



RIO VISTA

CALIFORNIA



Photo Credit: Rio Vista Downtown Association, Solano Open Space, Good Sam, Noah Berger from The Standard

Community Resilience Building

Summary of Findings

October 2025



City of Rio Vista, California

Community Resilience Building

Summary of Findings

Overview

The need for municipalities, counties, states, and federal agencies to increase resilience to extreme weather events and a changing climate is strikingly evident amongst the communities across the state of California. Recent events such as severe wildfires, extreme precipitation events, high winds, and extended heat waves have reinforced this urgency and compelled leading communities like the City of Rio Vista to proactively collaborate on planning and developing actions that mitigate risks and enhance resilience across their municipality. Ultimately, this type of leadership is to be commended because it will reduce the vulnerability and reinforce the strengths of people, infrastructure, and ecosystems and serve as a model for other communities in California and across the Nation.

Recently, Rio Vista agreed to partner with Sustainable Solano and The Nature Conservancy on collaboratively launching a community-based process to assess air quality, extreme weather and climate change impacts and to generate and prioritize solutions that improve resiliency, sustainability, and equity for their community. In October 2025, the Rio Vista Core Team hosted a workshop as part of the Community Resilience Building process that was facilitated by The Nature Conservancy. The core directive of this effort was the engagement with and between community members to define strengths and vulnerabilities and the development of priority resilience and sustainability actions for the City of Rio Vista.

The Rio Vista Community Resilience Building Workshop's central objectives were to:

- Define top local, natural, and climate-related hazards of concern.
- Identify existing and future strengths and vulnerabilities.
- Identify and prioritize actions for the City of Rio Vista.
- Identify opportunities to collaboratively advance actions to increase resilience individually or via partnerships amongst municipal and county departments, residents, and organizations from across the City and beyond.

Rio Vista employed an “anywhere at any scale”, community-driven process called Community Resilience Building (CRB) (www.CommunityResilienceBuilding.org). The CRB’s tools, reports, other relevant planning documents, and local maps were integrated into the workshop process to provide both decision-support and visualization around shared issues and existing priorities across Rio Vista. The Rio Vista 2045 General Plan Update (2025) and the Rio Vista Jurisdictional Annex as part of the Solano County Multi-Jurisdictional Hazard Mitigation Plan (2021) were particularly instructive as references and map resources. Using the CRB process, rich with information, experience, and dialogue, the participants produced the findings presented in this summary report. This summary report includes an overview of the top hazards, current concerns and challenges, existing strengths, and proposed actions to help improve Rio Vista’s resilience to hazards and climate change today, and in the future.

The summary of findings transcribed in this report, like any that concerns the evolving nature of risk assessment and associated action, is offered for comments, corrections and updates from workshop attendees and other stakeholders alike. The leadership displayed by the City of Rio Vista on community resilience building will benefit from the continuous participation of all those concerned.

Summary of Findings

Top Hazards and Vulnerable Areas for the Community

Prior to the CRB Workshop, the Rio Vista CRB Core Team identified top hazards for the City of Rio Vista. The hazards of greatest concern included flooding from higher tides coupled with major precipitation events, declining air quality, sea level rise, and wildfire. The impacts from wildfire were expressed as both reduction in air quality and the threat of localized grassfires in association with high wind events. Additional hazards mentioned and discussed during the workshop included intense and extended heat waves and associated droughts. These hazards have direct and increasing impacts on the infrastructure, community members, and environment including neighborhoods, open spaces/natural areas, roads, riverfront and levees, housing, local businesses, municipal facilities, schools, churches, social support services and other critical infrastructure and community assets.

Current Concerns and Challenges Presented by Hazards

The Rio Vista community has several concerns and faces multiple challenges related to the impacts of natural hazards and climate change. In recent years, Rio Vista has experienced a series of highly disruptive and damaging weather events including the 2017 Labor Day weekend heat wave, state-wide droughts (2012-2016), October 2017 wildfires, and December 2024 flood (flooding at City Hall) as well as other less impactful, but more frequent events (see Rio Vista Jurisdictional Annex as part of the Solano County Multi-Jurisdictional Hazard Mitigation Plan (2021)). Impacts from these events have included reduced air quality, rain-induced, localized flooding, high wind events, flooding along the riverfront, and heat waves that have knocked out power, isolated community members, closed facilities, and damaged property. The magnitude and intensity of these events and others across Rio Vista, Solano County, and the state of California have increased awareness of natural hazards and climate change, while motivating communities such as Rio Vista to proactively and comprehensively improve their resilience and sustainability for the longer term.

This series of extreme weather events coupled with a changing climate, highlights that the impacts from hazards are diverse: ranging from poor air quality from wildfires that threaten the health of community members; direct wildfire threats surrounding Rio Vista on three sides; sea level rise and flooding along the riverfront; and localized flooding from stormwater runoff during intense storms and heavy precipitation events. Longer periods of elevated heat, particularly in July and August, have raised concerns about vulnerable segments of the City's population as well as the availability of drinking water during more and more frequent droughts. The combination of these issues presents a challenge to preparedness and mitigation priorities and requires comprehensive, yet tailored actions for specific locations and/or areas across Rio Vista.

The workshop participants were generally in agreement that Rio Vista and the entire Bay Area are experiencing more intense and frequent weather events that are being amplified by ongoing changes in the climate. Additionally, there was a general concern about the increasing challenges of being prepared for multiple and potentially overlapping worst case scenarios at any time of year.

Specific Categories of Concerns and Challenges

As in any community, Rio Vista is not uniformly vulnerable to hazards and climate change. Certain locations, assets, and populations have been and will be affected to a greater degree than others. Workshop participants identified the following items as their community's key areas of concern and challenges across several broad categories.

Municipal Functions, Operations, & Growth:

- Growing and aging population in Rio Vista raises concerns that the community's health, medicine, and social services are underserved. Over fifty percent of the Rio Vista population are within typical age range for retirement (i.e., average age 64.7 years old) and approximately 6,000 residents residing within the two 55+ communities in Rio Vista.
- General sense amongst residents that Rio Vista's community health and medical needs are being forgotten by the health care field as compared to other communities in Solano County and beyond.
- Concerns with access to healthcare and social services, with the nearest hospital in Fairfield and Antioch being thirty minutes away by ambulance. Travel to Antioch requires unimpeded traffic across the Helen Madere Bridge, which can be delayed when the bridge is raised for maritime traffic.
- Health care companies in the area (Kaiser Permanente, North Bay) not currently able or interested in funding the development of a hospital facility in or closer to Rio Vista.
- Rio Vista has high rates of asthma and cardiovascular issues (86th percentile for emergency room visits across California counties), both of which are exacerbated by poor air quality.
- Increased incidents of health issues amongst elderly members of the community due to air quality coupled with extended heat waves.
- Traffic congestion and idling vehicles on the Helen Madere Bridge and Highway 12 results in further declines in air quality and increased health risks for the Rio Vista community.
- The clean air center at the Rio Vista Library cannot meet the community's needs during poor air quality events.
- Current level of parental engagement and involvement in programs and events through the Rio Vista School System.
- Walkability and connectivity to the downtown core along Highway 12 is not satisfactory for use by residents due to the lack of appropriate pedestrian infrastructure.

Specific Categories of Concerns and Challenges (cont'd)

- Many working residents are forced to find jobs away from Rio Vista which can result in longer commutes and less volunteer time for community participation (“parents leave at 7am and return home at 7pm due to bridge traffic”).
- Helen Madere Bridge is recognized by the community as one of the largest vulnerabilities during closures due to the loss of revenue to businesses in the Downtown and challenges to employees trying to get in and out of Rio Vista for work.
- Despite floodgates being closed at high tide and during heavy precipitation events coupled with sandbagging around the doors, City Hall experiences flooding that causes damage (i.e., flood event early in 2025).
- Power outages are frequent and disruptive causing businesses to close due to frequent blackouts (“businesses are losing money because of ongoing power outages”).
- Rio Vista High School does not have a back-up generator and must close during power outages.
- Helen Madere Bridge (built in 1958) bisects school districts which can affect busing schedules and arrival times for students during periods of bridge closure by California Department of Transportation (CalTrans) or ongoing traffic congestion.
- Repairs and upgrades to Highway 12 and the Helen Madere Bridge are out of local control and the responsibility of the CalTrans. Comprehensive repairs will require two CalTrans Districts to coordinate with one District managing Highway 12 on one side of the river with the Bridge being managed by another District. This results in Rio Vista losing business and poses challenges for events planned many months before the closures.

Emergency Management & Preparedness:

- Emergency evacuation from Rio Vista is hampered by the traffic congestion concerns presented by Helen Madere Bridge.
- Closest hospital are in Fairfield and Antioch and they are not easily accessible from Rio Vista during medical emergencies without a medivac.
- Concerns regarding limited access and egress via the single entrance and exit at the Trilogy 55+ development.
- Increasing concerns about the wildfire risk within and across open spaces surrounding Rio Vista and the impacts wildfire would have if access to Highway 12 was cut off.

Specific Categories of Concerns and Challenges (cont'd)

- Evacuation routes not well marked or publicized widely including the alternative evacuation route along McCormack Drive to Highway 113 and Montezuma, which avoids the use of the busier and more congested Highway 12.
- Growing concerns about the risk of wildfires with Rio Vista being surrounded on three sides by open space with extensive dry grasslands coupled with consistently high winds. Designated Fire Zone approaches the Trilogy 55+ development and proposed future adjoining developments. Montezuma Fire Department is responsible for wildfires in the unincorporated areas around Rio Vista.

Roads & Road Networks, Bridges, Rail Lines, Ferry & Floodgates:

- One main road coming in and out of Rio Vista (State Highway 12) with heavy volumes of truck traffic. This trucking route is preferred because it avoids Bay Area traffic to the south and eliminates 70 miles of travel along Interstate 80 to connect to Highway 5.
- Ongoing issues with the condition of the roadways in certain areas of Rio Vista and the lack of revenue to repair and maintain roads due to a static year-over-year tax revenue.
- Airport Road does not connect directly to the downtown core area.
- Unsafe crossings and limited left turn arrow options for motorists result in risky situations for children looking to cross Highway 12 to get to school safely.
- McCormack Road will be paved from Rio Vista to Highway 113 but is currently unsafe and risky for non-off road vehicles.
- River Road floods after major precipitation events and king tides and has no shoulder or guardrail along the river which has resulted in a vehicle being swept into the river several years ago.
- Helen Madere Bridge (Highway 12 no longer accommodates the modern societal and commerce needs of Rio Vista and adjoining areas. Bridge serves both automobile and maritime traffic and therefore requires the lifting of the central portion of the bridge to allow ships to pass through, which results in long waits for automobile and truck traffic on this 2-lane bridge highway ("Bridge is the bane of our existence in Rio Vista"). There have been 5-6 bridge closures in 2025 that can last for fifty-five hours or more each time, which is significantly disruptive to the community.
- Concerns that the proposed opening of the Little Egbert Railroad Track north to Sacramento will increase the amount of localized flooding in Rio Vista.
- California Transportation ferry is often disabled due to mechanic issues and therefore not operating.

Specific Categories of Concerns and Challenges (cont'd)

- Floodgates become compromised during heavy precipitation events that coincide with king tide events resulting in flooding of the Downtown area among other locations.

Wastewater Treatment Systems, Drinking Water Supply, & Stormwater Systems:

- Aging and inadequate stormwater drainage system results in localized flooding of streets and buildings in certain areas of Rio Vista. Areas of particular concern include buildings on and near Main Street, within the Edgewater area, and on River Road to the north side of the Helen Madere Bridge.

Watersheds, Wetlands, Rivers, & Open Space:

- Low tree canopy across Rio Vista resulting in missed opportunities to reduce ambient air temperatures, improved air quality conditions, and increase the beauty of the community.



Credit: Rio Vista Chamber of Commerce



Credit: KQED



Credit: KQED

Current Strengths and Assets

Just as certain locations, facilities, and populations in Rio Vista stand out as particularly vulnerable to the effects of hazards and climate change, other features are notable assets for Rio Vista's resilience building. Workshop participants identified the following items as their community's key strengths and expressed interest in centering them as the core of future resilience-building actions.

- Clearly, the responsive and committed engagement exhibited by leadership, staff, and residents is a very appreciated strength within and across Rio Vista. Ongoing collaboration between municipal staff, committee/commission/board volunteers, business owners, non-government organizations, faith-based entities, and various county- and state-level departments and organizations, among others, on priorities identified herein will help advance comprehensive, cost-effective, community resilience building actions.
- Leadership by the current administration is positively recognized and is generally greatly appreciated throughout the community. Leadership is easily accessible and responsive to community needs, which helps to foster a community-centered approach to managing Rio Vista.
- Community resilience building is in its infancy in Rio Vista, but it is recognized as a necessary step towards strengthening the municipality going forward given all the reality of shifts in climate and natural hazards.
- Strong community network with well-connected neighborhoods where residents check in on each other to make sure everyone is safe and secure (community members are connected”).
- Engaged and supportive network of non-profit organizations (upwards of thirty-five different organizations) provide opportunities for residents to volunteer in ways that help the community of Rio Vista.
- Rio Vista Museum and Dutra Museum helps to maintain a strong sense of community identity and place amongst residents and visitors alike.
- Rio Vista Library was identified as a significant asset with resources, education outreach, programs, and training available for the community.

Current Strengths and Assets (cont'd)

- City Council has agreement to initiate the creation of green belts and increased tree canopy along streets from neighborhoods to the downtown core/center (“we need to be surrounded by open space and connected by tree-lined streets”).
- Ongoing discussions amongst City and organizations such as the Rotary Club, Rio Vista Roots, Sustainable Solano, and RioVision among others, to improve the tree canopy and shade structures from the Liberty development to the downtown as well as other locations.
- Residents and visitors have access to outdoor recreation opportunities in Rio Vista from the municipal pier to nature walks and campsites across the City.
- Airport Road is an important thoroughfare that runs adjacent to senior living communities (i.e., Trilogy 55+) and connects to other new and future communities. Roadway includes pedestrian paths and is now becoming tree-lined due to efforts of Sustainable Solano and volunteer community members from Rio Vista.
- Rio Vista is relatively affordable compared with the region and still has a small-town feel.
- Downtown area improvements are focused on walkability and easy access to shopping and groceries.
- Safe neighborhoods that have accessible pedestrian and biking paths for the most part.
- Two Fire Departments, with one primarily serving Solano County and the other servicing Rio Vista.
- Fire Departments are recognized as being effective and quick in responding to and containing residential fires and wildfires in open spaces around the City.
- Rio Vista Police and Fire Departments conduct outreach to residents of both Trilogy 55+ and Summit/Liberty on emergency management preparedness.
- Rio Vista owns and operates a city-owned airport (no commercial, just private recreational use).
- Department of Public Works (DPW) is responsive to community needs in a timely manner. Examples provided included the response of DPW during the flooding event at City Hall in 2024 as well as delivering groceries to housebound residents during the COVID-19 pandemic.

Current Strengths and Assets (cont'd)

- Community-based Transportation Plan for Rio Vista was completed in 2025.
- Alert Solano app notifies residents of issues during emergency events with the City organizing and controlling the messaging through the app although the County Emergency Management Agency can also send messages, as deemed necessary. App is paid for by Solano County and made available to all municipalities in the County.
- Strong and well used social media presence across Rio Vista via the City's Facebook page and an app called Next Door with over 10k members. City Departments, including Police and Fire, post to social media pages to share updates on ongoing events and issues.
- Downtown core along Main Street has a rapid and effective informal exchange of information typically via word of mouth between residents and business owners.
- Local, weekly newspaper sent to most households has an eighty percent read rate including a weekly crime log and community updates on events and ongoing of note.
- Back-up generators are installed, maintained, and operating at the City Hall, Police Department, and Fire Department. The Fire Department is the designate Emergency Operation Center for Rio Vista.
- Rio Vista Library serves as a community cooling center during heat waves.
- Lira's Grocery has a back-up generator so residents can continue to shop during power outages.
- Electrical lines within the Trilogy 55+ development are buried which has reduced the threat of power outages due to wind damage on above-ground lines.
- In advance of weather events that may cause flooding, municipal staff deploy water pumps along River Road.
- Community golf course within the Trilogy 55+ development was built within the floodplain and continues to retain and infiltrate floodwaters with excess water being diverted via culvert back to the Sacramento River. Golf course helps to prevent flooding in adjoining homes within the development ("golf course built strategically").
- North Bay is in the process of bringing a primary and acute care center to Rio Vista.
- Sandy Beach camping area is a much-loved park near Rio Vista that is managed by Solano County.

Current Strengths and Assets (cont'd)

- Active local farmers market for residents as well as a seed exchange available at the Rio Vista Library.
- United States Coast Guard facility is located near Rio Vista and is regarded as an asset to the community.
- Ongoing efforts to reduce upsets at the Beach Wastewater Treatment Plant. Current plant on the river waterfront will be consolidated into a new facility by 2030, which requires increased water a sewer fees for Rio Vista residents and businesses to fund.



Credit: homes.com



Credit: Noah Berger/The Standard



Credit: shasta-cnps.org

Recommendations to Improve Resilience

A common theme among workshop participants was the need to continue community-based planning efforts focused on developing adaptive measures to reduce Rio Vista's vulnerability to extreme weather, climate change and other common concerns raised. To that end, the workshop participants helped to identify several priority topics requiring more immediate and/or ongoing attention including:

- **Long-term vision and growth** (i.e. responsible/sustainable growth, volunteerism, conservation & recreation, air quality, economic development, local health care access);
- **Infrastructure improvements** (i.e. roads/bridge, stormwater management systems, pedestrian/bike infrastructure, wastewater treatment, facilities (cooling/clean air);
- **Quality of life improvements** (i.e. parks and recreation, open space & access, sustainability, health & safety, economic prosperity, air quality, education);
- **Emergency management** (i.e. communications, outreach, education, continuation of services, evacuation, vulnerable populations, wildfire).

In direct response, the Community Resilience Building workshop participants developed the following actions and identified, but did not rank, them as priority or as additional actions. Problem statements and mitigation actions from the Rio Vista Jurisdictional Annex as part of the Solano County Multi-Jurisdictional Hazard Mitigation Plan (2021) are provided in Appendix A for cross-reference. Maps provided during the CRB Workshop gathered from the Rio Vista Jurisdictional Annex and the Rio Vista 2045 General Plan Update (2025) are provided in Appendix B.

Priority Actions

- Implement city-wide tree planting and maintenance program that prioritizes the connections between surrounding neighborhoods and senior living developments to the Downtown area of Rio Vista.

Priority Actions (cont'd)

- In areas of high emissions along larger roadways through the City plant high density strips or vegetative air buffers of trees and shrubs to help filter out automobile exhaust at the source.
- Strengthen the reliance of local restaurants and groceries on local farmers and farm markets to help increase health diets amongst residents and grow local agricultural businesses. Support this by creating a city-wide food map that can help residents find healthy, locally grown food options all year round (“healthy choices – better choices”).
- Look to support and expand stronger health and preventative care educational opportunities for residents of Rio Vista.
- Continue to work on making the case for and building partnerships with medical service providers that will enable the establishment of medical facilities in Rio Vista.
- Explore the potential for establishing Resilience Center(s) in Rio Vista that can serve as warming, cooling, and clean air centers as well as centralized charging stations and information exchange hubs for residents during major events.
- Revisit and improve messaging around the need for improvements to the City’s stormwater drainage system coupled with a community engagement campaign to ensure residents realize the flood risk and costs to the City if improvements are not completed in the short term. Follow this public outreach with a voting mailer to each property owner in hopes of introducing a new stormwater drainage fee to cover necessary improvement costs over time (“storm drain fee”).
- Create a Rio Vista fridge magnet for residents of Rio Vista that has all the critical phone numbers, contact information, and website (among other information) in one center location in people’s homes. Coordinate development of magnets with appropriate departments and public health and emergency management staff at Solano County.

Priority Actions (cont'd)

- Continue advocating for fixes to the Helen Madere Bridge (i.e., bridge replacement to reduce need to accommodate marine traffic, lane expansion and upgrade to Interstate, etc.) through state-level elected officials as well as direct communication and discussions with CalTrans.
- Identify a project to apply to the California Transportation Active Transportation grant program that will help reduce the impacts of Highway 12 through Rio Vista (e.g., pedestrian access and safety, bike lanes, etc.).
- Repave McCormack Road to serve as an alternate route for motorists wanting to avoid truck traffic in Rio Vista.

Additional Actions

- Continue to work with Sustainable Solano, Solano County Public Health, and other organizations to look for ways to improve the air quality issues across the city of Rio Vista.
- Work to better coordinate and synchronize messaging between Alert Solano, social media outlets (Facebook, Next Door), and the local weekly newspaper via discussions between the responsible staff and community members within the City as well as the County. In addition, look to increase the training and awareness around the use of Alert Solano to help improve effectiveness of system.
- Improve clarity, communication, and signage about and for evacuation routes that should also include a focus on McCormack Drive to Highway 113 and Montezuma as an alternative evacuation route to Highway 12.
- Look to improve the existing pedestrian and bike pathway or routes between neighborhoods in Rio Vista with the downtown area including improving the safety of crossing Highway 12. Roads of particular interest for improvements include Paris Road, Church Road, Harris Road, Airport Road, and St. Francis Road, which all connect to the downtown area.
- Continue to explore options to incentivize infill development to better connect fragmented sections of the City.
- Look for additional funding to support bus service demands via Delta Breeze where 80-85% of all regional bus trips originating in Rio Vista are for residents taking care of health care needs at medical facilities in the neighboring city of Fairfield.
- Conduct a roundtable to identify potential approaches and strategies to attract and retain business and other commerce-related enterprises (i.e., medical facility, casino, retail, hospitality, etc.) that could help to expand and increase tax revenue and local jobs within Rio Vista.

Additional Actions (cont'd)

- Engage with the local Yocha Dehe Wintun Nation in an inclusive, community-based discussion to explore joint opportunities to economic connections.
- Repaint sidewalks and parking lots associated with schools to help reduce ambient air temperatures for students, faculty, staff, and families.
- Examine Community Resilience Building Summary of Findings from neighboring municipalities (i.e., Suisun City) to find areas of common interest, shared value, and capacity availability to begin creating regional partnerships and networks to collaboratively tackle issues.
- Look to redo this Community Resilience Building process in five years as a stand-alone and/or integrated as part of updates to future plans and project for Rio Vista.



Credit: Elk Grove Historical Society

CRB Workshop Participants: Department/Organization

City of Rio Vista – Office of the Mayor
City of Rio Vista – City Councilmember
City of Rio Vista – Public Works Department
City of Rio Vista – Planning Commission
City of Rio Vista – Parks and Recreation Commission
River Delta Unified School District
Rio Vista Library
Rio Vista Delta Breeze
Rio Vista Roots
Rio Vista Residents
Sustainable Solano
Solano County – Public Health Department
Solano County – Emergency Services

Rio Vista Core Project Team

Will Gruver – Program Manager Resilient Communities - Sustainable Solano

Edwin Okamura – Mayor – City of Rio Vista

Krystine Ball – Public Works Program Manager – City of Rio Vista

Vicky Turk – Administrator - River Delta Unified School District

Chrissy Langlois – Parks & Rec Commission Chair – City of Rio Vista – Rio Vista Roots

Online CRB Workshop Facilitation Team

The Nature Conservancy - Adam Whelchel, Ph.D. (Lead Facilitator)

The Nature Conservancy – Drew Goldsman (Small Group Facilitator)

Sustainability Consultant – Cami Sockow (Small Group Facilitator)

The Nature Conservancy – Nora Clark (Scribe)

The Nature Conservancy – Tebben Gill Lopez (Scribe)

The Nature Conservancy – Anjali Khanna (Scribe)

The Nature Conservancy – Malik Neron (Scribe)

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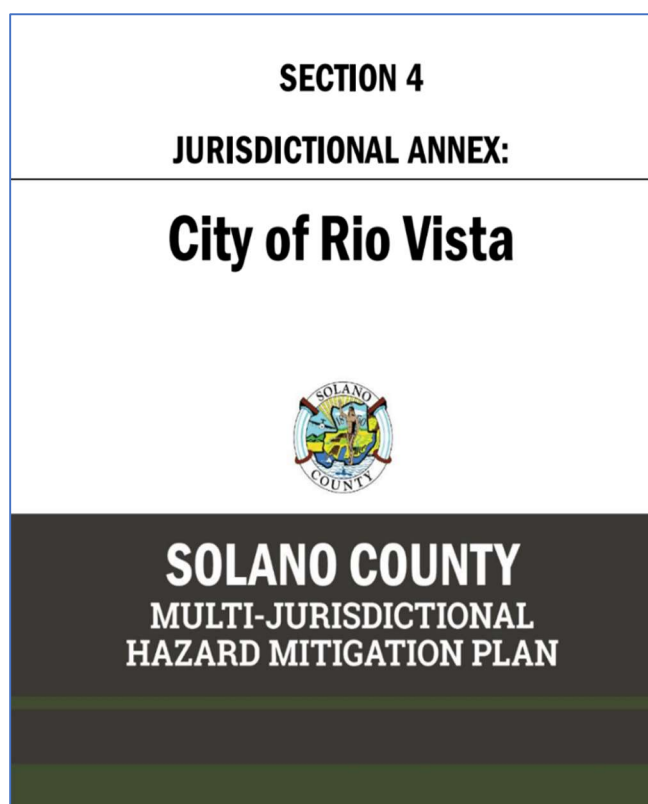
Appendix A

City of Rio Vista

Problem Statements

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Mitigation Actions*



***Gathered from the Rio Vista Jurisdictional Annex as part of the Solano County Multi-Jurisdictional Hazard Mitigation Plan (2021).**

Problem Statements

Table 4-10: Problem Statements

Problem No.	Hazard Type	Area of Concern	Mitigation Alternatives	Primary Agency	Problem Description	Related MA
ps-EW-RV-6	Extreme Weather	Threat	PPRO - Property Protection	City of Rio Vista	The City experiences high winds, which could exacerbate fires.	ma-EW-RV-108, ma-WF-RV-112
ps-WF-RV-7	Wildfire	Impact	PRV - Prevention, PPRO - Property Protection	City of Rio Vista	There is a threat of wildfire around the city due to standing grain, a prevalent fuel.	ma-WF-RV-112, ma-WF-RV-113
ps-DR-RV-8	Drought/Climate Change	Threat	PE&A - Public Education & Awareness, SP - Structural Projects	City of Rio Vista	The city depends on groundwater for domestic water use, which could be impacted by drought. Droughts are likely to become more frequent and persistent with climate change.	ma-DR-BN-106
ps-FL-RV-9	Flood	Impact	PPRO - Property Protection, SP - Structural Projects	City of Rio Vista	Flooding from the Sacramento River is a particular concern, especially to the city hall area; the boat ramp just behind city hall is susceptible to floodwaters.	ma-FL-RV-109
ps-FL-RV-10	Flood	Impact	PPRO - Property Protection, SP - Structural Projects	City of Rio Vista	Edgewater Drive is a residential area with a high flood risk.	ma-FL-RV-110, ma-FL-RV-109
ps-FL-RV-11	Flood	Impact	SP - Structural Projects	City of Rio Vista	The city has some floodwalls, but its not certain whether they are certified or they would be sufficient in the event of a large flood.	ma-FL-RV-109
ps-FL-RV-12	Flood	Impact	SP - Structural Projects	City of Rio Vista	The stormwater system is not holding up well and a heavy flood could compromise it.	ma-FL-RV-110
ps-EQ-RV-13	Earthquake	Impact	PPRO - Property Protection, PE&A - Public Education & Awareness, SP - Structural Projects	City of Rio Vista	The City has older buildings in the downtown area which have not been retrofitted and would be susceptible to damage from earthquake shaking.	ma-EQ-RV-107
ps-EQ-RV-14	Earthquake	Impact	PPRO - Property Protection, SP - Structural Projects	City of Rio Vista	Older infrastructure in the downtown area would be susceptible to earthquake damage.	ma-EQ-RV-107

Mitigation Actions

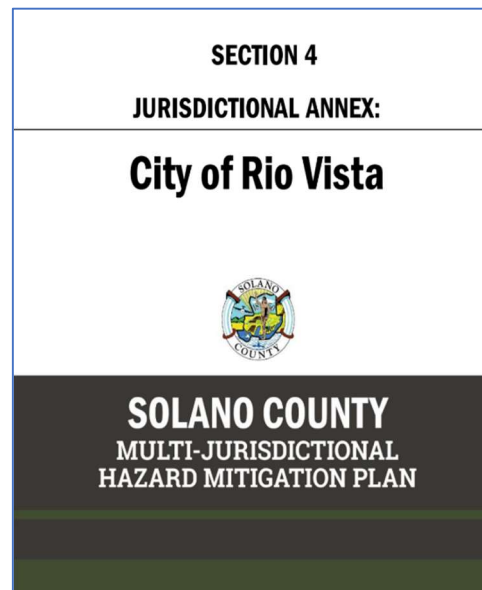
Table 4-15: City of Rio Vista Mitigation Actions

Mitigation No.	Hazard Type	Mitigation Type	Status	Year	Primary Agency	Title/Description	Responsible Party	Estimated Cost	Estimated Benefit	Time Frame	HMA Activity Type	Potential Grant Source	Priority	Related Goal(s)	Related Problem Statements
ma-WF-RV-112	All Hazard	PRV - Prevention	Pending	2021	City of Rio Vista	Implement a defensible space assessment, including for key wind corridors or areas more susceptible to wildfire carried by extreme wind.	City of Rio Vista	Medium - The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.	High - Project will provide an immediate reduction of risk exposure for life and property.	Annually	Planning	HMGP / BRIC	High	Goal 4: Resilience	ps-WF-RV-7, ps-EW-RV-6
ma-DR-BN-106	Drought/Climate Change	PRV - Prevention	Pending	2021	City of Rio Vista	Replace irrigated landscaping with drought resistant vegetation and increase use of recycled water for irrigation in preparation for drought impacts associated with climate change.	City of Rio Vista	Medium - The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.	High - Project will provide an immediate reduction of risk exposure for life and property.	1-3 Years	Project	HMGP / BRIC	High	Goal 2: Infrastructure, Goal 3: Environment, Goal 4: Resilience	ps-DR-RV-8
ma-EQ-RV-107	Earthquake	SP - Structural Projects	Pending	2021	City of Rio Vista	Develop an unreinforced masonry grant program to correct problems, such as bracing chimneys, on residential and nonresidential buildings.	City of Rio Vista	High - Existing funding will not cover the cost of the project, implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).	High - Project will provide an immediate reduction of risk exposure for life and property.	1-3 Years	Project	HMGP / BRIC	High	Goal 1: People, Goal 4: Resilience	ps-EQ-RV-13, ps-EQ-RV-14
ma-FL-RV-109	Flood	PRV - Prevention	Pending	2021	City of Rio Vista	Raise structures to an elevation that provides protection against 200-year flood events (S-4 Implementation Alternative from Rio Vista Flood Control Feasibility Study) or implement other alternatives from the Study as may be prioritized in the future.	Public Works, in partnership with SCWA	High - Existing funding will not cover the cost of the project, implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).	High - Project will provide an immediate reduction of risk exposure for life and property.	5-10 Years	Project	HMGP / BRIC	High	Goal 1: People, Goal 2: Infrastructure, Goal 4: Resilience	ps-FL-RV-9, ps-FL-RV-10, ps-FL-RV-11

Mitigation No.	Hazard Type	Mitigation Type	Status	Year	Primary Agency	Title/Description	Responsible Party	Estimated Cost	Estimated Benefit	Time Frame	HMA Activity Type	Potential Grant Source	Priority	Related Goal(s)	Related Problem Statements
ma-FL-RV-110	Flood	PRV - Prevention	Pending	2021	City of Rio Vista	Routinely inspect storm water channels for vegetation build up or encroachment, trash and debris, silt and gravel build up, and erosion or bank failure	City of Rio Vista	Medium - The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.	High - Project will provide an immediate reduction of risk exposure for life and property.	Annually	Planning	HMGP / BRIC	Medium	Goal 2: Infrastructure, Goal 4: Resilience	ps-FL-RV-10, ps-FL-RV-12
ma-WF-RV-113	Wildfire	PE&A - Public Education & Awareness	Pending	2021	City of Rio Vista	Conduct Public Education Campaign to increase awareness of threats of wildfire due to recreational use	City of Rio Vista	Medium - The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.	High - Project will provide an immediate reduction of risk exposure for life and property.	Annually	5%	HMGP / BRIC	High	Goal 4: Resilience	ps-WF-RV-7

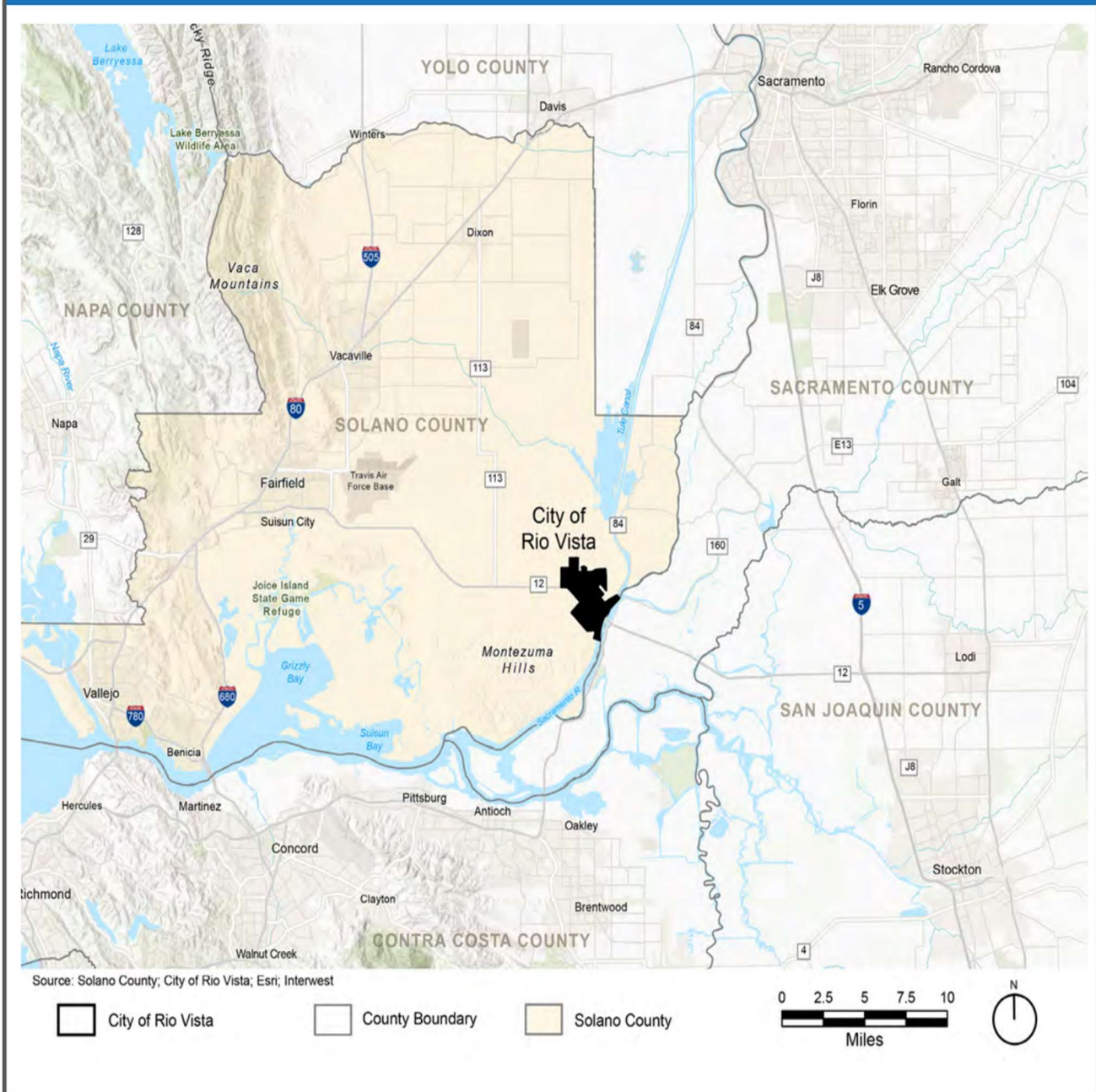
Appendix B

City of Rio Vista Map Resource Packet* Used During CRB Workshop



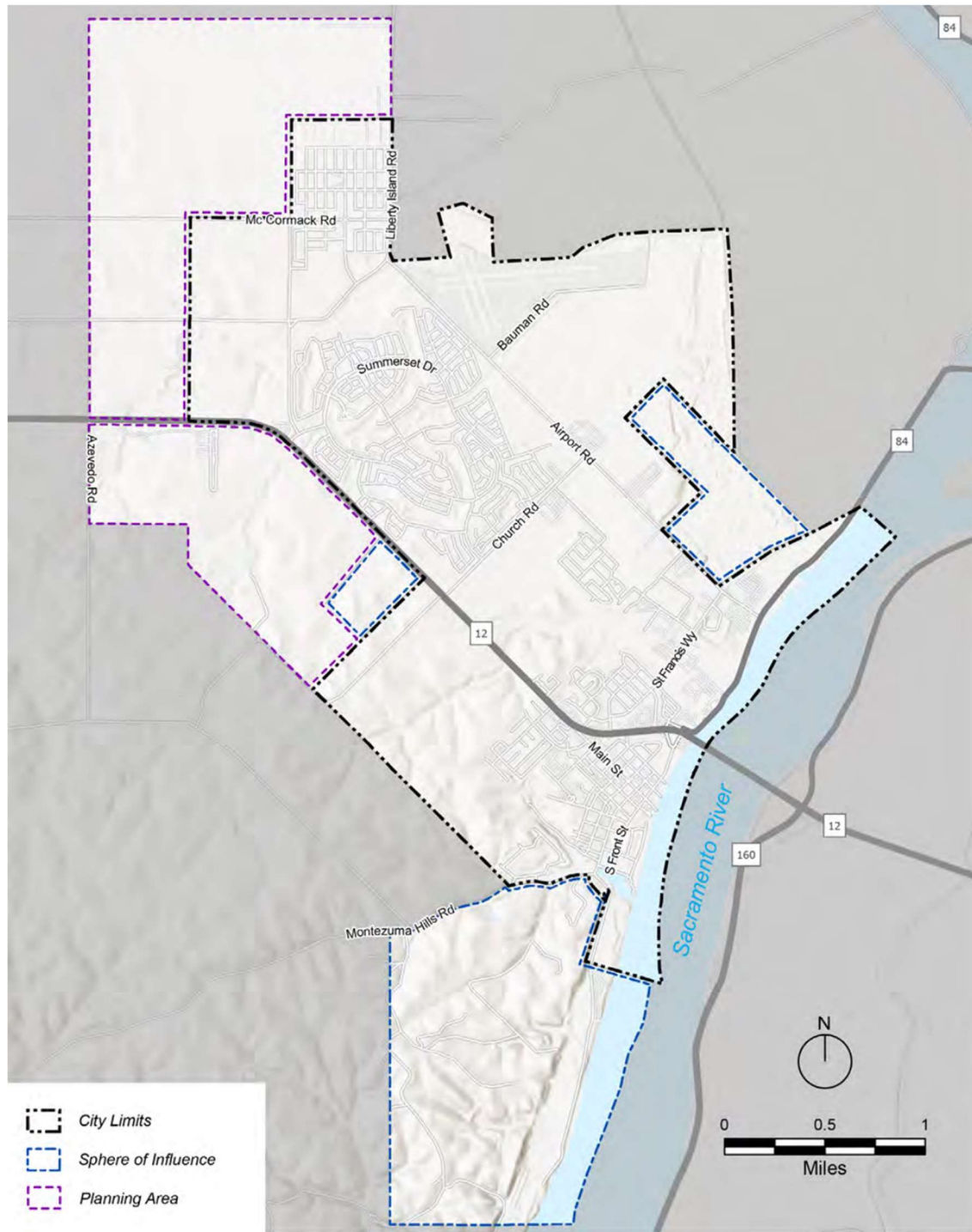
***Gathered from the Rio Vista 2045 General Plan Update (2025) and the Rio Vista Jurisdictional Annex as part of the Solano County Multi-Jurisdictional Hazard Mitigation Plan (2021).**

Figure 1-1: Regional Location



Source: Rio Vista 2045

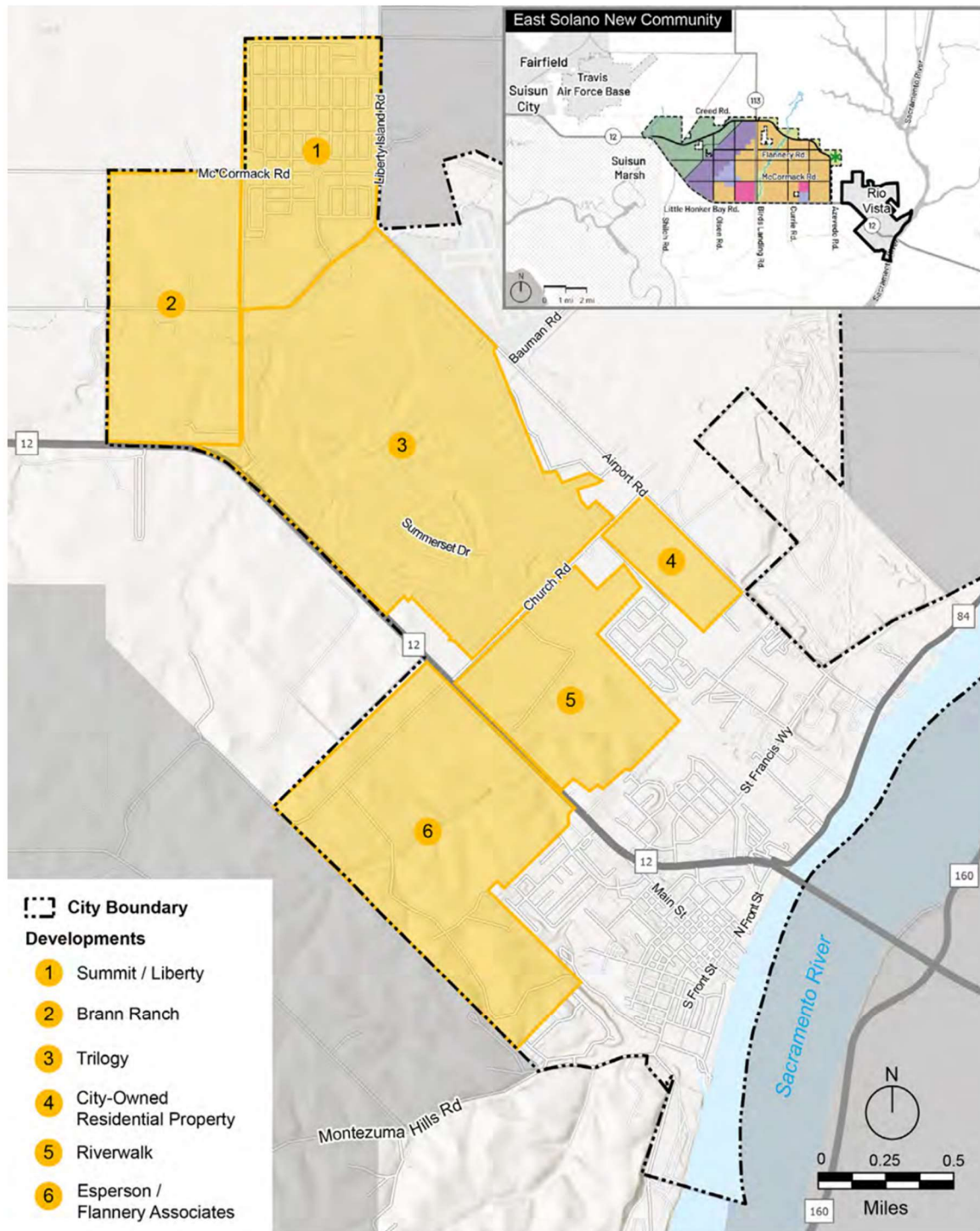
Figure 1-2: Planning Boundaries



Source: Solano County 2022, US Census Bureau 2022, Interwest 2023, ESRI

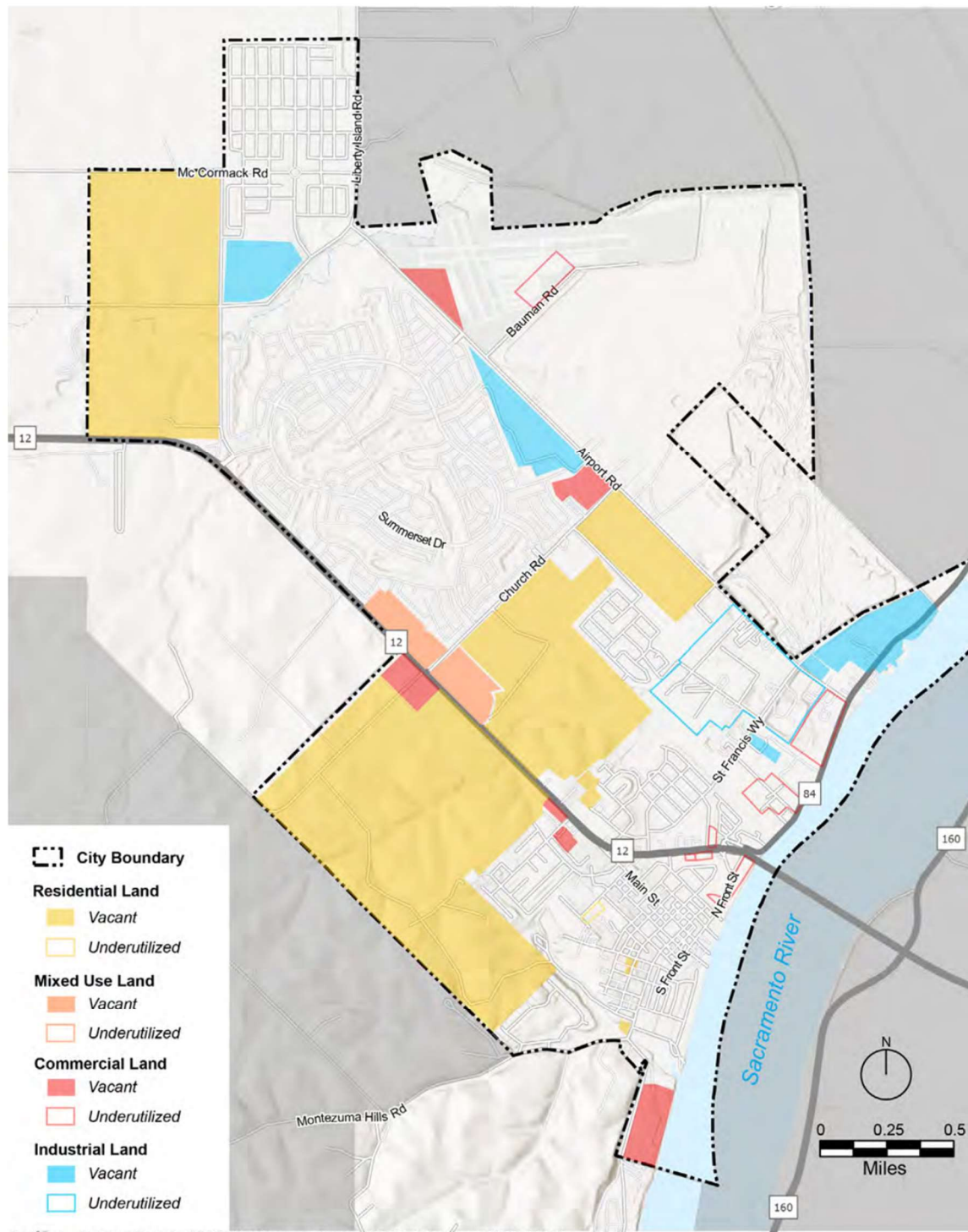
Source: Rio Vista 2045

FIGURE 1-3: Planned and Potential New Developments



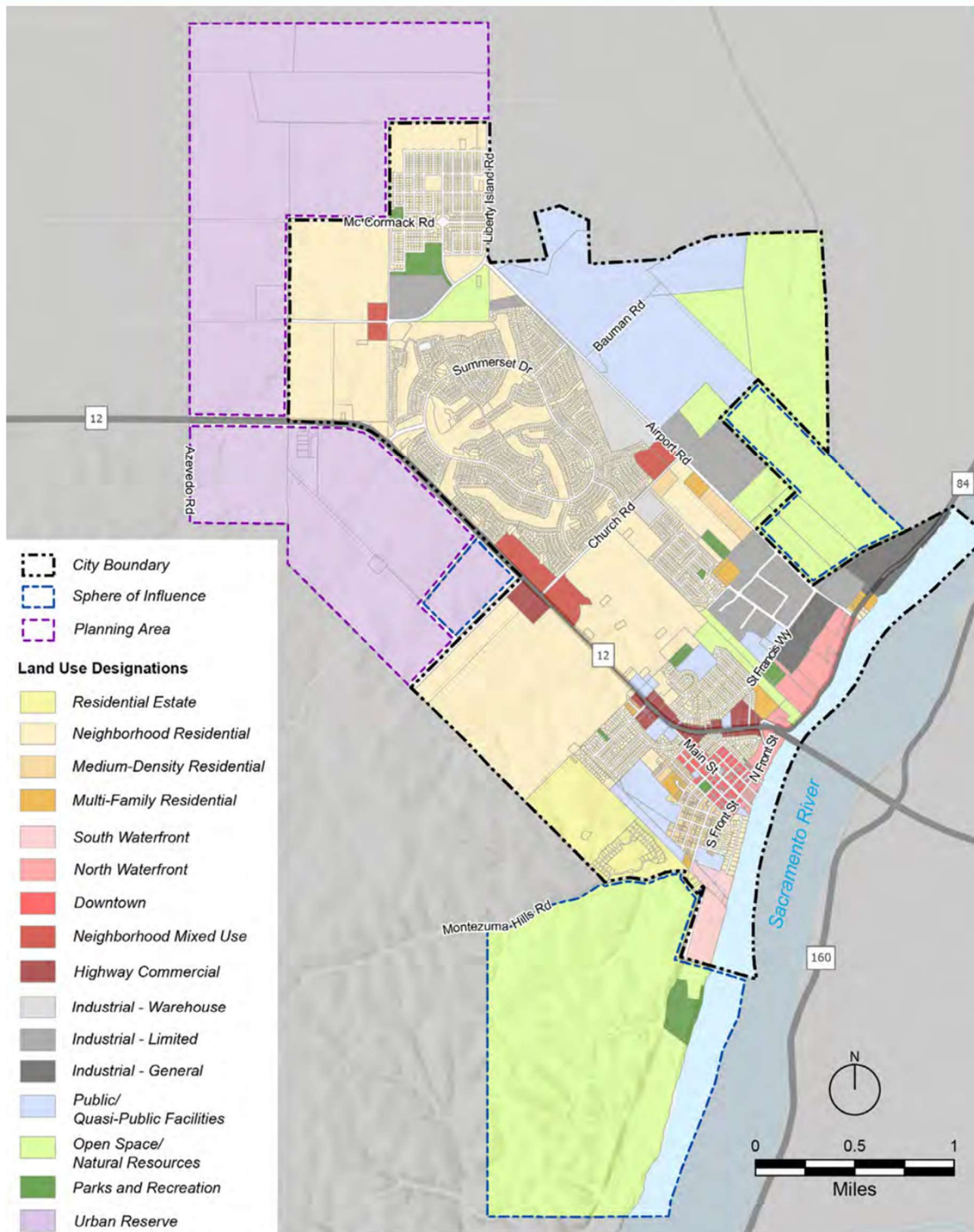
Source: Solano County 2022, US Census Bureau 2022, Interwest 2023, Flannery Associates, ESRI

FIGURE 4-1: Vacant and Underutilized Areas



Source: Rio Vista 2045

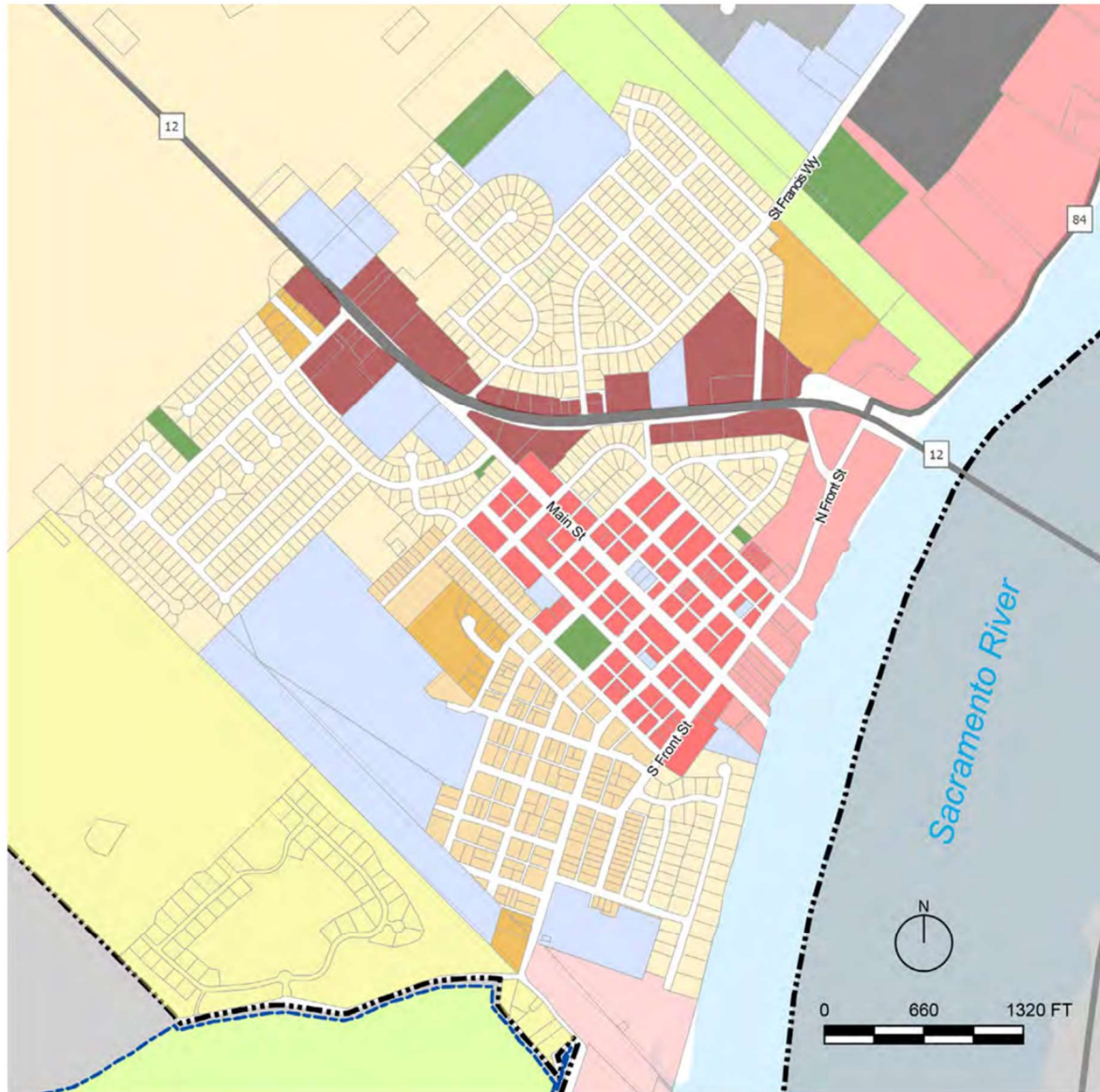
FIGURE 2-2: Land Use Diagram



Source: Solano County 2022, US Census Bureau 2022, Interwest 2023, ESRI

Source: Rio Vista 2045

FIGURE 2-3: Core Area Land Use Diagram



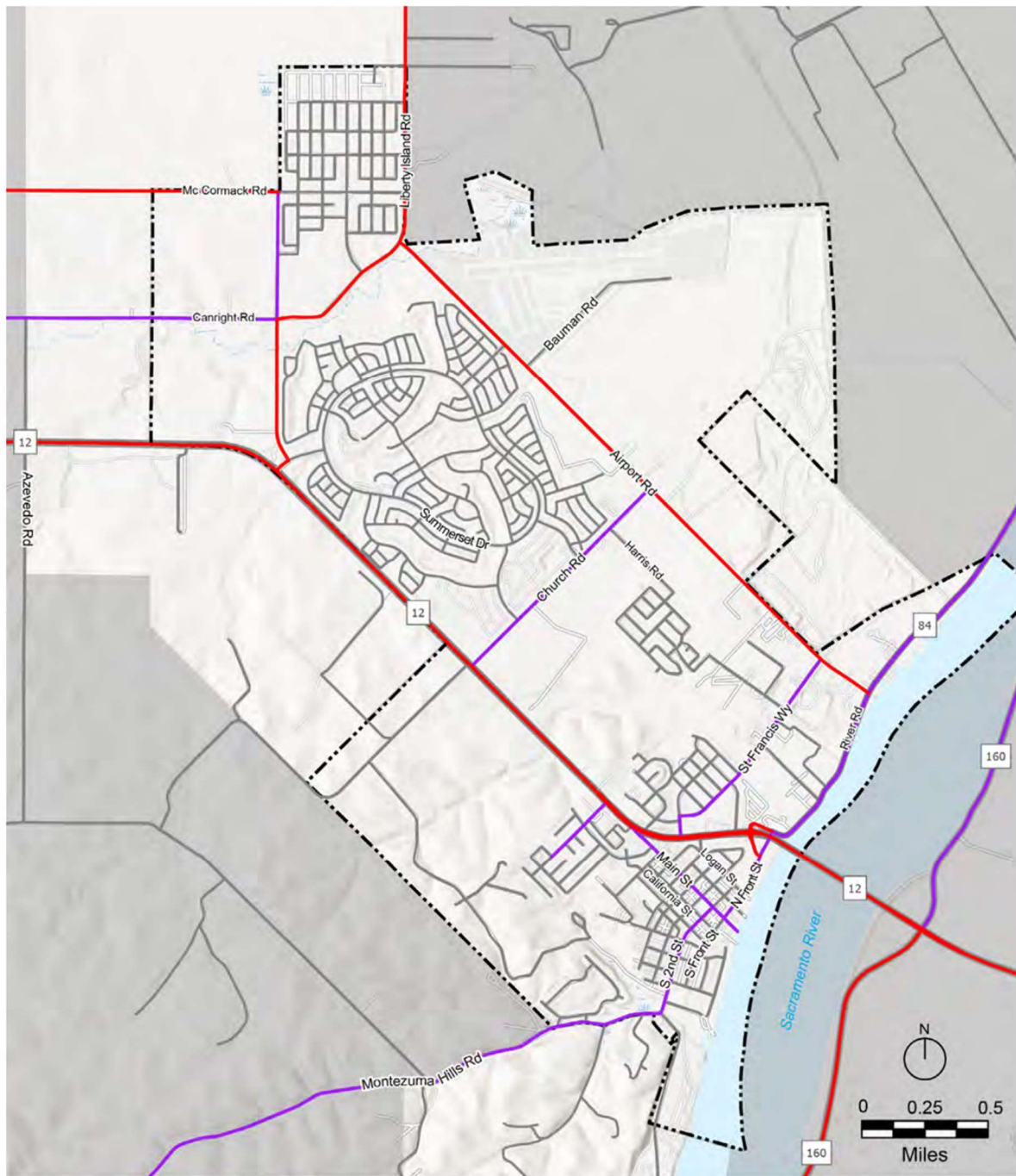
Land Use Designations

City Boundary	Residential Estate	Downtown	Public/ Quasi-Public Facilities
Sphere of Influence	Neighborhood Residential	Neighborhood Mixed Use	Open Space/ Natural Resources
Planning Area	Medium-Density Residential	Highway Commercial	Parks and Recreation
	Multi-Family Residential	Industrial - Warehouse	Urban Reserve
	South Waterfront	Industrial - Limited	
	North Waterfront	Industrial - General	

Source: Solano County 2022, US Census Bureau 2022, Interwest 2023, ESRI

Source: Rio Vista 2045

FIGURE 3-1: Road Classifications



Roadway Classifications

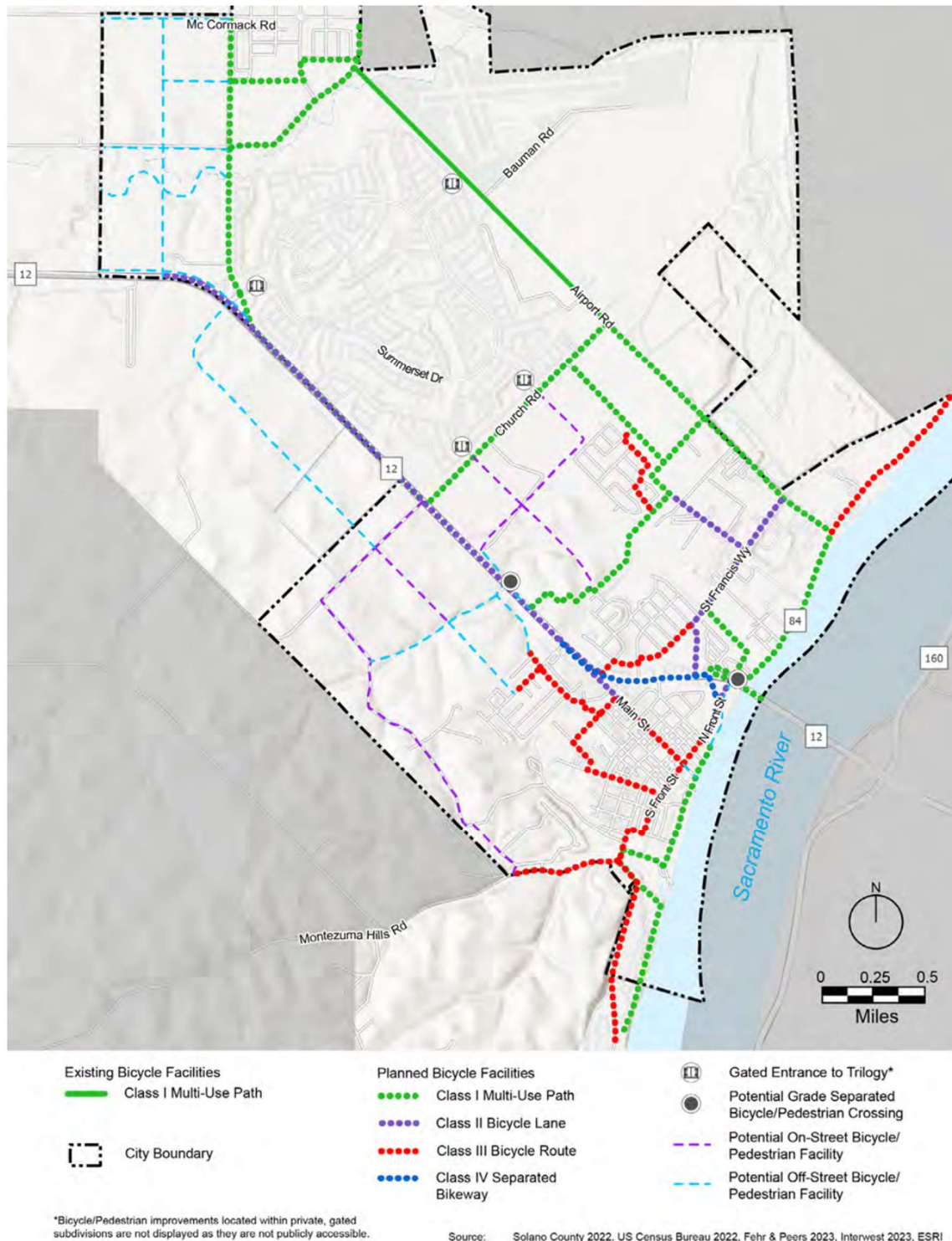
- Principal Arterial
- Major Collector
- Local Road

 City Boundary

Source: Solano County 2022, US Census Bureau 2022, Fehr & Peers 2023, Interwest 2023, ESRI

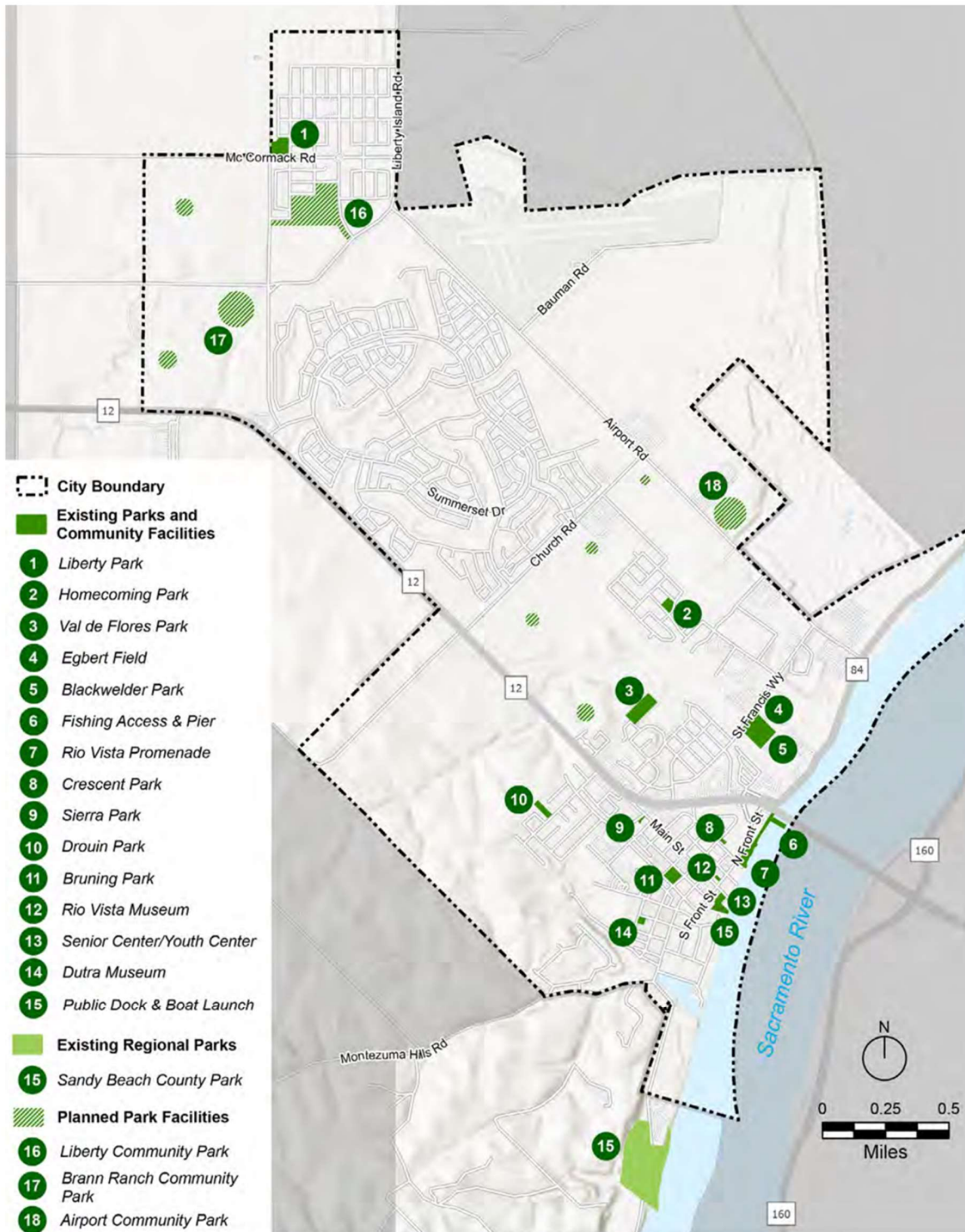
Source: Rio Vista 2045

FIGURE 3-2: Active Transportation Facilities



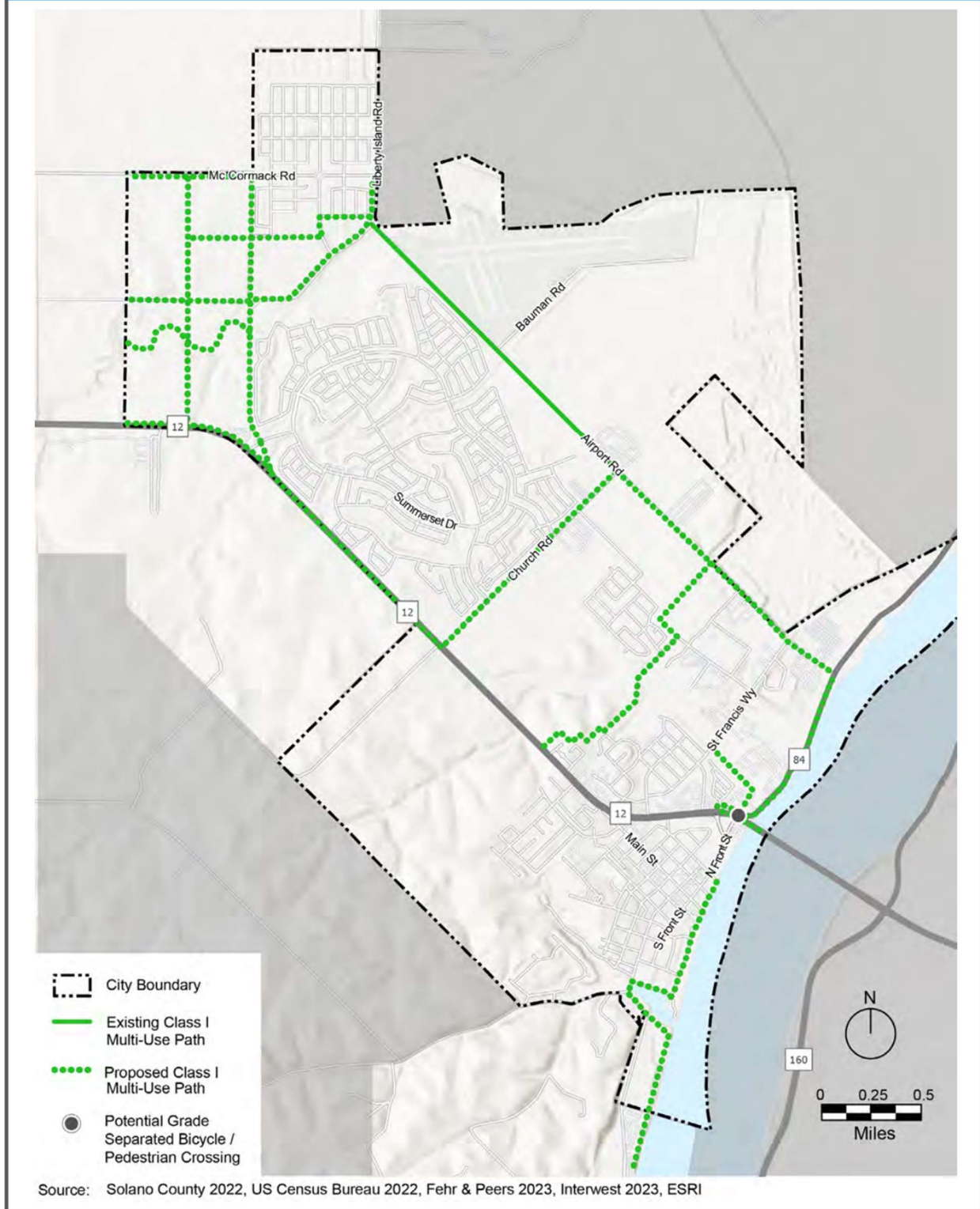
Source: Rio Vista 2045

FIGURE 6-1: Existing and Approved (2023) Park and Recreation Facilities



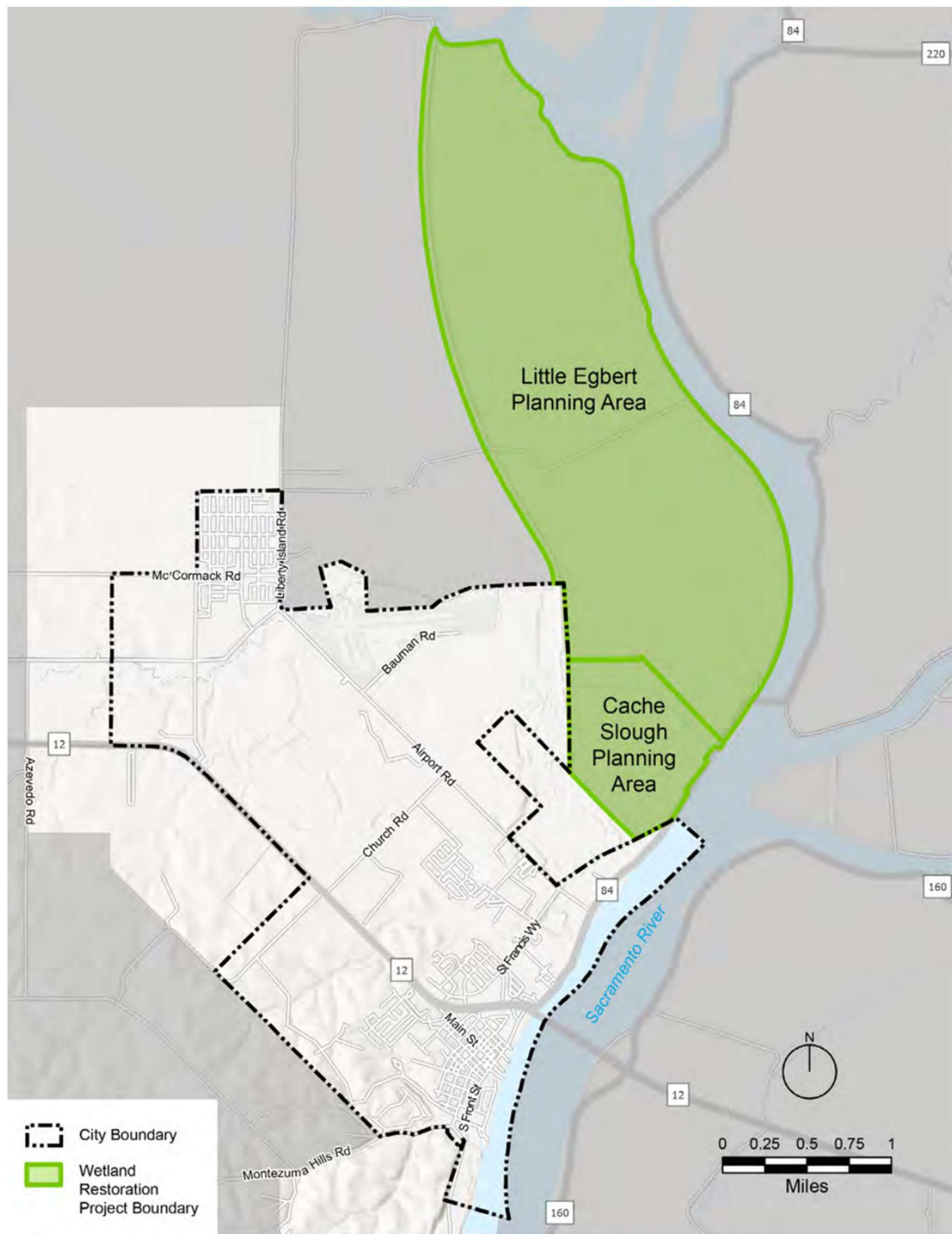
Source: Rio Vista 2045

FIGURE 6-2: Proposed Trail System



Source: Rio Vista 2045

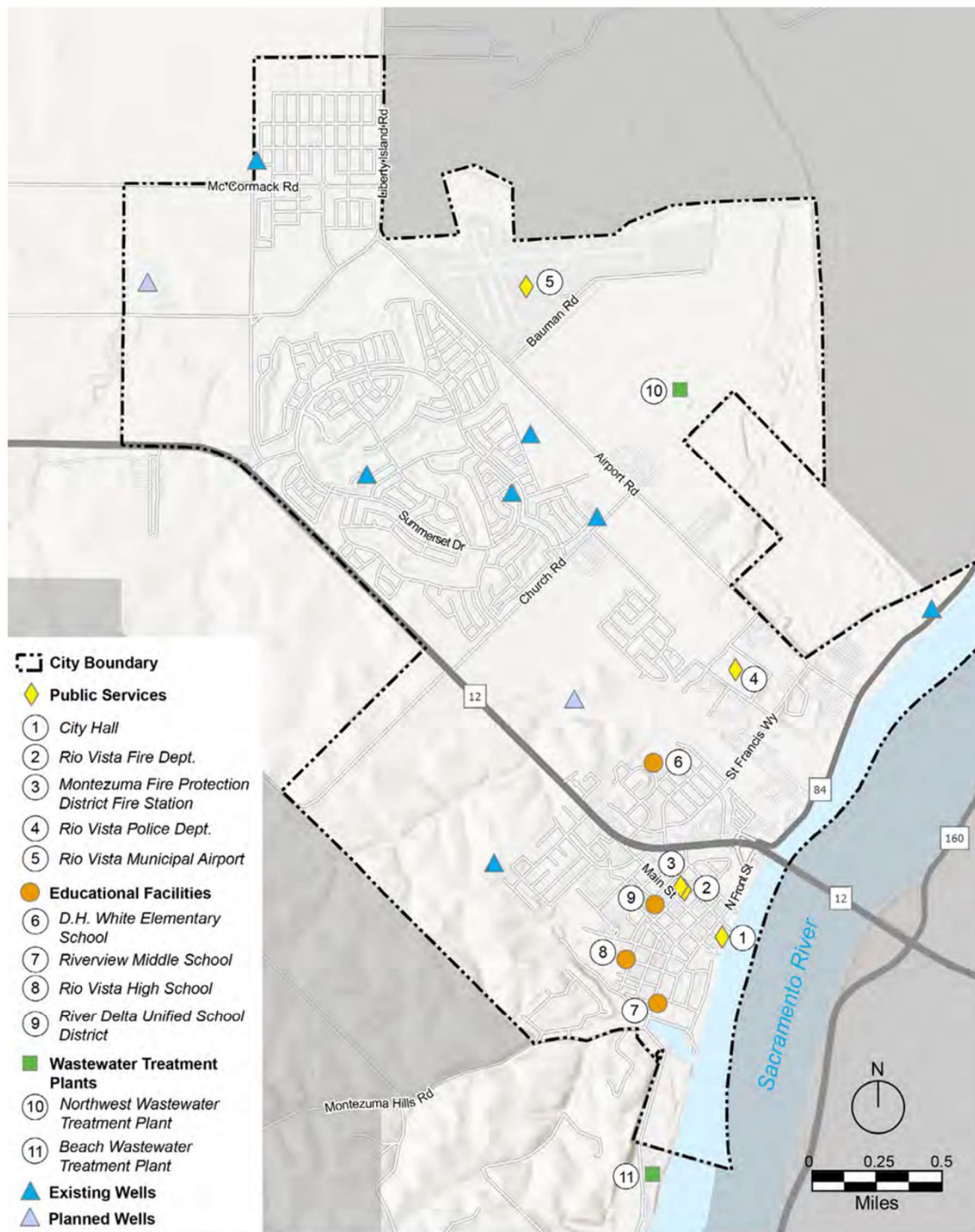
FIGURE 7-1: Wetlands Projects



Source: Solano County 2022, US Census Bureau 2022, Interwest 2024, Westervelt Ecological Services 2021, ESRI

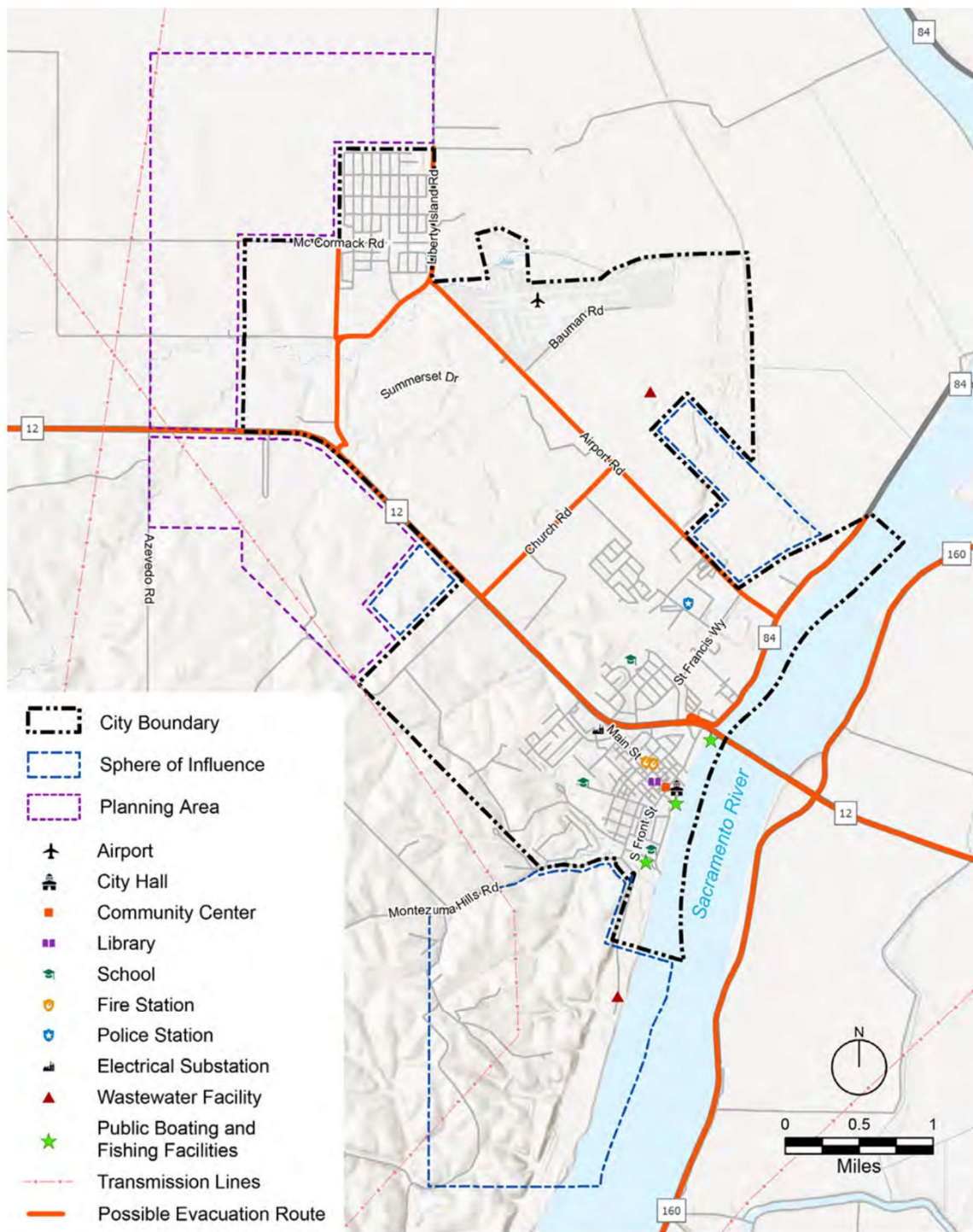
Source: Rio Vista 2045

FIGURE 8-1: Public Facilities



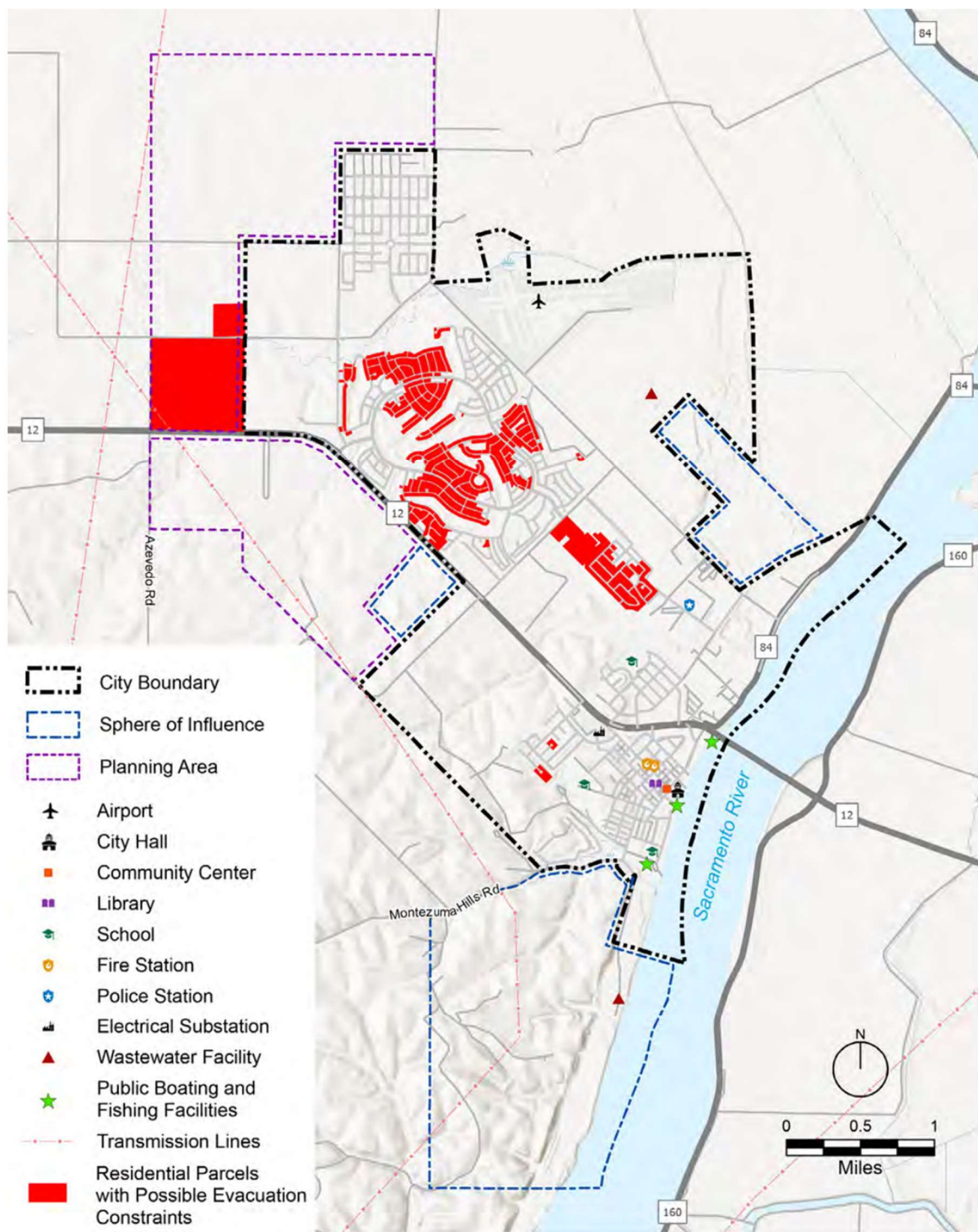
Source: Rio Vista 2045

FIGURE 9-1: Potential Evacuation Routes



Sources: City of Rio Vista, Solano County 2021, PlaceWorks 2023

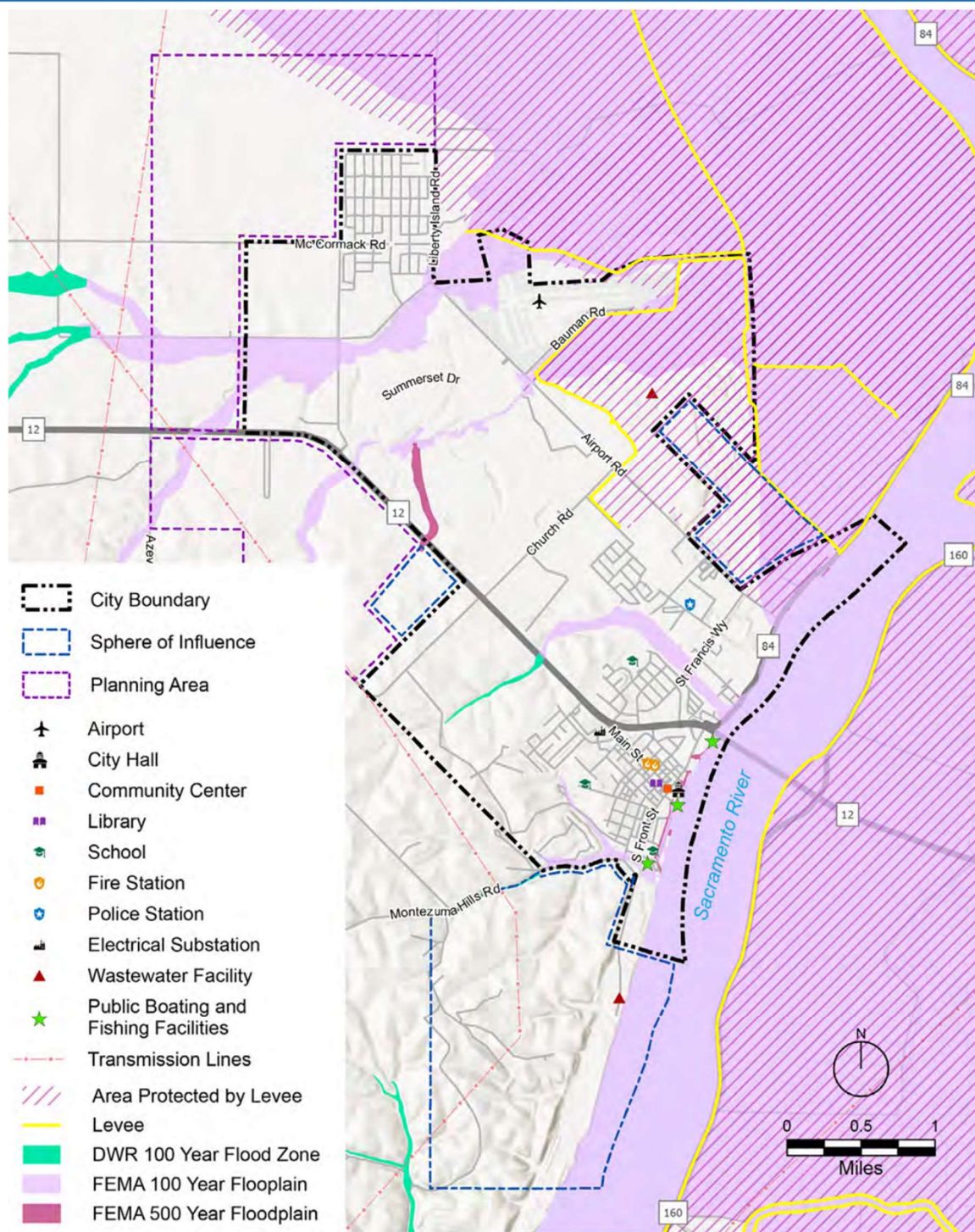
FIGURE 9-2: Evacuation Constrained Residential Areas



Sources: City of Rio Vista, Solano County 2021, PlaceWorks 2023

Source: Rio Vista 2045

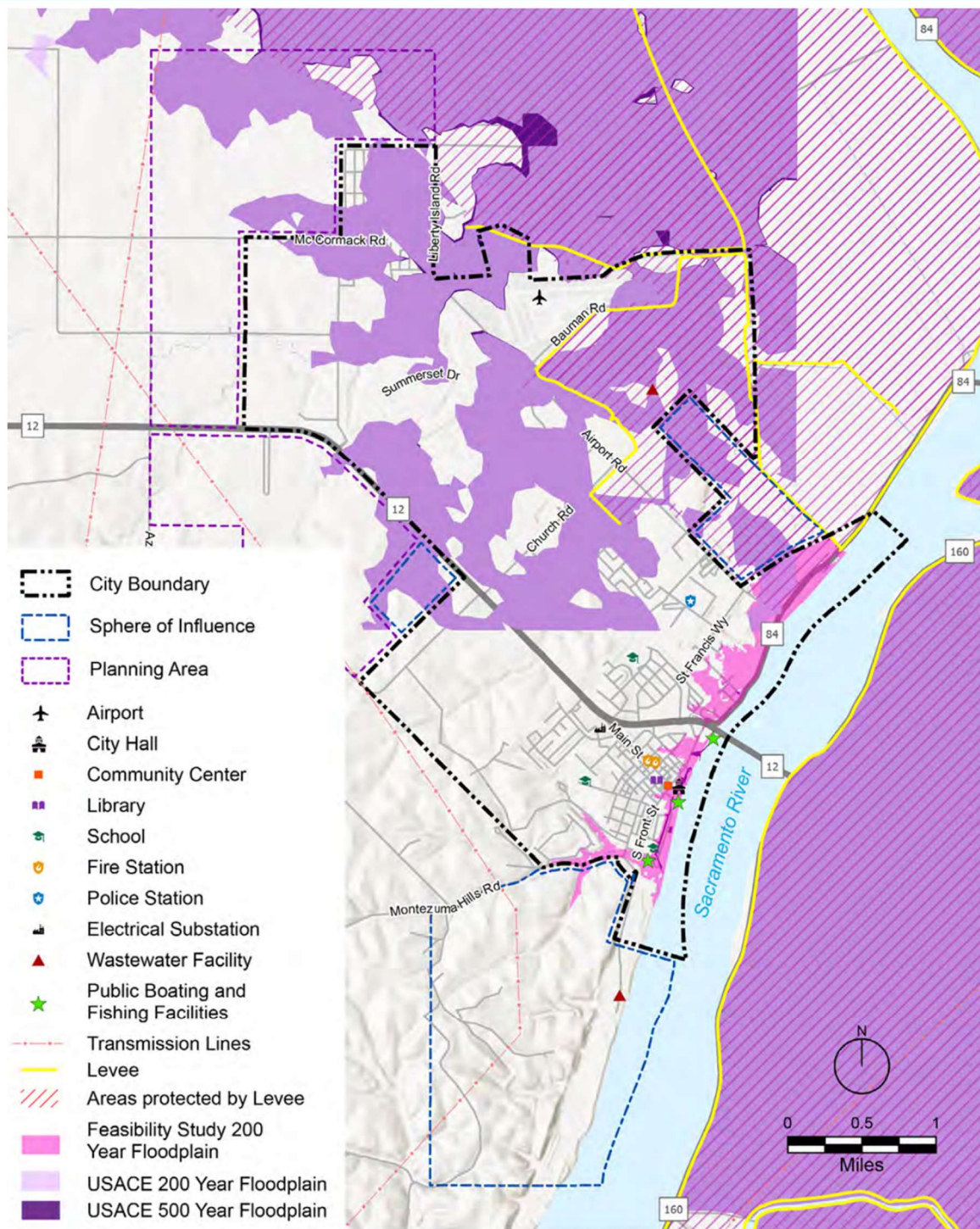
FIGURE 9-3: FEMA and DWR Flood Hazard Areas



Sources: NLD 2022, BAM 2021, City of Rio Vista, Solano County 2021, PlaceWorks 2023

Source: Rio Vista 2045

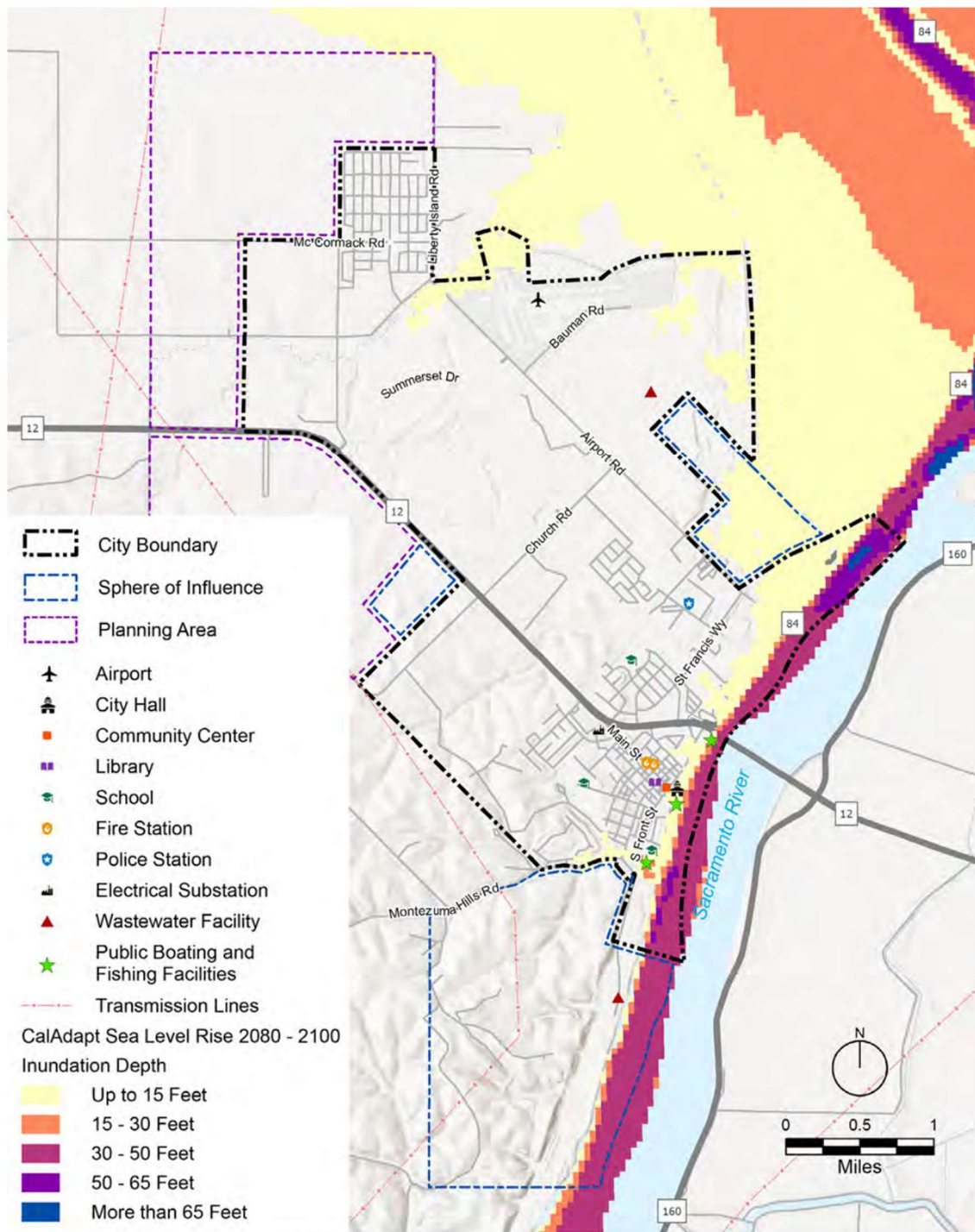
FIGURE 9-4: 200-year and 500-year Flood Hazard Zones



Sources: NLD 2022, BAM 2021, City of Rio Vista, Solano County 2021, PlaceWorks 2023, Wood Rodgers 2023

Source: Rio Vista 2045

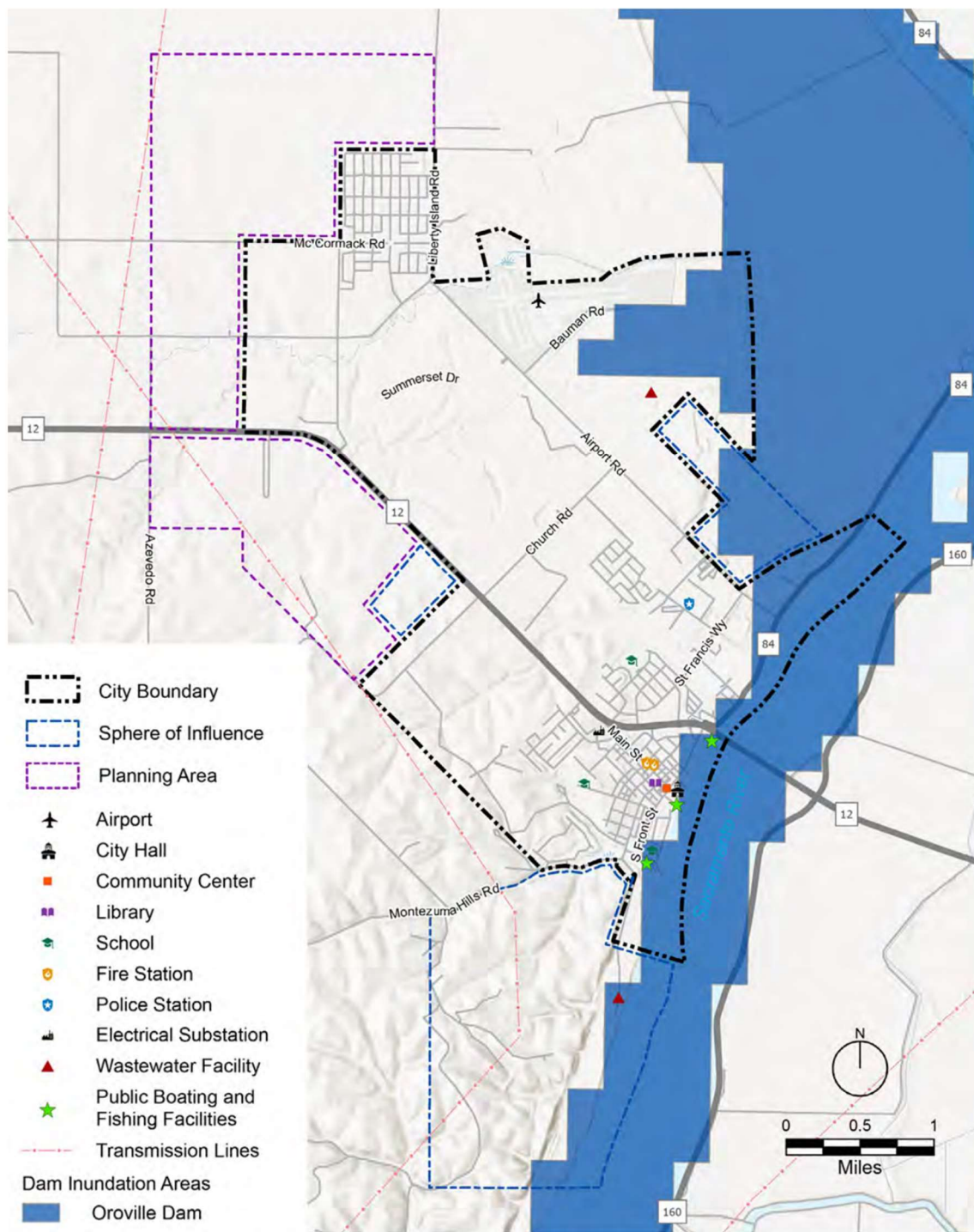
FIGURE 9-5: Sea Level Rise 2080 to 2100



Source: Cal-Adapt 2021, City of Rio Vista, Solano County 2021, Placeworks 2023

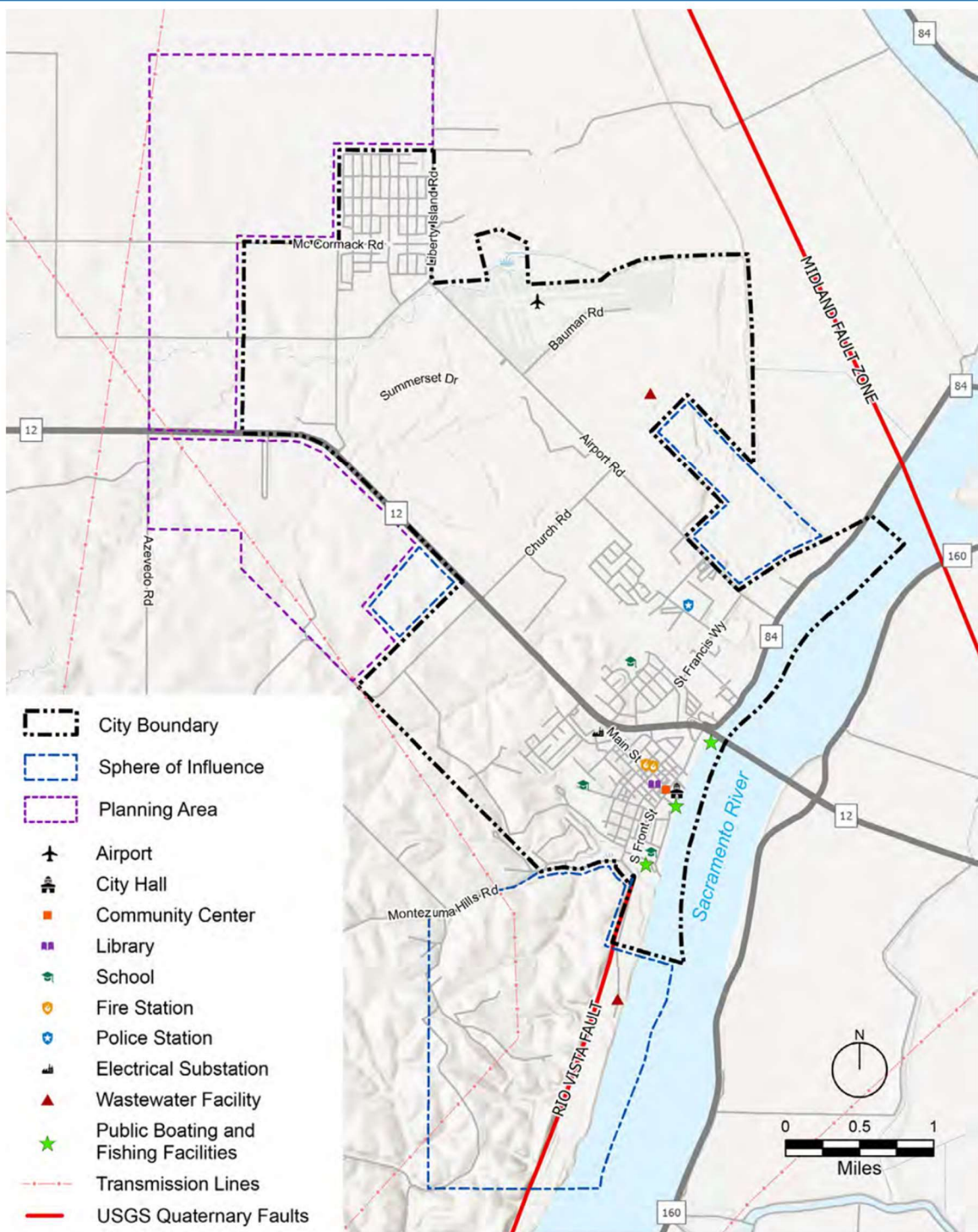
Source: Rio Vista 2045

FIGURE 9-6: Dam Inundation Areas



Sources: California DWR 2021, City of Rio Vista, Solano County 2021, PlaceWorks 2023

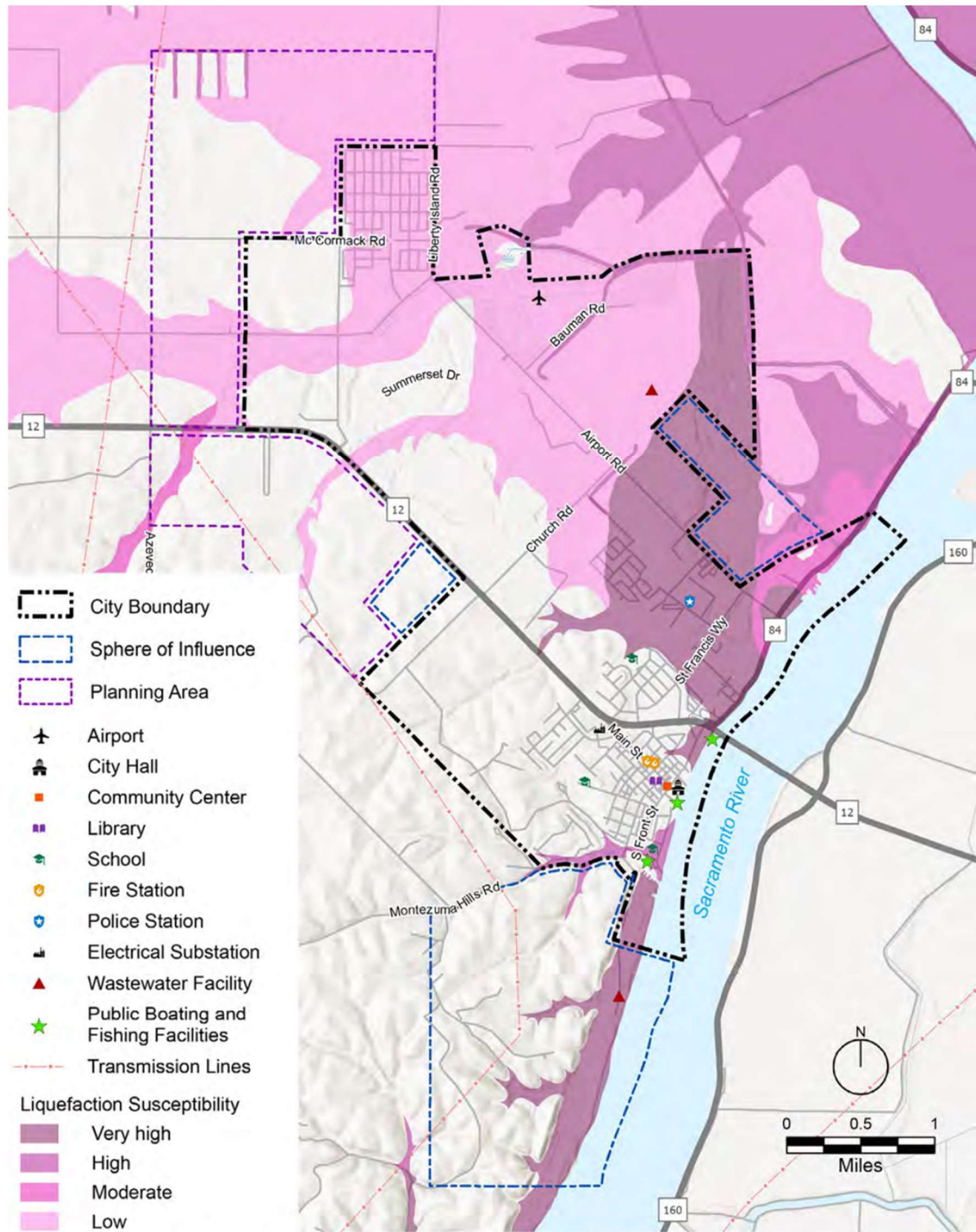
FIGURE 9-7: Fault Lines



Sources: USGS 2017, City of Rio Vista, Solano County 2021, PlaceWorks 2023

Source: Rio Vista 2045

FIGURE 9-8: Liquefaction Areas



Sources: USGS 2019, City of Rio Vista, Solano County 2021, PlaceWorks 2023

Source: Rio Vista 2045

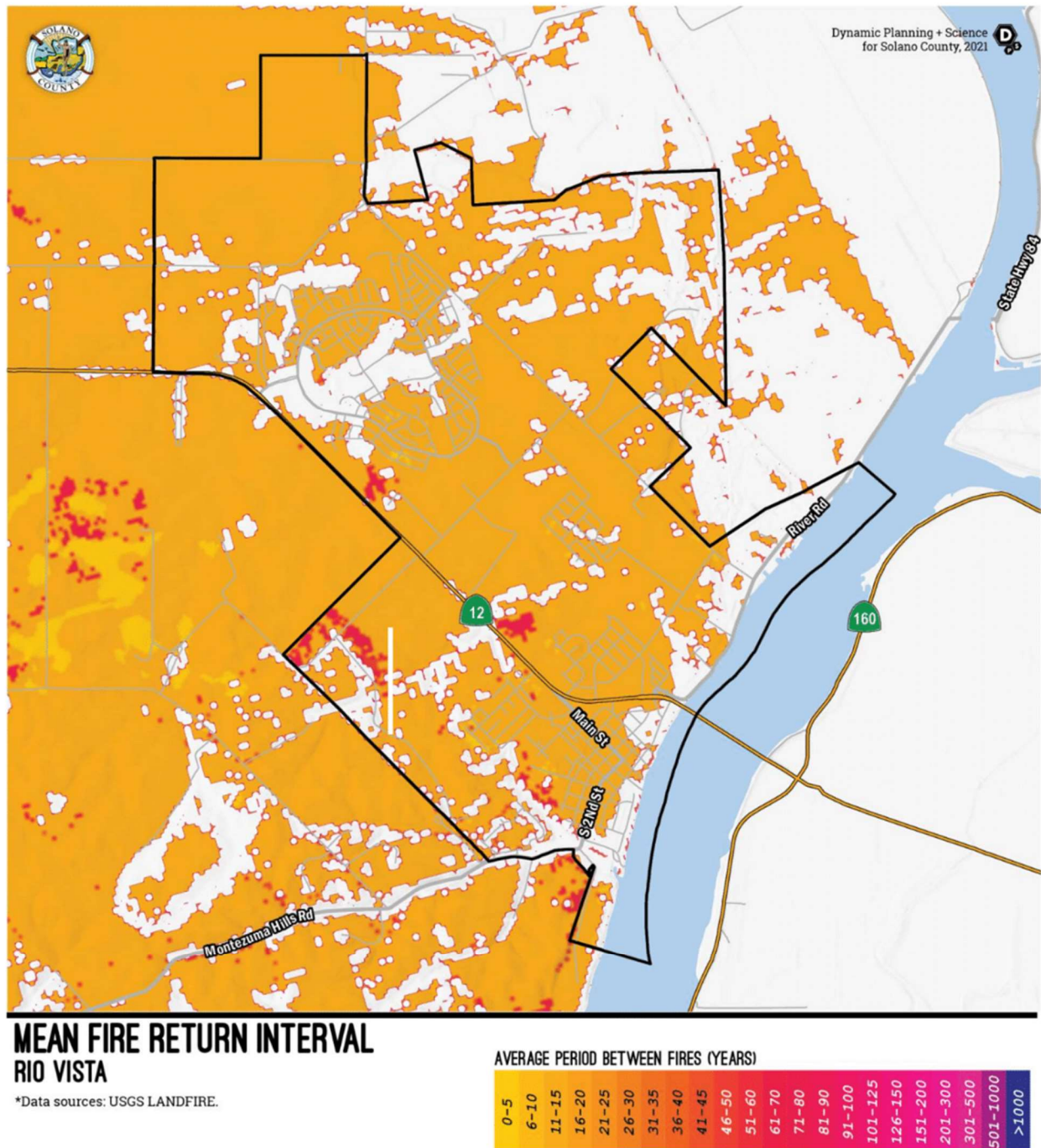


Figure 4-4: City of Rio Vista – Mean Fire Return Interval

Source: Rio Vista Hazard Mitigation Plan Annex (2021)



WILDFIRE RISK EXPOSURE

RIO VISTA

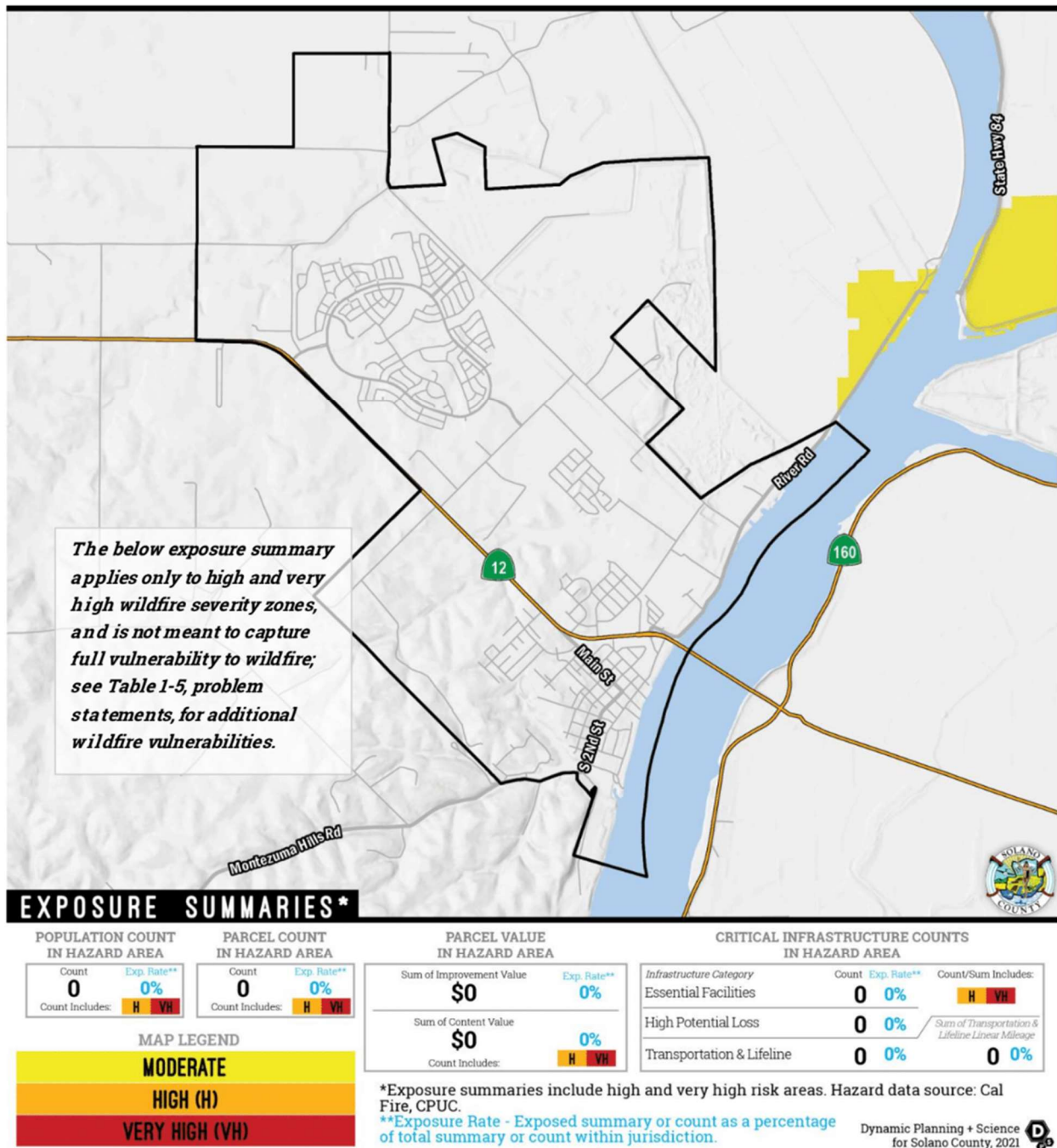


Figure 4-5: City of Rio Vista – Wildfire Risk Exposure

Source: Rio Vista Hazard Mitigation Plan Annex (2021)



FEMA FLOOD RISK EXPOSURE

RIO VISTA

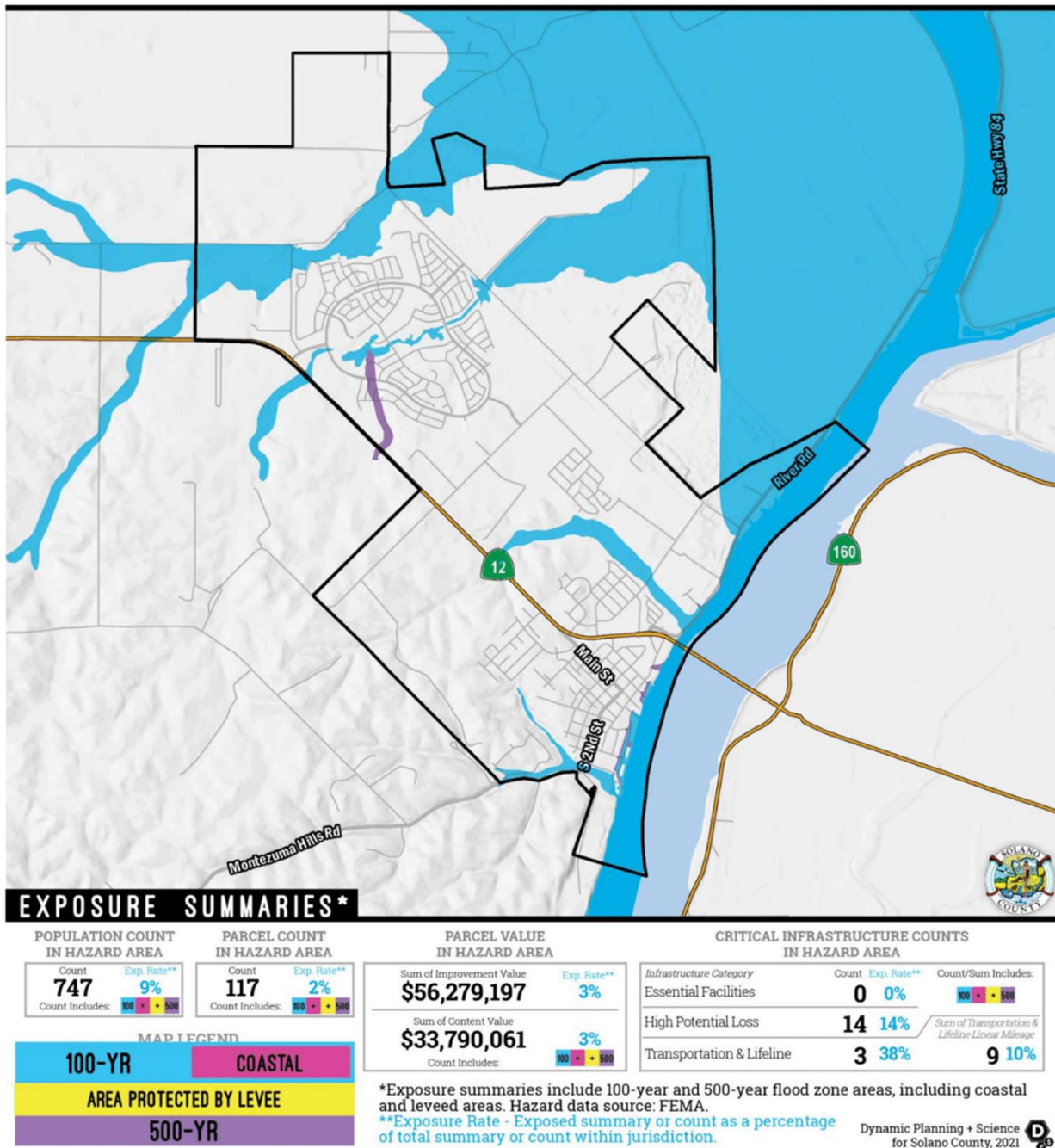


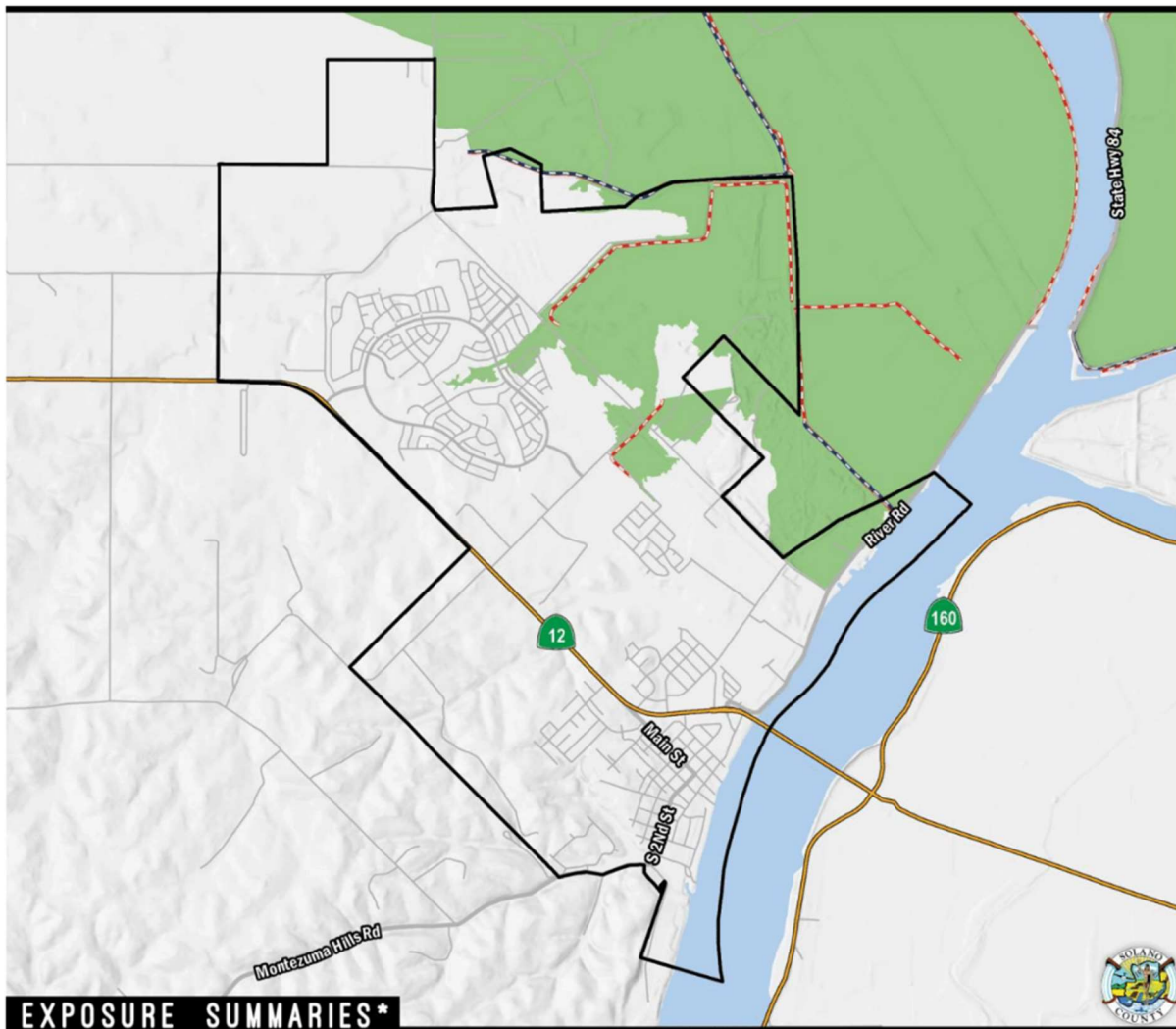
Figure 4-6: City of Rio Vista – FEMA Flood Risk Exposure

Source: Rio Vista Hazard Mitigation Plan Annex (2021)



AREA PROTECTED BY LEVEE (NLD) EXPOSURE

RIO VISTA



EXPOSURE SUMMARIES*

POPULATION COUNT IN HAZARD AREA

Count	Exp. Rate**
295	3%
Count Includes:	APL

PARCEL COUNT IN HAZARD AREA

Count	Exp. Rate**
77	2%
Count Includes:	APL

PARCEL VALUE IN HAZARD AREA

Sum of Improvement Value	Exp. Rate**
\$36,363,720	2%
Sum of Content Value	
\$22,258,323	2%
Count Includes:	APL

CRITICAL INFRASTRUCTURE COUNTS IN HAZARD AREA

Infrastructure Category	Count	Exp. Rate**	Count/Sum Includes:
Essential Facilities	0	0%	APL
High Potential Loss	0	0%	
Transportation & Lifeline	1	13%	8 9%

MAP LEGEND

USACE AREA PROTECTED
BY LEVEE (APL)

PROJECT LEVEE OTHER KNOWN LEVEES

*Exposure summaries include all NLD areas protected by levee. Hazard data source: USACE.

**Exposure Rate - Exposed summary or count as a percentage of total summary or count within jurisdiction.

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Figure 4-7: City of Rio Vista - Area Protected by Levee (NLD) Exposure

Source: Rio Vista Hazard Mitigation Plan Annex (2021)

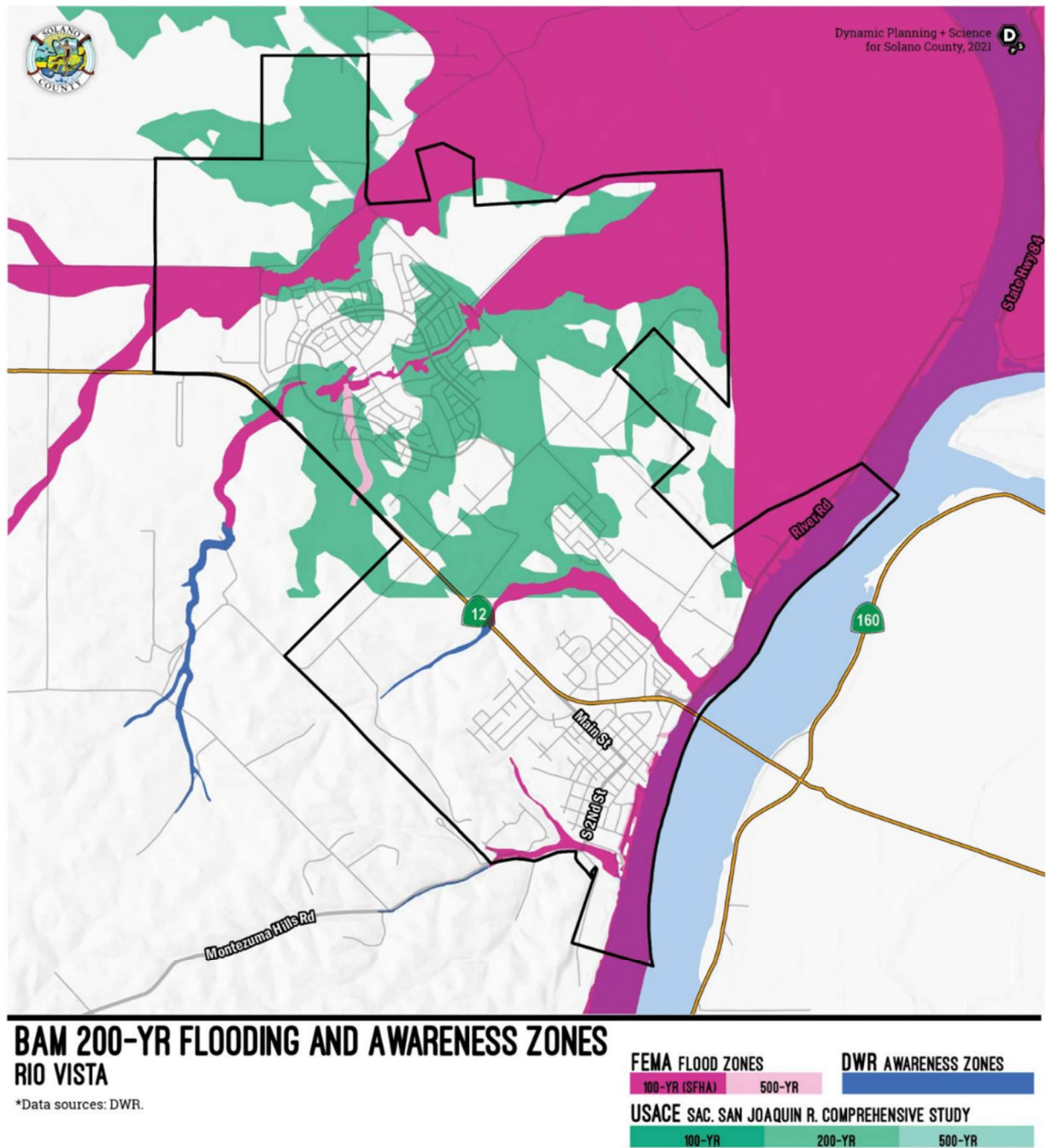


Figure 4-8: City of Rio Vista – BAM 200-YR Flooding and Awareness Zones

Source: Rio Vista Hazard Mitigation Plan Annex (2021)

CONCORD-GREEN VALLEY EARTHQUAKE SCENARIO (M6.8)

RIO VISTA

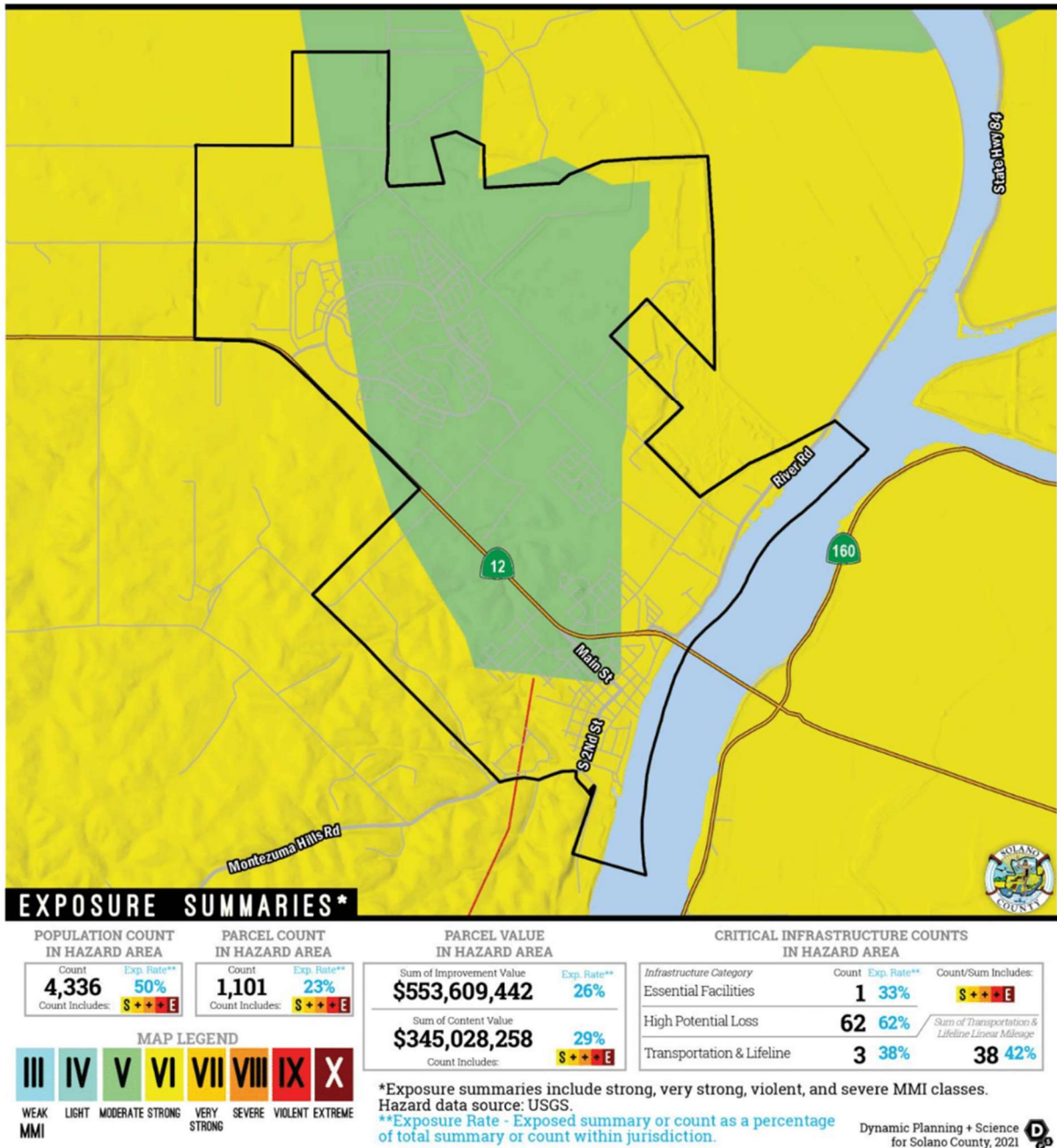


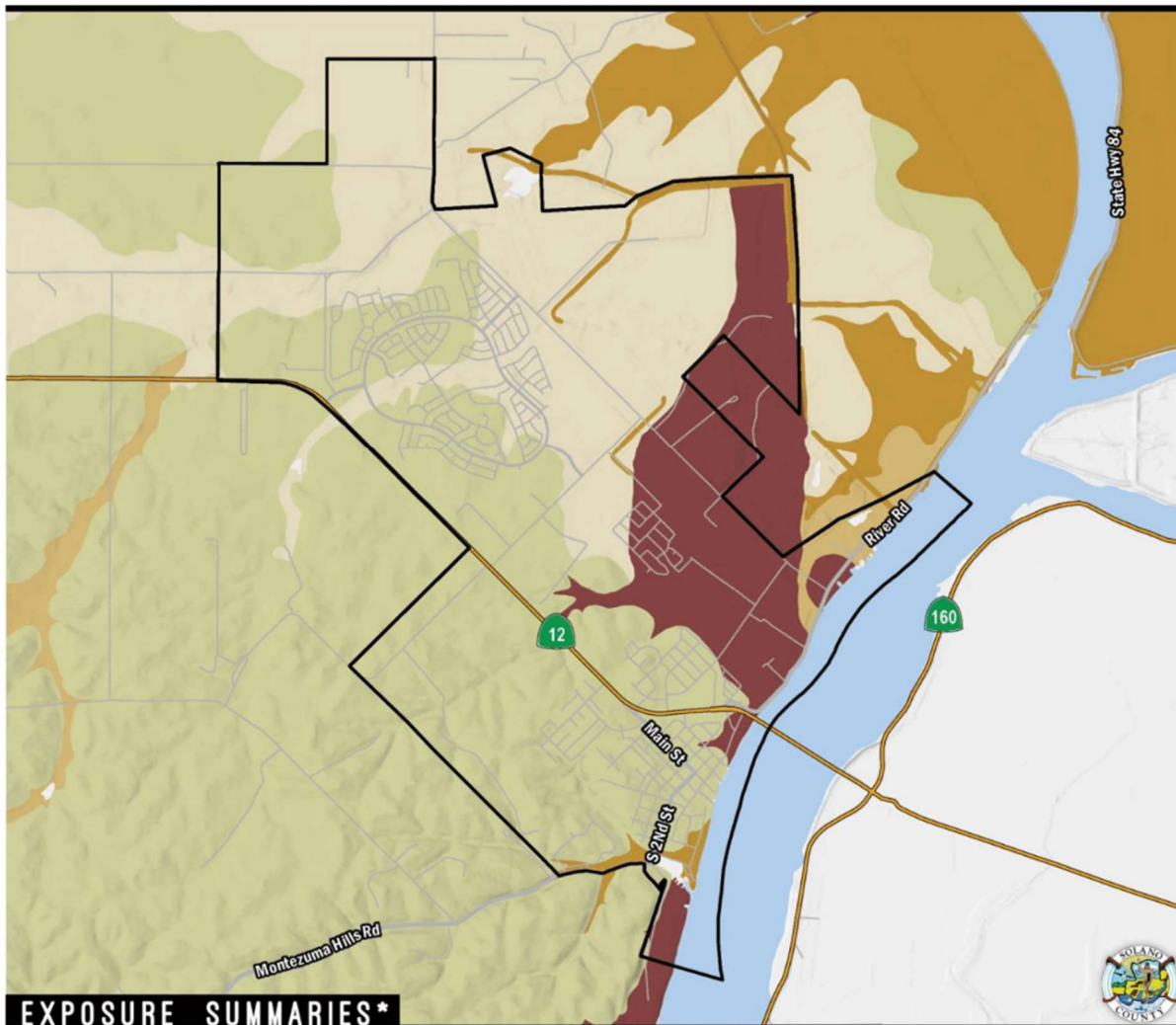
Figure 4-9: City of Rio Vista – Concord Green Valley EQ Scenario (M6.8)

Source: Rio Vista Hazard Mitigation Plan Annex (2021)



AREAS WITH POTENTIAL FOR LIQUEFACTION

RIO VISTA



EXPOSURE SUMMARIES*

POPULATION COUNT IN HAZARD AREA
Count 3,348
Exp. Rate** 39%
Count Includes: M H VH

PARCEL COUNT IN HAZARD AREA
Count 320
Exp. Rate** 7%
Count Includes: M H VH

PARCEL VALUE IN HAZARD AREA
Sum of Improvement Value \$167,294,585
Exp. Rate** 8%
Sum of Content Value \$126,118,858
Exp. Rate** 11%
Count Includes: M H VH

CRITICAL INFRASTRUCTURE COUNTS IN HAZARD AREA		
Infrastructure Category	Count	Exp. Rate**
Essential Facilities	1	33%
High Potential Loss	38	38%
Transportation & Lifeline	1	13%
	16	18%

MAP LEGEND				
VL	L	M	H	VH
VERY LIGHT	LIGHT	MODERATE	HIGH	VERY HIGH

*Exposure summaries include medium, high, very high susceptibility. Hazard data source: USGS.

**Exposure Rate - Exposed summary or count as a percentage of total summary or count within jurisdiction.

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Figure 4-11: City of Rio Vista– Areas with Potential for Liquefaction

Source: Rio Vista Hazard Mitigation Plan Annex (2021)



RIO VISTA

AVERAGE ANNUAL MAXIMUM TEMPERATURE

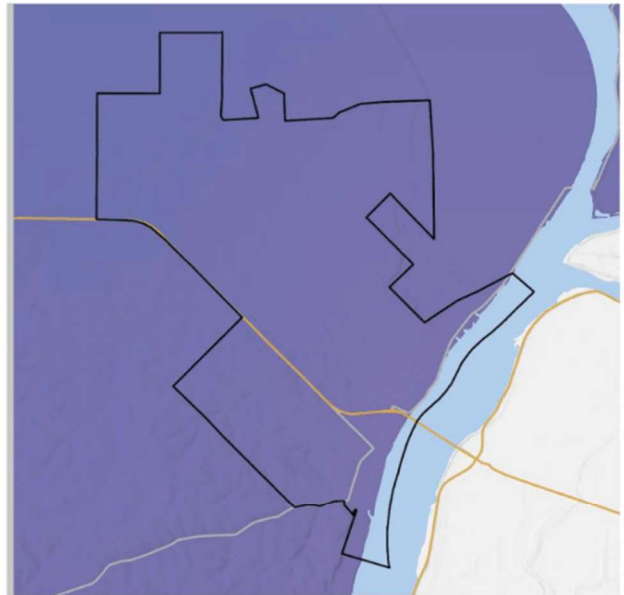
COMPARISON OF CURRENT OBSERVED TO RCP 4.5 AND RCP 8.5 SCENARIOS



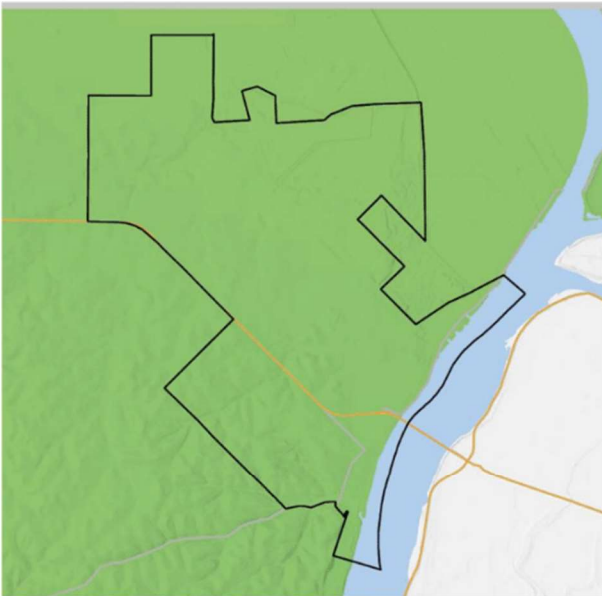
*Data sources: Cal-Adapt CanESM2 RCP 4.5 & 8.5, PRISM 30-YR Norms Annual Max Temp



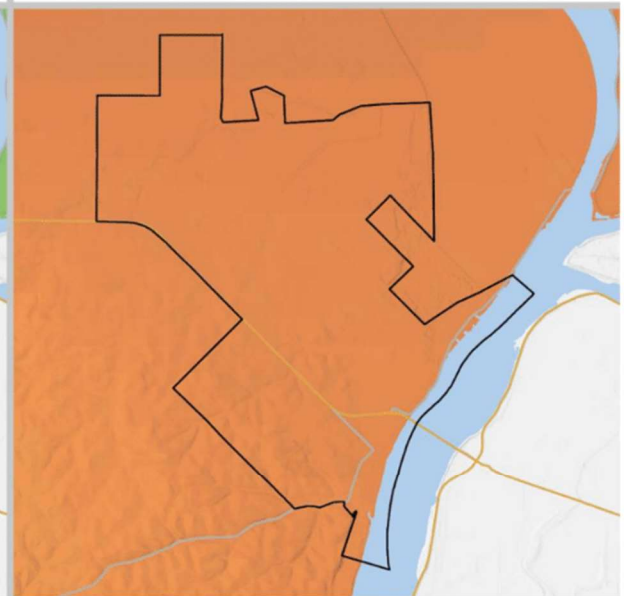
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for Solano County, 2021



CURRENT 30-YR NORMAL



RCP 4.5 YEAR 2100



RCP 8.5 YEAR 2100

Figure 4-14: City of Rio Vista – RCP Comparison

Source: Rio Vista Hazard Mitigation Plan Annex (2021)

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