Yes	No	No	No
Rio School District – Rio Real School	Yes	No	No	No	No

Notes:

1. This column summarizes whether the system has adequate water sources to meet average day demand (ADD) or maximum day demand (MDD) and/or if they have adequate source capacity with the highest-capacity source offline.
2. This column summarizes whether the system has adequate water storage to meet MDD.
3. This column summarizes whether the minimum fire flow can be meet with only the pumping capacity of the system's water sources. It is assumed that the system's hydropneumatic tank(s) and booster pumps are in good working condition, that the water sources can pump consistently for at least 2 hours, and that aquifer levels are not depleted.
4. This column summarizes whether the system has adequate water storage to meet the minimum required fire flow (in total gallons). A water system does not need to meet the minimum fire flow requirements with both their source capacity and storage.

D. Current Water Projects and Infrastructure Improvement

The Water Quality, Supply, and Infrastructure Improvement Act of 2014 was created to meet the State's long-term water needs. Funds from this act support an array of sustainable water related projects, including drinking water protection, public water system improvements, water recycling, wastewater treatment, drought relief, emergency water supply management, and watershed protection. The Integrated Regional Water Management Planning Act (SB 1672, 2002) has provided over $1.5 billion in State funding dedicated to support integrated, multi-benefit regional projects.

The Watersheds Coalition of Ventura County is a consortium of local cities, County representatives, wholesale and retail water agencies, special districts, and non-governmental agencies who are interested in promoting and implementing integrated regional water management planning. The coalition identified the following three key projects that would benefit the Plan Area:

1. El Rio Retrofits for Groundwater Recharge: This would retrofit existing County-maintained roads with stormwater infiltration systems that recharge groundwater in the Oxnard Plain Forebay Basin and improve surface water quality in downstream receiving waters. The project includes removing existing paved areas such as sidewalks, parkways and roadway hardscapes, and replacing this infrastructure with designs that allow water to percolate into the ground, such as pervious concrete gutters. The project would decrease the amount of stormwater runoff by redirecting it into groundwater basins and it would improve water quality by avoiding bacteria, nitrogen, metals, and other urban pollutants that otherwise accumulate in stormwater runoff that passes over existing urban impervious surface areas.
2. El Rio Forebay Groundwater Contamination Elimination Project: Completed in 2011.
3. El Rio Water Treatment and Groundwater Recharge facility: UWCD opened this facility in September 2023.[45] Groundwater from a deep underground aquifer system is treated for iron and manganese at North Rose Avenue in El Rio. The treated water is blended with groundwater from wells closer to the surface that historically have increased nitrate concentration during droughts, improving the overall quality of the water.

These projects will primarily improve water quality and increase the amount of accessible water in the Plan Area as well as other areas in the county.[46] There have been also grants allocated to some of the local water purveyors to expand capacity and improve water quality.

In 2023, the Rural Community Assistance Corporation, a nonprofit organization that supports housing and economic development in Indigenous and rural communities, contracted with engineering services firm NV5 to evaluate the feasibility of consolidating the Vineyard Avenue Acres Mutual Water Company with other purveyors in El Rio, including Strickland Acres Mutual Water Company, Vineyard Mutual Water Company, Beedy Water Company, and Rio Mesa High School. The benefits from consolidation include but are not limited to 1) addressing storage and fire suppression deficiencies, 2) reducing individual system infrastructure redundancies, 3) increasing storage volume, and 4) reducing duplicative administrative processes. Additional information about this study may be found in Appendix A Section 6.1.1.1.

E. Wastewater

In 1999, the California Regional Water Quality Control Board, Los Angeles Region (CRWQCB) conducted testing and determined that wastewater was contaminating the underlying groundwater basin in the Oxnard Forebay due to the prevalence of aging residential onsite wastewater treatment systems (i.e., septic tanks). As groundwater from the basin is the primary source for drinking water supply in the Plan Area, this contamination, with pathogens and nitrogen compounds, began to exceed thresholds for well-sourced drinking water. The CRWQCB adopted Resolution No. 99-13 in August 1999 prohibiting new septic

[45] https://www.acwa.com/news/united-water-conservation-districts-new-iron-and-manganese-treatment-plant-comes-online/
[46] https://watershedscoalition.org/projects/

systems in the Oxnard Forebay, including El Rio/Del Norte. This policy was modified in 2008 to prohibit discharge of septic effluent from lots less than 5 acres. The CRWQCB noted that fertilizers and storm water runoff also contributed to the exceedance of regulatory thresholds for nitrates.

E.1 Background

In response to restrictions on septic systems in the Oxnard Forebay (Figure 49), the Ventura County Public Works Agency prepared a "El Rio Sewer System Project Environmental Assessment" in 2003[47] and it provides the most up to date understanding of wastewater capacity and constraints for the Plan Area. In 2005, the County and City of Oxnard agreed to reserve treatment capacity at the City's Wastewater Treatment Plant and build connecting infrastructure for wastewater originating from communities in the Plan Area. The El Rio Sewer System Project cost approximately $35.0 million dollars and $26.0 million was grant funded. Soon after completion of the project in 2011, a total of approximately 1,450 septic systems were abandoned.[48]

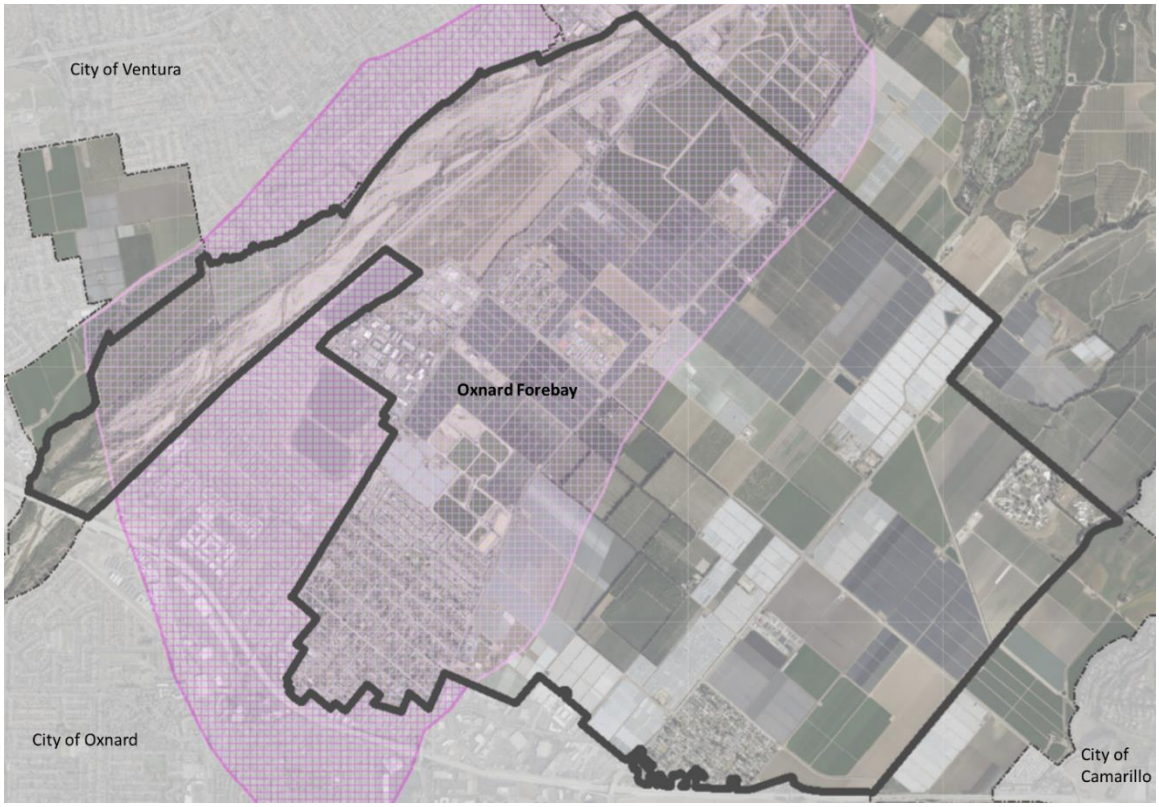

Figure 49: Map of Oxnard Forebay (purple crosshatch) covers approximately half of the Area Plan. Source: Ventura County

47 Ventura County Public Works Agency, Water and Sanitation Division Environmental Assessment Project No. 0202-2291. https://19january2017snapshot.epa.gov/www3/region9/water/elrio/ea.pdf

48 Board of Supervisors staff report October 20, 2009. Rio Forebay Groundwater Contaminant Eliminations Project El Rio Sewer Collection System – Phases 5B, 5C, & 5D, Specification No. WW09-05, Project No. 28236, Supervisorial District No. 5. https://ventura.primegov.com/portal/item?id=216933

Today, sewer service in the Plan Area is provided by two County-administered districts, called County Service Area (CSA) 34 for the El Rio and Del Norte communities, and CSA 30 for Nyeland Acres. The County Public Works Agency, Water and Sanitation Department is responsible for operation and maintenance of the sewer collection system and the County Board of Supervisors is the governing body. [49]

E.2 Estimated Sewage flows In El Rio/ Del Norte

The Ventura County Public Works Agency El Rio Sewer System Project Environmental Assessment, divided the El Rio area into three drainage areas. These areas are listed below, along with the estimated sewage flows total over 1 million gallons per day as broken down below:

North Area (Del Norte and Del Norte Industrial Center): The North area includes Rio Mesa High School, Strickland Acres, Beedy Street and Del Norte Industrial Areas. The average daily flow for sewage for this area is estimated to be 205,000 gallons per day (gpd).

El Rio West (Oxnard): El Rio West includes a small area of El Rio located west of Vineyard. The estimated sewage flow from this area is 41,400 gpd.

El Rio East (El Rio CDP): El Rio East includes a major portion of El Rio east of Vineyard and west of Rose Avenue. The estimated sewage average daily flow from this area is 763,600 gpd.

Nyeland Acres: The estimated sewage average daily flow from this area is 277,290 gpd. This is based on the flow in Nyeland Acres which was equivalent to nearly 90 gallons per capita per day (gpcd)[50].

E.3 Connection Line Underneath Highway 101

The Ventura County Public Works Agency El Rio Sewer System Project Environmental Assessment[51] detailed the size of line connections and also the system path to the City of Oxnard connection. For a connection to the City of Oxnard south of the freeway, the 18-inch pipe will need to crossover from Cortez Street to Balboa Street at Corsicana Drive. Once on Balboa Street, the 18" line would extend south to Ventura Boulevard. Once in Ventura Boulevard, it would change to 21", extend southerly across Highway 101 into the City of Oxnard, and connect to the City system in Stanford Avenue.

A network of 8-inch pipelines would collect the remainder of the El Rio Area and deliver the sewage to the main trunk line. The collection system would intercept the City system north of Highway 101, allowing the abandonment of the City's Lift Station #25 at Cortez Street and Ventura Boulevard. Therefore, delivery of the El Rio East and North Area sewage into the City of Oxnard would be by gravity feed to a 24-inch line in Stanford Avenue, south of the freeway.

E.4 Sewer Capacity of Oxnard Wastewater System

According to the City of Oxnard Public Works' Integrated Master Plan (September 2017, updates are underway), the wastewater treatment plant has sufficient capacity to accommodate the current and future needs of the Area Plan. This also takes into account the wastewater demands of large Specific Plan

[49] https://www.vcpublicworks.org/wsd/servicearea/

[50] According to the 2003 Ventura County Public Works Agency El Rio Sewer System Project Environmental Assessment, this closely approximates the City of Oxnard standard of 90 gpcd; therefore, 90 gpcd was used for the El Rio area. Density figures came from the Ventura County standards of 3.5 persons per single family home, 2.2 persons per apartment, and 0.003 cubic feet per second per acre for commercial properties.

[51] Ventura County Public Works Agency, Water and Sanitation Division Environmental Assessment Project No. 0202-2291. https://19january2017snapshot.epa.gov/www3/region9/water/elrio/ea.pdf

developments within the City (Table 36). As of November 2024, the County Public Works Agency is coordinating with the City of Oxnard on updates to the Master Plan, including the amount of wastewater originating from the Plan Area that the City will treat. Even though there is additional capacity at the facility, new growth within the Plan Area will need to ensure that cumulative wastewater amounts do not exceed those agreed upon between the County and the City.

Table 36: Oxnard Project Capacity

City of Oxnard Project	OWTP Capacity	Average Daily Flows	Additional mgd per project	Surplus mgd capacity	Year of project assessment
Teal Club Development Review EIR**	31.7 mgd	23.0 mgd	0.23 mgd	31.4 mgd	2007
Sakioka Farms Draft EIR***	31.7 mgd	20 mgd	0.76 mgd	11.7 mgd	2010
Riverpark EIR****	31.7 mgd	22 mgd	0.88 mgd	9.7 mgd	2011

*gpd= gallons per day, example 0.23 mgd=235,140 gallons a day
***Teal Club Development Infrastructure Review, https://ceqanet.opr.ca.gov/2012051080/4*
****Sakioka Farms Specific Plan Final EIR, https://www.oxnard.org/environmental-document-archives/*
*****Riverpark EIR Addendum, https://www.oxnard.org/environmental-document-archives/*

E.5 Plan Area Growth and the Oxnard Wastewater System

The 2003 Ventura County Public Works Agency El Rio Sewer System Project Environmental Assessment[52] established that the population in the Plan Area was approximately 10,150 people. This Assessment estimated the Plan Area would add 1,800 persons within 484 new housing units, resulting in a total buildout population of 11,950 with the full development of 15.2 acres of commercial land and 68.3 acres of industrial land.[53]

Primarily due to potable water supply constraints, the population of the Plan Area has not exceeded this initial buildout estimate. With sufficient water supply, growth may exceed this estimate, particularly given State laws that allow for residential densities to exceed local regulatory standards in some cases (see Section 2.1).

F. Housing Element Sites

The 2040 General Plan Housing Element identified four parcels on 8.92 acres within the Plan Area as potential locations for the development of 159 low-income affordable units. According to the El Rio-Del Norte Area Plan Update Background Report Technical Appendix for Water Infrastructure (Appendix A) these housing element sites at full buildout would require an average daily demand of 120,336 gallons and a maximum daily demand of 409,142 gallons (Table 37). The sites are served by the Cloverdale Mutual water system.

[52] Ventura County Public Works Agency, Water and Sanitation Division Environmental Assessment Project No. 0202-2291. https://19january2017snapshot.epa.gov/www3/region9/water/elrio/ea.pdf
[53] The Public Works Agency utilized the buildout assessment contained in the 1996 Environmental Impact Report for the El Rio/Del Norte Area Plan.

Table 37: Water demand for the Housing Element sites located within the Area Plan

Assessor's Parcel Number (APN)	Address	Potential Units	Average Daily Demand (gpd)	Maximum Daily Demand (gpd)
145-0-180-040	N/A	55	36,975	125,714
145-0-180-050	2667 Cortez St	53	35,630	121,143
145-0-180-060	2609 Cortez St	55	36,975	125,714
145-0-190-390	2712 Cortez St	16	10,756	36,571
Total		**179**	**120,336**	**409,142**

While Cloverdale Mutual has the adequate water supply to accommodate this increase, it does not have sufficient storage capacity to meet back up that may be needed in a case of an emergency or water source interruption. Additionally, while Cloverdale may be able to meet fire flow requirements, it may not be able to meet the fire pressure requirements due to smaller transmission pipes throughout the district's boundaries and it does not have enough storage if the highest capacity well goes offline.

As for wastewater, the Housing Element sites are located within the Ventura County Service Area No. 34 (CSA 34) which provides sanitation services to the El Rio and Del Norte via a contract with the City of Oxnard. According to LAFCo's 2022 Ventura County Service Area No. 34 – Municipal Service Review, the City of Oxnard's wastewater treatment plant has enough capacity for 1,369 more connections to CSA 34.

G. Water and Wastewater Analysis

While a majority of the water purveyors are able to meet the average daily demand for water, a majority of them cannot meet the needs of the maximum daily demand and/or the fire flow requirements. There is also a need for more storage tanks to supply water demands when sources may be rendered offline due to maintenance or water quality violations, or during emergencies requiring fire flow. Additionally, some of the purveyors have at times, temporarily exceeded State standards for primary and secondary contaminants. Per the Technical Appendix, each individual water purveyor outside of those under the current consolidation study will need to make their own improvements to meet the needs of current build-out scenarios which can run into the millions of dollars. For example, Cloverdale Mutual Water Company will need approximately 386,000 gallons of new storage in order to supply the current maximum daily demand and fire flow requirements. At approximately $5 to $10 per gallon for new storage, the new tank will cost Cloverdale between $1.93 million and $3.86 million alone without any upgrades to the pipes, which alone can cost between $150 to $500 per linear foot depending on the diameter.

Additionally, each purveyor is also required to 1) have a storage volume of no less than the systems Maximum Daily Demand plus fire flow[54], and 2) have a back-up water supply source(s) to meet the Maximum Daily Demand with the largest well offline.

The Technical Appendix summarizes that a consolidation of the various water systems in the El Rio/Del Norte area, including the system serving the Housing Element Sites, would reduce the need for redundancies in individual systems and is the most efficient means to meet the needs of both existing and new development. Consolidating into a single system helps to reduce the required fire flow and storage

[54] Systems with less than 1,000 service connections are required to have adequate storage to supply the MDD. However, with separate fire flow requirements that can be met with storage, a "worst-case" scenario could put a system that does not have enough storage to meet MDD + fire flow at risk.

requirements, which in turn could provide long-term cost savings lower the land, development, operational, and maintenance costs for individual systems.

As for wastewater, there is capacity at the City of Oxnard's Wastewater Treatment Center to cover additional infill development and population expansion in Area Plan. Currently, the most constrained pipelines are the 8-inch pipelines located in El Rio and the 18-inch pipeline that extends into Ventura Boulevard and across Highway 101 so further study would be needed to show adequate capacity and flow for increased development. Based upon the most recent data available as of 2018, there were still over 1,369 available connections in CSA 34.

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6 | CIRCULATION, TRANSPORTATION, & MOBILITY

6.1 Circulation, Transportation, and Mobility

The Public right-of-way (ROW) typically consists of public-owned lands that allow for the free movement of the general population and can be broken down into three primary components: 1) pedestrian facilities, 2) the bicycle network, and 3) public and private vehicle travel and parking. This section summarizes the existing conditions for circulation in the Area Plan.

A. Roadway and Parking

In urban and transportation planning, street networks are often summarized and evaluated in categories that include freeways, arterial roads, collector roads, and local roads. Figure 50 depicts a basic example of these road types, while Figure 51 shows the road types in the Plan Area. The boundaries of the Plan Area are primarily defined by highways and arterial roads, while the community cores consist of a grid of collector and local roads. Ventura County uses the following roadway classification system:

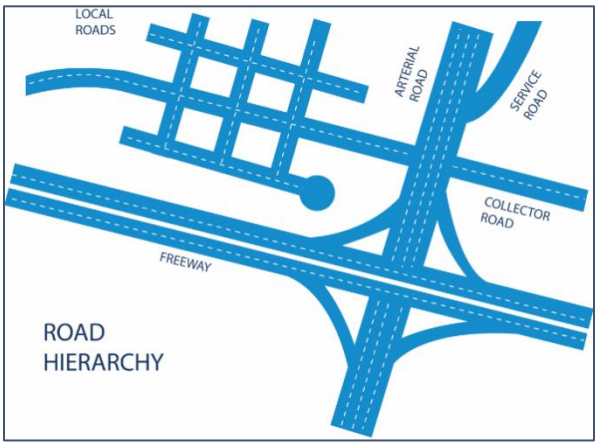

Figure 50: Diagram showing the basic concept of road hierarchy. Source: Active Transportation Plan, Bloomington, Minnesota.

- *Freeways:* Freeways are primarily used for intercity, regional, and interstate travel. Access points are restricted to on and off ramp locations, with interchanges located typically at least one mile apart. These roadways are under Caltrans jurisdiction.

  Area Plan Example: Highway 101. While Highway 101 is not within the boundaries of the Area Plan, it forms a significant barrier along the entire southern border.

- *Conventional State Highways:* A conventional state highway refers to a roadway with limited control of access, which may be divided or have grade separations at intersections. Abutting property owners have access rights. These roadways are under Caltrans jurisdiction.

  Area Plan Example: Los Angeles Avenue/Highway 118, Vineyard Avenue/Highway 232

- *Primary/Secondary Arterials:* Unlike freeways and expressways, arterials serve the neighboring areas. Arterials can include at-grade intersections with other major roadways. By connecting the major activity centers and highest traffic volume corridors, arterials helps to provide a network of continuous routes, facilitating both local and regional travel.

  Area Plan Example: Rose Avenue (between Highway 101 and Central Avenue), Santa Clara Avenue

- *Major/Minor Collectors:* The main purpose of collectors is to provide local access to the overall roadway network. Collectors channel traffic from local roadways into the arterial network. Intersections are permitted with all public roadways.

  Area Plan Example: Simon Way, Stroube Street

- *Local:* Local roadways provide direct access to the abutting land and primarily facilitate local travel. Local roadways are not intended for long distance travel and are often designed to discourage through traffic. There are no restrictions on intersections or public access.

  Area Plan Example: Cortez Street, Nyeland Avenue

Overall, there is approximately 31 miles of roadway in the Plan Area with Local roads comprising the longest portion at 14 miles or 45% of the total road miles (Figure 51 and Table 38). The roadway pattern provides a high degree of connectively for vehicles within the community and surrounding areas making the vehicle the preferred method of travel for local residents.

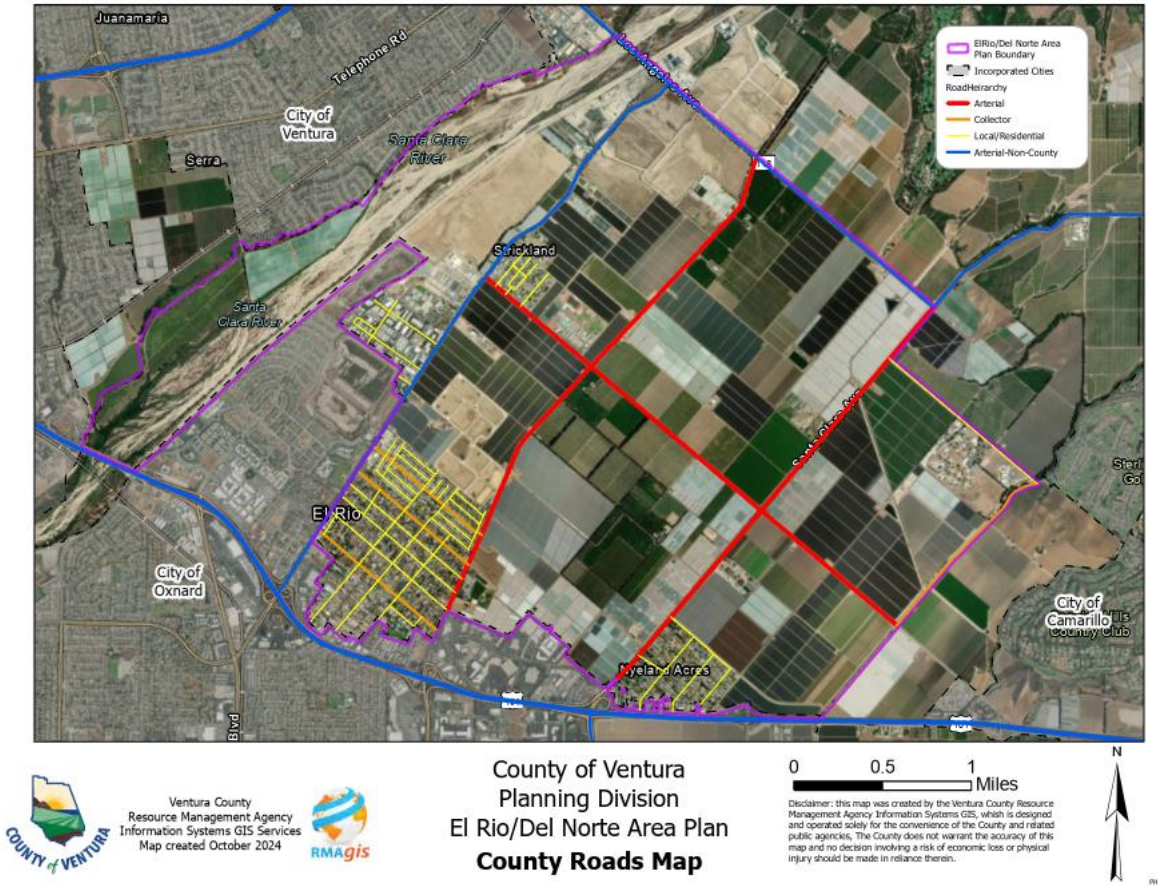

Figure 51: Map of the road types by road hierarchy.

Table 38: Total road miles within the Area Plan boundary.

Road Type	Road Length (Miles)
Non-County Arterial (Conventional State Highway)	4.70
Arterial	8.92
Collector	3.60
Local	14.03
Total	31.25

B. Transportation Mode

This section summarizes the mode share within the Area Plan. Residents within the Area Plan on average drove alone significantly more than their counterparts in Oxnard, the County, and especially the state (Table 39). Area Plan households also indicated that they have a lower vehicle ownership rate when compared to local and state averages (Table 40). While pedestrian and bicycle activity has not been measured, the Plan Area household average of 3 or more vehicles may be an indicator that pedestrian and bicycle infrastructure improvements are needed. This could also impact transit ridership since residents would have to walk or cycle to the bus stops, which people are less likely to do if they do not feel safe.

Additionally, a 2020 study[55] by the University of California, Los Angeles (UCLA) found that vehicle ownership is an extremely strong determinant of travel behavior and that an increase in vehicle availability reduces the likelihood of individuals taking transit. Another similar 2020 study[56] by UCLA found that the cost and shortage of housing in the state, while it is also experiencing an increase in employment opportunities, is causing an imbalance in the jobs/housing balance that is resulting in the need for longer commutes as people look for more affordable housing options which are not typically located near employment areas.

Table 39: Means of Transportation to Work

	Area Plan Communities		Oxnard	Ventura County	California
	El Rio CDP*	Nyeland Acres Census Tract***			
Drove alone	83.33%	85.77%	77.1%	74.62%	68.89%
Carpooled	9.42%	10.63%	15.11%	9.84%	9.54%
Public Transportation	N/A	N/A	0.58%	0.76%	3.56%
Taxi, Motorbike, Bicycle	0.22%	N/A	0.93%	1.20%	2.36%
Walked	N/A	N/A	1.21%	1.35%	2.06%
Worked at home	7.03%	3.6%	5.07%	12.23%	13.59%

Source U.S. Census Bureau, American Community Survey 5-Year Estimates, 2022. Any totaling errors may be the result of rounding errors.

Table 40: Availability of a vehicle per household

Vehicle Availability	Area Plan Communities		Oxnard	Ventura County	California
	El Rio CDP*	Nyeland Acres Census Tract***			
No Vehicle	1.41%	1.97%	1.66%	1.72%	3.27%
1 Vehicle	10.69%	13.72%	12.66%	12.36%	18.18%

[55] Blumenberg, E., & Schouten, A. (2020). Vehicle Ownership Trends and Their Implications for Transit Ridership. UCLA: Institute of Transportation Studies. Retrieved from https://escholarship.org/uc/item/505847r4

[56] Taylor, B. D; Blumenberg, E.; Wasserman, J. L; Garrett, M.; Schouten, A.; King, H., et al. (2020). Transit Blues in the Golden State: Analyzing Recent California Ridership Trends. UC Office of the President: University of California Institute of Transportation Studies. Retrieved from https://escholarship.org/uc/item/32j5j0hb

2 Vehicles	25.91%	20.93%	29.04%	36.23%	37.49%
3+ Vehicles	61.99%	63.38%	56.63%	49.69%	41.06%

Source U.S. Census Bureau, American Community Survey 5-Year Estimates, 2022. Any totaling errors may be the result of rounding errors.

6.2 County Road Standards

The Ventura County Public Works Agency has adopted a set of road standards which establishes uniform design and construction methods for County-maintained roads. The road standards manual also recognizes that road designs shall utilize for general guidance the California Department of Transportation's Highway Design Manual. Deviations from these standards is permitted but only upon approval by the Board of Supervisors or Road Commisioner and needs to be accompanied by sufficient supporting data.

The County's Road Standards Manual is made up six chapters, or Series Plates, labeled 'A' through 'F' and covers the following topics:

- *A-Series Plates – Design and Construction Policies*

  These plates include topics such as general design notes, material testing, drainage, and pavement design among others.

- *B-Series Plates – Road Cross-Sections*

  These plates review the eight different types of roads within the County. Most of these roads can also be broken down into sub-plates. For example, the "Secondary Free Access and Commercial/Industrial Roads" (Plate B-3) can be further broken down into four sub-types of [A] Secondary, [B] Major Commercial or Industrial, [C] Commercial or Industrial, and [D] Minor Commercial or Industrial. Each of these sub-types may have varying design criteria between them.

- *C-Series Plates – Cul-De-Sac Layout*

  These plates brake down the types and design of cul-de-sac and include standards for the radius and length. The standards also change if parking is included.

- *D-Series Plates – Intersections and Vertical Alignment*

  These plates include intersection design, sidewalk design, and bus turnout standards.

- *E-Series Plates – Miscellaneous Details*

  These plates cover multiple different details including, but not limited to, curbs and gutters, residential and commercial driveways, pavement repairs for trenching, and above ground utilities in road right-of-way.

- *F-Series Plates – Traffic Control and Lighting*

  These plates include signpost installation, intersection name signs and their specifications, and intersection and roadway lighting.

These plates do not identify other street features for alternative transit modes, like bicycle lanes or planter areas for street trees.

A. Controlled Access Primary and Secondary Roads (Plate B-2)

This plate design (Figure 52) is used as the base for Rose Avenue between Collins Road and Central Avenue, which is identified as an Arterial of the Area Plan. In this particular case, the road utilizes the sub-type [B] which indicates it is 'secondary,' meaning it has reduced overall design widths and a lower average daily trip (24,000). In this case, since the road is on flat land, the manual calls for it to be designed for a speed of 60 miles per hour (mph).

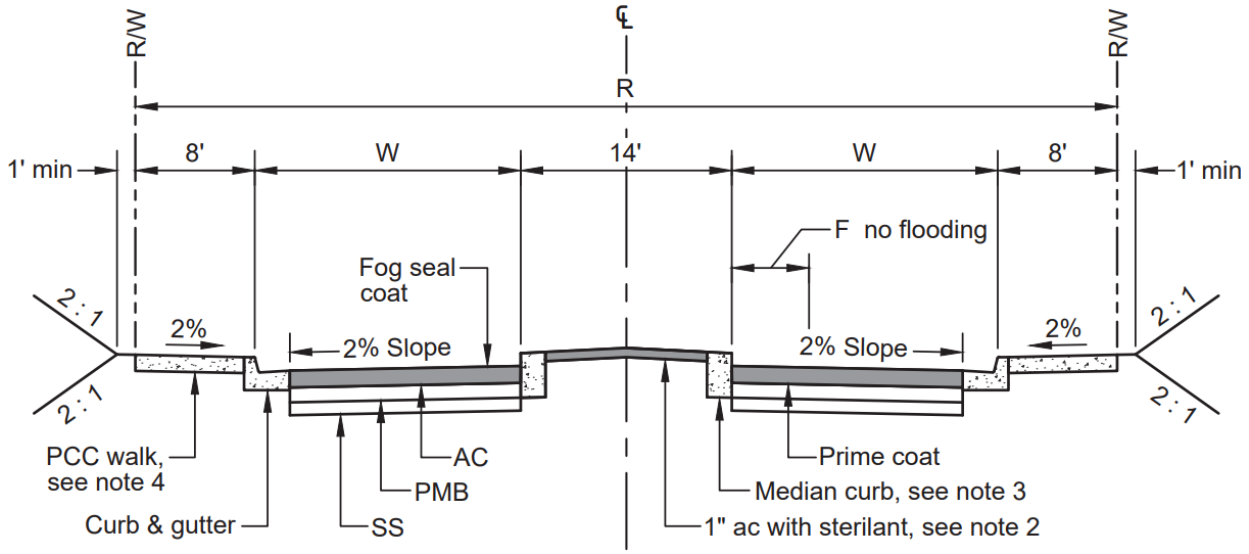

Figure 52: Plate B-2 cross section. R – Right of way width; W - Pavement width; F- Flooding free width.

Additionally, this particular plate does not allow for any parking (except emergency) and the central median is optional. The sidewalk, curb, and gutter may also be omitted from the design when it is approved by the Road Commissioner and Planning Director.

B. Secondary Free Access and Commercial/Industrial Roads Plate B-3 [C] and [D]

This plate design (Figure 53) is the second most common road type within the Plan Area due in part to the Del Norte Industrial Center. While this plate contains four sub-types, only subtype [C] – Commercial or Industrial and [D] Minor Commercial or Industrial are present within the Area Plan. Examples of this plate type are Montgomery Avenue (subtype [C]) and Sandy Circle (subtype [D]).

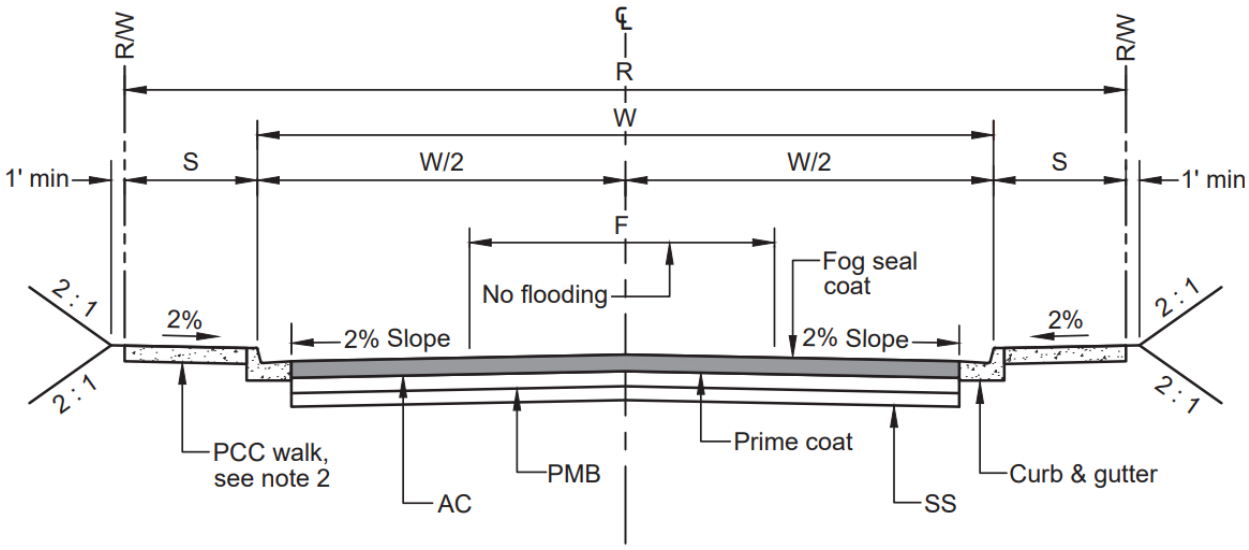

Figure 53: Plate B-3 cross section. R – Right of way width; W - Pavement width; F- Flooding free width.

Subtype [C] typically has 68-foot right-of-way (ROW) and is designed for speeds of 40-mph with an average daily trip total of 8,000-16,000. Subtype [D] typically has a 60-foot ROW and is designed for speeds of 30-mph with an average daily trip total of less than 8,000. It is interesting to note that while type [D] is meant to serve less traffic, it has similar design requirements and devotes most of its total ROW to pavement width. The sidewalk, curb, and gutter may also be omitted from the design when it is approved by the Road Commissioner and Planning Director.

C. Urban Residential Plate B-5 [A] and [B]

This plate design (Figure 54) is the most ubiquitous in the Area Plan as it makes up the Urban Residential roads. While there are four subtypes in the Manual, the Area Plan only contains type [A] Collector and type [B] Minor. Examples of type [A] are Stroube Street and Simon Way.

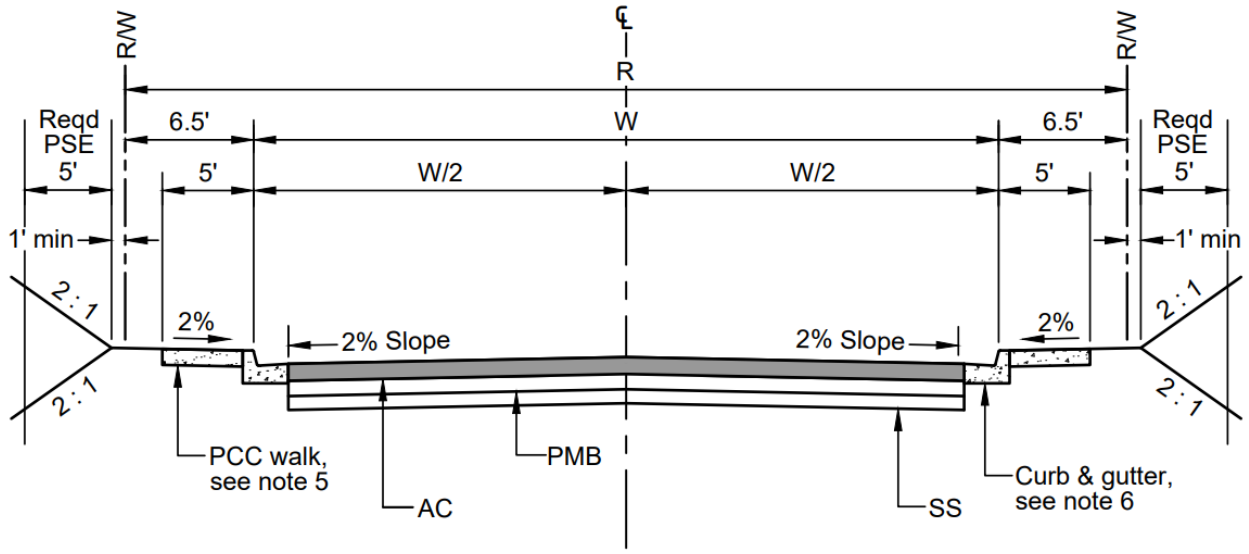

Figure 54: Plate B-5 cross section. R – Right of way width; W - Pavement width; F- Flooding free width.

Subtype [A] typically has 53-foot ROW and is designed for speeds of 30-mph while subtype [B] typically has a 49-foot ROW with a design speed of 25-mph. What is different about these roads is that instead of being designed for an average daily trip total, they are designed based on the number of lots served.

D. Rural Roads Without Curbs Plate B-7

This plate design (Figure 55) is relatively uncommon in the Area Plan and is only found in some of the agricultural areas. This design is also made up of two subtypes, but only type [A] is present within the Area Plan. Examples of this plate design are Central Avenue between Rose and Santa Clara Avenues and Beardsley Road between Central Avenue and the City of Camarillo city limit.

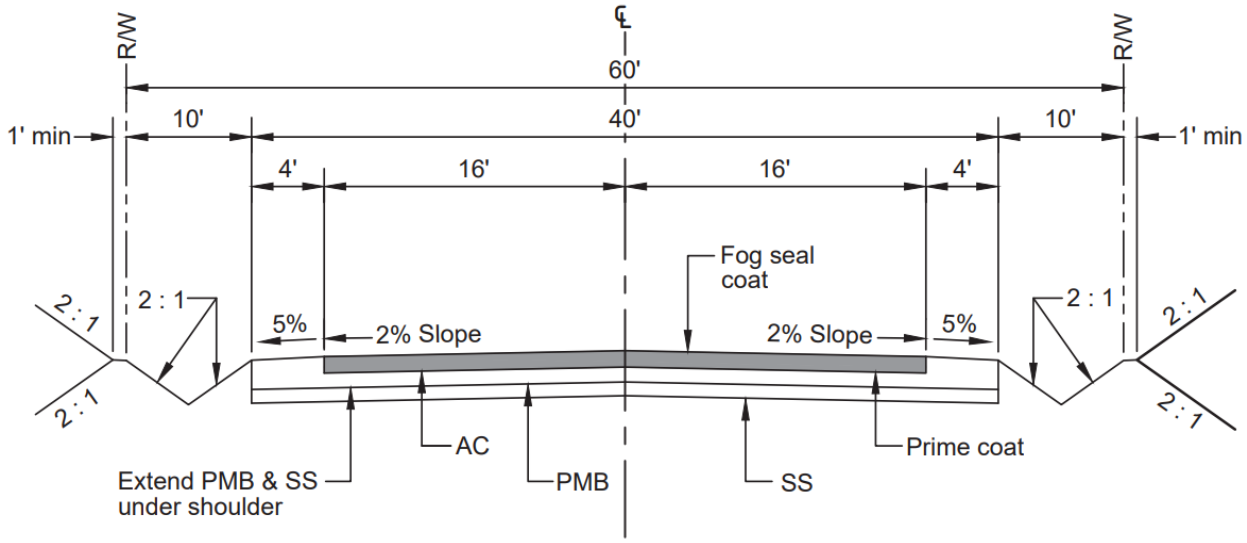

Figure 55: Plate B-7 cross section. R – Right of way width; W - Pavement width; F- Flooding free width.

6.3 Alternative Transportation

A. General Plan Goals, Policies, and Programs supporting Multi-Modal Transportation

The 2040 General Plan contains numerous goals, policies, and programs supporting a multi-modal approach to transportation. They range from encouraging the development of a "complete streets" strategy to encourage public transportation services to improvements of pedestrian and bicycle infrastructure to provide residents a range of transportation options (Table 41).

Table 41: General Plan Goals, Policies, and Programs supporting Multi-Modal Transportation

	Goal, Program or Policy Name	Description
Pedestrian	**Policy CTM-2.16** Pedestrian Planning	The County shall consider the safety and accessibility of pedestrians when preparing transportation plans, studies, and reports.
	Policy CTM-2.20 Safe Pedestrian Crossings	The County shall improve pedestrian safety at intersections and mid-block locations in Existing Communities through approved features consistent with the California Manual on Uniform Traffic Control Devices (CAMUTCD), Highway Design Manual, Federal Highway Administration, American Association of State Highway and

		Transportation Officials (AASHTO), and the National Cooperative Highway Research Program Report 498 (Application of Pedestrian Crossing Treatments for Streets and Highways).
	Policy CTM-2.22 Funding and Maintenance for Sidewalks	The County shall seek funding sources first for construction of new sidewalks in low-income areas and then for sidewalk maintenance particularly in low-income areas.
Bicycle	**Policy CTM-2.12** Countywide Bicycle Lane and Trail System	The County shall coordinate with cities in the county and Ventura County Transportation Commission (VCTC) to plan and implement a system of bicycle lanes and multi-use trails that link the cities, unincorporated communities, schools including colleges and universities, commercial/retail, employment centers, health care service facilities, public transportation, and other points of interest.
	Policy CTM-2.14 Bicycle Facility Design	When designing new bicycle facilities, or modifying existing roadways with bicycle facilities, the County shall prioritize and install features to improve the safety and visibility of bicyclists.
	Policy CTM-2.17 Support Regional Bicycle Infrastructure	The County shall support efforts to improve regional infrastructure that will make biking more attractive to residents and tourists.
	Goal CTM-3	To develop an accessible and interconnected bicycle network that addresses resident and visitor needs for commuting, daily activities, and recreation.
	Policy CTM-3.1 Bicycle Network Strategy and Prioritization	The County shall identify and prioritize components of a bicycle network to increase public access and ridership on bicycle routes.
	Policy CTM-3.2 Inclusive Bicycle Network	The County shall develop a bicycle network for all user types and routes across the county.
	Policy CTM-3.3 Regional Destination Focus for Bicycle Network	The County shall encourage the development of a bicycle network that connects to regional destinations such as parks, trails, educational institutions, employment centers, transit, park and ride lots, and tourist destinations.
	Policy CTM-3.4 Interjurisdictional Bicycle Network Connectivity	The County shall promote bicycle network connectivity between Ventura County communities as well as Santa Barbara and Los Angeles Counties.
	Policy CTM-3.5 Bicycle Routes in Rural Areas	The County shall plan for bicycle network connectivity in rural, agricultural, and open space areas in a way that supports and complements business and agricultural activities in those areas.
	Policy CTM-3.6 Coordination with Bicycle Wayfinding Plan	The County shall support the Complete Streets effort by, when feasible, constructing bicycle lanes on County maintained roads listed in the Ventura County Transportation Commission Bicycle Wayfinding Plan.

	Policy CTM-3.8 Bicycle Network Routes and Wayfinding	The County shall use clear and consistent message and placement for on- and off-street regional bikeways and to regional destinations.
	Policy CTM-3.9 Funding for Bicycle Network and Wayfinding Planning and Improvements	The County shall actively pursue outside funding opportunities for bicycle network improvements.
	Policy CTM-3.10 Bicycle Storage Facilities	The County shall require adequate bicycle storage facilities (e.g., bicycle racks, lockers) for discretionary development as determined by allowable land uses at a given site.
	Program CTM-L Master Bicycle Network Plan	The County shall develop a master bicycle network plan that includes the recommendations from the Bicycle Wayfinding Study and the prioritized list of bike lanes from the Board approved criteria.
	Program CTM-M Bicycle Wayfinding Plan Participation	The County shall continue to participate in and support the Ventura County Transportation Commission in updates to the Bicycle Wayfinding Plan linking all Ventura County cities, unincorporated communities, and CSUCI.
Mass Transit	**Policy CTM-2.13** Transportation System Connectivity	The County shall strive to eliminate "gaps" in roadways, bikeways, and pedestrian networks by planning for and seeking funding to construct necessary improvements to remove barriers and improve transportation system connectivity as well as connections that support first and last mile accessibility to and from public transportation.
	Policy CTM-2.23 Intercommunity and Countywide Public Transportation System	The County shall continue to work with Ventura County Transportation Commission (VCTC), Naval Base Ventura County, and local public transportation regional bus service providers to promote the expansion of a safe, efficient, convenient, integrated, and cost-effective intercommunity and countywide public transportation and bus service that provides county residents with access to employment, commercial services, health and medical facilities, social services, educational facilities and institutions, and personal business destinations.
	Policy CTM-6.8 Micro-Mobility Operations	The County shall evaluate the feasibility and work to establish requirements for shared micromobility (e.g., bike sharing) vendors within unincorporated areas.
	Policy HE-2.2 Increase Housing Opportunities within Area Plan Boundaries	The County shall pursue the following policies in Area Plan updates to increase housing opportunities. • Identify opportunities to rezone more properties to Residential Planned Development to encourage the development of diverse housing types, such as: duplexes, triplexes, fourplexes, courtyard buildings, bungalow courts, cottage housing, townhouses,

		multiplexes, accessory dwelling units, and live/work buildings that provide affordable housing options. • Identify opportunity sites for higher density housing near job clusters and transit stops to support housing for the County's special needs population. • Identify County surplus land that can accommodate residential development and consider re-designation, if feasible. Enhance existing residential areas by seeking opportunities and funding sources for public infrastructure improvements such as installing sidewalks and other pedestrian networks, bicycle facilities, neighborhood parks, and planting street trees, with priority given to designated disadvantaged communities.

B. Pedestrian Facilities

Quality pedestrian facilities can contribute to the ability of residents to walk to their destinations, such as schools, parks, transit stops or stations, and commercial areas. Sidewalks are important facilities to safely connect pedestrians to their destinations as they provide a delineated area where vehicles are prohibited and helps to reduce conflict zones. However, per the Ventura County Public Works Agency Roads and Transportation Division[57], most County roadways do not have sidewalks or marked crosswalks. This can be seen throughout the El Rio Area Plan, where a majority of the streets do not have sidewalks or marked crosswalks (Figure 56 and Appendix C).

According to the Federal Highway Administration, providing facilities that are more comfortable and accessible to pedestrians in an area will result in 1) an increase in the number of local trips made by walking, and 2) a decrease in pedestrian/vehicle conflicts and incidents as the space for pedestrians is physically separated from the space with moving vehicles. Roadways without sidewalks are more than twice as likely to have pedestrian incidents when compared to roadways with sidewalks on both sides.

Furthermore, a comprehensive and interconnected pedestrian facility network with alternative transportation modes promotes health and accessibility benefits. Per the United States Department of Transportation, access to well-connected pedestrian facilities promotes health benefits by increasing physical activity which helps address chronic diseases like asthma, diabetes, heart disease, and obesity. Walking also reduces vehicle-related air pollution and emissions which helps reduce particulate matter and gases that damage the lungs and other bodily functions.[58]

[57] https://www.vcpublicworks.org/wp-content/uploads/2021/04/2020-08-06_FACT-SHEET_Marked-Crosswalks_Final.pdf

[58] https://www.transportation.gov/mission/health/complete-streets

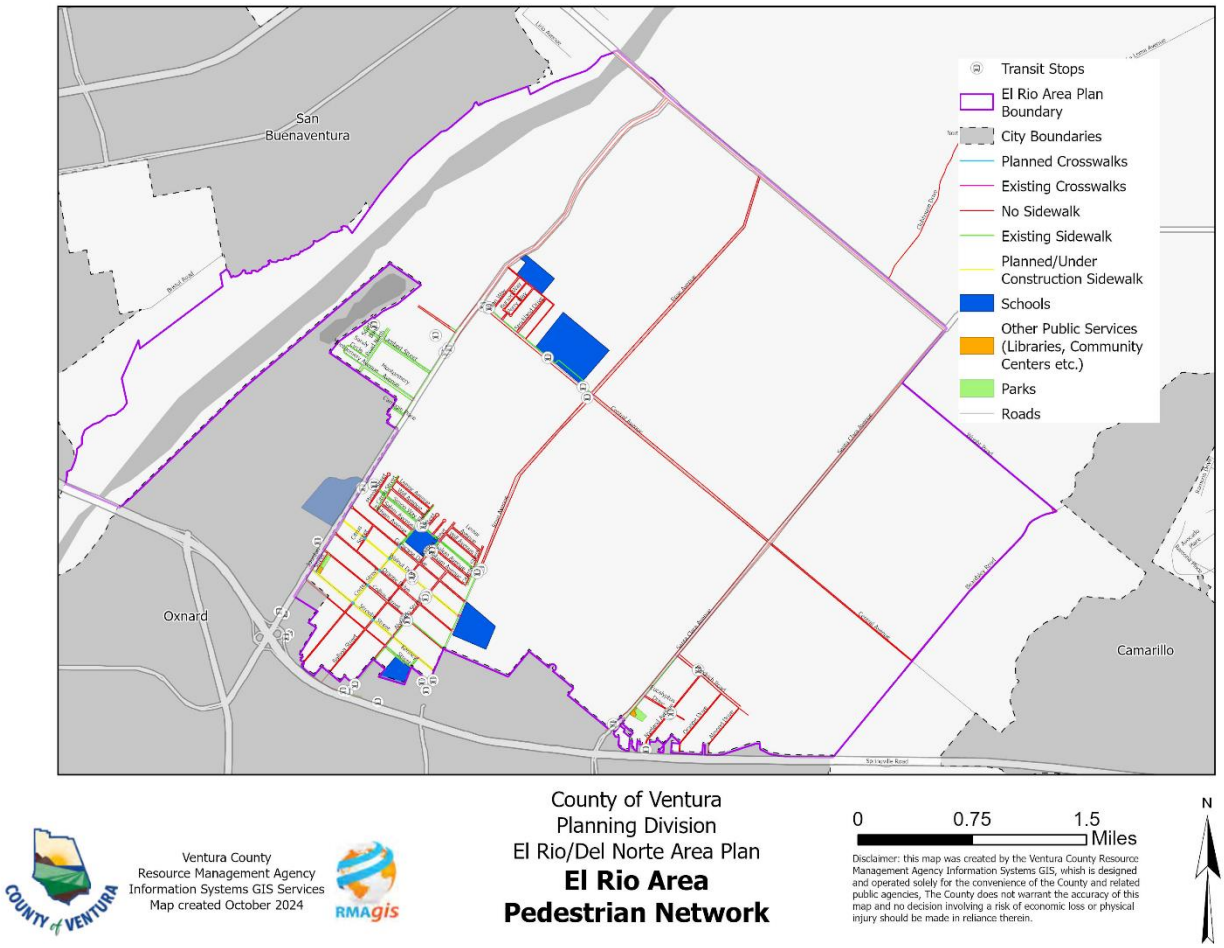

Figure 56: Map of Area Plan Pedestrian Network.

B.1 Community Specific

Detailed maps of each community can be viewed in Appendix C – Pedestrian Facilities.

El Rio

The El Rio area has a few areas with usable sidewalks, surrounded by stretches of land without them. As shown in Figure 1 of Appendix C, sidewalks are concentrated largely in areas immediately around schools and in areas with retail stores located along Highway 101 and Vineyard Avenue. Besides that, there is an inconsistent network of sidewalks, particularly in Northern El Rio and along residential streets.

In the Ventura County Active Transportation Plan, adopted in February 2024, the Public Works Agency planned for sidewalks that correspond to more-frequently traveled streets and to provide safe routes to schools. The El Rio Pedestrian Improvement Project (RD24-05), will implement these improvements including crosswalks on all of Walnut Drive, Stroube Street, and a portion of Cortez Street. The streets of Alvarado, Cortez and Balboa are Collector streets that lack sidewalks within the neighborhood and could be planned in future phases.

Strickland

The Strickland area features nearly a continuous strip of sidewalk on the north side of Central Avenue sidewalks, adjacent to Rio Mesa High School. There is an Adventist school on the northern area of Strickland with no sidewalks. Finally, access to public transit is limited and could be expanded. Currently the only bus stop for Strickland is in front of Rio Mesa High School, which does not have sidewalks to Strickland.

Del Norte Industrial Center

The Del Norte Industrial Area is well suited for foot traffic. The entire area is paved, except for Beedy Street which is private. The nearest bus stop to the edge of the industrial center (intersection of Montgomery Avenue and Vineyard Avenue) is approximately 0.6 miles south toward Simon Way; there is no connected continuous sidewalk connecting these areas.

Nyeland Acres

Pedestrian facilities are limited within Nyeland Acres and only found on the east (community) side of Santa Clara Street from Friedrich Road to the Santa Clara/Rice Avenue-Highway 101 interchange, and the north side of Ventura Boulevard from just east of Almond Drive to Santa Clara Avenue. The rest of the community lacks any other significant pedestrian facilities even though it has four bus stops with signage, shade structures, and benches.

Pedestrian access to jobs and retail on the southern end of the neighborhood does not have protected footpaths from the interior. The four public transit points are bus stops at Nyeland Ave and Ventura Blvd, the intersection of Santa Clara Ave and Auto Center Dr, on Friedrich, and one on Eucalyptus are not supported by sidewalks.

C. Bicycle Network

Bicycle facilities, coupled with a comprehensive and connected bicycle network, allow for the safe movement of cyclists through an area by designating travel routes that provide local connectivity and safety for cyclists. The following list describes bicycle facility classification used in the County, which also matches national standards.

Type of Bicycle Facilities

CLASS 1 – Shared Use Path

- Path is completely separated from motor vehicle traffic and used by both pedestrian and bicyclists.
- Comfortable environment for people of various ages and experience levels.
- Typically located immediately adjacent and parallel to a roadway or in its own independent right-of-way, such as within a park or along flood control channel.
- Bike lanes with at least 5-feet of separation from vehicle traffic lanes are also considered shared use paths.
- Example: Riverpark Reservoir Loop in Oxnard

CLASS 2 – Bicycle Lane

- A dedicated lane for bicycle travel adjacent to a motor vehicle travel lane.
- A painted white line separates the bicycle lane from motor vehicle traffic.
- Example: North Rose Avenue between Auto Center Drive and Gonzales Road in Oxnard

CLASS 2B – Buffered Bicycle Lane

- A dedicated lane for bicycle travel separated from motor vehicle travel by a painted buffer.
- The buffer provides additional comfort for users by providing space from motor vehicles.
- Example: Telephone Road in the City of Ventura (segments)

CLASS 3 – Bicycle Route

- A signed bike route that bicyclists share with motor vehicles.
- Can include pavement markings.
- Comfortable facility for cyclists who are adept at riding with motor vehicles.
- Recommended for streets with low vehicle volumes and speeds.
- Example: Saviers Road from East Iris Street to Bryce Canyon/Thomas Avenues in Oxnard

CLASS 4 – Separated Bikeway

- An on-street bikeway separated from a motor vehicle travel lane by a curb, median, planters, parked motor vehicles, delineators, and/or other vertical elements.
- Example: Telephone Road between South Kimball Road and Clinton Avenue in Ventura (City)

As shown in the boxed area on the map below (Figure 57) from the 2017 VCTC Bicycle Wayfinding Plan, there were limited existing and planned routes within the Area Plan boundary. According to the 2022 Existing Bike Inventory[59], completed routes are on Central Avenue (Class 2), Rose Avenue (Class 2), and Santa Clara Avenue (Class 2). Routes are also planned for Vineyard Avenue (Class 2) and Los Angeles Avenue/Highway 118 (Class 1). The City of Oxnard also has a network of Class 1, 2 and 3 within the adjacent Riverpark neighborhood. Also, the VCTC Inventory indicates that class 2 bike routes cross Highway 101 at Rose Avenue and Del Norte Avenue, but these are located on high volume corridors that are primary on/off ramps for the Highway.

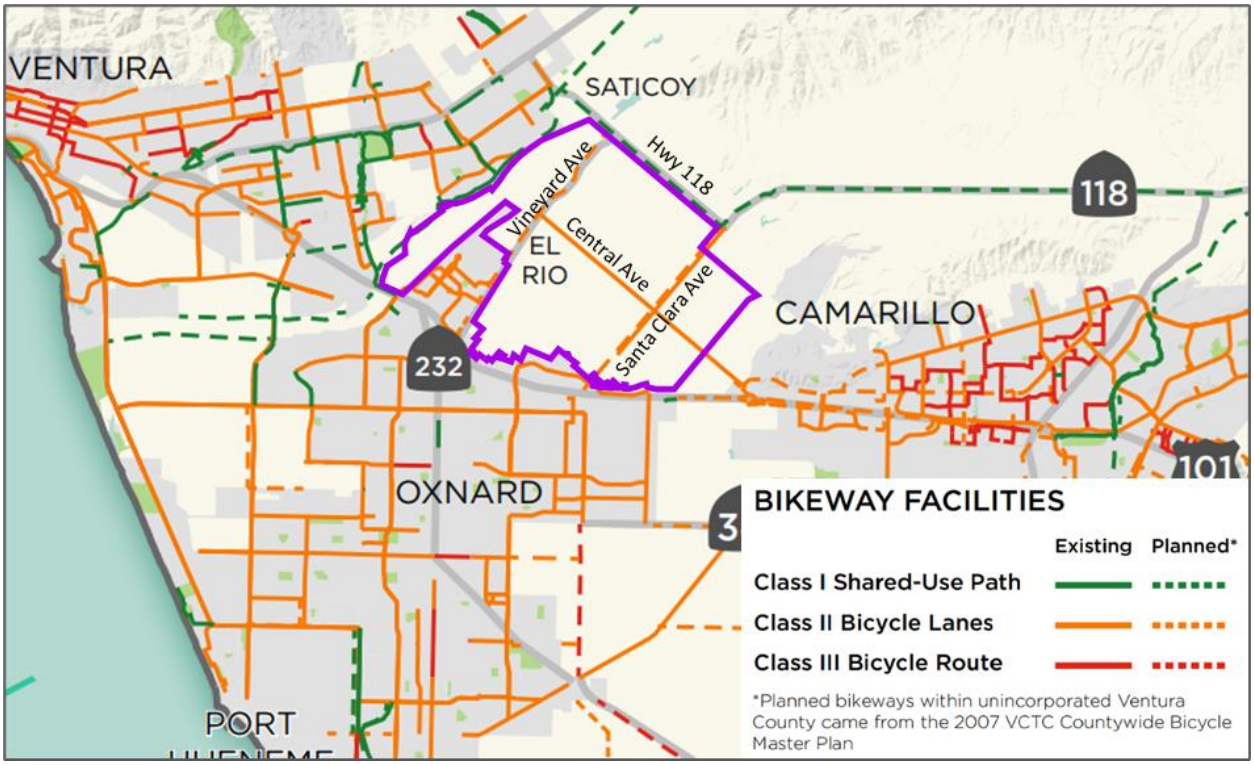

Figure 57: Map excerpt from Figure 1-3 of VCTC Bicycle Wayfinding Plan, Existing and Proposed Bikeway Network. Area Plan Boundary shown in purple outline.

[59] Ventura County Transportation Commission. *Regional Bike Map.* https://www.goventura.org/getting-around/bike-map/.

The map in Figure 58 below shows that that existing conditions are relatively consistent with the Wayfinding Plan map above, specifically along Santa Clara Avenue. According to the Ventura County Public Works Agency, there is a Class 2 buffered bike lane proposed along most of Rose Avenue.

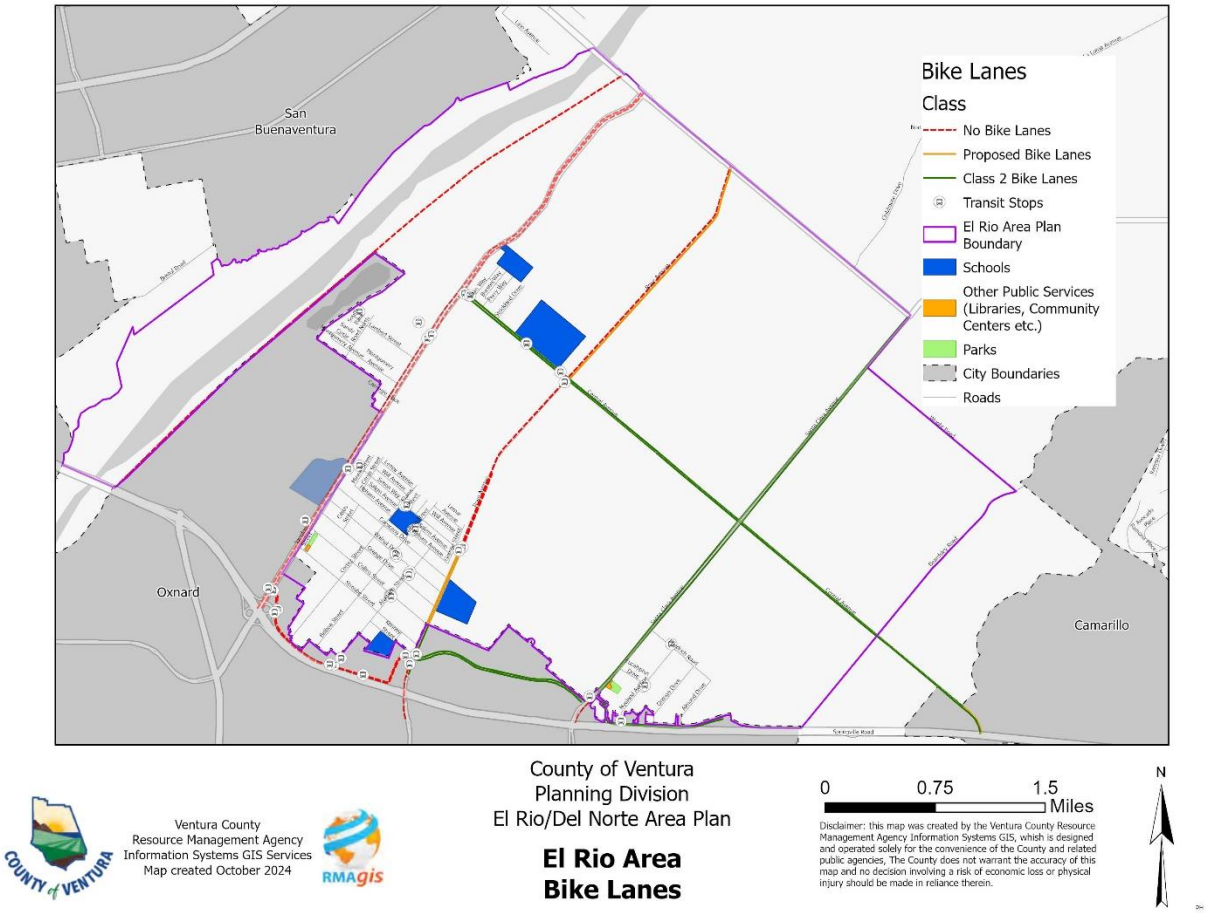

Figure 58: Map of the Bicycle Network

C.1 – Community Specific Bicycle Facilities

Detailed maps of each community can be viewed in Appendix D – Bicycle Facilities.

El Rio

The El Rio community does not have any existing bicycle routes on the local roads. The Ventura County Public Works Agency has proposed a Class 2B bike lane on Rose Avenue. There are no marked or identified bicycle routes to the schools within the community, and there are limited connections to the City of Oxnard's bicycle network, most notably the Riverpark neighborhood to the northwest, which has a robust network of bike lanes, commercial uses, parks, schools, and recreational trails.

Strickland

Strickland has a Class 2 bike lane along Central Avenue, running southeast towards highway 101. As mentioned above, there is a planned Class 2 bike lane planned on Rose Avenue, which will help connect Strickland to El Rio and allow cycling to different schools, such as the Rio Del Valle Junior High School and Rio Mesa High School.

Del Norte Industrial Center

The industrial area near Strickland has no bike lanes. There is a Class 1 recreational lane to the south of the site located within the City of Oxnard, but there is no direct access between the industrial uses and the bike lane.

Nyeland Acres

Nyeland Acres has Class 2 bike lanes along both arterial roads, providing mobility for cyclists to and from the neighborhood. The Class 2 lanes also prove access to the retail uses along Auto Center Drive, to the west of this neighborhood. Cyclists can also ride northeast along Santa Clara Avenue all the way to the California 118.

D. Public Transit

Gold Coast Transit District (Gold Coast) and the Ventura County Transportation Commission Intercity bus are the primary providers of public transit service to the Plan Area and surrounding cities. Gold Coast specifically operates two lines that service the communities of El Rio and Nyeland Acres. Strickland and the Del Norte Industrial Center are not serviced by regular bus lines. Rio Mesa High School in Strickland is serviced by a "Tripper" line, which only operates only during school hours and the school year.

D.1 – Bus Routes

Gold Coast Transit provides bus service to the communities of El Rio and Nyeland Acres, however the Strickland and Del Norte Industrial Center communities are not serviced by any bus lines. See Appendix E maps of the bus lines contained in Table 42 (below) which identifies the hours of operation and lead times for the servicing routes, which connect El Rio and Nyeland Acres to St. John's Medical Center, the Esplanade retail center, Oxnard College and the local high schools. Appendix E contains maps of each route.

Table 42: Bus Schedule for Select Gold Coast Transit Lines

Route	Lead Time	Monday through Friday		Saturday & Sunday	
		Eastbound/ Southbound	Westbound/ Northbound	Eastbound/ Southbound	Westbound/ Northbound
15 Esplanade -El Rio – St. John's Medical Center	Approximately 40 to 50 minutes	8:15 A.M. to 6:34 P.M.	8:23 A.M. to 5:55 P.M.	8:15 A.M. to 6:23 P.M.	8:18 A.M. to 5:43 P.M.
17 Esplanade – Oxnard College	Approximately 40 to 50 minutes	6:21 A.M. to 8:21 P.M.	6:55 A.M. to 9:10 P.M.	7:15 A.M. to 7:47 P.M.	7:55 A.M. to 8:29 P.M.

18G High School Service (Tripper)	Nyeland Avenue at Ventura Boulevard	Gonzales Road at Rose Avenue	Central Avenue at Rio Mesa
A.M. Mon-Thurs	7:46 A.M.	7:55 A.M.	8:05 A.M.
A.M. Fridays	8:28 A.M.	8:37 A.M.	8:47 A.M.
	Central Avenue at Rio Mesa	Gonzales Road at Rose Avenue	Nyeland Avenue at Ventura Boulevard

P.M. Mon-Thurs	3:50 P.M.	4:03 P.M.	4:12 P.M.
P.M. Fridays	3:30 P.M.	3:43 P.M.	3:52 P.M.

D.2 – High Quality Transit Areas

The high-quality transit corridor area (HQTA) depicted in Figure 59 below is a focused planning area in Ventura County identified in the Southern California Association of Governments' (SCAG) Connect SoCal 2024, Regional Transportation Plan/Sustainable Communities Strategy.[60] This planning corridor is based on State laws that allow density bonuses for new development that would be less reliant on personal vehicles. Residents would more frequently utilize the No. 6 Gold Coast bus line. According to the Connect SoCal 2024 plan, these high-quality transit areas could see over 51 % of new housing units between 2016 and 2045. Where these planning corridors are located throughout Southern California, local jurisdictions tend to focus on them to meet requirements for regional housing needs planning.

This designation means that developers with property in the corridor are encouraged by state regulations to increase the density of new residential development because it will be close to a mass transit area. For instance, the State allows for new multi-family housing within a HQTA to be constructed with exemptions from some local jurisdiction parking minimums, and this allows for a higher density development. In the Plan Area, the three 2040 General Plan Housing Element sites mentioned in Section 4.2 above could maximize density in accordance with State laws and the County would have limited ability to enforce a parking minimum.

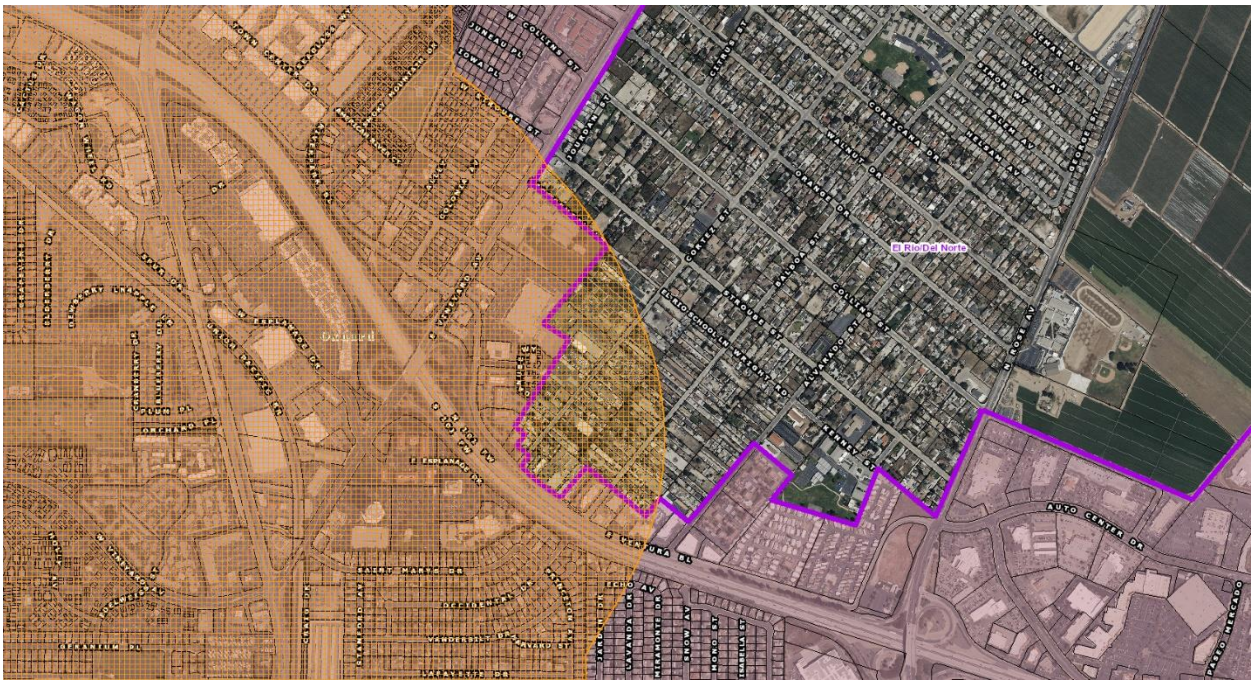

Figure 59: Map of the portion of the high-quality transit area (orange hatch) within the El Rio community of the Area Plan (Purple line); City of Oxnard is shown as purple highlight). Source: Resource Management Agency GIS Viewer.

[60] https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-03-plan.pdf?1604533568

7 | HAZARDS AND SAFETY

7.1 Environmental Hazards

This section will cover the different environmental hazards that may affect land uses within the Area Plan boundary. This includes natural events like earthquake and flooding as well as human-made hazards like pollution and noise.

A. Earthquakes and Faults

The Area Plan is intersected by two major fault zones – the Oak Ridge Fault and the Wright Road Fault, as shown in Figure 60 below. Most of developed areas are outside of the fault zones.

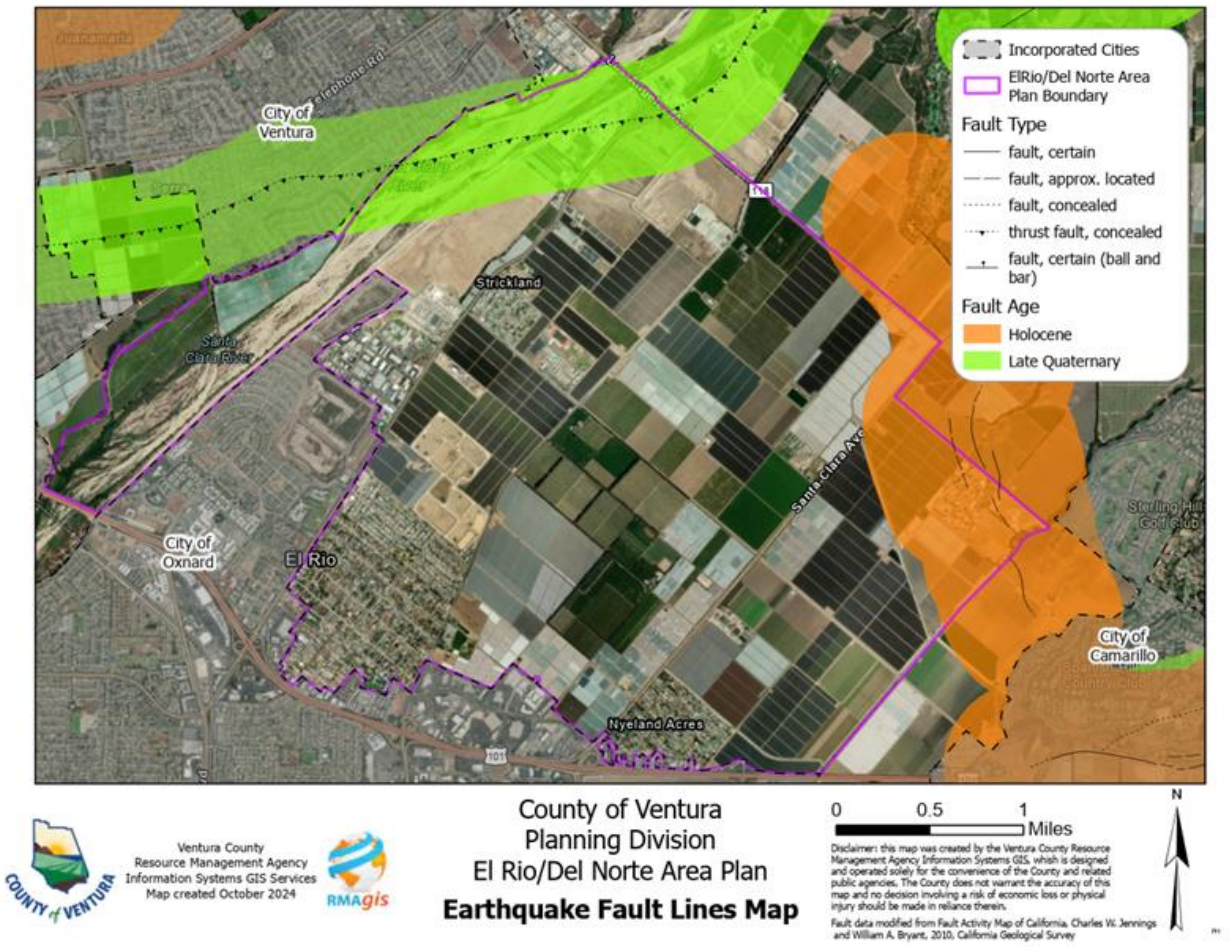

Figure 60. Map of the Active Fault Lines within the Area Plan boundaries. The Oak Ridge Fault is green and the Wright Road Fault is in orange. Source: California Geological Survey Fault Activity Map and Ventura County RMA GIS.

A.1 Oak Ridge Fault

The Oak Ridge Fault intersects the Area Plan on the northern corner, as shown by the green line in Figure 60. Per the Southern California Earthquake Data Center (SCEDC) at the California Institute of Technology, Oak Ridge is a thrust fault that is capable of producing earthquakes with a magnitude of 6.5 to 7.5[61].

[61] Southern California Earthquake Data Center, California Institute of Technology; https://scedc.caltech.edu/earthquake/oakridge.html. Accessed on May 31, 2023.

The SCDEC states that the surface trace of the Oak Ridge thrust is easy to find because it predominately forms a ridge to the south of the surface fault and is roughly paralleled by both the Santa Clara River and California State Highway 126, from Piru to the coast, just southeast of Ventura. The Oak Ridge thrust continues offshore, out to a point about 20 kilometers/12.43 miles south of Santa Barbara. The offshore segment is associated with a definite zone of active seismicity, though the only known Holocene surface rupture is found well onshore, between Bardsdale and Fillmore. At its eastern end, the Oak Ridge thrust becomes progressively more difficult to trace, and appears to be overthrust by the Santa Susana fault, thus becoming a blind thrust fault. The SCDEC thinks the fault associated with the 1994 Northridge earthquake is probably part of the Oak Ridge fault system, as it shares many of the characteristics of this fault.

A.2 Wright Road Fault

The Wright Road Fault is part of the larger Camarillo Fold Belt (CFB) which intersects the Area Plan on the eastern edge where the shuttered Ventura Youth Correctional Facility is located, as shown by the orange line in Figure 60. The fault zone predominately follows a horizontal 'L' shape, where it starts at the base of South Mountain, heads south through the Area Plan and then turns east and parallels the base of the Camarillo Hills. Per the United States Geological Survey (USGS), the CFB is comprised of several reverse faults that pose an unknown hazard to the Area Plan, and the cities of Ventura, Oxnard, and Camarillo. Additionally, the USGS states that the CFB appears to connect to the larger Simi-Santa Rosa Fault zone which stretches from Camarillo through the Santa Rosa and Simi Valleys The USGS also states that the danger from this fault complex is unknown because it is the only remaining fold belt between Los Angeles and Santa Barbara that has not been studied as a unit for the purpose of evaluating potential seismic hazard. However, based on the observed deformation and vertical uplift rates, the USGS estimates that the CFB could produce an earthquake with a magnitude of 6.4.

B. Flood potential

The Santa Clara River has demonstrated increased water flows during large rain events. Major floods occurred along the Santa Clara River in 1938, 1943, 1965, 1969, and most recently in 2005.

There are eight 2040 General Plan Policies that address flood hazards. The Federal Emergency Management Agency (FEMA) creates flood maps that show what places in a community have the highest risk of flooding. These flood maps show the places that have a 1% chance or higher risk of flooding each year, commonly referred to as a 100-year flood. The flood maps also show places that have 0.2% chance or higher risk of flooding, commonly referred to as a 500-year flood.

The County's Public Works Agency Watershed Protection District has created a flood hazard map based off the FEMA flood maps. The Watershed Protection District is the Floodplain Administrator and reviews development in areas that may be a special flood hazard area.

Figure 61 shows areas within the Plan Area boundary that are identified as having potential for 100-year floods and 500-year floods. Agricultural land north of the Santa Clara creek bed has the potential to flood during a 100-year and a 500-year flood. Agricultural land along the northern portion of Santa Clara Avenue from the 101 Highway to about 1,000 feet north of Nyeland Acres. Nyeland Acres and the shuttered Ventura Youth Correctional Facility are in the floodplain map for a 500-year flood or has a 0.2% chance of flooding every year.

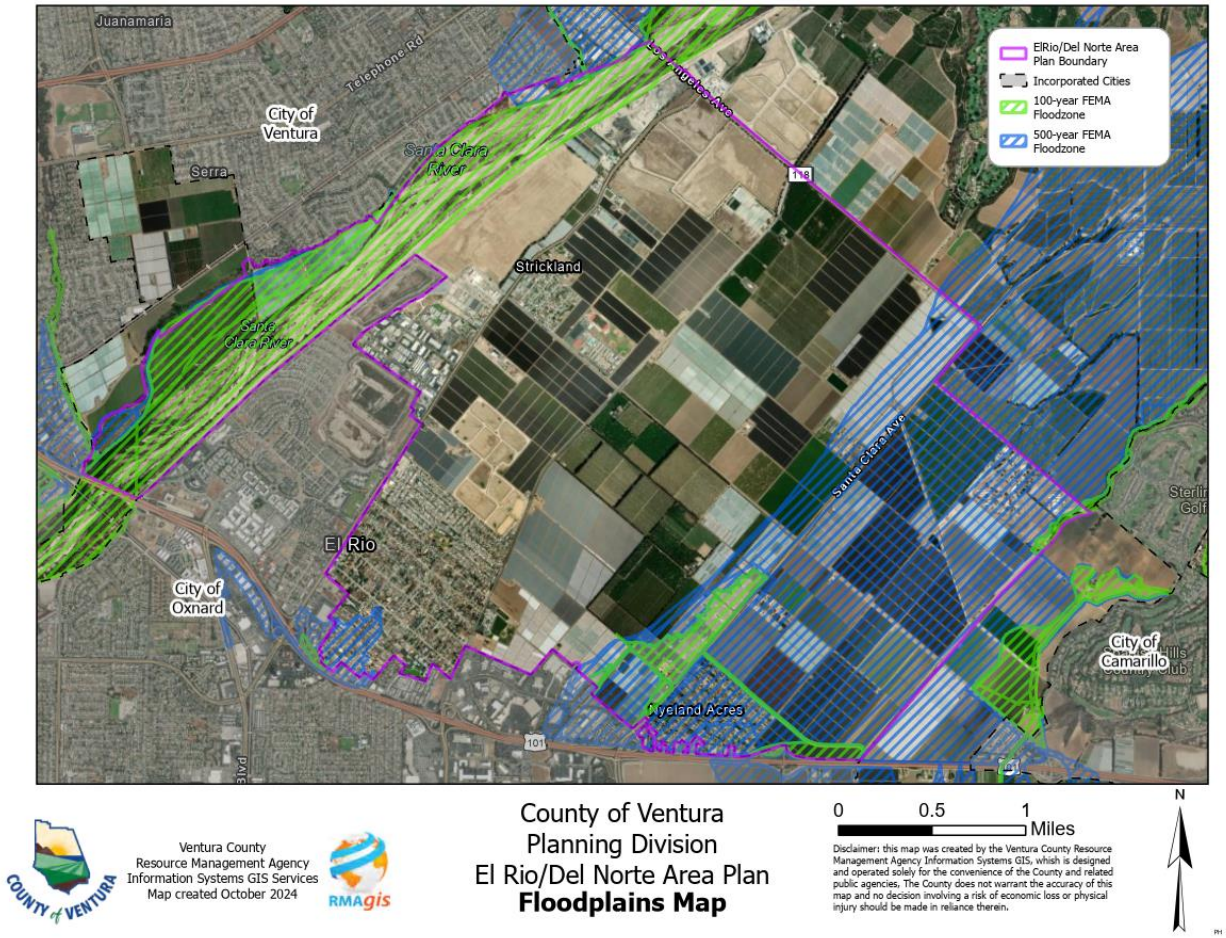

Figure 61: Map of the 100-year and 500-year flood zone in the Plan Area. Source: Flood Hazard Map from Ventura County which is generated from FEMA's flood maps, data from 2021.

The lack of potential flooding south of the Santa Clara Riverbank is due to the levee, which was designed in 1958 by the Army Corps of Engineers and completed in April 1961 (Figure 62).[62] The levee was designed to control the predicted discharge of 225,000 cubic feet per second from the Santa Clara River Watershed. This levee runs through the entirety of the Plan Area, starting at the groundwater recharge basin by SP Milling Ranch Road and ending at Highway 101. The Public Works Agency is responsible for the maintenance of this levee. In 2009, FEMA determined that the levee did not fully comply with all federal levee requirements, which meant that the levee might fail at a 100-year flood event. As of October 2024, the Public Works Agency is coordinating with the United Army Corps of Engineers, on a levee rehabilitation project.

[62]https://s29422.pcdn.co/wp-content/uploads/2019/04/05-SCR-1-Sec.-905B_WRDA-86_Draft-Final-Report_December-2014.pdf

There are two other structures that protect facilities in the Plan Area from floods. There are washes and drains in the Plan Area that channel stormwater away from residences. One wash runs adjacent to the former youth detention facility at 3100 Wright Avenue along Beardsley Road. Another wash structure runs along Santa Clara Avenue and then along Friedrich Road next to Nyeland Acres. This wash structure ends at Beardsley Road. Figure 63 shows a map of the levees and levee-like structures in the Plan Area and the full extent of the Santa Clara River levee north of the Plan Area.

Figure 62. Santa Clara River within the Area Plan looking north from Highway 101. Source: Staff photo taken in March 2023.

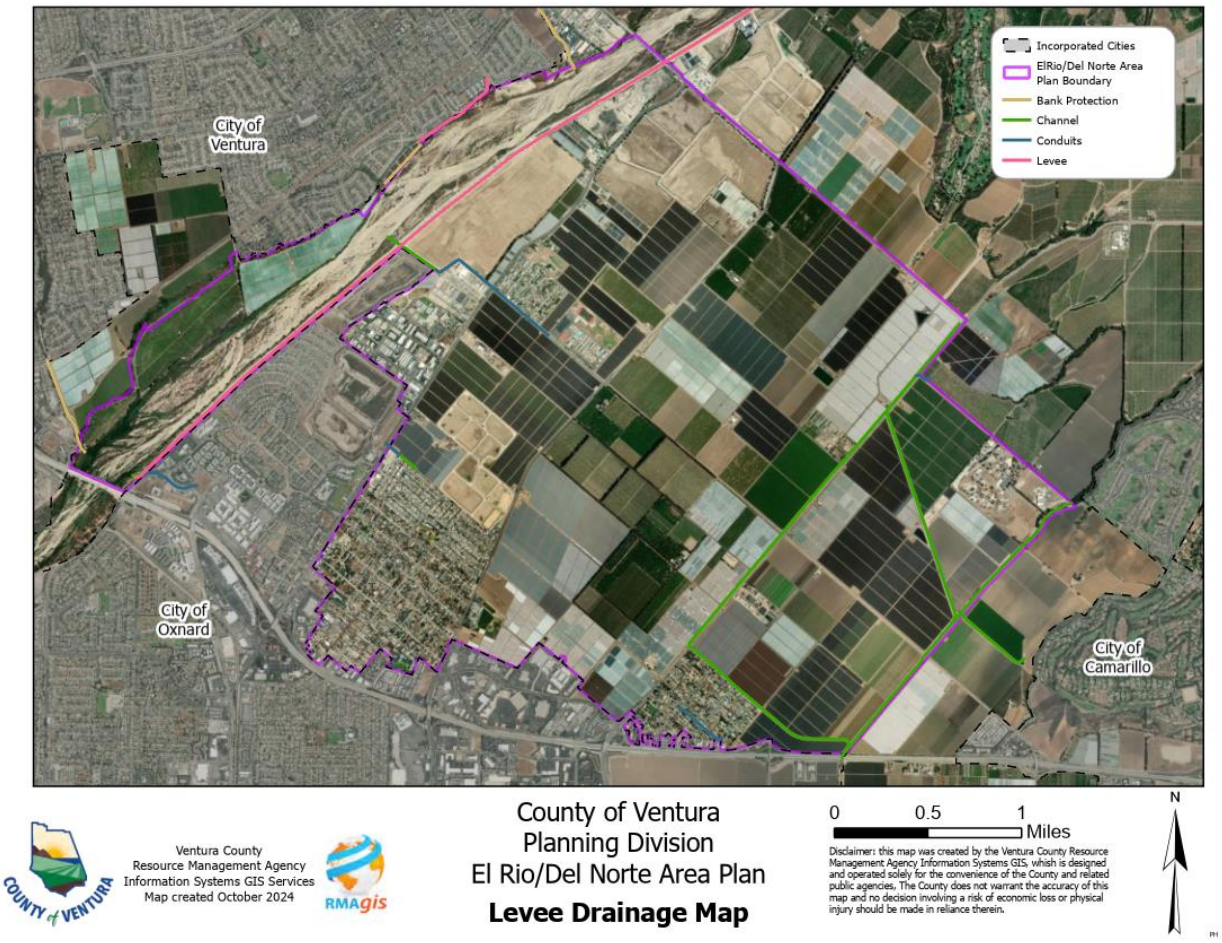

Figure 63. Map of Levees and REACH Facilities in Plan Area. Source: Ventura County Public Works map of REACH facilities in the County. Channels may be concrete lined or natural channels. Groins were classified as "Bank Protection." The map only includes levees that are within or adjacent to the Plan Area and are maintained by Public Works. Source: Public Works GIS mapping viewer.

C. Pollutants

There are eight 2040 General Plan Policies that address hazardous materials that may pose an existing or potential hazard. Hazardous materials are substances and waste that may be harmful to the health and safety of people or the environment.

CalEnviroScreen 4.0[63] is a State tool for community planning that provides metrics about the potential pollutants that communities are exposed to and compares them to other communities on a 1 to 100 rating score. The CalEnviroScreen score uses a formula that multiples the pollution burden and population characteristics to create the CalEnviroScreen score for a census tract. The higher the score, the higher the pollution burden of the community compared to other California communities. This tool was used to inform the 2040 General Plan designation of disadvantaged communities.

El Rio has a CalEnviroScreen score of 79 and a pollution burden of 75. Nyeland Acres has a CalEnviroScreen score of 74 and a pollution burden of 78. Although these numbers do not reflect actual statistical data on pollution, possible sources may include air pollution from Highway 101, and State Route 118, water supply contaminates, and agricultural pesticides. Select air pollution metrics are provided in Table 43. A brief summary of each of the pollutants is outlined below:

- Drinking Water Contaminants – Drinking water may be contaminated by chemicals or bacteria by natural or human sources.
- Lead – Lead is a toxic heavy metal that may have been used in house paint, plumbing, and as a gasoline additive; children are sensitive to lead paint which was used in house paint before the federal government banned it in 1978.
- Cleanup Sites – Places that are contaminated with harmful chemicals and need to be cleaned up.
- Groundwater threats – Containers and tanks of hazardous chemicals that may leak into the soil.
- Hazardous Waste – Waste from commercial or industrial activities that may be dangerous or harmful to human and environmental health and requires a special facility to dispose of.
- Solid Waste – Facilities such as landfills and composting stations where garbage and other types of waste are collected, processed, or stored.
- Pesticides – Pesticides are chemicals used to control insects, weeds, and plant or animal diseases and CalEnviroScreen includes those that are used on California agricultural commodities but does not include uses such as golf courses.

Table 43: Pollutant Exposure in Plan Area

Pollution Category	**El Rio (Census 50.03***)[64]**	**Nyeland Acres (Census 50.02*)**	**City of Oxnard**
Drinking Water Contaminants	64.0	61.1	63.9
Lead	93.2	96.7	60.7
Cleanup Sites	31.2	0.0	18.9
Groundwater Threats	43.8	36.2	36.1
Hazardous Waste	70.2	48.0	31.3

[63] https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

[64] The Census tracts as listed on CalEnviron Screen differs from the Census tracts on the Census Bureau website: https://maps.geo.census.gov/ddmv/map.html.

Solid Waste	0.0	0.0	7.1

For information on impaired water bodies, see Table 2. Source: CalEnvironScreen 4.0 Data Dashboard tool, access on September 26, 2024.

****Figure. Census Tract 50.03 includes all of El Rio and portions of the City of Oxnard. Census tract 50.02 includes all of Nyeland Acres and portions of the City of Oxnard. In 2020, the Census Bureau split Census Tract 50.03 into two new census tracts. CalEnvironScreen 4.0 does not reflect this mapping change. There are references to Census Tract 50.03 in Section 4.7-A.3 Pollutants and 4.7-A.4 Air Quality.*

The hazardous waste, cleanup sites, and groundwater threats may be higher in El Rio Census Tract 50.03 compared to Nyeland Acres Census Tract 50.02 and the City of Oxnard due to the Del Norte Industrial Center in the El Rio Census Tract 50.03.

There are no Superfund sites in the Plan Area according to the State Water Resources Control Board GeoTracker tool[65]. However, there are three locations in the El Rio Census Tract 50.03 that have been evaluated by the California Department of Toxic Substances Control (DTSC) for possible hazardous waste: the Rio Vista Middle School, Price Company, and Pacific Pest Control.[66] However, two of the sites, the Rio Vista Middle School and the Price Company are in the City of Oxnard. There are no further cleanup actions for the Rio Vista Middle School as of 2009 and the Price Company went through a preliminary assessment that covered part of the property in 1992. The location in the Plan Area, Pacific Pest Control, certified that there are no further cleanup actions as of 1986. There are no cleanup sites in Nyeland Acres Census Tract 50.02.

The County's Environmental Health Division (EHD) has a hazardous waste program[67] to ensure that hazardous wastes are properly managed to protect public health and the environment. Waste is generally considered hazardous if it is ignitable, corrosive, toxic, reactive, or if it can be shown to be detrimental to human health or the environment.

The General Plan Policy Land Use 1.7 states that the County will engage with members of the Disadvantaged Communities to provide information about lead in homes and how to reduce and prevent lead poisoning. The lead scores are based off the age of the homes in the area and the percentage of low-income households with children. The high lead scores in the Nyeland Acres Census Tract 50.02 and El Rio Census Tract 50.03 compared to the City of Oxnard may be due to the new housing developments in the City of Oxnard as well as the lack of new housing in the Plan Area.

The Plan Area does not have a solid waste facility but the City of Oxnard does, which may explain why El Rio and Nyeland Acres have no solid waste score.

D. Air Quality

There are thirteen General Plan Policies to promote a high level of air quality to protect public health, safety, and welfare, and mitigate any adverse air quality. Air pollutants are gases and particles that may adversely impact public health, the agricultural crops, native vegetation, visibility, and buildings. Common air pollutants include particles less than 2.5 micrometers (PM2.5), particles less than 10 micrometers

[65] https://geotracker.waterboards.ca.gov/
[66] https://www.envirostor.dtsc.ca.gov/public/
[67] https://vcrma.org/en/onsite-hazardous-waste-treatment-tiered-permit

(PM10), and ozone (O_3). The Ventura County Air Pollution Control District (VCAPCD) is the leading agency responsible for regulation of air pollution and developing programs to meet state and federal air quality standards.

According to the Environmental Protection Agency (EPA), PM2.5 is of great concern during wildfires since 90 percent of wildfire smoke is comprised of PM2.5 particles. Wildfires may periodically worsen air quality in addition to the seasonal air quality in the Plan Area. The California Air Resources Board (CARB) launched an online map[68] in 2024 that shows where there are clean air centers open to the public during periods of intense wildfire smoke or poor air quality. As of May 2025, there are no permanent southern California locations except a center in Santa Barbara (Isla Vista). However, the tool may identity safe locations for Plan Area residents to recover from poor air quality in the future[69].

CalEnviroScreen 4.0 provides metrics on the potential air pollution that the communities are exposed to and compares them to other communities on a 1 to 100 score. The higher the score, the higher the pollution burden of the community compared to other California communities. Select air pollution metrics are provided in Table 44. A brief summary of each of the pollutants is outlined below:

- Ozone – Formed when reactive organic compounds (ROCs or VOCs) and nitrous oxides (NOx)pollutants chemically react to sunlight. The main sources are trucks, cars, planes, trains, factories, farms, construction, and dry cleaners.
- PM2.5 – Particulate matter that is 2.5 micrometers or less in diameters and can include organic chemicals, dust, soot and metals. Sources include cars and trucks, factories, wood burning, and other activities.
- Diesel PM – Exhaust from trucks, buses, trains, ships, and other equipment with diesel engines.
- Toxic Releases – Toxic chemical made or used by facilities that are released into the air.
- Traffic – The number of vehicles on the roads in an area.

Table 44: Air Pollutant Exposure in Plan Area

Pollution Category	El Rio (Census 50.03***)	Nyeland Acres (Census 50.02**)	City of Oxnard
Ozone	29.9	29.9	25.5
PM2.5^	38.1	37.1	34.5
Diesel PM^	54.0	51.0	49.8
Toxic Releases	56.1	37.9	52.7
Traffic	71.4	80.2	50.8

Source: CalEnvironScreen 4.0 Data Dashboard tool, access on September 26, 2024.

**** Census Tract 50.03 includes all of El Rio and portions of the City of Oxnard. Census tract 50.02 includes all of Nyeland Acres and portions of the City of Oxnard. For a map of the census tracts and the El Rio Community Designated Place, see Figure 2-10.*

^ PM refers to particulate matter.

[68] California Clean Air Centers: https://ww2.arb.ca.gov/cleanaircenters

[69] According to the Ventura County Air Pollution Control District grant funding was approved in April 2025 for a library in Port Hueneme to become a Clean Air Center. https://www.vcapcd.org/funds-to-help-create-countys-first-clean-air-shelter/

The pollutants in Table 44 are all related to traffic except for the toxic releases indicator. Since the Plan Area is adjacent to Highway 101, the traffic is higher than the City of Oxnard compared to the Plan Area communities. The Nyeland Acres Census Tract 50.02 does not have a large industrial center that would generate industrial products like the Del Norte Industrial Center in the El Rio Census Tract 50.03.

The traffic pollutant exposure for Nyeland Acres Census Tract 50.02 may be higher than El Rio Census Tract 50.03 because the auto center and Costco in the Nyeland Acres Census Tract 50.02 (City of Oxnard) attracts customers, resulting in higher levels of traffic. The Gold Coast Transit District Office and buses are also in the Census Tract 50.02. The diesel PM may be higher in El Rio compared to Nyeland Acres Census Tract 50.02 and the City of Oxnard due to the Del Norte Industrial Center.

There is an air quality monitoring station on the campus of Rio Mesa High School at 5454 Central Avenue, El Rio, that tracks the real time monitoring for ozone, PM2.5 and PM10. Table 45 shows the air quality for ozone, PM2.5 and PM10 for January 1 and July 1 for 2021 through 2024. Air quality values are rated according to six categories with higher values indicating a higher level of pollution. Air quality values at Rio Mesa High School are well below 100. If the air quality values exceed 100, the air quality is considered unhealthy. The VCAPCD has a wildfire smoke text alert system[70] to notify farmworkers when the air quality reaches an unhealthy level and again at a hazardous level due to wildfire smoke.

Table 45: Air Quality Index for Ozone, PM2.5 and PM10* for Select Dates (2021-2024).*

Date	Ozone	PM2.5	PM10
January 1, 2021	36	12	9
July 1, 2021	35	20	16
January 1, 2022	38	5	6
July 1, 2022	41	36	25
January 1, 2023	35	28	16
July 1, 2023	41	24	10
January 1, 2022	32	30	8
July 1, 2024	34	22	13

The air quality number is provided for ozone, PM2.5 and PM10; air quality numbers below 50 indicate healthy air. Higher numbers indicate increasingly unhealthy air quality. January and July were chosen to show a summer and winter air quality value. Source: Airnow Interactive Map of Air Quality from the Environmental Protection Agency accessed in September 2024.

** PM refers to particulate matter.*

D.1 Temporary Wildfire Air Quality Impacts

While the Area Plan itself is not identified to include any fire hazard severity zones, it is still subject to smoke from wildfires within the geographic area. This section highlights two wildfire examples that significantly impacted the air quality within the Area Plan boundaries.

Mountain Fire (2024)

The Mountain Fire started on November 6, 2024 and swept through the nearby communities of Somis and Las Posas Estates, impacting the air quality in the Plan Area. The federal certification of the air quality

[70] Ventura County Air Pollution Control District's Farmworker Wildfire Smoke Alert signup: https://www.vcapcd.org/farmworker-wildfire-smoke-alert/

data found that the daily AQI maximum was 166 for PM2.5. Both the ozone and the PM10 air quality numbers were lower than the PM2.5. This category triggers a health alert meaning both sensitive groups and the general public may experience more serious health effects. The results for the daily AQI maps are viewable in Figure 64[71]. The EPA has a fire and smoke map that tracks the air quality related to fires and is regularly updated[72].

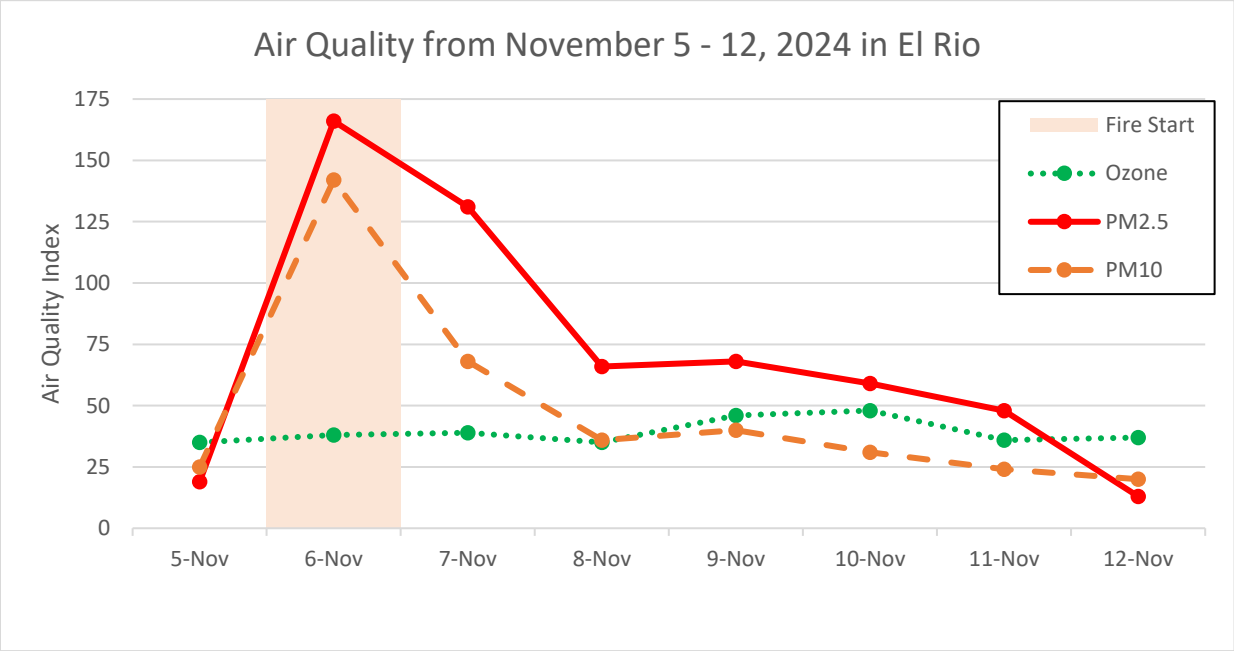

Figure 64: Graph of daily AQI from November 5 – 12, 2024 with the start of Mountain Fire on November 6, 2024. Source: AirNow archive accessed on June 18, 2025.

Hughes Fire (2025)

The Hughes Fire started on January 22, 2025, and burned the area around Castaic Lake, ultimately consuming 10,425 acres of vegetation[73]. While this fire occurred in Los Angeles County and impacted the Cities of Castaic and Santa Clarita, the smoke plum was pushed west down the Santa Clara River Valley toward the Area Plan and surrounding cities. On January 22, 2025, the Rio Mesa High School air quality tracking monitor indicated an hourly AQI of 125, which indicates "unhealthy air quality for sensitive groups."

It is important to note that the above air quality is based off the average for each day. However, when looking at air quality on an hour-by-hour basis the day of the fire clearly indicates the significant impact wildfire smoke can have on the community (Figure 65).

[71] The final air quality data goes through a multi-step review process and is finalized by the EPA every May. The data used in this analysis has not yet been finalized by the EPA.

[72] https://fire.airnow.gov/#12.33/34.24674/-119.10295

[73] Cal Fire Hughes Fire Incident Page: https://www.fire.ca.gov/incidents/2025/1/22/hughes-fire; accessed on February 3, 2025.

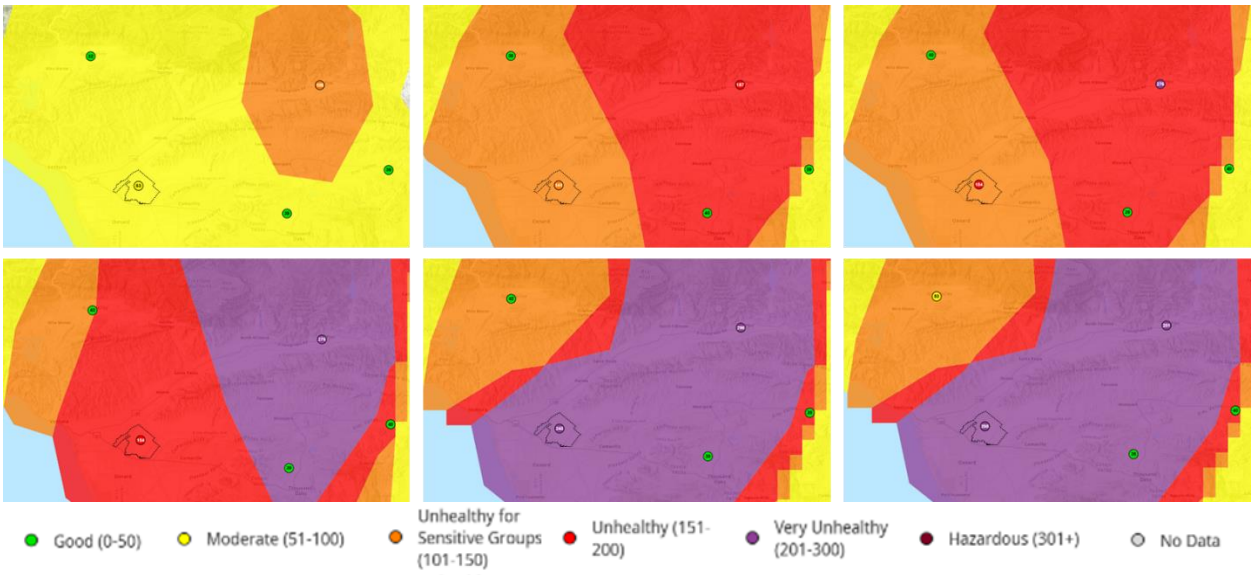

Figure 65: Hour-by-hour air quality for January 22, 2025, within the Area Plan (black outline) and surrounding area. Top left – 12:00 PM with Moderate air quality, Top Center – 1:00 PM with Unhealthy for Sensitive Groups air quality, Top Right – 1:30 PM with Unhealthy for Sensitive Groups and Unhealthy (general) air quality, Bottom Left – 2:00 PM with Unhealthy air quality, Bottom Center – 3:00 PM with Very Unhealthy air quality, Bottom Right – 4:00 PM with Very Unhealthy air quality.

E. Noise

The 2040 General Plan's Background Report includes a noise section that states excessive and chronic exposure to elevated noise levels can result in hearing loss and contribute to adverse behavioral and physiological effects. The General Plan Hazards and Safety Element, Policy 9.2 requires that new development projects that require a discretionary permit be reviewed for noise compatibility with surrounding uses. The policy sets various standards for noise levels, and generally includes a range from 45 to 65 Community Noise Equivalent Level (Noise Level) dB(A) (decibel weighted), which is an expression of the relative loudness of sounds as perceived by the human ear. The standards for Community Noise Equivalent Level is lower for quiet hours during the evening and nighttime while allowing for a higher level of noise during the day. The General Plan identifies the main sources of noise result from traffic on major roadways, transit and freight trains, and aircraft.

While the General Plan Policy applies to new discretionary projects, it is a useful indicator of what residents in the Plan Area may experience. Figure 66 below depicts the noise levels in the Plan Area resulting from roads, railroads, and airports, according to the Department of Transportation. The roadways and highways in and surrounding the Plan Area currently produce noise at the 60 dB(A) Noise Level. The Nyeland Acres community is subject noise levels generally equal to 45 dB(A) due to its proximity to the Highway 101 and Santa Clara Avenue. Residences close to Vineyard Avenue, North Rose Avenue, Central Avenue, and Highway 101 are also within the ranges of regulated noise Levels.

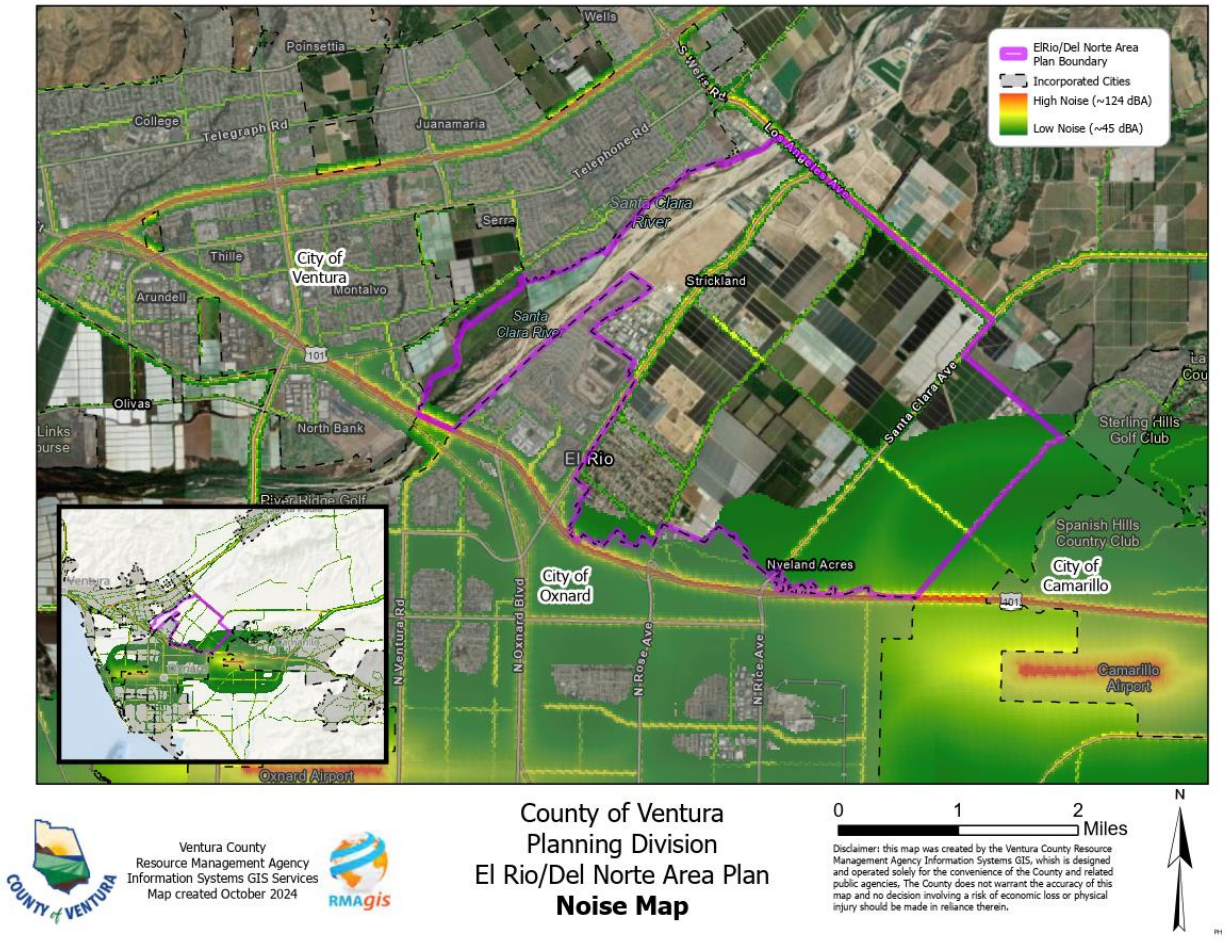

Figure 66: Map of Transportation-related noise. Source: National Transportation Noise Map from the Department of Transportation accessed on September 26, 2024. Data is from 2020.

7.2 Emergency and Essential Services

A. Emergency Services

The Ventura County Fire Protection District was established in 1928 and in 1954 the first fire station opened in El Rio. Today the Plan Area does not have a fire station, but the Ventura County Fire Station 51 is located near the water basin settling ponds along Vineyard Avenue just west of El Rio. This fire station is located at 3302 Turnout Park Circle, Oxnard and is the headquarters for Battalion 5 as well as City of Oxnard Fire Station 7. The two fire stations share a mutual aid agreement that allows for a coordinated response to emergency requests. There is a medical engine capable of advanced life support, a brush engine designed for firefighting where access is limited, and a water rescue team.

The Ventura County Public Health Agency tracks the emergency responses in the County. This data is organized by zip code. The zip code 93036 includes the Plan Area and the City of Oxnard (it primarily includes El Rio, Riverpark, Wagon Wheel, and extends to the Pacific Ocean south of the Santa Clara River). Table 46 shows the emergency response data from September 22, 2023, to September 20, 2024. A good emergency medical services (EMS) response time depends on the priority of the call, but generally, a

response time of eight minutes or less for at least 90 percent of calls is recommended. The Plan Area zip code response time ranges between 7.4 and 9.6 minutes 90 percent of the time.

*Table 46: Median Response Time and Emergency Medical Incidents**

REPONSE TIMES	Ventura County	93036 Zip Code
EMS** response time, 50% (min)	4.5	4.9
EMS** response time, 90% (min)	7.2	7.4
Paramedic response time, 50% (min)	4.8	6.2
Paramedic response time, 90% (min)	8.0	9.6
Time spent with patients (min)	28	28
INCIDENTS		
Acute Incidents	6,955	373
Patient Transports	52,655	2,815
Total Number of incidents	78,099	4,191

The response time data is from September 22, 2023 to September 20, 2024. Source: Ventura County Public Health Agency EMS Dashboard accessed on September 23, 2024.

***EMS refers to Emergency Medical Services.*

The Saint John's Regional Medical Center located at 1600 North Rose Avenue, Oxnard, is the closest hospital to the Plan Area that receives emergency patients. This hospital is located south of Highway 101 and is at the major intersection, North Rose Avenue and East Gonzales Road.

B. General Medical Services

The California Department of Public Health defines health equity as the efforts to ensure that all people have full and equal access to opportunities that enable them to lead healthy lives. The Ventura County Health Care Agency further expands on this definition by prioritizing diversity, equity, and inclusion initiatives within the community through 1) investing in local and community partnerships, 2) training the next generation of great health-care providers by reducing barriers & providing access to hand on learning opportunities, 3) nurturing innovation, and 4) empowering residents by providing health education and access to quality care.

To understand access to medical facilities within the Area Plan, a map of the medical offices within one half mile of the plan area is shown in Figure 67 below. Table 47 below lists the medical facilities within one half mile of the Plan Area and includes Walk Scores for these facilities. While there are a number of doctors and medical facilities in the surrounding area, there ware only two offices within the unincorporated County and the rest within the City of Oxnard. Additionally, Highway 101 serves as a major barrier to the bulk of medical offices located immediately south. Due to the limited number of streets traversing Highway 101, and those that do are auto dominated[74], residents of the Area Plan are forced to drive.

[74] Example: According to the American Planning Association, in order to create a comfortable pedestrian environment, a minimum of 15 is recommended between the street curb and that of a building/private property. Rose Avenue contains a combined pedestrian and bicycle area of approximately 17 feet in a right-of-

Medical facilities were located using Google Maps search. The facilities included in the search for medical services: doctor's offices, physical therapists, rehabilitation centers, dental offices, and eye doctors. Medical offices tend to cluster in a medical office building, which are designed to provide healthcare services.

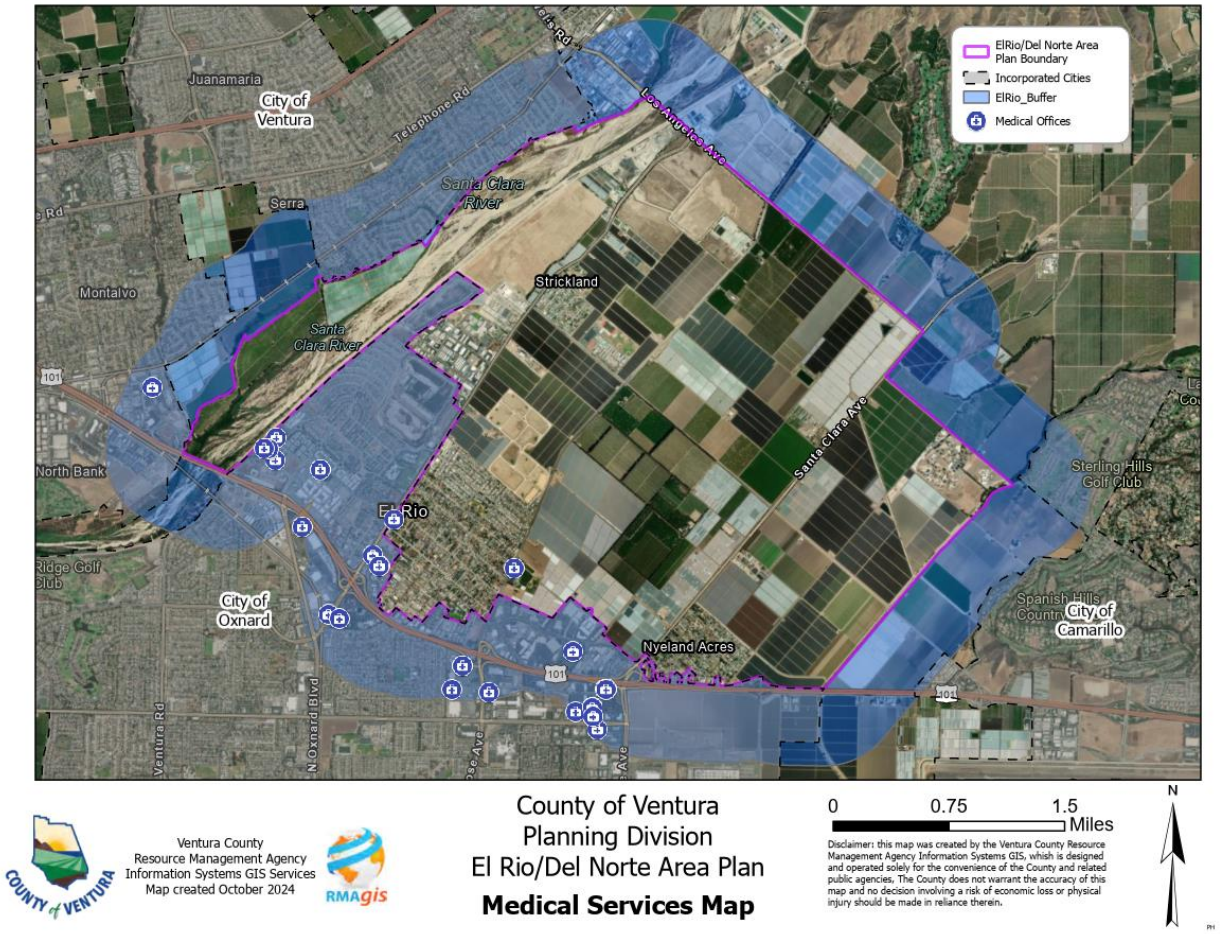

Figure 67: Map of Medical Offices in the Plan Area and Within One-Half Mile Buffer. The blue boundary shows the one-half mile buffer around the Plan Area. Source: Google Maps search of pharmacy, doctor, dentist, eye doctor, and clinics in September 2024.

Table 47: Walkability, Transit, and Biking Infrastructure Scores for Medical Offices in Plan Area*

Within Plan Area				
Medical Office	***Address***	***Walkability***	***Transit***	***Biking***
John Flynn Community Clinic	3100 N Rose Ave, Oxnard	27	N/A	33

way that is approximately 105-feet wide. This means that the pedestrian and bicycle infrastructure accounts for only 16% of the right-of-way, whereas if the APA recommended standard was applied it would account for approximately 28%. Source: Wright, Steve. (2022) In Praise of the Humble Sidewalk – Nine experts on why accessible sidewalks are the best infrastructure investment communities can make. *Planning Magazine.* https://www.planning.org/planning/2022/spring/in-praise-of-the-humble-sidewalk/.

Vineyard Dental Office	2840 E Vineyard Ave, Oxnard	87	N/A	52
Outside of Plan Area but Within ½ Mile, North of Highway 101				
Medical Office	***Address***	***Walkability***	***Transit***	***Biking***
Anacapa Dental Art Institute	2821 N Ventura Rd Bldg H, Oxnard	58	30	51
Clinicas El Rio Health Center	2600 E Vineyard Ave, Oxnard	66	38	49
Costco Optical	2001 Ventura Blvd, Oxnard	31	28	39
CVS Pharmacy (Target)	2850 N Oxnard Blvd, Oxnard	91	32	50
Dignity Health Medical Group	2901 N Ventura Rd #100, Oxnard	64	30	48
Easy Dental Group and Orthodontics	2660 E Vineyard Ave, Oxnard	67	38	49
Kingsley Clinic of California	1000 Town Center Dr #300, Oxnard	70	31	54
Primary Medical Group	2772 Johnson Dr #200, Ventura	57	30	82
Riverpark Dentistry	2861 N Ventura Rd #201, Oxnard	70	31	54
Target Optical	2850 N Oxnard Blvd, Oxnard	91	32	50
Outside of Plan Area but Within ½ Mile, South of Highway 101				
Medical Office	***Address***	***Walkability***	***Transit***	***Biking***
All About Eyes Optometry	300 E Esplanade Dr #560, Oxnard	76	38	50
California Hand and Physical Therapy	2001 Solar Dr #150, Oxnard	40	25	44
Centro Cirugia Oral and Facial	2001 Solar Dr #200, Oxnard	40	25	44
CMH Center For Family Health	2361 E Vineyard Ave, Oxnard	74	38	52
Esthetic Smiles	1901 Solar Dr #135, Oxnard	48	26	46
Kane and Kerper Family and Cosmetic Dentistry	1920 Outlet Center Dr, Oxnard	53	30	46
Miramar Eye Specialists	1901 Solar Dr # 155, Oxnard	48	26	46
NeuroAdaption Center (Physical therapist)	2100 Solar Dr # 202, Oxnard	40	25	44
Oxnard Modern Dentistry and Orthodontics	2150 N Rose Ave, Oxnard	52	33	53
Sam's Club Optical Center	2401 N Rose Ave, Oxnard	56	33	53
Sam's Club Pharmacy	2401 N Rose Ave, Oxnard	56	33	53
Solar Urgent Care	2100 Solar Dr #100, Oxnard	40	25	44
Spring Pharmacy	2650 E Vineyard Ave, Oxnard	79	37	52
Sunny Smiles Dental	2100 Solar Dr #201, Oxnard	40	25	44

Two Trees Physical Therapy	2100 Solar Dr #204, Oxnard	40	25	44
Vista Pacific Dental Care	1801 Solar Dr #140, Oxnard	45	25	46
Vons Pharmacy	2101 N Rose Ave, Oxnard	65	34	56
Walmart Pharmacy	421 W Esplanade Dr, Oxnard	68	38	51

Source: Google Maps search of pharmacy, doctor, dentist, eye doctor, and clinics in September 2024.

**Walkability, transit, and biking scores were calculated from the website Walk Score on a 100-point scale. The lower the score, the location had fewer options for transit, minimal infrastructure for biking and required the car for errands (walkability). The address of the medical office was entered into the website to get the scores.*

C. Police and Crime

C.1 Sheriff Services

Since 1873, the Ventura County Sheriff's Office has served unincorporated County, as well as a few cities. The Plan Area is serviced by the Sheriff Headquarters' Station located at the Ventura County Government Center at 800 Victoria Avenue, Ventura. El Rio and Nyeland Acres have a liaison deputy who frequently attends local Municipal Advisory Council meetings in order to provide updates about recent and forthcoming events. Additionally, Rio Mesa High School and Rio Del Valle Middle School each have a school resource officer Sheriff deputy who is on campus during the school week.

C.2 Crime Statistics

Overall crime data in El Rio and Nyeland Acres varies over the years, and the tables below show some statistics for years 2019, 2020, and 2021 (Tables 48). The Ventura County Sheriff's Office maintains a public-facing online dashboard that summarizes reports on crime, including for the community specific areas of El Rio and Nyeland Acres.

While three years of data is not enough data to identify long-term trends, Overall, most instances of violent crimes fell from 2019 to 2021. Aggravated assault numbers were reduced by more than 50% from 2019 to 2021. Violent crime is defined as a crime in which the offender uses or threatens violent force against the victim. Table 49 below, shows property crimes increased from 2019 to 2021 including both burglary and larceny.

Table 50 below shows there was a large jump in illegal vehicle storage in 2021 from prior years. Stored vehicle means a motor vehicle that is stored or parked upon a Real Property and is not licensed and insured for operation on public highways.

Table 48: Total Violent Crime in El Rio and Nyeland Acres 2019-2021

Total Violent Crimes	**2019**	**2020**	**2021**
Homicide	0	1	0
Rape	2	9	0
Robbery	4	5	2
Aggravated Assault	22	7	9

Source: Master Search and UCR data. Ventura County Sheriff's Office Crime Analysis

Table 49: Total Property Crime Data in El Rio and Nyeland Acres 2019-2021

Total Property Crimes	2019	2020	2021
Burglary	15	17	23
Larceny	15	40	63
Motor Vehicle Theft	11	14	13
Arson	0	1	0

Source: Master Search and UCR data. Ventura County Sheriff's Office Crime Analysis

Table 50: Vehicle Information in El Rio and Nyeland Acres 2019-2021

Vehicle Information	2019	2020	2021
Vehicle Tow	0	1	0
Vehicle Stored	26	27	57
Vehicle Impounded	3	1	2
Total	29	29	59

Source: Master Search and UCR data. Ventura County Sheriff's Office Crime Analysis

According to the U.S. Bureau of Justice Statistics[75], rates of violent crime in the United States have declined significantly over the past two decades, but disparities persist. According to the U.S. Department of Justice Office of Justice Programs, low-income households and racial and ethnic minorities are disproportionately affected by a higher rate of violent victimization than persons in high-income households[76].

In order to address crime rates, the Center for Disease Control (CDC) calls for multiple strategies that address the underlying risk and protective factors for violence that affect people, their relationships and communities, and society as a whole would need to be created[77]. The CDC recognizes that there is no single best way to reduce crime rates but does provide different strategies and approaches that can be taken by law enforcement and policy makers to help address the underlying issues.

[75] US Bureau of Justice Statistics. Multi-Year Trends – Crime Type. https://ncvs.bjs.ojp.gov/multi-year-trends/crimeType. Accessed on April 7, 2025

[76] According to the Justice Department, between 2008–12, the rate of violent victimization was highest for persons in poor households (39.8 per 1,000) and lowest for persons in high-income households (16.9 per 1,000). Source: https://bjs.ojp.gov/content/pub/pdf/hpnvv0812.pdf. Accessed on April 7, 2025.

[77] Center for Disease Control. Violence Prevention – Strategies and Approaches. https://vetoviolence.cdc.gov/apps/violence-prevention-practice/strategy-approaches/. Accessed on April 8, 2025.

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8 | FUTURE OPPORTUNITIES

Area Plans are an integral part of the County's General Plan, providing the basis for future land use development and identifies goals, policies, and programs that focus on a particular region or community within the overall general plan area. This Background report will help to inform residents, decision makers, the business community, and county staff to better refine the El Rio-Del Norte Area Plan that reflects not only the needs and desires of the individuals in the community but also to address pressing local and state issues. This is especially important within the El Rio and Nyeland Acre communities as they are identified as a designated disadvantaged community (DDC), which is 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. Even though the General Plan contains policies and programs that increase governmental support and resources for DDC's, this update provides an opportunity to refine these more general policies and programs into ones that will help to open opportunities for priority grant funding that will benefit or enhance the community.

So, what are these future opportunities? In short, they have not been formulated yet because the project still needs to go through the technical analysis by other government agencies and public outreach has to be conducted to refine general ideas into implementable ones. Below are two example diagrams showing how a concept can be built into specific goals, policies and programs:

Appendix A

El Rio-Del Norte Area Plan Update Background Report Technical Appendix for Water Infrastructure

This Technical Appendix was prepared with the assistance of SB1 Grant funds from the State to study constraints and potential solutions in providing water, sewer services, and dry utilities for housing. This included identifying potential infrastructure for at least 179 multifamily units located within the Area Plan as identified in the General Plan's Housing Element's Sites Inventory.

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El Rio-Del Norte Area Plan Update Background Report
Technical Appendix for Water Infrastructure

June 2025

Prepared For:

County of Ventura
Resource Management Agency Planning
Contract 9359

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COUNTY of VENTURA
RESOURCE MANAGEMENT AGENCY

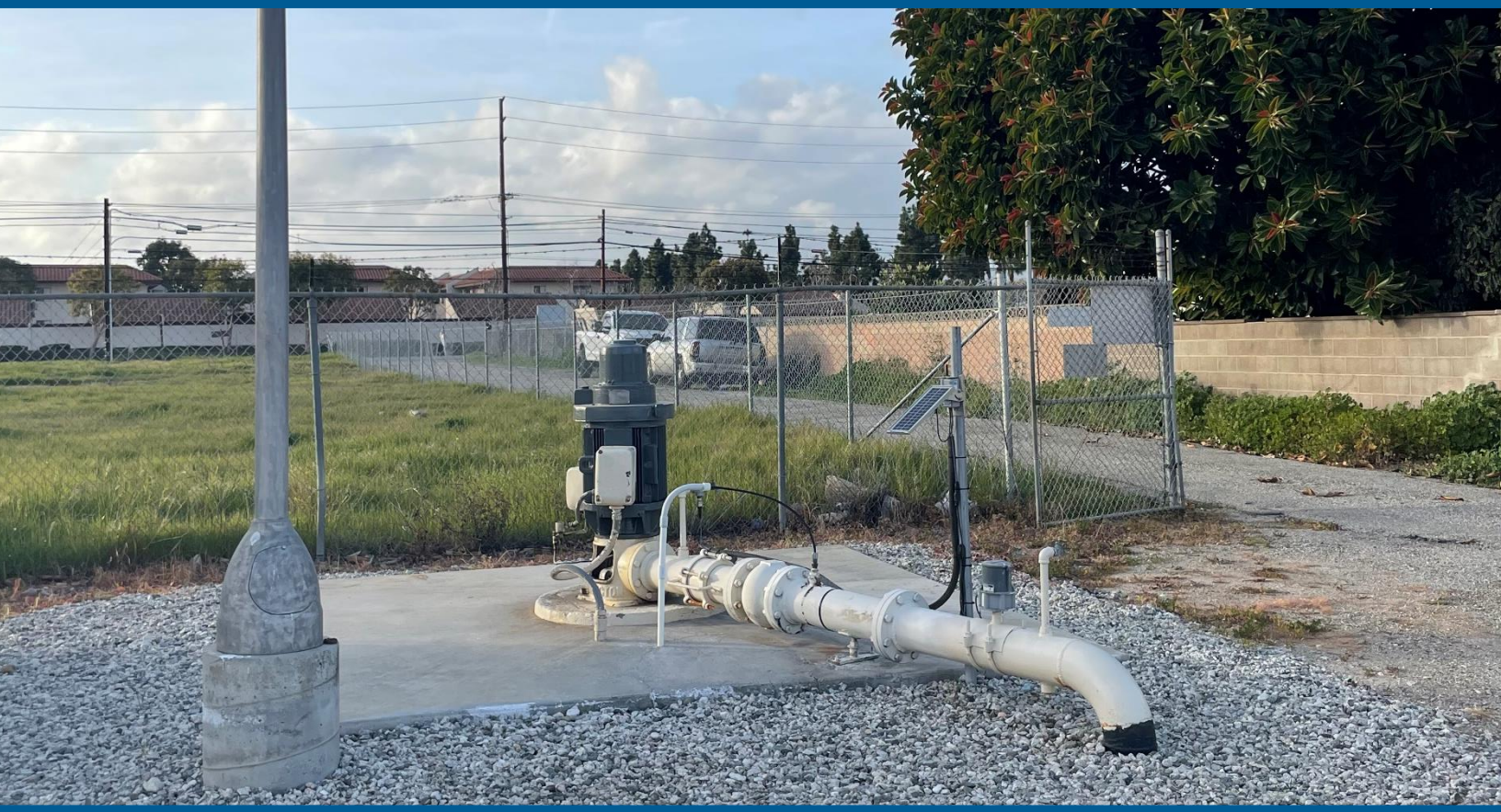

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF EXHIBITS

1.0 INTRODUCTION

This document serves as the Technical Appendix to the El Rio-Del Norte Area Plan Update Background Report. This document focuses on potable water demands from existing, built areas within the El Rio-Del Norte Study Area. This Technical Appendix compiles current potable water demands, sources, storage facilities, and other infrastructure, and projects potential changes to future potable water demand in existing built areas. Modifications to current land uses in developed areas may impact water demands in the El Rio-Del Norte Area. These impacts could be to both long term water supply requirements as well as to instantaneous (fire flow) or peak-hour demands. Infrastructure improvements to address current deficiencies and changes to current land use are examined herein.

The analyses and recommendations provided in this Technical Appendix aim to support the guiding principles of the Ventura County 2040 General Plan Update and the specific El Rio-Del Norte Area Plan. Water demands from existing developed areas can change due to growth scenarios including parcel build-out, land use conversion, high-density development in the High-Quality Transit Corridor, and other factors. Some of these changes and redevelopments originate from recently enacted state laws, including Senate Bill (SB) 4, SB 6, SB 9, and Assembly Bill (AB) 2011. These laws allow increases in the number of dwellings that could previously be permitted within parcels zoned for single family residences or for religious purposes. An increase in the number of dwellings would increase the demand for potable water.

1.1 BACKGROUND

Potable water supply in the El Rio-Del Norte Study Area is provided by twelve permitted public water systems that supply water directly to individual properties. Most of these systems are mutual water companies, where property owners within each water system's service area are shareholders of the respective corporation. One of the systems (Rio Plaza) is owned and operated by an investor-owned utility. There are three schools (Rio Del Valle Middle School, Rio Real School, and Rio Mesa High School) that own and operate public water systems on their respective campuses.

The twelve systems are generally not physically interconnected, and each has its own well, pipelines, storage tank(s), and pumping systems. Similarly, each water system has its own governing body and management system. This is a comparatively high number of water systems for the size of the Study Area (approximately 6,984 acres). Each system is responsible for maintaining compliance with drinking water regulations set forth by state and federal law, which is monitored and regulated by the permitting entity, the Division of Drinking Water of the State Water Resources Control Board. Additional compliance requirements are set forth by the California Secretary of State, Franchise Tax Board, and Fox Canyon Groundwater Management Agency. The Division of the State Architect requires review of improvements on the school properties. The investor-owned utility, Rio Plaza, is also regulated by the California Public Utilities Commission (CPUC).

1.2 LOCATION AND DEMOGRAPHIC

The Study Area for this Technical Appendix is bounded by California State Route 118 to the north, Beardsley Road to the east, the City of Oxnard boundaries to the south, and the Santa Clara River to the west. A Study Area map is included in Figure 1.

El Rio is a Census-Designated Place (CDP) with a population of approximately 7,037 and a median household income (MHI) of $69,665 (2022 American Community Survey 5-Year Estimates). As a comparison, the California MHI was $91,905 and the United States MHI was $75,149. In California, the El Rio CDP is categorized as a disadvantaged community by the State Water Resources Control Board due to its MHI being less than 80% of the statewide MHI.

The Nyeland Acres community is located in Census Tract 50.02 and has an MHI of $51,223 (2022 American Community Survey 5-Year Estimates). Nyeland Acres is also categorized as a severely disadvantaged community by the State Water Resources Control Board due to its MHI being less than 60% of the statewide MHI.

1.3 TOPOGRAPHY AND FLOOD ZONES

The topography of the area is planar, with surface drainage to the southwest, toward the Pacific Ocean or to the Santa Clara River. The lack of topographic relief generally precludes the installation of elevated, hillside potable water storage facilities to serve the El Rio-Del Norte Study Area. Therefore, the public water systems utilize hydropneumatic tanks to maintain pressure in their respective systems.

The Santa Clara River is the western boundary of the El Rio-Del Norte Study Area. The Federal Emergency Management Agency (FEMA) mapping of the flood zone shows potential inundation in a 100-year flood in the areas immediately adjacent to the Santa Clara River in the upper portions of the El Rio-Del Norte Study Area west of Vineyard Avenue (FEMA Map No. 06111C0910E). The southeast portions of the Study Area along Nyeland Acres and Beardsley Road are located within 100-year and 500-year flood zones (FEMA Map No. 0611C0926E). The other portions of the Study Area are not within a mapped flood zone (FEMA Map Nos. 06111C0770E and 06111C0790F).

1.4 WATER RESOURCES PRESENT

Water for potable purposes, including water sold provided the twelve permitted potable water systems in the Study Area, is sourced from groundwater wells located within each water system's service area. The water quality from these wells is normally compliant with state and federal drinking water requirements. However, nitrate can regularly approach or may exceed its maximum contaminant level (MCL) and is the most common contaminant of concern in the Study Area. Nitrate is caused by anthropogenic activities (septic tanks and agriculture) and thus impacts the Upper Aquifer System (UAS). Nitrate is a primary contaminant, meaning that the United States Environmental Protection Agency (EPA) has identified it as a drinking water contaminant that presents a risk to human health. In particular, elevated levels of nitrate can cause a condition called methemoglobinemia, which is of greatest concern in infants. Some groundwater wells in the area also contain elevated concentrations of secondary contaminants, which are not health threatening but may cause drinking water to become cloudy or clouded, or to taste or smell bad. Secondary contaminants in the area include iron, sulfate, manganese, and total dissolved solids.

The Santa Clara River watershed is the primary source of natural groundwater recharge in the area. This watershed encompasses approximately 1,200 square miles within Los Angeles and Ventura counties and extends approximately 100 miles from the San Gabriel Mountains to the Pacific Ocean. The Study Area is in the lower portion of the river's watershed.

United Water Conservation District (UWCD) owns and operates the Oxnard-Hueneme System, which is a groundwater extraction, treatment, and conveyance system for providing water to the City of Oxnard, Port Hueneme Water Agency, Rio School District schools, and several mutual water companies within El Rio and southwest of the Study Area. The service area of UWCD encompasses all of the Study Area. UWCD is State Water Project (SWP) contractor with the California Department of Water Resources. UCWD has the ability to import SWP water to the Study Area from northern California, but primarily uses groundwater extracted from its El Rio well field.

1.5 LAND USES

The land uses evaluated in this Technical Appendix are limited to the residential, commercial, and industrial zoned parcels in the Study Area. Exceptions include one agricultural parcel (APN 147-0-060-010) located in the service area of and served by Strickland Acres Mutual Water Company, which is one of the water systems in the Study Area (see Section 3.4).

The Ventura Youth Correctional Facility is located in the northeast corner of the Study Area, but closed in June 2023. Due to its closure, water demands are not included in the existing water demands and growth scenario demand calculations of this Technical Appendix. An estimation of past water demands for the facility, which is located on four parcels, is included in Section 3.4.14.

United Water Conservation District's El Rio system includes multiple groundwater wells, recharge basins, and a treatment facility located on an agricultural zoned parcel (APN 144-0-010-065) in the central portion of the Study Area. Water usage on this parcel was not analyzed in this Technical Appendix, but the water systems supplied by UWCD's Oxnard-Hueneme Pipeline are discussed in Section 3.2.1.

2.0 DRINKING WATER REGULATIONS

The California Waterworks Standards are contained in Chapter 16 of the California Code of Regulations (CCR), Title 22, Division 4. These standards stipulate the following requirements to assess adequacy of source and storage capacity for water systems:

- Per CCR, Title 22, Section 64554(a), all public water systems' source(s) must meet Maximum Day Demand (MDD) at all times.
    - When monthly data is provided, MDD is determined based on the average daily demand during the maximum month of production within the most recent ten years of operation. The number of years may be less if data is not provided or available. A peaking factor of 1.5 is multiplied to the average daily demand to determine the maximum daily demand. The peak hour demand (PHD) is determined by multiplying the average hourly flow during the MDD by a peaking factor of 1.5.
    - When annual data is provided, MDD is determined based on the year with the highest water usage during the most recently ten years of operations. The number of years may be less if data is not provided or available. A peaking factor of 2.25 is applied to the average daily demand to determine maximum daily demand. The peak

hour demand (PHD) is determined by multiplying the average hourly flow during the MDD by a peaking factor of 1.5.

- Per CCR, Title 22, Section 64554(a), systems with 1,000 or more service connections must be able to meet four hours of peak hourly demand (PHD) with its source capacity, storage capacity, and/or emergency source connections. For systems with less than 1,000 service connections, the systems must have storage capacity equal to or greater than MDD, unless it has an additional source of supply or interconnection that can meet this MDD requirement.
    - All retail public water systems in the Study Area have fewer than 1,000 service connections. If water systems in the Study Area consolidate into a larger system with 1,000 or more service connections, the regulations governing the systems' water sources and storage capacities would change.

- Per CCR, Title 22, Sections 64554(c)-(d), systems using only groundwater must have a minimum of two (2) approved sources before being granted an initial permit and must be capable of meeting MDD with the highest capacity-source offline, and the capacity of the groundwater sources is determined by summing all the sources, and if any sources influence each other when run concurrently, the capacity would be reduced.

Water systems in Ventura County are also required to demonstrate their water supply capacity via a Water Availability Letter (WAL). A WAL is required of any water system that is subject to any of the following conditions:

1. Is currently in or is proposed to be located within real property, including rights of way that is owned or controlled by the County.

2. Serves, or plans to serve, water to any land development project which is subject to any approval issued by the County.

3. Provides a fire protection function and is within the jurisdiction of the Ventura County Fire Protection District.

The preparation of a WAL is an iterative process dependent on the type of service connection, zoning, and water flows in each water system. However, WAL results are generally similar to the regulations provided in CCR Title 22.

2.1 DEFINITIONS

To further expand on the purpose and usage of the California Waterworks Standards, definitions for average daily demand, maximum day demand, and peak hour demand are included below.

Average daily demand (ADD) is the water usage expected on an "average day". For planning purposes, this represents the general daily water demands that may be expected on a year-to-year basis. Average day demand is typically used for water right allocations or annual production reporting.

Maximum day demand (MDD) is the water usage during the highest day of use within the most recent ten years of operation, excluding fire flow. Typically, a "maximum day" occurs

when outside temperatures are high, causing residents to use more water for irrigation or domestic use. A "maximum day" may also occur as a result of construction projects, waterline breaks, etc. For planning purposes, this provides a conservative measure for sizing and constructing new water sources, storage tanks, booster pumps, and waterlines. The California Waterworks Standards utilizes maximum day demand and peak hour demand to determine whether water systems meet regulations.

Peak hour demand (PHD) is the water usage during the highest hour of use during the maximum day. Since water usage varies throughout the day due to living habits, commercial and industrial schedules, and other factors, the peak hour demand measurement ensures that water source capacity and booster pumps are able to withstand the highest peak in water usage in a day.

3.0 EXISTING WATER SUPPLY

3.1 LOCAL WATER RETAILERS OVERVIEW

Several public water systems provide potable water within the El Rio-Del Norte Study Area. These systems, permitted by the State Water Resources Control Board's Division of Drinking Water, are presented in Table 2. The boundaries and existing water facilities of these water systems are depicted in Figures 1 and 2. The public water systems include several mutual water companies, a for profit water system, and schools.

The public water systems' source of water is locally extracted groundwater. Surface water is not a direct supply of water for the public water systems. Each public water system owns and operates its own system of wells, storage tanks, pipelines, and pump stations, to provide potable water to its respective service area. Most wells in the El Rio area are shallow and connect to the Upper Aquifer System (UAS), which is a shallower aquifer in the El Rio area. The UAS in the El Rio area has had a history of groundwater impairments, principally nitrate concentrations exceeding the maximum contaminant level for drinking water. Nitrates are generally caused by septic tank effluent and agricultural activities (fertilizers and animal enclosures). The public water systems in the El Rio area do not have treatment facilities for the removal of nitrate.

The current water systems in the Study Area have less than 1,000 service connections and are not required to have adequate capacity to comply with four hours of peak hour demand. However, the potential for consolidated systems in the area may result in a future consolidated system with more than 1,000 service connections.

3.2 REGIONAL WATER SUPPLY AND GROUNDWATER MANAGEMENT AGENCIES

There are several regional entities that oversee groundwater management and oversight responsibilities, provide wholesale water deliveries from greater water supply sources, or provide water to areas immediately adjacent to the Study Area. As described below, these agencies either currently have responsibilities for some or all of the Study Area or would need to expand their service areas to provide water service to the Study Area.

3.2.1 United Water Conservation District

United Water Conservation District (UWCD) is a regional water wholesaler (Public Water System No. CA5610046). UWCD owns and operates a well field and treatment facility in the El Rio area (El Rio Well Field) that supplies its Oxnard-Hueneme System (O-H System), supplying potable water to select public water systems within and southwest of El Rio. UWCD has historically, on a case-by-case basis during emergencies, supplied some local water systems water from the O-H System when nitrate concentrations in local groundwater have exceeded the maximum contaminant level. Within El Rio, the O-H Pipeline regularly supplies potable water to Rio School District (Rio Real School and Rio Del Valle Middle School) and Vineyard Avenue Estates Mutual Water Company.

UWCD's O-H System obtains its water from local groundwater, the Santa Clara River, and occasionally from the State Water Project. Wells within UWCD's El Rio Well Field extract groundwater from the Upper Aquifer System (UAS) or the Lower Aquifer System (LAS). Similar to the shallower wells that supply the public drinking water systems in El Rio, UWCD's UAS wells can also experience concentrations of nitrate that exceed the maximum contaminant level. UWCD's LAS wells have naturally occurring iron and manganese concentrations that exceed secondary maximum contaminant levels. In 2023, UWCD constructed a treatment facility to remove iron and manganese from the LAS wells. Based on the 2022 Consumer Confidence Report, all chemicals and/or constituents were below primary drinking water standards MCLs.

UWCD also owns and operates several groundwater recharge basins within and immediately northeast of the Study Area. The typical source of water for the recharge basins is surface water flows from the Santa Clara River, diverted by UWCD to the recharge basins at the Freeman Diversion Dam. Additionally, UWCD has the ability to divert water from the State Water Project (SWP) to the recharge basins. However, UWCD seldom utilizes water from the SWP, principally due to the cost of water and extensive water losses between Lake Piru and the Freeman Diversion Dam.

UWCD previously provided an emergency water connection on a temporary basis to Vineyard Avenue Acres Mutual Water Company (VAAMWC) through the 42-inch diameter Oxnard-Hueneme Pipeline (O-H Pipeline) along N. Rose Avenue. The emergency water connection was located at the intersection of N. Rose Avenue and Collins Street since the O-H Pipeline has an existing 8-inch diameter side outlet nozzle at this intersection. VAAMWC is located within the service area of UWCD but is not a user (also known as Contractor) under the Oxnard-Hueneme agreement. UWCD also provides a permanent water connection to Vineyard Avenue Estates Mutual Water Company (VAEMWC), Rio Del Valle Middle School, and Rio Real School.

UWCD staff has indicated that the UWCD system has shut down twice in the last fifteen years. The O-H Pipeline is considered an interruptible source and cannot be a water system's sole source of water. UCWD has reported its peak flow capacity of approximately 55 cubic feet per second (cfs). There are currently eight agencies that are allocated water from this pipeline. The current agencies using the O-H Pipeline and their allocations are presented in Table 1.

Table 1 – Oxnard-Hueneme Pipeline Users and Allocations

Agency	Capacity (cfs)	Capacity (MGD)	% of Total
City of Oxnard	26.75	17.29	50.47%
Port Hueneme Water Agency	22.25	14.38	41.98%
Vineyard Avenue Estates Mutual Water Company	1.35	0.87	2.55%
Rio School District	1.10	0.71	2.08%
Dempsey Road Mutual Water Company	0.85	0.55	1.60%
Cypress Mutual Water Company	0.40	0.26	0.75%
Saviers Road Mutual Water Company	0.25	0.16	0.47%
Donlon Farms	0.05	0.03	0.09%
Total	**53.00**	**34.25**	**100%**

3.2.2 Calleguas Municipal Water District

Calleguas Municipal Water District (Calleguas) is a water wholesaler (Public Water System No. CA5610050) that provides water to 19 water purveyors in Ventura County. Calleguas provides water to 93 service connections and an approximate population of 640,000. Calleguas obtains its water from Metropolitan Water District of Southern California (MWD) via the State Water Project (SWP). Limited portions of the Study Area are within the service area of Calleguas. Based on the 2022 Annual Water Quality Report, all chemicals and/or constituents were below primary and secondary drinking water standards MCLs.

Portions of the Study Area that are within Calleguas' service area are generally unimproved. Calleguas does not provide water to any of the public water systems in the Study Area. Properties and water purveyors desiring to receive water from Calleguas would need to be annexed into the service areas of both Calleguas and MWD. However, Calleguas is planning to construct a new pipeline to the City of Ventura under the State Water Interconnection Project that would run parallel to Central Avenue, approximately 2,300 feet north of Strickland Acres Mutual Water Company (SAMWC).

3.2.3 Fox Canyon Groundwater Management Agency

Fox Canyon Groundwater Management Agency was formed in 1982 to manage and preserve groundwater resources within the lands overlying the Fox Canyon Aquifer. FCGMA is the Groundwater Sustainability Agency for the groundwater basins within the Fox Canyon Aquifer. The entirety of the Study Area is within the FCGMA's boundaries.

3.2.4 City of Oxnard

In recent years, the city limits of Oxnard have expanded northeasterly along Vineyard Avenue. The City limits are also located immediately north of Highway 101. The City of Oxnard is a public water system that provides potable water services within its city limits, including areas immediately adjacent to the Study Area. The City's water system is in close proximity to neighboring water systems in the Study Area. The City does not have an interconnection with any of the public water systems in the Study Area.

3.3 WASTEWATER COLLECTION AND DISPOSAL

Ventura County Service Area No. 34 (CSA 34) provides wastewater collection services within the El Rio area. CSA 34 was formed in 2005 to address groundwater contamination within the Oxnard Forebay that resulted in pathogens and nitrogen compounds released from individual septic disposal systems. CSA 34 collects wastewater within the El Rio area and conveys it to the City of Oxnard through a pipeline network for treatment and disposal.

Ventura County Service Area No. 30 (CSA 30) provides wastewater collection services within the Nyeland Acres area. CSA 30 was formed in 1965 to provide sanitation services to the unincorporated community of Nyeland Acres, which is located north of Highway 101, generally east of Santa Clara Avenue, and immediately northeast of the City of Oxnard limits. CSA 30 collects wastewater within the Nyeland Acres area and conveys it to the City of Oxnard through a pipeline network for treatment and disposal.

The Study Area is not served by a recycled water system.

3.4 DESCRIPTION OF WATER RETAILERS WITHIN THE STUDY AREA

As previously mentioned, twelve public water systems provide potable water to the built environment of the Study Area. These systems are permitted by the State Water Resources Control Board's (SWRCB) Division of Drinking Water (DDW). Table 2 below summarizes each system's populations and number of service connections. A description of each retailer's water system, infrastructure, and water quality follows. UWCD and Calleguas are permitted public water systems, but do not directly supply water to individual properties, and are therefore intentionally omitted from Table 1.

Table 2 – Water Systems within the El Rio-Del Norte Study Area

Name	System Type[1]	Population Served	Service Connections	Water Supply[2] (gpd)	Water Storage (gal)
Beedy Water Company	Industrial	35	5	230,400	215,000
California American Water – Rio Plaza	Community	1,716	520	1,670,400	40,000
Cloverdale Mutual Water Company	Community	455	150	3,384,000	100,000
Garden Acres Mutual Water Company	Community	816	136	3,600,000	361,500
Nyeland Acres Mutual Water Company	Community	915	183	1,080,000	0
Strickland Acres Mutual Water Company	Community	429	128	864,000	54,000
Vineyard Avenue Acres Mutual Water Company	Community	1,820	364	1,152,000	0
Vineyard Avenue Estates Mutual Water Company	Community	1,200	342	1,800,000	160,000
Vineyard Mutual Water Company	Industrial	240	56	2,232,000	650,000
Rio School District – Rio Del Valle School	School	820	1	7,200	0
Oxnard Union High School District - Rio Mesa High School	School	550	1	1,872,000	250,000
Rio School District – Rio Real School	School	2,600	13	5,760	0

Notes:
1. System type as described in this table does not represent the official water system classification as described in Section 3.4.1. Instead, it presents the general population served by the system as of September 2024.
2. The water supply approximated here is a combination of the system's groundwater wells and interconnections (if any).

3.4.1 Definitions

This section expands on the definitions of several water system characteristics including federal and state classification, type of service connections, and facilities.

3.4.1.1 Federal and State Classification

Water systems are classified according to rules developed by the U.S. Environmental Protection Agency (EPA) and state rules. Systems are typically differentiated based on the population they serve, the number of service connections they serve, and the typical activity conducted within their service areas. A public water system can be classified as the following:

Community water systems are classified as those who service at least 15 service connections used by year-round residents or regularly serves 25 year-round residents.

Non-Transient Non-Community water systems are classified as those who serve at least the same 25 non-residential individuals during six (6) months of the year.

Transient Non-Community water systems are classified as those who regularly serve at least 24 non-residential individuals during 60 or more days per year.

State small systems represent a minimal quantity of the water demands in the Study Area. State small water systems are classified as those who serve at least five (5) and up to 14 service connections to fewer than 25 people on a regular basis. State small systems and private wells are permitted by the Ventura County Environmental Health Division and not regulated by the SWRCB. Water demands from state small systems or private wells were not evaluated in this Technical Appendix due to the lack of public information identifying the location, population, and water usage of state small systems or private wells. A majority of the development potential in the Study Area is expected for residential, commercial, and industrial zoned parcels, for which a majority are served by public water systems.

3.4.1.2 Water Service Connections

Water service connections are the points of connection between a customer's piping or constructed conveyance and the water system's meter, service pipe, or constructed conveyance. Service connections are classified as one of the following: agricultural, commercial, industrial, power production, residential, or combined.

The water systems in the Study Area have agricultural, commercial, industrial, and/or residential service connections. Approximately 90% of the service connections in the Study Area are residential. Many of the water systems serve a primarily residential customer base with a few commercial and/or industrial service connections. A few water systems, such as Vineyard Mutual Water Company and the schools in the area, serve primarily commercial or industrial service connections.

3.4.1.3 Water System Facilities

Water system facilities are the system's existing or proposed water infrastructure, which may include groundwater wells, storage tanks, hydropneumatic tanks, booster pumps, disinfection systems, treatment systems, distribution and transmission pipelines, and interconnection pipelines.

The supply capacity of a system's sources (e.g. wells, interconnections) is typically determined using a measurement of gallons per minute (gpm) or gallons per day (gpd).

The Study Area is relatively flat and elevations range between approximately 70 and 130 feet above mean sea level. As a result, a majority of water systems in the area rely on hydropneumatic tanks to pressurize the water in their system. The capability of a system to supply water from its source may also be limited by the sources' water quality, the pumping capability of the pump/motor in the wells and/or of the booster pump(s), the operation of the hydropneumatic tank, and other factors. A groundwater well may be rendered inactive or offline due to a power outage, water quality exceeding maximum contaminant levels (MCLs), pump/motor failures, and other factors.

The storage capacity of a system is measured by the volume (gallons) of its storage tanks. The volume of a system's hydropneumatic tank is not included in its storage capacity as hydropneumatic tanks provide minimal storage and are not intended for storage use.

3.4.2 Beedy Water Company

The Beedy Water Company (BWC) service area is located in the northwest portion of the Study Area. BWC is classified as a Non-Transient Non-Community Water System (Public Water System No.

CA5602133). BWC serves five commercial service connections with a non-transient population of 35. The BWC potable water system is composed of the following:

- One active well with a pumping capacity of 160 gallons per minute (gpm).
- One standby well with a pumping capacity of 200 gpm.
- Chlorine disinfection system at each well.
- One 100-gallon hydropneumatic tank.
- Distribution system consisting of 2-inch and 4-inch steel and cast-iron pipes.
- One pressure zone maintained between 40 and 60 psi.

Per its 2022 Sanitary Survey, BWC has an average day demand (ADD) of 854 gallons per day (gpd) and a maximum day demand (MDD) of 20,205 gpd. BWC's sole active well is able to supply the MDD, but

Multiple storage tanks were constructed within BWC's service area for fire protection of the Alisa and Manatee Substations and domestic use. These tanks are to be owned by BWC following construction efforts for the substation and total approximately 215,000 gallons (two 90,000-gallon tanks and one 35,000-gallon tank). With the addition of these tanks, BWC is able to meet its MDD of 20,205 gpd and fire flow requirements.

Per BWC's 2022 Sanitary Survey, BWC has not exceeded primary drinking water standards, but has exceeded the secondary drinking water standard MCLs for iron, sulfate, and total dissolved solids.

3.4.3 California American Water – Rio Plaza

The California American Water Company – Rio Plaza (Cal-Am) service area is located in the southwest portion of the Study Area. The investor-owned water system was previously owned by Rio Plaza Water Company and was acquired by California American Water, a private entity, on June 4, 2019. Cal-Am is classified as a Community Water System (Public Water System No. CA5610010) and serves 512 residential service connections and 7 commercial service connections. The Cal-Am potable water system is composed of the following:

- Two active groundwater wells with pumping capacities of 730 and 430 gpm.
- Two bolted steel storage tanks, each with a capacity of 20,000 gallons.
- One booster pump station that contains two 40-horsepower (hp) pumps, with capacities of 958 and 1,063 gpm.
- Two 10,000-gallon hydropneumatic tanks.
- Chlorine disinfection system.
- Distribution system consisting of 6-inch to 10-inch diameter polyvinyl chloride (PVC) pipe.
- One pressure zone maintained between 40 and 65 psi.

Per its 2022 Sanitary Survey, Cal-Am has an ADD of 217,058 gpd and an MDD of 379,339 gpd. Cal-Am is able to supply its MDD with its two wells but does not have adequate storage capacity to meet its MDD and fire flow requirements. As of September 2021, Cal-Am was pursuing a connection with UWCD's O-H System for an emergency supply of water (September 8, 2021 UWCD Board Meeting Agenda, Item 4.3).

Per Cal-Am's 2022 Consumer Confidence Report, all chemicals and/or constituents were below primary drinking water standards MCLs.

3.4.4 Cloverdale Mutual Water Company

The CMWC service area is located in the south portion of the Study Area. CMWC is classified as a Community Water System (Public Water System No. CA5610068) and serves 134 residential service connections and 13 commercial service connections. The CMWC service area includes four sites identified in the County's 2021-2029 Housing Elements for high density affordable housing (APNs 145-0-180-04, 145-0-180-05, 145-0-180-06, and 145-0-190-39). The CMWC potable water system is composed of the following:

- Three active groundwater wells with pumping capacities of 500, 750, and 1,100 gpm.
- One bolted steel storage tank with a capacity of 100,000 gallons.
- Booster pump station.
- Two 3,000-gallon hydropneumatic tanks.
- Chlorine disinfection system.
- Distribution system consisting of 8-inch to 10-inch diameter asbestos cement (AC) pipe and PVC pipe.
- One pressure zone maintained between 40 and 60 psi.

Per its 2023 Sanitary Survey, CMWC has an ADD of 98,823 gpd and an MDD of 336,000 gpd. CMWC is able to supply its MDD with its three wells but does not have adequate storage capacity to meet its MDD and fire flow requirements.

In early 2024, CMWC was considering increasing its storage capacity by constructing taller tanks. CMWC is planning to purchase a lot to install either one new 353,000-gallon tank or two new 100,000-gallon storage tanks. There is minimal space available within CMWC's service area to construct larger or additional storage tanks. These tanks would need land use permitting (e.g. conditional use permit) from Ventura County due to the proposed height. With the new tank addition(s), CMWC would be able to supply its MDD, but would not be able to supply the combined MDD and fire flow requirements.

Per CMWC's 2021 Consumer Confidence Report, all chemicals and/or constituents were below primary drinking water standards MCL.

CMWC participated in extensive consolidation discussions with VAAMWC in 2020 but withdrew from the consolidation effort in 2021.

3.4.5 Garden Acres Mutual Water Company

The Garden Acres Mutual Water Company (GAMWC) service area is located in the southeast portion of the Study Area. The Nyeland Acres Mutual Water Company (NAMWC) service area is located west of and adjacent to GAMWC. GAMWC is a Community Water System (Public Water System No. CA5602108) and serves 124 residential service connections and 16 commercial service connections. The GAMWC potable water system is composed of the following:

- One active groundwater well with a pumping capacity of 1,500 gpm.

- One emergency interconnection with NAMWC with a capacity of 1,000 gpm.
- Two storage tanks each with a capacity of 120,000 gallons.
- One new storage tank with a capacity of 121,500 gallons that is not yet operational (as of August 2024).
- Two booster pump stations. Station 1 contains five 390-gpm pumps and one 200-gpm pump. Station 2 has an unknown capacity.
- One 2,000-gallon hydropneumatic tank.
- Chlorine disinfection system.
- Distribution system piping.

Per its 2024 Sanitary Survey, GAMWC has an ADD of 87,111 gpd and an MDD of 396,765 gpd. GAMWC is able to supply its MDD with its well and interconnection with NAMWC. GAMWC constructed an additional 121,500-gallon storage tank in 2024, which was not yet operational when the Sanitary Survey was conducted. GAMWC does not have enough storage to meet its MDD but has an emergency interconnection with NAMWC that can meet the MDD requirement. GAMWC's storage tanks are not able to supply the combined MDD and fire flow requirements.

Per GAMWC's 2022 Consumer Confidence Report, all chemicals and/or constituents were below primary drinking water standards MCLs.

3.4.6 Nyeland Acres Mutual Water Company

The NAMWC service area is located in the southeast portion of the Study Area. The GAMWC service area is located to the east of and adjacent to NAMWC. NAMWC is a Community Water System (Public Water System No. CA5602111) and serves 175 residential service connections and 8 commercial service connections. The NAMWC potable water system is composed of the following:

- One active groundwater well with a pumping capacity of 750 gpm.
- One emergency interconnection with GAMWC with a capacity of 1,500 gpm.
- Two 10,000-gallon hydropneumatic pressure tanks.
- Chlorine disinfection system.
- Distribution system piping consisting of 4-inch to 6-inch diameter PVC pipe and 4-inch to 5-inch diameter steel pipe.
- One pressure zone maintained between 45 and 60 psi.

Based on its 2022 Sanitary Survey, NAMWC has an ADD of 121,950 gpd and an MDD of 259,532 gpd. NAMWC is able to supply its MDD with its well and interconnection with GAMWC. NAMWC does not have any storage capacity but has an emergency interconnection with GAMWC that can meet the MDD requirement. During a power outage in 2018, NAMWC received water from GAMWC through this connection.

Per NAMWC's 2022 Consumer Confidence Report, all chemicals and/or constituents were below primary drinking water standards MCLs.

3.4.7 Strickland Acres Mutual Water Company

The Strickland Acres Mutual Water Company (SAMWC) service area is located in the northwest portion of the Study Area. SAMWC is a Community Water System (Public Water System No. CA5602117) and serves 125 residential service connections, 2 commercial service connections, and 1 agricultural service connection. The SAMWC potable water system is composed of the following:

- Two active groundwater wells with a pumping capacity of 300 gpm.
- Two welded steel storage tanks, each with a capacity of 27,000 gallons.
- One booster pump station that contains two 15-hp pumps.
- Two hydropneumatic tanks with a capacity of 11,000 gallons and 5,000 gallons respectively.
- Chlorine disinfection system.
- Distribution system consisting of 4-inch to 6-inch diameter AC pipe.
- One pressure zone maintained between 45 and 55 psi.

Per its 2023 Sanitary Survey, SAMWC has an ADD of 93,508 gpd and an MDD of 250,560 gpd. SAMWC is able to supply its MDD with its two wells, but does not have adequate storage capacity to meet its MDD. In 2021, SAMWC was noted to have experienced a power outage, resulting in a water outage.

Per SAMWC's 2021 Consumer Confidence Report, all chemicals and/or constituents were below primary drinking water standards MCLs. Iron, manganese, sulfate, total dissolved solids, and turbidity exceeded the secondary drinking water standard MCL.

3.4.8 Vineyard Avenue Acres Mutual Water Company

The VAAMWC service area is located in the southwest portion of the Study Area. VAAMWC is a Community Water System (Public Water System No. CA5610029) and serves 308 residential service connections and 28 commercial service connections. The VAAMWC potable water system is composed of the following:

- Two groundwater wells with a pumping capacity of 400 gpm each.
- Two 10,000-gallon pressure tanks.
- Chlorine disinfection system.
- Distribution system consisting of 8-inch diameter asbestos cement pipe.
- One pressure zone maintained between 40 and 60 psi.

Per its 2022 Sanitary Survey, VAAMWC has an ADD of 186,400 gpd and an MDD of 493,920 gpd. VAAMWC is able to supply its MDD with its wells but does not have any storage to meet its MDD. In 2019, VAAMWC experienced a water supply shortage due to its wells being shut down for exceeding the nitrate MCL. VAAMWC installed a temporary interconnection to purchase water from UWCD. This interconnection was later removed and no longer exists.

VAAMWC's wells have repeated drinking water violations related to the nitrate MCL. VAAMWC also has historically exceeded the secondary drinking water MCLs for iron and total dissolved solids.

3.4.9 Vineyard Avenue Estates Mutual Water Company

The VAEMWC service area is located in the southwest portion of the Study Area. VAEMWC is a Community Water System (Public Water System No. CA5610056) and serves 341 residential service connections and 1 commercial service connection. The VAEMWC potable water system is composed of the following:

- 4-inch connection with UWCD's O-H Pipeline near Corsicana Drive that can supply approximately 600 gpm.
- One active groundwater well with a pumping capacity of 650 gpm (Well No. 2).
- One standby groundwater well with a pumping capacity of 700 gpm (Well No. 1).
- Two steel storage tanks with a capacity of 80,000 gallons each.
- One booster pump station that contains two 20-hp pumps.
- Two pressure tanks each with a capacity of 10,000 gallons.
- Chlorine disinfection system.
- Distribution system consisting of 4-inch to 10-inch diameter PVC pipe.
- One pressure zone maintained between 42 and 58 psi.

Per its 2022 Sanitary Survey, VAEMWC has an ADD of 170,619 gpd and an MDD of 444,095 gpd. VAEMWC's well pumps are not in working order and need to be repaired or replaced. VAEMWC is able to supply its MDD from its connection with UWCD. However, UWCD is considered an interruptible and supplemental source and cannot be a system's sole source of water.

According to SDWIS, VAEMWC's active well, Well No. 1, has not been sampled for primary contaminants since 2021, when its nitrate levels exceeded the MCL. Nitrate levels at Well No. 2 were sampled in 2023 and found to be below the MCL. The most recent sampling results indicate that VAEMWC's two groundwater wells have also historically exceeded the primary MCL for selenium and secondary MCLs for sulfate, total dissolved solids, and specific conductance.

Previously, the well water was blended with water from UWCD to achieve blended nitrate concentrations below the MCL before being distributed to customers. The emergency UWCD connection can supply VAEMWC approximately 600 gpm of water. In 2018, the nitrate levels at Well Nos. 1 and 2 were considered too high for adequate blending with water from UWCD. In 2023, Well No. 1 was on standby status and the nitrate concentration at Well No. 2 was two times the MCL in 2021. It is unknown whether VAEMWC's Well No. 2 blended with water from UWCD in the past.

3.4.10 Vineyard Mutual Water Company

The Vineyard Mutual Water Company (VMWC) service area is located in the central west portion of the Study Area. VMWC is classified as a Non-Transient Non-Community Water System (Public Water System No. CA5602120) and serves 5 commercial service connections and 52 industrial service connections. The majority of its customers are classified as industrial users, including the County's Juvenile Justice Facility. The VMWC potable water system is composed of the following:

- Two active groundwater wells with pumping capacities of 1,050 gpm and 500 gpm.
- One booster pump station that contains five 30-hp pumps.

- Three steel storage tanks: two with a storage capacity of 250,000 gallons and one with a storage capacity of 150,000 gallons.
- One steel pressure tank with a capacity of 5,000 gallons.
- Chlorine disinfection system.
- Distribution system consisting of 8-inch to 12-inch diameter asbestos cement and 12-inch C900 PVC pipelines.
- One pressure zone maintained between 65 and 75 psi.

Per its 2021 Sanitary Survey, VMWC has an ADD of 64,017 gpd and an MDD of 281,598 gpd. VMWC is able to supply its MDD with its two wells and three storage tanks.

Per VMWC's 2021 Consumer Confidence Report, all primary chemicals and/or constituents were below drinking water standards MCLs. However, sulfate, iron, and total dissolved solids exceeded the secondary drinking water standard MCL.

3.4.11 Rio School District – Rio Del Valle Middle School

The Rio Del Valle Middle School (Rio Del Valle) is located in the central portion of the Study Area. Rio Del Valle is a Non-Transient Non-Community Water System (Public Water System No. CA5602406) that serves two commercial service connections and an approximate population of 820. The service area of Rio Del Valle encompasses the middle school.

Per its 2020 Sanitary Survey, Rio Del Valle has a connection to UWCD. The capacity of the connection to UWCD is unknown, but Rio Del Valle has an ADD of 2,484 gpd and an MDD of 5,638 gpd that can be met by the connection. However, UWCD is considered an interruptible and supplemental source and cannot be a system's sole source of water. Rio Del Valle does not have a source of water other than UWCD. A separate storage tank is used by Rio Del Valle for the irrigation system and is not connected to the potable water system.

Per Rio Del Valle's 2022 Consumer Confidence Report, copper was detected in several samples. However, levels were beneath the action level.

3.4.12 Oxnard Union High School District – Rio Mesa High School

The Rio Mesa High School (RMHS) is located in the central north portion of the Study Area. RMHS is a part of the Oxnard Union High School District (OUHSD) and is classified as a Non-Transient Non-Community Water System (Public Water System No. CA5602407) that serves 13 service connections and an approximate population of 2,600. RMHS's facilities provide water for both potable and non-potable uses. RMHS water system is composed of the following:

- Two active wells with pumping capacities of 650 gpm each.
- Chlorine disinfection system for the wells.
- Two 125,000-gallon storage tanks.
- Distribution system.
- One pressure zone.

Per its 2023 Sanitary Survey, RMHS has an ADD of 51,840 gpd and an MDD of 293,760 gpd. RHMS is able to supply its MDD with its two wells, but does not have adequate storage capacity to supply its MDD. RMHS has expressed that the system is not capable to meeting all fire flow requirements.

Per RMHS's 2022 Consumer Confidence Report, RHMS's wells have exceeded the gross alpha primary drinking water standard MCL and the specific conductance, sulfate, and total dissolved solids secondary MCLs.

3.4.13 Rio School District – Rio Real School

The Rio Real School (Rio Real) is located in the central south portion of the Study Area. Rio Real is a Non-Transient Non-Community Water System (Public Water System No. CA5602408) that serves two commercial service connections and an approximate population of 550. The service area of Rio Real encompasses the elementary school.

Per its 2020 Sanitary Survey, Rio Real has a connection to UWCD. The capacity of the connection to UWCD is unknown, but Rio Real has an ADD of 2,259 gpd and an MDD of 6,034 gpd that can be met by the connection. However, UWCD is considered an interruptible and supplemental source and cannot be a system's sole source of water. Rio Real does not have a source of water other than UWCD.

Per Rio Real's 2022 Consumer Confidence Report, lead and copper were detected in several samples. However, levels were underneath the action level.

3.4.14 Other Water Users

There are a number of private wells utilized by the agricultural and industrial parcel owners in the El Rio-Del Norte Study Area. Private well pumping data was not made available for this Technical Appendix. However, data on the private wells and groundwater levels in the area may be measured by the Fox Canyon Groundwater Management Agency, United Water Conservation District, and other entities.

The Ventura Youth Correctional Facility is located on four parcels in the northeast portion of the Study Area. These four parcels are zoned as state or federal facility (institutional) parcels (APNs 147-0-050-205, -445, -455, and -465). Due to the closing of the facility in June 2023, its water demands are not included in the existing water demand and growth scenario demand calculations. The California Fire Department of Forestry and Fire Protection (Cal Fire) and California Conservation Corps still operate at the facility and constitute a minimal portion of the water demands in the Study Area. The future uses of these parcels are unknown. However, an estimation of past water demands is included below in Table 3.

Table 3 – Calculation of Past Water Demands at Ventura County Correctional Facility

Maximum Number of Inmates	Maximum Number of Employees	Expected Total Flow (gpd)	Average Flow (gpd per person)
420	400	86,400	105

Six (6) industrial zoned parcels to the south of Vineyard Mutual Water Company and to the north of Beedy Water Company are included in the baseline and growth scenario water demand calculations

described in Sections 4.0 and 5.0. These parcels include Ventura Oil Company, a gas station; Angelus Block, a concrete manufacturer; and crop packaging and storage facilities. Water demands for these parcels were not provided for this Technical Appendix. Water demands from Vineyard Mutual Water Company were used as a conservative estimate of the water demands at these industrial zoned parcels.

4.0 BASELINE WATER DEMAND

This Technical Appendix was developed to support the guiding principles of the Ventura County 2040 General Plan Update, which establishes that water resources should be developed and managed in a manner that addresses current demand without compromising the ability to meet future demand. Sections 4.0 and 5.0 support this guiding principle by evaluating the existing water demands and potential future demands resulting from development in the Study Area. Proposed infrastructure improvements to supply these demands are discussed in Section 6.0.

In order to establish an understanding of the existing water demands in the Study Area, a baseline assessment was conducted for the existing water usage in the residential, commercial, and industrial zoned parcels. Other zonings were not included in this analysis, except for one agricultural parcel that is located within the Strickland Acres Mutual Water Company service area.

4.1 WATER DEMANDS

Outside of the existing water systems, there are approximately five industrially zoned parcels that are located outside of the existing public water systems. These systems are supplied by private wells and data on these wells was not made available for this Technical Appendix. As a result, water demand data from Vineyard Mutual Water Company, which is primarily composed of industrial uses, was extrapolated to these parcels as an estimate of their existing water demand.

The baseline water demands of the existing systems are summarized in Table 4 below. A figure summarizing the infrastructure opportunities and constraints under the baseline (e.g. existing) water demands is included in Figure 3. Average water demands and maximum day demands are taken from data provided by SWRCB in their Sanitary Surveys.

Table 4 – Baseline Water Demands per Water System

Name	Water Supply[1] (gpd)	Water Storage (gal)	Average Water Demand (gpd)	Maximum Day Water Demand (gpd)
Beedy Water Company	230,400*	215,000	854	20,205
California American Water – Rio Plaza	1,670,400	40,000*	217,058	370,339
Cloverdale Mutual Water Company	3,384,000	100,000*	98,823	336,000
Garden Acres Mutual Water Company	3,600,000	361,500*	87,771	396,795
Nyeland Acres Mutual Water Company	1,080,000	0*	121,950	259,532
Strickland Acres Mutual Water Company	864,000	54,000*	93,508	250,560
Vineyard Avenue Acres Mutual Water Company	1,152,000	0*	186,400	493,920
Vineyard Avenue Estates Mutual Water Company	1,800,000*	160,000*	170,619	444,095
Vineyard Mutual Water Company	2,232,000	650,000	64,017	281,598
Rio School District – Rio Del Valle School	7,200*	0*	2,484	5,638
Oxnard Union High School District – Rio Mesa High School	1,872,000	250,000*	51,840	293,760
Rio School District – Rio Real School	6,034*	0*	2,259	6,034
Industrial parcels outside of existing water systems	Unknown	Unknown	4,775	24,700

Notes:
1. The water supply approximated here is a combination of the system's groundwater wells and interconnections (if any).
2. The red asterisk (*) denotes a system that does not currently have enough supply or storage to meet maximum day demand (MDD).
3. The blue asterisk (*) denotes a system with one active source that may be rendered offline or one interconnection that is interruptible.

4.2 FIRE FLOW DEMANDS

Providing adequate fire flow is a requirement of the State Water Resources Control Board and of Ventura County for public water systems. The largest fire flow demands in the Study Area are the Ventura County Juvenile Justice Facility and Rio Mesa High School, each of which has an expected minimum flow rate of 2,500 gpm. Fire flows for the Juvenile Justice Facility are adequately met by its public water system, Vineyard Mutual Water Company. Other large fire flow demands would be for two other schools in the area: Rio Real School and Rio Del Valle Middle School. The three schools do not have adequate supply or storage to meet expected fire flow requirements.

Existing fire flow demands in most of the rest of the Study Area are considerably less. The minimum fire flow for single-family residential areas is 1,000 gpm, approximately one-third of the fire flow required for the Ventura County Juvenile Justice Facility. A summary of minimum fire flows required in the Ventura County Waterworks Manual (2nd Edition, Section 2.3.3) are included in Table 5 below.

Table 5 – Minimum Fire Flow Demands

Type of Building/Area	Minimum Fire Flow Required (gpm)	Duration of Fire Flow Required (hours)	Minimum Storage Volume Required to Provide Fire Flow
Residential	1,000	2	120,000
Commercial	1,250	2	150,000
Industrial	1,500	2	180,000
Trailer Parks	500	2	60,000
Isolated Residential[1]	500	2	60,000

Notes:
1. Isolated residential refers to single-family dwelling on a parcel of land of 5 acres or more in size where no building is closer than 100 feet to the nearest building on any adjacent parcel.

Table 5 describes the minimum fire storage volume required for most areas in the Study Area. The Ventura County Juvenile Justice Facility has fire flow requirements that exceed these values. Table B105.1 in Appendix A of the Ventura County Waterworks Manual includes the fire flow required for various types of construction (according to the California Building Code) depending on the size of each specific building. For planning purposes within this Technical Appendix, only the minimum fire storage volume or known fire flow requirements for the existing water systems are accounted for.

Residential areas include lots with up to two acres of isolated commercial use when included in a predominantly residential area. This may apply for water systems in the area with primarily residential and isolated commercial use near Vineyard Avenue or Ventura Boulevard. However, a conservative approach is taken for this Technical Appendix in which any system with a commercial or industrial service connection is expected to need to provide the respective fire flow.

The fire flow requirements for Rio Mesa High School, Rio Del Valle Middle School, and Rio Real School were not provided for this Technical Appendix. However, it is expected that these schools require a similar fire flow to the Ventura County Juvenile Justice Facility at Vineyard Mutual Water Company, which has a fire flow requirement of 2,500 gpm for 2 hours.

Table 6 shows a summary of the water systems' capability to meet fire flow requirements. For most systems, the inability to meet fire flow requirements is due to lack of storage volume. For Rio Real School and Rio Del Valle Middle School, the interruptible nature of the O-H System is the primary cause of not meeting fire flow requirements. These two schools use approximately 2,500 gallons per day from the O-H System, which is lower than the expected fire flow requirement. The capability of the O-H System to supply fire flow demands to each school is unknown.

Table 6 – Fire Flow Demands per Water System

Name	Water Storage (gal)	Fire Flow Demands[2] (gal)	Combined Maximum Day Water and Fire Flow Demands[3] (gal)
Beedy Water Company	215,000	150,000	170,205
California American Water – Rio Plaza	40,000	150,000*	520,339*
Cloverdale Mutual Water Company	100,000	150,000*	486,000*
Garden Acres Mutual Water Company	361,500	150,000	546,795*
Nyeland Acres Mutual Water Company	0	150,000*	409,532*
Strickland Acres Mutual Water Company	54,000	180,000*	430,560*
Vineyard Avenue Acres Mutual Water Company	0	150,000*	643,920*
Vineyard Avenue Estates Mutual Water Company	160,000	150,000	594,095*
Vineyard Mutual Water Company	650,000	300,000	581,598
Rio School District – Rio Del Valle School	0	300,000*	305,638*
Oxnard Union High School District – Rio Mesa High School	250,000	300,000*	593,760*
Rio School District – Rio Real School	0	300,000*	306,034*

Notes:
1. The water supply approximated here is a combination of the system's groundwater wells and interconnections (if any).
2. The red asterisk (*) in this column denotes a system that does not currently have enough storage to meet fire flow demands only. Fire flow demands are shown as the required fire flow (gpm) multiplied by the required hours of flow (2 hours).
3. The purple asterisk (*) in this column denotes a system that does not currently have enough storage to meet the combined maximum day and fire flow demands.

5.0 WATER DEMAND GROWTH SCENARIOS

One of the constraining factors for infrastructure that impact development in the Study Area are domestic water demands. A preliminary analysis estimates that approximately 6,880 parcels are impacted by the lack of a Water Availability Letter, which must be received and accepted by the County. Water systems must have a County-accepted Water Availability Letter prior to issuing any additional "will serve" letters for the development of additional service connections.

In order to determine the water demands that would result from potential growth scenarios and the water infrastructure necessary to allow for future population growth and development in the Study Area, multiple growth scenarios were analyzed. These growth scenarios are described in the following sections.

5.1 GROWTH SCENARIO 1

Growth Scenario 1 (G1) accounts for existing development potential according to current zoning regulations regarding Accessory Dwelling Units (ADUs) and state law SB 9 lot divisions, which are only allowed in parcels zoned R1.

Ventura County has three standardized floorplans for the construction of new ADUs, which include designs for 700-, 900-, and 1,188-square feet (sq ft) ADUs. Using existing building footprint data from the County's Geographic Information System (GIS), residential zoned parcels in the Study Area were evaluated for available square footage. The available square footage was calculated using the total parcel size, existing building square footage, and remaining square footage under an assumption of 80% parcel build-out. The remaining square footage represents the available area for the construction of one or more ADUs.

One parcel (APN 145-020-138) has less than 700 square feet of available square footage available and would not be able to construct the smallest floorplan under the County's standardized ADU floorplans. Thereby, additional water demands were not assigned to the parcel. No other parcels were less than 900 sq ft.

Specifically, there are four RHD zoned parcels located within Cloverdale Mutual Water Company's service area that are considered underutilized according to the County's 2021-2029 Housing Element (October 2021). These parcels are located along Cortez Street (APNs 145-0-180-04, -05, -06, and 145-0-190-39). The first three parcels contain several agriculture-related greenhouse structures and existing single-family dwellings. The last parcel is essentially vacant. Although these four parcels are only evaluated for the addition of one ADU under G1, the first three parcels are also located within the High-Quality Transit Corridor, which may allow for increased density and/or modified development standards (see analyses in Section 5.5).

Water demands were assigned per parcel based on the expected household size of two categories of ADUs, the 900-sq ft and 1,188-sq ft ADU. The 900-sq foot ADU was assumed to house an average of 2 persons per ADU at 61 gpd of water usage per person. The 1,188-sq ft ADU was assumed to house an average of 3 persons per ADU at 85 gpd of water usage per person, due to the expected higher quantity of appliances in the larger ADU. A peaking factor of 2.25 is applied for maximum day water demands assigned to these parcels.

5.1.1 Growth Scenario 1.1

Growth Scenario 1.1 (G1.1) evaluates the additional water demands resulting from the construction of one (1) ADU constructed on half of the residential zoned parcels in the Study Area. Residential zoned parcels include parcels zoned R1, R2, RES, RPD, R/MU, RA, RE, and RO. Residential zoned parcels are located throughout the Study Area, primarily concentrated in the south portions of the Study Area bordering the City of Oxnard.

Half (50%) of the residential zoned parcels were assigned the additional water demand for either the 900-sq ft ADU (25%) or the 1,188-sq ft ADU (25%). The total additional water demand in the Study Area that results from half of the residential zoned parcels constructing one ADU is approximately 150,000 gallons per day (gpd) for an average day and approximately 336,000 gpd for a maximum day.

5.1.2 Growth Scenario 1.2

Growth Scenario 1.2 (G1.2) evaluates the additional water demands that would result from the construction of a maximum of four (4) units at 10% of R1 zoned parcels. There are 605 R1 zoned parcels in the Study Area. These are located within the Strickland Acres Mutual Water Company and California American Water Company service areas.

This growth scenario is intended as an addition to Growth Scenario 1.1 and these scenarios are not mutually exclusive. Therefore, the remaining parcel square footage was calculated following the evaluation of additional ADUs under G1.1. Using the remaining parcel square footage, the total number of additional large (1,188-sq ft) and additional small (900-sq ft) ADUs that can be built on a parcel were calculated, up to a total of four units on the parcel. It is assumed that the maximum number of large (1,188-sq ft) ADUs would be constructed first.

A tenth (10%) of the R1 zoned parcels were assigned the additional water demands depending on the ADU size(s) that could be constructed on each parcel. The total additional water demand in the Study Area that results from a tenth of the R1 zoned parcels constructing additional units, up to a maximum of four total units (i.e. dwellings) on the parcel, is approximately 30,000 gallons per day (gpd) for an average day and approximately 66,000 gpd for a maximum day. Combined with G1.1, the total additional water demands in the Study Area would be approximately 180,000 gallons per day (gpd) for an average day and approximately 402,000 gpd for a maximum day.

5.2 GROWTH SCENARIO 2

Growth Scenario 2 (G2) accounts for the construction of additional residential units subject to state law SB 4 at religious institution sites. There are 18 religious institution sites in the Study Area. These sites are spread throughout the Study Area.

It is assumed that residential units similar to ADUs would be constructed at these sites with an average household size of 2.75 persons per dwelling at 61 gpd of water usage per person. Using existing building footprint data from the County's GIS, applicable parcels were evaluated for their available (i.e. empty) square footage. Additional water demands were assigned per acre on the available square footage.

5.2.1 Growth Scenario 2.1

Growth Scenario 2.1 (G2.1) evaluates the additional water demands resulting from a residential density of four (4) units per acre with a 100% parcel build-out at religious institution sites. The additional water demand in the Study Area that results from G2.1 is approximately 17,000 gpd for an average day and approximately 38,000 gpd for a maximum day.

5.2.2 Growth Scenario 2.2

Growth Scenario 2.2 (G2.2) evaluates the additional water demands resulting from a residential density of three (3) units per acre for an 80% parcel build-out at religious institution sites. The additional water demand in the Study Area that results from G2.2 is approximately 12,000 gpd for an average day and approximately 27,000 gpd for a maximum day.

5.2.3 Growth Scenario 2.3

Growth Scenario 2.3 (G2.3) evaluates the additional water demands resulting from a residential density of five (5) units per acre using a 50% density bonus on an 80% parcel build-out at religious institution sites. The additional water demand in the Study Area that results from G2.1 is approximately 21,000 gpd for an average day and approximately 47,000 gpd for a maximum day.

5.3 GROWTH SCENARIO 3

Growth Scenario 3 (G3) accounts for the potential land use conversion in commercial zones to residential uses subject to SB 6 and AB 2011.

Water demands for G3 were assigned using an estimated current average day and maximum day water demand per dwelling unit depending on whether the parcel is located in the El Rio or Nyeland Acres community. The El Rio community has an average household size of 3.77 persons and is categorized as a disadvantaged community. The Nyeland Acres community has an average household size of 3.99 and is categorized as a severely disadvantaged community (see Section 1.2). It is assumed that each dwelling unit is one household. The assigned water demands are specified in Attachment 3.

Using existing building footprint data from the County's GIS, applicable parcels were evaluated for their available (i.e. empty) square footage. Additional water demands were assigned per acre on the available square footage.

5.3.1 Growth Scenarios 3.1 and 3.2

Growth Scenario 3.1 (G3.1) evaluates commercial parcels that are located outside of the High-Quality Transit Corridor (HQTC), while Growth Scenario 3.2 (G3.2) evaluates commercial parcels that are located within the HQTC.

The HQTC is a transit corridor identified by the Southern California Association of Governments (SCAG) with a service frequency of 15 minutes or less during peak morning and evening hours. The HQTC in the Study Area is located near the intersection of Vineyard Avenue and U.S. Highway 101. There are 44 commercial zoned parcels in the Study Area that are outside the HQTC and 2 commercial zoned parcels in the Study Area that are within the HQTC. For the benefit of the community, higher density housing is planned for these transit-rich areas. Multiple state bills allow for increased density and/or modified development standards for projects located within a designated HQTC (AB 2097 [2021-22], SB 35 [2017-2018).

5.3.1.1 Growth Scenario 3.1a

Growth Scenario 3.1a (G3.1a) evaluates the additional water demands resulting from an average residential density of 20 dwelling units per acre with a 100% parcel build-out at commercial zoned parcels outside of the HQTC. The additional water demand in the Study Area that results from G3.1a is approximately 102,000 gpd for an average day and approximately 229,000 gpd for a maximum day.

5.3.1.2 Growth Scenario 3.1b

Growth Scenario 3.1b (G3.1b) evaluates the additional water demands resulting from an average residential density of 16 dwelling units per acre for an 80% parcel build-out at commercial zoned parcels outside of the HQTC. The additional water demand in the Study Area that results from G3.1b is approximately 81,000 gpd for an average day and approximately 182,000 gpd for a maximum day.

5.3.1.3 Growth Scenario 3.1c

Growth Scenario 3.1c (G3.1c) evaluates the additional water demands resulting from an average residential density of 24 dwelling units per acre using a 50% density bonus on an 80% parcel build-out at commercial zoned parcels outside of the HQTC. The additional water demand in the Study Area that results from G3.1c is approximately 124,000 gpd for an average day and approximately 279,000 gpd for a maximum day.

5.3.1.4 Growth Scenario 3.2a

Growth Scenario 3.2a (G3.2a) evaluates the additional water demands resulting from an average residential density of 80 dwelling units per acre with a 100% parcel build-out at commercial zoned parcels within the HQTC. The additional water demand in the Study Area that results from G3.2a is approximately 4,300 gpd for an average day and approximately 10,000 gpd for a maximum day.

5.3.1.5 Growth Scenario 3.2b

Growth Scenario 3.2b (G3.2b) evaluates the additional water demands resulting from an average residential density of 16 dwelling units per acre for an 80% parcel build-out at commercial zoned parcels within the HQTC. The additional water demand in the Study Area that results from G3.2b is approximately 3,400 gpd for an average day and approximately 7,600 gpd for a maximum day.

5.3.1.6 Growth Scenario 3.2c

Growth Scenario 3.2c (G3.2c) evaluates the additional water demands resulting from an average residential density of 24 dwelling units per acre using a 50% density bonus on an 80% parcel build-out at commercial zoned parcels within the HQTC. The additional water demand in the Study Area that results from G3.2c is approximately 5,600 gpd for an average day and approximately 12,500 gpd for a maximum day.

5.4 GROWTH SCENARIO 4

Growth Scenario 4 (G4) accounts for built-out commercial and industrial zones in the Study Area. Commercial zones are assumed to be built out to a 60% lot coverage with an average vacancy rate of 17.7%. Industrial zones are assumed to be built out to a 50% lot coverage with an average vacancy rate of 2%.

5.4.1 Growth Scenario 4.1

Growth Scenario 4.1 (G4.1) evaluates built-out commercial zoned parcels. There are 46 commercial zoned parcels in the Study Area.

Assigned additional water demands were split into five categories depending on the current use: market/store, restaurant, automobile service station, residential, office, storage, miscellaneous, and empty. Water demands per acre were estimated using expected commercial, employee, and customer uses (e.g. restroom use). The assumptions for each category used under G3 are documented in Attachment 3.

The additional water demand in the Study Area that results from G4.1 is approximately 48,000 gpd for an average day and approximately 108,000 gpd for a maximum day.

5.4.2 Growth Scenario 4.2

Growth Scenario 4.2 (G4.2) evaluates built-out industrial zoned parcels. There are 90 industrial zoned parcels in the Study Area, including the Ventura County Juvenile Justice Facility.

Assigned additional water demands are assumed to be similar to Vineyard MWC's water usage. VMWC is primarily composed of industrial users, except for the Ventura County Juvenile Justice Facility. Although this may increase the reported water usage in VMWC, using VMWC provides a conservative estimate of industrial water demands due to the high variability of industrial water usage. Demands for G4.2 were estimated per acre based on the acreage within the VMWC service area (approximately 118 acres).

The additional water demand in the Study Area that results from G4.2 is approximately 65,000 gpd for an average day and approximately 287,000 gpd for a maximum day.

5.5 GROWTH SCENARIO 5

Growth Scenario 5 (G5) accounts for potential land use density increases at residential zoned properties located within the High-Quality Transit Corridor (HQTC).

The HQTC is a transit corridor identified by the Southern California Association of Governments (SCAG) with a service frequency of 15 minutes or less during peak morning and evening hours. The HQTC in the Study Area is located near the intersection of Vineyard Avenue and U.S. Highway 101. There are 57 residential zoned parcels located within the HQTC in the Study Area. For the benefit of the community, higher density housing is planned for these transit-rich areas. Multiple state bills allow for increased density and/or modified development standards for projects located within a designated HQTC (AB 2097 [2021-22], SB 35 [2017-2018).

Specifically, there are three Residential High Density (RHD) zoned parcels located within Cloverdale Mutual Water Company's service area and within the HQTC that are considered underutilized according to the County's 2021-2029 Housing Element (October 2021). These parcels are located along Cortez Street (APNs 145-0-180-04, -05, -06) and contain several agriculture-related greenhouse structures and existing single-family dwellings. The property owners have expressed interest in development of the sites. These sites are also within the City of Oxnard's sphere of

influence. The additional water demands for these three RHD zoned parcels resulting from this growth scenario (G5) are described in the subsections below.

Using existing building footprint data from the County's GIS, applicable parcels were evaluated for their available (i.e. empty) square footage. Additional water demands were assigned per dwelling unit per acre on the available square footage. Water demands for G5 were assigned using the current average day and maximum day water demand data per service connection for the water system on which the residential zoned parcel is located. These water systems are Vineyard Avenue Acres MWC and Cloverdale Mutual Water Company. Each additional dwelling unit evaluated under G5 is analyzed as equivalent to one (1) service connection. The assigned water demands are specified in Attachment 3.

5.5.1 Growth Scenario 5.1

Growth Scenario 5.1 (G5.1) evaluates the additional water demands resulting from an average residential density of 20 dwelling units per acre with a 100% parcel build-out at residential zoned parcels within the HQTC. Under G5.1, an additional 643 dwelling units are added to the Study Area.

The additional water demand in the Study Area that results from G5.1 is approximately 428,000 gpd for an average day and approximately 1,440,000 gpd for a maximum day.

Specifically for the three RHD zoned parcels, the additional water demand that results from G5.1 is approximately 93,000 gpd for an average day and approximately 318,000 gpd for a maximum day.

5.5.2 Growth Scenario 5.2

Growth Scenario 5.2 (G5.2) evaluates the additional water demands resulting from an average residential density of 16 dwelling units per acre for an 80% parcel build-out at residential zoned parcels within the HQTC. Under G5.2, an additional 508 dwelling units are added to the Study Area.

The additional water demand in the Study Area that results from G5.2 is approximately 338,000 gpd for an average day and approximately 1,138,000 gpd for a maximum day.

Specifically for the three RHD zoned parcels, the additional water demand that results from G5.2 is approximately 75,000 gpd for an average day and approximately 254,000 gpd for a maximum day.

5.5.3 Growth Scenario 5.3

Growth Scenario 5.3 (G5.3) evaluates the additional water demands resulting from an average residential density of 24 dwelling units per acre using a 50% density bonus on an 80% parcel build-out at residential zoned parcels within the HQTC. Under G5.3, an additional 780 dwelling units are added to the Study Area.

The additional water demand in the Study Area that results from G5.3 is approximately 519,000 gpd for an average day and approximately 1,748,000 gpd for a maximum day.

Specifically for the three RHD zoned parcels, the additional water demand that results from G5.3 is approximately 112,000 gpd for an average day and approximately 382,000 gpd for a maximum day.

6.0 PROPOSED IMPROVEMENTS

Improvements to the potable water systems' infrastructure in the El Rio-Del Norte Study Area could be driven by existing system deficiencies, growth within the Study Area, and consolidations of water systems. Impacts to infrastructure from these drivers of infrastructure improvements are described below.

Based on the baseline water demands and water demands that may result from the growth scenarios described in the previous sections, water infrastructure improvements are proposed for individual water systems and for portions of the Study Area that may be consolidated into larger and combined water systems in the future.

The twelve public water systems in the study area are generally in close proximity to each other. Consolidating two or more public water systems into a single public water system could address infrastructure deficiencies, water supply reliability, and governance vulnerabilities experienced by individual water systems.

6.1 IMPROVEMENTS TO MEET BASELINE WATER DEMANDS

6.1.1 Water System Consolidation

Consolidation involves the joining of two or more water systems, typically for the purposes of increasing systems' organization, connectivity, and water supply resiliency, reliability, and sustainability.

The State Water Resources Control Board encourages exploring consolidation of water systems as a possible solution to water supply, water quality, infrastructure, management challenges that small water systems may face. Consolidation feasibility is generally high in the Study Area due to the proximity of systems to each other, and the Area's economically disadvantaged status, as measured by the Median Household Income.

As shown in Figure 1, most of the public water systems are located adjacent or in close proximity to one or more other systems, which would facilitate consolidations of water systems. Along Vineyard Avenue, seven of the water systems abut Vineyard Avenue, and several are separate by one or two city blocks. Rio Mesa High School, Rio Real and Real Del Valle schools are located in close proximity to other water systems in the El Rio area.

Nyeland Acres and Garden Acres are located adjacent to each other and utilize an interconnection during emergency periods. However, these two systems are located a greater distance away from the other small water systems in the Study Area. Nyeland Acres and Garden Acres are located in close proximity to the City of Oxnard's water system. However, neither of the two water systems are located within the city limits. The two systems are within the sphere of influence of the city.

Water system consolidation can have several advantages, including the following:

Storage Volume Efficiency – Each of the water systems in the Study Area has a relatively small water customer base, and most customers are residential or otherwise utilize water for domestic purposes

(i.e. schools and Juvenile Justice Facility). In general, small water systems are required to have a storage volume of no less than the system's Maximum Day Demand plus the fire flow demand. With relatively small customer bases, fire flow storage requirements can be considerably larger than domestic/residential demands. As each water system is required to have adequate fire storage capacity on-site, the aggregate fire storage volume for individual systems would be significantly greater than if systems were physically consolidated and shared water storage facilities. As the required fire storage volume is driven by only the single greatest design fire event (i.e. at the Juvenile Justice Facility or Rio Mesa High School), the storage volume requirement could be more readily met if one storage site were utilized for storage, and a distribution pipeline network extended among the water systems. This would reduce the number of sites required for fire flow volume to one site, with considerably fewer storage tanks and smaller volume than the aggregate storage requirement if each system had the storage requirement.

Due to the limited topographic relief in and surrounding the Study Area, water storage tanks, including for fire, in the El Rio area are placed at the same elevation as the service area the tanks support. Therefore, for potable and fire flow demands, this water needs to be pumped. Without consolidation, each water system would need to have its own pump station. Electrical infrastructure and electrical generators would also need to be able to provide power at each pump station site. Consolidation would also reduce the number of required pump stations and backup generators and reduce electrical grid infrastructure needs.

System Redundancy – Small water systems that rely exclusively on groundwater wells are required to have backup supply sources equal the system's highest producing well, and be able to meet Maximum Day Demand with the largest producing well offline. Therefore, each of these water systems are required to have at least one redundant water supply well. For each system that is consolidated into another water system, the required number of redundant wells is reduced by at least one. This reduces operations and maintenance costs associated with wells.

In addition, following system consolidation, the number of wells contributing to meet the combined system's water demand will increase. Therefore, if any well were to be rendered offline, the impact to the system would reduce, as there would be a greater number of wells available to supply the consolidated system.

Governance Sustainability – Small, not-for-profit water systems can have a limited customer base, from which the system's governing board would be comprised. Small water systems in general can find it difficult to maintain corporate compliance (e.g. quorum at board meetings, filling corporate officer positions). The governing boards of schools in the area are associated with school district boundaries that are considerably larger than the boundaries of the systems in the El Rio area and therefore tend to not encounter the same governing body limitations.

Eligibility for Project Funding – Current funding opportunities from the State Water Resources Control Board place priority on improvement projects involving consolidation. In addition, systems participating in consolidation that improve its own system to allow consolidation of another system can receive incentive funding for other improvements to its system.

Water system consolidation improvements proposed under this section are for the future consideration of the County and stakeholders in the Study Area. Water systems who have formally expressed interest in participating in an ongoing consolidation system planning effort in the El Rio

area are discussed in Section 6.1.1.1. Other systems in the Study Area should examine consolidation to gauge if a system could benefit from some of all of the advantages discussed above.

6.1.1.1 Proposed Water System Consolidation

Five public water systems within the Study Area are currently engaged in a planning effort to explore and potentially implement a consolidation of their water systems into a single public water system. The title of this planning project is the El Rio Consolidation Project – CSA 34.

Vineyard Avenue Acres Mutual Water Company, Strickland Acres Mutual Water Company, Vineyard Mutual Water Company, Beedy Water Company, and Rio Mesa High School formally expressed their interest in exploring the consolidation into a single water system that would provide potable water to the existing service areas of the five systems. Multiple project components that have been evaluated within a consolidation feasibility study are included on Figure 4. An emergency interconnection between the consolidated water system and Cloverdale Mutual Water Company is contemplated as a component of the proposed consolidation project. However, Cloverdale Mutual Water Company is currently not included as a participant in the water system consolidation.

The Ventura County Board of Supervisors allocated funds for County staff to participate in the feasibility of a consolidation (Item 46 of the February 28, 2023 agenda). The State Water Resources Control Board (SWRCB) provided funding for the initial study of the feasibility of consolidating multiple water systems in the area. The SWRCB is anticipated to continue funding the environmental documentation and engineering design for the proposed consolidation. Ventura County Public Works Agency is anticipated to become the owner and operator of the consolidated water system. Following the consolidation of the systems, the five participating water systems would relinquish their water supply permits to the State Water Resources Control Board. Customers currently served by their respective public water system would be supplied water from the newly formed and permitted public water system. The five public water systems would thereby be relieved of their ownership, maintenance, and compliance duties, which would be transferred to Ventura County.

The proposed water system consolidation would address storage and fire suppression deficiencies in some of the participating systems. Strickland Acres Mutual Water Company (SAMWC) does not have adequate storage volume. Vineyard Avenue Acres Mutual Water Company (VAAMWC) does not have any storage or adequate fire suppression. The customers of these systems would have adequate storage and fire flow following completion of consolidation.

The project is currently in the planning stages. Analyses of the condition of existing water system infrastructure in the area is being conducted to determine the final project to be constructed for the proposed consolidation. These analyses include well interior investigations, distribution system leak detections, storage tank inspections, land surveying efforts, and supply capacity studies.

Water Supply Sources for Proposed Consolidated Water System

While currently in its planning stages, the consolidated water system would have two sources of water supply: local wells owned and operated by the consolidating entity (Ventura County) and United Water Conservation District (UWCD). A proposed improvement would be to connect to UWCD's treated water supply at its El Rio well field. Select existing wells currently owned by the participating water systems would be retained as backup sources of water. The other wells owned by the

participating water systems would be destroyed. UWCD's water supply (wells) and treatment system would be evaluated to determine if and how to expand the extraction and treatment capacity of its El Rio well field system to supply water to the consolidated water system. None of the participating water systems currently has an allocation of water from UWCD's O-H System.

Water rights currently owned by the participating water systems would be transferred to Ventura County at the time of consolidation. Ventura County, in turn, would transfer water rights for groundwater extraction to UWCD, tantamount to the annual volume of water purchased by the County from UWCD.

Water systems must obtain an agreement with all of UWCD's O-H Pipeline existing users before it can obtain water from the O-H Pipeline (see Section 3.2.1). The new agreement would detail how the peak flow capacity of the Oxnard-Hueneme Pipeline will be allocated and the required fee to use the pipeline. UWCD charges emergency connections 1.5 times the rate of permanent connections.

Water Distribution Pipeline Improvements for Proposed Consolidated Water System

Under a consolidated distribution system, the existing distribution systems of the participating water systems would be interconnected. Due to the minimal topographic relief across the consolidated system, all of the pipeline networks would operate within a single pressure zone. The ownership of the pipelines would be transferred from each of the participating systems to the consolidating water entity (Ventura County). Portions of the existing systems may be replaced, addressing localized leaks, deteriorated pipe conditions, and inferior sizing compared to modern standards.

To interconnect the five systems, a looping pipeline is planned along Vineyard Avenue, Central Avenue, and N. Rose Avenue. This looping pipeline would connect to each of the five participating water systems.

Water Storage Requirements for Proposed Consolidated Water System

The proposed consolidated system may require the installation of additional water storage tanks. Additional storage volume may not be necessary if the consolidated system is able to install an additional reliable and non-interruptible interconnection that can provide both the MDD and fire flow required.

The currently proposed storage tank site for the consolidated system is located at Vineyard Mutual Water Company's (VMWC) existing storage tank site and the southwest corner of the parcel for the Ventura County Juvenile Justice Facility. VMWC has approximately 650,000 gallons of storage capacity. To accommodate the MDD and fire flow requirements of the consolidated system, approximately 990,000 gallons of additional storage is needed.

6.1.2 Improvements Required at Individual Water Systems

Each public water system in the El Rio-Del Norte Study Area was analyzed for their ability to meet average and maximum day demands under the baseline water demand scenario (i.e. existing demands) as described in Section 4.0.

Due to the large number of individual water systems in the Study Area, water supply and storage facilities are decentralized to each water system. Growth within the service area of each water system that increases the water demand beyond the capacity of existing infrastructure would necessitate improvements on the specific water system's supply and storage. Exceptions could apply to water systems that purchase water from a separate entity or have an interconnection with a separate water system.

Within this Technical Appendix, it is assumed that supply and storage deficiencies for the five water systems participating in the proposed consolidated system would be addressed by the consolidation of those systems. This section addresses systems in the Study Area that have not expressed interest in the proposed consolidation project. This section does not address the schools. Rio Del Valle Middle School and Rio Real School is discussed in Section 6.1.3.

6.1.2.1 Improvements at Cloverdale Mutual Water Company

Cloverdale Mutual Water Company has adequate water supply from its sources to supply its current Maximum Day Demands, but does not have adequate water storage to supply the MDD and fire flow requirements.

As previously discussed in Section 3.4.4, CMWC is considering increasing its storage capacity by constructing taller tanks and is planning to purchase a lot to install either one new 353,000-gallon tank or two new 100,000-gallon storage tanks. There is minimal space available within CMWC's service area to construct larger or additional storage tanks. These tanks would need land use permitting (e.g. conditional use permit) from Ventura County due to the proposed height. With the planned tank addition(s), Cloverdale Mutual Water Company would be able to supply its MDD, but would not be able to supply the combined MDD and fire flow requirements. Cloverdale Mutual Water Company needs a total of approximately 386,000 gallons of storage to supply the MDD and fire flow requirements.

6.1.2.2 Improvements at California American Water Company – Rio Plaza

California American Water Company (Rio Plaza) has adequate water supply from its sources to supply its Maximum Day Demands, but does not have adequate water storage to supply its MDD and fire flow requirements. Cal-Am needs approximately 330,000 gallons of storage to meet MDD alone and a total of 480,000 gallons of storage to meet MDD and fire flow requirements.

California American Water Company (Rio Plaza) is planning to install an interconnection to United Water Conservation District's Oxnard-Hueneme Pipeline (O-H Pipeline). This interconnection would be expected to provide an additional source of water to meet MDD and fire flow. However, the O-H Pipeline is considered an interruptible source of water.

6.1.2.3 Improvements at Nyeland Acres Mutual Water Company and Garden Acres Mutual Water Company

Due to the existing interconnection between Nyeland Acres Mutual Water Company and Garden Acres Mutual Water Company, water infrastructure improvements at one system may be beneficial to the other. Both systems only have one active water source and Nyeland Acres Mutual Water Company does not have any storage facilities.

If either well is rendered offline, the other well has adequate capacity to supply both system's MDD (approximately 656,000 gpd when combined*). Garden Acres Mutual Water Company's storage tanks have an existing capacity of 361,500 gallons and is able to supply the fire flow requirement (150,000 gallons) for either system. However, the existing storage capacity may not able to supply the combined MDD and fire flow requirements for both GAMWC and NAMWC. The two systems would need a total of approximately 807,000 gallons of storage to meet demands during a "worst-case" scenario where both systems are experiencing their MDD, a fire emergency occurs, and both water sources (wells) are offline. However, in other cases, either system may be able to supply the other's water demands via their interconnection.

There is minimal additional space for the construction of new storage tanks at Garden Acres Mutual Water Company's tank site. A new parcel could be purchased for the construction of new tanks. These tanks may need land use permitting (e.g. conditional use permit) from Ventura County due to the proposed height.

*Since MDD is calculated from the most recent ten years of operation at each individual system, the MDD may land on differing days, months, and years. The true combined MDD of the systems on a single day may be more or less than this estimate.

6.1.3 Improvements Required at School Water Systems

The three schools in the Study Area (Rio Mesa High School, Rio Del Valle Middle School, and Rio Real School) do not meet fire flow requirements on their respective campuses. Rio Mesa High School has approximately 250,000 gallons of storage, but has stated that the school does not meet fire flow requirements. Rio Del Valle and Rio Real do not have potable water storage facilities on-site and rely solely on purchased water from UWCD's O-H Pipeline, which DDW considers an interruptible source.

The probability of a fire event at these schools occurring concurrent with an outage of the O-H Pipeline is low. However, the O-H Pipeline has a limited history of outages when water supply was temporarily reduced or paused.

For Rio Del Valle Middle School and Rio Real School to supply its existing maximum day demand and fire flow requirements during a worst-case scenario where the O-H Pipeline is undergoing an outage, each school would need approximately 306,000 gallons of storage.

Constructing storage tanks, booster stations, backup generators, and electrical improvements at Rio Real or Real Del Valle for fire suppression would have a high capital cost, and these facilities would seldom be used for fire suppression activities. The facilities would be used more often for periodic testing.

6.1.4 Additional Improvements Needed to Consolidate the El Rio-Del Norte Study Area

Additional improvements would be needed if it were desired to consolidate the remaining water systems in the El Rio-Del Norte Study Area into the proposed consolidated system discussed in Section 6.1.1.1.

Anticipated improvements include additional storage volume, additional water source capacity, the installation of pipelines from the looping pipeline planned along Vineyard Avenue, Central Avenue, and N. Rose Avenue to the existing distribution systems, and the upsizing of pipelines to meet fire flow demands.

6.1.4.1 Improvements at Schools

If the schools were to consolidate with one or more nearby public water systems, existing or proposed storage, pumping, and electrical facilities could supply the school and the other systems participating in a consolidation. These facilities would be utilized by all water systems participating in the consolidation. Pipelines in the immediate vicinity of these schools would need to larger to accommodate the higher flows required during fire suppression events. The sizes of pipeline improvements fronting these facilities is generally determined by the fire suppression flow rate requirements of each campus. Pipeline sizing requirements for fire suppression flows are vastly greater than the potable water demands at each school. Although the exact fire flow requirements have not been confirmed by the Ventura County Fire Department (VCFD), it is expected that the schools would require a similar fire flow to the Ventura County Juvenile Justice Facility, which is located within VMWC's service area, which requires 2,500 gpm for 2 hours (300,000 gallons).

For a consolidation involving Rio Del Valle Middle School, these pipelines would need to have larger diameters (approximately 12 inches):

- Alvarado Street between E. Stroube Street and Helsam Drive
- E. Collins Street east of Alvarado Street
- Orange Drive east of Alvarado Street
- Walnut Drive east of Alvarado Street
- Corsicana Drive east of Alvarado Street
- N. Rose Avenue between Corsicana Drive and E. Collins Street

For a consolidation involving Rio Real School, these pipelines would need to have larger diameters (approximately 12 inches):

- Kenney Street/Wright Road between E. Stroube Street and Balboa Street
- E. Stroube Street between N. Rose Avenue and Balboa Street
- Alvarado Street between Kenney Street and E. Collins

The above recommendations are preliminary and should be confirmed during design of a consolidation. They provide a framework of anticipated pipeline improvements should these schools decide to participate in a system consolidation.

A water system consolidation including any of these school water systems would need to be designed to meet the fire flow requirements designated by the VCFD. The fire flow requirements for the schools are likely to be higher than the existing fire flow requirements at a water system that does not contain a school or the Juvenile Justice Facility. As a result, the increase in storage and pumping requirements to meet fire flows at a school could require significant investment by the consolidating entity.

Rio Mesa High School is a potential participating entity in the proposed water system consolidation project described in Section 6.1. This consolidation would include Vineyard Mutual Water Company, which currently provides fire flow to the Juvenile Justice Center. To provide fire flow to Rio Mesa High

School, these proposed pipelines would need to have larger diameters (approximately 12 to 16 inches):

- Vineyard Avenue between Lambert Street and Central Avenue
- Central Avenue between Vineyard Avenue and N. Rose Avenue
- N. Rose Avenue between E. Collins Street and Central Avenue (approximately 8-12 inches)

As Vineyard Mutual Water Company already provides fire flow to the Juvenile Justice Center, minimal storage and pumping improvements may be required to provide fire flow to Rio Mesa High School.

6.1.4.2 Improvements at Cloverdale Mutual Water Company and Vineyard Avenue Estates Mutual Water Company

Cloverdale Mutual Water Company's and Vineyard Avenue Estates Mutual Water Company's existing distribution systems are adjacent to a participating system of the proposed consolidation project, Vineyard Avenue Acres Mutual Water Company. In order to connect the system to the consolidated system, three interconnections (approximately 8-inches) could be installed along Cortez Street, Balboa Street, and Alvarado Street for each connecting system.

Cloverdale Mutual Water Company participated in extensive consolidation discussions with Vineyard Avenue Acres Mutual Water Company in 2020 but withdrew from discussions in 2021. In early 2023, during the planning of a larger consolidation project (see Section 6.1.1), Vineyard Avenue Estates Mutual Water Company did not express interest in the proposed consolidated system.

6.1.4.3 Improvements at California American Water Company – Rio Plaza

California American Water Company (Rio Plaza) is planning to install an interconnection to United Water Conservation District's Oxnard-Hueneme Pipeline (O-H Pipeline). If Cal-Am were interested in connecting to the proposed consolidated system, an interconnection could be installed to the consolidated system's proposed supply from UWCD's well field and treatment facility instead.

In early 2023, during the planning of a larger consolidation project (see Section 6.1.1), Cal-Am did not express interest in the proposed consolidated system.

6.1.4.4 Improvements at Nyeland Acres Mutual Water Company and Garden Acres Mutual Water Company

Nyeland Acres Mutual Water Company and Garden Acres Mutual Water Company are located in the community of Nyeland Acres, approximately 2 miles from the proposed infrastructure for the proposed consolidated system.

Due to the agricultural parcels and City of Oxnard parcels located between the communities of El Rio and Nyeland Acres, a pipeline connection the proposed consolidated system to the existing distribution systems of Nyeland Acres Mutual Water Company and Garden Acres Mutual Water Company would be installed along Central Avenue and Santa Clara Avenue. This pipeline would be approximately 12-inches in diameter and 2 miles long. The pipeline would connect from the consolidated system at N. Rose Avenue and Central Avenue to Nyeland Acres Mutual Water Company's distribution system near Santa Clara Avenue and Friedrich Road. Due to the existing interconnection between Nyeland Acres Mutual Water Company and Garden Acres Mutual Water

Company, it may not be necessary to connect Garden Acres Mutual Water Company's existing distribution system. However, additional pipelines may be installed to connect to Garden Acres Mutual Water Company's distribution system and/or to increase hydraulic looping.

6.2 IMPROVEMENTS TO MEET SPECIFIC GROWTH SCENARIO DEMANDS

Several growth scenarios for the Study Area were identified and described in Section 5.0. These growth scenarios evaluated the additional water demands that would result from development, land use conversions, and parcel build-out.

Growth scenarios project changes in water demand on an annual basis (Average Day Demand) and during higher demand periods (e.g. hot summer days) (Maximum Day Demand). Some growth scenarios could require an increased fire flow demand in areas where the existing distribution pipeline infrastructure cannot support fire flow requirements. As a result of these changes in water demand, improvements to water production (e.g. wells), storage tanks, pump stations, and pipelines may be required. Changes in Average Day Demand typically impact water rights or other allocations to extract or purchase groundwater. Maximum Day Demands typically impact production and storage facilities. Fire flow demands tend to impact storage, pump station, and pipeline sizing.

This section identifies strategic capital improvements that could be constructed to support each growth scenario. Improvements are identified for each growth scenario individually, but actual growth in the Study Area may comprise of multiple scenarios, which may be calculated via Attachment A. A summary of the supply and storage needs as a result of the growth scenarios is shown in Table 7.

Table 7 – Summary of Growth Scenario Supply and Storage Needs in the Study Area

Water System	Adequate Supply for Maximum Day Demand[1]?	Adequate Storage for Maximum Day Demand[2]?	Adequate Supply Flow for Fire Flow[3]?	Adequate Storage for Fire Flow[4]?
Beedy Water Company	No	Yes	No	Yes
California American Water – Rio Plaza	Yes	No	No	No
Cloverdale Mutual Water Company	Yes	No	Yes	No
Garden Acres Mutual Water Company	No	Yes	Yes	Yes
Nyeland Acres Mutual Water Company	No	Yes	No[3]	No
Strickland Acres Mutual Water Company	Yes	No	No	No
Vineyard Avenue Acres Mutual Water Company	Yes	No	No	No
Vineyard Avenue Estates Mutual Water Company	No	Yes	No[3]	Yes
Vineyard Mutual Water Company	Yes	Yes	No[3]	Yes
Rio School District – Rio Del Valle School	No	Yes	No	No
Oxnard Union High School District – Rio Mesa High School	Yes	No	No	No
Rio School District – Rio Real School	No	No	No	No

Notes:

1. This column summarizes whether the system has adequate water sources to meet maximum day demand (MDD) and/or if they have adequate source capacity with the highest-capacity source offline.
2. This column summarizes whether the system has adequate water storage to meet MDD.
3. This column summarizes whether the minimum fire flow can be meet with only the pumping capacity of the system's water sources. It is assumed that the system's hydropneumatic tank(s) and booster pumps are in good working condition, that the water sources can pump consistently for at least 2 hours, and that aquifer levels are not depleted.
4. This column summarizes whether the system has adequate water storage to meet the minimum required fire flow (in total gallons). A water system does not need to meet the minimum fire flow requirements with both their source capacity and storage.

6.2.1 Growth Scenario 1

Growth Scenario 1 (G1) accounts for existing development potential according to current zoning regulations regarding Accessory Dwelling Units (ADUs) and state law SB 9 lot divisions, which are only allowed in parcels zoned R1.

ADUs would have a minimum fire flow rate of 1,000 gpm (for 2 hours), which equals the rate for single family homes. Therefore, for ADUs installed within public water systems that already have this capacity, no additional infrastructure would be needed to provide the fire flow. If an ADU were to be installed within a public water system that cannot provide fire flow at 1,000 gpm, improvements would be needed for that system. Many of the water systems in the Study Area supply water to

residential, and commercial, and/or industrial service connections and may be required by the Ventura County Fire Department to provide a minimum fire flow greater than 1,000 gpm.

A summary of the water demand increases resulting from this growth scenario are shown in Table 8 and a summary of the supply and storage needs in the affected systems is shown in Table 9.

Table 8 – Growth Scenario 1 Water Demand Increases

Growth Scenario	Description	Increase in Maximum Day Demand in the Study Area (gpd)	Percentage Increase from Existing MDD in the Study Area
1.1	50% of residential properties build 1 ADU	336,000	10%
1.2	10% of R1 zoned properties build 4 units	66,000	2%

Notes:

- Water demands are approximate and rounded to the nearest thousand. Percentages are rounded to the nearest whole percent.

Table 9 – Summary of Growth Scenario 1 Supply and Storage Needs in Affected Water Systems

Water System	Adequate Supply for Maximum Day Demand[1]?	Adequate Storage for Maximum Day Demand[2]?	Adequate Supply Flow for Fire Flow[3]?	Adequate Storage for Fire Flow[4]?
California American Water – Rio Plaza	Yes	No	No	No
Cloverdale Mutual Water Company	Yes	No	Yes	No
Nyeland Acres Mutual Water Company	No	Yes	No[3]	No
Strickland Acres Mutual Water Company	Yes	No	No	No
Vineyard Avenue Acres Mutual Water Company	Yes	No	No	No
Vineyard Avenue Estates Mutual Water Company	No	Yes	No[3]	Yes

Notes:

1. This column summarizes whether the system has adequate water sources to meet maximum day demand (MDD) and/or if they have adequate source capacity with the highest-capacity source offline.
2. This column summarizes whether the system has adequate water storage to meet MDD.
3. This column summarizes whether the minimum fire flow can be meet with only the pumping capacity of the system's water sources. It is assumed that the system's hydropneumatic tank(s) and booster pumps are in good working condition, that the water sources can pump consistently for at least 2 hours, and that aquifer levels are not depleted.
4. This column summarizes whether the system has adequate water storage to meet the minimum required fire flow (in total gallons). A water system does not need to meet the minimum fire flow requirements with both their source capacity and storage.

6.2.1.1 Growth Scenario 1.1

Under Growth Scenario 1.1 (G1.1), where half of the residential zoned parcels in the Study Area construct one ADU, Maximum Day Water Demand would increase by approximately 336,000 gallons per day. This would be an increase of 10% from current Maximum Day Demands in the Study Area.

The systems impacted by G1.1 are listed below:

- California American Water Company – Rio Plaza
- Cloverdale Mutual Water Company
- Garden Acres Mutual Water Company
- Nyeland Acres Mutual Water Company
- Strickland Acres Mutual Water Company
- Vineyard Avenue Acres Mutual Water Company
- Vineyard Avenue Estates Mutual Water Company

Garden Acres Mutual Water Company and Nyeland Acres Mutual Water Company have adequate supply capacity from their connections with each other, and Vineyard Avenue Estates Mutual Water Company has adequate supply capacity from its connection with UWCD's O-H Pipeline. However, due to the interruptible nature of these connections, it is not clear whether the systems can meet the Maximum Day Demand (MDD) and fire flow requirements with the additional of G1.1 demands. These three systems may need to install an additional water source or interconnection to reliably meet demands if either Nyeland Acres Mutual Water Company or Garden Acres Mutual Water Company's sole source is offline, or while UWCD's O-H Pipeline is not in operation. Garden Acres Mutual Water Company would need an addition of approximately 208,000 gallons of storage, Nyeland Acres Mutual Water Company would need approximately 439,000 gallons of storage, and Vineyard Avenue Estates Mutual Water Company would need an addition of approximately 505,000 gallons of storage.

Cal-Am (Rio Plaza), Cloverdale Mutual Water Company, Strickland Acres Mutual Water Company, and Vineyard Avenue Acres Mutual Water Company are currently unable to supply its Maximum Day Demands with available storage capacities.

Cal-Am has 40,000 gallons of storage and would require an addition of approximately 590,000 gallons of storage to meet both MDD and fire flow requirements. Cal-Am is planning to install an emergency interconnection with United Water Conservation District that may provide an additional source to meet MDD and/or provide supply during fire emergencies.

Cloverdale Mutual Water Company has approximately 100,000 gallons of storage and would require an addition of approximately 416,000 gallons of storage to meet both MDD and fire flow requirements.

Strickland Acres Mutual Water Company does not have adequate storage capacity to supply its MDD and fire flow requirements and Vineyard Avenue Acres Mutual Water Company does not have any water storage tanks. However, a total of approximately 1,640,000 gallons of storage is proposed for the consolidation project, as described in Section 6.1.1. To meet the additional demands under G1.1, a total of approximately 1,713,000 gallons of storage is needed for the consolidated water system.

6.2.1.2 Growth Scenario 1.2

Under Growth Scenario 1.2 (G1.2), where a tenth of R1 zoned parcels constructed up to a total of 4 units, Maximum Day Water Demand would increase by approximately 66,000 gallons per day. This would be a 2% increase from current Maximum Day Demands in the Study Area.

Within the Study Area, parcels zoned R1 are located in the service areas of California American Water Company (Rio Plaza) and Strickland Acres Mutual Water Company. Approximately 85% of the R1 zoned parcels are located within the Cal-Am service area, while the other 15% is located within the SAMWC study area.

Growth Scenario 1.2 is intended as an addition to Growth Scenario 1.1 and not mutually exclusive. As previously described in Section 6.2.1.1, both Cal-Am and Strickland Acres Mutual Water Company require additional storage capacity to meet the demands under G1. Cal-Am has 40,000 gallons of storage and would require an addition of approximately 647,000 gallons of storage to meet MDD and fire flow requirements. Strickland Acres Mutual Water Company is expected to be a part of the proposed consolidated system described in Section 6.1.1.1. The consolidated system would require a total of approximately 1,722,000 gallons of storage to meet additional demands under G1.1 and G1.2. Currently, approximately 1,640,000 gallons of total storage are proposed under the consolidation project.

6.2.2 Growth Scenario 2

Growth Scenario 2 (G2) accounts for the construction of additional residential units subject to state law SB 4 at religious institution sites. The systems impacted by G2 and where religious institution sites are located are listed below:

- Cloverdale Mutual Water Company
- Nyeland Acres Mutual Water Company
- Strickland Acres Mutual Water Company
- Vineyard Avenue Acres Mutual Water Company

A summary of the water demand increases resulting from this growth scenario are shown in Table 10.

Table 10 – Growth Scenario 2 Water Demand Increases

Growth Scenario	Description	Increase in Maximum Day Demand in the Study Area (gpd)	Percentage Increase from Existing MDD in the Study Area
2.1	4 du/ac	38,000	1%
2.2	3 du/ac (80% density build-out)	27,000	Less than 1%
2.3	5 du/ac (50% density bonus on 80% density build-out)	47,000	1%

Notes:
- Water demands are approximate and rounded to the nearest thousand. Percentages are rounded to the nearest whole percent.

As noted in Table 10, an increase of 1 du/ac leads to approximately 10,000 gallons per day of increased Maximum Day Water Demands in the Study Area. The increases between Growth Scenarios 2.1, 2.2, and 2.3 do not vary significantly or cause a different set of infrastructure improvements to be needed at each water system. Thereby, the summary of the G2.1 supply and storage needs in the affected systems shown in Table 11 may also be applied for G2.2 and G2.3.

Table 11 – Summary of Growth Scenario 2 Supply and Storage Needs in Affected Water Systems

Water System	Adequate Supply for Maximum Day Demand[1]?	Adequate Storage for Maximum Day Demand[2]?	Adequate Supply Flow for Fire Flow[3]?	Adequate Storage for Fire Flow[4]?
Cloverdale Mutual Water Company	Yes	No	Yes	No
Nyeland Acres Mutual Water Company	No	Yes	No[3]	No
Strickland Acres Mutual Water Company	Yes	No	No	No
Vineyard Avenue Acres Mutual Water Company	Yes	No	No	No

Notes:
- See notes on Table 9.

Cloverdale Mutual Water Company has approximately 100,000 gallons of storage and would require an addition of approximately 416,000 gallons of storage to meet MDD and fire flow requirements.

Nyeland Acres Mutual Water Company only has one water source and does not have any water storage, but has an interconnection with Garden Acres Mutual Water Company that can supply approximately 1,500 gpm. If Nyeland Acres MWC's sole water source is rendered offline, the system would have to rely solely on supply from Garden Acres MWC. To meet the existing and additional demands without the interconnection with Garden Acres MWC, Nyeland Acres Mutual Water Company would need up to approximately 265,000 gallons of storage to supply the MDD and fire flow requirements.

Additional water demands within Vineyard Avenue Acres Mutual Water Company and Strickland Acres Mutual Water Company would be addressed by the proposed water system consolidation. The consolidated system would need to be able to supply up to approximately 1,376,000 gallons per day and have a storage capacity of up to approximately 1,675,000 gallons. This would require a total additional 1,025,000 gallons of storage to Vineyard Mutual Water Company's existing storage site.

6.2.3 Growth Scenario 3

Growth Scenario 3 (G3) accounts for the potential land use conversion in commercial zones to residential uses within and outside of the High-Quality Transit Corridor (HQTC). The systems impacted by G3 and where commercial zoned parcels are located are listed below:

- California American Water Company (Rio Plaza)
- Cloverdale Mutual Water Company
- Garden Acres Mutual Water Company
- Nyeland Acres Mutual Water Company
- Strickland Acres Mutual Water Company
- Vineyard Avenue Acres Mutual Water Company

A summary of the water demand increases resulting from this growth scenario are shown in Table 12 and a summary of the supply and storage needs in the affected systems is shown in Table 13.

Table 12 – Growth Scenario 3 Water Demand Increases

Growth Scenario	Description	Increase in Maximum Day Demand in the Study Area (gpd)	Percentage Increase from Existing MDD in the Study Area
3.1a	20 du/ac outside of the HQTC	229,000	7%
3.1b	16 du/ac outside of the HQTC (80% density build-out)	182,000	6%
3.1c	24 du/ac outside of the HQTC (50% density bonus on 80% density build-out)	279,000	9%
3.2a	80 du/ac inside the HQTC	9,700	Less than 1%
3.2b	64 du/ac inside the HQTC (80% density build-out)	7,600	Less than 1%
3.2c	96 du/ac inside the HQTC (50% density bonus on 80% density build-out)	13,000	Less than 1%

Notes:
- Water demands are approximate and rounded to the nearest thousand, or nearest hundred for demands less than 10,000 gpd. Percentages are rounded to the nearest whole percent.

Table 13 – Summary of Growth Scenario 3 Supply and Storage Needs in Affected Water Systems

Water System	Adequate Supply for Maximum Day Demand[1]?	Adequate Storage for Maximum Day Demand[2]?	Adequate Supply Flow for Fire Flow[3]?	Adequate Storage for Fire Flow[4]?
California American Water – Rio Plaza	Yes	No	No	No
Cloverdale Mutual Water Company	Yes	No	Yes	No
Garden Acres Mutual Water Company	No	Yes	Yes	Yes
Nyeland Acres Mutual Water Company	No	Yes	No[3]	No
Strickland Acres Mutual Water Company	Yes	No	No	No
Vineyard Avenue Acres Mutual Water Company	Yes	No	No	No

Notes:
- See notes on Table 9.

6.2.3.1 Growth Scenario 3.1

Growth Scenario 3 (G3) accounts for the potential land use conversion in commercial zones to residential uses outside of the High-Quality Transit Corridor (HQTC).

Cal-Am (Rio Plaza), Strickland Acres Mutual Water Company, and Vineyard Avenue Acres Mutual Water Company are currently unable to supply its Maximum Day Demands with available storage capacities. The increase of water demands under G3 would increase the storage capacity needed for these systems. The approximate additional storage described below is evaluated from Growth Scenario 3.1c, which accounts for the highest number of additional dwelling units (24 du/ac) in G3. Thereby, these values are considered the maximum additional storage requirements for G3.1.

Cal-Am has 40,000 gallons of storage and would require an addition of approximately 578,000 gallons of storage to meet both MDD and fire flow requirements. Cal-Am is planning to install an emergency interconnection with United Water Conservation District that may provide an additional source to meet MDD and/or provide supply during fire emergencies.

Strickland Acres Mutual Water Company does not have adequate storage capacity to supply its MDD and fire flow requirements and Vineyard Avenue Acres Mutual Water Company does not have any water storage tanks. Both systems are participating the in the proposed water system consolidation, for which approximately 1,640,000 gallons of storage is proposed (Section 6.1.1). To meet additional storage requirements under G3.1c, a total of 1,712,000 total gallons of storage is needed for the consolidated system.

Garden Acres Mutual Water Company and Nyeland Acres Mutual Water Company are noted as not having adequate water supply to meet MDD because they each only have one active source. If the source were to be rendered offline at one of the systems, the system would have to rely on its existing interconnection with the other. Garden Acres Mutual Water Company's existing storage capacity is able to meet the additional storage needed for G3.1, but cannot meet both MDD and fire flow requirements at the same time. To supply both MDD and fire flow demands, Garden Acres

Mutual Water Company would need an addition of approximately 235,000 gallons of storage. Nyeland Acres Mutual Water Company does not have any storage and would require approximately 468,000 gallons of storage to meet both MDD and fire flow requirements.

Fire flow requirements for residential areas are lower than requirements for commercial areas. However, multi-story developments may require a higher fire flow (such as 2,000 or 2,500 gpm for 2 hours).

6.2.3.2 Growth Scenario 3.2

Growth Scenario 3 (G3) accounts for the potential land use conversion in commercial zones to residential uses within the High-Quality Transit Corridor (HQTC).

Multiple state bills allow for increased density and/or modified development standards for projects at the two commercial parcels located within the HQTC under G3.2 (APNs 145-015-401 and 145-021-107). These high-density residential developments are likely to require higher fire flow requirements than the systems' current design fire flow. Fire flow requirements are expected to be similar to the requirement assigned to the Ventura County Juvenile Justice Facility of 2,500 gpm for 2 hours.

The first parcel is located within Vineyard Avenue Acres Mutual Water Company's service area, which is a participant of the proposed consolidation system. The proposed consolidation system would be capable of meeting the fire flow requirements for high-density housing due to the existing fire flow requirements at the Ventura County Juvenile Justice Facility.

The second commercial parcel is located within Cloverdale Mutual Water Company's service area. To meet fire flow requirements under G3.2, a significant increase in additional storage is necessary. Cloverdale MWC currently has 100,000 gallons of storage and would likely need at least 636,000 gallons of additional storage to meet the new MDD and fire flow requirements. Improvements to upsize the surrounding pipelines to approximately 12 inches would also be required.

6.2.4 Growth Scenario 4

Growth Scenario 4 (G4) is accounts for built-out commercial and industrial zones in the Study Area. A summary of the water demand increases resulting from this growth scenario are shown in Table 14 and a summary of the supply and storage needs in the affected systems is shown in Table 15.

Table 14 – Growth Scenario 4 Water Demand Increases

Growth Scenario	Description	Increase in Maximum Day Demand in the Study Area (gpd)	Percentage Increase from Existing MDD in the Study Area
4.1	60% lot coverage at commercial parcels, 17.7% vacancy	108,000	3%
4.2	50% lot coverage at industrial parcels, 2% vacancy	286,000	9%

Notes:
- Water demands are approximate and rounded to the nearest thousand. Percentages are rounded to the nearest whole percent.

Table 15 – Summary of Growth Scenario 4 Supply and Storage Needs in Affected Water Systems

Water System	Adequate Supply for Maximum Day Demand[1]?	Adequate Storage for Maximum Day Demand[2]?	Adequate Supply Flow for Fire Flow[3]?	Adequate Storage for Fire Flow[4]?
Beedy Water Company	No	Yes	No	Yes
California American Water – Rio Plaza	Yes	No	No	No
Cloverdale Mutual Water Company	Yes	No	Yes	No
Garden Acres Mutual Water Company	No	Yes	Yes	Yes
Nyeland Acres Mutual Water Company	No	Yes	No[3]	No
Strickland Acres Mutual Water Company	Yes	No	No	No
Vineyard Avenue Acres Mutual Water Company	Yes	No	No	No
Vineyard Mutual Water Company	Yes	Yes	No[3]	Yes

Notes:
- See notes on Table 9.

6.2.4.1 Growth Scenario 4.1

Under Growth Scenario 4.1 (G4.1), commercial zones are assumed to be built out to a 60% lot coverage with an average vacancy rate of 17.7%. The systems impacted by G4.1 and where commercial zoned parcels are located are listed below:

- California American Water Company (Rio Plaza)
- Cloverdale Mutual Water Company
- Garden Acres Mutual Water Company
- Nyeland Acres Mutual Water Company
- Strickland Acres Mutual Water Company
- Vineyard Avenue Acres Mutual Water Company

Cal-Am (Rio Plaza), Cloverdale Mutual Water Company, Strickland Acres Mutual Water Company, and Vineyard Avenue Acres Mutual Water Company are currently unable to supply its Maximum Day Demands with available storage capacities. The increase of water demands under G4.1 would increase the storage capacity needed for these systems.

Cal-Am has 40,000 gallons of storage and would require an addition of approximately 512,000 gallons of storage to meet both MDD and fire flow requirements. Cal-Am is planning to install an emergency interconnection with United Water Conservation District that may provide an additional source to meet MDD and/or provide supply during fire emergencies.

Cloverdale Mutual Water Company has approximately 100,000 gallons of storage and would require an addition of approximately 387,000 gallons of storage to meet both MDD and fire flow requirements under G4.1.

Strickland Acres Mutual Water Company does not have adequate storage capacity to supply its MDD and fire flow requirements and Vineyard Avenue Acres Mutual Water Company does not have any water storage tanks. However, both systems are participating in the proposed water system consolidation, for which approximately 1,640,000 gallons of storage is proposed at the existing Vineyard Mutual Water Company tank site. To meet additional storage requirements under G4.1, approximately 1,832,000 gallons of total storage would be needed for the proposed consolidated system.

Garden Acres Mutual Water Company and Nyeland Acres Mutual Water Company are noted on Table 14 as not having adequate water supply to meet MDD because they each only have one active source. If the source were to be rendered offline at one of the systems, the system would have to rely on its existing interconnection with the other. Garden Acres Mutual Water Company's existing storage capacity is able to meet the additional storage needed for G4.1, but cannot meet both MDD and fire flow requirements at the same time. To supply both MDD and fire flow demands under G4.1, Garden Acres Mutual Water Company would need an addition of approximately 200,000 gallons of storage. Nyeland Acres Mutual Water Company does not have any storage and would require a total of approximately 429,000 gallons of storage to meet both MDD and fire flow requirements.

6.2.4.2 Growth Scenario 4.2

Under Growth Scenario 4.2 (G4.2), industrial zones are assumed to be built out to a 50% lot coverage with an average vacancy rate of 2%. The systems impacted by G4.1 and where industrial zoned parcels are located are listed below:

- Beedy Water Company
- Cloverdale Mutual Water Company
- Garden Acres Mutual Water Company
- Vineyard Mutual Water Company
- Industrial parcels outside of existing public water systems

Cloverdale Mutual Water Company is currently unable to supply its Maximum Day Demands with its available storage capacity. Cloverdale Mutual Water Company has approximately 100,000 gallons of storage and would require a total of approximately 393,000 gallons of storage to meet both MDD

and fire flow requirements under G4.2. To meet additional demands for both G4.1 and G4.2, Cloverdale Mutual Water Company would require an addition of approximately 394,000 gallons of storage.

Beedy Water Company and Garden Acres Mutual Water Company are noted on Table 14 as not having adequate water supply to meet MDD because they each only have one active source. If the source were to be rendered offline at either system, the system would only be able to supply its customers with the water supply remaining in its storage tanks or via an interconnection. Beedy Water Company is a participating system of the proposed consolidation project and additional water supply needs under G4.2 are expected to be supplied by the consolidated system's sources (see Section 6.1.1.1). Garden Acres Mutual Water Company could all receive supplemental water supply from its existing interconnection with the Nyeland Acres Mutual Water Company, assuming that Nyeland Acres Mutual Water Company's well is operational.

As described in the previous section, Garden Acres Mutual Water Company's existing storage capacity is able to meet the additional storage needed for G4, but cannot meet both MDD and fire flow requirements at the same time. To supply both MDD and fire flow demands under G4.2, Garden Acres Mutual Water Company would need an addition of approximately 188,000 gallons of storage. To supply additional water demands from both G4.1 and G4.2, Garden Acres Mutual Water Company would need an addition of approximately 203,000 gallons of storage.

Vineyard Mutual Water Company currently has adequate additional supply and storage capacity to meet the MDD and fire flow requirements under G4. Vineyard Mutual Water Company is also a participating water system in the proposed consolidation project. Due to the excess storage capacity, robust booster station, and potential nearby land for the construction of water storage tanks, Vineyard Mutual Water Company's existing tank site is proposed to be the future tank site of the consolidated system. Additional storage tanks would be constructed to meet the existing water demands of the other participating systems that currently lack adequate supply and storage to meet MDD.

6.2.5 Growth Scenario 5

Growth Scenario 5 (G5) accounts for potential land use density increases at residential zoned properties located within the High-Quality Transit Corridor. The systems impacted by G5 and where residential zoned parcels are located in the HQTC are listed below:

- Cloverdale Mutual Water Company
- Vineyard Avenue Acres Mutual Water Company

A summary of the water demand increases resulting from this growth scenario are shown in Table 16 and a summary of the supply and storage needs in the affected systems is shown in Table 17. Water demands per dwelling unit were assigned using the current water demands in Cloverdale Mutual Water Company and Vineyard Avenue Acres Mutual Water Company. These are a conservative estimate as water demands for a dwelling unit within a high-density development may use less water than the current urban residential homes in the area.

Table 16 – Growth Scenario 5 Water Demand Increases

Growth Scenario	Description	Increase in Maximum Day Demand in the Study Area (gpd)	Percentage Increase from Existing MDD in the Study Area
5.1	20 du/ac inside the HQTC	1,440,000	45%
5.2	16 du/ac inside the HQTC (80% density build-out)	1,138,000	36%
5.3	24 du/ac inside the HQTC (50% density bonus on 80% density build-out)	1,748,000	55%

Notes:
- Water demands are approximate and rounded to the nearest thousand. Percentages are rounded to the nearest whole percent.

Table 17 – Summary of Growth Scenario 5 Supply and Storage Needs in Affected Water Systems

Water System	Adequate Supply for Maximum Day Demand[1]?	Adequate Storage for Maximum Day Demand[2]?	Adequate Supply Flow for Fire Flow[3]?	Adequate Storage for Fire Flow[4]?
Cloverdale Mutual Water Company	Yes	No	Yes	No
Vineyard Avenue Acres Mutual Water Company	Yes	No	No	No

Notes:
- See notes on Table 9.

Multiple state bills allow for increased density and/or modified development standards for projects at the two commercial parcels located within the HQTC under G3.2 (APNs 145-015-401 and 145-021-107). These high-density residential developments are likely to require higher fire flow requirements. If storage capacities are met as described below, higher fire flow requirements could be supplied via upsized pipelines (e.g. approximately 12-inches) fronting the developments.

The approximate additional storage described below is evaluated from Growth Scenario 5.3, which accounts for the highest number of additional dwelling units (24 du/ac) in G5. Thereby, these values are considered the maximum additional storage requirements for G5.

Cloverdale Mutual Water Company is currently unable to supply its Maximum Day Demands with its available storage capacity. Cloverdale Mutual Water Company has approximately 100,000 gallons of storage and would require an addition of approximately 2,071,000 gallons of storage to meet both MDD and fire flow requirements under G5.3.

If the G5 land use density increases were limited to the three RHD zoned parcels within Cloverdale Mutual Water Company's service area, the system would be able to supply its Maximum Day Demands with its available water sources, but would require additional storage capacity. To meet the G5.1, G5.2, and G5.3 water demands, Cloverdale Mutual Water Company would require an addition

of approximately 704,000; 640,000; and 768,000 gallons of storage to meet MDD and fire flow requirements, respectively.

Vineyard Avenue Acres Mutual Water Company does not have any water storage tanks. However, Vineyard Avenue Acres Mutual Water Company is a participating water system in the proposed consolidated system, for which approximately 1,640,000 gallons of total storage is proposed (Section 6.1.1). To meet storage requirements under G5.3, a total of approximately 1,703,000 gallons of storage would be needed for the proposed consolidated system.

7.0 CAPITAL COSTS OF IMPROVEMENTS

The costs of improvements are estimated from other water system infrastructure projects in southern California. Costs estimated in this section represent current average costs and may vary in the future and depend on multiple factors such as location, design, applicability of prevailing wage requirements, and contractor bid results.

The average capital costs for drilling and installing a new groundwater well range between $1,000 and $2,000 per vertical foot.

Distribution system improvements within the existing water systems are expected to require pipelines that are between 6-inch to 8-inch in diameter. The average capital costs for the installation of pipelines between 6-inch to 8-inches in diameter range.

Distribution and transmission pipeline improvements connecting water sources to storage tanks and/or connecting existing water systems are expected to require pipelines that are between 8-inch to 12-inch in diameter. The average capital costs for the installation of pipelines between 8-inches to 12-inches in diameter range between $300 to $500 per linear foot. The costs for pipelines varies greatly depending on the pipe material and special construction requirements (e.g. concrete encasing, trenchless installations).

The average capital costs for storage improvements range between $5 to $10 per gallon for new storage tanks installed.

8.0 AREAS FOR FURTHER STUDY

Areas for further study that would benefit the Ventura County 2040 General Plan in understanding the water needs in the Study Area include:

- An evaluation of wastewater flows and wastewater quality for the existing developments and growth scenarios and assessment of wastewater infrastructure needed to support existing and/or anticipated flows.
- An evaluation of recycled water infrastructure improvements to extend the City of Oxnard's recycled water program into the Study Area to provide non-potable water. This would help attenuate the demand of potable water that is currently used for non-potable uses.
- An evaluation of existing water demands within state small systems and private wells. An analysis of wells that have adequate or surplus of water. This would be dependent on the

availability of information from the well owners and other sources (e.g. Ventura County Environmental Health Division).

- An evaluation on the impacts of the lack of water storage for fire flow on fire insurance costs and subsequent development limitations in the Study Area.

NV5

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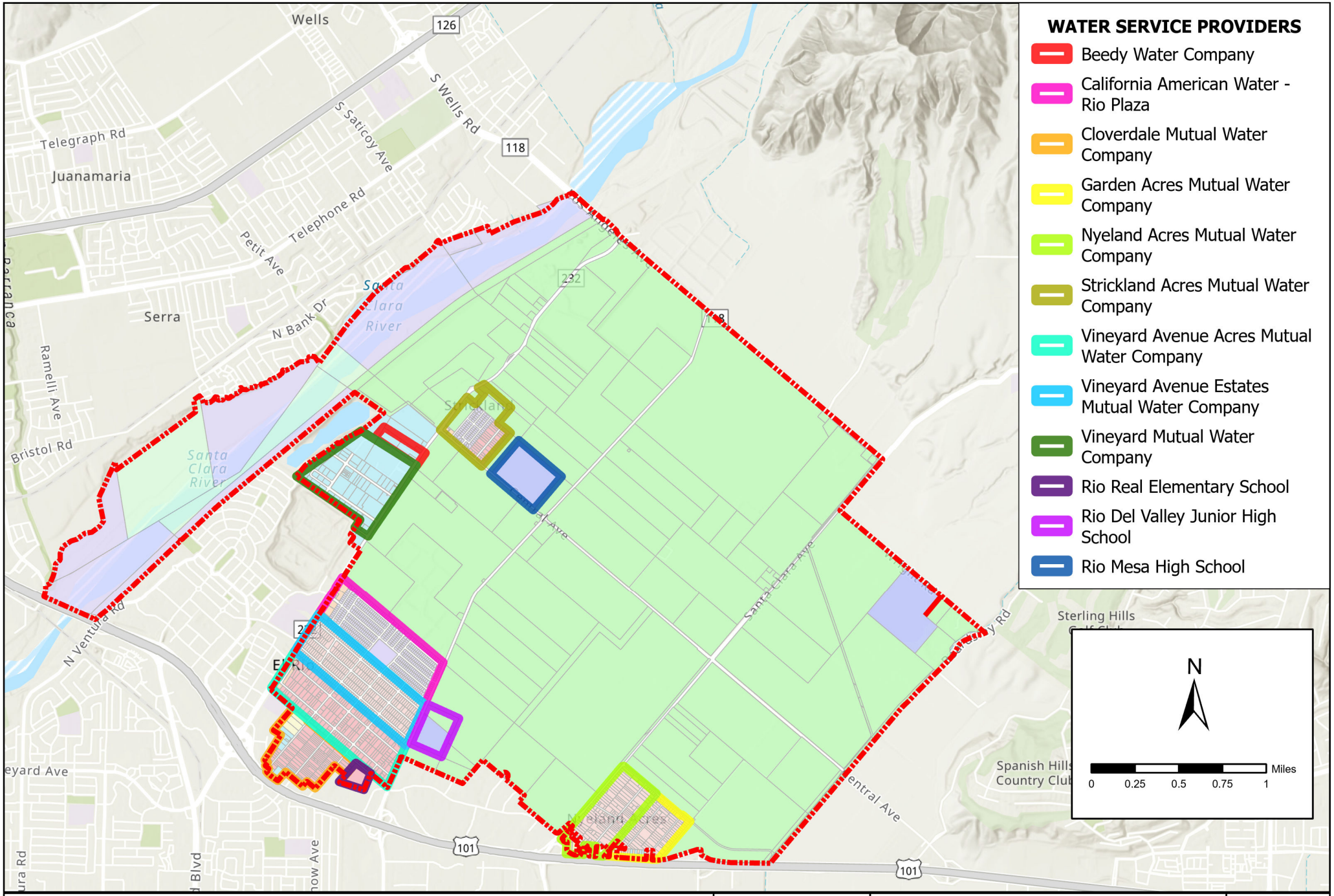

Legend

AREA PLAN ZONING DESIGNATIONS
- Agriculture 40 AC Min.
- Commercial
- Industrial
- Institutional 10 AC Min.
- Open Space 80 AC Min.
- Urban Residential 1-2 DU/AC
- Urban Residential 10-15 DU/AC
- Urban Residential 2-4 DU/AC
- Urban Residential 4-6 DU/AC
- Urban Residential 20 DU/AC
- Study Area

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STUDY AREA

FIGURE NUMBER: 1

SCALE: 1 inch = 1 mile

JOB NUMBER: 228124-0001933-01

PREPARED FOR: VENTURA COUNTY RESOURCE MANAGEMENT AGENCY PLANNING DIVISION

DATE SUBMITTED: SEPT 2024

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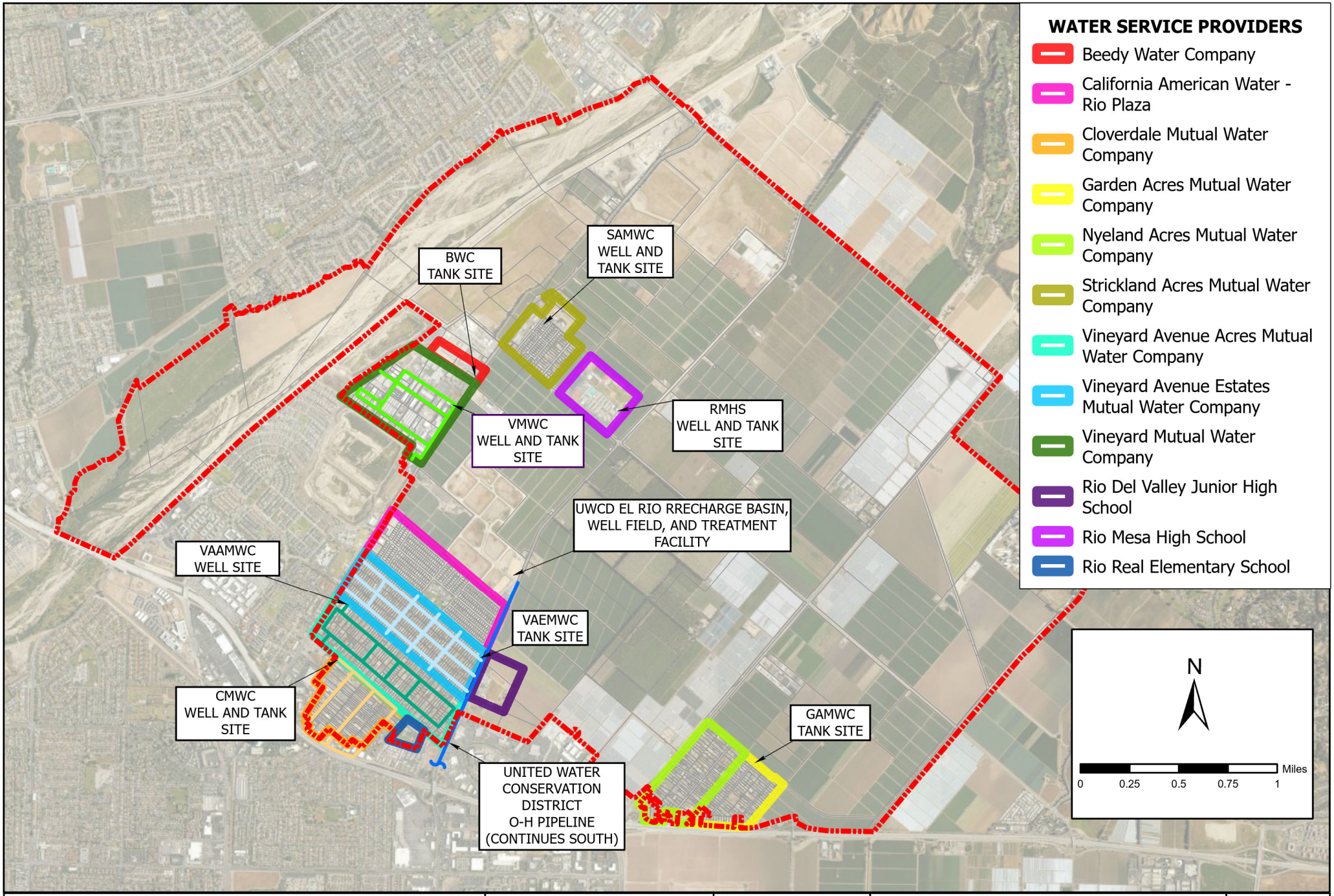

Legend

EXISTING PIPELINES
- CMWC
- O-H Pipeline
- VAAMWC
- VAEMWC
- VMWC
- Parcels
- Study Area

Note:
This figure does not include an exhaustive view of the existing infrastructure in the area as not all water system infrastructure was provided by the water systems.

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EXISTING INFRASTRUCTURE

FIGURE NUMBER
2

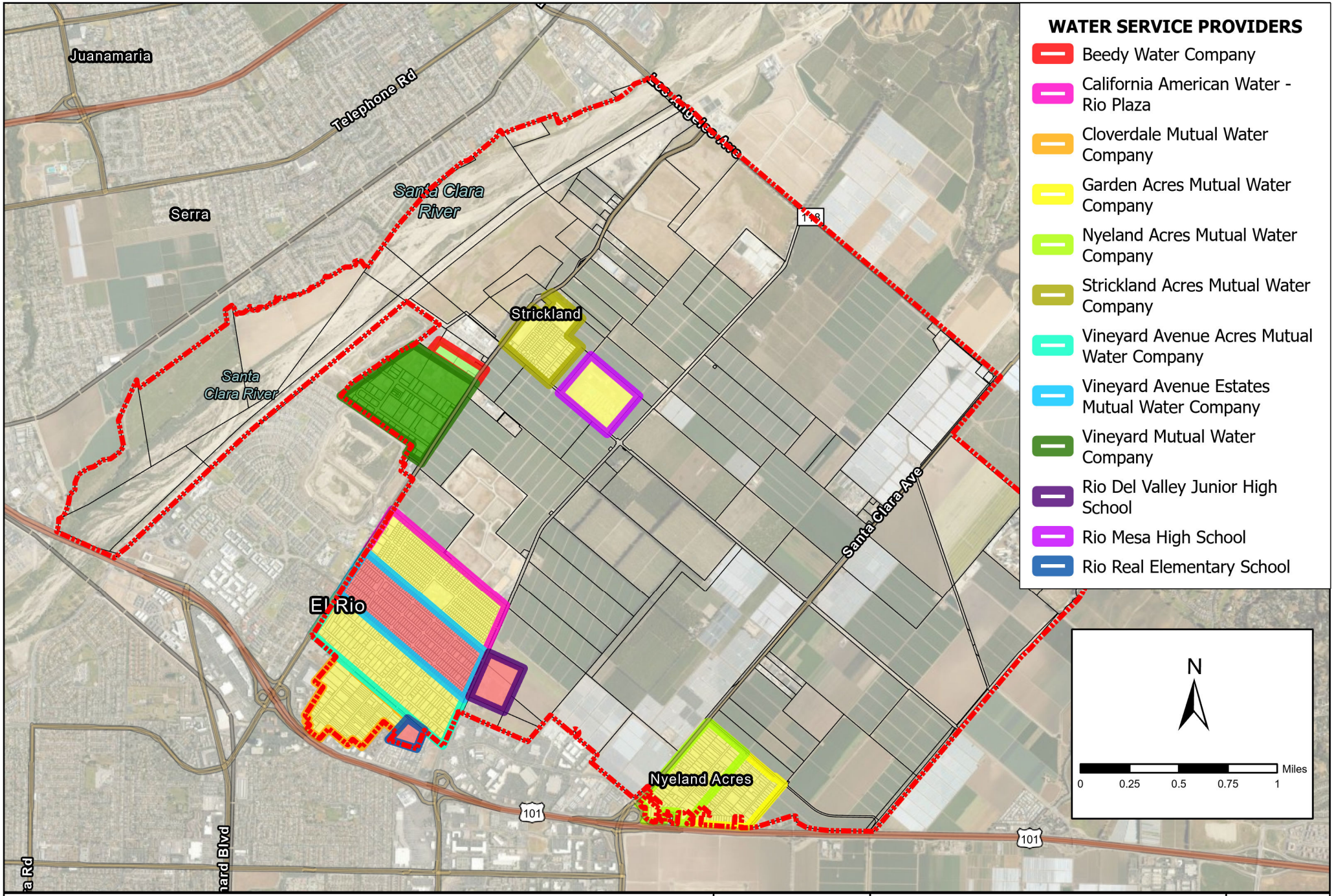
SCALE
1 inch = 1 mile

JOB NUMBER:
228124-0001933-01

PREPARED FOR: VENTURA COUNTY RESOURCE MANAGEMENT AGENCY PLANNING DIVISION

DATE SUBMITTED: SEPT 2024

Path: \\nv5.com\panzura\INF\Projects\2281-SD\228124-0001933-01\GIS\FIGURES\WORKING\EL_RIO_AREA_PLAN_FIGURES\EL_RIO_AREA_PLAN_FIGURES.aprx



Legend

- Meets MDD and Fire Flow
- Meets MDD with Supply, but Supply is Vulnerable
- Requires Additional Storage to Meet MDD and Fire Flow
- Requires Additional Storage to Meet MDD and Fire Flow, and Supply is Interruptible
- Study Area
- Parcels

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Systems Lacking Adequate Water Supply (Baseline Scenario)

FIGURE NUMBER: 3

SCALE: 1 inch = 1 mile

JOB NUMBER: 228124-0001933-01

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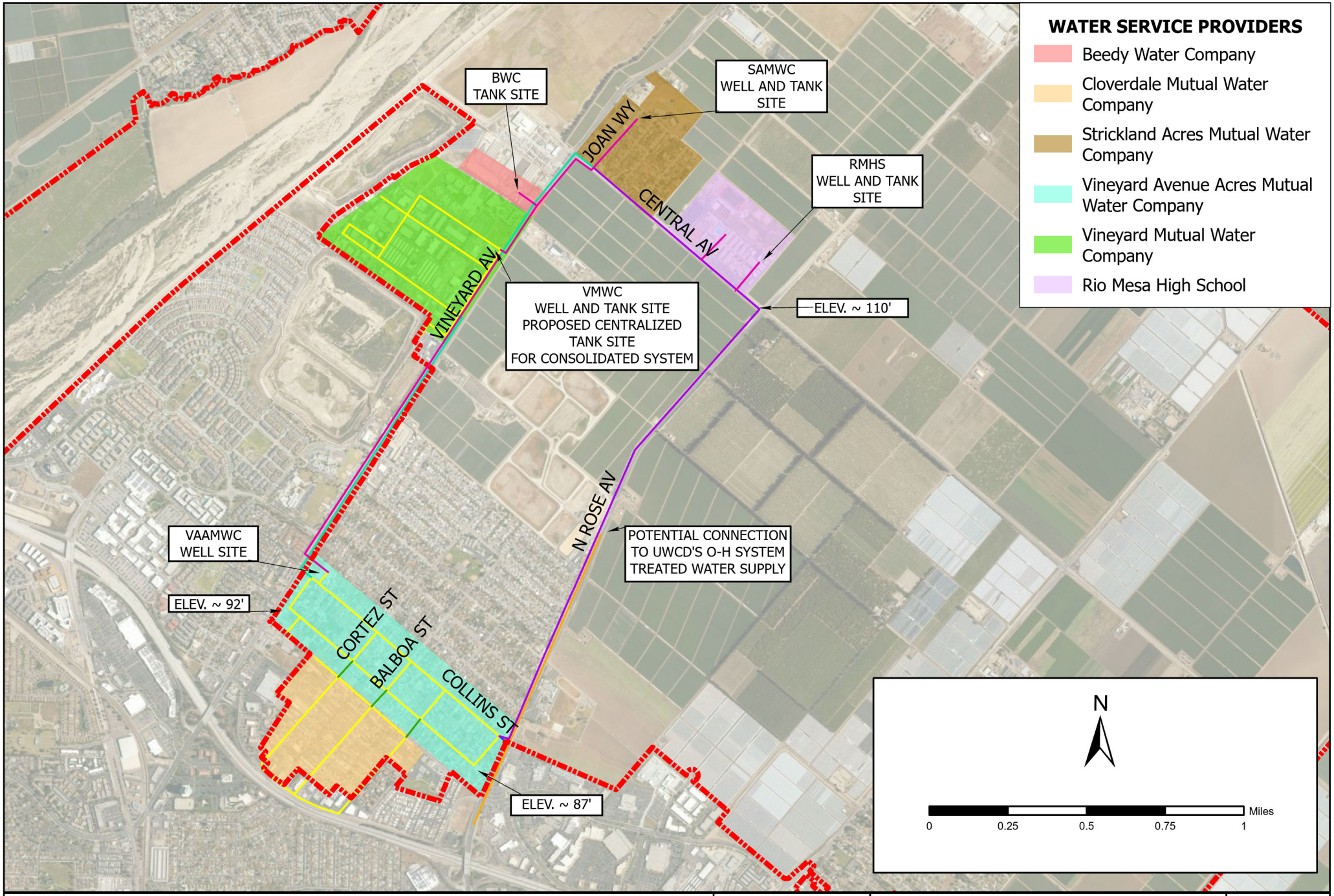

Legend

- Existing Pipeline
- Existing UWCD Oxnard-Hueneme Pipeline
- Proposed Distribution Pipeline
- Proposed Emergency Connection
- Proposed Interconnection
- Proposed Looping Pipeline
- Proposed Transmission Pipeline
- Study Area

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POTENTIAL INFRASTRUCTURE COMPONENTS FOR PROPOSED WATER SYSTEM CONSOLIDATION

FIGURE NUMBER: 4

SCALE: 1 inch = 0.4 miles

JOB NUMBER: 228124-0001933-01

PREPARED FOR: VENTURA COUNTY RESOURCE MANAGEMENT AGENCY PLANNING DIVISION

DATE SUBMITTED: SEPT 2024

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Appendix B

Locally Important Plant and Animal Species and Species Listed by the International Union for Conservation of Nature

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Locally Important Plant Species

Common Name	Updated Scientific Name	Synonyms	Family	Type	Associated Vegetation Communities	Bloom Period
Roundleaf heermann lotus or hosackia	*Acmispon tomentosus var. tomentosus*	*Acmispon heermannii* (Durand & Hilg.) Brouillet *var. orbicularis* (A. Gray) Brouillet, superfl.; *Lotus heermannii* (Durand & Hilg.) Greene *var. eriophorus* (Greene) Ottley; *Lotus heermannii var. orbicularis* (A. Gray) Isely	Fabaceae	Perennial Herb	Coastal Scrub, chaparral,	Mar-Aug
Powell's amaranth	*Amaranthus powellii*	Unabridged Synonyms: *Amaranthus bouchonii Thell.; Amaranthus powellii* subsp. *bouchonii (Thell.) Costea & Carretero.*	Amaranthaceae	Annual Herb	Sagebrush Scrub, Mixed Evergreen Forest, Valley Grassland, wetland-riparian	Jul-Nov
Southwestern bushy bluestem	*Andropogon glomeratus var. scabriglumis*	N/A	Poaceae	Perennial Grass or Graminoid	Coastal Sage Scrub, Creosote Bush Scrub, Chaparral, wetland-riparian	Sep-Mar
Purple three-awn grass	*Aristida purpurea var. purpurea*	N/A	Poaceae	Perennial Grass or Graminoid	Coastal Sage Scrub, Creosote Bush Scrub	Feb-Mar
Morro milkvetch	*Astragalus curtipes*	N/A	Fabaceae	Perennial Herb	Coastal Strand, Coastal Sage Scrub	Feb-Jun
Mojave silverscale	*Atriplex argentea var. expansa*	*Atriplex argentea var. mohavensis* (M.E. Jones) S.L. Welsh; *Atriplex expansa* S. Watson; *Atriplex argentea* subsp. *expansa* (S. Watson) H.M. Hall & Clem.; *Atriplex trinervata* Jeps.	Chenopodiaceae	Perennial Herb	Wetlands, Dry or saline substrates	Jul-Nov
Thickleaf orach	*Atriplex dioica*	*Atriplex subspicata* (Nutt.) Rydb.; *Atriplex patula* L. var. *subspicata* (Nutt.) S. Watson; *Chenopodium subspicatum* Nutt.	Chenopodiaceae	Annual Herb	prairies, stream valleys, along shores	Jul-Nov
Sticktight	*Bidens frondosa*	N/A	Asteraceae	Annual Herb	wetland riparian	Jun-Oct
Seacoast bullrush	*Bolboschoenus robustus*	*Scirpus robustus Pursh*; *Schoenoplectus robustus* (Pursh) M.T. Strong	Cyperaceae	Perennial Grass or Graminoid	Coastal Salt Marsh, Freshwater Wetlands, Alkali Sink, wetland-riparian	Aug-Sep
Common Name	**Updated Scientific Name**	**Synonyms**	**Family**	**Type**	**Associated Vegetation Communities**	**Bloom Period**
Pitseed goosefoot	*Chenopodium berlandieri var. zschackei*	N/A	Chenopodiaceae	Annual Herb	Disturbed areas, ocean bluffs, sandy washes	Jul-Sep
Smooth flatsedge	*Cyperus laevigatus*	N/A	Cyperaceae	Perennial Grass or Graminoid	Coastal Sage Scrub, Creosote Bush Scrub,	Jul-Dec

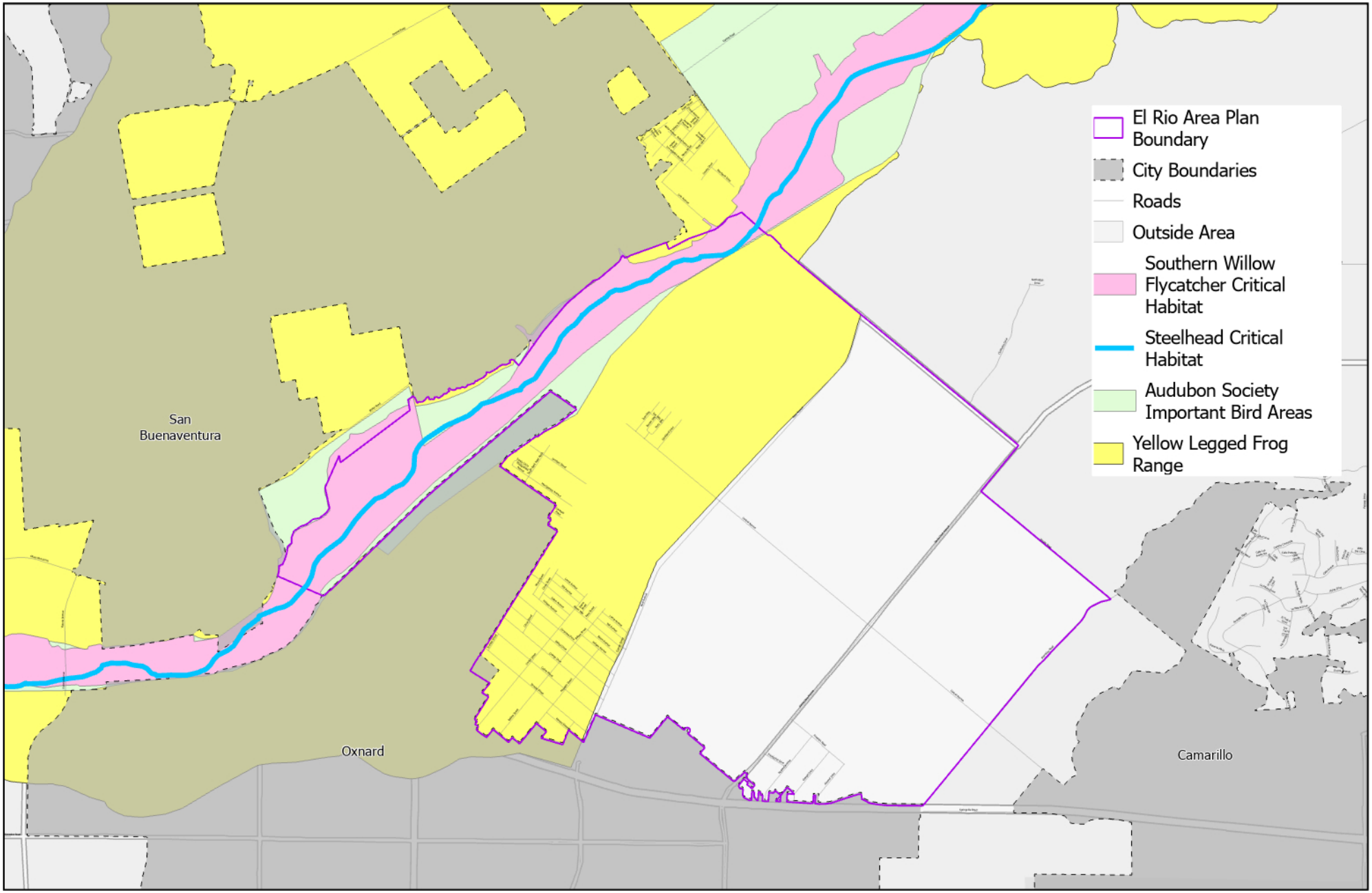
					Alkali Sink, wetland-riparian	
Flatsedge	*Cyperus odoratus*	*Cyperus ferax Rich*	Cyperaceae	Annual Grass or Graminoid	wetland-riparian, many plant communities	Jul-Oct
Gulf lovegrass	*Eragrostis pectinacea var. miserrima*	*Eragrostis arida Hitchc.*; *Eragrostis tephrosanthos Schult.*	Poaceae	Annual Grass or Graminoid	wetland-riparian	Jul-Nov
Prostate hutchinsia	*Hornungia procumben*	*Hutchinsia procumbens* (L.) Desv., illeg.; *Hymenolobus procumbens* (L.) Nutt. ex Torr. & A. Gray	Brassicaceae	Annual Herb	Saline flats, shaded sites, woodland, desert, meadows, salt marshes, sagebrush scrub	Feb-Jul
Marsh pennywort	*Hydrocotyle verticillata*	*Hydrocotyle verticillata var. triradiata* (A. Rich.) Fernald	Araliaceae	Perennial Herb	wetland-riparian; Lake margins, ponds, slow-moving streams, canals, seeps, springs, marshes	Apr-Sep
Turion duckweed	*Lemna turionifera*	N/A	Araceae	Annual Grass or Graminoid	wetland-riparian: Freshwater	Aug
Alkali pepperwort, Alkali pepperweed	*Lepidium dictyotum*	N/A	Brassicaceae	Annual Herb	Alkali Sink, Valley Grassland, wetland-riparian. Found in: dry stream beds, roadsides, sandy flats, fields, meadows, dried pools	Mar-Jun
Newberry's lip fern	*Myriopteris newberryi*	*Cheilanthes newberryi* (D. C. Eaton) Domin	Pteridaceae	Perennial Herb	Coastal Sage Scrub, Chaparral	May - Aug
Pickleweed,Virginia glasswort	*Salicornia depressa*	*Salicornia europaea* L., misappl.	Chenopodiaceae	Annual Herb	Coastal Salt Marsh, wetland-riparian	Jul-Sep

Locally Important Animal Species

Common Name	Scientific Name	Synonyms	Family	Type
Threespine armored stickleback	*Gasterosteus aculeatus microcephalus*	Partially armored stickleback	Gasterosteidae	Fish

Species Listed by International Union for Conservation of Nature

Common Name	Scientific Name	Listing	Family	Type
Santa Monica grasshopper	*Trimerotropis occidentiloides*	Endangered	Orthoptera	Insect
Mimic tryonia (California brackish water snail)	*Tryonia imitator*	Data Deficient	Cochliopidae	Snail



County of Ventura
Planning Division
El Rio/Del Norte Area Plan

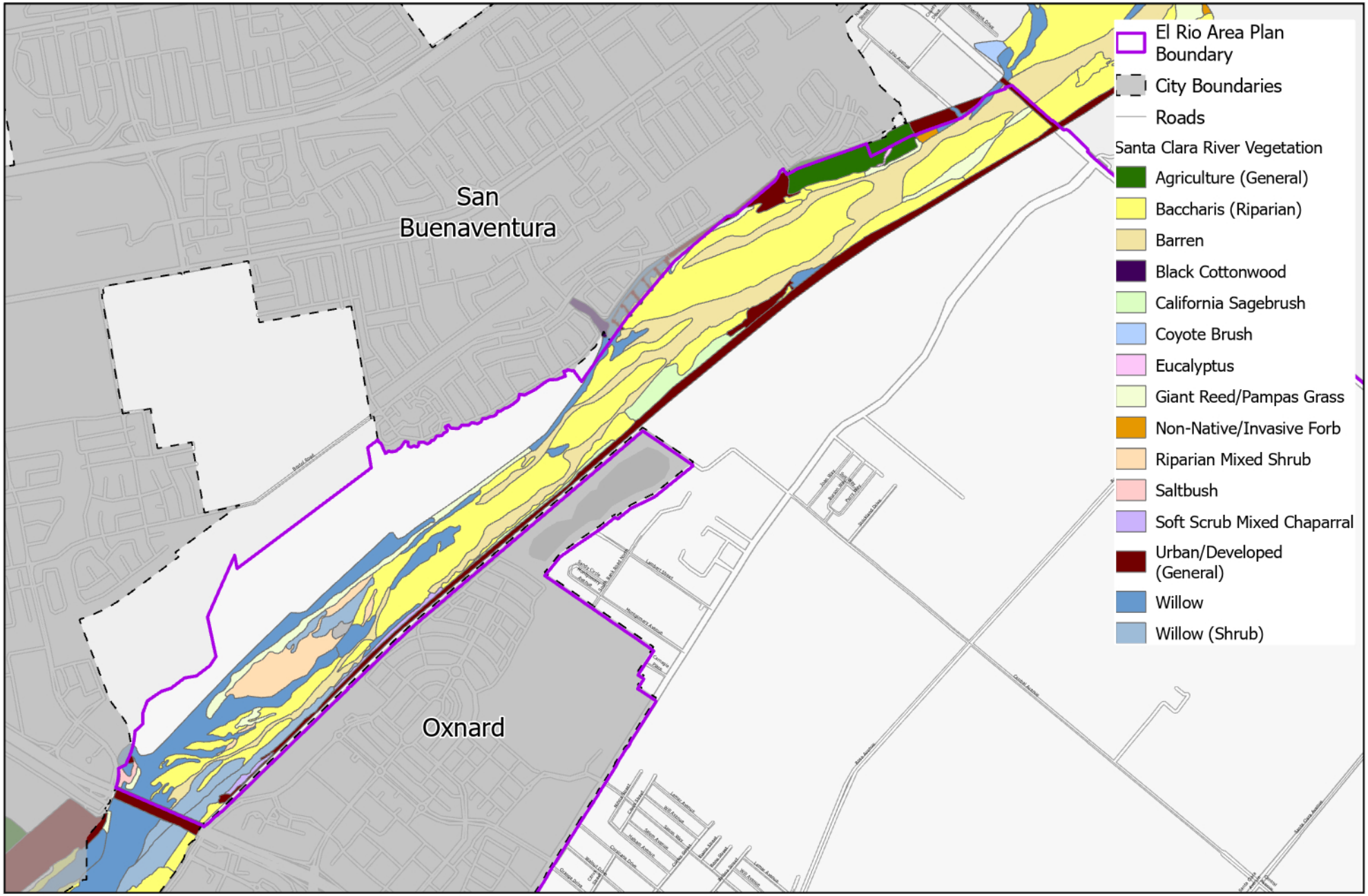
El Rio Area Critical Habitat Areas

0 1 2 Miles

N

Ventura County
Resource Management Agency
Information Systems GIS Services
Map created October 2024

PH



County of Ventura
Planning Division
El Rio/Del Norte Area Plan

Santa Clara River Vegetation Near The El Rio Area

0 0.5 1 Miles

N

Ventura County
Resource Management Agency
Information Systems GIS Services
Map created October 2024

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Appendix C

Pedestrian Network Maps by Neighborhood

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El Rio Pedestrian Network

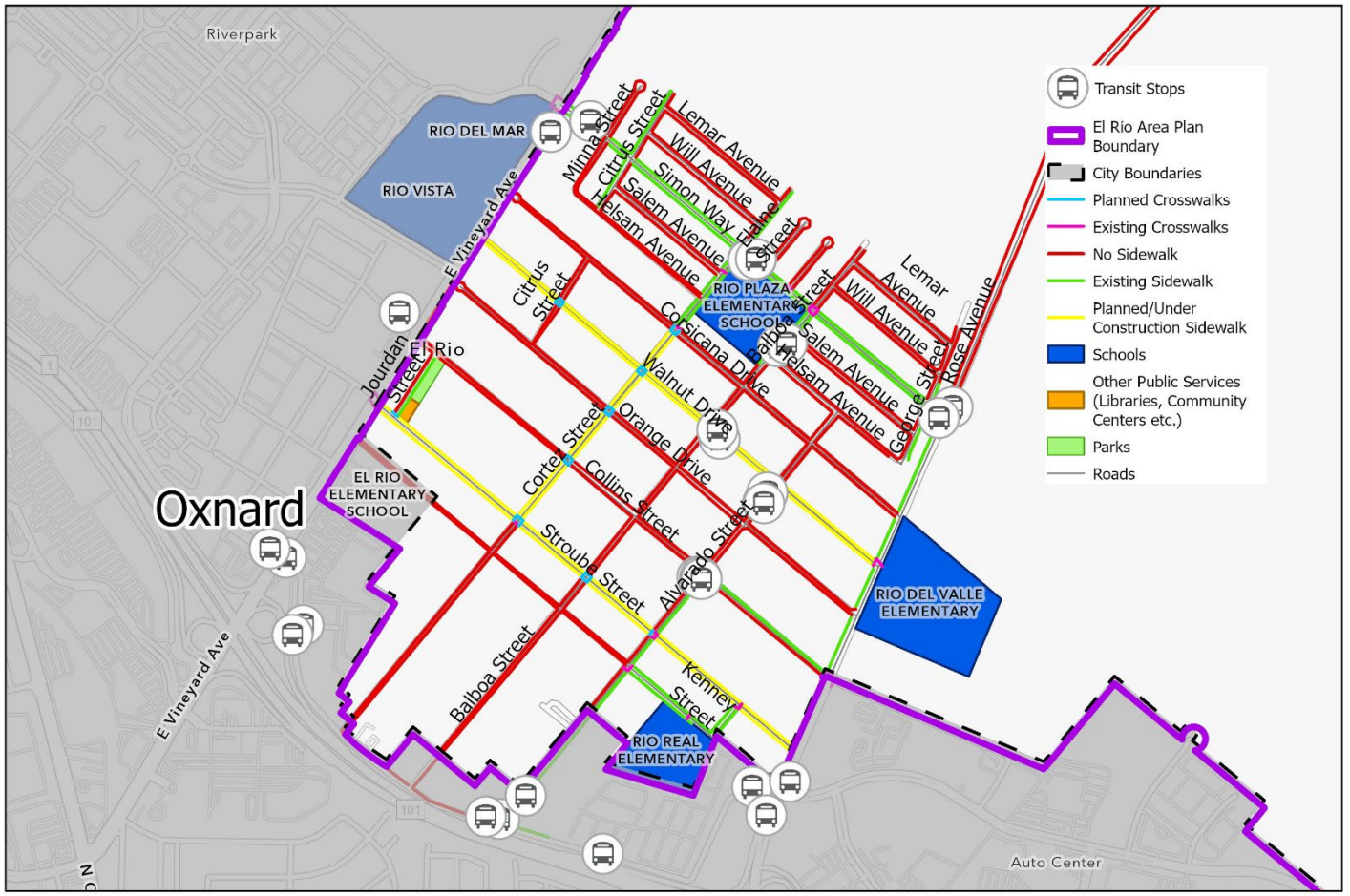

Figure 1

Strickland Pedestrian Network

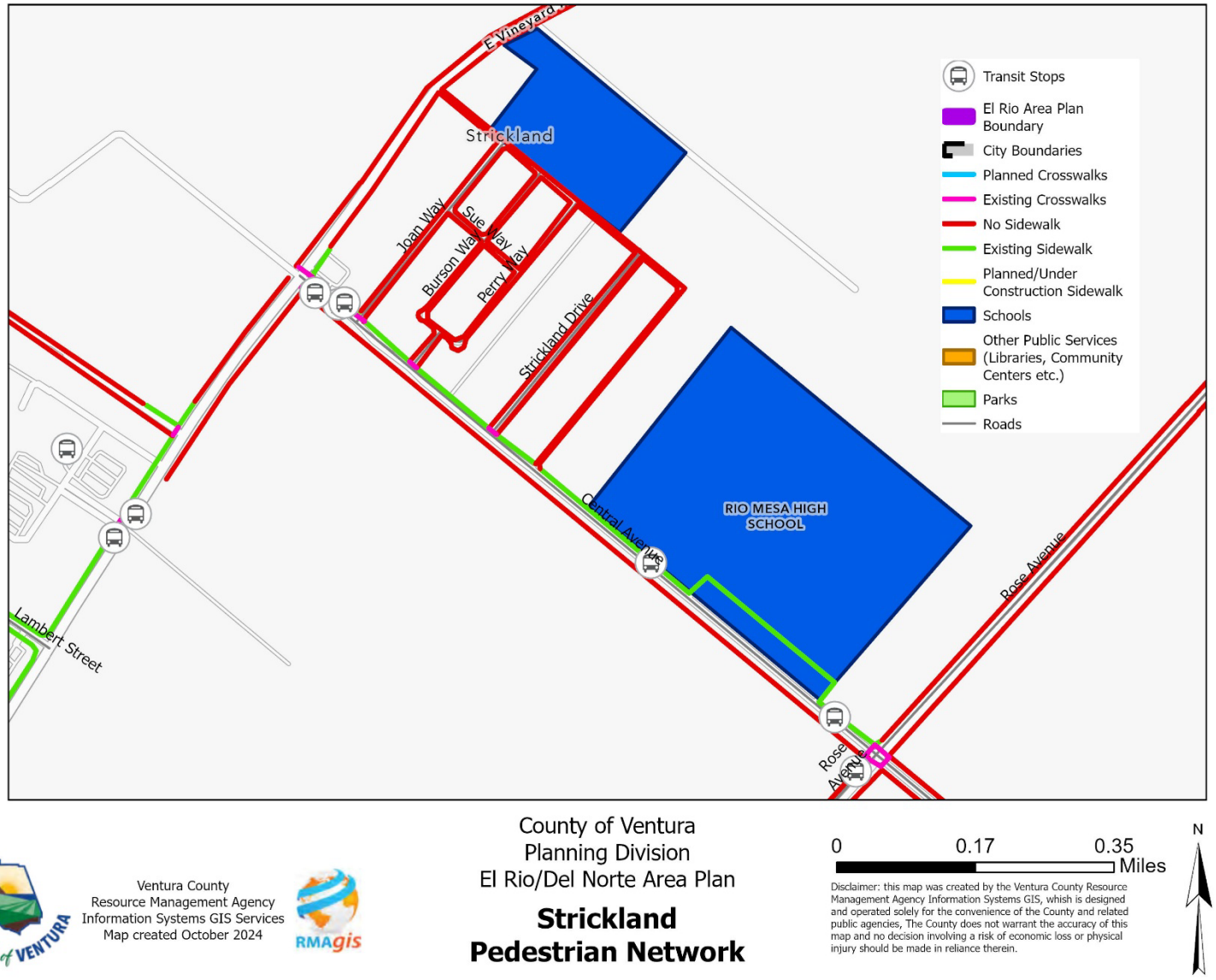

Figure 2

Ventura County
Resource Management Agency
Information Systems GIS Services
Map created October 2024

County of Ventura
Planning Division
El Rio/Del Norte Area Plan

Industrial Area Pedestrian Network

0 0.15 0.3 Miles

N

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Figure 3

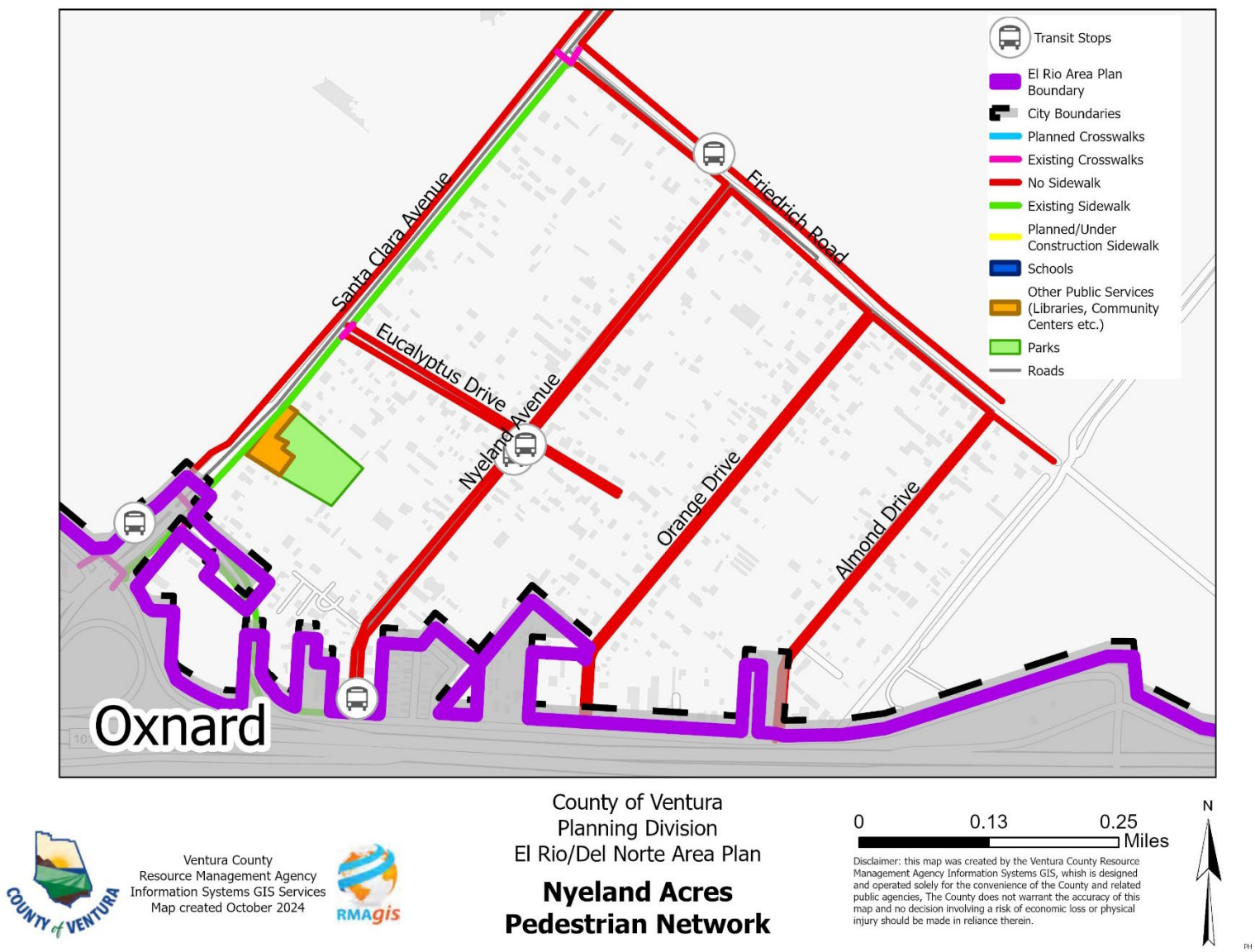
Transit Stops
El Rio Area Plan Boundary
City Boundaries
Planned Crosswalks
Existing Crosswalks
No Sidewalk
Existing Sidewalk
Planned/Under Construction Sidewalk
Schools
Other Public Services (Libraries, Community Centers etc.)
Parks
Roads
Santa Clara Avenue
Friedrich Road
Eucalyptus Drive
Nyeland Avenue
Orange Drive
Almond Drive
Oxnard
Ventura County
Resource Management Agency
Information Systems GIS Services
Map created October 2024
RMAgis
County of Ventura
Planning Division
El Rio/Del Norte Area Plan
Nyeland Acres
Pedestrian Network
0
0.13
0.25
Miles
N
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Figure 4

Appendix D

Bicycle Network Maps by Neighborhood

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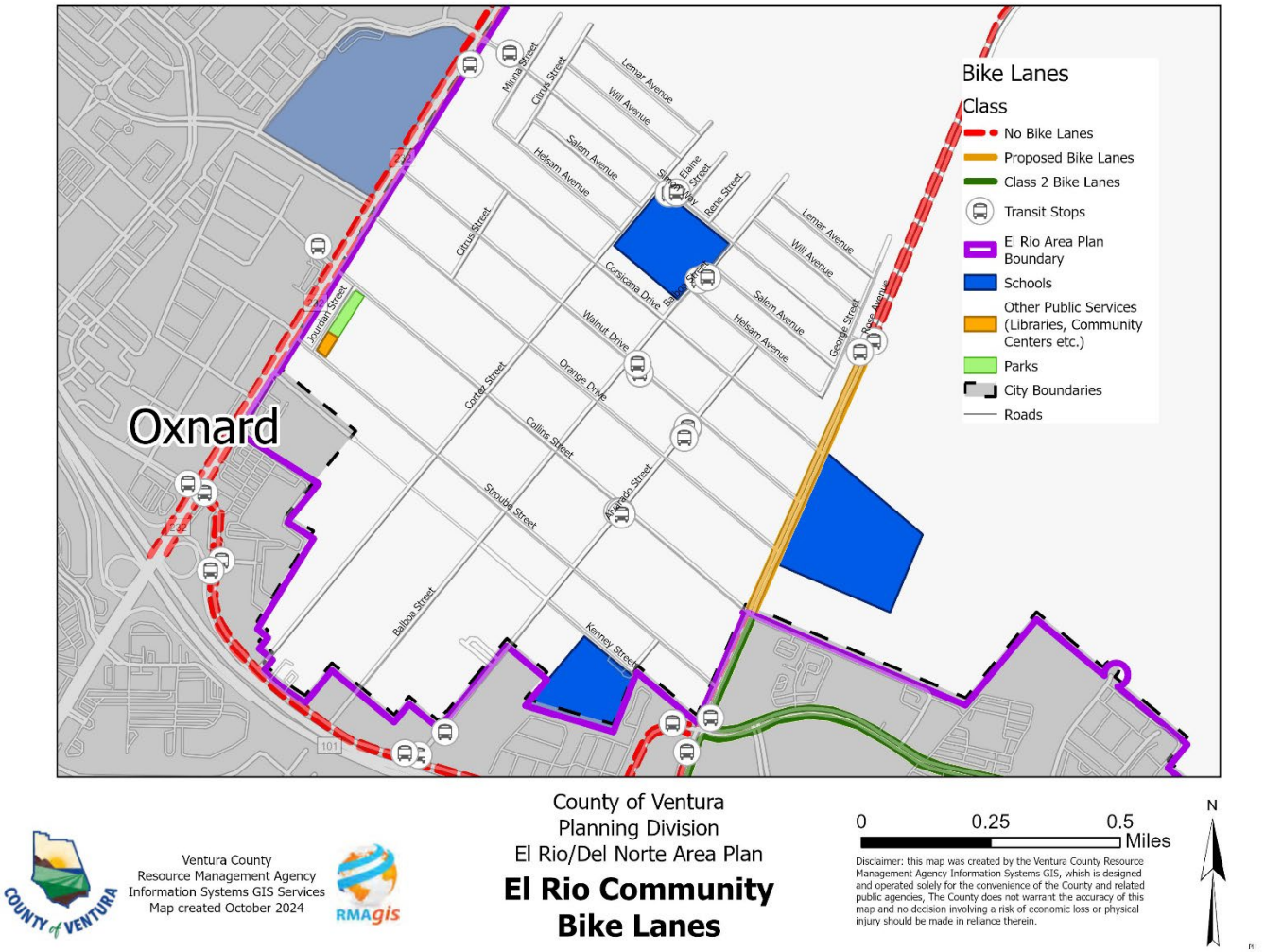
El Rio Bicycle Network



Ventura County
Resource Management Agency
Information Systems GIS Services
Map created October 2024

County of Ventura
Planning Division
El Rio/Del Norte Area Plan

El Rio Community Bike Lanes

Figure 1

Strickland Bicycle Network

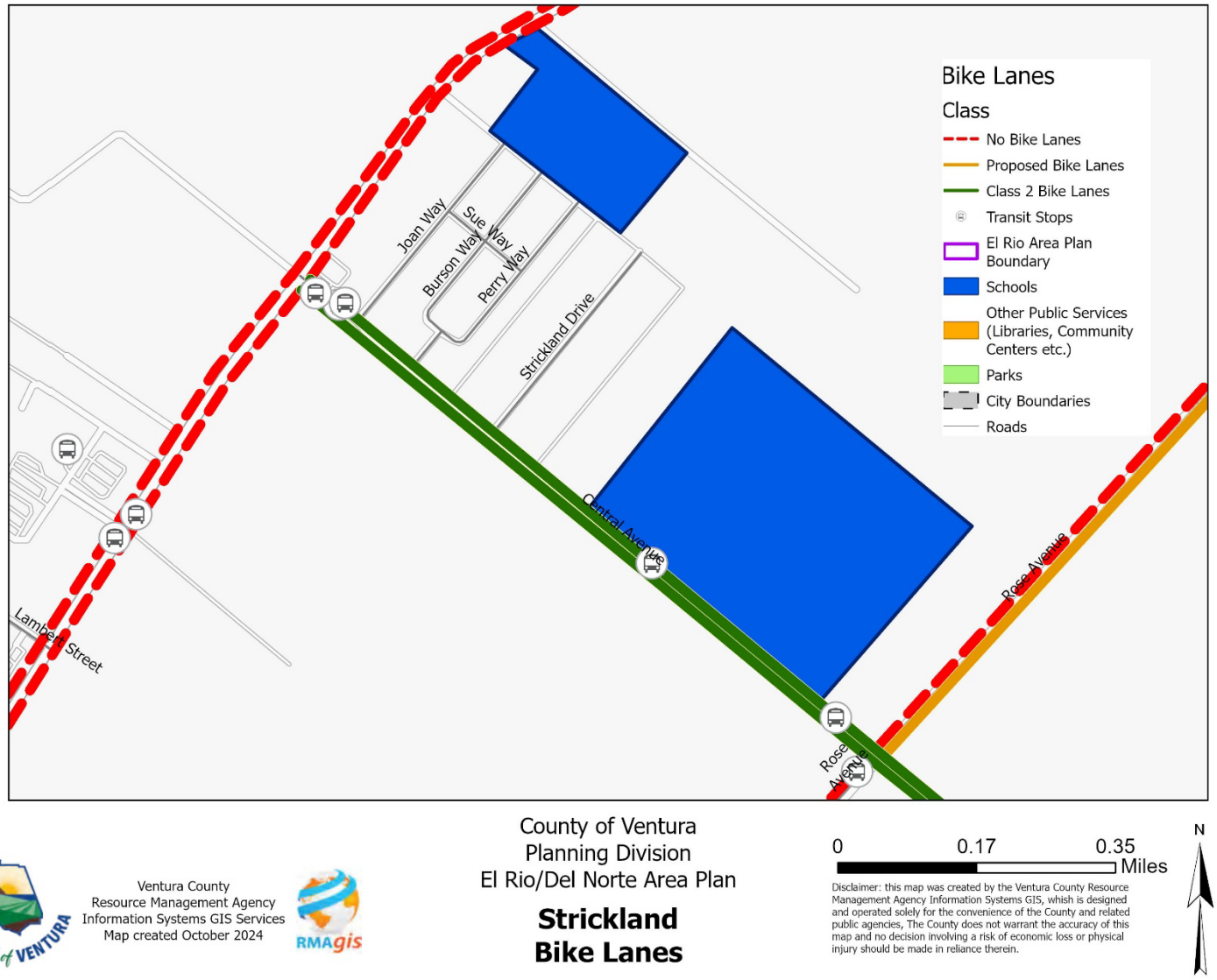


Figure 2

Del Norte Industrial Center Bicycle Network

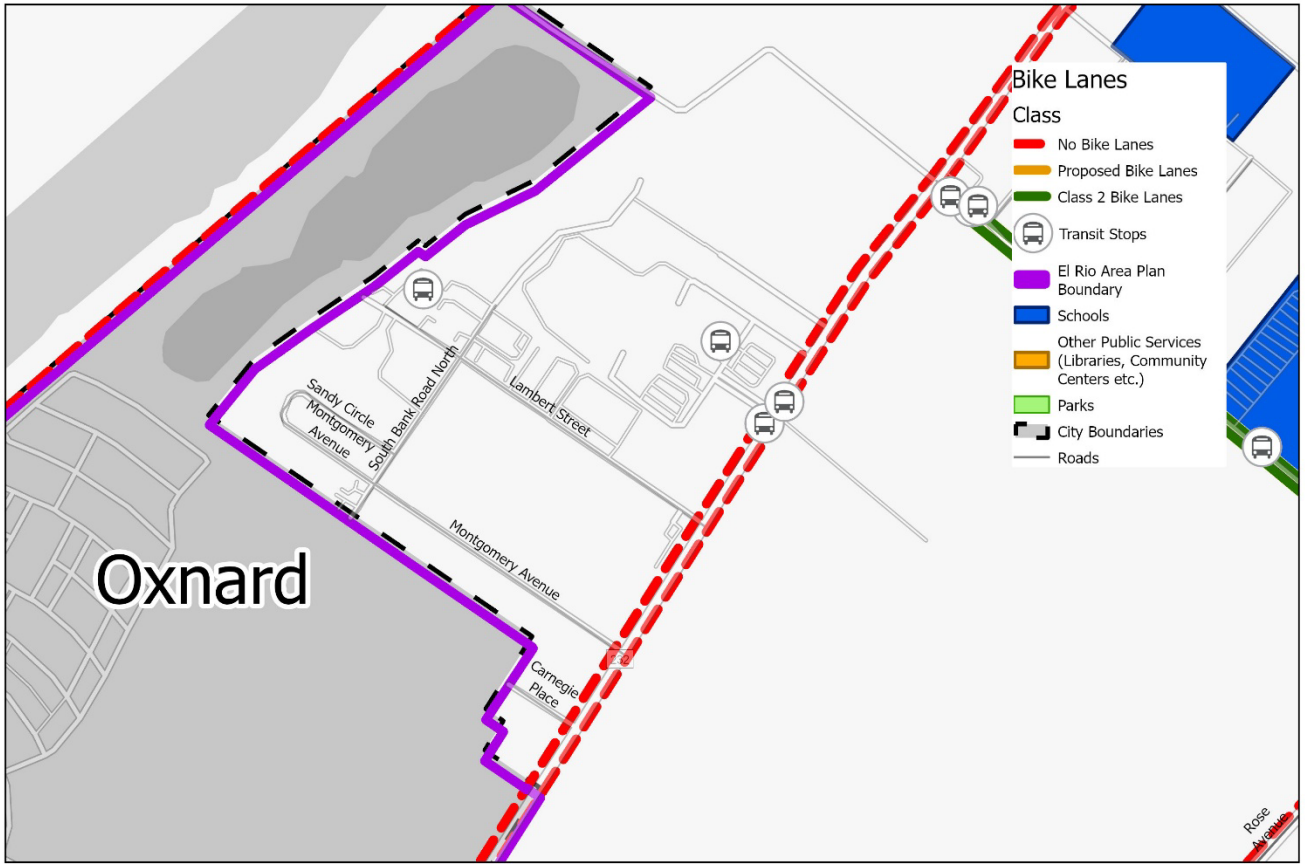


Figure 3

Nyeland Acres Bicycle Network

Figure 4

Appendix E

Transit Network Maps

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Gold Coast Transit – Route 15

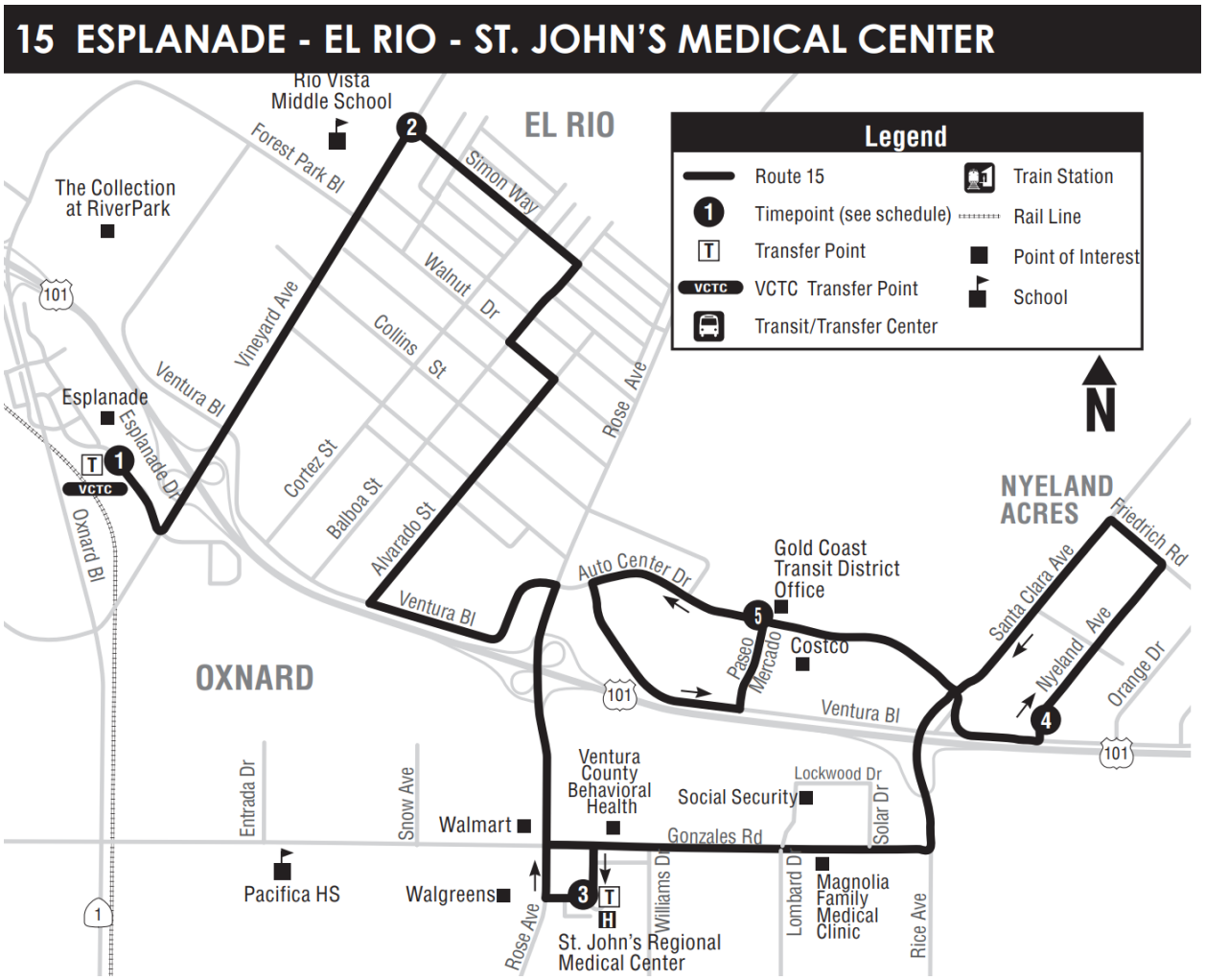

Figure 1. Gold Coast Transit Route 15 Map. Source: Gold Coast Transit.

Gold Coast Transit – Route 17

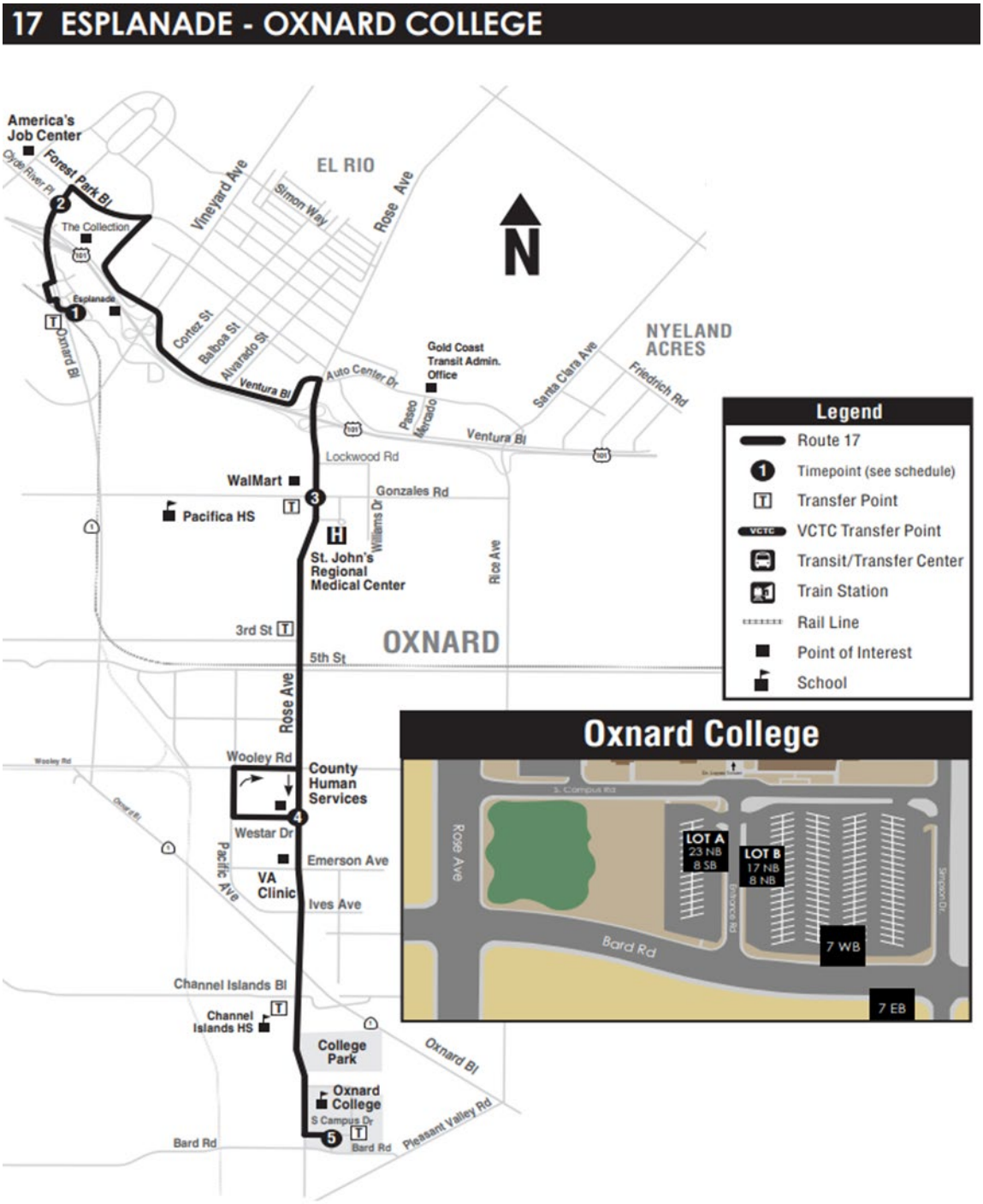

Figure 2. Gold Coast Transit Route 17 Map. Source: Gold Coast Transit.

Gold Coast Transit – Route 18G

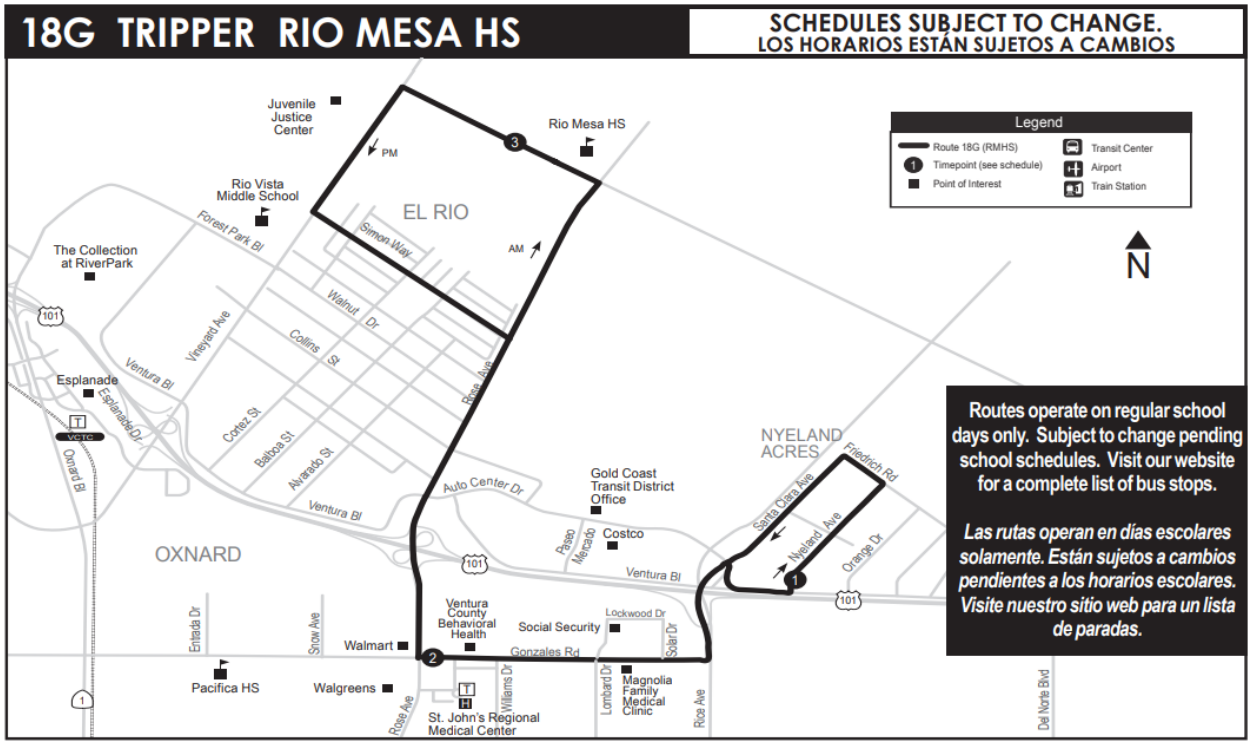

Figure 2. Gold Coast Transit Route 18G. Source: Gold Coast Transit.