

EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

An aerial photograph of a city skyline, featuring a mix of modern glass skyscrapers and older brick buildings with arched windows. A large, semi-transparent blue shape is overlaid on the left side of the image, containing the title and main text.

The 2022 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) will continue to provide a sustainability vision through the year 2046 that recognizes the significant impact the transportation network has on the region's public health, mobility and economic vitality. As the region's comprehensive long-range transportation planning document, the plan serves as a guide for achieving public policy decisions that will result in balanced investments for a wide range of multimodal transportation improvements.

Senate Bill 375

With the passage of Senate Bill 375 in 2008, metropolitan planning organizations were required to develop a Sustainable Communities Strategy (SCS). An SCS must demonstrate an ambitious, yet achievable, approach to how land use development and transportation can work together to meet greenhouse gas emission reduction targets for cars and light trucks. These targets are set by the California Air Resources Board and call for the region to reduce per capita emissions. If a metropolitan planning organization is unable to meet the targets through the SCS, then an alternative planning strategy, or APS, must be developed that demonstrates how targets could be achieved.

As the metropolitan planning organization and the regional transportation planning agency for San Joaquin County, the San Joaquin Council of Governments (SJCOG) has developed a Regional Transportation Plan (RTP) that incorporates an SCS. It is important to note that while the RTP includes an SCS as an element in concert with the policy, action and financial elements, this is not the first plan with sustainability features. San Joaquin County's RTP has always embodied policies and strategies committed to sustainability through air quality measures, environmental preservation and conservation objectives, and growth management strategies.

Photo Credit: Captivating Photos



What is the RTP/SCS?

The plan reflects a region-specific and balanced multimodal plan that not only achieves the intent and promise of SB 375 but can be implemented through existing and planned programs or policies. In fact, the development of the plan began from extensive work already rooted in existing plans and programs. The plan foundation comprises recent household and job growth forecasts, market demand and economic studies, and transportation studies, including SJCOG's Transportation Innovation Planning Study, Climate Adaptation and Resiliency Study, and Public Health Impact Analysis. The achievements of the plan are summarized in Figure ES.1.

Civic Engagement

This plan embodies local visions through local input.

Local experts in housing, land use, environment, and public works participated in the RTP/SCS development through a formal advisory committee or through other avenues of public feedback (e.g., workshops, online input through social media or web surveys (such as MetroQuest), and public comment opportunities at SJCOG committees and board meetings). These participants provided perspectives on economic development, environmental preservation, air quality, public health, environmental justice, and farmland conversion and preservation, which all helped to reshape existing RTP goals, policies, and objectives. A series of public workshops to get feedback from the public also guided the direction of transportation investments for the region in the context of San Joaquin County's future population, employment, and housing growth.

Figure ES.1 The Building Blocks of the Plan





Photo Credit: San Joaquin Regional Transit District

Policies and Supportive Strategies

The plan can be considered the San Joaquin region's "statement of priorities" for the future transportation system from 2022 through 2046. The policies, supportive strategies and performance indicators for the plan are all designed to convey: (1) what the region wants the future transportation system to look like; (2) what types of decisions will help the region attain its vision; and (3) the performance measures or indicators by which the region can assess its progress. Establishing clear links between the broad, value-laden goals and the more specific performance indicators helps to provide a tangible path toward feasible implementation. The policies and supportive strategies are identified in Table ES.1 (Page ES-6).

Process in Developing the Strategies

Policies from the 2018 RTP/SCS plan have been carried forward to the 2022 plan. However, there was an extensive process to develop and evaluate

new strategies for the 2022 plan. The consultant team (Cascadia Partners) developed an initial list of strategies based on suggestions from experts in transportation, land use planning, public health, and economic development. Some of the strategies were from the 2018 plan. More information on how strategies were developed and evaluated can be found in the Appendix S of this plan.

RTP/SCS strategies underwent a qualitative and quantitative evaluation once they were defined to gauge their performance in a range of future conditions using a scenario planning tool called TrendLab+. This tool forecasts the effects of disruptive economic and transportation trends and emerging technologies such as autonomous vehicles. This is the first time that proposed strategies underwent an evaluation process based on their performance in preselected future trends.

With this innovative new process, three futures were developed in TrendLab+ based on the three external factors: transportation technology, climate migration, and the e-economy. Developing futures in TrendLab+ involved making informed estimates of future conditions across a range of categories such as land use, pedestrian investments, and AV adoption. Futures were developed to be viewed as “what if” tests, rather than predictions.

For SJCOG’s 2022 RTP/SCS, TrendLab+ was calibrated and modified to measure the impact of strategies in three assumed futures across four metrics: vehicle miles traveled (VMT), transit ridership, greenhouse gas emissions (GHG), and housing costs.

Strategy Evaluation

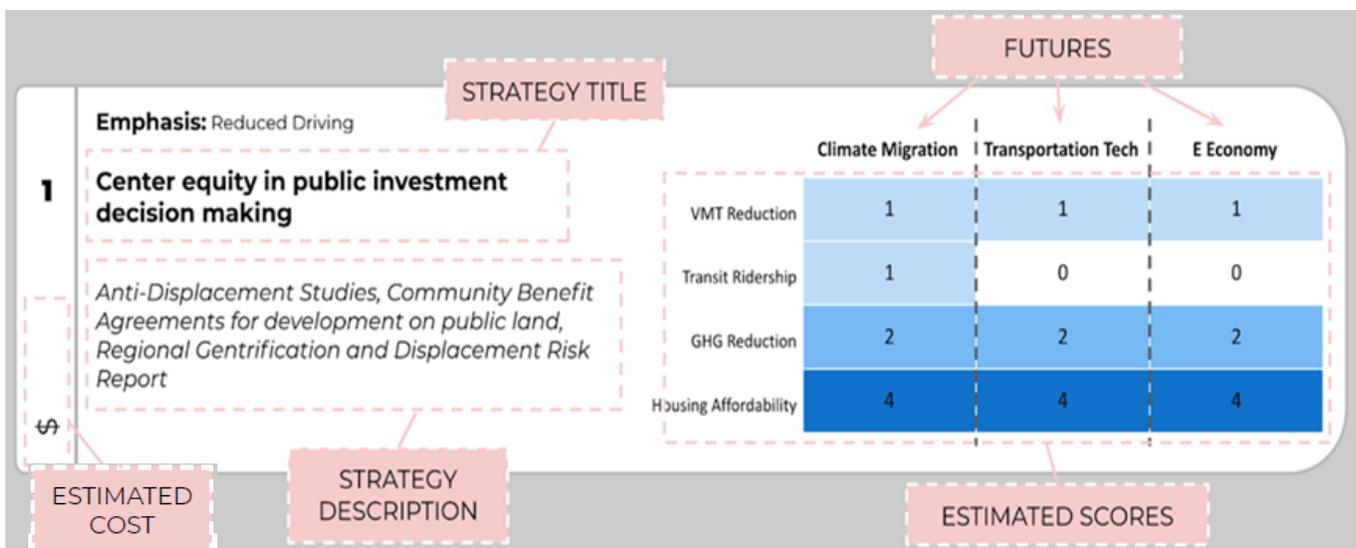
The final step in the strategy evaluation process was to test strategies in isolation in how well they perform in each of the three futures. This was done by applying the strategy to each future and measuring outcomes across the four metrics and then comparing these to the baseline outcomes.

Based on these results, each strategy was given a 1-5 score for each metric within each future (Figure ES.2) with a score of 5 representing the maximum positive performance. Strategies that scored high in multiple futures were included in the final proposed list of strategies.

Public Review of Proposed Strategies

The public engagement process provided the community with the opportunity to review the proposed strategies. This was accomplished through a MetroQuest survey, which asked survey participants to rate the proposed strategies. Strategies were also rated during a workshop with the RTP/SCS Working Group and a workshop that was open to the public (described in Chapter 2). Strategies that were rated highest during the MetroQuest survey and workshops were also included in the final proposed list of strategies. Many strategies that were rated high during the public engagement process also scored high in the strategy evaluation process. The final list of plan strategies is found in Table ES.1.

Figure ES.2 RTP/SCS Strategy Evaluation Process



Cascadia Partners

Table ES.1: Policies and Supportive Strategies

Policy: Enhance the Environment for Existing and Future Generations and Conserve Energy

Strategy No. 1: Encourage efficient development patterns that maintain agricultural viability and natural resources.

Strategy No. 2: Encourage preservation of natural resources.

Strategy No. 3: Enhance the connection between land use and transportation choices through projects supporting energy and water efficiency.

Strategy No. 4: Improve air quality by reducing transportation-related emissions.

Policy: Maximize Mobility and Accessibility

Strategy No. 5: Optimize the public transportation system to provide efficient and convenient access for users of all income levels.

Strategy No. 6: Encourage infill development and development near transit, including transit-oriented development to maximize existing transit investments.

Strategy No. 7: Provide transportation improvements to facilitate nonmotorized travel, including incorporation of complete streets elements as appropriate.

Strategy No. 8: Improve freight access to key strategic economic centers.

Strategy No. 9: Promote safe and efficient strategies to improve the movement of goods by water, rail and truck.

Policy: Increase Safety and Security

Strategy No. 10: Facilitate projects that reduce the number and severity of traffic incidents.

Strategy No. 11: Support local and state efforts for transportation network resiliency, reliability and climate adaptation.

Policy: Preserve the Efficiency of the Existing Transportation System

Strategy No. 12: Prioritize projects that make more efficient use of the existing road network.

Strategy No. 13: Support the continued maintenance and preservation of the existing transportation system.

Strategy No. 14: Promote electric power, alternative fuels and autonomous technologies for freight and agriculture.

Strategy No. 15: Manage the adoption of electric vehicles and private connected and autonomous vehicles.

Strategy No. 16: Promote electric power, alternative fuels and autonomous technologies for public transit.

Policy: Support Economic Vitality

Strategy No. 17: Support transportation improvements that improve economic competitiveness, revitalize commercial corridors and strategic economic centers, and enhance travel and tourism opportunities.

Strategy No. 18: Support workforce training across industries, particularly transportation-related industries.

Strategy No. 19: Encourage and/or strengthen small business, while supporting large employer recruitment.

Strategy No. 20: Invest in high-speed internet infrastructure to support e-business and reduce commuting.

Policy: Promote Interagency Coordination and Public Participation for Transportation Decision-Making and Planning Efforts

Strategy No. 21: Provide equitable access to transportation planning.

Strategy No. 22: Engage the public early, clearly and continuously.

Strategy No. 23: Use a variety of methods to engage the public, encouraging representation from diverse income and ethnic backgrounds.

Policy: Maximize Cost Effectiveness

Strategy No. 24: Support efforts to streamline the development process.

Strategy No. 25: Support the use of state and federal grants to supplement local funding and pursue discretionary grant funding opportunities from outside the region.

Strategy No. 26: Support projects that maximize cost effectiveness.

Strategy No. 27: Maximize funding of existing transportation options.

Policy: Improve the Quality of Life for Residents

Strategy No. 28: Promote a broader range of housing types.

Strategy No. 29: Support the development a regional trust fund dedicated to addressing housing issues.

Strategy No. 30: Enhance public health through active transportation projects.

Financial Plan

The investment strategy is a balanced approach to multimodal development intended to fulfill the objectives and performance indicators that guide the plan and move toward achieving the long-term transportation goals for the region. The transportation investments in the plan are based on an estimate of available funding through 2046. In total, the plan assumes \$12.67 billion in projected revenues (Figure ES.3 below) to be available for investments (shown in Table ES.2) during the time horizon of the plan.

Table ES.2 Plan Investment Categories (in millions)

Project Category	2022 Plan (RTP/SCS) (Billions)
Roadway Operations, Maintenance and Safety	\$4.638
Transit (Bus and Rail)	\$4.732
Roadway Capacity (Mainline, Interchanges, Regional Roadways)	\$2.721
Active Transportation/Community Enhancements	\$0.384
Totals	\$12.475*

*Does not include airport revenue projections.

Figure ES.3 Revenue Forecast by Fund Source

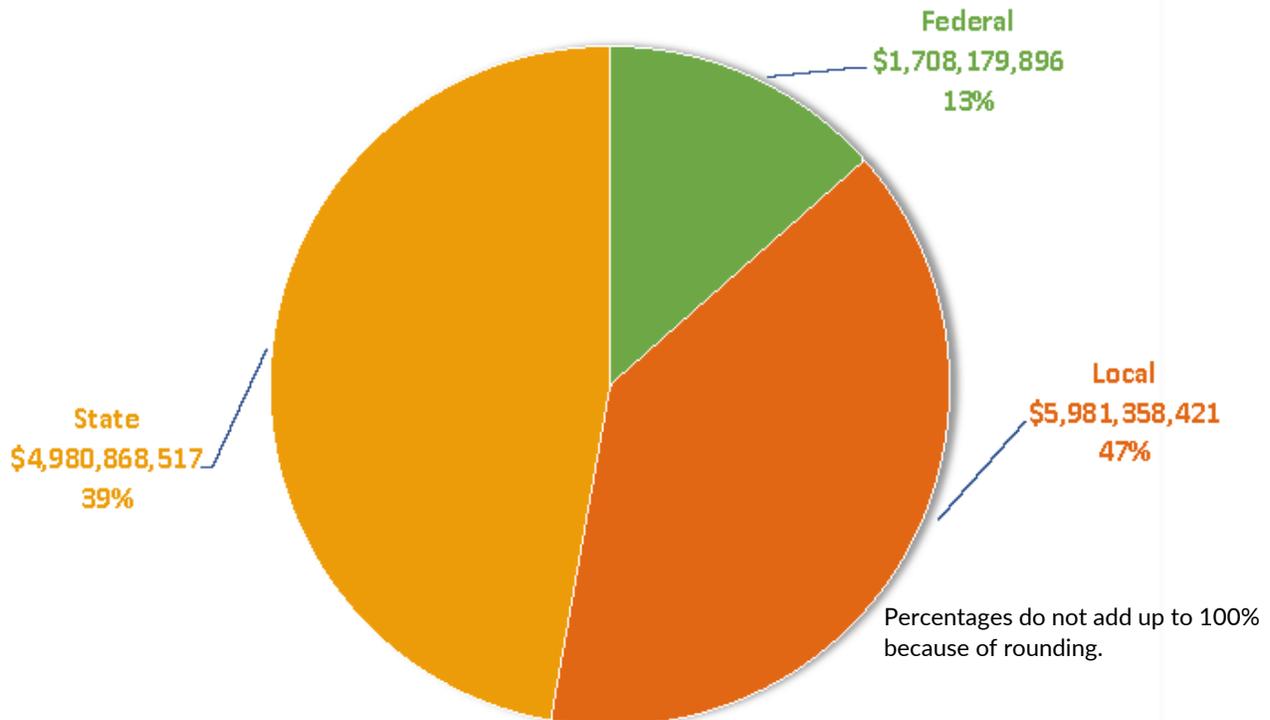




Photo Credit: Captivating Photos

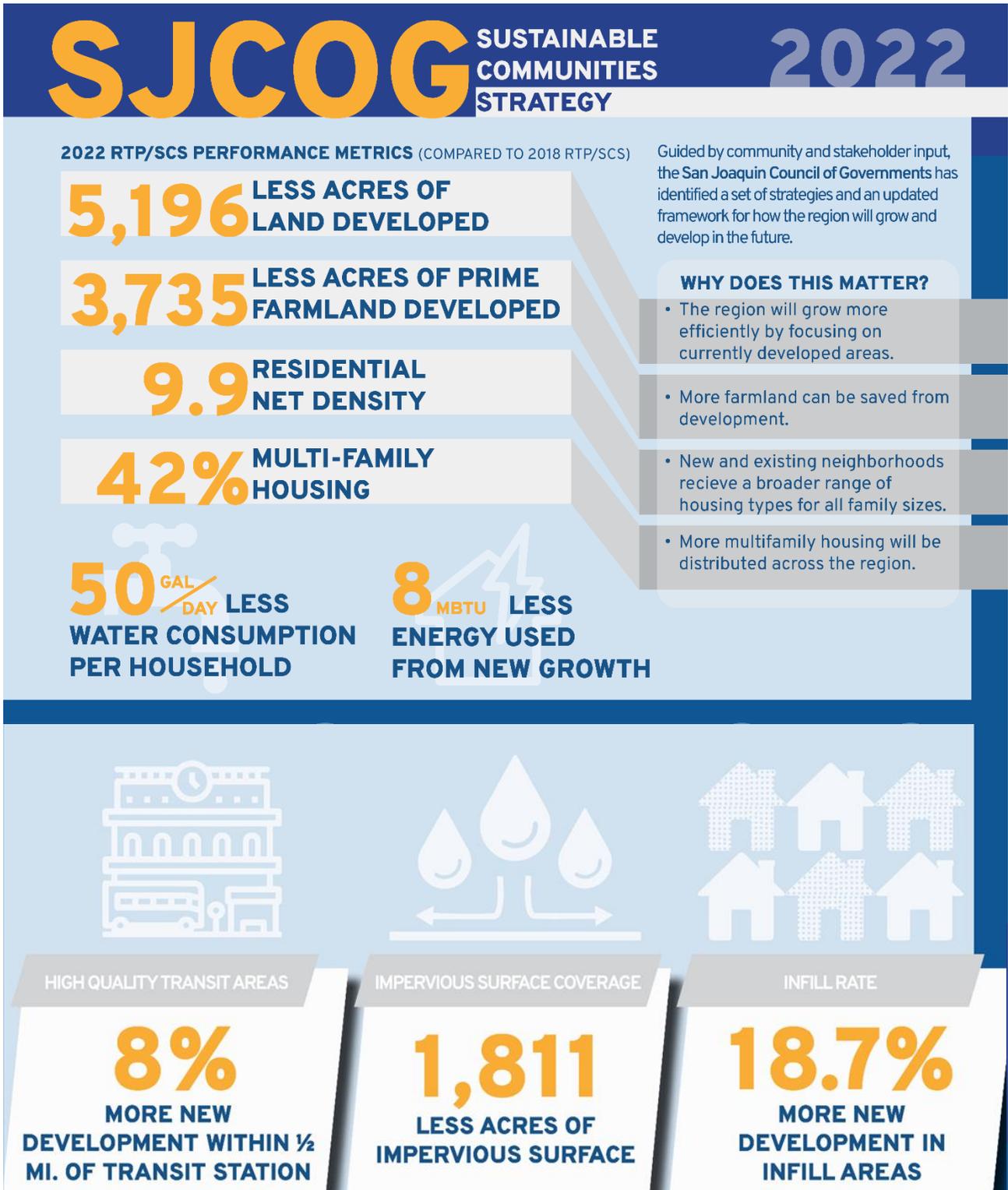
Among other features, the financial plan:

- Provides a combined operations and maintenance investment in the existing transportation system of almost \$4.64 billion during the 24-year RTP period.
- Provides \$4.73 billion to public transit with funding coming from various sources. Of that amount, \$3.43 billion in funding goes to the operations of local, intercity and interregional bus services and \$1.3 billion to the operation and enhancement of the Altamont Corridor Express (ACE).
- Recognizes the feasibility report and environmental document by the Tri-Valley-San Joaquin Valley Regional Rail Authority. The work is for planning, developing and delivering cost-effective and responsive transit connectivity between the Bay Area Rapid Transit District's system (BART) and the ACE commuter rail service.
- Provides \$2.72 billion for key projects to improve the most congested portion of the highway and arterial roadway system and promote the efficiency of the roadway system. The capacity improvements are targeted at corridors that are the most essential to mobility within the county.
- Invests \$384 million to support active transportation and community enhancement projects.

Plan Performance

Some key performance results of the plan are summarized in Figure ES.4.

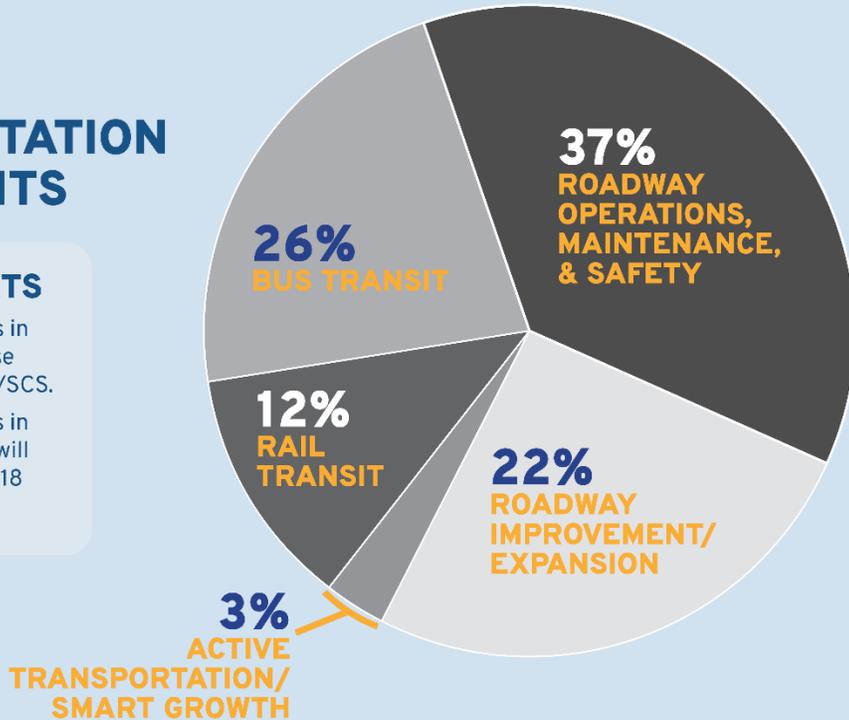
Figure ES.4



2022-2046 REGIONAL TRANSPORTATION INVESTMENTS

KEY HIGHLIGHTS

- Projected investments in bus transit will increase 32.5% over 2018 RTP/SCS.
- Projected investments in active transportation will increase 20% over 2018 RTP/SCS.



Project in Tracy

I-205 Managed lanes – Widen from 6 to 8 lanes between I-5 and I-580, managed lanes, with a central median reserved for transit.

Project in Manteca

SR99/120 Connector Project Phase 1A – includes widening connector ramp, removing Austin Road overcrossing and replacing with a new 4 lane structure.

Project in Stockton

California Street Separated Bikeway Project Phase 2 – will connect North and Central Stockton through downtown to South Stockton with Class II bike lanes and Class III shared (bike and car) lanes.

Project in SJC

Escalon Bellota Road – widen 2 to 4 lanes with shoulders from Escalon city limits to Mariposa Road.



Project in Lodi

SR-99 at Turner Road – reconstruct interchange, and modify on- and off-ramps to improve safety and flow.

Project in Escalon

Escalon BNSF Grade Separation – construct railroad grade separation on Yosemite Avenue (SR-120) and McHenry Avenue at BNSF Railroad.

Project in Lathrop

I-5 HOV (Mossdale) – add HOV lanes and direct HOV connectors to I-205 and SR-120. From I-205 to Louise Avenue.

Project in Ripon

Ripon Multimodal Station – buildout of station facilities, parking facilities, and associated passenger amenities, and on and off-site infrastructure.

KEY STRATEGIES



KEY STRATEGY #1

Facilitate projects that reduce the number and severity of traffic incidents.



KEY STRATEGY #2

Support the development a regional trust fund dedicated to addressing housing issues.



KEY STRATEGY #3

Provide transportation improvements to facilitate non-motorized travel, including incorporation of complete streets elements as appropriate.



KEY STRATEGY #4

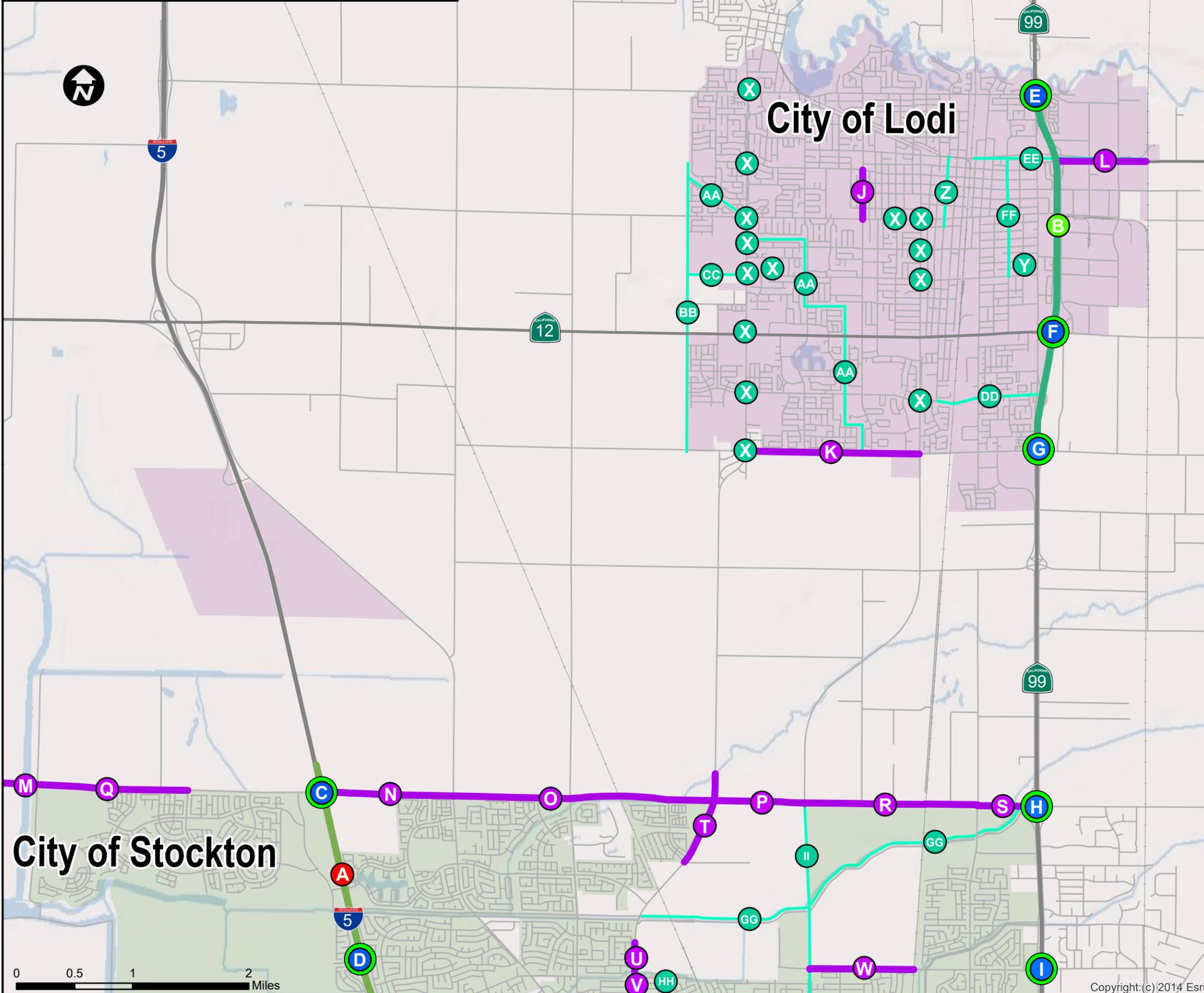
Invest in high-speed internet infrastructure to support e-business and reduce commuting.



Highlighted Projects

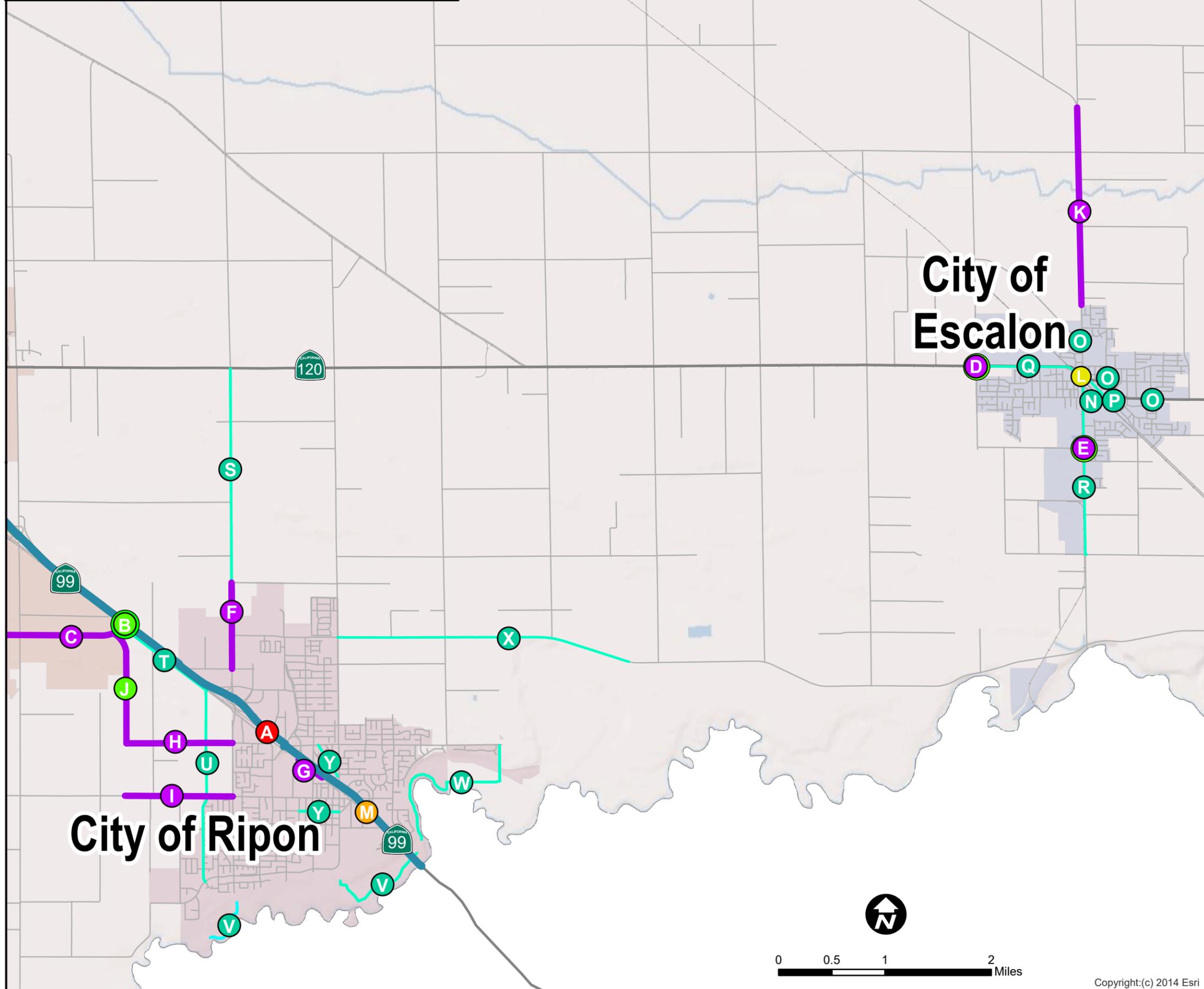
The following maps highlight selected projects in the plan in Tracy, Lathrop, Manteca, Ripon, Escalon, Stockton, Lodi, and San Joaquin County. More information on each project is in the Project List in Appendix F of the Technical Appendices.

2022 RTP/SCS Highlighted Projects City of Lodi and North Stockton



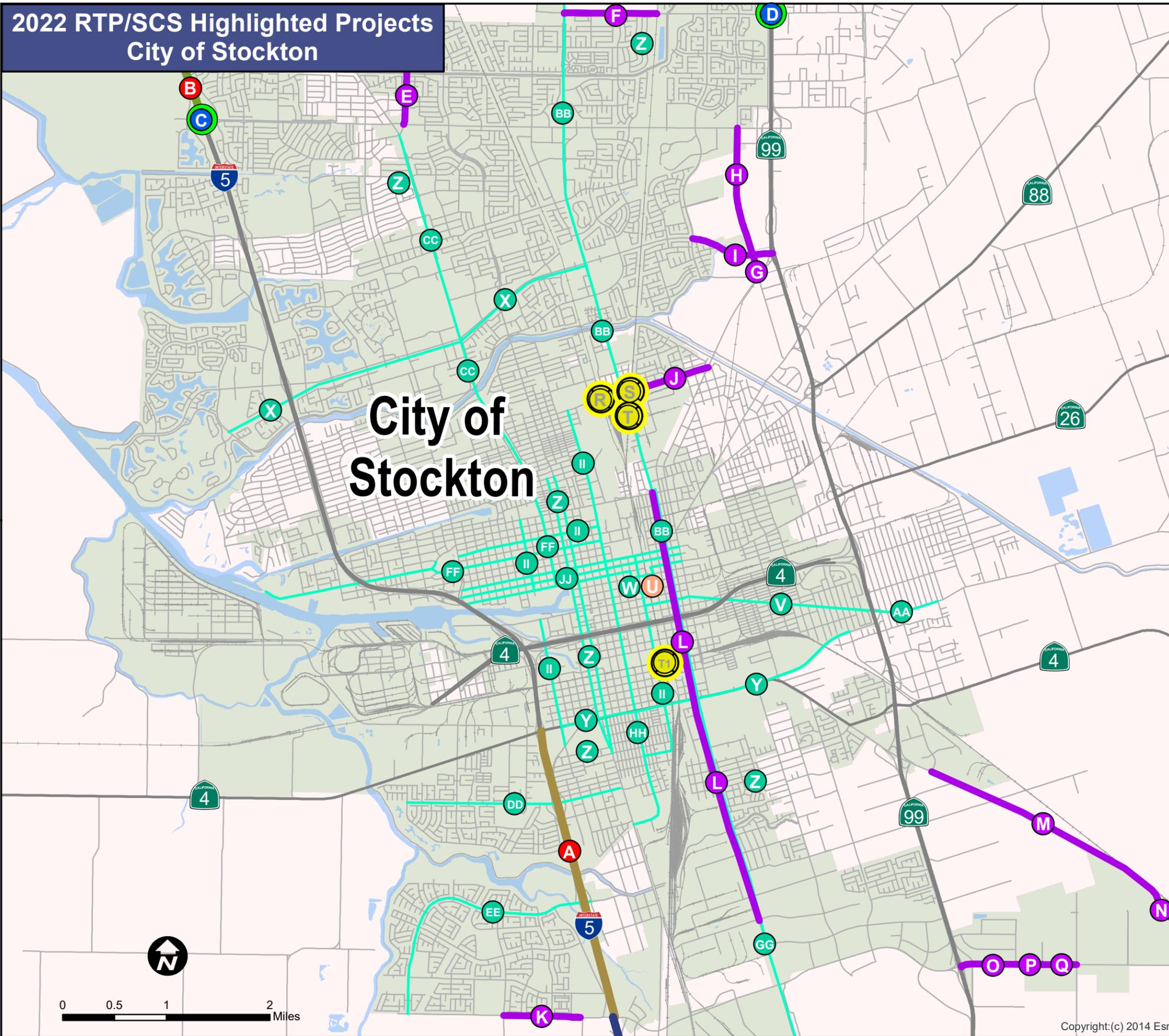
Map Key	Project Name	Description	Project Limits
Mainline Highway			
A	I-5 HOV	Widen from 6 to 8 lanes (inside median) including auxiliary lanes	Hammer Lane to North of 8 Mile Rd
B	SR 99 widening	Widen 4-6 lanes (inside) - ENVIRONMENTAL ONLY	Harney Lane to Turner Road
Interchanges			
C	I-5 at Eight Mile Road	Modify existing interchange	I-5 at Eight Mile Road
D	I-5 at Otto Drive	Construction of new interchange and auxiliary lanes	I-5 at Otto Drive
E	SR 99 at Turner Road	Reconstruct interchange	SR 99 at Turner Road
F	SR 99 at SR 12 W (Kettleman Ln)	Reconstruct interchange	SR 99 at SR 12 W (Kettleman Lane)
G	SR 99 at Harney Lane	Reconstruct interchange	SR 99 at Harney Lane
H	SR 99 at Eight Mile Road	Reconstruct interchange	SR 99 at Eight Mile Road
I	SR 99 at Morada Lane	Reconstruct interchange	SR 99 at Morada Lane
Regional Roadways			
J	Ham Lane	Widen 2/3 lanes to 4 lanes	Lodi Avenue to Elm Street
K	Harney Lane	Widen from 2/3 lane collector to 4 lane divided arterial	Hutchins Street to Lower Sacramento Road
L	Victor Road (SR-12)	Widen from 2 to 4 lanes. Add center dual left turn lane and other items.	Between SR 99 to Central California Traction railroad tracks.
M	Eight Mile Rd	Widen from 2 to 4 lanes	New Road D to New Road F
N	Eight Mile Rd	Widen from 5 to 6 lanes	I-5 to Thornton Road
O	Eight Mile Rd	Widen from 2 to 4 lanes	Thornton Road to Lower Sacramento Road
P	Eight Mile Rd	Widen from 2 to 6 lanes	Lower Sacramento Road to West Lane
Q	Eight Mile Rd	Widen from 2 to 4 lanes	New Road F to New Road E
R	Eight Mile Rd	Widen from 2 to 6 lanes	West Lane to Holman Road
S	Eight Mile Rd	Widen from 2 to 6 lanes	Holman Road to SR-99
T	Lower Sacramento Road	Widen from 2 to 6 lanes	Marlette Road to Pixley Slough
U	Lower Sacramento Road	Widen from 4 to 6 lanes	Armor Drive to Morada Lane
V	Lower Sacramento Road	Widen from 4 to 6 lanes	Morada Lane to Hammer Lane
W	Morada Lane	Widen from 3 to 6 lanes	West Lane to UPRR
Active Transportation			
X	Citywide Bicycle Facilities Detection Improvement Project	Install video detection of bicyclists and green bike lanes at intersections	13 locations throughout Lodi
Y	Garfield Street Safe Route to School Project	Pedestrian improvements	Tokay Street to Poplar Street
Z	Church Street Road Diet	Install center turn lane, Class II Bicycle Lanes, sidewalks, modify traffic signals	Lockeford Street to Chestnut Street
AA	West Lodi Canal Path	Construct Class I Bike Path	Peterson Park to Harney Lane
BB	Lodi Loop Trail	Construct Class I Bike Bath	Applewood Dr. to future Unnamed Street
CC	Vine Street Trail	Construct Class I Bike Bath	Lower Sacramento Road to W City Limits
DD	Century Blvd	Install Class II Bike Lanes	Church Street to Cherokee Ln
EE	Victor Road	Construct Class I Bike Path	Sacramento Street to Central California Traction railroad
FF	Central Avenue Improvements	Construct pedestrian improvements and install Class III Bicycle Route	Railroad Avenue to Vine Street
GG	Bear Creek Multi-Use Pathway Extension	Construct Class I Multi-Use Path	Between Lower Sacramento Rd and Eight Mile Rd
HH	N El Dorado Street Road Diet	Install center turn lane and Class II Bike Lanes	Morada Lane to W. Hammer Lane
II	West Lane	Install Class 4 Separated Bikeway	Eight Mile Road to Harding Avenue

2022 RTP/SCS Highlighted Projects Cities of Ripon and Escalon



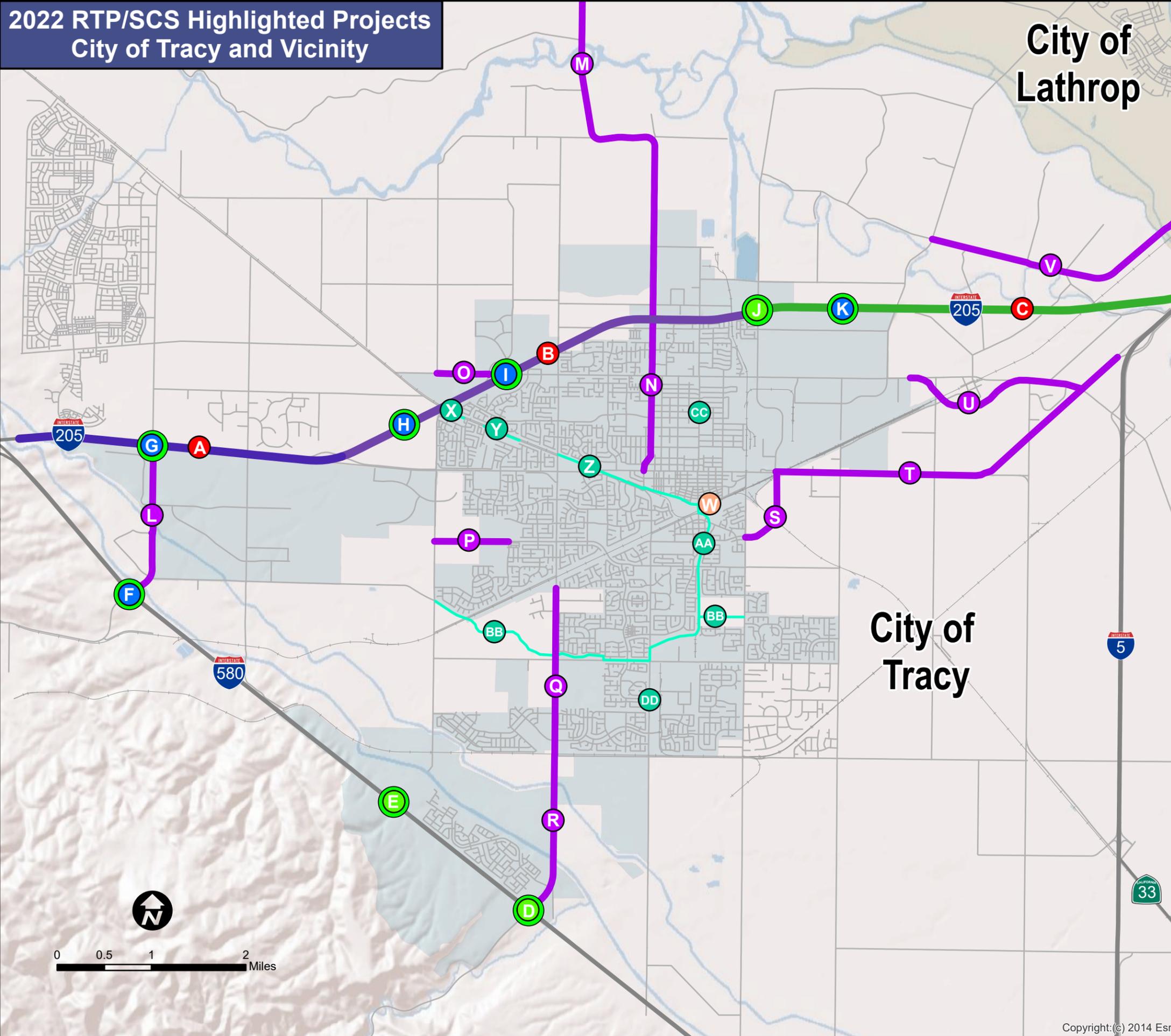
Map Key	Project Name	Description	Project Limits
Mainline Highway			
A	SR-99 HOV	Widen from 6 to 8 lanes (inside/outside)	SR-120 to Stanislaus County Line
Interchanges			
B	SR-99 at Raymus Expressway	Construct new interchange (ENVIRONMENTAL ONLY)	SR-99 at Raymus Expressway
Regional Roadways			
C	Raymus Expressway	Construct new 4-lane expressway	Main Street to SR-99
D	SR 120/Brennan Ave Intersection	Intersection improvements	SR-120 at Brennan Avenue
E	Ullrey Avenue/McHenry Avenue Intersection	Reconstruct intersection, including addition of turn pockets and other items	Intersection of Ullrey Avenue and McHenry Avenue including UPRR railroad crossing
F	Jack Tone Road, Phase 1	Widen from 2 to 6 lanes	Santos Road to South Clinton Avenue
G	Garrison Road Gap Closure	Construct 2-lane extension of Garrison Road.	Maple Avenue to 500 ft east of Acacia Avenue
H	Canal Boulevard Extension	Construct 4-lane extension of Canal Boulevard	Jack Tone Road to Olive Expressway
I	W Ripon Road	Widen from 2 to 6 lanes	Jack Tone Road to Olive Expressway
J	Olive Expressway	Construct 6-lane Olive Expressway - ENVIRONMENTAL ONLY	Canal Boulevard to Raymus Expressway
K	Escalon Bellota Road	Widen 2 to 4 lanes with shoulders	Escalon City limits to Mariposa Road
Railroad Grade Separations			
L	Escalon BNSF Grade Separation	Construct railroad grade separation	On Yosemite Avenue (SR-120) and McHenry Avenue at BNSF Railroad
Transit			
M	Ripon Multimodal Station	Construct multimodal station	Downtown Ripon
Active Transportation			
N	First Street Improvements	Construct sidewalks and landscaping	McHenry Avenue to Main Street
O	Rapid Rectangular Flashing Beacons	Install flashing beacons at 3 locations	3 locations in City of Escalon
P	Main Street	Construct Class I Bike Path and sidewalks	1st St to 3rd St (bike path), 4th St to St. John Rd (sidewalk)
Q	Yosemite Ave	Construct Class I Bike Path	Brennan Rd to 1st St
R	McHenry Ave	Construct Class I Bike Path	Jones Rd-S City Limits to California St
S	Jack Tone Road	Construct Class I Bike Path	Yosemite Ave to Santos Avenue
T	Manteca-Ripon Connector(Ripon)	Construct Class I Bike Path	River Road to Kamps Way
U	Highland Avenue	Construct Class I Bike Path	Highway 99 to Doak Boulevard
V	Lower Stanislaus River Multi-Use Trail	Construct Class I Bike Path	Jack Tone Road to Stanislaus River and Stockton Ave to Parallel Rd
W	East Stanislaus River Trail	Construct Class I Bike Path	Laurelwood Lane to Proposed Spring Creek Path
X	E. River Road	Construct Class I Bike Path	N. Ripon Road to 0.7M East of Wagner Road
Y	Ripon Safe Routes to School Improvements	Install Class II and III bikeways, curb extensions and improve crossings	Second St, North Acacia Ave Prospect Ave, Ripona Ave

2022 RTP/SCS Highlighted Projects City of Stockton



Map Key	Project Name	Description	Project Limits
Mainline Highway			
A	I-5 HOV	Widen from 6 to 8 lanes (inside)	French Camp Road to Charter Way
B	I-5 HOV	Widen from 6 to 8 lanes (inside median) including auxiliary lanes	Hammer Lane to North of 8 Mile Rd
Interchanges			
C	I-5 at Hammer Lane	Modify existing interchange	I-5 at Hammer Lane
D	SR 99 at Morada Lane	Reconstruct interchange	SR 99 at Morada Lane
Regional Roadways			
E	Lower Sacramento Road	Widen from 4 to 6 lanes	Morada Lane to Hammer Lane
F	Morada Lane	Widen from 3 to 6 lanes	West Ln to UPRR
G	Maranatha Drive	Construction of new 4 lane road	Wilson Way to March Lane
H	Maranatha Drive	Construction of new 4 lane road	March Lane to Hammer Lane
I	March Ln Extension	Construction of new 8 lane road	Holman Rd to SR 99
J	Alpine Avenue	Widen from 2 to 4 lanes with a middle turn lane. Construct curb, gutter, sidewalks and driveways.	UPRR (SPRR) to Wilson Way
K	French Camp Road	Widen from 2 to 6 lanes	Wolfe Road to Manthey Road
L	Airport Way	Intersection and operational improvements	Harding Way to Industrial Drive
M	Mariposa Road	Widen from 2 to 4 lanes	Stagecoach Road to Austin Road
N	Mariposa Road	Widen from 2 to 3 lanes and widen BNSF railroad grade separation from 2 to 4 lanes	Austin Road to Jack Tone Road
O	Arch Road	Widen from 2 to 6 lanes	Frontier Way to SR-99
P	Arch Road	Widen from 2 to 6 lanes	Fite Court to Frontier Way
Q	Arch Road	Widen from 2 to 6 lanes	Newcastle Road to Fite Court
Railroad Grade Separations			
R	Alpine Ave/UPRR (West)	Construct at-grade quiet zone improvements at railway	Alpine Ave/UPRR (west)
S	Alpine Ave/UPRR (East)	Construct a 4-lane grade separation	Alpine Ave/UPRR (east)
T	West Lane at UPRR	Construct a 6 lane grade separation	On West Lane between Alpine Ave & El Pinal Drive/Klinger Road
U	Intersection of BNSF and UP Railroads (South of Hazelton Ave, West of Pilgram St.)	Construct track connections and grade separate the BNSF and UPRR diamond crossing	Intersection of the BNSF and UP railroads
Transit			
U	Robert J Cabral Station Expansion	Construct park and ride lot and other passenger amenity improvements	Robert J. Cabral Station
Active Transportation			
V	Main Street	Complete streets project with buffered bicycle lanes	California Street to SR-99
W	East Channel Street	Streetscape and Connectivity Project	Between RTD Downtown Station and Cabral ACE Station
X	March Lane/EBMUD Bicycle and Pedestrian Path Connectivity	Reconstruct, widen, and improve Class I Bike Path	Brookside Road to West Lane & March Lane to EBMUD on West Ln.
Y	Dr. Martin Luther King Jr. Boulevard	Install Class 4 Separated Bikeway	Lincoln Street to Golden Gate Avenue
Z	Safe Routes to School Safety and Connectivity Improvements	High visibility crosswalks, flashing beacons, and curb ramps near schools	Various
AA	Main Street	Road diet, construct Class 2 buffered bike lanes	SR 99 to Wagner Avenue
BB	West Lane/Airport Way	Install Class 4 Separated Bikeway	Eight Mile Road to Dr. Martin Luther King Jr. Boulevard
CC	Pacific Avenue	Install Class 4 Separated Bikeway	Lower Sacramento Road to Harding Way
DD	Eighth Street	Install Class 4 Separated Bikeway	Houston Avenue to El Dorado Street
EE	Carolyn Weston Boulevard	Install Class 4 Separated Bikeway	French Camp Road to French Camp Turnpike
FF	Central Stockton Road Diet	Install Class 2 bike lanes	Mount Diablo Ave, Picardy Dr, Acacia St., Fremont St., and Madison St.
GG	South Airport Way	Install Class 2 bike lanes with vertical delineator posts	Martin Luther King Jr. Boulevard to Performance Drive
HH	California Street Separated Bikeway	Construct Class 4 separated bikeway	Alpine Avenue to South El Dorado Street
II	Greater Downtown Bike and Pedestrian Connectivity	Construct Class 2 bike lanes and Class 3 bicycle boulevards	Rose Street, Aurora Street, Lincoln Street
JJ	Downtown East - West Connection	Construct bicycle facilities and pedestrian improvements	Fremont Street, Oak Street, Park Street

2022 RTP/SCS Highlighted Projects City of Tracy and Vicinity



City of
Lathrop

City of
Tracy

Map Key	Project Name	Description	Project Limits
Mainline Highway			
A	I-205 HOV	Widen from 6 to 8 lanes (inside/outside)	Alameda County Line to Eleventh St
B	I-205 HOV	Widen from 6 to 8 lanes (inside/outside)	Eleventh Street to MacArthur Drive
C	I-205 HOV	Widen from 6 to 8 lanes (inside/outside)	MacArthur Drive to I-5
Interchanges			
D	I-580 at Corral Hollow Road	Modify existing interchange - ENVIRONMENTAL ONLY	I-580 at Corral Hollow Road
E	I-580 at Lammers Road	Construction of new interchange - ENVIRONMENTAL ONLY	I-580 at Lammers Road
F	I-580 at International Pkwy / Patterson Pass Road	Reconstruct interchange	I-580 at International Parkway
G	I-205 at Mountain House Pkwy / International Pkwy	Reconstruct interchange	I-205 at Mountain House Pkwy
H	I-205/Lammers Rd/Eleventh St	Construct new interchange and widen Eleventh Street to 6 lanes	I-205 at new alignment of Eleventh Street / Lammers Road
I	I-205 at Grant Line Road	Modification of existing interchange	I-205 at Grant Line Road
J	I-205 at MacArthur Drive	Modification of existing interchange - ENVIRONMENTAL ONLY	I-205 at MacArthur Drive
K	I-205 at Chrisman Road	Phase 1: Construct new interchange east-west ramps	I-205 at Chrisman Road
Regional Roadways			
L	International Parkway	Widen from 2 to 4 lanes and reconstruct aqueduct bridges	I-205 to I-580
M	Tracy Boulevard	Passing lanes and channelization	I-205 to Howard Road
N	Tracy Boulevard	Widen from 4 lane minor arterial to 4 lane major arterial	I-205 to Eleventh Street
O	Grant Line Road	Widen from 5 to 6 lanes	Naglee Road to Lammers Road
P	Schulte Road	Extend 4 lane roadway	Faith Lane (San Marco Subdivision limits) to Lammers Road
Q	Corral Hollow Road	Widen from 2 to 4 lanes	Parkside Drive to Linne Road
R	Corral Hollow Road Widening	Widen 2 to 4 lanes including ROW and construction of two bridges	Linne Road to I-580
S	MacArthur Drive	Extend 4 lane roadway (Mt. Diablo Road to Eleventh Street)	Mt. Diablo Road to Eleventh Street
T	Eleventh Street	Improve roadway and intersections	Tracy City Limits to I-5
U	Grant Line Road Corridor Improvements	Realign roadway and widen from 2 to 4 lanes with operational improvements	Tracy City Limits to 11th Street
V	Golden Valley Parkway	Construct new roadway parallel to I-5, 4 lanes from Stewart Road to Paradise Road	Stewart Road to Paradise Road
Transit			
W	Tracy Multi-modal Center	Lengthen platform to allow for eight car train capacity	Tracy Multi-modal Center
Active Transportation			
X	Byron Road Trail	Construct Class I Bike Path	Lammers Road to west of Lankershire Road
Y	Byron Road Trail	Construct Class I Bike Path	East of Lankershire Road to west of Belconte Drive
Z	UPRR Trail	Construct Class I Bike Path	Corral Hollow Road to Central Ave
AA	UPRR Rail Trail	Construct Class I Bike Path	Central Avenue to Canal Trail
BB	Canal Trail	Construct Class I Bike Path	Lammers Road to MacArthur Drive
CC	Holly Drive	Bicycle and Pedestrian Improvements	Holly Drive Through Tracy
DD	Tracy Boulevard Sidewalks	Construct sidewalks	South of Valpico Road to north of Whispering Wind Drive

CHAPTER 1

Introduction



ONE

Where San Joaquin County is, where it is going, and how it will get there are basic to developing the Regional Transportation Plan/Sustainability Communities Strategy. This chapter describes the region's geographic and regulatory setting and provides projections on county population, housing and employment. It sketches the region's transportation system and economic assets, including goods movement by roads, water, air and rail. It also contains an overview of how the RTP/SCS will achieve sustainability goals through regional collaborations for regional solutions.





Photo Credit: Captivating Photos

By the year 2050, San Joaquin County will be the home to more than 1,022,000 people.

Regional and Geographic Setting

San Joaquin County encompasses approximately 912,600 acres and is home to 783,534 residents. In addition to the unincorporated area, the region's cities are Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton and Tracy. The county seat and largest city is Stockton with a population of 320,876 (U.S. Census Bureau).

Demographic Trends

San Joaquin County remains one of the fastest-growing regions in California (Figure 1.1). The county's geographical advantages and quality of life contribute to the growth. While forecast growth has slowed in recent years, San Joaquin County's population growth rate was third in the state among all California counties from 2015 to 2020, at 6.7 percent. Between 2020 and 2060, five-year growth rates are projected to average 3.2 percent, ranking San Joaquin within the top eight fastest-growing counties of the state's 58 counties. Comparatively, average five-year population growth rates for the state are projected at 1.3 percent through 2060.

Historically, the county's population has been younger than both the state and nation. While that is projected to be the case in the future, the population of the region is aging, following state and national trends. In 2020, people under 24 comprised 36 percent of the population, while those over 65 comprised only 13 percent. By 2050, there will be a 6 percent reduction in the population of people under 24 and a corresponding 6 percent increase in the 65 and over age group. The number of people over 65 in San Joaquin County will almost double between 2020 and 2050. The mobility needs of this aging population will be an ever-increasing priority in the region.

Housing growth in San Joaquin County has been historically influenced by the county's proximity to the San Francisco Bay Area and the relatively cheaper housing costs on this side of the Altamont Pass. Regional planning agencies in the Bay Area have long recognized the affordable housing problem, but now it is characterized as a crisis because of the limited supply of both market-rate and affordable housing. The problem was exacerbated by the much faster economic recovery of Bay Area employment compared to other areas of the state after the 2007-2009 recession. Rents, home prices, freeway congestion and weekday rail ridership for the Bay Area all reached new highs after a rapid economic recovery from the great recession.

SJCOG's Community Pulse website is designed to deliver insights into demographic and socioeconomic trends important to residents and policymakers in San Joaquin County.



This data repository features infographics and data to assist staff and stakeholder groups in tracking regional progress on the plan's performance metrics.

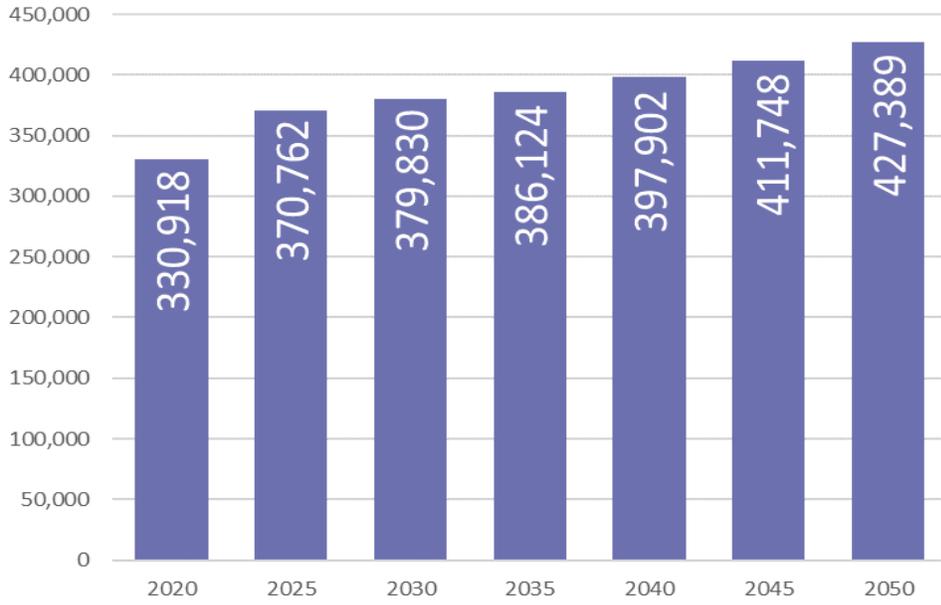
It can be accessed here:
<http://www.sjcog.org/404/Community-Pulse>

SJCOG also sponsors a speaker's series to keep local partners and stakeholders up to date on demographic and community trends.

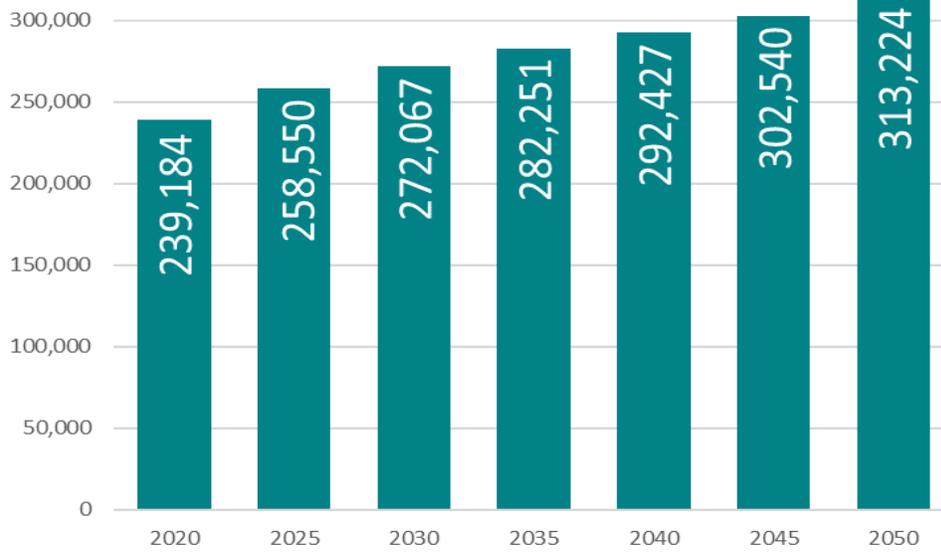
Figure 1.1 Population, Housing and Employment Projections

Source: Center for Business and Policy Research

EMPLOYMENT PROJECTIONS



HOUSEHOLD PROJECTIONS



POPULATION PROJECTIONS



“The housing market is an important economic indicator that reflects consumer and producer confidence in the future of the economy. One reason that housing is used to measure overall economic condition is because the housing market is generally, very responsive to the economy and one of the first sectors to rise or fall with changing economic conditions.”

— Center for Business and Policy Research

On the San Joaquin County side of the Altamont Pass, San Joaquin County had recovered its pre-recession jobs numbers by 2015 and had overall robust job growth numbers. However, the COVID-19 pandemic beginning in 2020 affected all job sectors in the county and caused large numbers of layoffs, particularly in the service industry.

Housing construction has been slower to recover than the other parts of the economy. In the short-term, the construction of new housing has increased since 2015 from 1,150 units during Fiscal Year 2014-2015 to about 3,200 units during Fiscal Year 2019-2020. The median sale price of a home in San Joaquin County as of May 2021 was nearly \$450,000. In the long-term, however, the housing construction numbers do not compare to what was happening in the new housing market before the Great Recession. At the height of the building boom before the recession, more than 7,000 housing units a year were being constructed. Still, median sales prices are approaching the level before the Great Recession of \$475,000.

Manteca, Tracy, Lathrop and the unincorporated community of Mountain House are projected to see the highest percentage of growth in housing construction in the near-term owing to their proximity to both Bay Area job markets and booming logistics and warehouse employment centers near Tracy and on the west side of Stockton.

San Joaquin County’s economy continues to grow. Downtown Stockton revitalization efforts, the Big League Dreams sports complex, substantial retail development, and the Great Wolf Lodge resort and water park in Manteca, additions to the Mistlin Sports Park in Ripon, and the emergence of the Lodi area as a world class wine producer are all shaping San Joaquin County into a destination for tourism and entertainment.

The region also continues to attract new warehousing and distribution centers that serve Northern California, the Bay Area, and the West Coast. A centralized and diverse network of highway,

rail, air, and seaport facilities support the continued development of San Joaquin County into a major goods movement region.

In 2019, San Joaquin County had 348,000 jobs, but 17,000 jobs were lost in 2020 due to the COVID-19 pandemic. However, forecasts show that there will be a full recovery after the pandemic and job creation will continue at a steady pace so that San Joaquin County will be supporting more than 427,000 jobs by the year 2050. With over \$2.7 billion in gross value of production in 2020, agriculture continues to be one of the largest producing industries in San Joaquin County.

More economic growth comes with the emergence of anchor retailer stores such as Bass Pro Shop in Manteca and Costco in Lodi. Amazon has opened seven fulfillment centers in San Joaquin County in the past nine years with three in or near Tracy, three

in Stockton, and one in Manteca. Amazon has also established a shipping hub at Stockton Metropolitan Airport. Not surprisingly, warehousing jobs are projected to make up an increasing share of future employment opportunities for the county. Where Amazon had no significant employment presence in San Joaquin County before 2014, they are now San Joaquin County's largest private employer.

Due primarily to the availability of housing at lower costs than found in surrounding communities to the north and to the west, many county residents travel long distances for employment outside the county. Of the 315,670 residents in the employed workforce in 2019, approximately 88,860, or 28 percent, commuted outside of the region to their jobs. Despite increased teleworking during the COVID-19 pandemic, it is yet to be determined whether this trend will continue after the pandemic.

Photo Credit: Dena Marquez



The region supports an estimated 239,000 households. Forecasts suggest that by 2050 the housing market will need to accommodate 74,000 additional households. The future housing market will expand at a stable rate to accommodate these new households after a period of relatively high growth during 2020 to 2030 caused by pent-up demand. As San Joaquin County transforms, these factors have profound effects on the ability to finance, deliver, and maintain the transportation infrastructure.

Transportation System

Due to its strategic location, maintaining and improving the operational integrity of San Joaquin County's centralized and diverse network of highway, rail, air, and seaport infrastructure is essential. The crucial links and interrelationships between the economy, the regional transportation system, and land use have increasing importance as the region grows and expands.

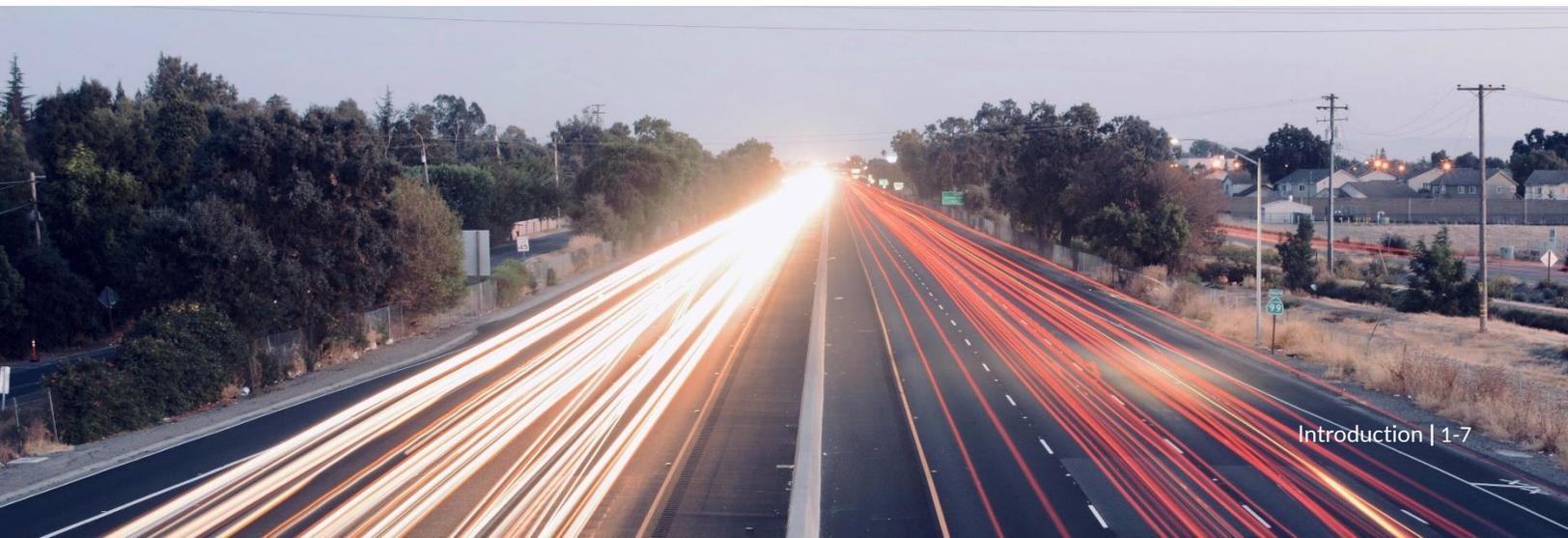
Roadway Network

According to the state Department of Transportation 2018 California Public Road Data, San Joaquin County's roadway network includes more than 3,600 maintained miles (Figure 1.2). On a north-south axis, this includes State Route 99, the "Main Street" of the San Joaquin Valley, and Interstate 5, a corridor of statewide and national significance. Each route has experienced dramatic traffic growth and congestion in the past 15 years. Each route also carries truck traffic at volumes much higher than the statewide average for the highway system, making them vital to goods movement.

Never before have the crucial links and interrelationships between the economy, the regional transportation system, and land use been as important as now.

State Route 132 handles major east-west movement at the southern tip of the county. Other highway corridors that facilitate goods movement include Interstates 580 and 205 in the southwest region of the county, and State Routes 120, 4 and 12. I-205 and I-580 serve as the gateway connection between the San Joaquin Valley and the San Francisco Bay Area and are critical to interregional travel and commerce. Each has seen increased traffic that is much above the statewide average. I-205 remains one of the most impacted travel routes in the county. State Routes 4 and 12 are primarily two-lane conventional highways linking the east and west sides of the county. Each operates as a freeway segment for a brief but important segment between State Route 99 and I-5. Both routes also connect with Bay Area counties across the Sacramento-San Joaquin Delta and carry significant commuter and interregional traffic.

Photo Credit: Jessica Penn



Highways 26 and 88 in the central and northeast portions of the county are two-lane rural highways that link to Calaveras and Amador counties. Each roadway has also experienced significant increases in

traffic, partly due to recreational traffic but also from rapid growth in the neighboring counties to the east.

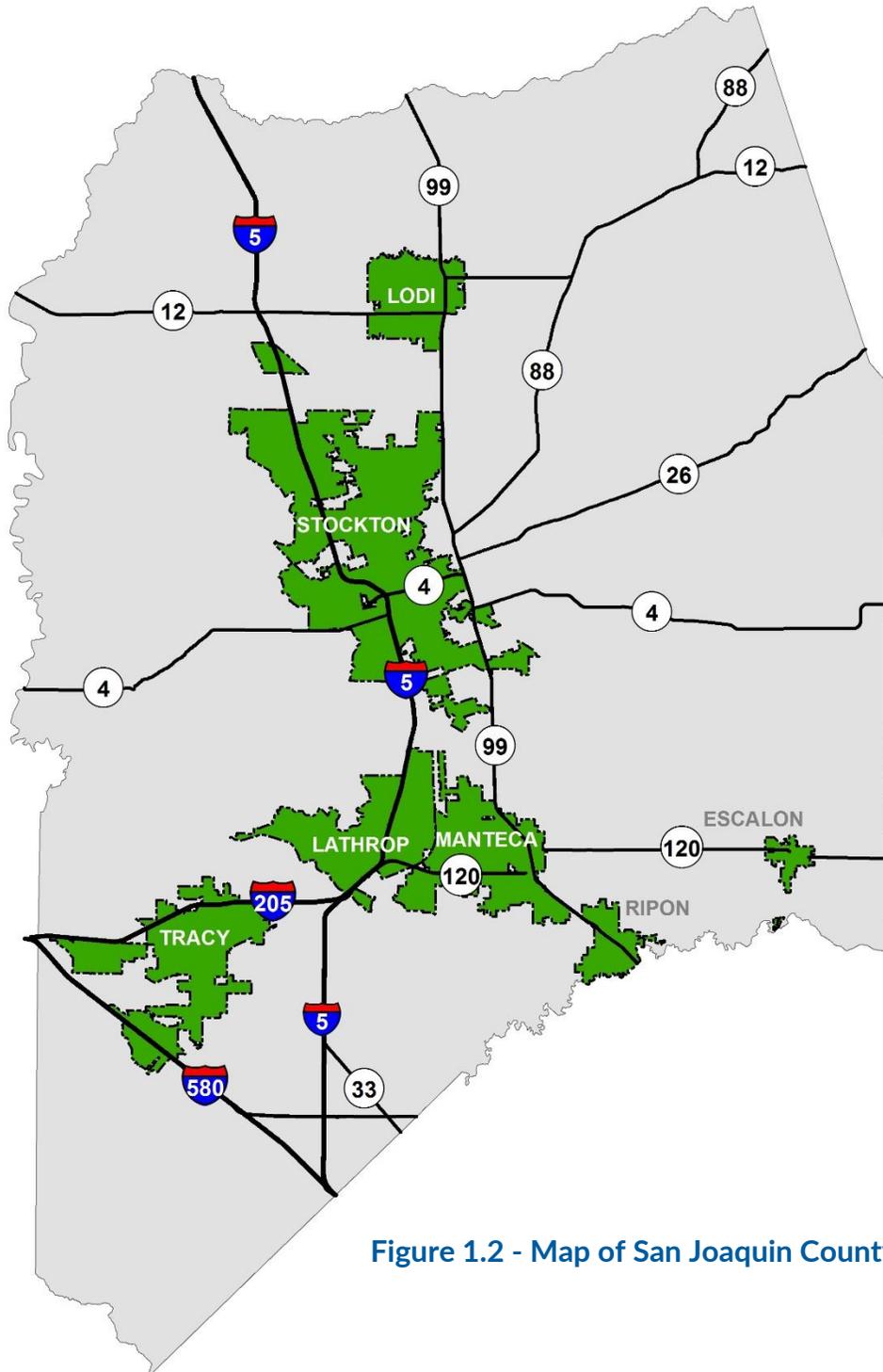


Figure 1.2 - Map of San Joaquin County

Public Transit System

The Altamont Corridor Express (ACE), formerly the Altamont Commuter Express, is a commuter rail service in California connecting communities from Stockton to San Jose. The service name came from the Altamont Pass through which it travels. The service began on Oct. 19, 1998, with two trains in each direction on weekdays.

The frequency increased to three trains daily in each direction in November 2009 and to four trains daily each way in September 2012. The number of ACE trains was reduced to three trains in each direction due to the COVID-19 pandemic, but recently has been increased to pre-pandemic levels. There are 10 stops along its 86-mile route with the current travel time of about 2 hours and 10 minutes from end-to-end. The ACE transit service uses Bombardier Bilevel coaches and MPI F40PH-3C locomotives, which run on tracks owned by Union Pacific Railroad (UPRR). The San Joaquin Regional Rail Commission (SJRRRC) manages ACE. Within the planning horizon of the 2022 RTP/SCS, SJRRRC plans to expand ACE service in the Central Valley between the Merced and Sacramento areas to provide more traveling options for both in-county and out-of-county commuters and to connect this service with High Speed Rail in Merced.

Bus-related transit services in San Joaquin County have grown dramatically over the past 25 years. The region is served by the San Joaquin Regional Transit District (RTD), Lodi's Grapeline, the Tracy Tracer, Manteca Transit, and smaller transit services in the cities of Escalon (eTrans) and Ripon (Blossom Express). The combination of services supports local transit systems, bus rapid transit, intercity and interregional bus transit services, and needed services such as on-demand response for those in the



Photo Credit: Visit Stockton

county's rural areas. RTD has been at the forefront of several innovative transit solutions and continues to expand the most mature bus rapid transit system in the San Joaquin Valley. Highlights of major transit innovations by RTD include:

- Van Go! is a pilot project that provides on-demand rideshare service to anywhere in San Joaquin County seven days a week. Users can schedule a trip up to two days in advance by using the Van Go App on a smartphone. Payment for the trip can be made through the app or by paying cash to the driver. Each vehicle is wheelchair accessible, and discounts are offered to seniors and the disabled.
- RTD is operating five BRT (Bus Rapid Transit) routes that are longer than six miles each. BRT service operates with fewer stops, have off-board fare collection, and more frequent trips than regular bus service. BRT routes use hybrid and all-electric buses.

Goods Movement

The movement of goods and people is the primary function of a highly accessible highway and regional roadway transportation system that links San Joaquin County to major destinations (Figure 1.3). This system described in the “Roadway Network” section positions San Joaquin County as a cost-effective location for large companies interested in operating

West Coast distribution centers. Interstates 580 and 205 provide direct access to the Bay Area with connections to I-5 and State Route 99.

With increasing demographic and economic ties to the Bay Area and Sacramento, San Joaquin County is an integral part of what has become known as the Northern California Megaregion.

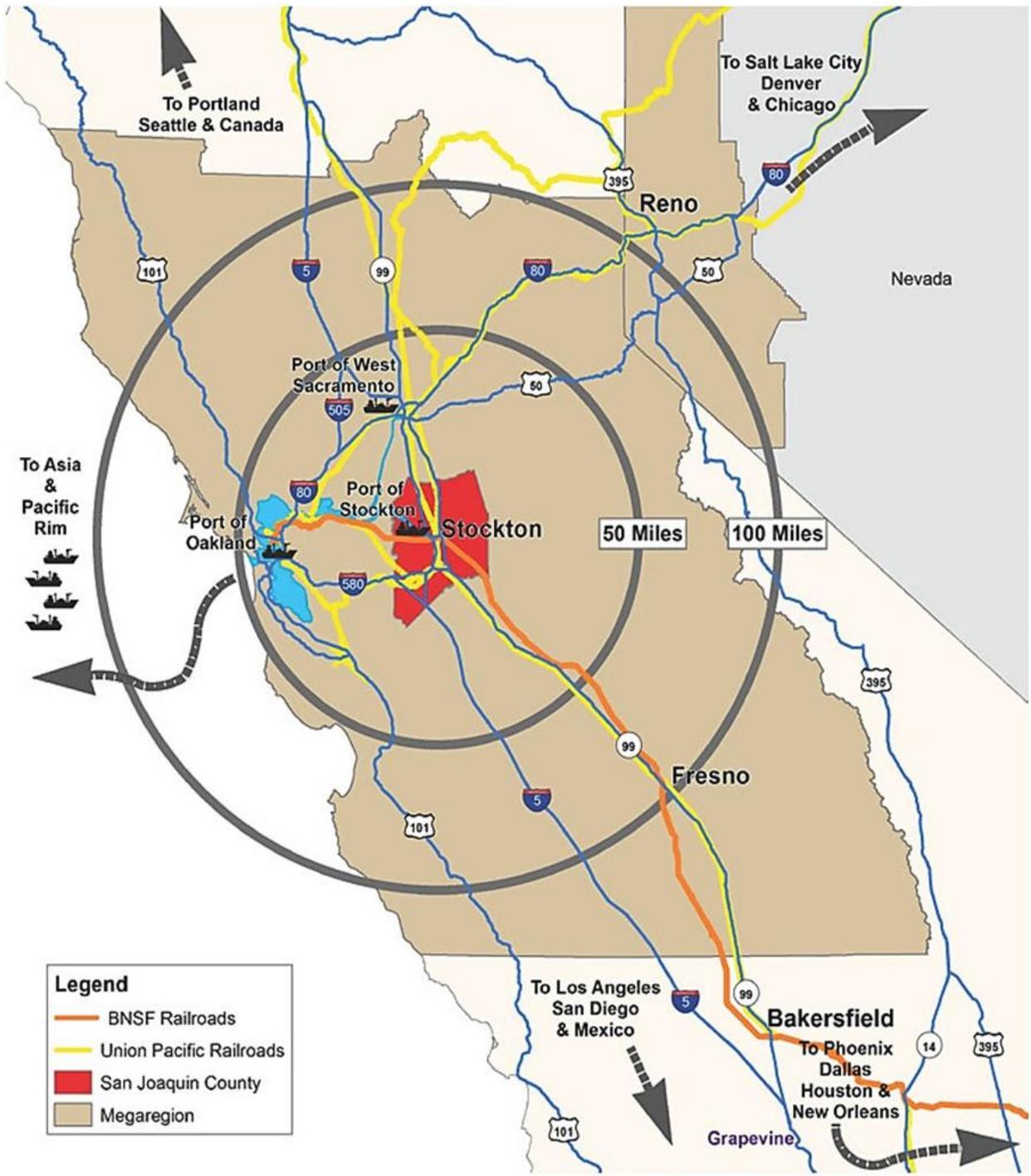
Truck traffic in the county is concentrated along the I-5 and State Route 99 north-south corridors. I-5 between Tracy and Lathrop averages more than 40,000 trucks per day, which is the heaviest truck traffic in the county. I-5 averages between 16,000 and 37,000 trucks per day north of Lathrop and through Stockton. Truck traffic on State Route 99 from Stockton south to the Stanislaus County line is somewhat lighter with averages between 10,000 and 18,000 trucks per day. The I-205 and I-580 corridors are also principal trucking routes in the county, with average daily truck traffic about 10,500 and 5,500 on these routes, respectively.

Interstate 5 between Tracy and Lathrop averages more than 40,000 trucks per day, which is the most truck traffic in the county.

Photo Credit: Captivating Photos



Figure 1.3 - San Joaquin County is central to the Northern CA Megaregion



Source: Center for Business and Policy Research, University of the Pacific



Movement of Goods by Water

The Port of Stockton is 75 nautical miles from the San Francisco Bay. The port's operations span 2,000 acres and more than 4 million square feet of covered storage area and 12,000 lineal feet of waterside docking with shipside rail. It is categorized as one of the principal ports of the United States by the U.S. Army Corps of Engineers.

The port is stationed along the Deep Water Ship Channel next to Interstate 5, State Route 99, and the Union Pacific (UPRR) and the BNSF railways.

The Port of Stockton boasts first-class warehouse storage and handling facilities for both dry and liquid bulk materials, facilities and equipment to handle break-bulk (bulk cargo not in shipping containers), and containerized cargoes by land or sea. The port, situated in the hub of four major freeways, two transcontinental railroads, an international waterway, and a regional airport, is centrally located to provide the optimum service for shipment and storage of

product and cargo. The port provides 10,077 jobs in San Joaquin County and is home to 134 distinct business partners from major distribution centers to local artists. In 2020, the port handled 4 million metric tons of cargo. All these components place the port in an ideal position for domestic and international distribution.

The Port of Stockton moved 4 million metric tons of cargo in 2020, making it the fourth busiest port in the state. The port provides more than 10,000 jobs to the region.

Movement of Goods by Air

The Stockton Metropolitan Airport has become increasingly important for goods movement since Amazon began cargo services at the airport. In 2016, Air Transport International began flying goods in and out of Stockton for Amazon Fulfillment Services. By 2021, there are three or four flights daily to support the seven Amazon facilities in San Joaquin County, and the one near Patterson in Stanislaus County.

Atlas Air is now the main carrier.

As more logistics, warehouse, and manufacturing businesses locate operations in San Joaquin County, Stockton Metropolitan Airport will become an increasingly viable alternative to congested Bay Area airport locations. The airport continues to improve its infrastructure and market itself nationally and internationally as an air cargo hub.



Regulatory Setting

Several state and federal requirements govern the plan. A few of the major requirements are summarized here:

MAP-21, FAST Act, and Infrastructure Investment and Jobs Act (IIJA)

The Moving Ahead for Progress in the 21st Century (MAP-21) Act required federally designated metropolitan planning organizations (MPOs) such as SJCOG for the San Joaquin region to develop regional planning documents that incorporate the metropolitan planning process. MAP-21 was enacted in 2012 and was meant to address transportation challenges in the U.S. This performance-based requirement incorporated new federal changes when the Fixing America's Surface Transportation (FAST) Act was signed in 2015. The FAST Act funded surface transportation programs through the years 2016-2020 and added new performance measures in addition to the 2014 federal planning factors.

The FAST Act expired in 2021 and has been superseded by the Infrastructure Investment and Jobs Act (IIJA), also referred to as the Bipartisan Infrastructure Law (BIL). President Joe Biden signed the IIJA on November 15, 2021, which will provide funding for a variety of existing and new programs. These programs cover transportation infrastructure such as roadways, bridges, public transit, rail, and airports, and other types of infrastructure such as electric grid, water systems and broadband internet service.

Currently, federal agencies are developing guidelines that will introduce new policy priorities for the IIJA. One of these new priorities is to provide infrastructure that will protect the environment and public health by decreasing air pollution and greenhouse gas emissions and increasing water quality. The projects and programs in the 2022 RTP/SCS will be consistent with the new priorities.

Photo Credit: Captivating Photos



Federal Clean Air Act

The Federal Clean Air Act provides regulations for air emissions from stationary and mobile sources. The law authorizes the U.S. Environmental Protection Agency to establish National Ambient Air Quality Standards (NAAQS) to protect public health and welfare and to regulate emissions of hazardous air pollutants. The plan must forecast transportation emissions and demonstrate that emissions are within the established State Implementation Plan (SIP) budget limits for ozone, PM2.5, PM10, and carbon monoxide. The plan's compliance with these requirements is documented in the Regional Transportation Plan/Sustainable Communities Strategy Air Quality Conformity Determination.

Photo Credit: Dena Marquez



Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 outlawed discrimination in all federal activities. It reads: “No person in the United States shall, on the ground of race, color, or national origin be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program of activity receiving Federal financial assistance.”

People concerned that everyone in the U.S. deserves equal protection under the country's federal laws created the term “environmental justice.” Former President Bill Clinton issued Executive Order 12898 in 1994 in response to this concern. The order directs each federal agency to review its procedures and to make environmental justice part of its mission by identifying and addressing the effects of all programs, policies, and activities on minority and low-income populations. The Federal Highway Administration (FHWA) has set policies for integrating environmental justice principles into existing operations to address disproportionate, adverse effects on low-income and minority populations.



All federally funded transportation plans, projects and decisions must involve an environmental justice assessment process that explicitly considers adverse effects (or the potential of adverse effects) on the environmental justice population. The plan has an environmental justice analysis that documents the degree to which, to the extent possible, all people, regardless of race, color, national origin, or income, are protected from disproportionate negative or adverse impacts due to the program of projects listed in the plan. In addition, this analysis also describes whether all neighborhoods have reasonable shares of the benefits from the proposed program.

Senate Bill 375

With the passage of Senate Bill 375 in 2009, metropolitan planning organizations were required to develop a Sustainable Communities Strategy (SCS). An SCS must demonstrate an ambitious, yet achievable, approach to how land use development and transportation can work together to meet greenhouse gas emissions reduction targets for cars and light trucks. These targets set by the California Air Resources Board call for the region to reduce per capita emissions 12 percent by 2020 and 16 percent by 2035 below a 2005 baseline. If a metropolitan planning organization is unable to meet the targets through the SCS, then an alternative planning strategy demonstrating how targets could be achieved must be developed. The 2014 plan was the first to incorporate the requirements of SB 375. The 2014 and 2018 plans met the previous targets of per capita greenhouse gas emissions reductions from

2005 of 5 percent in 2020 and 10 percent in 2035. The 2022 plan continues to meet the increased reduction targets set by CARB.

It is important to note that while the RTP builds the SCS as a new element along with the traditional policy element, action element and financial element, 2014 was not the first plan with sustainability features. San Joaquin's RTP has always embodied policies and strategies committed toward sustainability through air quality measures, environmental preservation and conservation objectives, and growth management strategies. The plan will guide the San Joaquin region toward a more sustainable future by integrating land use, housing, and transportation planning to build more sustainable communities. Some characteristics of these communities include compact development with a focus on infill development and access to travel options including transit and bike/pedestrian facilities. Sustainability also requires efficiently located communities to better utilize public infrastructure and resources, while minimizing impacts to prime farmland.

The most significant change resulting from SB 375 is the creation of California Environmental Quality Act (CEQA) streamlining incentives to assist and encourage residential and mixed-use housing projects consistent with the SCS. In areas where transit is the priority, CEQA benefits residential and residential mixed-use projects that are consistent with the general use designation, density, building intensity, and applicable policies specified in the SCS.





Photo Credit: Grace Monteleone

California Environmental Quality Act

The plan must also comply with the California Environmental Quality Act (CEQA), which requires that governmental agencies consider the cumulative impact to the region and analyze the environmental consequences of the project. SJCOG is responsible as the lead agency to prepare the environmental review of the programs and projects contained in the plan. SJCOG has prepared a program-level environmental impact report that analyzes the impact of the full set of projects and programs in total.

Delta Reform Act

Enacted in November 2009, the Delta Reform Act created the Delta Stewardship Council charged with developing, adopting, and implementing the Delta Plan. This plan serves to adopt strategies for providing reliable water supply for California, and protecting, restoring, and enhancing the Delta ecosystems. The Delta Stewardship Council is also responsible for advising local and regional agencies on the consistency of their planning documents with the Delta Plan. The act requires that “covered actions,” as defined by the act, and that include plans, programs, or projects in the primary or secondary zones of the Delta must be consistent with the Delta Plan. SJCOG is required to ensure consistency of the plan with the adopted Delta Plan. Local project exemptions from Delta Plan requirements are

possible if there is a determination that they are consistent with the RTP/SCS.

SB 743

Senate Bill 743 fundamentally changed the way transportation impacts from land use development are analyzed in California. Level of service (LOS), which measures traffic congestion, has been used for years as a metric for measuring the impacts of transportation. SB 743 required the governor’s Office of Planning and Research (OPR) to amend the CEQA guidelines to provide an alternative to LOS for evaluating transportation impacts. This alternative must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” (New Public Resources Code Section 21099(b)(1)). The intent of SB 743 is to better align CEQA practices with state greenhouse gas emission reduction targets required by SB 375.

OPR amended the CEQA guidelines to specify vehicle miles traveled (VMT) as the metric to evaluate transportation impacts. VMT measures the distance people drive their vehicles to a destination. The CEQA analysis of the 2022 RTP/SCS must use VMT as the metric for evaluating transportation impacts of its preferred and alternative scenarios. SB 743 does not prevent the use of LOS for transportation analysis outside of CEQA.

A Regional Plan with Local Input

This plan embodies local visions through local input and a highly collaborative approach. Local experts in housing, land use, environment and public works participated in the plan development through the RTP/SCS Working Group or through other avenues of public feedback (e.g., workshops, online input through social media or web surveys, and public comment opportunities at SJCOG committees and board meetings). These stakeholders provided perspectives on economic development, environmental preservation, air quality, public health, environmental justice and farmland conservation and preservation that all helped to reshape existing RTP/SCS policies and supporting strategies.

The plan is a transportation investment strategy through 2046, identifying transportation needs to keep pace with anticipated growth and development as well as advancing various sustainability goals. It identifies the funding for these transportation projects in its financial element. While conceptual land use scenarios are essential in building the transportation system and then determining reasonable funding expectations, the plan does not permit or deny any development projects under review or future proposals.

The elements of that vision for sustainability helped refine the policies that guided the 2018 plan. These

“Transportation allows residents...to travel for work and leisure, allows visitors to travel within the region, is necessary for economic activity [and] is especially important for the Northern San Joaquin Valley region because of...transportation, warehousing, and logistics sectors.”

– Center for Business and Policy
Research NSJV Index

policies have been carried over to the 2022 RTP/SCS and still have strong support from stakeholders and the public. The policies are:

1. Enhance the environment for existing and future generations and conserve energy.
2. Maximize mobility and accessibility.
3. Increase safety and security.
4. Preserve the efficiency of the existing transportation system.
5. Support economic vitality.
6. Promote interagency coordination and public participation for transportation decision-making and planning efforts.
7. Maximize cost-effectiveness.
8. Improve the quality of life for residents.

Photo Credit: Susan Platt



Developing Strategies That Are Resilient in Future Trends

The focus of the 2022 RTP/SCS was to build upon the 2018 plan and subsequent implementation work in the form of planning studies and new programs and projects, and then pivot to an approach designed to make the plan resilient in future trends or disruptions (Figure 1.5). These include technology (e.g., adoption of autonomous vehicles), the impact of extreme weather events, and changes in work environments and the economy (i.e., e-economy).

The key outcome of this process was two-fold:

1) To review and update strategies from the 2018 plan and suggest new strategies that will allow the 2022 RTP/SCS to continue to perform well even in the face of rapidly changing future conditions. A resilient plan is one where projects and programs are designed to adapt to changes and disruptions.

2) To set the region up to be competitive for future funding opportunities through advance planning that anticipates future needs under a variety of circumstances.

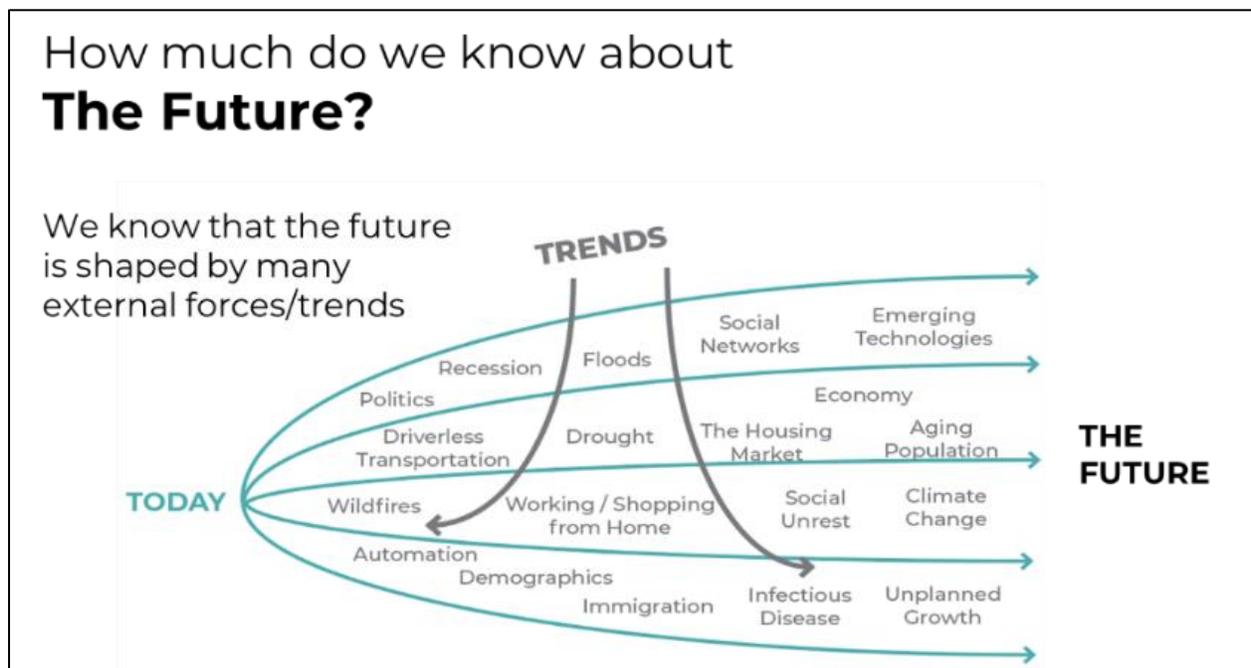
To accomplish these goals, SJCOG took a different

approach to updating the scenario development process that was used to develop previous plans. SJCOG staff previously developed a variety of discrete scenarios and recommended one to the SJCOG Board of Directors for adoption. Staff started with the 2018 plan and has used alternative scenarios to test policy and strategy updates or additions. To do this, staff and a consultant team:

- Identified six “pillars” or probable disruptive events or trends affecting the region in the future.
- Produced studies and gained SJCOG Board and stakeholder input on these trends.
- Developed new strategies to address these issues.
- Vetted the strategies and grouped them into themed “scenarios” to test their probable impact on the current RTP/SCS.
- Selected one of the scenarios and associated strategies to be combined with the 2018 plan.

The result of this process is a list of strategies (see Chapter 3) to support the 2022 plan policies and make the plan more resilient to future disruptions.

Figure 1.5 – Future Trends and Disruptions



Cascadia Partners, 2020

Regional Collaboration Leads to Regional Solutions

The plan demonstrates that the region can meet and exceed the greenhouse gas targets imposed under SB 375. It further shows that those targets can be achieved with land use patterns focused on compact development that more effectively link transportation systems.

Just as importantly, the plan is one of placemaking. It harnesses the region's collaborative spirit to create places that enable people to live close to where they work. It encourages healthy and active communities,

while it also attracts and maintains businesses that can rely on an optimized transportation system to move and receive goods.

SJCOG has continued a high level of public engagement that started with previous plans despite being forced to adapt to the challenges of a global pandemic. With the help of local jurisdictions, and businesses, environmental, and housing experts, the plan builds a transportation future where transportation infrastructure can coexist with the goals of habitat conservation, farmland preservation, efficient energy consumption, and economic vitality.



CHAPTER 2

Civic Engagement



TWO

Public participation in the regional planning process is essential for creating strategies that truly enhance the quality of life for all San Joaquin County residents. Building on the success of public outreach efforts for the region's prior RTP/SCS adopted in 2018, SJCOG took steps to enhance its engagement program for the 2022 plan. In-person outreach was halted because of COVID-19 and SJCOG quickly moved to virtual engagement. SJCOG involved and engaged with the community throughout its virtual-only RTP/SCS process by focusing on extending its reach to residents with enhanced visualizations, accessibility, and inclusiveness. This chapter describes the extent of work and effort invested in civic engagement throughout San Joaquin County to shape the plan.



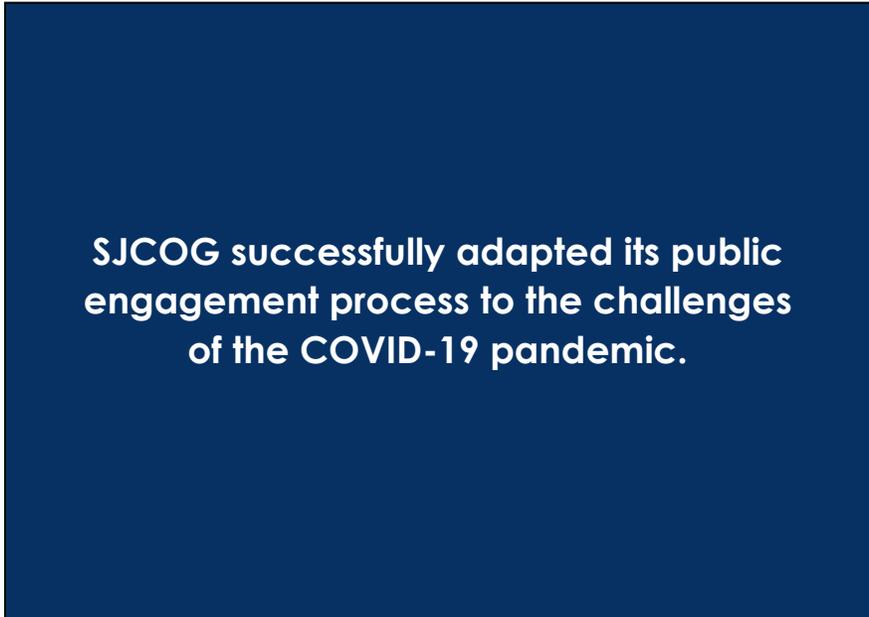
Getting Started

Public outreach started well before development of the 2022 RTP/SCS. Initial efforts focused on helping residents understand their role in the regional planning process and the importance of the RTP/SCS document. The RTP/SCS Implementation and Working Group was expanded over the 2018 advisory group to include members from public health, environmental justice, and active transportation. Outreach activities ranged from virtual workshops and webinars, public opinion surveys, social media campaigns, and more.

SJCOG partnered with local groups to ensure the inclusion of historically underserved and underrepresented communities, an engagement strategy that was continued and expanded from the 2018 plan. SJCOG staff also consulted with its standing committees on a regular basis. Finally, in keeping with the intent of SB 375, the plan was developed in close coordination with planning and public works departments throughout the region. The result is a carefully coordinated set of demographic,

economic, land use, and transportation investment assumptions that were clearly communicated through the public outreach process.

SJCOG staff began laying the foundation for the 2022 plan soon after the 2018 plan was adopted. Taking feedback from the public and stakeholders, SJCOG staff started with an evaluation of the 2018 public outreach program. Staff continued to gather local knowledge and best practices for community outreach for the 2022 plan. The COVID-19 pandemic reached the United States in early 2020 and prevented SJCOG staff from following some of the best practices that were implemented during the development of the 2018 plan. These included setting up information booths at multiple community events and providing in-person presentations. Despite limitations created by the pandemic, staff was able to use other methods to successfully reach the public and gather feedback for the 2022 plan. The diagram on the next pages describes some of these methods.



SJCOG successfully adapted its public engagement process to the challenges of the COVID-19 pandemic.

ENGAGEMENT HIGHLIGHTS

With the onset of COVID-19, SJCOG had to revamp its engagement strategies in order to involve the community. The engagement team used the following methods to ensure equitable and meaningful participation during a pandemic.



WEBINARS

Webinars allowed SJCOG staff to inform our stakeholders and the public on the RTP/SCS process.

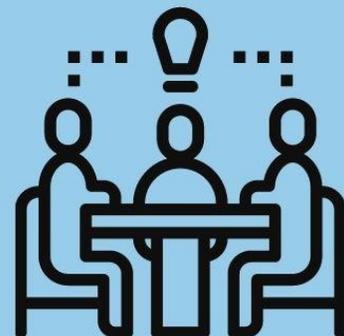
SOCIAL MEDIA POSTS

Posts were included on Facebook, Twitter, Instagram, LinkedIn platforms, and SJCOG.ORG.



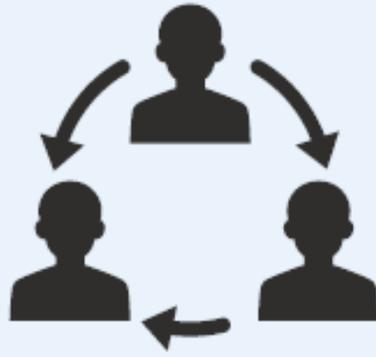
MINI-PRESENTATIONS

Staff gave virtual mini-presentations to groups and organizations related to RTP/SCS development.



RTP/SCS WORKING GROUP

A monthly working group met in order to discuss the plan development and to obtain input.



ZOOM

We utilized ZOOM to hold meetings in the digital space. This application allowed the public and stakeholders to join our meetings anywhere.

FACE THE FUTURES APP

We created an app to gain feedback during our scenario development planning process.



METROQUEST SURVEYS

We had two surveys in order to receive input from the public related to policies and strategies.



FOCUS GROUPS

Convened harder-to-reach community members to discuss key community priorities and concerns.

Guiding the Way

The Public Participation Plan (PPP) is SJCOG's official policy for involving the public in the regional planning process. In December 2016, the SJCOG Board of Directors approved the 2016 PPP, a major update of the 2011 plan. In accordance with SB 375, the document included a specific public outreach program for the RTP/SCS (see Appendix J). The PPP is built on five guiding principles, which are listed on the right. Reviewed before development of the 2022 RTP/SCS, the 2016 PPP was found to meet current outreach requirements and objectives.

The following outlines some of the key enhancements incorporated in the 2016 PPP, significantly shaping the public participation program for the 2022 plan:

- A Community-Based Outreach Mini-Grant Program to provide resources for small organizations and nonprofits to help with engagement with their memberships and communities.
- A “champions” strategy to disseminate information and calls to action with community leaders.
- A focus on online public engagement to reduce barriers due to COVID-19.
- An updated Limited English Proficiency Plan, outlining the importance of providing information and materials in Spanish for Spanish-speaking residents.
- A guide and toolkit for ensuring the inclusion of underserved communities in public outreach and engagement activities.

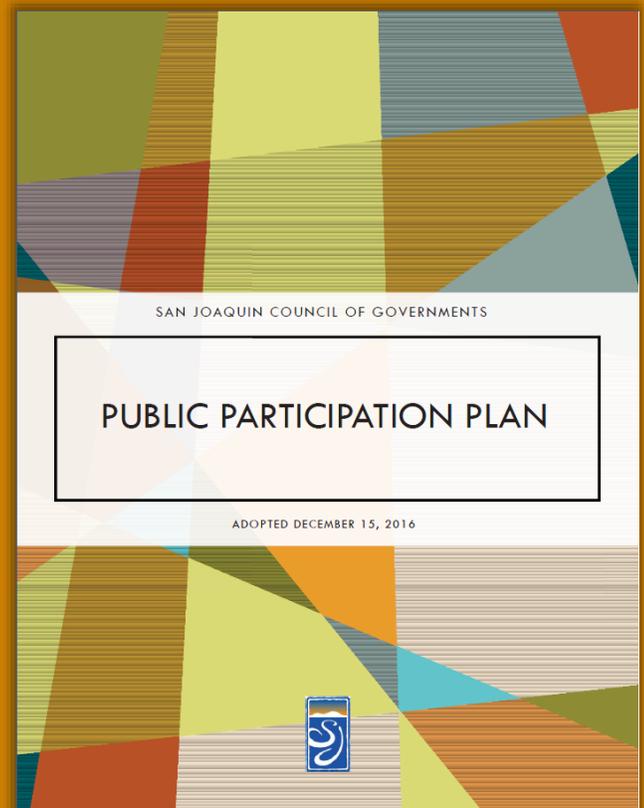
Goals for 2022 RTP/SCS Public Outreach

In keeping with the guiding principles of its 2016 PPP, SJCOG established the following broad goals for public outreach and engagement for the 2022 Plan.

- Solicit participation from a broad range of groups and individuals in the RTP/SCS decision-making process.
- Raise awareness and offer opportunities for public input about the RTP/SCS.

The 2016 Public Participation Plan is built on five guiding principles:

1. **Public participation is dynamic and requires teamwork at all levels of the organization.**
2. **One size does not fit all — diverse perspectives are critical.**
3. **Effective public outreach involves relationship building with local governments, stakeholders and advisory groups, and all members of the public.**
4. **Engaging interested persons in countywide transportation issues is challenging, yet possible by making it relevant, removing barriers to participation, and saying it simply.**
5. **An open process empowers everyone to participate in processes that affect them on a personal level.**



- Provide information to residents in the San Joaquin County region and other stakeholders.
- Develop and incorporate into the RTP/SCS update realistic solutions that address the diverse mobility needs of the region's residents, visitors, and businesses.
- Build public support for and understanding of the transportation improvements outlined in the RTP/SCS.

Community Voices on Transportation Choices

In 2019, SJCOG officially launched its comprehensive civic engagement strategy made up of many different elements. A timeline of the RTP/SCS' planning and outreach process is shown in Table 2.1. Public engagement activities were conducted with the intent to ensure the regional plan was shaped by local input. The various elements of the public outreach and civic engagement process are described in the following sections.

RTP/SCS Implementation & Working Group

SJCOG convened a group in early 2020 to help shape the plan. Many of the group's members also worked on the 2018 plan and were already familiar with SB 375 and its relationship to the RTP. The group represented diverse interests, including local planning, transit, environmental issues, affordable housing, real estate development, economic development, and civic engagement advocacy. The 2022 working group was made up of similar stakeholders to those on the 2018 working group, but had a wider representation from environmental justice, public health, and neighborhood revitalization organizations.

The working group met several times between February 2020 and November 2021. This ad hoc committee was the main advisory body for the technical work on scenario development. Committee members also weighed in on the goals and objectives for the plan and helped in developing performance indicators. Scenarios are strategy bundles that work together to meet transportation and land use objectives.



Table 2.1 – Timeline of RTP/SCS Planning and Outreach Process

	 PUBLIC ENGAGEMENT	 RTP/SCS MILESTONES	 ACTIONS
2020		5/8: Round 1 Public Survey on Strategy Pillars Launched	
	SPRING	Public Webinars	5/28 Community-Based Outreach Mini-Grant Program Funding Recommendations SJCOG Board
	SUMMER		7/2: Round 1 Public Survey on Strategy Pillars Closed
	FALL		12/11: Community-Based Outreach Mini-Grant RFP posted
2021	WINTER	RTP/SCS Working Group Charettes	
	SPRING		
	SUMMER	Mini-Grantee Outreach Focus Groups Mini-Presentations Community Event	6/30: "Face the Future" Survey Launched 8/31: "Face the Future" Survey Closed
	FALL	Public Workshops	10/28: Direction provided to staff on policy and investment strategies
2022	SPRING/ SUMMER	Public Hearings	6/2: Draft RTP/SCS released for public comment 6/12: Draft EIR released for public comment SJCOG Board
	SUMMER	Community Events Mini-Presentations Public Workshops Public Hearings	6/23: Draft RTP/SCS presented to SJCOG Board 8/25: RTP/SCS considered for adoption, EIR and Conformity Determination documents considered for certification SJCOG Board



Photo Credit: Little Manila Rising

Initially, the working group meetings were held in the SJCOG board room. They were open to the public and accessible via WebEx for those who could not attend in person. During the COVID-19 pandemic, the agency switched to virtual-only meetings and used Zoom to connect stakeholders and staff.

The groups participating included the following:

- Bike Lodi
- Business Council Inc. of San Joaquin County
- Building Industry Association
- Catholic Charities of the Diocese of Stockton
- City of Escalon
- City of Lathrop
- City of Lodi
- City of Manteca
- City of Ripon
- City of Stockton
- City of Tracy
- Downtown Stockton Alliance

- San Joaquin County
- San Joaquin County Public Health Services
- San Joaquin Partnership
- San Joaquin Regional Rail Commission
- San Joaquin Regional Transit District
- Third City Coalition
- Visionary Homebuilders

Community-Based Outreach

SJCOG partnered with community-based organizations to expand its public outreach to hear a wider range of perspectives in the region. Through a competitive bid process, SJCOG awarded grant funding to four local groups to conduct outreach in historically underrepresented and underserved communities (Table 2.2). These mini-grantees played an integral role in gathering information on transportation needs in communities of concern. A summary of mini-grantee outreach activities is included in Appendix K.

Table 2.2 - 2021 Community-Based Outreach Mini-Grantees

AGENCY/ORGANIZATION	DEMOGRAPHIC FOCUS	GEOGRAPHIC FOCUS
Little Manila Rising	African American, Hispanic/Latino and Asian youth and adults	South Stockton neighborhoods
New Genesis Housing Development	African American and Latino residents	Stockton, Lodi, Manteca, and Tracy
Public Health Advocates	African American residents	Stockton
Stockton Baptist Church	Seniors (65+), youth, immigrants/refugees, Hispanic and Asian residents	Stockton, Manteca, Lodi, Lathrop, including unincorporated San Joaquin County near these cities

Round 1 Public Outreach

Public Survey on Selected Issues (Strategy Pillars)

Round 1 of public outreach engagement efforts included a survey during spring and summer 2020. Staff left the survey open for a longer-than-normal duration because it was being conducted during California’s first COVID-19-related shelter-in-place order. Surveys were made available in English and Spanish, administered online, and distributed via:

- RTP/SCS Community-Based Outreach Mini-Grant Program activities.
- RTP/SCS Implementation and Working Group and SJCOG standing committees.
- SJCOG social media, press release, and email lists.

At the close of the survey, a total of 128 residents had taken the survey, providing critical insight for shaping the 2022 plan. Residents shared opinions on the current transportation climate, their transportation priorities, and their feelings on housing, climate adaption, vibrant neighborhoods, and transportation technology. These represent the issues, or strategy pillars, to be addressed by the plan’s proposed strategies (Figure 2.1). SJCOG used the survey results in concert with other outreach efforts to shape the plan strategies and to stimulate additional public policy discussions. See Appendix K for full survey analysis.

Figure 2.1 - Strategy Pillars



Charrettes

Charrettes are an intense planning technique in which stakeholders – planners, the public and others – are engaged and involved in the design and implementation of a project. SJCOG conducted three charrettes with the RTP/SCS Working Group from November 2020 to January 2021 to identify and discuss the development of scenarios and strategies. The purpose of Charrette No. 1 was to identify and discuss the most important external forces to plan for in the future. The outcome was used to confirm and clarify areas of focus for subsequent strategy development and provide useful details of key concerns and issues that San Joaquin County will face in the future. From this meeting came a draft Futures Framework, or a set of emerging trends leading to three possible, conceptual futures for San Joaquin County.

The purpose of Charrette No. 2 was to generate and discuss strategies that relate to SJCOG strategy pillars. Working Group members were asked to share insights on strategy impacts to consider during the modeling process. After a brief presentation reviewing the 2022 RTP/SCS pillars, meeting participants self-sorted into breakout room discussions to generate and discuss strategies and guide strategy development and discussion.

The outcome of the breakout room discussion was a set of strategies that was added to a working bank of strategies assembled by the consultant team (sourced from recent SB1 studies and other research).

The purpose of Charrette No. 3 was to facilitate a discussion to generate more details for how the Futures Framework narrative could be explained in a more compelling and public-friendly manner. The goal of this charrette was to take the draft Futures Framework that developed from Charrette No. 1 and add engaging and personal details to the descriptions. After a brief presentation reviewing the scenario planning process and the role of RTP/SCS pillars, strategies, and potential futures, meeting participants self-sorted into breakout room discussions to generate content and details for creating vignette-style narratives to explain the three conceptual futures.

The responses and feedback from the breakout group discussions helped develop first-person perspectives that would assist in framing the Futures Framework narratives into a public-friendly package. This vignette-style approach provided a more compelling, engaging, and personal way to make these hypothetical futures more tangible to participants in a future MetroQuest survey.

Figure 2.2: Breakout Room Groups and Pillar Topics

Group 1		Group 2		Group 3	
Transportation (In & Out Commutes)	Climate Impacts	Jobs & Economy	Technology & AV Adoption	Housing Production	Vibrant Neighborhoods
Maintain and Optimize the Existing System	Reduce Risks from Hazards	Improve Economic Mobility	Build IT Infrastructure	Spur Housing Production	Make Equitable Investments
Create Healthy and Safe Streets	Expand Access to Parks and Open Space	Shift Location of Jobs	Attract New Industries	Retain and Expand Affordable Housing	Promote Infill Development
Build a Next Generation Transit Network	Reduce Climate Emissions	Support and Grow Existing Industries	Manage AV Adoption	Shift Location of Housing	Improve Accessibility

Source: Cascadia Partners

Round 2 Public Outreach

Focus Groups

Round 2 of public engagement for the 2022 plan started with focus groups. From April 26 to May 15, 2021, project consultant Cascadia Partners and Third City Coalition, and other partnering community-based organizations hosted five, hour-and-a-half virtual community meetings with focus groups comprised of San Joaquin County residents.

The purpose of these meetings was to:

1. Inform community members about the purpose and goals of the RTP/SCS processes.
2. Provide context and hear feedback from participants on the status of San Joaquin County.
3. Explain three emerging trends that the region is facing and gather feedback on what pathways for responding to those external forces are of the highest priority for the region.
4. Demonstrate how participants can complete the proposed MetroQuest survey (Face the Future Challenge app).

Focus group discussions were facilitated as an interactive presentation showcasing information. Participants were then asked to reflect and discuss

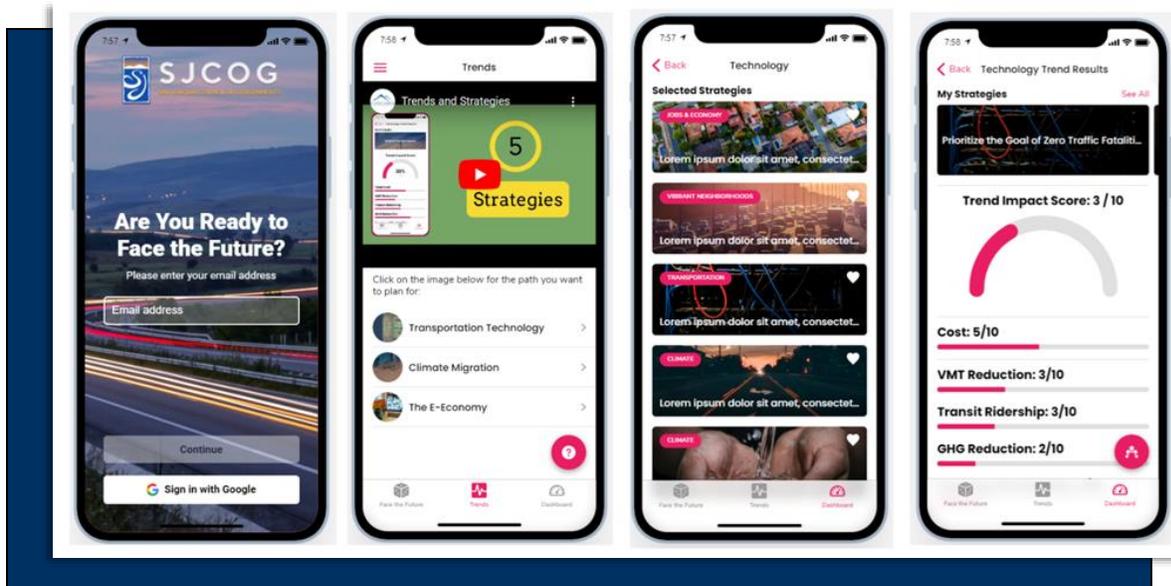
More than 400 people participated in the Face the Future Survey.

their perspectives or experiences. The key takeaways listed in the following page are a summary of the themes, concerns, and priorities from this open discussion.

Face the Future Challenge Survey

The public was questioned a second time through MetroQuest survey, which focused on strategies and policies that helped form the scenarios. The survey was an interactive web-based public engagement tool titled “Face the Future Challenge” and made available through the internet and an app in English and Spanish. Through a series of screens, the public engagement platform visually demonstrated how various strategies and policies interact and affect each other in the four planning scenarios. The platform prompted input by participants on their priorities and ratings on scenarios and various strategies to address regional issues such as climate adaptation, housing, or transportation technology. Figure 2.3 is an illustration of the app interface.

Figure 2.3 - “Face the Future Challenge” Survey App



FOCUS GROUPS KEY THEMES, PRIORITIES AND CONCERNS



Cost of living, both on the spending and income side. There are not enough opportunities for living-wage jobs and household expenses, including housing, continue to rise.

Gentrification and lack of affordable housing options.

Public transportation and its decline as a realistic option for those who don't have a car.

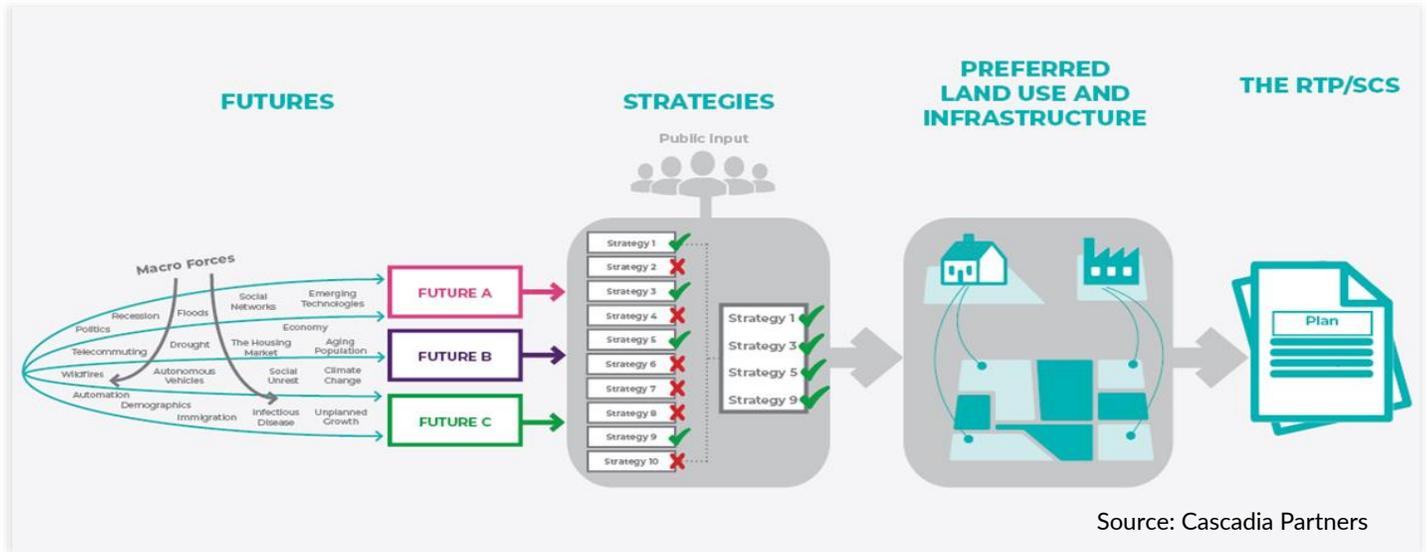
Fear/concern/skepticism that advances in transportation technology will only increase economic and social divides.

Implications of creating efficiencies/automation and how that will impact working-class jobs.

People who lose jobs from efficiencies should be provided options and assistance in transitioning to new living-wage jobs.

Supporting small businesses to adapt to e-commerce.

Figure 2.4 - Selection of Strategies



SJCOG used the results of the Face the Future Challenge survey to supplement technical information for recommending the strategies that would become the basis for the plan. The data collected is in Appendix K, along with an analysis of participant demographics and key findings.

Figure 2.4 illustrates the Round 2 outreach in which the public, stakeholders and, ultimately, the SJCOG Board of Directors selected the strategies for the San Joaquin County region.

Mini-Presentations

Staff conducted nine mini-presentations on the RTP/SCS development, specifically the scenario planning process. Staff created personalized presentations for the organizations listed below in Table 2.3.

Fall 2021 Public Workshops

In addition to the online public engagement platform, SJCOG staff also used traditional methods of public outreach and engagement by holding two public workshops in October 2021. The first public workshop presented proposed strategies, policies and had interactive sessions on what was proposed. Later, a workshop with the RTP/SCS Working Group presented results of the MetroQuest survey and provided additional technical information about scenario performance on key metrics of community interest. This included the debut of housing affordability performance metrics measuring the plan’s impact on housing affordability, supply, and demand.

Table 2.3 - 2021 Mini-Presentation Schedule

Date	Organization
June 2, 2021	Greater Chamber of Commerce of Stockton
June 4, 2021	Catholic Charities of Stockton
June 7, 2021	South Stockton Promise Zone Monthly Meeting
June 15, 2021	Healthy Neighborhood Collaborative Monthly Meeting
June 21, 2021	Escalon City Council
June 28, 2021	Bike Lodi
July 15, 2021	Public Health Advocates
August 11, 2021	Business Council of San Joaquin County
August 23, 2021	Sierra Club

Summarizing Public Input for a Preferred Scenario

Residents from all corners of the region were engaged in the process, but especially from urbanized areas. Figure 2.5 shows the four scenarios that were crafted from the input received from the public and San Joaquin County region stakeholders.

Input on the Draft 2022 Plan

Following the release of the draft, SJCOG staff provided informational presentations and operated event booths to provide information to members of the public and stakeholders in the community. In accordance with SB 375, SJCOG also held two public hearings during regularly scheduled meetings. Presentations on the draft RTP/SCS to public agencies and non-profit groups were held throughout the public review period, which remained open from June through July 2022. The presentations were both in-person and virtual events and began at varying times and days of the week to maximize opportunities for public input. While some comments were received at presentations and public hearings, staff also encouraged members of the public to submit written comments by U.S. Post, or email. For a summary of public comments received, please see Appendix D – Response to Comments.

COME JOIN US!
SJCOG IS HOSTING A
RTP/SCS
PUBLIC
WORKSHOP
 October 5th from Noon-1PM

FOLLOW THIS LINK TO JOIN
<https://sjcog.zoom.us/j/83264272271>

For questions, please contact Tim Kohaya, Senior Regional Planner, at 209-235-0389 or at kohaya@sjcog.org



Figure 2.5 - Alternative Scenarios

STRATEGY COMPARISON			
A STAY THE COURSE	B REMAKE CENTERS & CORRIDORS	C 20-MINUTE NEIGHBORHOODS	D COMMUTER VILLAGES
<ul style="list-style-type: none"> • Prioritize Projects that Make More Efficient Use of the Existing Road Network • Prioritize Large Employer Recruitment • Improve access to safe and convenient walking and biking options • Prioritize Projects that Improve and Expand Access to Public Transit • Prioritize Expanding the Roadway Network 	<ul style="list-style-type: none"> • Encourage infill development • Promote a Broader Range of Housing Types • Develop a regional trust fund dedicated to addressing housing issues. • Prioritize "complete streets" projects throughout the region • Prioritize Projects that Improve and Expand Access to Public Transit 	<ul style="list-style-type: none"> • Develop a regional trust fund dedicated to addressing housing issues. • Invest in High Speed Internet Infrastructure • Promote adoption of electric vehicles • Improve access to safe and convenient walking and biking options • Prioritize "complete streets" projects throughout the region 	<ul style="list-style-type: none"> • Prioritize Projects that Improve and Expand Access to Public Transit • Manage the Adoption of Private Connected and Autonomous Vehicles • Promote Autonomous Technologies for Public Transit • Encourage development near transit • Promote adoption of electric vehicles



Ongoing Public Outreach Activities

Throughout the development of the 2022 RTP/SCS Plan, SJCOG staff employed a wide range of public outreach activities, including:

- Consultation with member agencies and SJCOG standing committees.
- Table outreach at community events.
- Mini-presentations to public agencies and nonprofit organizations.
- Targeted flyers.
- Traditional media outreach.
- Stakeholder meetings.
- Social media and website.

For further detail on these activities, please see Appendix K.

Conclusion

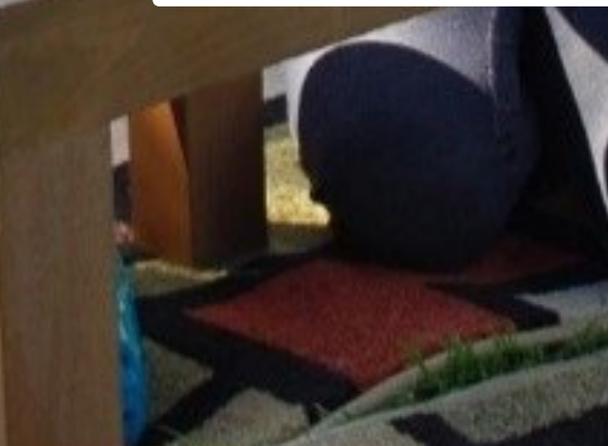
More than two years after civic engagement began, public input has made a profound mark on the

package of transportation investments laid out in the plan. In 2014, the plan represented a bold shift in transportation investments among the different modes of travel by directing more resources to maintenance and safety, active transportation, and public transit compared to previous plans. In 2018, residents showed up in strong numbers to provide their input in one of the most visible, inclusive, and accessible civic engagement efforts led by SJCOG. Residents expressed great pride in the region with high hopes for its future. In 2022, despite the COVID-19 pandemic, the public was able to participate in the public engagement process and provide key direction on which strategies should be included in the 2022 plan. Ultimately, their direct input reinforced the bold direction charted in 2014 and continued through the development of the 2022 plan to ensure implementation of ambitious sustainability goals in the San Joaquin region.



CHAPTER 3

The Building Blocks Policies and Supportive Strategies



THREE

The policies in this element of the 2022 Regional Transportation Plan/Sustainable Communities Strategy are the building blocks for developing the plan and maintaining internal consistency with other plan elements. They tackle San Joaquin County transportation issues and quantify regional needs through 2046.

The plan policy element carries forward core policies from 2018 and focuses on supporting implementation and accelerating it through innovation.

Overall, the policy element is used to build a financially constrained action plan. The policies help balance investments that maintain the roadway system, enhance safety and provide congestion relief, and integrate technological advances as part of the transportation solution.



The Policy Element

The policy element advances the requirements of what the plan must include under Senate Bill 375. In detail, it must:

- Identify existing and future land use patterns.
- Consider statutory housing goals and objectives.
- Identify areas to accommodate long-term housing needs.
- Identify areas to accommodate eight-year housing needs.
- Consider resource areas and farmland.
- Identify transportation needs and the planned transportation network.
- Set forth a future land use pattern to meet greenhouse gas emission reduction targets.
- Comply with federal law for developing the Regional Transportation Plan.

The plan, with all that it is required to do, cannot

dictate local general plans. Land use development decisions remain the purview of local agencies. Instead, the Sustainable Communities Strategy (SCS) component of the plan provides a regional policy foundation for local governments to build on. To promote sustainability goals across the region, local jurisdictions can use the SCS and potential streamlining benefits to advance new development that is consistent or exceeds the goals outlined in the plan.

To encourage sustainable development, SJCOG continues to support compatible land use projects by helping public and private developers in seeking grants and taking advantage of streamlining benefits provided by the California Environmental Quality Act (CEQA). While carrying out the construction of billions of dollars in transportation improvements is a clear measure of progress, SJCOG plays many roles to further the ambitious goals of the plan. Some of these are ongoing programs for SJCOG, while others represent new areas of work.





Stockton Mobility Collective

The Stockton Mobility Collective (SMC) is an exciting new and transformative project, which was established due to funding from the California Air Resources Board (CARB). CARB awarded SJCOG \$7.4 million from its grant program called Sustainable Transportation Equity Project (STEP). The goal of the project is to increase transportation equity in disadvantaged and low-income communities. The project is aimed at improving and increasing transportation options for Stockton residents who are looking for clean, affordable ways to travel.

Community Engagement: There will be early and on-going opportunities through 2024 for the community to receive updates and provide feedback on the project. Community engagement activities include stakeholder working group meetings, demonstration events, workshops, and more.

Vamos Mobility: The Vamos Mobility App is being expanded to connect Stockton residents with the SMC carsharing and bikesharing services. Additionally, EZHub mobile ticketing on the app will be expanded to Stanislaus County transit systems.

Carsharing Services: The carsharing program will provide 30 electric vehicles at approximately six or seven stations centered in Downtown Stockton along major north-south transportation corridors connecting city residents to services, resources, shopping, schools and jobs. The service is scheduled to be operational by the end of 2022.

Bikeshare Service: The SMC's bikesharing program will provide Stockton residents access to 100 electric-assist smart bikes at approximately 12 stations or hubs that host five to 12 bikes per station. The service is scheduled to be operational by the end of 2022.

Workforce Development: The project will focus on creating a pipeline for jobs in shared mobility operations and their components such as Electric Vehicle Service Equipment (EVSE) installation, electric vehicle (EV) maintenance and equipment repair, and management and operations of EVs and e-bikesharing fleet networks.

Mobility Wallet: A new pilot program will provide transit incentives to qualifying residents in the project area to reduce any cost burden associated with using the new shared mobility programs.

Foundational Elements in the Policy Development Process

San Joaquin Valley Blueprint

In 2006, the eight counties comprising the San Joaquin Valley secured funding from the California Department of Transportation to develop a valley-wide transportation, land use, and environmental Blueprint Vision to the year 2050. The Blueprint recognized that economic, environmental, and social issues are interdependent and only integrated approaches would affect needed changes. The Blueprint effort recognized that addressing one topic without recognizing potential impacts in other areas would not be enough. As an example, the location of jobs, housing and commerce affects the transportation system, the nature of the transportation system affects air quality, and air quality affects health outcomes.

After a series of community-based workshops conducted throughout the region in January 2010, the SJCOG Board of Directors adopted the San Joaquin County Regional Blueprint Vision to the Year 2050.

The Blueprint established a coordinated, long-range regional vision for transportation, land use, and the

environment from an overall quality-of-life perspective.

Building the Blueprint involved a bottom-up approach beginning with input from the community. The related technical analyses and public outreach efforts laid the groundwork for the planning framework for subsequent RTP/SCS plans.

Regional Congestion Management Process

The Regional Congestion Management Process (RCMP) is an essential component of the plan development because it:

- Provides for safe and effective integrated management and operation of the entire multimodal transportation system.
- Assesses the level of congestion on the regional transportation network.
- Organizes and integrates strategies into the RTP.
- Uses performance measures to assess the benefits RTP strategies provide the region.
- Generates and collects data to apply the performance measures for system monitoring.
- Implements a process that minimizes to the extent possible single-occupancy vehicle trips from new development.

The RCMP roadway network includes all highways and regionally significant arterials adopted by the SJCOG Board of Directors. Its assessment and monitoring help determine near-term, midterm and long-term projects, making it an important tool for project funding prioritization. This is significant due to performance-based planning requirements in the 2022 plan.

SJCOG staff are actively monitoring new requirements for regional and local agencies and disseminating information to its local agency partners.



Measure K Expenditure Plan

In November 2006, San Joaquin County voters renewed Measure K for an additional 30 years beyond the original 2011 expiration date. The Measure K Expenditure Plan identifies the countywide transportation facility and service improvements, including highway, public transit, railroad grade crossing, passenger rail, and bicycle projects to be delivered by a half-cent sales tax dedicated to transportation improvements in San Joaquin County. The Expenditure Plan also outlines the distribution of all project category allocations between the local jurisdictions in the county. The sales tax revenue generated by the Measure K program along with the policies, projects and programs identified in the Measure K Expenditure Plan have been incorporated into the plan as appropriate.



Regional Transit System Plan

In 2016, SJCOG completed the comprehensive update to the San Joaquin County Regional Transit Systems Plan (RTSP). The RTSP is a long-range transit plan that looks at bus and rail transit needs, their related costs, and a financial forecast of anticipated funding through 2024.

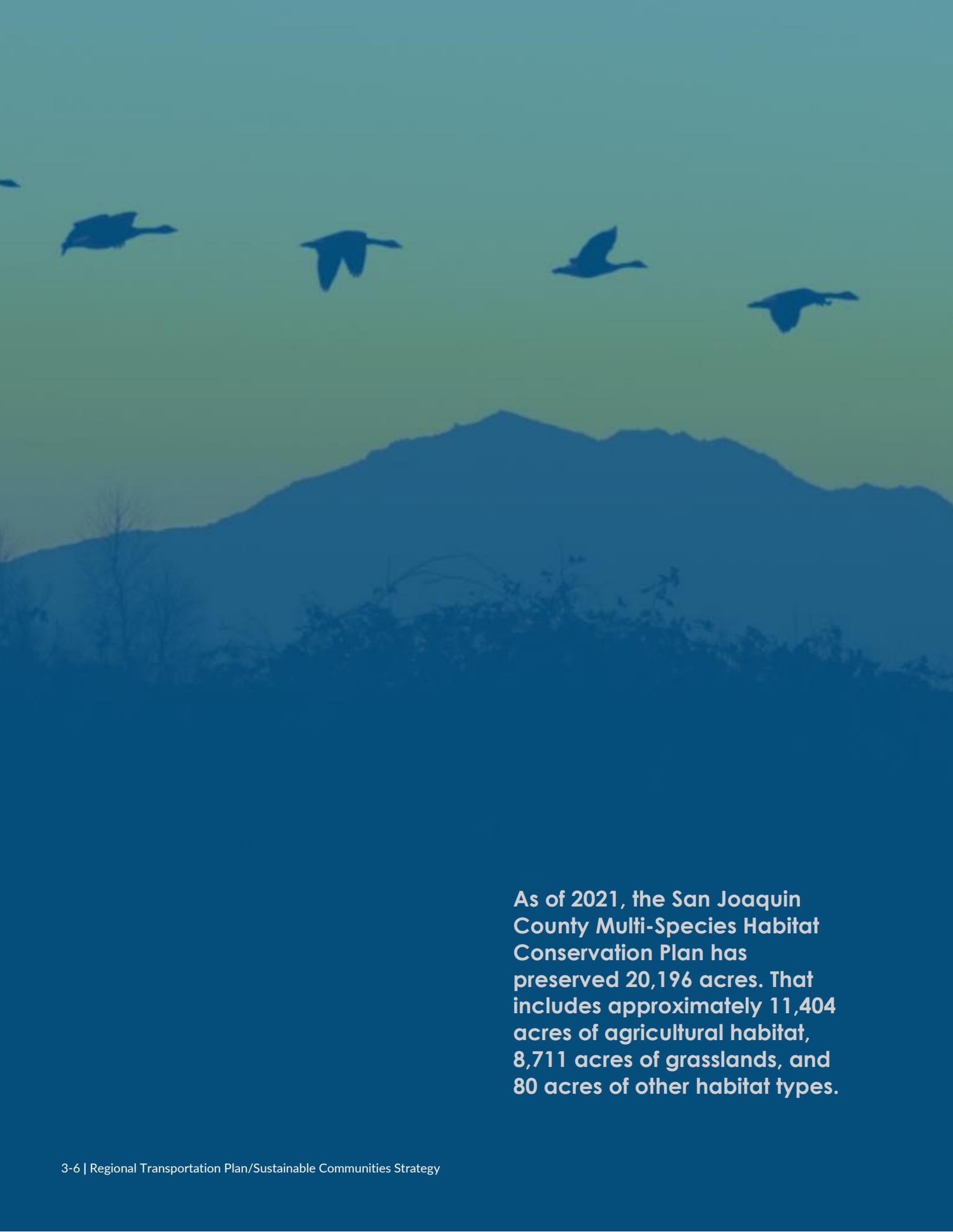
The RTSP showed that many transit operators did not receive enough revenue to finance their proposed systems, resulting in funding shortfalls. Overall, the RTSP forecasted \$1.02 billion in project revenue against \$1.23 billion in anticipated transit costs. This required transit operators to reexamine their system expansion plans and reduce operating costs, identify strategies to bring in discretionary funding, and find other innovations to deliver public transit services.

The RTSP delved further than simply outlining funding shortfalls. It included a discussion of strategic transit investments and identified policies and practices to be developed. Six “action areas” have been initiated for guiding decision-making in the years to come:

- Collaborative forums and coalition building.
- Find cost and investment efficiencies.
- Improve the fiscal health of transit.
- Modernize the transit system.
- Enhance supportive land use policies and practices.
- Change funding policy.



Photo Credit: San Joaquin Regional Transit District



As of 2021, the San Joaquin County Multi-Species Habitat Conservation Plan has preserved 20,196 acres. That includes approximately 11,404 acres of agricultural habitat, 8,711 acres of grasslands, and 80 acres of other habitat types.

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

SJCOG Inc., a 501 (c)(3) nonprofit organization whose governing board consists of SJCOG Board members, administers the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The key purpose of the SJMSCP is to:

- Provide a strategy for balancing the need to conserve open space and the need to convert open space to non-open space uses, while protecting the region's agricultural economy.
- Preserve landowner property rights.
- Provide for the long-term management of plant, fish, and wildlife species, especially those that are currently listed, or may be listed in the future, under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA).
- Provide and maintain multiple-use open spaces which contribute to the quality of life of the residents of San Joaquin County.
- Accommodate a growing population while minimizing costs to project proponents and society at large.

The SJMSCP helps to reduce the loss of wildlife and property by lessening the impact of development on open space in San Joaquin County. Through the SJMSCP, SJCOG looks at potential impacts to agricultural and resource lands and tracks actual development activities, as compared to the projected development in the plan.

Regional Bicycle, Pedestrian and Safe Routes to School Master Plan

This document was instrumental in developing the future bicycle infrastructure network and pinpointing possible need for revenues to be allocated to the Active Transportation Element of the plan. As local agencies are currently developing updates to their own bicycle master plans, SJCOG will monitor the need and feasibility of updating the Regional Bicycle, Pedestrian and Safe Routes to School Master Plan.

Higher Density Housing Study

The 2012 Valley Blueprint completed by The Concord Group looked at a variety of current economic and demographic data to produce a snapshot of both consumer- and viability-driven estimates of demand for various housing product types. The conclusions and results of this study were directly incorporated into the scenario planning exercises for the 2018 plan. The housing split goals of the 2022 plan were directly connected to this study.



Photo Credit: Captivating Photos

Local Agency Climate Action Plans

There are several local agencies that have adopted climate action plans. Tracy adopted its Sustainability Action Plan in 2011 to become the first local agency to have a climate action plan in San Joaquin County. Manteca, Lodi, and Stockton followed Tracy's lead by adopting their climate action plans in 2013 and 2014. These climate initiatives are well into their implementation phases and continue to help shape the planning process.

Resiliency and Climate Adaptation

"Resiliency" is a term commonly used in disaster risk management to describe how durable something is in emergency conditions and its ability to return to normal if affected. For example, resiliency may refer to the ability of a bridge to withstand an earthquake. In the context of transportation infrastructure, projects are usually planned for everyday use but not



The Plan in Action

Future Studies for Implementation

Senate Bill 1, The Road Repair and Accountability Act of 2017, provides planning funds to metropolitan planning organizations to implement RTPs and their SCS elements. In 2022, SJCOG will continue studies for ongoing efforts to support plan policies and supportive strategies. Four studies are outlined below:

- **Regional Resiliency Implementation Plan and Adaptation Guidance (Phase II):** The study includes strategy recommendations, project development guidance, and resources and tools to promote transportation resiliency and reliability in SJCOG's planning and programming activities.
- **Gentrification and Displacement Risk Assessment of San Joaquin County:** This is a regional assessment to understand the risk of gentrification and displacement. This will guide future regional planning and investment and assist local agencies with implementing policies to protect existing residents as new major investments in public infrastructure are made.
- **Active Transportation Plan in Priority Neighborhoods:** This study examines existing bike and walking infrastructure across the region to determine what barriers communities with higher rates of health disparities may face in improving physical health. It determines program and project needs for improving public health, reducing congestion, and decreasing greenhouse gas emissions at the neighborhood scale and helps local jurisdictions with pursuing implementation funds.
- **Alternative Fuels Vision Plan:** This study will evaluate connection gaps of electric vehicle charging and alternative fueling locations in the regional transportation system. A strategic roadmap for the region and local agencies will help shape the build-out of a robust alternative fuels network and assist with securing implementation funding.

The Plan Policies and Supportive Strategies

The policies listed in this section (Table 3.1) have been carried forward from the 2018 plan due to their continuing relevancy to the current aspirations of the region. The supportive strategies for the policies are the result of a different approach than that for the 2018 plan. For the 2018 plan, SJCOG staff developed discrete scenarios and recommended one to the SJCOG Board of Directors. For the 2022 plan, SJCOG staff evaluated potential strategies based

on their performance in identified future trends using the following metrics: 1) Vehicle Miles Traveled (VMT), 2) Transit Ridership, and 3) Greenhouse Gas (GHG) Emissions.

Many of the following strategies performed well in multiple future trends and received strong public support during the outreach process for the plan. Please see Chapter 1 and Appendix S for more details on the strategy development and selection process.

Table 3.1: Policies and Supportive Strategies

Policy: Enhance the Environment for Existing and Future Generations and Conserve Energy

Strategy No. 1: Encourage efficient development patterns that maintain agricultural viability and natural resources.

Strategy No. 2: Encourage preservation of natural resources.

Strategy No. 3: Enhance the connection between land use and transportation choices through projects supporting energy and water efficiency.

Strategy No. 4: Improve air quality by reducing transportation-related emissions.

Policy: Maximize Mobility and Accessibility

Strategy No. 5: Optimize the public transportation system to provide efficient and convenient access for users of all income levels.

Strategy No. 6: Encourage infill development and development near transit, including transit-oriented development to maximize existing transit investments.

Strategy No. 7: Provide transportation improvements to facilitate nonmotorized travel, including incorporation of complete streets elements as appropriate.

Strategy No. 8: Improve freight access to key strategic economic centers.

Strategy No. 9: Promote safe and efficient strategies to improve the movement of goods by air, water, rail, and roadway.

Policy: Increase Safety and Security

Strategy No. 10: Facilitate projects that reduce the number and severity of traffic incidents.

Strategy No. 11: Support local and state efforts for transportation network resiliency, reliability, and climate adaptation.

Policy: Preserve the Efficiency of the Existing Transportation System

Strategy No. 12: Prioritize projects that make more efficient use of the existing road network.

Strategy No. 13: Support the continued maintenance and preservation of the existing transportation system.

Strategy No. 14: Promote electric power, alternative fuels and autonomous technologies for freight and agriculture.

Strategy No. 15: Manage the adoption of electric vehicles and private connected and autonomous vehicles.

Strategy No. 16: Promote electric power, alternative fuels, and autonomous technologies for public transit.

Policy: Support Economic Vitality

Strategy No. 17: Support transportation improvements that improve economic competitiveness, revitalize commercial corridors and strategic economic centers, and enhance travel and tourism opportunities.

Strategy No. 18: Support workforce training across industries, particularly transportation-related industries.

Strategy No. 19: Encourage and/or strengthen small business while supporting large employer recruitment.

Strategy No. 20: Invest in high-speed internet infrastructure to support e-business and reduce commuting.

Policy: Promote Interagency Coordination and Public Participation for Transportation Decision-Making and Planning Efforts

Strategy No. 21: Provide equitable access to transportation planning.

Strategy No. 22: Engage the public early, clearly, and continuously.

Strategy No. 23: Use a variety of methods to engage the public and encourage representation from diverse income and ethnic backgrounds.

Policy: Maximize Cost-Effectiveness

Strategy No. 24: Support efforts to streamline the development process.

Strategy No. 25: Support the use of state and federal grants to supplement local funding and pursue discretionary grant funding opportunities from outside the region.

Strategy No. 26: Support projects that maximize cost-effectiveness.

Strategy No. 27: Maximize funding of existing transportation options.

Policy: Improve the Quality of Life for Residents

Strategy No. 28: Promote a broader range of housing types.

Strategy No. 29: Support the development a regional trust fund dedicated to addressing housing issues.

Strategy No. 30: Enhance public health through active transportation projects.



Photo Credit: Visit Stockton

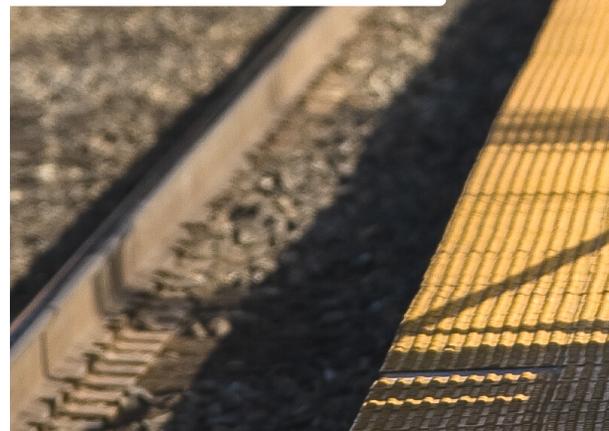
Conclusion

As a result of the civic engagement process, SJCOG was able to conclude that the goals and many of the supportive strategies in the 2018 plan continue to resonate with San Joaquin County residents. Continuing forward with a similar set of goals and performance measures allows staff to focus on implementation efforts for realizing the plan's ambitious sustainability focus. The resulting 2022 plan continues to identify increased housing and employment densities to support a multimodal transportation system, while also promoting transportation alternatives to the car. It encourages

active transportation such as biking and walking, which helps improve the health of those in our communities. It complies with federal Clean Air Act goals and SB 375 greenhouse gas emissions targets through a transportation system that reduces harmful air pollution emissions in accordance with these laws. With its ambitious approach to carrying out these policies, the plan builds a transportation system that ultimately keeps pace with projected population, employment, and housing growth.

CHAPTER 4

Financing the Transportation System



FOUR

Here the transportation investments for the San Joaquin region that support the goals and objectives of sustainability are outlined. It specifies planned projects and transportation management strategies intended to most effectively accommodate future transportation needs and desired environmental benefits. The investment strategy is a balanced approach to multimodal development intended to fulfill the objectives and performance indicators that guide the plan and move to achieve long-term transportation goals for the region. This includes providing appropriate resources to operate and maintain the multimodal system.



Economic Outlook and Financial Assumptions

The transportation investments in the plan are based on an estimate of available funding through 2046, including reasonably expected federal, state and local revenue sources. In total, the plan assumes \$12.6 billion in projected revenues to be available within the 2046 planning period to support the transportation investments. These revenues are identified in year of expenditure dollars consistent with identified project costs. The projected revenues and expenditures rely on historical patterns of funding from federal, state and local sources, and assumptions about future conditions. Both have been developed in coordination with the local transit agencies, local jurisdictions, and state and federal agencies to ensure that the estimates are reasonable.

The San Joaquin region has continued to slowly grow out of the Great Recession, which had a significant impact on the local and state economy. The COVID-19 pandemic rocked global, national, and local markets and created unforeseen irregularities and uncertainties that affected transit ridership, job security, supply chain sustainability and sales taxes. Through these uncertain times increased federal and state legislation was passed to stimulate growth and recovery, which will mean increased potential revenue streams. The federal government also stepped in during the pandemic to keep existing infrastructure projects on track. A boost in local retail sales in turn led to increased revenue for San Joaquin County's Measure K half-cent sales tax.

The plan's revenue projections over the 2046 planning period continue to reflect the conservative growth assumptions in the earlier years with higher growth in the latter years of the plan. Overall, the revenue projection for the plan represents a significant increase of 8.8 percent over that in the 2018 plan due to increased federal and state infrastructure spending. However, it is worth noting that the balance of revenue has shifted more heavily toward state funds, as compared to recent plans. This shift is due to the passage of Senate Bill 1, which

increased gasoline and diesel taxes, and raised other fees to generate more than \$5 billion annually in new transportation revenues statewide.

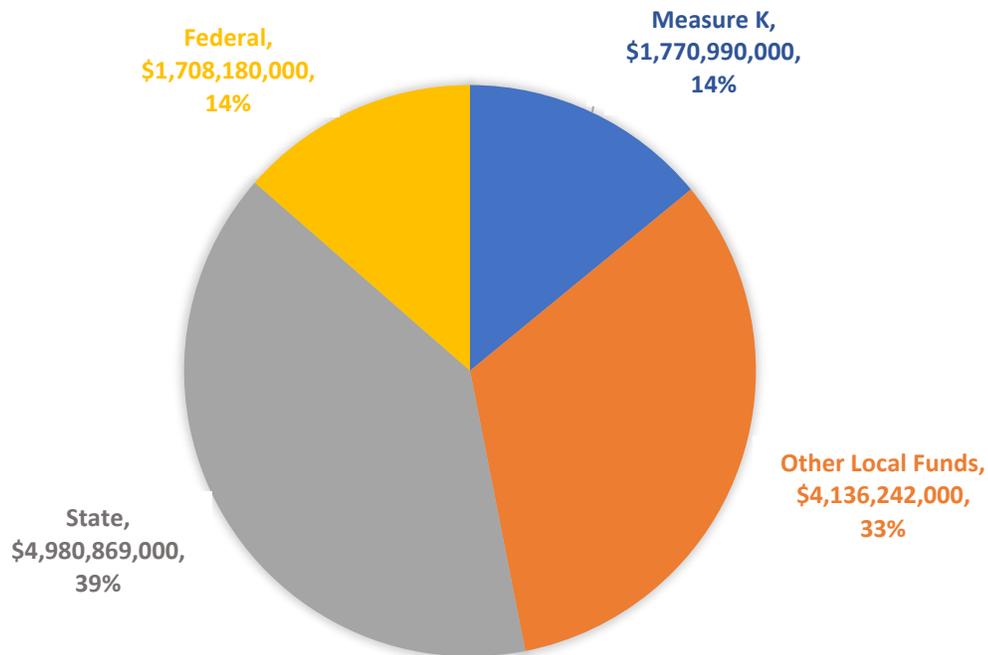
The following sections describe the key assumptions of the major revenue sources.

In total, the plan assumes

\$12.6 billion

projected revenues to be available in the 2022-2046 planning period to support the transportation investments

Figure 4.1 - Total Funding Revenue Sources



Local Revenues

Funding from local sources contributes \$5.9 billion collectively from mainly the Measure K half-cent sales tax program (Figure 4.1). Of this local revenue, the major contributions are \$1.77 billion from Measure K, \$2.17 billion in local transportation funds, \$823 million in local developer fee programs and general funds, and \$399 million from the Regional Transportation Impact Fee program. Local funding is assumed to grow at rates specific to the source of the revenue.

The sales tax-based Measure K and local transportation funds are assumed to grow according to historical trends and projections of regional economic growth. The COVID-19 pandemic created new retail spending trends that have resulted in greater current and forecasted sales tax revenue. The development-based local developer fee and Regional Transportation Impact Fee programs are assumed to grow according to historical trends and projections of retail, commercial, and housing development in local jurisdictions.

State Revenues

State funding sources equal \$4.98 billion and make up about 39 percent of the total RTP/SCS transportation budget. Most of the forecasted state revenues include \$1.55 billion from the State Highway Operations and Protection Program (SHOPP), \$2.41 billion from Senate Bill 1, and \$242 million from the State Transportation Improvement Program (STIP). Each state funding source is assumed to continue in their current form and distribution level with growth based on the historical trends for each funding source.

Senate Bill 1 – Road Repair and Accountability Act of 2017

Senate Bill 1 was signed by Gov. Jerry Brown on April 28, 2017. SB 1 prioritizes funding for maintenance, rehabilitation and safety improvements on state highways, local streets and roads, and bridges. It is also used to improve the state’s trade corridors, transit, and active transportation facilities. The SB 1 revenue streams are also earmarked for other eligible uses, including complete streets projects, traffic signals and drainage improvements.

Senate Bill 132

Senate Bill 132, a companion bill to SB 1, assigned \$400 million in Transit and Intercity Rail Capital Program for the purpose of extending the Altamont Corridor Express to Ceres and Merced by 2029.

Federal Revenues

About \$1.7 billion, or 14 percent, of the transportation funds for the plan come from federal funding sources. Funds from the Federal Transit Administration total \$700 million and make up about 41 percent of all federal funds. These funds are generally used to support transit capital and operating needs. Federal sources also include two flexible funding opportunities. One is known as Surface Transportation Program (STP), which can be used for roadway resurfacing, pedestrian and bicycle facility improvements, or traffic operational improvements, and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program, which can be used for transit vehicle purchases or any other operational improvement that leads to congestion relief and improved air quality. In this plan, STP and CMAQ total approximately \$265 million and \$271 million, respectively. Both federal highway and federal transit programs are assumed to continue in their current form and distribution at the state and federal level.

Other potential funding sources were created by the Infrastructure Investment and Jobs Act (IIJA) signed by President Joe Biden in 2021. As of 2021, there were \$1 billion available for the Reconnecting Communities Pilot Program, \$8 billion for Infrastructure for Rebuilding America (INFRA), \$7.5 billion for Rebuilding American Infrastructure Sustainably and Equitably (RAISE), and \$5 billion for the National Infrastructure Project Assistance.

Highlights of Revenue Assumptions

Forecasting Infusion of Future Federal and State Funding Due to San Joaquin County's Historical Success

The plan assumes future funding sources based on

historical experience within the region. This track record includes securing millions of dollars from various state and federal funding programs, and successfully positioning projects to capitalize on “cost savings” from various funding programs.

Measure K Revenue Pace Compared to Measure K Revenue Needs

The Measure K half-cent sales tax program was originally passed in San Joaquin County in 1990 for 20 years and renewed in 2006 for an additional 30 years with more than 78 percent voter approval. At the time of its renewal by the voters, the revenue forecast assumed a “financially constrained” funding plan where the anticipated Measure K revenues would fund and deliver the Measure K program of projects.

However, the Great Recession occurred shortly after voters renewed Measure K and had an adverse impact on the anticipated revenue stream. The reduction of sales tax revenue following the Great Recession was \$2 billion compared to the 30-year total assumed in the 2006 Measure K Renewal Expenditure Plan. This meant that the revenue decline would, at minimum, be \$2 billion under what is needed to fulfill the Measure K promise to the San Joaquin voters. Local revenue decline was not just experienced in the Measure K Program, however. Regionwide, local development revenue and SJCOG's own Regional Transportation Impact Fee, imposed on pertinent local development projects, also suffered as the economy struggled.

Retail spending and related sales tax revenue received an unforeseen boost because of the global pandemic that began in 2020. Measure K revenue in Fiscal Year 2019-2020 was roughly \$63 million and grew to about \$76 million in FY 2020-2021. Near term growth can be expected to take a similar shape, while moderate growth is expected in the longer term. This phenomenon is a result of many different factors that have taken place in the wake of the COVID-19 pandemic.

The Transportation Investments

The plan promotes a balanced transportation system. It calls for a \$12.6 billion investment in system expansion of alternative transportation modes with strategic improvements to the existing road and highway network. The plan investments are consistent with existing programming documents, including the Interregional Transportation Improvement Program (ITIP), Regional Transportation Improvement Program (RTIP), and the Federal Transportation Improvement Program (FTIP).

A summary of these investments by major funding source category is presented in Table 4.1. All investments are identified in year-of-expenditure dollars that represent the cost of projects escalated to the future point when they are anticipated to be delivered. The summary of 2022 plan investments also highlights the comparison of categorical investments between the 2022 plan and the 2018 plan.

Table 4.1 - Summary of RTP/SCS

Year of Expenditure (YOE) Dollars	Total Budget (in Millions)*		
Investment Type	2018 RTP	2022 RTP	% Change
Roadway Operations, Maintenance, & Safety	\$ 4,448	\$ 4,638	4.3%
Transit	\$ 3,572	\$ 4,732	32.5%
Roadway Capacity	\$ 3,121	\$ 2,721	-12.8%
Active Transportation / Community Enhancements	\$ 320	\$ 384	20.0%
Total	\$ 11,461	\$ 12,475	8.8%

*Excludes aviation projects totaling \$120 million in RTP/SCS investments

Roadway Operations, Maintenance and Safety — Maintaining the Integrity of the Existing System

Operational and safety improvements, and the overall maintenance of the existing transportation system in San Joaquin County are substantial priorities for transportation investment decisions. State and local government agencies are responsible for maintaining a tremendous existing investment in the street and highway system. In addition to roadway pavement, this includes sidewalks, drainage systems, bridges and other structures, signal systems, signage, and landscaping.

The plan calls for a substantial portion of future revenues to be dedicated toward maintaining and operating the current system. Within the 24-year RTP period, the combined operations and maintenance investment in the existing transportation system is more than \$4.37 billion. In addition, the allocation for the safety improvements

for railroad grade crossings has an expected revenue total of \$197 million over the 24-year period.

Revenue to support roadway operations, maintenance and safety that come from local, state, and federal sources are identified in Figure 4.2.

Consistent with citizen priorities and state and federal goals, a substantial portion of future revenues are dedicated to maintaining and operating existing streets, roads, and other vital infrastructure.



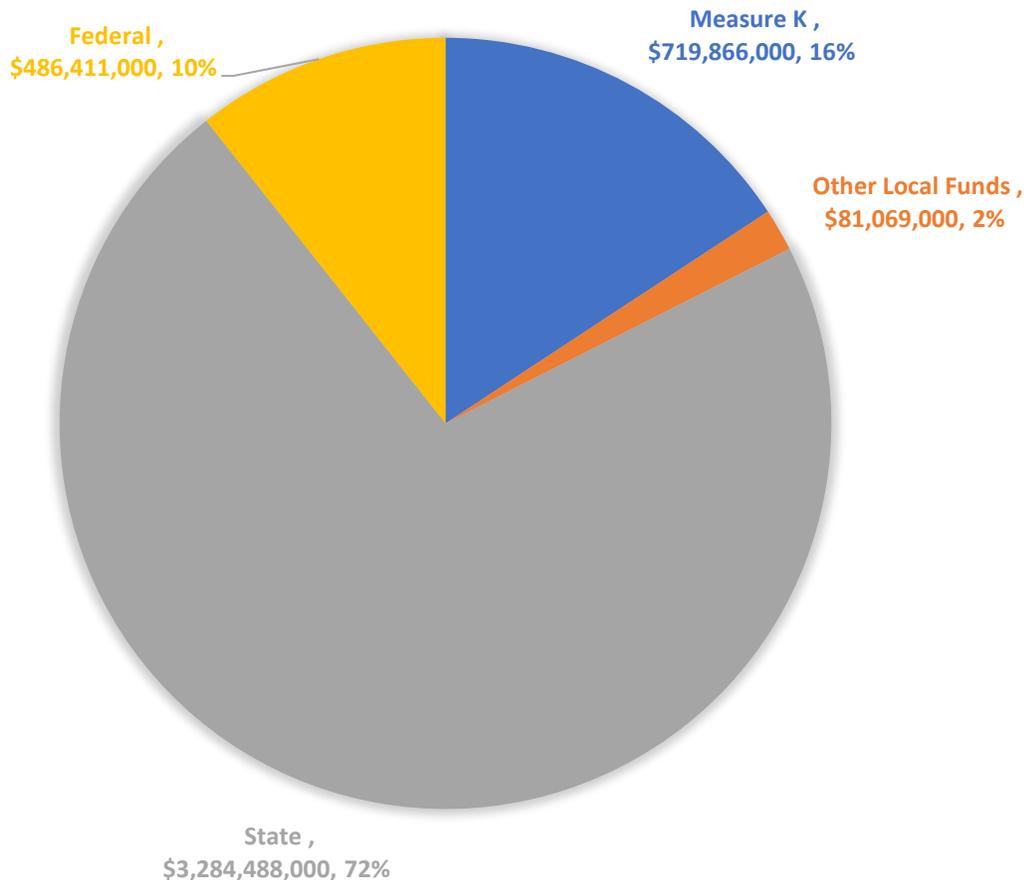
Photo Credit: Captivating Photos

Operational and Safety Improvements

Improving the ability of a highway or arterial street to efficiently move traffic without added capacity is the target of operational and transportation system management (TSM) improvements. This includes lower-cost spot improvements such as freeway auxiliary lanes, modified interchange ramps, improved shoulders, individual intersection improvements on surface roadways, synchronized signals, and limiting left turn movements to major public street connections and turn pockets. This can also include advanced technology applications – often referred to as intelligent transportation systems – such as closed-circuit television to monitor and convey real time travel conditions, changeable message signs, traffic detection equipment, and traveler information systems. These high-tech applications allow motorists

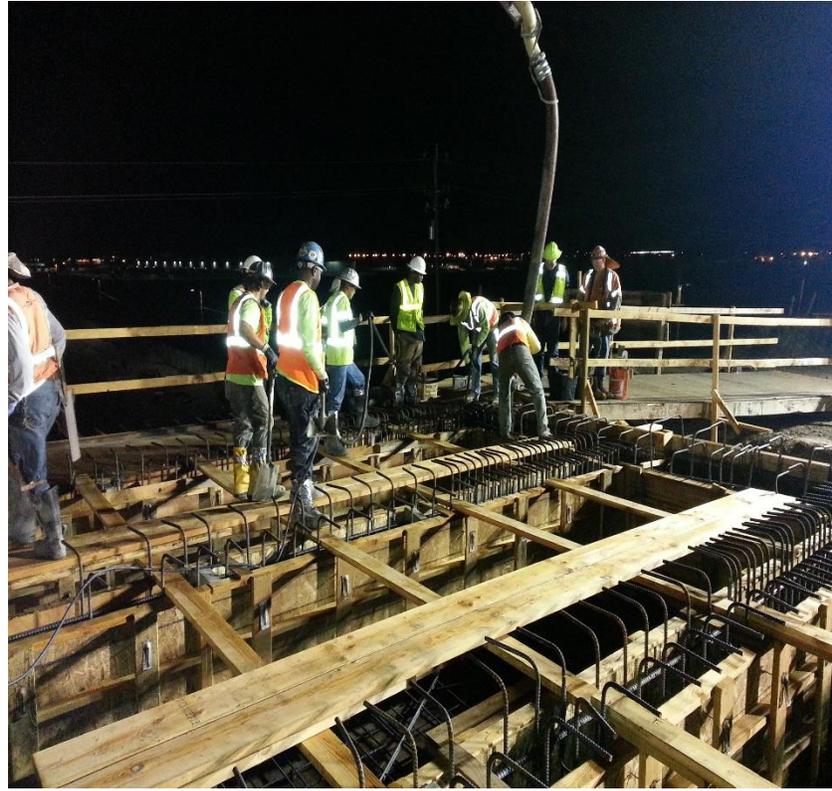
to choose travel options and allow local and state agencies to respond to incidents more quickly on the roadway. A significant component of congestion is related to incidents on the roadway system. The Freeway Service Patrol program, operated in partnership among SJCOG, Caltrans and the California Highway Patrol, helps motorists whose vehicles have broken down and minimizes traffic disruption by clearing vehicles from certain highways in San Joaquin County during peak times. As opportunities to add capacity reach a limit and when cost/benefit is considered, operational and TSM strategies become important investment strategies to improve traffic flow on the existing system. In total, the plan allocates \$4.64 billion to roadway operations, maintenance, and safety improvements on highways and local roadways.

Figure 4.2 - Roadway Operations, Maintenance, and Safety Funding Sources



Local Streets and Roads Maintenance

Local streets and roads are vital to the strength of the region's entire transportation system. They connect our communities and carry traffic in our region whether by automobile, truck, bus, or bicycle. Local roadway operations and maintenance are the responsibilities of each local government in San Joaquin County and include activities to preserve and improve local roadway conditions, routine and preventative maintenance, and rehabilitation and reconstruction of pavement and bridges. In San Joaquin County, upholding local road conditions and performance is a priority due to the value and importance of these roadways to regional mobility and national economic vitality. The revenues supporting these investments are predominantly Measure K, state gas tax and formula funds, federal Regional Surface Transportation Program funds, and the Local Transportation Fund. These funding sources have a forecasted total of \$2.48 billion and make up approximately 56.8 percent of the operations, maintenance, and safety section of the plan.



State Highways Maintenance

Operations and maintenance of California's 50,000-mile state highway system is the responsibility of the California Department of Transportation (Caltrans). Caltrans manages this through the State Highway Operations and Protection Program (SHOPP). SHOPP is currently divided into eight major project categories: major damage restoration, collision reduction, mandates, bridge preservation, roadway preservation, mobility, roadside preservation, and facilities. SHOPP has a forecasted revenue of \$1.55 billion over the 24-year period and accounts for roughly 35 percent of the operations, maintenance, and safety investments in the plan.



Photo Credit: Captivating Photos

Railroad Grade Crossing Safety

The plan recognizes the need for improved railroad grade crossings – particularly grade separations by which a road is built over or under the rail so there is no direct railroad crossing where they intersect – to reduce rail and roadway conflicts. Such grade separations reduce congestion, improve safety for both trains and vehicles, and facilitate the movement of goods by rail. The plan places a substantial emphasis on the importance and delivery of railroad crossing and full separation projects. The plan includes more than \$197 million for grade separation projects as part of the total funding committed for operational and safety improvements (Figure 4.3).

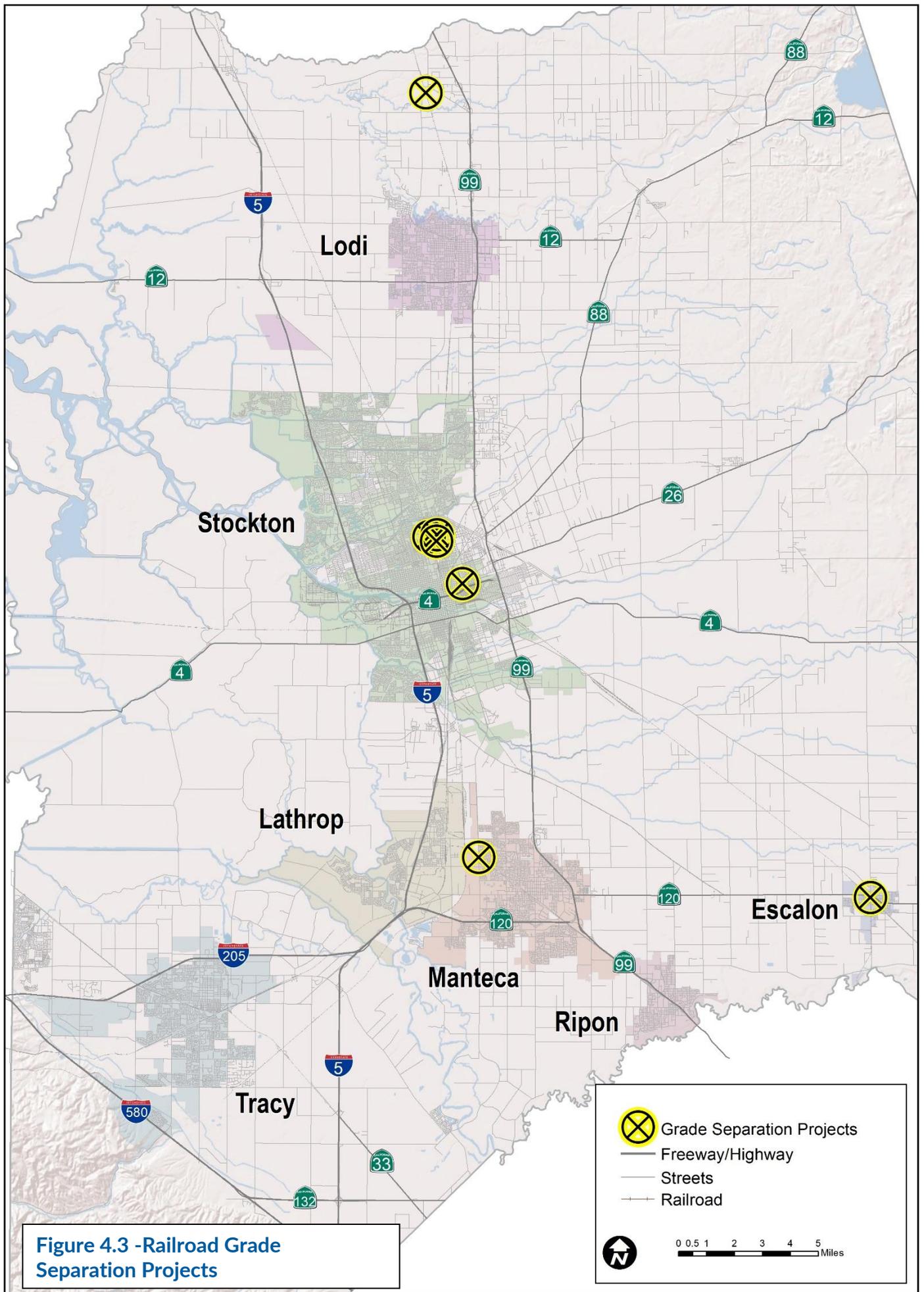


Figure 4.3 -Railroad Grade Separation Projects

Transit – Expanding the System and Promoting Choice

The plan supports transit as an essential service needed by many community members to maintain a minimum standard of living. It also recognizes the important role transit plays in improving our region's air quality, reducing traffic congestion, and improving the general quality of life for travelers who face ever growing commutes.

The plan provides more than \$4.66 billion to transit including bus and passenger rail (Figure 4.4). This represents a 23.4 percent increase in transit funding over the 2018 plan. Transit revenues include \$471 million from Measure K, \$1.99 billion from Local Transportation Funds, \$489 million from Regional Transportation Impact Fees, \$516 million from state sources, and \$864 million from a mixture of federal sources.

The RTP investments emphasize convenient, high quality regional transit services to meet the needs of transit users. Improved and expanded urban, intercity, and interregional bus services that coordinate and integrate with new and improved passenger rail services are included in this transit investment strategy. This will improve mobility and accessibility, while achieving state and federal air quality standards. The plan also seeks to coordinate improved public transit services with complementary and supportive land use development policies, such as multimodal stations surrounded by residential and commercial developments. These transit hubs can be conveniently served by myriad alternative transportation modes, such as park-and-ride lots, bicycle facilities, pedestrian amenities, trains, buses, and telecommute workstations.

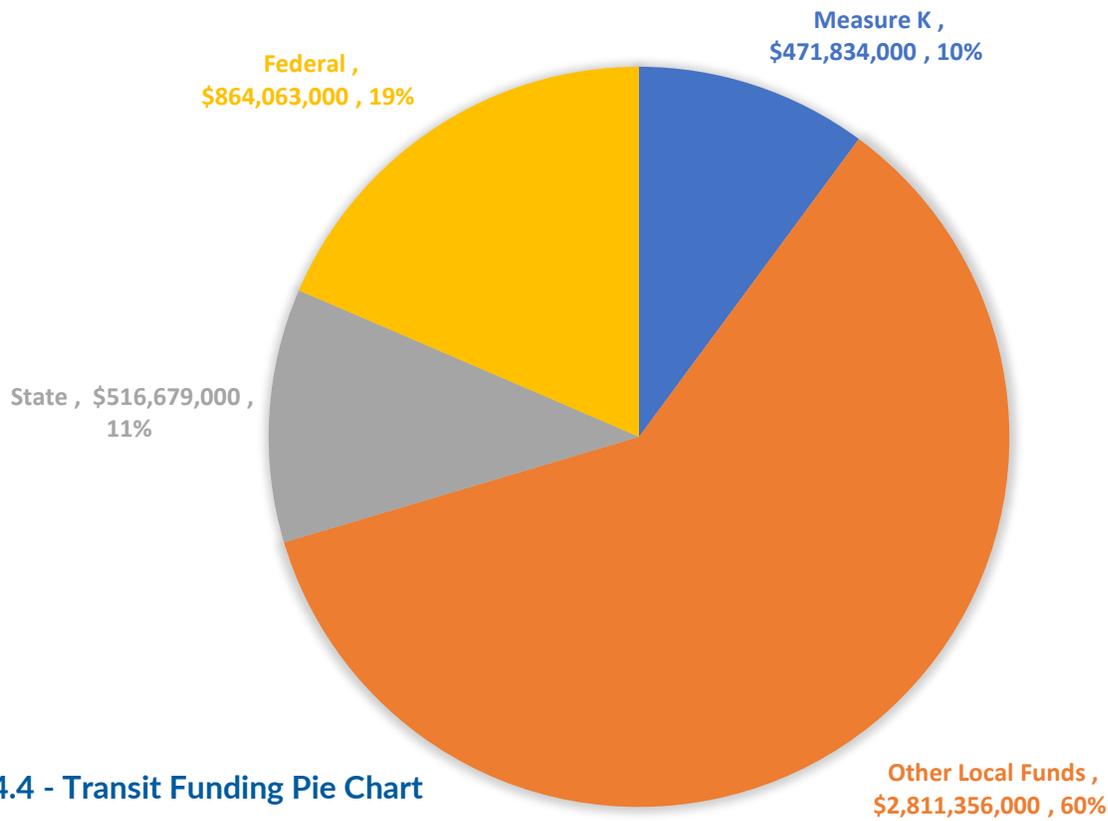


Figure 4.4 - Transit Funding Pie Chart

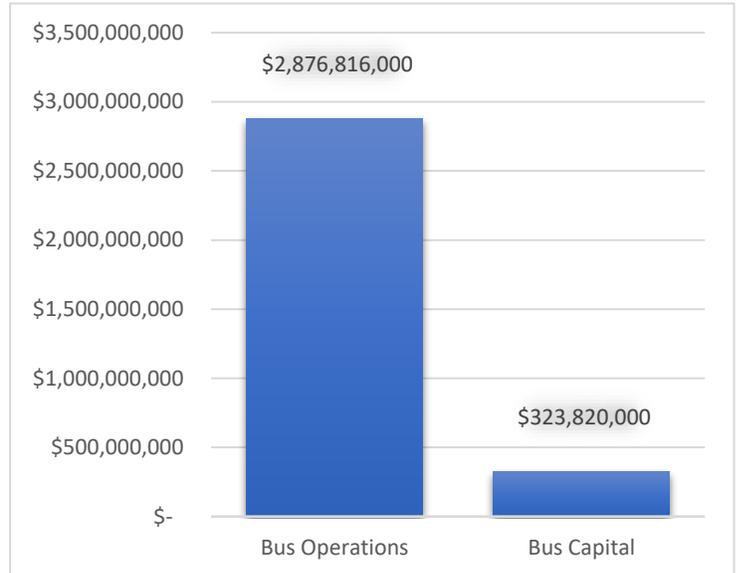
Bus Transit

The plan specifically calls for \$2.88 billion in funding operations for local, intercity, and interregional bus service (Figure 4.5). Service modifications and additional services will be provided as the region grows and travel patterns continue to change.

San Joaquin Regional Transit District's (RTD) Next Gen project will evaluate its current service and identify service improvements and additions to respond to changing conditions, including those caused by the pandemic. The result of the Next Gen project will be a new comprehensive transit plan. This plan will guide RTD's expenditures for many years into the future.

Developing the infrastructure to support intracity transit is a priority for Escalon, Manteca, Tracy, and Ripon. Buying buses and building maintenance and fueling facilities will greatly reduce the operating costs when compared to leasing vehicles and facilities. Adequate transit service for older or disabled citizens and for coordinated social services is a service goal with strong ties to community access and quality of life issues. This specialized transit service will expand over the life of the plan to accommodate an anticipated increase in older adults who continue to value mobility but seek options to a personal automobile.

Figure 4.5 - Bus Transit Investments Bar Chart





GATEWAY TO THE VALLEY

There has been a substantial growth in commuter traffic on the Altamont Pass between Livermore and Tracy since the 1980s. The rise in commuter traffic is due to a variety of factors, including the economic boom of the San Francisco Bay Area's Silicon Valley and historically lower housing costs in San Joaquin County. The rapid increase in commuter traffic on Interstates 205 and 580 have put a strain on the transportation system in eastern Alameda County and southern San Joaquin County.

Traffic flow and capacity through this vital corridor have been increased by a long list of improvements over the past 20 years, including lane widening along I-205 and I-580, expanding the Altamont Corridor Express (ACE) passenger rail service, and extending Bay Area Rapid Transit (BART) to the Dublin/Pleasanton station. Near- and long-term future projects across multiple transportation modes are being developed to further improve conditions on this major traffic artery.



I-205 Managed Lanes

Caltrans is the lead agency and SJCOG the project sponsor in developing a managed lanes project for I-205 that will ease commuter and truck traffic and overall congestion from I-5 to the Alameda County line. Managed lanes come in different forms, but essentially are special lanes for cars with two or more passengers, trucks, buses, and electric vehicles. They are also known as high-occupancy vehicle (HOV) lanes and sometimes a toll is required for single-occupancy vehicles. The goal of managed lanes is to remove cars from the normal flow of traffic to decrease congestion. The project will also look at the feasibility of reserving the median for rail or bus transit to be developed in the future. This project was in the project approval and environmental review phases in 2022.

Valley Link

Assembly Bill 758 was signed into law in 2018 and established the San Joaquin Valley Regional Rail Authority to plan the connection between ACE and BART. Its Valley Link project involves 42 miles of new passenger rail and seven stations connecting the Dublin/Pleasanton BART station in the west and the new north Lathrop Station in the east. The final environmental impact report was approved on May 12, 2021, and the project can now proceed to the engineering and design phase, while seeking funding for construction.

Valley Rail

The SJCOG 2022 RTP/SCS includes the SJRRC's and SJJPA's "Valley Rail" expansion program and has submitted letters of support for Valley Rail funding applications. Valley Rail includes the extension of ACE through Stanislaus, Merced and Sacramento counties. ACE service will terminate at downtown Merced where it will directly connect with High Speed Rail (HSR) Interim Service at a multi-modal station by 2030. The three Sacramento-bound ACE trains originating at Merced will offer a transfer at Lathrop for those traveling to Alameda County or San Jose. Three additional ACE round-trips will run from Merced to the South Bay (one to San Jose and two to Union City BART) by 2030.



Passenger Rail Transit

The plan includes \$1.46 billion toward rail transit operation and corridor improvement. This includes the operation and enhancement of the ACE passenger rail service that provides the commuter link between the northern San Joaquin Valley and the Bay Area. The San Joaquin Regional Rail Commission is planning to extend service to Ceres by 2024 and Merced by 2029. This extension was infused with dedicated funding by the passage of SB 1 in 2017 and will also add new stations in Lathrop, Ripon and Manteca in San Joaquin County. This project has passed environmental review and is in the final phases of the design and engineering process.

The rail commission and the San Joaquin Joint Powers Authority are also looking to provide more rail transit options between the San Joaquin Valley and Sacramento. The Valley Rail Sacramento Extension will include both Amtrak San Joaquins and

ACE Rail operations on the Union Pacific Sacramento Subdivision near I-5. The extension will consist of six new stations in Lodi, Elk Grove, City College, Midtown, North Sacramento, and Natomas, which will feature a shuttle to the Sacramento International Airport (Figure 4.6).

Assembly Bill 758 was written by Assemblymember Susan Eggman and signed by Gov. Jerry Brown in October 2017. It established the San Joaquin Valley Regional Rail Authority to plan, develop and deliver cost-effective and responsive transit connectivity between the Bay Area Rapid Transit District's system and the Altamont Corridor Express commuter rail service. The project was dubbed "Valley Link" and would connect the planned ACE Rail station in Lathrop with the existing Bay Area Rapid Transit station in Dublin/Pleasanton.

The Regional Rail Authority completed the feasibility report in October 2019. This report is critical in





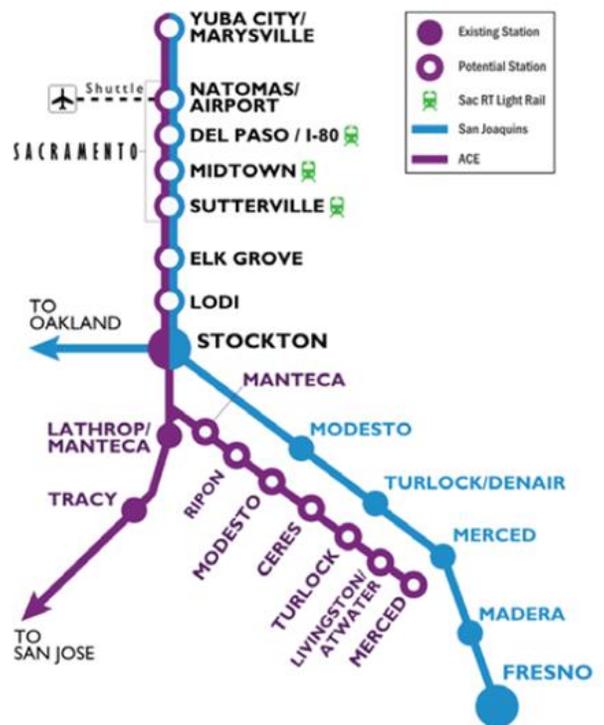
identifying specific projects and related costs to achieve transit connectivity. Along with the feasibility report, the authority completed an economic impact analysis in 2020 to highlight the costs and benefits of the project. The final environmental impact review was approved on May 12, 2021, and the locations of seven stations between Dublin/Pleasanton and North Lathrop are listed, as is an operation and maintenance facility in Tracy.

Transit Operations and Maintenance

A properly maintained transit system is critical to the mobility of the region and for providing an alternative to the private automobile that is convenient and affordable. While the maintenance activities for the transit system are unique to this mode, the unending challenge to sustain the system is similar to the maintenance of the roadway system. Unique to the transit system are the ongoing, necessary operating costs of fuel purchases, drivers, mechanics, dispatchers, and equipment and facility leases. Additionally, the cost for the replacement of buses, train cars, tracks, security upgrades, fare machines, and other capital equipment far outpaces available

funds. And just as with local streets and roads, delayed maintenance of the transit system leads to even costlier rehabilitation down the road.

Figure 4.6 - ACE & Amtrak San Joaquins Expansion



Roadway Capacity – Strategic Investments Relieving Congestion and Supporting Efficiency

Increased traffic that will meet and, in some cases, substantially exceed the system capacity is projected for major highways and several arterial streets throughout San Joaquin County. Without improvements there will be extended morning and afternoon peak traffic in areas that are already congested and several areas now operating adequately will become congested. A substantial increase in total demand is projected for I-5, I-205, and State Routes 99 and 120. SJCOG has highlighted the State Route 99/120 interchange as one of the highest priorities for receiving operational improvements on the state highway system. In fact,

the corridor running from State Route 99 at the Stanislaus County line to State Route 120, I-5 and I-205 is a focused corridor in need of future improvements.

Through the variety of funding sources (Figure 4.7), the plan provides for \$2.86 billion for key projects to improve the most affected portions of the highway and arterial roadway system and promote roadway system efficiency. The capacity improvements are targeted at corridors that are the most essential to mobility within the county. The improvements support planned land use and have gone through the congestion management process.

Mainline Highways

About \$1.12 billion, or more than 39 percent, of the roadway capacity investments in the plan are for

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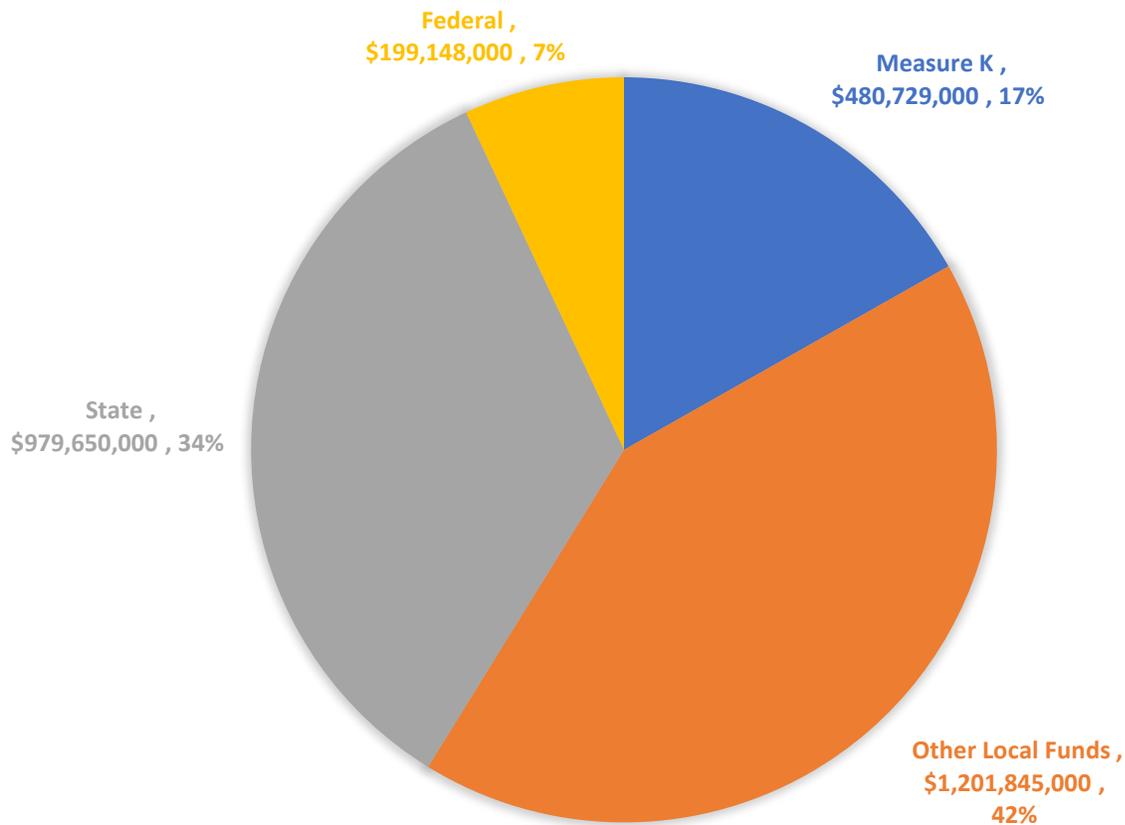


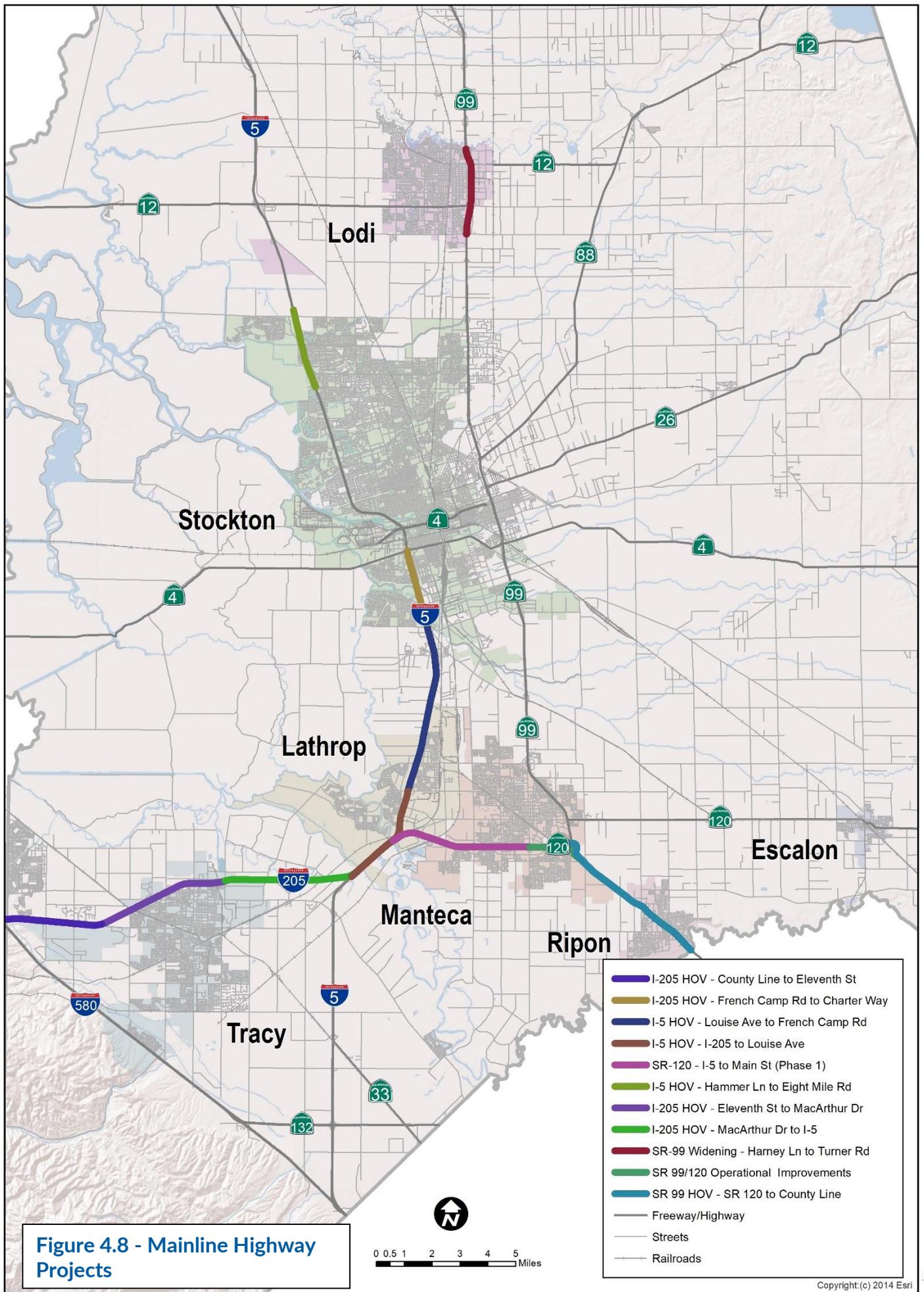
mainline highway widening and extensions. Key to promoting the efficiency of the mainline highway system is the planned widening of I-205 potentially as high-occupancy vehicle (HOV) lanes that support ridesharing and transit (Figure 4.8). These lanes would expand the existing HOV system on I-205 in San Joaquin County and provide consistency and connectivity with HOV lanes planned on I-580 in the San Francisco Bay Area. These routes will also be considered for managed lanes that could use tolls as a tool to help ameliorate congestion. Limiting the amount of vehicle miles traveled (VMT) for single-occupancy vehicles is a key priority in the SB 743 (2013) update.

Regional Roadways and Interchanges

About \$1.74 billion, or 61 percent, of the roadway capacity investments in the plan are for regional roadway widening and new interchanges between regional roadways and mainline highways. The regional roadway and interchange investments support access to infill development areas, congestion relief and bus transit (Figure 4.9). New regional roadways are planned to support the implementation of both local and regional bicycle, pedestrian, and Safe Routes to School plans that ensure these roadways support this plan's goals.

Figure 4.7 - Roadway Capacity Funding Sources





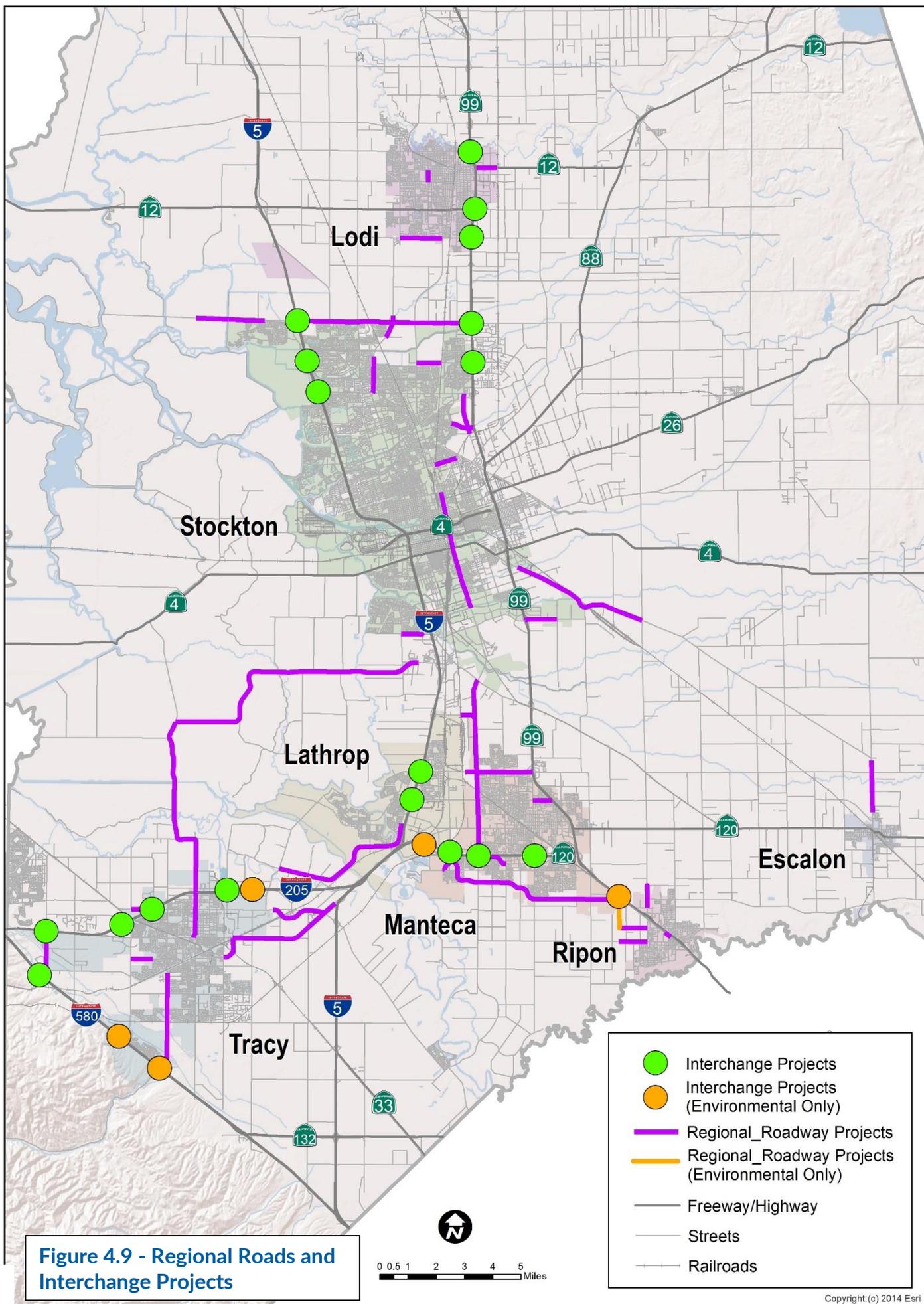


Figure 4.9 - Regional Roads and Interchange Projects

- Interchange Projects
- Interchange Projects (Environmental Only)
- Regional_Roadway Projects
- Regional_Roadway Projects (Environmental Only)
- Freeway/Highway
- Streets
- Railroads

Active Transportation and Community Enhancements – Creating Places for People while Improving Public Health

The plan provides \$384 million to project investments that support active transportation and community enhancements. The investments include standalone pedestrian, bicycle, and Safe Routes to School projects, and programs that incentivize infill development through funding grants for streetscape enhancements. Funding for these investments (Figure 4.10) comes primarily through the Measure K local transportation sales tax program and a variety of state funding programs (e.g., SB 1 and Active Transportation Program). The total revenues made available to support active transportation and complete streets represent a 20 percent increase over the 2018 plan.

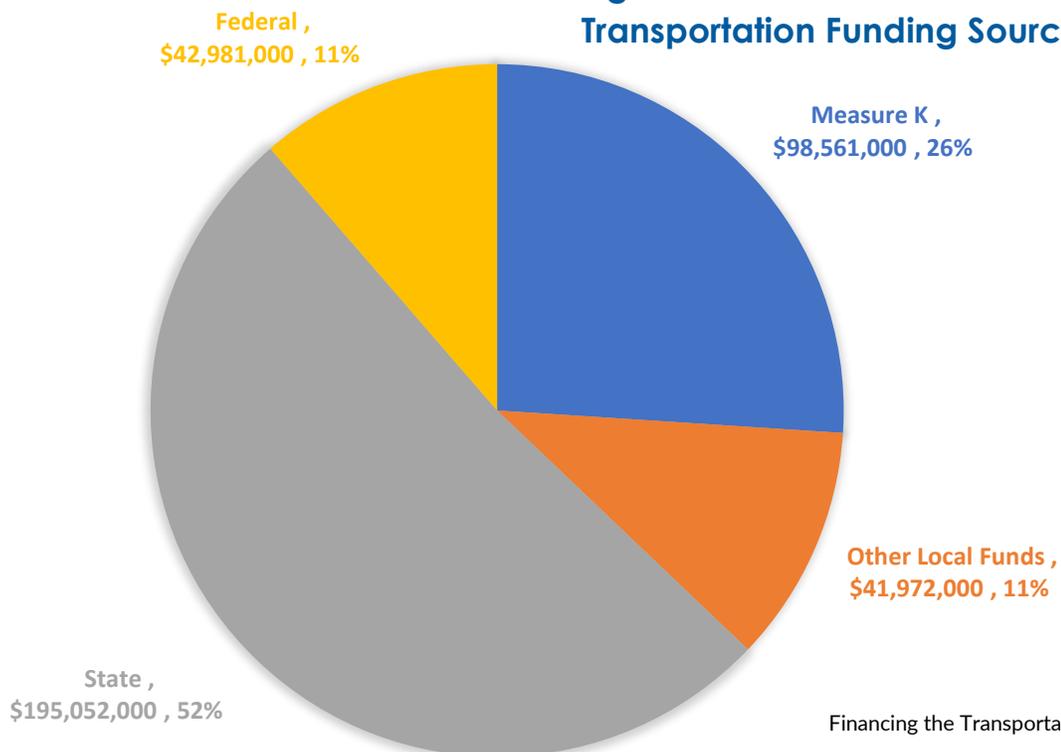
Active transportation infrastructure projects include priority (near-term) and vision (long-term) bicycle, pedestrian, and Safe Routes to School capital projects as defined in the 2012 SJCOG Regional Bicycle, Pedestrian, and Safe Routes to School Master Plan. The total investment in active transportation infrastructure provides for over 800 miles of new Class 1 bike paths, Class 2 bike lanes, and Class 3

shared route lanes throughout San Joaquin County.

Community enhancement projects support infill and transit-oriented development as defined in the 2012 SJCOG Regional Smart Growth and Transit-Oriented Development Plan and the Measure K Smart Growth Incentive Program. Projects include enhanced sidewalks, pedestrian street lighting, traffic-calming devices, and landscaping. The revenues established for community enhancements are based upon a target to fund 75 percent of the roadway frontages adjacent to the infill “opportunity areas” identified in the 2012 SJCOG Regional Smart Growth and Transit-Oriented Development Plan and a cost per mile average of current streetscape projects. Specific projects will be identified for funding according to competitive calls for projects over the life of the plan.

Funding is also identified for active transportation noninfrastructure investments. These projects include education, encouragement, and enforcement programs to support walking and bicycling, and planning and transit integration projects. These investments recognize that for short trips, walking and bicycling can serve as alternatives to the automobile and provide connectivity to transit as both the “first mile” and “last mile” of travel.

Figure 4.10 - Active Transportation Funding Sources





Aviation

The plan provides \$120 million of project investments to support operations and improvements at public airports. The investments support the growing demand as e-commerce, air cargo and commercial travel increase. The Stockton Metropolitan Airport ranked 84th in the U.S. for busiest cargo airport in 2018. It received roughly 332 million pounds of cargo in 2017 and 269 million pounds in 2018. The airport offers private and commercial flights, and the Tracy Municipal Airport caters to private and corporate passenger planes.

Conclusion

The investment strategy is a balanced approach to multimodal development intended to fulfill the objectives and performance indicators that guide the plan. The plan moves the region closer to achieving long-term transportation goals. This includes

providing appropriate resources to operate and maintain the multimodal system. The financial analysis is not simply a planning investment strategy but a project delivery strategy. The outcome is to construct and implement projects that benefit all users of the transportation network.

Forecasted revenue has been adjusted to account for recent developments, economic recovery, and the passage of Senate Bill 1 and Senate Bill 132. As with investment strategies in prior plans, the role of local development financing, self-help (sales tax) measures, and regional transportation fees will continue to be essential to leverage state and federal monies. It will also enable the region to have a competitive advantage in securing discretionary funds from statewide programs established under Senate Bill 1. Thus, the plan must be judicious in committing these funds to the highest priority projects.

CHAPTER 5

Performance of the Sustainable Communities Strategy



FIVE

Performance of the 2022 RTP/SCS reflects a horizon year 2046 in comparison to the 2018 plan. This comparison effectively examines how the plan measures up against previous plans, which were ambitious in their own right. These comparisons will show whether the plan's strategies and investments continue to successfully reduce greenhouse gas emissions, decrease potential impacts on the environment, facilitate efficient public investments, and improve residents' ability to reach the places they want and need to go through even bolder transportation and land use planning strategies.



Performance — How does the Plan Measure up?

Performance indicators, or metrics, are qualitative or quantitative measures of progress toward the plan's overall goals, objectives, and policies. They contribute to the decision-making process by providing a basis for determining whether a decision advances the transportation objectives that are valued and held as priorities by the region. In some cases, the plan is making solid progress toward the goals and objectives. In other instances, the plan is slowing the progress of undesirable outcomes or resisting worsening outcomes in the face of rapid population growth. The plan's progress is discussed in the following sections.

Performance indicators are used as one tool to help evaluate how this plan contributes to the quality of

life in the San Joaquin region. Many of these indicators have been carried over from the 2018 RTP/SCS.

The performance indicators were utilized during the public outreach process to help interested citizens, stakeholder groups and advisory committees in understanding the policy choices and tradeoffs inherent in the alternative land use and transportation scenarios that could form the foundation of the plan.

A summary of all performance outcomes can be found in Figure 5.1. The following pages highlight plan performance across a variety of critical focus areas. In addition to this RTP/SCS, there is a Regional Progress Report that discusses historical trends to put the performance of the plan in context. Some indicators and trends are highlighted in the chapter with a full report included as Appendix M.



Figure 5.1

The 2022 RTP/SCS Story

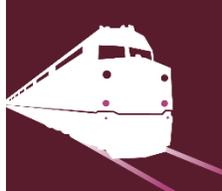


Enhance the Environment for Existing & Future Generations

Prime Farmland Developed: 3,762 fewer acres of Prime Farmland developed over the 2018 Plan

Energy & Water Consumption: Average residential household use decreases 7.6% and 50 gallons of water per household saved daily by 2046 over the 2018 Plan

Reducing Green House Gases: The plan meets and exceeds greenhouse gas reduction targets



Maximize Mobility & Accessibility

Improvements to mobility: Fewer minutes of delay due to congested roadways

Increased Investment in Transit: \$4.73 billion in transit investments, 32.5% increase over the 2018 Plan

Transit Routes: Supports improvements to transit routes and improves frequency and efficiency on intercity and intracity routes with increased investment in transit



Preserve the Efficiency of the Existing Transportation System

Acres of Land Consumed: Urban Footprint decreases by over 5,100 acres over the 2018 Plan

High Quality Transit Areas/TOD: 19% of employment and 10% of housing in High Quality Transit Areas by 2046

Investments on Mainline Highway Systems: I-5 and I-205 carpool lanes, SR 99/120 connector project

Maintenance & Operation Improvements for the Existing Transportation System: Investments increased by 4.3% over the 2018 Plan



Support Economic Vitality

Creation of Jobs: Average of 6,277 Full Time Equivalent jobs created by RTP projects annually

Supporting Goods Movement & Economic Centers: Infrastructure improvements to streamline goods movement



Increase Safety & Security

Transportation System Management Improvements: Freeway auxiliary lanes, modified interchanges, improved shoulders, intersection improvements

Grade Separation Projects: \$197 million for railroad grade separations

Intelligent Transportation Systems: CCTV, changeable message signs, traffic detection equipment



Improve Public Health

Residential Density: Average housing net density increases from 8.0 to 9.9 units per acre over the 2018 Plan

Public Health - Emissions Budgets: Meets Clean Air Act emissions standards



Building on Active Transportation

Active Transportation Investments (bike lanes, ancillary projects): \$384 million, a 20% increase over the 2018 plan

Trip Mode Share: Substantial increase in bike and walk trips, decrease in single-occupancy vehicle trips



Ensuring Social Equity

Housing Mix: Increased diversity of housing options over the 2018 Plan

Transit Accessibility: Communities of concern have higher access to high quality transit than the county as a whole

Enhance the Environment for Existing and Future Generations and Conserve Energy

Reducing Impacts through Environmentally Sustaining Practices

The plan encourages efficient development that maintains agricultural viability and natural resources and enhances the connection between land use and transportation choices through projects supporting energy and water efficiency. The following indicators highlight the plan's aggressive pursuit of environmental preservation and enhancement.

Acres of Prime Farmland Consumed

While a similar measure to the total acres of land consumed, this indicator has its basis in Senate Bill 375's requirement that the metropolitan planning organization consider the best available scientific data on the impacts to resource and agricultural lands. The plan's more compact development footprint encroaches less on prime agricultural land vital to the San Joaquin County economy than the 2018 plan.



Energy Usage and Water Consumption per Household

Energy and water efficiency described here represents a co-benefit of the future resulting from the more compact urban form envisioned and modeled for San Joaquin County household growth. Decreases in energy and water use are both an environmental and a financial benefit through reductions in overall housing costs.

Average new household residential energy use is 7.6% lower in the plan when compared to the 2018 plan. **This is the equivalent of powering an additional 9,000 households. Water saved is 50 gallons per new household per day.**



Photo Credit: San Joaquin Regional Transit District

Improve Air Quality and Reduce Greenhouse Gases

Greenhouse Gas Emissions per Capita

The Plan meets and exceeds the greenhouse gas targets as set by the California Air Resources Board (CARB) of 12 percent in 2020 and 16 percent in 2035. The 12 percent and 16 percent reductions are from cars and light duty trucks and are measured against a 2005 baseline on a per capita basis.

This performance indicator was developed in direct response to the requirements of SB 375. A full discussion of the greenhouse gas targets and SJCOG's analysis is included in the technical appendix. For consistency with the other measures in this section, 2046 indicators are included here as part of the plan performance discussion. The performance targets for

this measure will be under review by CARB.

Vehicle Miles of Travel per Capita

As the name implies, a vehicle mile is one vehicle traveling one mile on the roadway network, regardless of how many people are occupying the vehicle. Vehicle miles traveled (VMT) for decades has been a consistent measurement of travel efficiencies for both transportation planners and policymakers. It is an important predictor in SB 375's principal target — greenhouse gas reductions from cars and light duty trucks, and other measured vehicle emissions. The unadjusted total daily VMT per capita is 23.63 for the plan in 2046, compared to 23.24 in the baseline condition of 2016. Thus, modeled per capita VMT remains relatively constant. When adjusted for potential induced demand, 2046 VMT shows a slight increase to 25.53 per capita.

Maximize Mobility and Accessibility

This plan has a true multimodal approach in its investment strategies. The plan continues its commitment to increased investment in bus and rail transit, and active transportation projects such as bikeways or streetscape features to facilitate public health through active communities. The targets in this section are reflective of the plan's achievements in providing easier and more convenient access to the places to which people need and want to travel. Existing programs supporting demand strategies such as ridesharing also play a significant role, as do investments in "place-making" such as mixed-use areas where destinations are closer to home. The following indicators highlight some of the transportation system efficiencies improved through this investment strategy.

Transit Ridership

Increases in transit ridership can be attributed to improvements in service through direct investments in transit-related capital and operations and increased

ridership attributable to supportive land use patterns. For example, studies indicate that residential densities of approximately seven to eight dwelling units per acre are required to support efficient transit operations.

Transit ridership increases by more than 35% because of the plan's direct and indirect investments in improving transit accessibility and efficiency.

Bike and Walk Trips

Trips made in the active transportation category, either by walking or biking, show a substantial increase over base conditions (+35%) due to plan investments. Strides are being made both at the local land use level and with the percentage of plan



investments dedicated to active transportation supportive projects.

Increase Safety and Security

Investments that Help to Reduce the Number and Severity of Traffic Incidents

The plan has many targeted investments to improve safety and security. The plan invests in advanced technology applications, often referred to as intelligent transportation systems (ITS). These include closed circuit televisions to monitor and convey real-time travel conditions, changeable message signs, traffic detection equipment, and traveler information systems. These high-tech applications allow motorists to choose the most efficient travel options and allow local and state agencies to respond to incidents more quickly on the roadway. As with other MPOs in the state, SJCOG recognizes the use of performance-based planning targets for safety and supports the state targets for this measure. Additional information on performance-based planning can be found in Appendix N.

The plan increases bike and walk trips from 9.01% in 2016 to 9.08% in 2046 with the plan as a percent of all daily trips. Countywide, this results in over 100,000 more active transportation trips daily.





Support Economic Vitality

Transportation infrastructure construction results in many jobs per dollar of investment for the local economy. This indicator gives a snapshot of potential job creation, including direct construction-related employment and indirect jobs created to somehow support the direct jobs, such as employees hired by suppliers and vendors. Induced jobs are created when direct and indirect employees spend their incomes on consumer goods and services. The calculations are based on an analysis completed for SJCOG by the University of the Pacific Center for Business and Policy Research.

Construction of the projects outlined in the RTP investment strategy and project lists will support an

annual average of 6,277 direct, indirect and induced full-time jobs in San Joaquin County over the life of the plan. The full economic output benefit to the local economy is estimated at \$14.2 billion. An in-depth discussion of job creation potential can be found in Chapter 6 and the full economic analysis report in Appendix R.

Over 125,000 new jobs will be created through the RTP/SCS.



Improve Public Health and Build on Active Transportation

Promoting Active Lifestyles through Improved Linkages between Transportation and Land Use

Now more than ever, the plan with its visionary SCS component concentrates on the ways the future built environment can be enhanced with focused, innovative transportation investments. The plan strives to enhance public health through improving public spaces to provide more opportunities to bike and walk to destinations for work, play or other necessary travel.

For the 2022 RTP/SCS cycle, SJCOG used a methodology that was introduced in the 2018 plan to measure health indicators. Investments in land use and transportation that improve features for pedestrians and cyclists, including transit infrastructure, have been shown to increase the physical activities of walking and biking. SJCOG adopted the National Public Health Assessment Model (NPHAM) to predict travel and land use-related behaviors – such as walking for commuting purposes, leisure walking and recreation – and health outcomes such as body-mass index (BMI) and the percent of population reporting poor health. NPHAM is well integrated with the Envision Tomorrow scenario planning tool already used by SJCOG, controls for

demographics, and provides estimates at the U.S. Census block-group level.

SJCOG used NPHAM to compare the health effects of the current plan with the 2018 Plan, and to establish a baseline. This included a spatially-based equity analysis that focuses on disadvantaged areas in the region. The findings showed that the plan supports modest increases in healthy behaviors, reductions in BMI, and decreases in poor health over the baseline and 2018 plan. The full health indicators report can be found in Section 5.2.1 of Appendix S.

Active Transportation Investments

This indicator shines a light on the plan's commitment to build on recent successes attributable to the level of Measure K bicycle and pedestrian funding and the increasing funding to the Active Transportation category first envisioned in the 2014 plan. In the 2022 plan, funding for active transportation is \$384 million, which represents a 20 percent increase over the 2018 plan. The percent of total investments also increased over the previous plan from 2.9 percent to 3.1 percent. This commitment is enhanced by SB 1 funding for active transportation. The plan assumes the full implementation of the bikeway projects included in the 2012 Regional Bike, Pedestrian, and Safe Routes to School Master Plan, and recognizes that many new projects have been proposed since that master plan was completed.

EQUITY AND ACCESS

A Plan for Everybody

Included in this section are performance indicators that specifically identify the equitability of plan investments across all income and minority groups in San Joaquin County. These indicators compare identified communities of concern with the remainder of the region. The indicators include access to high-quality transit, households within 500 feet of a major transportation facility, housing type mix, roadway expenditure benefits, and health outcomes. The full Title VI and Environmental Justice analyses are included in Appendix P.

Adequate Provision of Housing for a Diverse Population

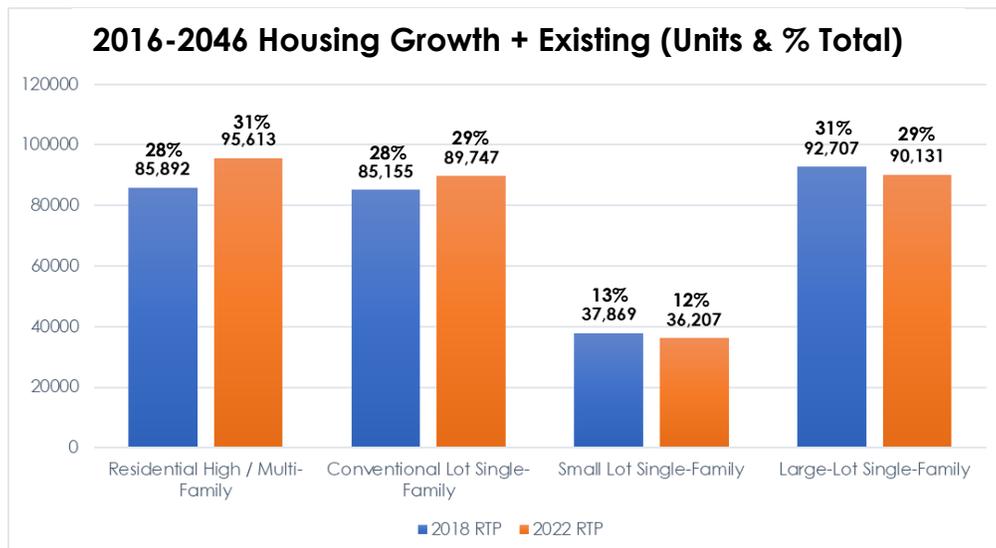
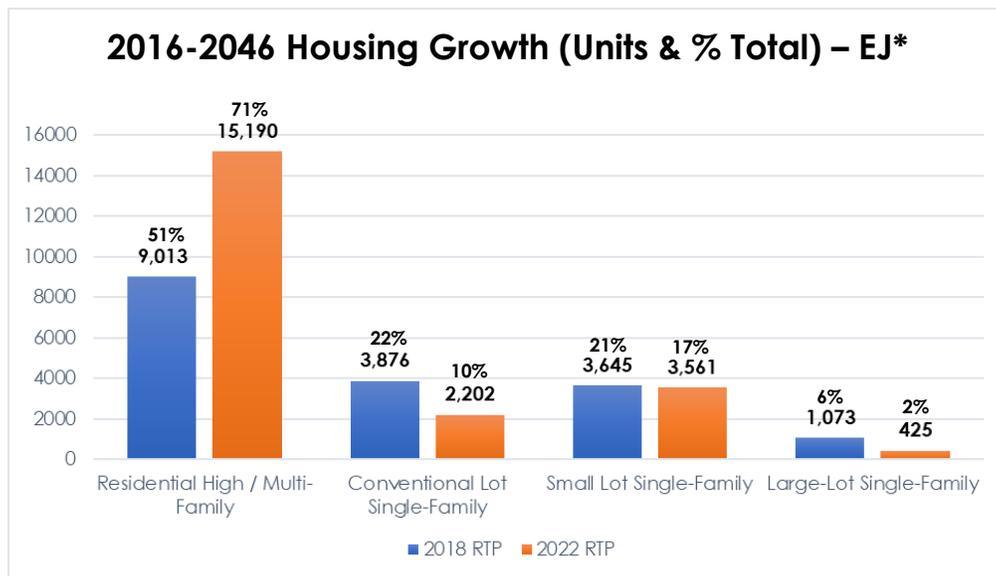
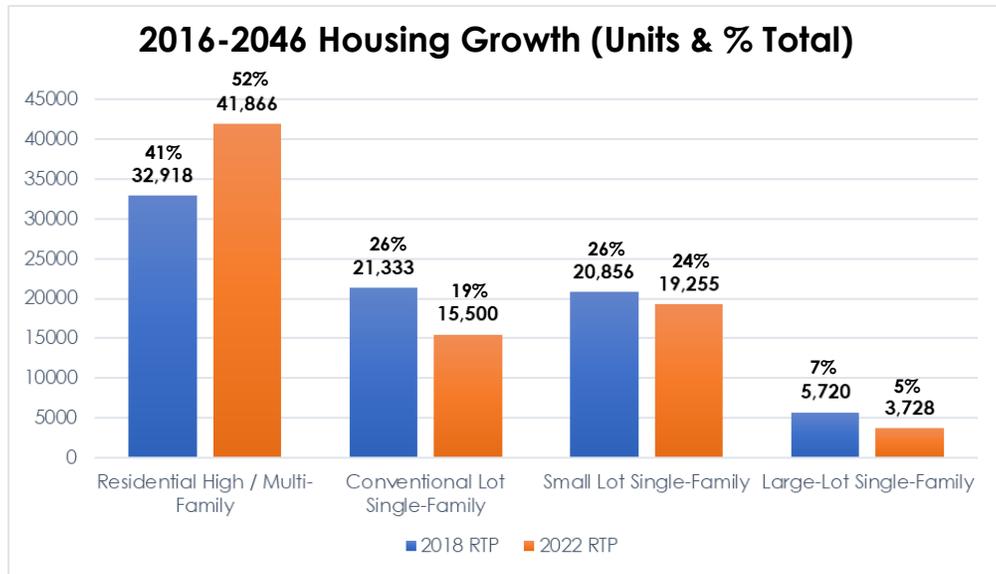
Housing type is a complementary measure to density and an indicator of housing affordability and

availability for all income groups. The projected change in the housing mix demand is related to housing availability for all income groups, demographic changes, and economic realities. The housing mix indicator is supported by a study for San Joaquin Valley counties titled Market Demand Analysis for Higher Density Housing in the San Joaquin Valley. Among the study's findings were that appropriate densities need to be provided to ensure adequate rental housing availability and that higher-density housing has been historically underdelivered, particularly for renters. There will be an increase in housing choices for everyone in San Joaquin County when comparing the projected housing mix from the 2018 and 2022 plans (Figure 5.2). The diversity of housing is higher in identified environmental justice communities.

Photo Credit: Captivating Photos



Figure 5.2



*Environmental Justice Communities (Communities of Concern)

Health Equity Metrics

SJCOG partnered with Urban Design for Health (UD4H) to incorporate the NPHAM health model in its scenario evaluation process, during which the 2022 plan was evaluated based on minority and poverty status. The equity analysis clearly demonstrated that the health gains observed would generally increase most in areas with relatively high proportions of low-income and minority households. Details on the analysis can be found in Section 5.2.1 of Appendix S.

Photo Credit: Captivating Photos



Communities of Concern (Environmental Justice) Discussion and Indicators:

The following criteria were used to identify environmental justice communities.

Minority

For purposes of the environmental justice analysis for the plan, SJCOG utilized the U.S. Census Bureau definitions of different racial and ethnic populations to identify minority status among people living in San Joaquin County. Minority people are those who identify as Black or African American, Native American, Asian, Native Hawaiian or Other Pacific Islander, Hispanic/Latino, or a multiple of races.

Low Income

SJCOG defines people as low-income if they are living at or below 150 percent of the federal poverty level

as defined by the Census Bureau. The 150 percent standard was used instead of the 100 percent standard to account for the higher cost of living in California.

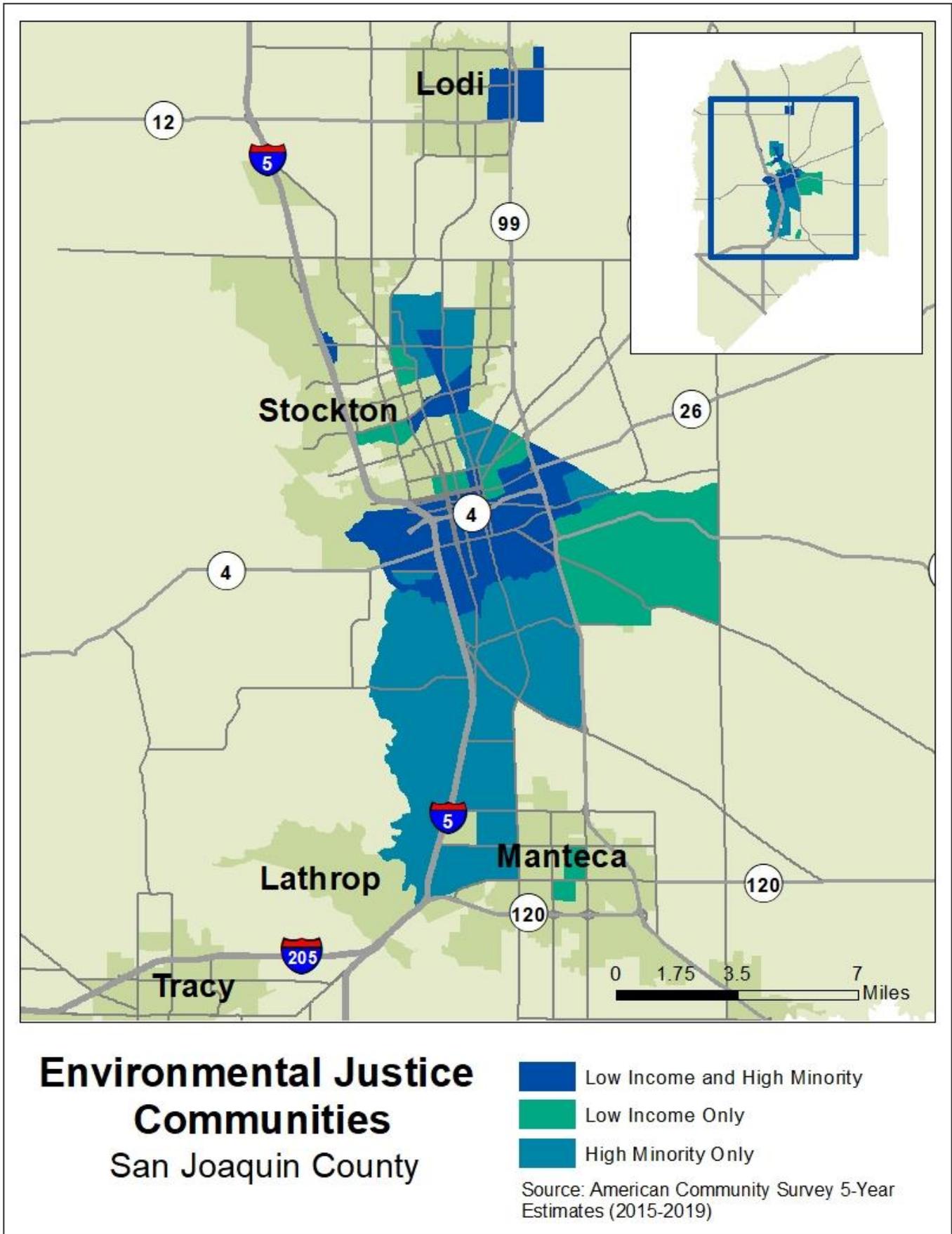


Defined Environmental Justice Areas

To examine the degree to which minority and low-income (i.e., environment justice) groups benefit from the transportation investments and policies being carried out as part of the plan, environmental justice communities must first be defined and mapped.

The census tract is the smallest level of geography for which both income and racial/ethnic data is reliable. Census tracts and the most recently available American Community Survey 5-Year Estimates (2015-2019) have been used to identify areas of specific concern in San Joaquin County. Census tracts that had at least 80 percent of its residents being minority or had at least 40 percent of its residents living at or below 150 percent of the federal poverty level were considered communities of concern or environmental justice communities. This process identified 51 out of a total 139 census tracts that met one or both criteria. A map of the areas is shown in Figure 5.3.

Figure 5.3



Transit Accessibility

An equity analysis of the plan's bus transit investments as defined by SB 375 was performed comparing new household and employment access to high quality transit areas in environmental justice communities with those in non-environmental justice communities.

The results indicated that people in environmental justice communities, both in terms of households and employment within walking distance of transit, will have significantly better access compared to people in non-environmental justice communities. In the plan, 23.9 percent of households located in environmental justice communities will have access to high-quality transit compared to only 4.2 percent for non-environmental justice communities. These findings are similar for employment access to high-quality transit in environmental justice communities versus non-environmental justice communities, with 30.1 percent of jobs in environmental justice communities being in proximity to high-quality transit versus 11.1 percent for non-environmental justice communities.

Based on these results, equitable if not more favorable benefits resulting from transit investments can be inferred for environmental justice communities. This can be attributed to environmental justice communities being more geographically concentrated in developed areas of the county where transit service provision is the greatest.

Households Within 500 Feet of A Major Transportation Facility

Living nearby major transportation facilities can increase population exposure to health-based emissions and particulate matter from vehicles. An equity analysis was performed on the plan to compare the number and percentage of new households in environmental justice communities that will be located within 500 feet of a major transportation facility with those in non-environmental justice communities. Major transportation facilities included Interstates 5, 205 and 580, and State Routes 4, 99 and 120. Considering environmental justice communities, 6.1

percent of households will be within 500 feet of any major facility versus 5.7 percent for households in non-environmental justice communities. This is due to many environmental justice communities located near or within the urban core where there is a higher density of major transportation facilities.

Roadway Expenditure Benefits

To gauge the extent to which environmental justice communities proportionately benefit from roadway improvement investment compared to the general population, an equity analysis was performed. Using the SJCOG travel demand model, a select link analysis was performed on regionally significant roadways identified for capacity improvements in the plan. Select link analysis provides information on where traffic comes from and goes to on selected roadways. The analysis yielded the percentage of vehicle demand whose origin is in an environmental justice community versus a non-environmental justice community. Results indicated that approximately 40.8 percent of daily vehicle trips utilizing these improved roadways originate from environmental justice communities. This indicates that a significant proportion of environmental justice communities will benefit from future roadway investments resulting from the plan – substantially more than the share of EJ households countywide of 28.8%.





Photo Credit: Wayne Giles

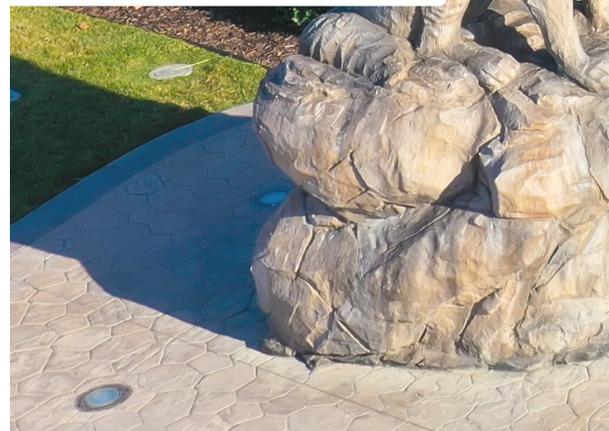
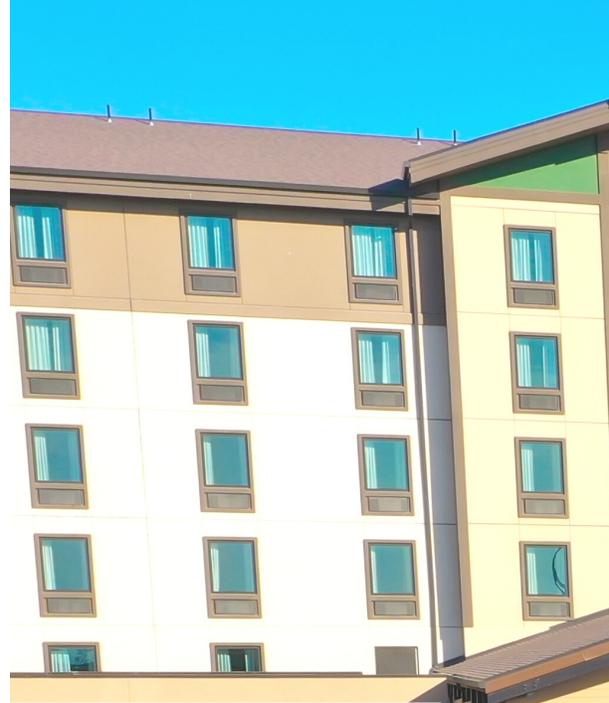
Conclusion

These indicators demonstrate that the plan performs better overall than the 2018 plan and improves current conditions. The performance indicators show real improvements in meeting sustainability. It is also recognized that with some indicators, the plan performance benefit is incremental despite a different approach in both the investment strategy and in the conceptual land use patterns. This is due in large part

to an already well-established built environment. Over time, these incremental improvements will become a substantial part of San Joaquin County's urban environment with increasing benefits. The performance measures included in this plan demonstrate a change for the region that meets the needs of our communities and provides a responsible set of metrics for meeting sustainability objectives.

CHAPTER 6

Economic Vitality



SIX

The economic vitality of a region is dependent on the quality of its transportation system. A high-quality transportation system contributes to a region's economic competitiveness. The San Joaquin County region has an extensive transportation system that includes roadways, public transportation, railways, airports and a nationally-important port. These play an essential role in transporting goods within and outside the region, enabling commuters to reach their places of employment, and encouraging customers to patronize the region's businesses.



The Role of Transportation in Economic Vitality

The story of the San Joaquin region is one told through a mighty connection with transportation – from the forty-niners rushing to the gold fields, to financial titans rushing to build the transcontinental railroad, to the Greatest Generation rushing to build the Interstate Highway System, to fulfillment centers rushing goods and services around the world by highways, rail, sea and air. Logistics – the strategic movement of goods and services from one place to another – continues to be key to economic growth in the region. The future challenge is building successfully on the region’s geographic advantage as a logistics bridge connecting the San Francisco Bay Area, the Central Valley and the rest of the world to expand opportunities for businesses and people in the Northern San Joaquin Valley. As the transportation system in the region continues to mature, the area is poised to embrace new technologies and offer creative, innovative solutions for the movement of goods and people. In working with our partners across the Northern California Megaregion, goods movement and economic development opportunities must be a coordinated and collective effort.

The future challenge for the region is to build successfully upon its geographic advantage in goods movement and to expand opportunities for businesses and people.

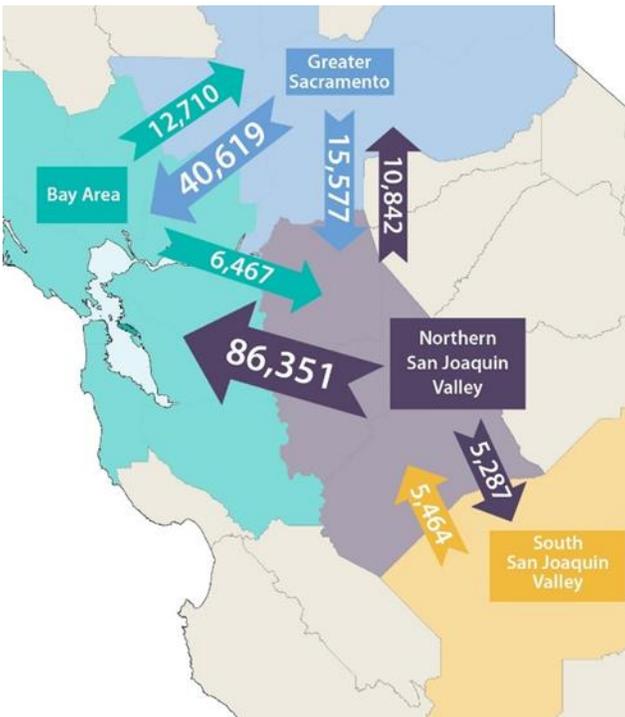
Commute Patterns

Moving people safely and efficiently continues to be highly important in San Joaquin County. Over the past four decades, San Joaquin County has been exporting a commuter workforce on our freeways, along with agricultural and manufactured goods. These residents bring back to the region higher wages and increased spending power. They also bring with them varied skills and capabilities that can attract new employment opportunities to the region.

San Joaquin County has the largest number of employed residents and jobs in the North San Joaquin Valley. Due to the lower housing costs in the region, many county residents commute to neighboring counties. Many of these commuters are highly educated and are in white-collar sectors, such as business, finance, computers or engineering. The southern portion of San Joaquin County has seen an increase in resident’s commuting into the Bay Area for several decades. In 2019, the Bay Area was the place of work for 65,400, or 21 percent, of the county’s employed residents. Most of these Bay Area commuters worked in Alameda County, followed by Santa Clara and Contra Costa counties. Large growth in commuters to San Francisco is also significant. Considering all the commuting destinations, a total of 28 percent of the San Joaquin County workers were employed outside the county as of 2019. Between 2012 and 2019, commuters from San Joaquin County increased by 23,600, or 57 percent, compared to an increase in commuters from Stanislaus and Merced counties by 8,400, or 60 percent, and 4,400, or 77 percent, respectively.

Figure 6.1 shows the number of commuters traveling in and out of the North San Joaquin Valley.

Figure 6.1 - Commute Patterns: North San Joaquin Valley



Source: Center for Business and Policy Research, 2020

These commuters strain the capacity of the transportation network, leading to increased congestion, greenhouse gas emissions, and roadway maintenance costs. Commuters to the Bay Area traversing the constrained Altamont Pass along the I-205/I-580 corridor have caused backups and delays on this route to be the norm, even as pre-pandemic ridership on the Altamont Corridor Express (ACE train) hit all-time highs.

In fact, the annual ridership on the ACE commuter rail service between Stockton and Santa Clara had more than doubled from 676,000 in 2010 to 1,506,000 in 2019 before the onset of the COVID-19 pandemic.

Changes to the Commuting Dynamic

A variety of forces may be exerting change on commuting. San Joaquin County employment opportunities have improved dramatically over the years since the Great Recession and year-over-year job growth has been robust since 2014. In fact, 2019 marked eight-consecutive year of payroll job growth in the county. San Joaquin County's economic recovery substantially lagged compared to other parts of California, but it fully recovered earlier than anticipated by 2015. Continuing this trend, San Joaquin County's unemployment rate dropped from 18 percent in 2010 to 9 percent in 2021.

The University of the Pacific Center for Business and Policy Research (CBPR) found that employment growth has been dominated by an expansion in the transportation and warehousing sector where employment grew by 22,500 jobs between 2009 and 2019. The county's poverty rate since 2013 declined in four of the five subsequent years. Since the recession, domestic migration to San Joaquin County from the Bay Area has not reached prerecession levels. This means fewer workers are opting to accept long commutes in exchange for lower housing prices.





Photo Credit: Captivating Photos

San Joaquin County residents traveled 219 more annual vehicle miles per capita in 2018 than other California residents, but this is down from the 521 more miles they drove in 2012. Those migrating to the county also appear to have lower participation in the labor force, which may indicate retirees or self-employment. (The data referenced does not track self-employed people.) Observed data may also indicate that after a few years of commuting, more employees are switching to local jobs or telecommuting.

We know the Bay Area and Sacramento still struggle with providing enough housing as labor force participation and employment continue to increase faster than population growth might suggest. These two regions are also prioritizing affordable housing as a regional issue, not just a local one. SJCOG will continue to closely coordinate and collaborate with megaregion partners on demographics and commuting.

COVID-19 Impacts on Commuting Patterns

At the onset of the COVID-19 pandemic in early 2020, the state of California issued stay-at-home orders for all businesses that were deemed nonessential. Those workers who could shift to telecommuting started to work at home on a full-time basis. This resulted in major reductions in commuting, by road, bus and rail. ACE train reduced its service from four trains daily in each direction to two trains. Two trains were added back since then. However, as stay-at-home orders were eased and more people became vaccinated, commuter traffic on roadways started to increase toward normal volumes. It is yet to be seen whether the COVID-19 pandemic will permanently reduce commuting traffic – particularly out-of-county commuting – due to increased telecommuting.

Opportunities for Economic Development

San Joaquin County has shown it can take its economic destiny into its own hands through thoughtful transportation investments. Measure K, the half-cent sales tax for transportation projects in San Joaquin County, invested more than \$700 million in transportation improvements in its first 20 years. Many of those investments were made with the purpose of expanding economic opportunity to the region. A combination of highway improvements, rail grade separation projects, local bus improvements, and the creation of a regional passenger rail program such as ACE all have had tangible effects on the county's economic vitality.

Where Most of the Jobs Are

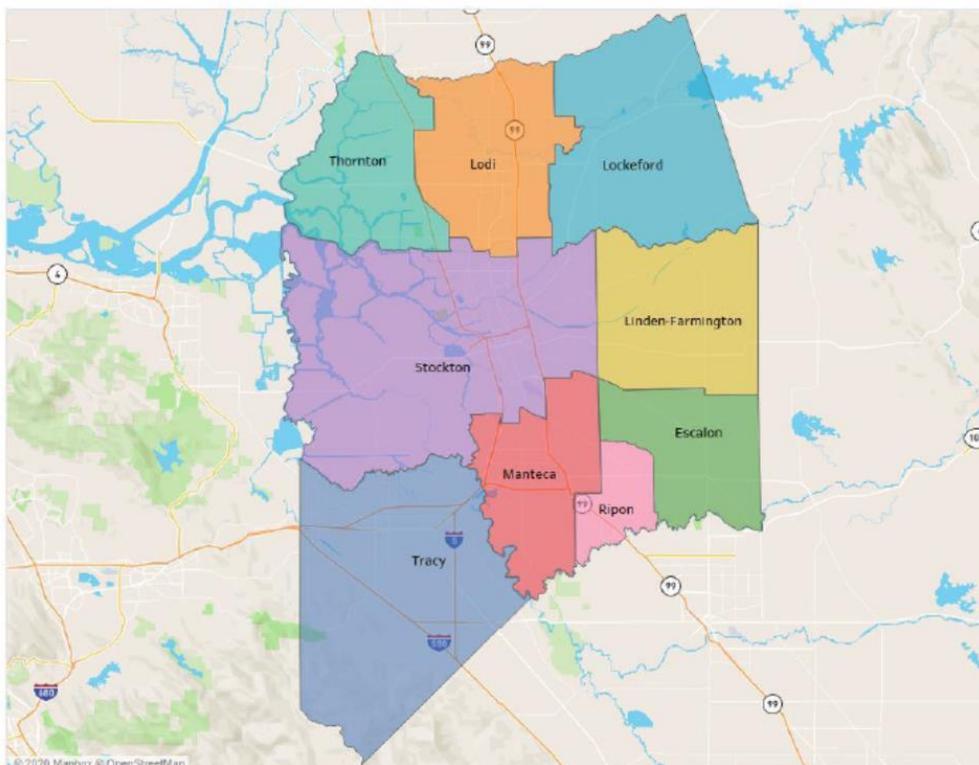
To forecast the number of jobs in different areas of San Joaquin County, the CBPR used Census County Subdivisions (CCDs) as the geographic units for the forecasts (Figure 6.2). Using CCDs captured jobs located in a city and nearby unincorporated areas. CBPR used 2015 estimates as the base year to forecast for 2020 and found four of the nine CCDs

accounted for 92 percent of jobs: Stockton with 173,695 jobs, Tracy with 49,302 jobs, Lodi with 43,548 jobs, and Manteca with 36,907 jobs.

Residential growth in the past several decades has occurred in south county cities, driven by their proximity to the Bay Area. There has also been recent rapid growth of e-commerce fulfillment centers in these cities to take advantage of nearby consumer markets in the Bay Area. According to CBPR job estimates, the Tracy CCD led percent job growth in the county at 32.6 percent during 2010-2017 as Amazon and others opened large fulfillment centers in the area. The Manteca CCD also had a large percent growth in jobs at 25.5 percent.

While CCD employment data only goes to 2017 as of the writing of this plan, the University of the Pacific's Center for Business and Policy Research (CBPR) forecasts continuing job growth centered in the south county. The CBPR found that of the 28 commercial development projects in San Joaquin Valley valued at \$5 million or more from January 2019 to June 2020, 17 were in Tracy and another five projects were in Manteca.

Figure 6.2 - Census County Subdivisions





Tracy: Silicon Valley East

The city of Tracy has been characterized by some as “Silicon Valley East.” Many Tracy residents commute via Interstates 205 and 580 and Altamont Corridor Express trains to white-collar jobs in the San Francisco Bay Area. Here white-collar jobs are management, business, science, and arts jobs as defined by the U.S. Census Bureau’s American Community Survey.

The number of Tracy white-collar jobs dipped significantly during the recession but returned to 2006 levels in 2012 and returned to prerecession levels in 2015. The unemployment rate has stabilized since 2019 and decreased to 6.4 percent in April 2021 due to structural changes in the workforce caused in part by the COVID-19 pandemic. Overall, Tracy’s employment grew by 10 percent compared to Manteca at 5.7 percent and Ripon at 5.6 percent. Tracy alone has accounted for most of the large commercial and industrial permits to accommodate this growth. An employment comparison among Tracy, San Joaquin County and Santa Clara County (Silicon Valley) is in Figure 6.3.

Highlights of Economic Development in Other San Joaquin Cities

City of Lathrop

Lathrop is one of Northern California’s fastest growing and most comprehensive master planned communities. Its current population is more than 20,000 people. Like many of the cities in San Joaquin

County, Lathrop’s geographic placement plays a role in the city’s ability to attract businesses and residents. The city had the highest percentage of population growth of all cities in San Joaquin County with a 38 percent increase from 2010 to 2019. By 2050, it is projected to grow by 184 percent as new communities within Lathrop are developed. Several development projects offer significant economic potential for the city. River Islands includes a 325-acre employment center and is projected to create 17,000 new jobs. Mossdale Village is a 2,500-unit master planned community that will include nearly one million square feet of retail and office space. The Central Lathrop Specific Plan includes five million square feet of office and retail uses.

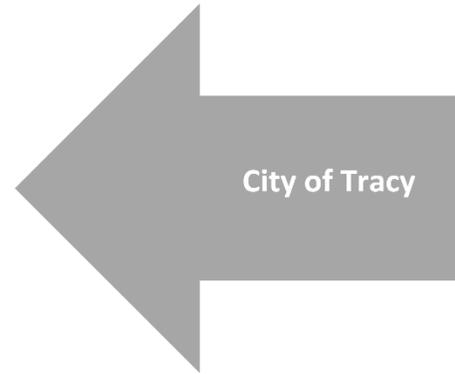
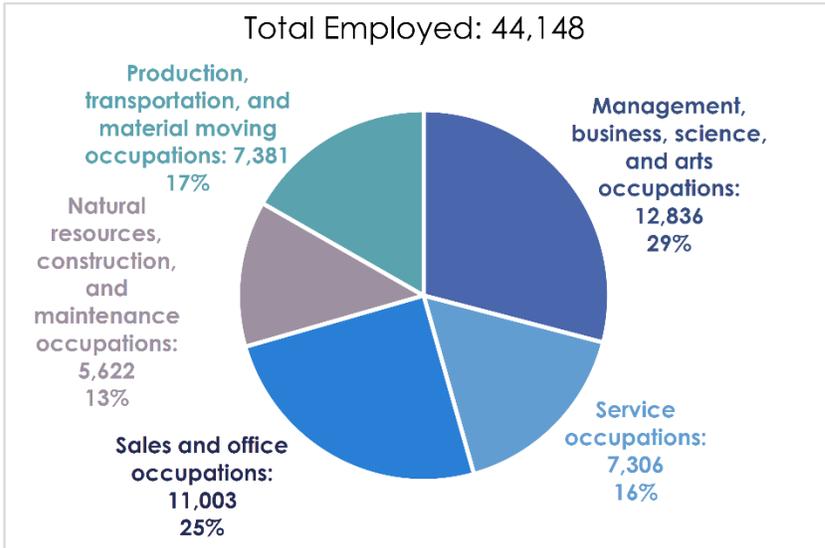


Photo Credit: Mary Hinkle

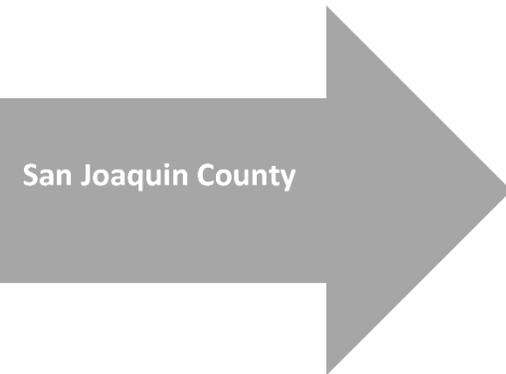
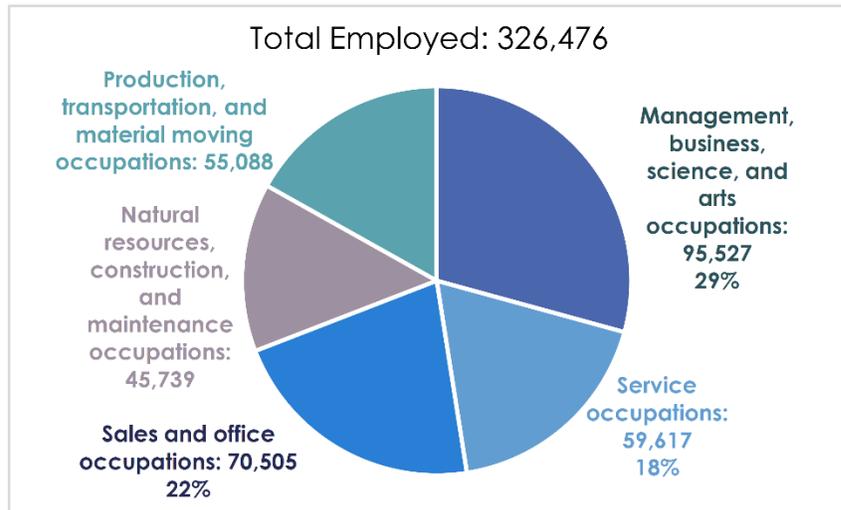
City of Lodi

Lodi’s economy is anchored in the manufacturing, retail, health care and hospitality industries. Agriculture also contributes greatly to the Lodi area economy with wine grapes being the largest crop. The 90,000 acres of vineyards produce a crop valued at more than \$350 million annually. Nearly 40 percent of California’s premium wine grapes are grown in the Lodi Appellation, according to the city. The Lodi-Woodbridge area has been a respected part of California’s wine industry for more than 100 years. Today, some of the California’s most important wineries rely on grapes grown in the Lodi-Woodbridge region. More than 60 wineries grace the area.

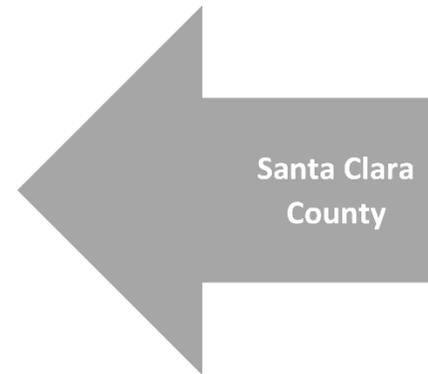
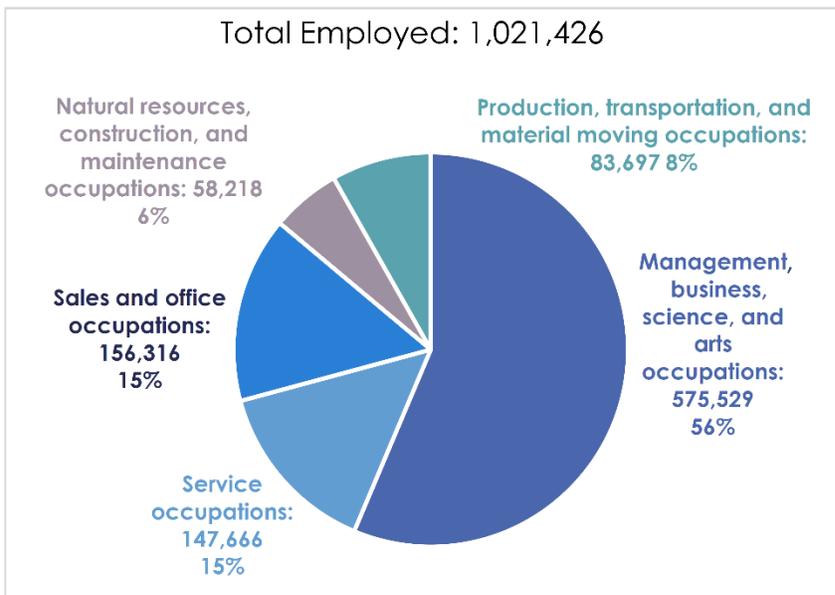
Figure 6.3: Employment Composition



City of Tracy



San Joaquin County



Santa Clara County

City of Manteca

With its relatively low cost of living and proximity to the San Francisco Bay and Sacramento areas, Manteca has attracted many commercial and industrial businesses and is a popular place to live for commuters to the San Francisco Bay Area. It is one of the fastest growing cities in the region and its population is expected to grow by 50 percent by 2050. The current population of Manteca is more than 84,500. Tracy and Manteca account for all six of the extremely large new commercial/industrial permits for projects in San Joaquin County valued at more than \$50 million. For Fiscal Year 2019-2020, there were 522 permits for single-family residences – second only to Tracy – and 1,088 permits for multifamily residences, the highest number in the county.

This strong residential growth is accompanied by a

similar increase in shopping, dining and recreational opportunities throughout the community. Significant new tourist attractions such as the Great Wolf Lodge in Manteca suggests that prospects for economic recovery following the COVID-19 pandemic are good. The new Great Wolf Lodge provides a significant boost to the hospitality sector after it opened the largest hotel and entertainment complex in the county in 2021. It includes 500 guest rooms, a 95,000-square-foot water park, and a variety of other family entertainment activities adjacent to the Big League Dreams complex that already drew many visitors before the opening of the lodge. The resort is expected to create 500 new jobs and attract new visitors to the county. The pace of residential and commercial growth makes Manteca one of the most successful in terms of economic revitalization in the region.

Photo Credit: Captivating Photos





City of Stockton

With a population of more than 300,000 residents, Stockton is the largest of the county's seven incorporated cities. Its relative size, economy, population and land area makes its development trends of regional interest. The city has 14 fully improved industrial and business parks, nine of which contain rail access. All industrial parks offer easy freeway access and are located within approximately five to 15 minutes of either the Stockton Metropolitan Airport or Port of Stockton. The past 20 years saw a significant northward migration and expansion of commercial activity in the Stockton area. Stockton has evolved into a multifaceted city with several pockets of intense office or retail development, each serving as traditional central business districts. Stockton's economy has diversified from historically agriculture-based to include all market sectors.

Economic Competitiveness

Rail, highways, air freight and waterways are the main ways to move goods from one place to another and San Joaquin County has been blessed with all four.

Whether it involves moving wine to overseas, fertilizer from abroad to the San Joaquin Valley, building materials from Turkey to Fresno, or milk from Merced to the East Bay, it moves through San Joaquin County. This will become increasingly true over time as the region's transportation system continues to mature and improve. Recognizing the need to maintain, enhance and sometimes overhaul our transportation options in the region will be key to the county's future economic vitality. The following are ways the San Joaquin region will continue to build upon that legacy.

Improving Port Access and Investing in Projects that Increase Port Economic Viability

Port of Stockton

The Port of Stockton was founded in 1932 as an independent governmental district. Today, the Port of Stockton is the second largest inland seaport after Port of Portland in Oregon and has traded off with Port of San Diego as the fourth or fifth largest port in California. The Port of Stockton's greatest growth has happened in the past ten years and the potential

seems limitless with new docks, the deepening of the channel, and the development of the Rough and Ready Island complex. In fact, the Port of Stockton is the fourth busiest port in California and 4 million tons of cargo moved through the port in 2020. The port works with 55 or so different countries with goods flowing in both directions.

The port has continued to add new tenants and customers. It also continues to hold its ground when it comes to cargo volume since its record year in 2014 when the economic recovery from the recession was in full swing. The port supports 10,077 jobs and is a major employer in the region.

The Port of Stockton moved 4 million metric tons of cargo in 2020, making it the fourth busiest port in the state. The port provides over 10,000 jobs to the region.

Access to the Port of Stockton has improved with the Port of Stockton Expressway off State Route 4 and the completion in early 2017 of the Crosstown Freeway extension, providing direct freeway access to the Port of Stockton complex. This \$140 million project not only improved access and goods movement but eliminated most truck traffic in the

Boggs Tract neighborhood. Before its construction 6,500 vehicles and 4,400 long-haul trucks – with their accompanying emissions – traveled through the neighborhood daily.

Prioritizing Highway Improvements that Bolster Economic Centers

Truck traffic in San Joaquin County is among the highest in California because of excellent highway access. Interstate 5 and State Route 99 provide outstanding north-south connections. Interstate 205 and State Route 120 provide the southern half of the region great east-west connections. I-580 is primarily a route through the region but also provides economic opportunity in the Tracy area. State Route 12 provides an east-west connection to the Bay Area in the north serving largely a farm-to-market purpose.

Efforts to improve safety and traffic flow in Manteca culminated in California's first diverging diamond interchange. This project constructed new on- and off-ramps, widened Union Road to four lanes between Daniels Street and Lifestyle Street, and provided a Class I shared-use path and Class II bike lanes. The new interchange reduces conflict points between vehicles and moves traffic more efficiently through the interchange. Upgrading to this unique configuration provides significant cost savings and safety benefits for both vehicles and pedestrians.

Similarly, the SR 99/120 interchange connector will improve safety, reliability for the traveling public, and timely, reliable movement of commercial goods. This





will be accomplished through modification and expansion of the existing State Route 99/120 interchange. State Route 120 provides a critical connection for the movement of people and goods into and out of the San Joaquin Valley. However, there is significant congestion, delays and high accident rates at this interchange. The connector project will improve this interchange using a combination of roadway and interchange improvements, including new auxiliary lanes, upgrading existing bridges, constructing additional lanes, ramp upgrades, and new signals and lighting at ramps. While there is a significant benefit to reduced congestion and improved safety in the region with these projects, the main value is the capacity to move trucks to benefit the economic vitality of the region.

Technology is a tool that can help jurisdictions in San Joaquin County and their partner agencies confront mobility challenges, supply new accessibility, improve the safety and equity of the transportation system, and support resilient communities. SJCOG's Transportation Innovation Planning Study for San Joaquin County prepares the county for a future with various advancements in technology.

The study supplies background information, including funding opportunities and potential innovation-inspired strategies for the 2022 Regional Transportation Plan/Sustainable Communities Strategy and beyond. Some of the technologies considered in this study are connected and automated vehicles, ride hailing, e-bikes and e-

scooters, electric and alternative fuel vehicles, mobile phone apps, 5G communication, hyperloop, and Intelligent Transportation Systems (ITS). These technologies positively affect safety, mobility, travel demand, infrastructure management, funding and revenue streams. San Joaquin County will be even more attractive as a center for economic growth as the investments in the plan unfold and these improvements are realized.

Strengthening Connectivity of Key Regional Arterials

SJCOG continues to invest in regional arterial improvements that provide access to job growth sites. The construction of the Miner Avenue Complete Streets Project in Stockton improves Miner Avenue between Center Street and Aurora Street to include bicycle and pedestrian amenities, a round-about and landscaped medians to provide safe and convenient access for all. This project is an example of improved access that will encourage development and investment along the corridor for potential job growth in the area.

Additional improvements to support existing and future job growth are planned for McKinley Avenue in Manteca, International Parkway in Tracy, Eight Mile Road in Stockton, and River Road in Ripon. These are just a few of the other locations receiving the same kind of investment as Miner Avenue and have been master planned as future job growth corridors in San Joaquin County.

Stockton Metropolitan Airport for Air Passenger Service and Increased Commercial Service

Stockton Metropolitan Airport offers service to Las Vegas and Phoenix Sky Harbor Airport through Allegiant Airlines, which has been a fixture at the airport since 2006. During the COVID-19 pandemic, Stockton Metropolitan Airport and other airports across the United States struggled to retain and attract new air service. The airport's management continues to work with mainline and low-cost airline carrier airlines to add additional services for the residents of the region.

To facilitate air cargo operations, the airport leased Amazon a 56,000-square-foot cargo facility. The facility opened in June 2021 and services Amazon's three daily cargo flights. A fourth flight may be added. These flights support Amazon fulfillment operations in the area, two near Tracy, and a new Amazon warehouse near the airport. To further enhance the airport's attractiveness to other air cargo providers, the airport is planning to double the available air cargo aircraft parking spaces from four to eight at an estimated cost of \$10.9 million.

The airport continues to play a vital role in attracting

new businesses to the region as shown by its designation as an Opportunity Zone under the Tax Cuts and Jobs Act of 2017. This act offers a new solution to encourage economic growth and job creation with incentives for private capital to reinvest in communities such as Stockton.

The newest project to attract business to the region is Airpark 599, which is adjacent to the airport and within an Opportunity Zone. It presents an opportunity to develop a master planned business park with offices, industrial, airport-related businesses and retail, and hospitality to spur development in South Stockton. The vision for Airpark 599 could leverage the large surrounding population, the presence of a large workforce and access to transport cargo via air carrier or nearby highways.

Finally, the airport continues to revise its Airport Capital Improvement Plan with the Federal Aviation Administration, to ensure that projects are included for funding in support of the airport's mission. These projects include doubling the size of the cargo apron, extending taxiway D to the full length of the main runway and future construction of a new terminal building. These projects will enhance development of the northeast side of the airport.



Photo Credit: Stockton Metropolitan Airport

Integrating Railroads into the Economic Strategy

While railroads are not large employers in the region, the interaction with trucks, warehousing, and supply is vital to the movement of people and goods. Rail is a critical link to the full-service transportation network that is prominent in San Joaquin County (Figure 6.4). The importance of the county's railroad network continues to grow with commodities inbound to the San Joaquin Valley accounting for about 29 percent of the non-through flows, coming from San Francisco Bay Area, Southern California, the Central Coast region, and outside of California. Outbound freight comprises about 22 percent of all non-through moves. Agricultural commodities and food products dominate with more than one-third of the inbound and outbound tonnage for both truck and rail.

The network includes approximately 200 miles of railroads owned by Union Pacific Railroad (UPRR) and Burlington Northern Santa Fe (BNSF) in San Joaquin County. Significant rail expansion projects are further distinguishing the county as a premier location for logistics operations. Senate Bill 1 funding through the State Rail Assistance (SRA) Program was secured to construct a new track in the northwest quadrant intersection of the UPRR Fresno Subdivision and BNSF Railway Stockton Subdivision. The Stockton Wye Project will create a new connection between the BNSF Railroad Stockton and UPRR Fresno subdivisions. The new track connection will provide a vital freight and passenger rail link in the northwest quadrant of the Stockton Diamond grade crossing.

The Stockton Diamond is an at-grade crossing and is currently the most congested freight at grade crossing in the state. Heavy congestion effects both freight and passenger operational performance. Trains pass through it heading up and down the West Coast and from the Port of Oakland to all points east. It is a major pass-through for much of the San Joaquin Valley's rich agricultural harvest and is also an important junction for passenger rail as both the ACE and Amtrak San Joaquins pass through on the



Photo Credit: Captivating Photos

way to the Bay Area and Sacramento.

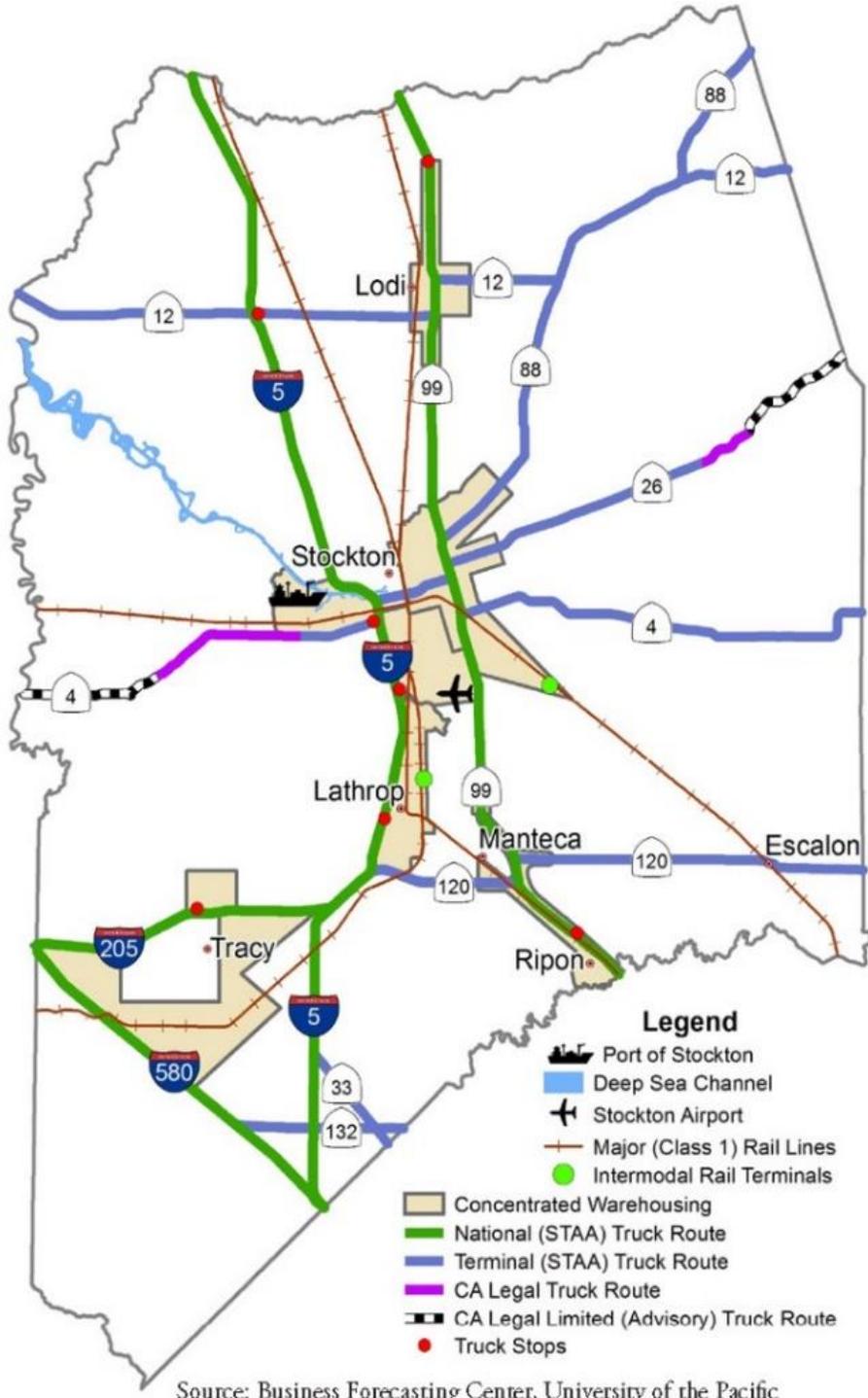
Freight and passenger service were limited through this corridor due to the existing congestion. The Stockton Diamond project will build a grade crossing so that the north-south tracks would pass over the east-west tracks. Grade separated double tracking will also improve the efficiency of the ACE and San Joaquins services and will enable future increases in these services to Sacramento and the Bay Area. The project includes bike, pedestrian and roadway improvements and safety enhancements at several at-grade local road crossings in the City of Stockton.

This new grade separation will provide an uninterrupted flow of rail through the crossing, which will improve the freight movements and lead to lower costs for freight shipping, reduce delays, and less fuel consumption by idling locomotives. This increase in throughput translates to cost savings for Port of Stockton customers and the freight railroads. In addition, the project would allow for more freight and passenger trains to pass through the Stockton Diamond at faster speeds.

San Joaquin County also features approximately 50 miles of short-line railroads. The Stockton Terminal and Eastern Railroad provide rail service to a variety of industries in the Stockton area, including steel, chemical and bulk goods. It offers more than 800,000 square feet of integral warehouse facilities and

interchange services with the major railroads and the Central California Traction Company (CCT).

Figure 6.4 - San Joaquin County Goods Movement Network



Strategies for Catalyzing Economic Development

If an aspect of smart growth is reducing the length of work trips, San Joaquin County needs more job growth to reduce the average work trip length. Average commute times range from 19 to 54.5 minutes. The area in and around Tracy, Lathrop and Manteca have the longest commute times in the county. The future of this county is not in exporting workers to the Bay Area or Sacramento, but in building a better jobs and housing balance and jobs-housing fit in the county's communities. Increased investments in active transportation, compact and mixed-use development, high quality transit, and community investments will work to create an environment that attracts businesses and jobs to the region.

Making transportation investments that achieve this are among the goals of this plan and the investment strategies encompassed in this RTP/SCS. Examples of using transportation to catalyze these goals include the annual combined call for projects for the Measure K Bicycle, Pedestrian and Safe Routes to School and Smart Growth Incentive programs.

Keeping graduates in the Region

Attracting and retaining college graduates to the region is vital to catalyze a shift from a local economy based on goods movement to a balanced, innovative economy. The San Joaquin region is home to the University of the Pacific, the Stockton campus of California State University-Stanislaus, Humphreys University and San Joaquin Delta College. Much has been done to retain graduates to work in the region where they live. The role of youth, education and business in furthering economic development in the county and the wider San Joaquin Valley may include strategies such as offering incubator space for students to work as interns or even for new graduates to work for a business, nonprofit or governmental agency. These workspaces and opportunities may help students gain direct experience in the field and position graduates for future job openings with the business or agency. Other strategies involve conducting job recruitment more actively directed at the graduates of these higher education institutions for job openings in the region.

Photo Credit: Visit Stockton



Workforce Development

SJCOG has been developing a training and apprenticeship program in collaboration with its partners in the Stockton Mobility Collective that will deliver an integrated curriculum and training program in the Stockton workforce ecosystem. The program will specifically focus on the pipeline for jobs in shared mobility operations, such as electric vehicle service equipment installation (EVSE) and electric vehicle (EV) maintenance. Training also will be provided in equipment repair, management and operations of EVs and e-bikesharing fleet networks.



This program is funded by a \$7.4 million Sustainable Transportation Equity Project (STEP) grant from the California Air Resource Board (CARB). SJCOG's Stockton Mobility Collective is a bundle of projects, including electric bike share, electric car share, mobile ticketing options, and workforce development.

Direct Economic Impact of the RTP/SCS

University of the Pacific's Center for Business and Policy Research conducted an economic impact analysis of the future transportation investments presented to the public and policymakers as the possible foundation for the 2022 plan. This economic analysis is presented in a full report in the Technical Appendices (Appendix R).

The final list of projects and strategic financial investments total more than 300 discrete

expenditures and \$12 billion respectively. A model of the economy called impact analysis for planning, or IMPLAN, was used to analyze the economic impacts of these investments. This model is a general accounting system of transactions between industries, businesses and consumers that estimates the range of economic impacts.

Using the IMPLAN modeling software, extremely detailed social accounting matrices and multiplier models of the San Joaquin County economy enables an in-depth examination of the impacts of the projects. This model enables an examination of the impact structure of each investment. For example, for a construction project, the model can trace the project expenditures through the supply chain and the direct impacts for the construction contractor and its employees to its suppliers and their employees and to indirect impacts further down the supply chain for other suppliers, employees and their suppliers. It also examines the effects from all the associated income to employees and their household purchases, which are induced impacts. The model can generate an estimate of how the original investment is multiplied through added activity in the economy.

The economic impact on the San Joaquin County economy from the plan's \$12.67 billion in project investments are shown in the Figure 6.5. These project investments are estimated through the IMPLAN model to directly generate \$9.2 billion in economic output, which will generate another \$5.1 billion in indirect and induced impacts for a total of \$14.3 billion.

Other Impacts

This analysis shows that for the next 20 years, the plan will generate significant employment in San Joaquin County (Figure 6.6). The plan will directly generate 94,050 jobs that will result in the direct and induced creation of an additional 31,490 jobs for a total of 125,540 jobs. This is equivalent to the creation of 6,277 jobs annually. The main beneficiaries will be construction workers — putting a solid employment floor under this volatile sector

Figure 6.5 – Economic Impacts of Plan Investments

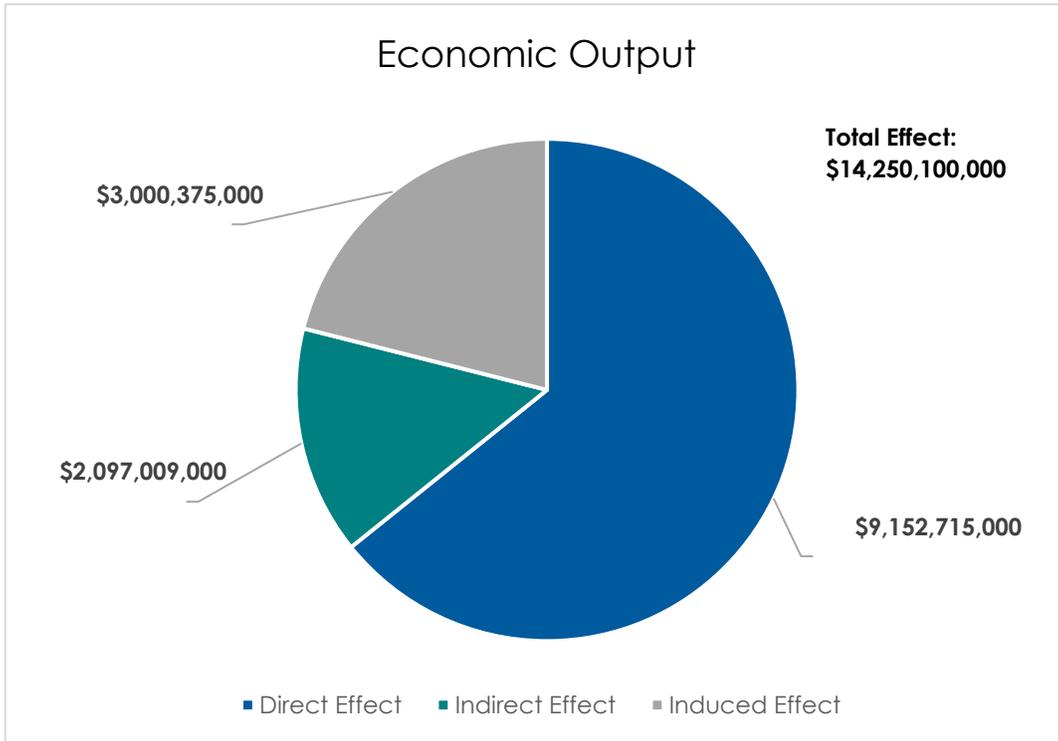
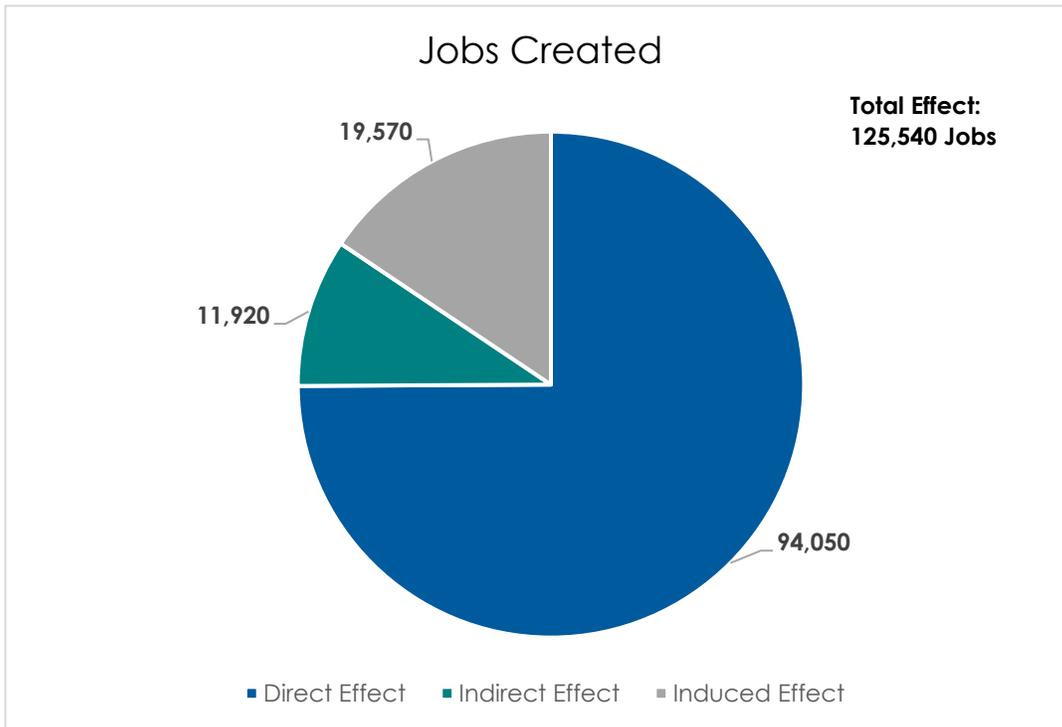


Figure 6.6 – Employment Impacts of Plan Investments



Source: UOP Center for Business and Policy Research

– and local transit workers. Workers throughout the economy will feel the impact as construction- and transit-related workers and firms increase their spending in sectors such as retail and consumer services.

These infrastructure investments are more significant than just their project associated impacts because they will also enhance the county’s economic competitiveness. These are long-term benefits that will endure beyond the project’s life. Among the many long-term benefits from this sort of investment are reduced travel times because of the reduced congestion, increased labor markets that allow workers to move more efficiently through a variety of transit modes across the county, and a more efficient goods movement system. All of these will position San Joaquin County to enhance its competitive advantage.

The immediate effects of the projects have significant value and importance, but so do elevating the county’s attractiveness as a business or corporate headquarters location. It opens vast opportunities for high-wage jobs due to increased connectivity. The investments also will likely help the economy by benefiting the county’s travel and tourism industry. And the overall quality of life for county residents will be elevated as these investments help to enhance accessibility.

SJCOG works continuously to upgrade its economic modeling capabilities to quantify these additional economic benefits to the region. Recent studies of similar long-term impacts in Southern California suggest that the competitive impacts could be more than double the project construction and operation impacts alone.

Photo Credit: Captivating Photos





Photo Credit: Visit Stockton

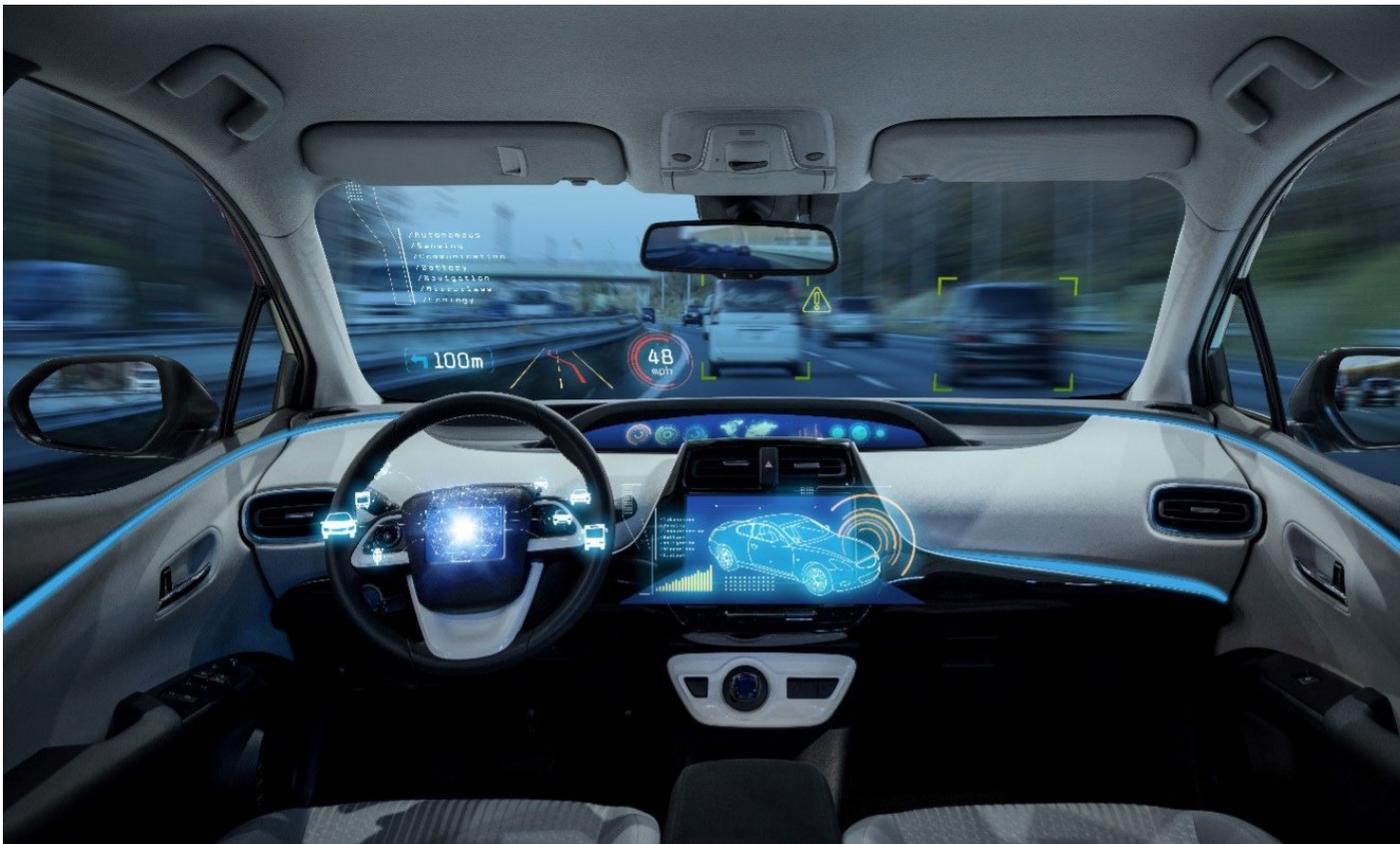
Conclusion

This analysis demonstrates how the San Joaquin region has strong economic advantages and untapped potential with its existing transportation network and facilities. San Joaquin County has growing economic centers, an educated job force, and a housing market that attracts residents. Transportation is the critical piece to tie all those concepts together in a unified strategy toward

economic development. As a result, the plan moves the region in the direction of economic competitiveness through its investment strategies — directly with added jobs and through making the region more viable for attracting and keeping businesses with quality-of-life amenities for working residents.

CHAPTER 7

Innovations in Technology



SEVEN

Technology affects many parts of our lives including how we communicate with each other, where we live and work, and the personal choices we make. In recent years, the intersection of transportation and technological innovations has grown at an exponential rate. The private sector is rapidly testing new ideas and products such as mobile applications for ridesharing, automation for package deliveries, and self-driving vehicles. This has led to new private-public partnerships in the transportation sector and opportunities to build upon best practices.



A Briefing on Autonomous Vehicle Policy

As part of a series of emerging policy briefings in 2019, SJCOG explored the future role of autonomous vehicles (AV) on the transportation landscape. The briefing was foundational in preparing the region for possible disruptive effects of automation on the future transportation network. The identified future AV projections, AV challenges and benefits, a policy framework, and AV policies and projects in San Joaquin County has and will continue to be explored and updated with future planning work.

Transportation Innovation Planning Study

In 2020-21, SJCOG staff used California Senate Bill 1 funds to create this Innovation Study. This Innovation Study identified potential innovative solutions that address regional needs in San Joaquin County. With an understanding of these solutions, this study generated innovative solution-inspired strategies to consider in this plan and recommended a pilot project for SJCOG's consideration. SJCOG is currently implementing the recommended pilot project, the Fiber Readiness Plan (see next page).



EZHub

The Vamos EZ Hub app will make using public transit safer and easier to access and pay for throughout San Joaquin County. Once downloaded, transit riders can use the app to plan their journeys and purchase tickets for any of the seven participating transit systems.

INNOVATION HIGHLIGHTS



Trends in Long-Term Innovative Solutions

Long-term innovative solutions are defined as technology that will be widely implemented throughout the region beyond 20 years from now. These technologies may use or need incremental improvements to the existing roadway network to support their development. Trends and ways the San Joaquin Council of Governments (SJCOG) is moving to meet technology challenges are discussed below.

“Once autonomous vehicles replace today’s cars, near misses in the nation’s 300,000 or so signalized intersections won’t be near misses. They’ll be carefully orchestrated movements under the control of computers...”

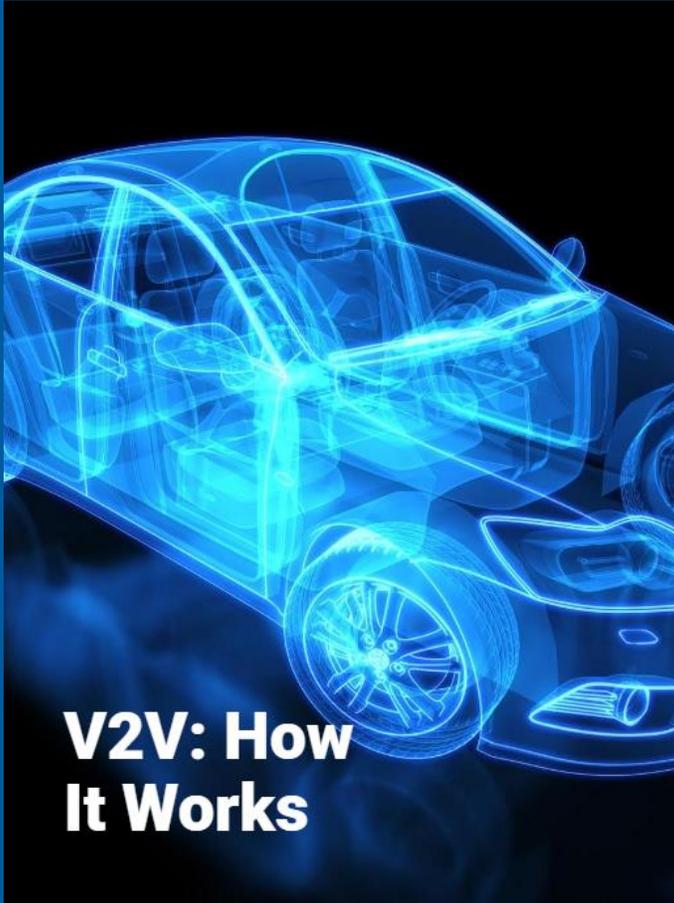
**– NBC MACH
(Science News)**

Connected Autonomous Vehicles

Connected Autonomous Vehicles (C/AV) encompass a suite of technology advancements that allow a vehicle to be connected to coordinate with other vehicles to enhance safety and efficiency and be operated without a human driver, or automated. C/AVs can be broken up into two distinct innovative technologies that are being simultaneously developed: autonomous operation and connected vehicle operation. These transformational technologies have the potential to transform how we travel every day, ranging from improving safety on the road to increasing traffic efficiency.

Autonomous vehicles use tools such as satellite mapping and onboard sensing to operate without human input, while connected vehicle operation uses real-time information and intelligent transportation systems for vehicles to communicate with each other and roadway infrastructure. Connected vehicle operation is further broken down into Vehicle to Vehicle (V2V) communication and Vehicle to Infrastructure (V2I) communication.

Connected or automated technology is not limited to passenger vehicles. Truck platooning, where connected and automated technology allows two or more heavy duty trucks to become linked, may become a common way of transporting goods in the future. While ships are limited to waterways, trains to rail lines and airplanes to airports, trucks can use the diverse roadway network to access most places. Rail transit has also adopted connected technology and can implement automated technology.



Safety Facts

6.7 M

Police-Reported Motor vehicle crashes in 2019. V2V technology has the potential to address a majority of multi-vehicle crashes

Information and Image Source: [nhtsa.gov](https://www.nhtsa.gov)

Existing Initiatives

While autonomous vehicle design and development are largely being driven by the private sector, public agencies are starting to plan and pilot developments in select areas.

- **2021 C/AV Strategic Plan (Caltrans):** This plan defines vision and strategy for Caltrans leadership in preparing for C/AV deployment, initiates C/AV policy development process, collects data, and develops C/AV action that defines specific activities for Caltrans to undertake in the coming years.
- **Fiber Readiness Plan (SJCOG):** Progress toward supporting C/AV regionally requires various pilots and plans to build out the regional infrastructure. One vital step includes expanding the significant amount of data needed to support connected and automated technology. A SJCOG-sponsored Fiber Readiness Plan will better prepare the region for high-speed internet via widespread fiber optic installation. This plan will be a three-part process including an existing inventory assessment, a review of utility policies, and streamlining utility permitting.
- **General Plans:** The city of Stockton's General Plan has an implementation measure to monitor technological advances and adjust roadway infrastructure and parking standards to accommodate AV technology and parking needs. The city of Manteca's General Plan has a similar implementation measure but also specifically requires the planning of an autonomous roadway network along major roadways.



FEATURED INNOVATION POLICY:

FIBER READINESS PLAN

A strong fiber network can improve access to jobs, education, health care, and logistics for residents and employers in San Joaquin County. Currently, 61% of the county's rural population doesn't have access to a single internet service provider offering 100 Mbps speed (the FCC's recommended download rate for general household internet access).

High-speed internet access makes it possible for residents to telework effectively and makes the communities of San Joaquin County more desirable for companies to set up satellite offices where their employees live.

As the result of the Transportation Innovation Planning Study, SJCOG is implementing a study addressing the middle-mile fiber network in San Joaquin County (known as the Fiber Readiness Plan). Installing fiber optic cable can be expensive and expanding the middle-mile network reduces the cost of connecting fiber to businesses and homes. SJCOG conducted an existing inventory assessment, reviewed local utility policies and permitting processes, and identified high impact areas for jurisdictions and other agencies to consider. Although fiber expansion is outside of SJCOG's authority, this Fiber Readiness Plan is the critical first step to help jurisdictions and/or other agencies plan for expanding their fiber network.



Next Steps

SJCOG will continue to explore ways to facilitate the adoption of infrastructure technologies and work with its regional partners to develop the supportive policies needed to aid CAV deployment in San Joaquin County. Initiatives that SJCOG will consider include:

- **Intelligent Transportation System (ITS) Master Plan:** The Intelligent Transportation System (ITS) Master Plan is a planning document that guides investment decisions by identifying needs and recommending strategic projects throughout the county to maintain and update the critical infrastructure that will support the deployment of innovative solutions, such as automated vehicles. SJCOG will coordinate with its local partners to determine the need for this plan because the ITS Master Plan requires the support of SJCOG's local partners who own, operate, or manage the ITS infrastructure. Through an extensive public outreach effort with SJCOG's local partners, the ITS Master Plan can recommend ITS projects with a medium to high chance of implementation.

- **Preparation of a Potential C/AV Pilot Deployment:** Once the region's infrastructure can support connected and automated vehicles, SJCOG will consider sponsoring or partnering to deploy an automated vehicle pilot. Examples include a low-speed passenger shuttle or last-mile goods delivery vehicle.

Replacing Gasoline and Diesel

Petroleum gasoline and diesel have been the primary energy source used to power various forms of transportation, including passenger vehicles, rail, bus, and light- and heavy-duty trucks. These forms of transportation run on gasoline and diesel and produce more greenhouse gas emissions and pollutants than their alternative fuel counterparts, leading to harmful air quality concentrations.

The state of California is actively working to increase fuel efficiencies, promote alternative fuel vehicles, improve air quality, and decrease dependency on petroleum gasoline using policies and regulations. Regional efforts support zero-emission vehicle fuels such as electricity and hydrogen. Other examples of alternative fuels include natural gas, biodiesel, and ethanol.

Existing Initiatives

A variety of state and regional programs are aimed at accelerating fleet electrification to meet California standards and goals. Not only do these programs improve air quality, reduce petroleum use, and help achieve greenhouse gas emission reduction goals, they also improve public health and attract investments and high-quality jobs.

- **State-Level Regulations:** State Senate Bill 350, the Clean Energy and Pollution Act of 2015, describes the importance of widespread transportation electrification for meeting state climate goals and meeting federal air quality standards. Senate Bill 1275 is the Charge Ahead California Initiative that aims to phase out high-polluting vehicles. Executive Order N-79-20 requires all California-sold new cars, passenger trucks, and drayage trucks be zero-emission vehicles by 2035, medium-to-heavy-duty vehicles be zero-emission by 2045, and off-road vehicles by 2035, where feasible.
- **Stockton Mobility Collective Project (SJCOG):** This program will provide 30 electric cars and 10 to 15 charging stations primarily in communities of concern in Stockton. In addition, SJCOG will fund an additional 11 electric cars and five charging stations at San Joaquin County Housing Authority-owned

properties. Users can access these cars by using the Vamos Mobility app that connects people to various clean transportation options. The California Air Resources Board awarded SJCOG a \$7.4 million Sustainable Transportation Equity Project (STEP) grant to implement this program.

- **Public Fleet:** The San Joaquin Regional Transit District (RTD) Route 44 Express Bus was the first of its kind, an all-electric bus rapid transit (BRT) route. RTD is the fourth in the nation to operate fully electric buses. The California Energy Commission awarded RTD, in partnership with Proterra Inc., a pair of 100 percent battery-electric buses and the funding for an automated fast-charging station. RTD's Solar Energy Project installed solar panels at the Regional Transportation Center.
- **General Plans:** Stockton's General Plan has an implementation measure that requires commercial, retail, office, industrial and multifamily developments to provide charging stations and prioritized parking for electric and alternative fuel vehicles. Manteca's General Plan has an implementation measure that supports efforts to reduce environmental impacts of truck operations through use of electric vehicles and other advanced technologies for goods and freight movement.

Photo Credit: Captivating Photos



Next Steps

SJCOG is currently completing an Alternative Fuels Vision Plan for the region. This plan is considering hydrogen, propane, and liquified and compressed natural gas as alternative fuels for vehicles. It is expected to be completed in early 2023. The completion of this plan will better prepare San Joaquin County for EV by addressing the county's EV infrastructure needs. SJCOG will also actively search for regional level funding opportunities for local jurisdictions and assist local jurisdictions and transit operators in securing Federal Alternative Fuel Vehicle (AFV) and Fueling Infrastructure grants. Finally, SJCOG will work with the San Joaquin Valley Air Pollution Control District and partners to implement recommendations from the 2014 Plug-In Electric Vehicle (PEV) Readiness Plan that was prepared by the Air Pollution Control District.

Transportation agencies will be taking actions to convert their operations from using gasoline and diesel to electricity and other fuel alternatives. Examples include the San Joaquin Regional Rail Commission (SJRRC) planning to purchase electrified trains and the RTD's Strategic Plan identifying the exploration of zero-emission bus technology to ensure viable energy and fuel alternatives, such as hydrogen.

Other Innovative Solutions

Certain innovative solutions that do not fit within one transportation technology category can transform the way the region addresses mobility challenges, supply new means of accessibility, improve the safety and equity of the transportation system, and support resilient communities.

Existing Initiatives

- **Vamos EZHub (SJCOG):** Vamos EZHub provides a cashless mobile ticketing and fare payment system that allows a rider to pay fares for any transit in San Joaquin County, including Escalon E-trans, Lodi Grapeline, Manteca Transit, RTD, Ripon Blossom Express, Tracy Tracer and Altamont Commuter Express.
- **Public Fleet:** RTD is currently piloting a second phase of its RTD Van Go! on-demand rideshare service pilot program. Van Go! riders can travel anywhere in San Joaquin County, allowing access to rural areas and eliminating the inconvenience of multiple transfers with one or more transit agencies. Tri-Valley San Joaquin Valley Rail Authority, or Valley Link, is planning a rail connection between Dublin/Pleasanton BART station and San Joaquin County.
- **Managed Lanes I-205:** This project widens I-205 from the San Joaquin County/Alameda County boundary line to I-5 to potentially include new high occupancy toll (HOT) lanes, while leaving space in the median for a future bus lane or passenger rail line. Also, informational signs will be placed throughout this corridor to inform drivers of accidents and identify affected lanes. If these HOT lanes become the preferred alternative for the corridor, they could be a funding generator, like existing HOT lanes along the I-580 between I-680 and Vasco Road. This project is currently in the preliminary planning and environmental phase.





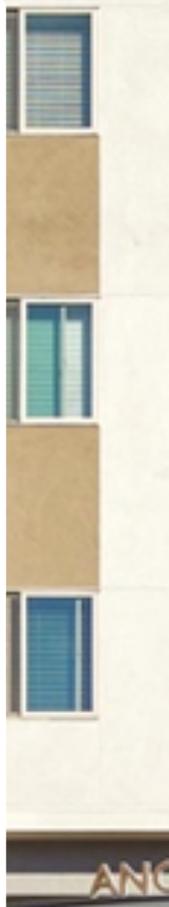
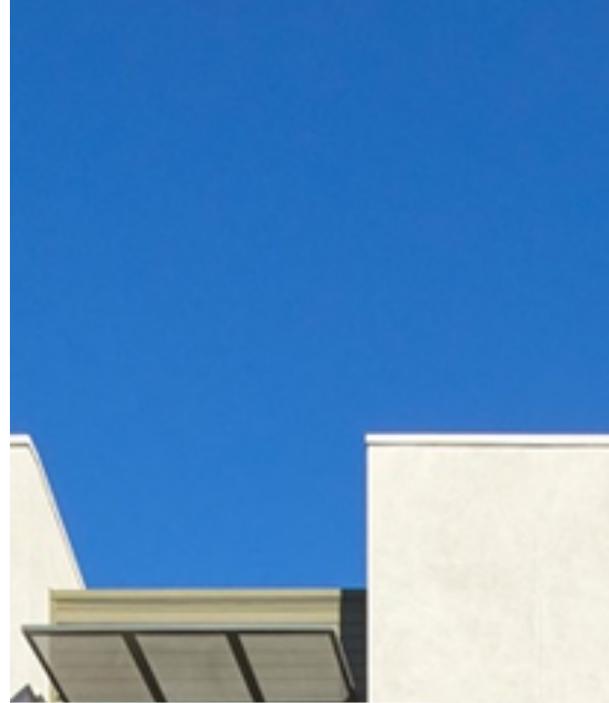
Next Steps

SJCOG will enhance partnerships to improve travel through the Altamont Pass. As a key partner in the successful implementation of integrated corridor management, SJCOG can lead by example through adopting recommended projects in the RTP/SCS, continuing collaboration, and dedicating staff resources for innovative grant applications.

SJCOG will plan for emerging revenue sources. SJCOG and its partners could collaborate with economic forecasting and modelling specialists to study potential revenue sources over long-term planning horizon for inclusion in SJCOG RTP/SCS.

CHAPTER 8

Housing



EIGHT

The population of the San Joaquin region is expected to increase by 200,000 residents by 2050. That means at least 74,000 more housing units will have to be built to meet this demand. Housing production in the region has not kept up with demand, leading to rising prices and growing shortages. Here we look at the current state of housing in the region and the effects of housing costs on the region's residents. We also look at RTP/SCS strategies to support local agencies in increasing housing production.





Housing

A family's ability to pay for housing can be vulnerable to economic ups and downs. Other external forces will shape housing markets in the future, such as climate change, demographic trends, technological advances, and construction activity.

San Joaquin County is often lauded as an affordable place to live, but this is primarily true for those migrating from regions with a higher cost of living. Compared to neighboring regions, San Joaquin County has relatively lower housing costs, however, residents living here also tend to have comparatively lower household income. As a result, housing affordability is a challenge for residents who already call the region home.

The San Joaquin region has 243,260 homes throughout the county and the seven cities. To

accommodate a growing population expected to exceed 1 million by 2050, more housing will need to be built throughout the region. Where that housing is built, and in what form, can affect some of the greatest challenges today, such as housing stability, job opportunities, and greenhouse gas emissions.

Regional Housing Dynamics

The San Joaquin County region is experiencing the housing crisis felt across the state. As the region's population continues to grow, housing production has not kept up. The result is an overwhelming need for housing at an affordable level. The county's housing stock provides limited options for the diverse communities that make up the region. This housing shortage causes the cost of housing in the region to rise at a more rapid pace than incomes, threatening the stability of families and contributing to a

concerning rise in homelessness. All these factors contribute to the region’s housing crisis and increases the importance of strategies in the 2022 Regional Transportation Plan/Sustainable Communities Strategy (2022 RTP/SCS) to support SJCOG’s member agencies in increasing housing production.

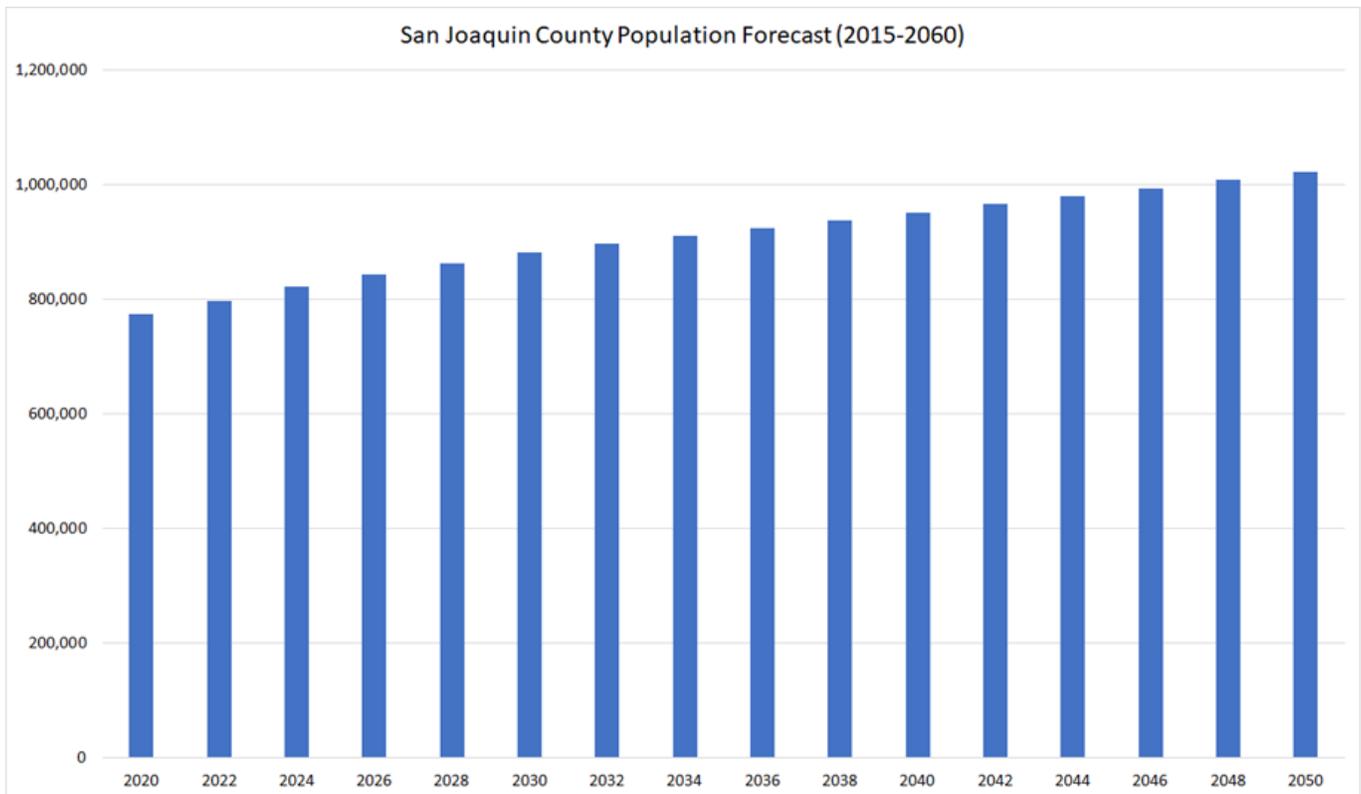
Population Growth

Like many regions in California, San Joaquin County has seen massive changes to its population and the overall number of households. Within the next 30 years, the population is expected to grow from the approximately 800,000 today to 1 million in 2050 (Figure 8.1). The 200,000 more residents expected to be housed in the county represents a 25 percent increase over the next 30 years.

Home ownership may come with a large amount of debt, but it also acts as an asset that individuals use as collateral to access liquidity and/or investments.

— University of the Pacific Center for Business and Policy Research, SJC Index 2020

Figure 8.1



Source: US Census Bureau, 2019 ACS 5-Year Estimates and University of the Pacific Center for Business & Policy Research

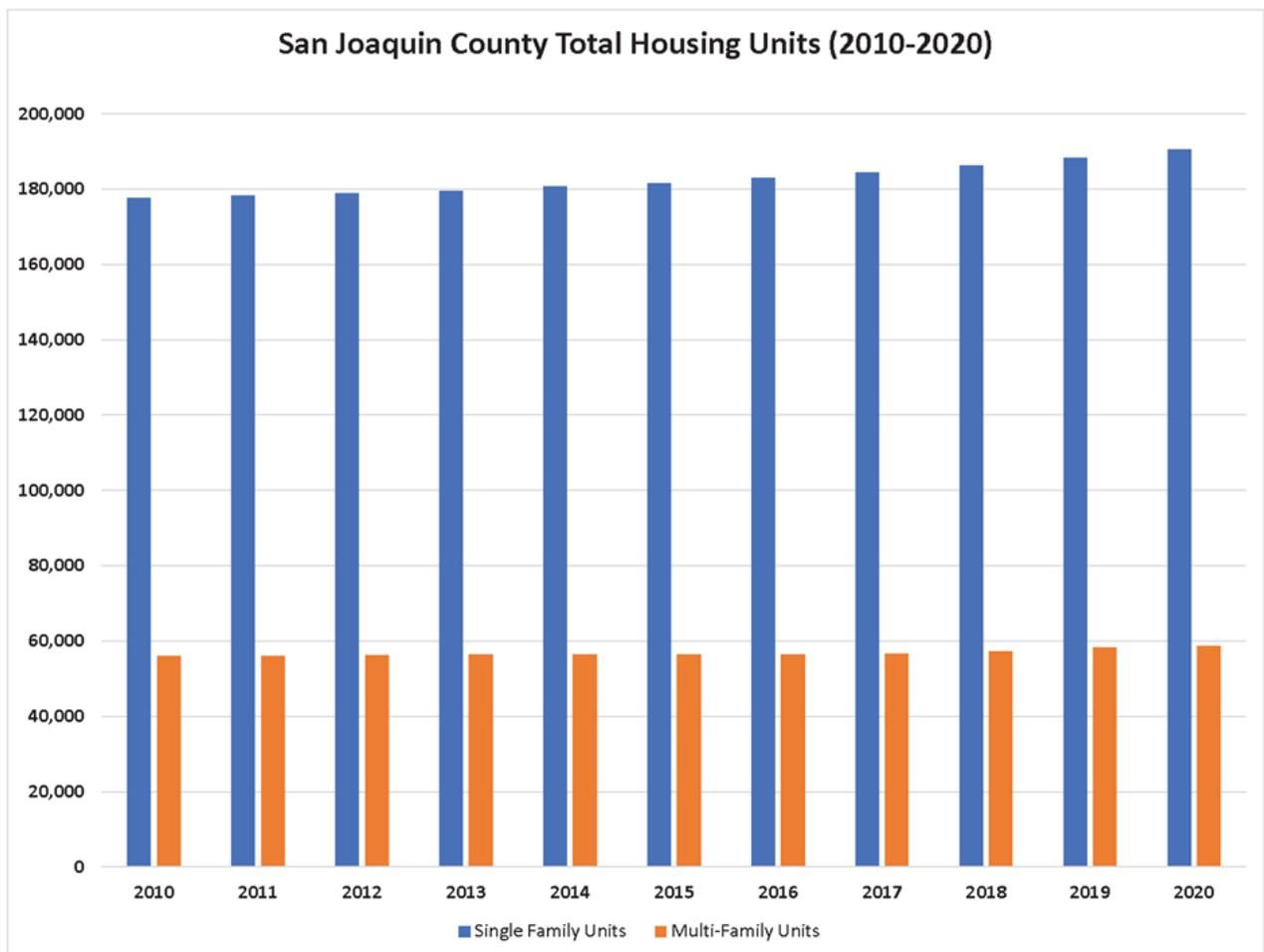
Housing Stock

Housing production has not kept up with population growth. Since 2010, the number of single-family units in San Joaquin County has slowly increased from 180,000 to 200,000 units, while multifamily units have stagnated at around 60,000 units (Figure 8.2).

The available housing in San Joaquin County is made

up of a low percentage of attached single and multifamily units when compared to the state, 24 percent and 39 percent respectively (Figure 8.3). The county has an overwhelming share of single family-detached units, significantly greater than the state as whole. Because a large majority of housing is categorized as single-family, the available housing stock does not offer much in terms of choices.

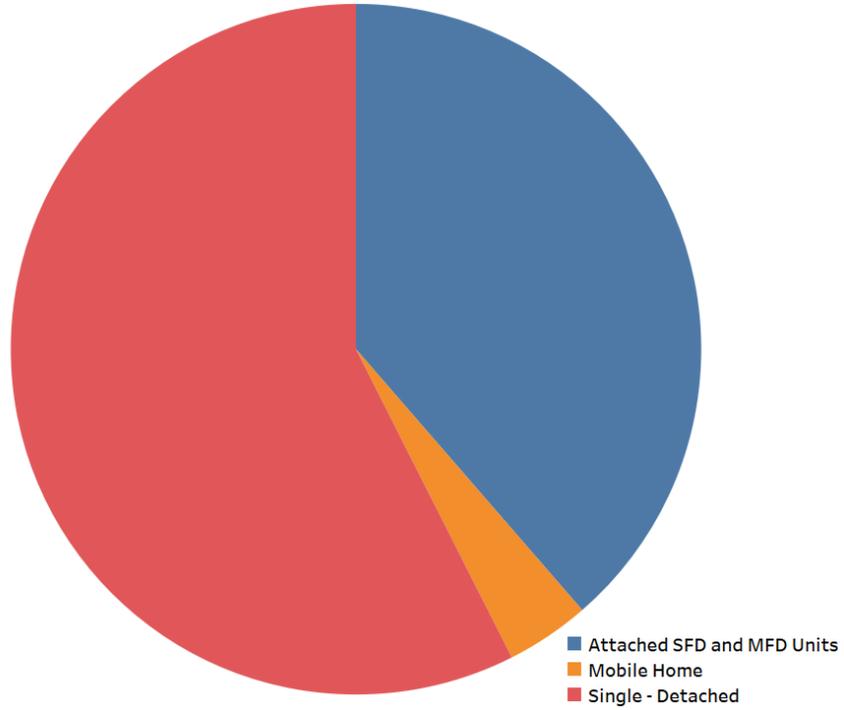
Figure 8.2



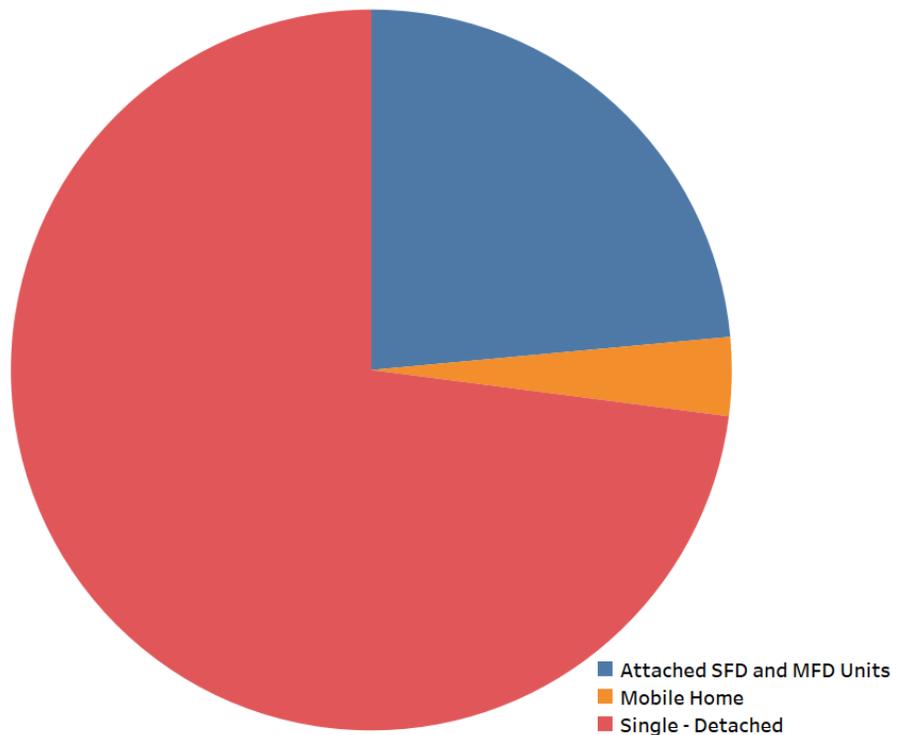
Source: California Department of Finance

Figure 8.3

Housing Stock Split - California

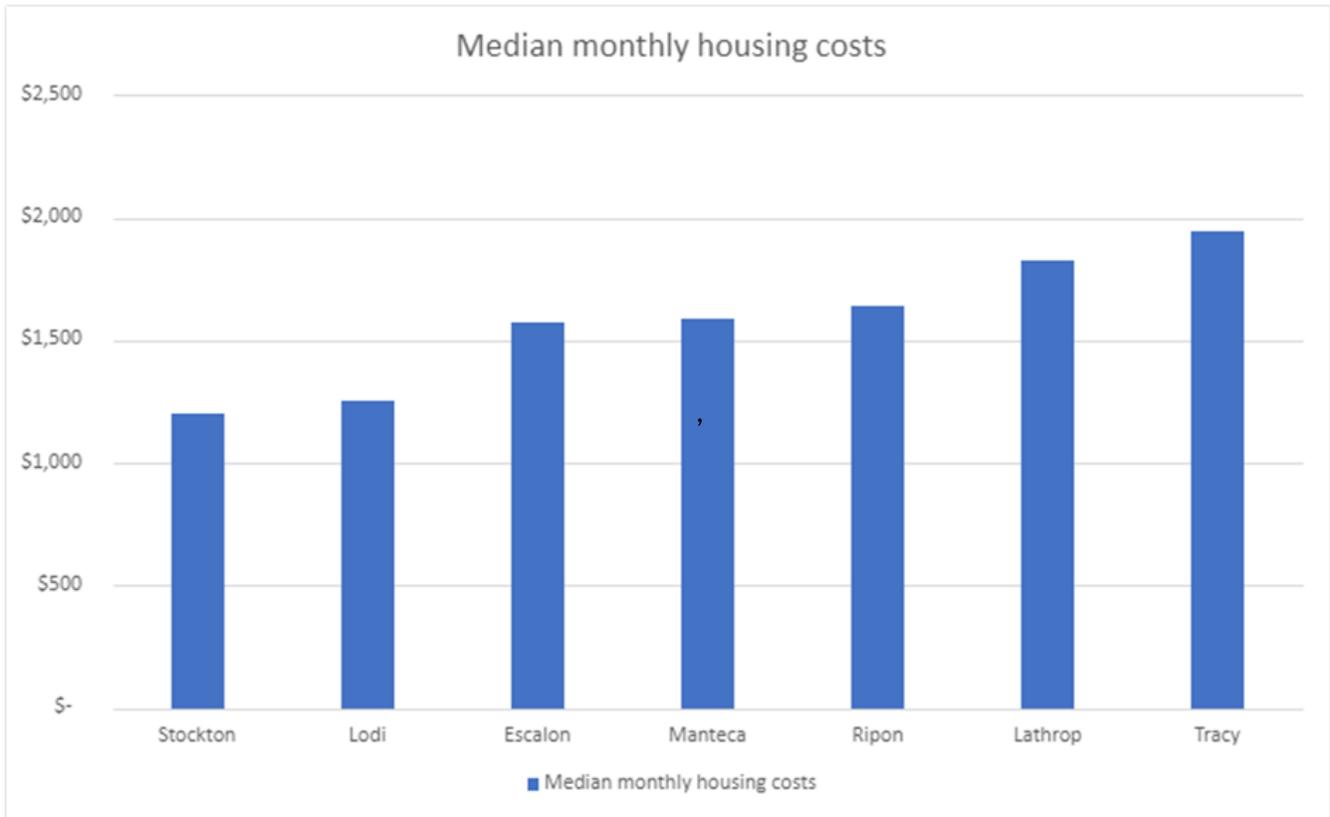


Housing Stock Split - San Joaquin County



Source: California Department of Finance

Figure 8.4



Source: US Census Bureau, 2019 ACS 5-Yr Estimates

The Cost of Housing

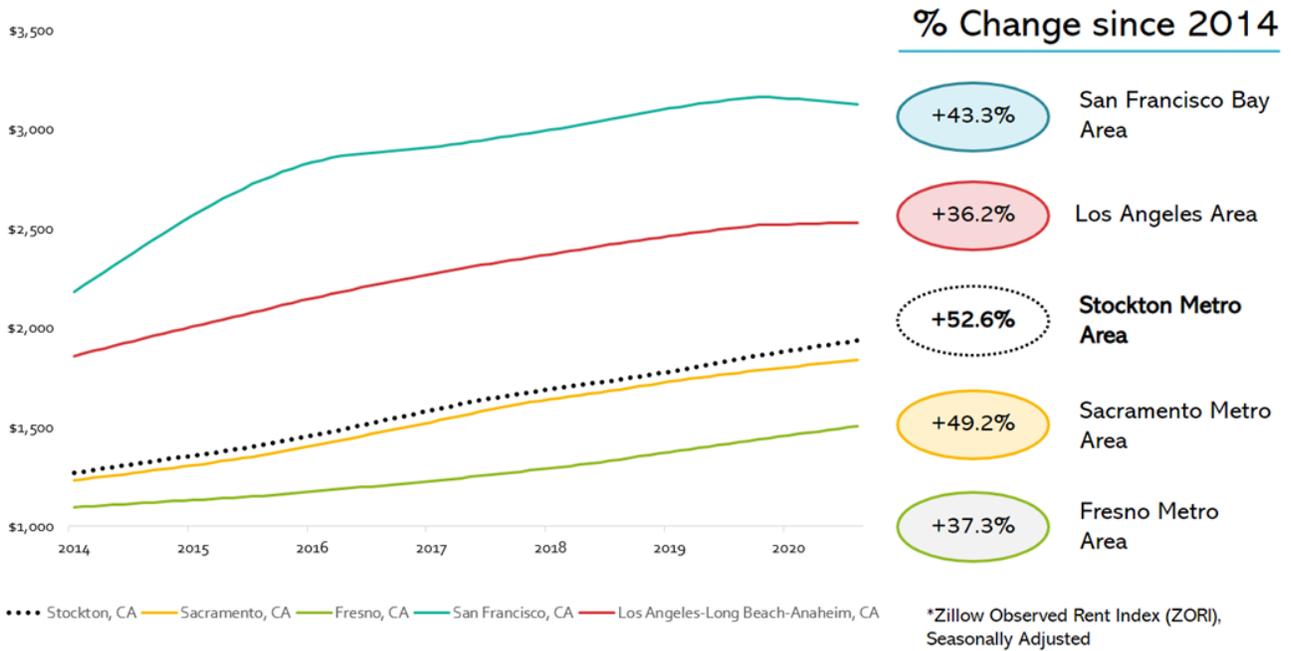
Throughout the San Joaquin County region, median monthly housing costs range from \$1,200 to \$2,000 for the seven cities in the county (Figure 8.4). Stockton and Lodi have the lowest median costs of housing at approximately \$1,300 per month, while Tracy has the highest median monthly housing costs at approximately \$2,000. Median monthly housing costs includes such expenses as mortgage, real estate taxes, home insurance and utilities.

The region's housing costs, however, have seen

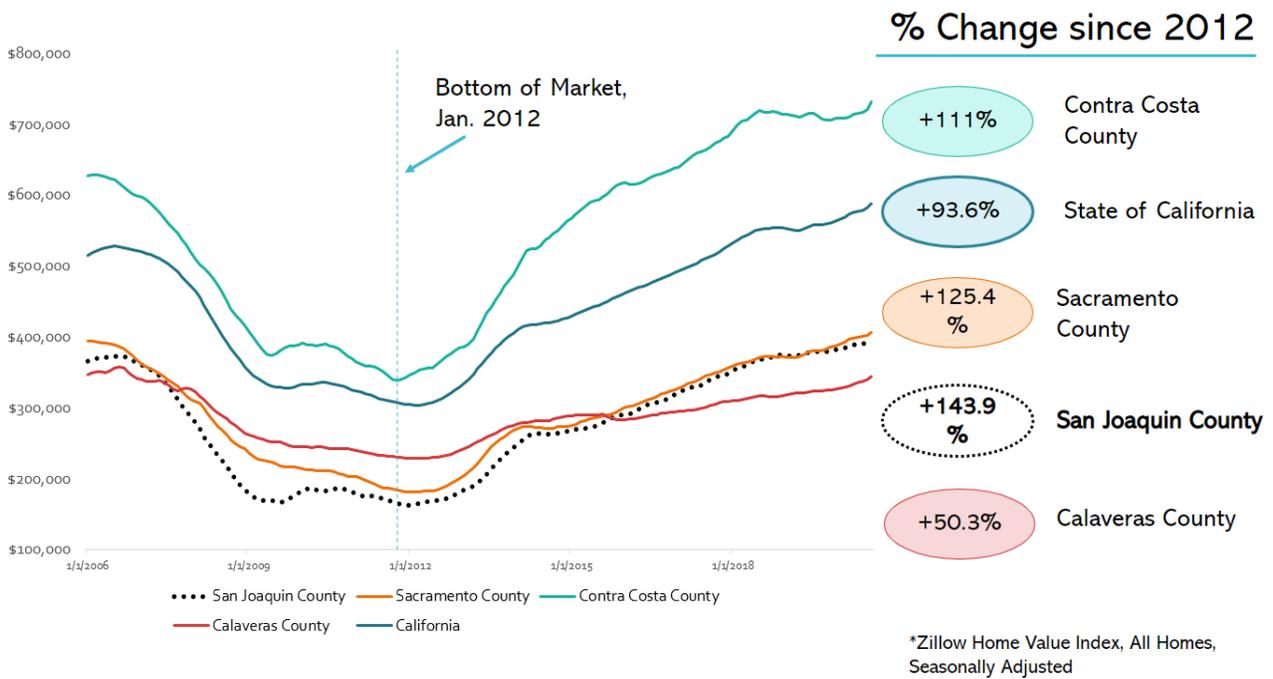
dramatic increases in recent years, outpacing other metropolitan areas in the state. The county's rental prices have been steadily increasing, rising more than 50 percent since 2014. That is more than surrounding metro areas. Similar increases have been observed in the homeownership market. San Joaquin County has some of the greatest housing price volatility in the state with prices increasing an astounding 143 percent since the bottom of the market in January 2012 in the wake of the Great Recession (Figure 8.5). This is more than any other adjacent county and the statewide average.

Figure 8.5

Rent Index* for Select Metro Areas, 2014 - 2020



Home Value Index*, 2006 - 2020



Source: Zillow

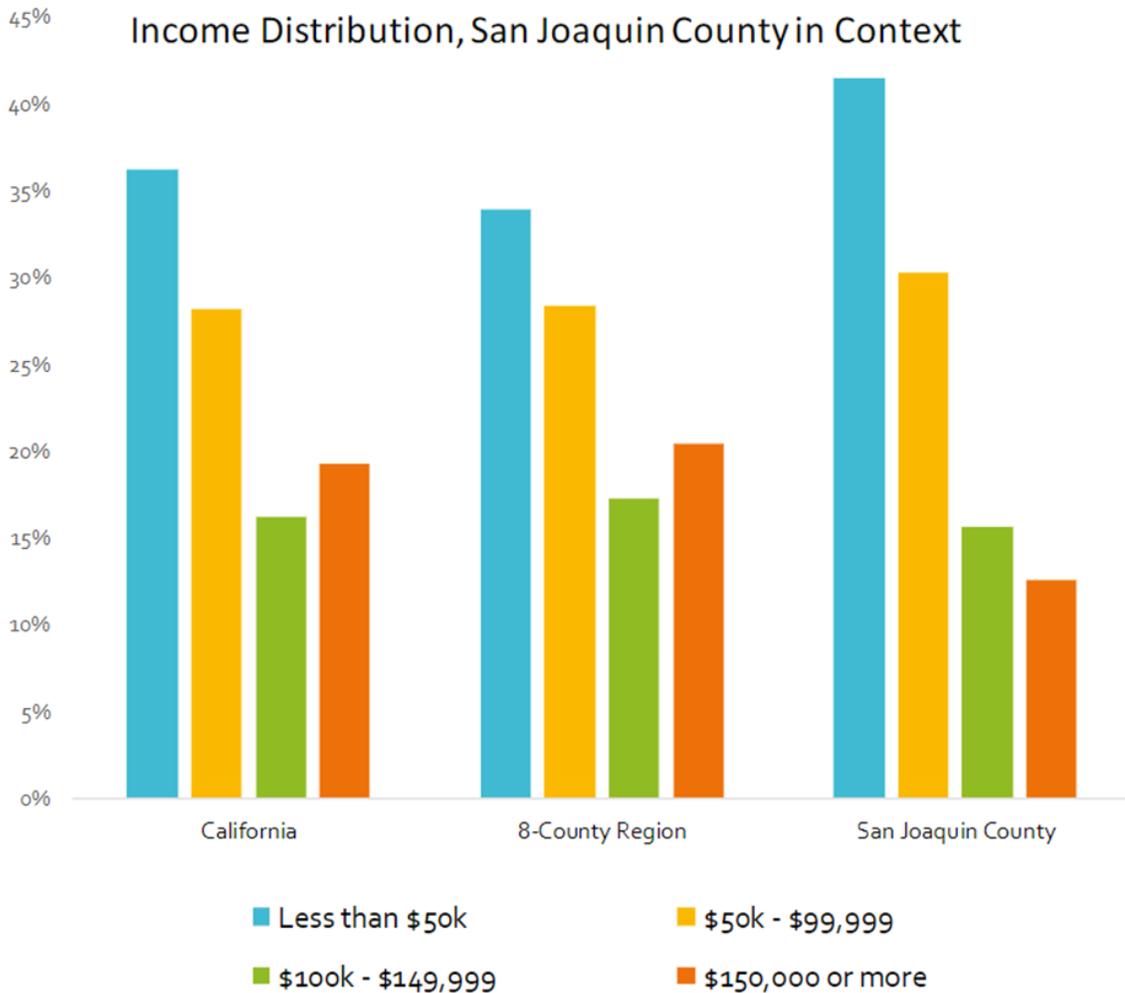
Housing Access

Compared to neighboring regions and the state, San Joaquin County has a higher percentage of households earning less than \$50,000 annually, contributing to a larger share of low-income households (Figure 8.6). These trends generally align with lower income jobs in the region’s retail and service sectors. The demand for affordable housing opportunities far outweighs the existing supply and this gap continues to grow.

Housing cost burden is an important metric that shows how much money as a share of income people are spending on housing. A household is considered

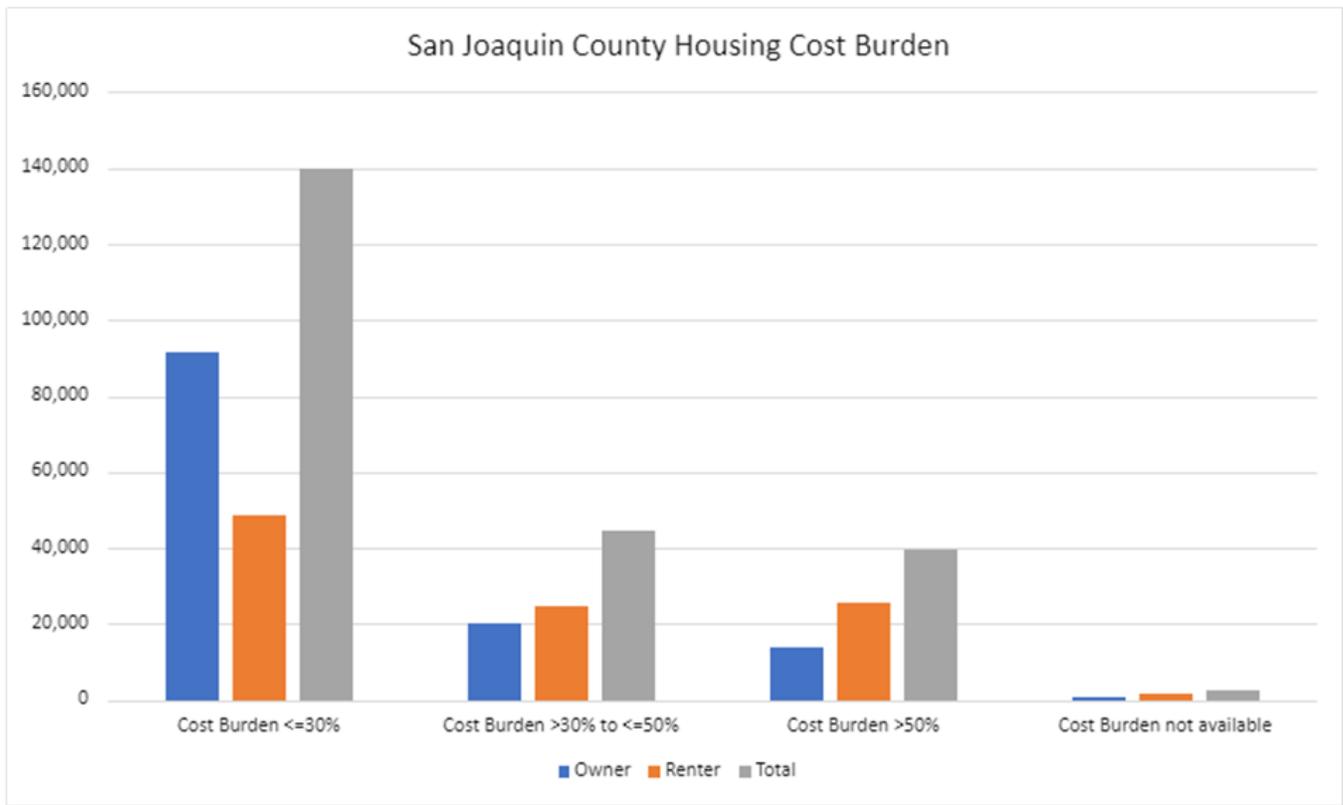
cost burdened when more than 30 percent of income is spent on housing. Out of the 228,567 total households in the San Joaquin region, more than 40,000 households would be considered severely cost burdened by spending more than 50 percent of the household income to cover housing costs (Figure 8.7). As housing becomes increasingly out of reach for low-income individuals and families, San Joaquin County’s 2019 Homeless Point in Time count saw a nearly 70 percent increase in the local unsheltered population, jumping from just over 1,500 individuals experiencing homelessness in 2017 to 2,629 in 2019.

Figure 8.6



Source: US Census Bureau, 2019 ACS 5-Year Estimates

Figure 8.7



Source: US Census Bureau, 2019 ACS 5-Year Estimates

Residential development activity has not kept pace with actual population growth.

Planning for Housing in Uncertain Conditions

Housing access and stability in the San Joaquin region is increasingly at risk, especially for its most vulnerable residents. The future is also full of uncertainties that will undoubtedly shake housing markets in the coming decades, as did the Great Recession from late 2007 to mid-2009 and the COVID-19 pandemic in 2020. Housing preferences in the future might change, which could shift demand for either more suburban single-family homes or more apartments. Technological advancements, such as expanded broadband access and the introduction of autonomous vehicles, have the potential to alter what the typical commute between home and work may look like. Finally, climate change impacts across the globe could influence migration patterns to the San Joaquin region.

Regional Role in Housing

The regional role in housing has been historically limited to well defined state driven planning processes. Regarding regional housing, SJCOG promotes strategies to increase the supply of, and ensure access to, a variety of housing choices for all residents of the region through the Regional Housing Needs Allocation (RHNA) process. Through this process, the State authorizes SJCOG to determine each local jurisdiction's "fair share" of affordable housing throughout the region. With the passage of SB 375, this role was expanded to more explicitly consider the integration of state and federal transportation investments with local land use planning. In this role, SJCOG coordinates regional strategies and assists local jurisdictions in their role as the local land-use authorities. Even with the more recently expanded role of regional agencies in tackling the statewide housing crisis, jurisdictions retain local land-use control, subject to limited affordable housing permit streamlining requirements. The following sections summarize SJCOG's existing roles, programs, and activities that concern housing issues in the region.

Regional Housing Needs Allocation Process

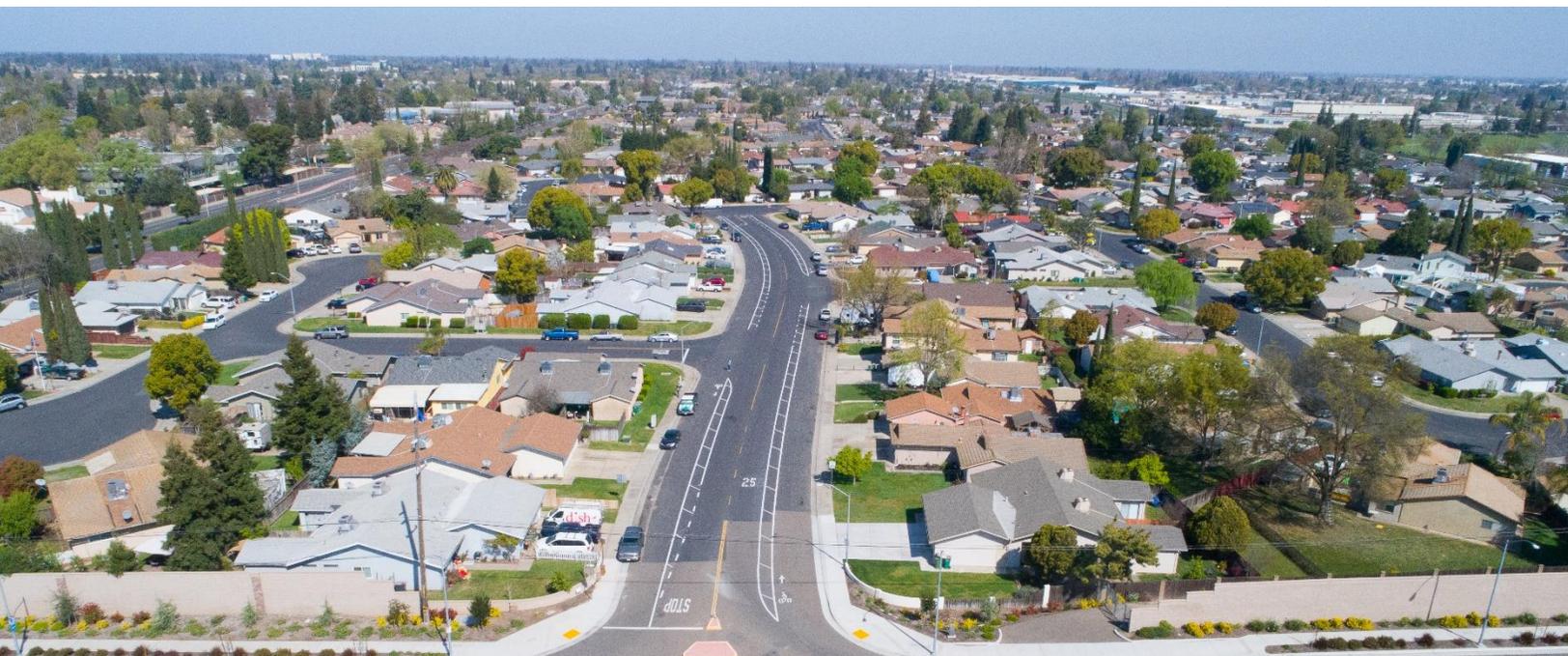
The RHNA process, mandated by state law, quantifies the need for housing at all income levels and informs local land use planning in addressing

existing and future housing needs resulting from population, employment, and household growth. As the council of governments, SJCOG is responsible for overseeing the process and preparing the RHNA every eight years for the San Joaquin region.

The process is initiated by the California Department of Housing and Community Development (HCD), which provides a Regional Housing Needs Determination (RHND) for the region. The regional determination includes an overall housing need number based on forecast population growth and adjustments to this need based on local market conditions for housing vacancy rates, overcrowding, and rates of cost burdened households. The overall RHND is further divided into the percentage of units required to meet the need across all income levels. SJCOG, with input from elected officials, local staff, and stakeholders, then develops a methodology to distribute to each local government a fair share to meet the total regional housing need. This division should ensure adequate housing affordable for all income levels in the region.

The Regional Housing Need Plan (RHNP) is the official assignment of projected regional housing need totals to the jurisdictions in San Joaquin County across four family income categories defined as Very Low, Low, Moderate, and Above Moderate). Once adopted, each jurisdiction has 18 months to update their Housing Element and zoning ordinances to accommodate its fair share of the region's housing

Photo Credit: Captivating Photos





need. Local communities are also required to report their progress to HCD on an annual basis. SB 375 requires that the land-use allocation for the RTP/SCS be consistent with and accommodate the calculated regional housing need. The 2022 RTP/SCS meets this requirement.

The regional growth forecast anticipates an additional 28,664 households in the region during the eight-year RHNA projection period. To meet future housing needs, the San Joaquin region must plan and zone for 53,640 housing units over the next eight years (Figure 8.8). This determination from the state is the highest ever received by the region and is in response to a housing crisis that was decades in

the making. Residential development activity in the region has not kept pace with actual population growth and addressing the housing crisis will require more planning, coordination and resources. Regardless of how the future may unfold, the strategies included in the 2022 RTP/SCS are responsive to uncertainties and aim to provide a resilient framework for long range planning.

The draft RHNA methodology for allocating the RHND of 53,640 units to each jurisdiction in the region and among the required income categories is included in Appendix Y. The full RHNA plan will be released and considered for adoption in the late Summer or Fall of 2022.

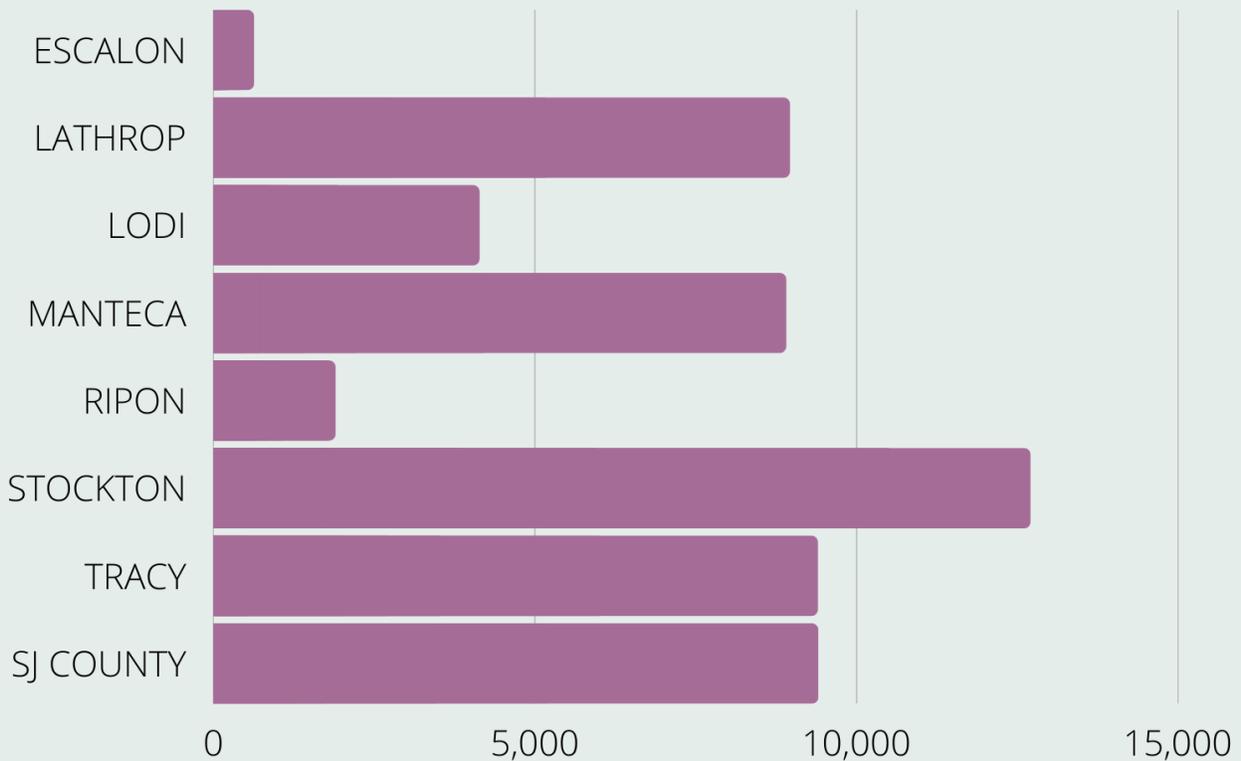
Figure 8.8

REGIONAL HOUSING NEEDS ALLOCATION (RHNA) 2022-2030

Regional Housing Needs Allocation (RHNA) is a state-mandated planning requirement for accommodating the projected housing need through each jurisdiction's general plan housing element. The law requires that the State project overall housing needs at the regional level for the eight-year planning period and that SJCOG further divides the housing need into four income categories, which are based on the regional median income.



THE 6TH RHNA CYCLE REPRESENTS AN EIGHT-YEAR PERIOD FROM JANUARY 1, 2022-DECEMBER 31, 2030



2022 RTP/SCS Housing Strategies

SJCOG's previous RTP/SCS plans included strategies to encourage complementary land use and transportation planning to promote environmental sustainability, maximize mobility and accessibility, preserve the efficiency of the existing transportation system, improve public participation, maximize cost effectiveness, and improve the quality of life for residents. Strategies that support housing production – while coordinating with existing and future transit service – can help the region grow more sustainably and inclusively.

The 2022 RTP/SCS builds on the 2018 strategy framework by identifying bold regional actions to tackle the ongoing challenges to provide stable and affordable housing that all residents in the San Joaquin region can rely on no matter how the future unfolds. There is no single solution to solve the regional housing crisis, so the package of strategies included here leverage the tools and resources currently at the region's disposal. The housing-related strategies identified in the 2022 RTP/SCS help to advance regional housing priorities:

- **Support establishment of a regional housing trust fund:** Funding for affordable housing in the San Joaquin region has significantly declined since 2007, making it extremely difficult to build needed housing. A housing trust fund can serve as a local source of dedicated resources to support the preservation and production of affordable housing and increase opportunities for families and individuals to access housing.
- **Streamlining the development process:** Improving development processes through streamlining is a best practice strategy for reducing the cost of development. While each local jurisdiction in the region may be at varying stages of streamlining in their own departments, the plan supports these activities. These may include preparing specific plans with an accompanying environmental impact report, objective design

and/or development standards and provide more certainty for applicants, and other strategies intended to reduce the time for application approval.

- **Promote a broader range of housing types:** Allowing for a greater mix of densities and housing types would make it easier to meet the future housing needs of all San Joaquin residents.

Funding and Implementation

Since 2017, numerous housing legislation bills have been introduced and signed into law to address California's growing housing and homelessness crisis. SJCOG has taken steps to play a more active role in supporting housing production throughout the region by integrating land use and housing policy discussions in transportation planning and implementation efforts. New funding from the state's Regional Early Action Planning Program (REAP) has provided resources directly to SJCOG for planning to accelerate development and increase housing supply (Figure 8.9). In addition to supporting the regional housing priorities outlined in this chapter, the new resources also help in knitting together a more cohesive framework for SJCOG's other ongoing housing-related activities.



Current and recently completed implementation activities include:

- A gentrification and displacement study completed in February 2022 identifying displacement risk and potential solutions for the region.

- A regional housing trust fund feasibility study, begun in May 2022, will evaluate the appropriate scale, funding sources, structure, and impact for a regional trust fund in San Joaquin County.
- The addition of an executive fellow to the SJCOG housing team to concentrate on building collaboration for the trust fund effort, working with SJCOG's local jurisdictions on technical assistance and tools needed for housing element updates, and assist in structuring SJCOG's upcoming REAP 2.0 application for additional planning and infrastructure funding to further housing production.

Conclusion

Looking ahead, rising concerns around displacement and gentrification have led to a host of questions around investment – both public and private – and how to responsibly wield it so that all residents can equitably reap its benefits. To further understand the potential link between transportation investment and

displacement risk, SJCOG conducted a gentrification and displacement risk assessment. The region's first ever assessment of this kind found that much of the region remains inaccessible to low-income residents, making it imperative that the region better understand how to mitigate any negative impacts associated with transportation investment. This becomes especially important since the 2022 RTP/SCS includes a robust investment strategy for public transit services, particularly in commuter rail. Research has found that without policies in place to stabilize vulnerable neighborhoods this can cause displacement in communities.

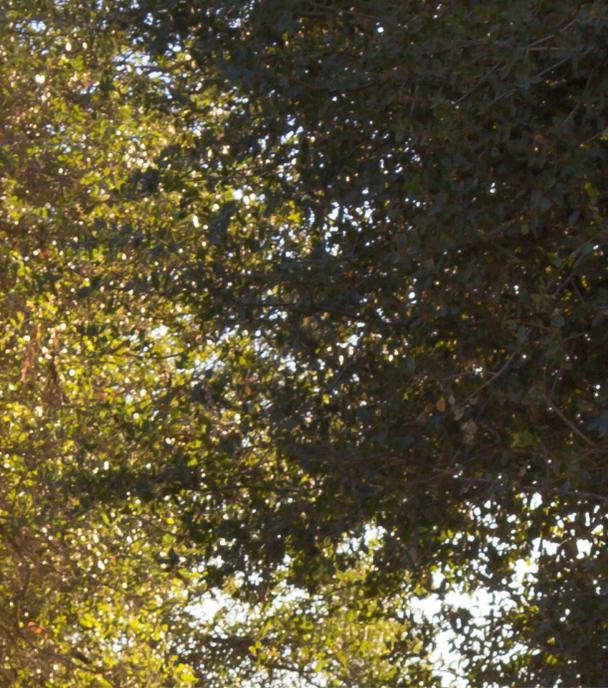
SJCOG's continued technical assistance activities on affordable housing projects have helped local projects in competing for grant funding. Ongoing stakeholder engagement has elevated the need to expand local funding for affordable housing throughout the region. Finally, with a higher Regional Housing Needs Allocation (RHNA) housing construction target for the county, the region has an unprecedented opportunity to pair planning with implementation funding.

Photo Credit: Captivating Photos



Figure 8.9

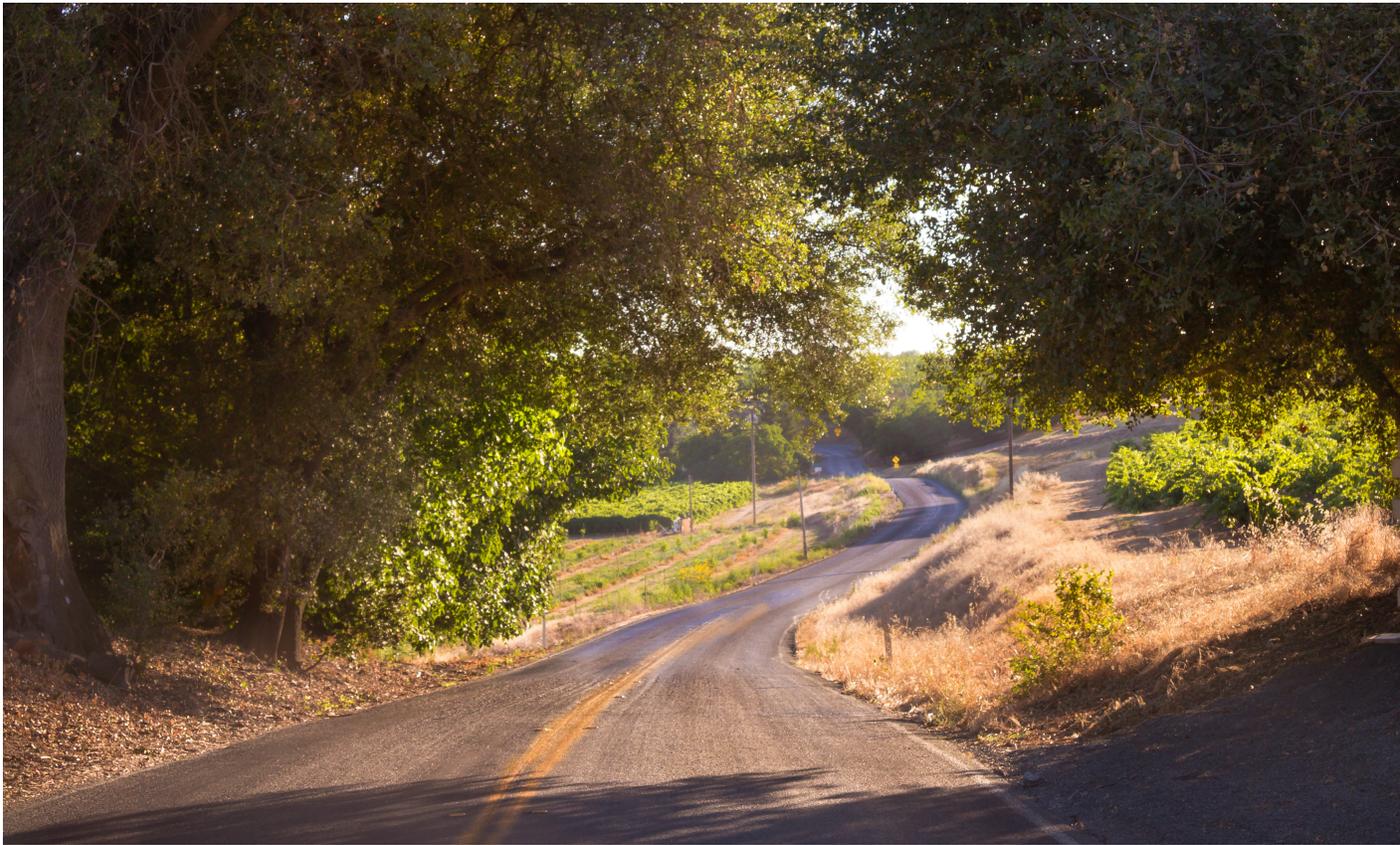




CHAPTER 9

Framework for Moving Forward

Challenges & Opportunities



NINE

We do not know exactly what the future holds. This regional plan focuses on and embraces uncertainty through its innovative strategy evaluation process. The result is a focus on actions that will be effective no matter what the future brings.

While we know the San Joaquin region faces ongoing challenges, we also see that there are future opportunities and strategies to meet these challenges. Here's the overview.

Beyond the Past Successes

Through its role as Regional Transportation Planning Agency for San Joaquin County, the San Joaquin Council of Governments (SJCOG) will continue providing a forum for regional policy discussions on growth, transportation, environmental management, housing, open space, air quality, fiscal management, and economic development. SJCOG – with its member agencies, regional partners, and community stakeholders – will genuinely consider all sides of every issue through consensus building and collaborations.

The plan's investment strategy is a step toward meeting the air quality, environmental, economic and mobility needs in the San Joaquin region.

SJCOG recognizes these are essential elements to successful implementation of the plan. SJCOG believes the plan investment strategy is a step toward meeting the air quality, environmental, economic and mobility needs in the San Joaquin

region. It will be an effective tool for a comprehensive transportation vision backed by ambitious, achievable, and predicted development.

Some of the project successes from the previous plan include:

- California's first diverging diamond interchange (DDI) project – State Route 120/Union Road in Manteca – was completed. The region is seeking funding for two additional DDI projects.
- Widened 1.5 miles of Thornton Road from Pershing Avenue to Bear Creek to four lanes, including bicycle lanes. The project included improvements to traffic signals, streetlights, curbs, gutters, driveways, and sidewalks.
- Completed the environmental review for the Phase 1A State Route 99/120 Connector project. This project will move to construction in 2023.
- Completed the Navy Drive/BNSF Undercrossing and widening of Navy Drive to four lanes.
- Completed the Church Street Bike and Pedestrian Improvement Project in Lodi. Improvements included resurfacing the roadway, reducing lanes from four to two and installing Class II bike lanes.





Photo Credit: Captivating Photos

Actions Implemented since the adoption of the 2018 RTP/SCS

Strategies implemented or efforts underway during the time since the previous plan was adopted include:

- Completed Phases 1 and 2 of the Climate Adaptation and Resiliency study, which identified risks and vulnerabilities to the transportation system due to climate change and provides specific solutions.
- Established a pilot program that will provide an electric car- and bikesharing service to a community of concern in South Stockton. The California Air Resources Board (CARB) awarded a \$7.4 million grant to SJCOG for this program.
- Completed the Transportation Innovation Planning Study and a Fiber Readiness Plan to prepare San Joaquin County for future advancements in transportation technology. This study identified, funding opportunities and implementation strategies.
- SJCOG started EZHub, a first of its kind cashless ticketing and fare payment system accessible through the Vamos Mobility App, in partnership with Masabi.

- Increased the number of vans and passengers participating in the San Joaquin Vanpool Program during the pandemic. This program is part of dibs, SJCOG's travel demand management program.
- Successfully pivoted the RTP/SCS outreach to virtual webinars and workshops that were open to the public during the COVID-19 pandemic.

Additional Strategies and Investments Should Funds Become Available

Despite the plan's multibillion-dollar investment strategy, it is important to acknowledge that there will be continuing challenges involved in the delivery of the projects in the plan. As explained throughout the plan, the funding needs far exceed the available funds. The result is a list of unfunded but regionally important projects (Technical Appendix T). These projects are not in the plan for a multitude of other reasons, including undefined scope and implementation schedule. Below is a brief overview of those projects that may be considered upon funding and meeting necessary requirements for Inclusion in the Regional Transportation Plan.

Technological Innovations:

Information is simply not available to ascertain technology readiness, application, or implementation. This includes factors such as quantifying costs to implement or operate, capital investment needs, and impact of technological advancement to those very needs.

Tri-Valley-San Joaquin Valley Rail Authority:

The Tri-Valley-San Joaquin Valley Rail Authority was established by Assembly Bill 758 with a mandate to maximize transit connectivity for commuter travel between Bay Area Rapid Transit (BART) and Altamont Corridor Express (ACE) rail systems in the Tri-Valley area at the Altamont Pass. On May 12, 2021, the authority board certified a final environmental impact report and approved a preferred project. The authority has started preliminary engineering work and is in the process of seeking funding for project construction.

Valley Rail Expansion and Related Multimodal Stations:

The Valley Rail program includes project development work for connecting ACE and San Joaquins services with High Speed Rail (HSR) at a multi-modal hub station in downtown Merced, but additional capital investments are needed to extend ACE from Ceres to Merced and to connect the San Joaquins to the multi-modal station in Merced. The San Joaquin Regional Rail Authority (SJRRRC) and the San Joaquin Joint Powers Authority (SJJPA) are also

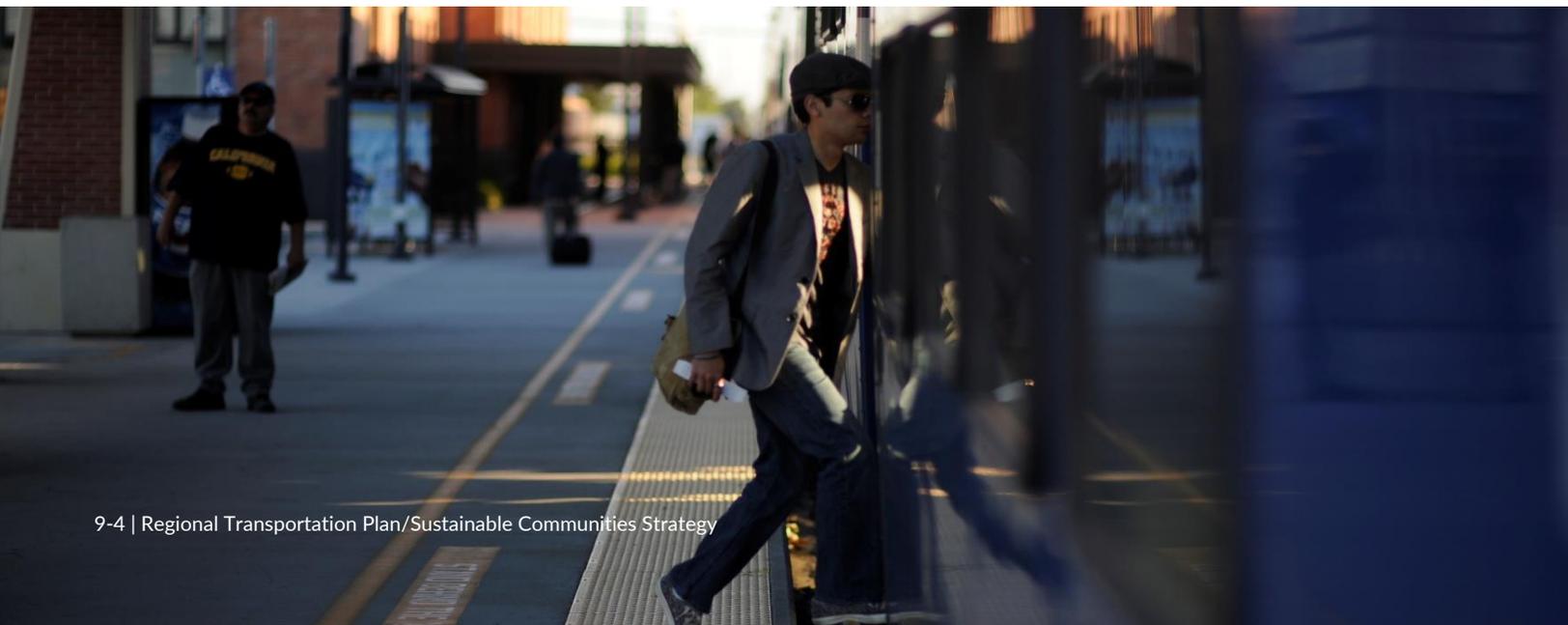
working to expand both services north from Sacramento to serve Yuba, Sutter, and Butte counties, to extend ACE to Union City to connect with BART, and to implement additional improvements that will provide enhanced connectivity to HSR Interim Service. At the time of this plan, SJRRRC and SJJPA are actively pursuing grant funding opportunities to address project funding needs for the planned Valley Rail Program to be running by the time HSR Interim Service begins operations in 2030.

Unfunded Operations for Expanded Bus Transit Service:

Bus and rail transit agencies also feel the burn of funding constraints. Operations funding to finance rail and bus transit frequencies or transit line expansions are costly and experience increases due to labor and employment benefit costs. Operations is a category of need where there are highly limited financial resources available to support these activities. Bus operators in the San Joaquin region, like many operators in other regions, continuously weigh their abilities to finance additional bus transit frequency or expansion of transit lines. In some cases, cuts to existing transit service are a hard financial reality.

Unfunded Streets and Roads Maintenance:

Pavement conditions continue to decline due to insufficient funding to properly fix and maintain streets and roads. Even during the plan's public



outreach process, maintenance continues to be a top priority for transportation investments. This backlog exists because agencies must make hard decisions to invest in preventative maintenance on specific streets, while letting some streets simply deteriorate. When streets continue to deteriorate – potholes and pavement cracking – the cost for repairs can be many times more than the cost of preventative maintenance strategies.

The 2020 California Statewide Local Streets and Roads Needs Assessment surveyed California’s 58 counties and 482 cities, and captured data from more than 85 percent of the state’s local streets and roads.

According to the 2020 Report, the local system is facing a \$64 billion funding shortfall over the next 10 years to bring pavements into good condition, address deficient bridges, and fix essential components such as storm drains, sidewalks, and signage. It is estimated that \$3.8 billion is needed annually just to maintain local streets and roads in their current condition, but current funding lags by \$1.4 billion per year. Bringing local streets and roads to optimal condition would take an estimated \$7.9 billion annually for the next 10 years.

Unfunded Active Transportation

There are more project needs than there are revenue sources. The public investment in bicycle and pedestrian facilities is essential to not only improve air quality but also to enhance public health. The ongoing challenge is the growing number of unfunded active transportation projects. It is critical to drive investment decisions through performance metrics and determine where best to invest in active transportation. The key would be a focus on filling gaps in bicycle networks.

In addition, it is important to capitalize on an existing strategic advantage – the prevalence of bicycle groups, coalitions, nonprofit active transportation organizations, and public health advocates. Working together to collaborate and consult on the investment decisions will build effective partnerships to get projects from conception to construction.

Through joint discussions about funding the highest priorities and needs, the result will be a walking and cycling system that can be truly viable as a transportation mode in the San Joaquin region.



Photo Credit: Captivating Photos

“Self-Help”

There simply is not enough funding at the federal, state, and local levels to address street maintenance, roadway capital improvements such as new construction projects, interchange improvements and roadway expansions. New construction for congested roadways is simply “shelved” due to the lack of funding to analyze solutions through studies or to begin project development phases such as environmental or design work. Jump-starting these project development efforts becomes risky to agencies when there is no expected construction funding.

Measure K, a half-cent transportation sales tax to pay for transportation improvements in San Joaquin County, has been around since 1990. Even with the infusion of hundreds of millions of dollars through its self-help approach, the local grassroots efforts to address transportation needs cannot do it all. Measure K is already projected to be millions of dollars under earlier financial forecasts and predicted to have a funding shortfall in delivering all the identified transportation improvements. Growing and unfunded transportation needs remain an issue in this self-help county.

Measure K



The Measure K Renewal Ordinance and Expenditure Plan was passed by San Joaquin County voters in 2006 and includes a Bicycle, Pedestrian, and Safe Routes to School Funding Program. The Measure K Expenditure Plan specifies that 60% of the funds will be allocated according to a competitive process. The Expenditure Plan also specifies a minimum of \$65 million in federal transportation funding or Measure K funding will be made available during the life of the Measure K Renewal program for smart growth incentives to local jurisdictions in San Joaquin County. These funds will assist local agencies in better integrating transportation and land use, such as street calming, walkable community projects, transit amenities and alternative modes of transportation. These funds will be available to enhance infill development, neighborhood revitalization and downtown improvements.

In March 2021, the SJCOG Board awarded \$20,445,490 to 14 projects under the 2021 Regional Active Transportation (ATP) combined call for projects. This funding includes \$7,577,000 from the Measure Smart Growth Incentive Program and \$5,721,490 from the Measure K Bicycle, Pedestrian, and Safe Routes to Schools Competitive Program. The San Joaquin Regional Rail Commission was able to secure \$4.5 million for the East Channel Street Streetscape and Connectivity Project, which includes road resurfacing, landscaping, sidewalks, bike paths and ADA-compliant ramps. Other projects funded with Measure K funds include the Greater Downtown Bike and Ped Connectivity Project in Stockton, a class II bikeway to the ACE station in Lathrop, and Safe Routes to Schools projects in Lodi, Ripon, Manteca, and Stockton.

Leo Zuber, San Joaquin Council of Governments Chair and Ripon City Councilmember, knows the importance of investing today in tomorrow's transportation: "Measure K has made a significant difference in the lives of people living and working in San Joaquin County by funding projects that improve transportation safety and the quality of life here. It has made and continues to make a difference in the transportation system — to freeways, streets and roads, public transit networks, and pedestrian- and bicycle-friendly programs — that move people and commerce in and through the San Joaquin region, while reducing congestion and improving air quality. While much has been accomplished, there is still much to be done. I and my SJCOG colleagues are committed to continuing that effort in the coming years."

Commute Patterns Still Show the Draw of Neighboring Counties for Employment.

The number of workers who commute to jobs outside of San Joaquin County has increased dramatically in the past few decades. In the early 1980s there were fewer than 10,000 San Joaquin residents who commuted outside the county for work. By 2019 before the COVID-19 pandemic, there were more than 100,000 county residents who commuted outside the county. Most of these residents commuted to jobs in the Bay Area. In early 2020, the state of California issued stay-at-home orders, which resulted in major reduction in commuting. However, as the stay-at-home orders were loosened and more people were vaccinated, the volume of commuter traffic to outside of San Joaquin County have been increasing toward pre-pandemic levels.

The increase in workers who commute to the Bay Area has resulted in growing congestion along I-205 and I-580, particularly near the Altamont Pass. San Joaquin residents commuting from the San Joaquin region account for more than 74 percent of the daily commuters along these roadways.

People are constantly commuting to and from work and school. In the Northern San Joaquin Valley, there are 27,508 inbound commuters coming to the region on a given workday. At the same time, 102,480 outbound commuters leave the region to find work or schooling. Many people have found more affordable housing in San Joaquin County compared to its more densely populated neighbors in Sacramento and the Bay Area but commute to these areas where there are more job opportunities.

This long-term trend of an increasing number of commuters create challenges for the county's transportation infrastructure, but it also creates opportunities to leverage regional advantages and create new employment opportunities. One regional advantage to leverage is the presence of many skilled workers who live in San Joaquin County but work in the Bay Area. These workers potentially could be employed by local businesses, which would relieve some of the pressure on the county's transportation infrastructure.



Air Quality and the San Joaquin Valley

Air quality issues are prevalent due to the geography of the region. The San Joaquin region is in the federally designated San Joaquin Valley Air Basin. The borders of the basin are defined by mountain and foothill ranges to the east and west. The northern border is the county line between San Joaquin and Sacramento counties. The southern border is less defined, but is roughly bounded by the Tehachapi Mountains and, to some extent, the Sierra Nevada range. According to the San Joaquin Valley Air Pollution Control District, this geography creates a “giant bowl” that makes the valley susceptible to air quality problems. The climate in the valley – long, sunny summer days and cold winter nights – is ideal for growing the valley’s renowned agricultural crops. An undesired effect of this type of environment, however, is that it incubates the components of ozone or smog. In the winter, residential fireplaces contribute to tons of dangerous particulate pollution in the skies.



A Future with More Economic Opportunities and Transportation Mobility

There were promising signs of a strengthening economy before the COVID-19 pandemic. Signs included drops in home foreclosures and new businesses and retail starting to fill vacant

storefronts. Other signs included falling employment rates and rising housing prices. Economic growth in San Joaquin County was interrupted by the COVID-19 pandemic, but it is expected the economy will gradually recover as stay-at-home orders have been loosened and more residents are vaccinated.



Photo Credit: Stockton Metropolitan Airport

The expected growth of the economy after the pandemic will help local jurisdictions with land use authority discover more windows of opportunity to direct future development in urbanized areas and advance the sustainability goals of the plan. In fact, for the plan to successfully meet its goals, it must rely heavily on infrastructure that must be complemented with supportive land use strategies. The target result is long-term economic growth. The plan addresses this issue by investing in a transportation future where multimodal transportation improvements can be pathways for the region to increase local jobs and reduce travel. Living wage jobs and business expansion and retention can be real outcomes of investment decisions.

The plan affords greater mobility through strategies that expand bicycle and pedestrian networks, provide accessibility to transit, and target transportation alternatives to driving alone. Furthermore, maintaining the transportation system and strategic investments in roadway expansion remain an integral piece of the plan’s multipronged investment strategy.

The plan will lead to a more resilient San Joaquin County economy and create a transportation system serving all residents of all incomes.

Conclusion and Next Steps

This is only a snapshot of the many challenges and opportunities that lie ahead as we move forward in creating sustainable communities. The clear policy goals and strategies outlined in the plan, however, provide a plan of action that represents the feedback received from public agencies, community members, businesses, and other stakeholders. The plan also shows that it performs in delivering these strategies. It fits the bill for the region, while addressing climate and other important issues through its integrated land use and transportation planning efforts.

Plan Implementation

Once adopted, the regional plan will move immediately into a robust implementation stage. While a work plan to move the RTP/SCS strategies into action is always part of SJCOG's post adoption work products, with this plan SJCOG is committed to producing a formal RTP/SCS implementation plan document outlining short-term and long-term actions, program and project updates, project delivery assistance strategies, and emerging policy questions requiring further exploration.

Upcoming SB-1 Planning Studies

Social Equity Planning Study: With an expected kick-off in late summer 2022, this study will form an

equity working group and develop a stipend program for non-profit and community-based organization participation. Work products will include recommendations for better incorporating equity considerations into SJCOG's projects, programs, and organizational culture in keeping with current state and federal planning emphasis areas.

Clean Transportation Workforce Development: Building off efforts begun with SJCOG's Stockton Mobility Collective workforce project, this study will develop an ambitious plan to scale the program, integrate it into the larger San Joaquin County workforce ecosystem, explore additional funding opportunities, and find a long-term home for the program. The ultimate goal is to increase the pipeline of local living-wage community jobs and decrease workforce commutes.

Data Sharing, Tools and Analytics Program: SJCOG is proposing to acquire data sets and explore robust tools to aid in project prioritization protocols, evaluate existing program effectiveness, and establish collaborative relationships for local graduate and undergraduate college and university data and business analytics programs. Topics to be explored include: SB743 implementation tools, travel demand model improvements necessary to better evaluate project impact on VMT and greenhouse gas reductions, improvement performance management measurement, further develop economic modeling tools for policy evaluation, and optimize the efficiency of shared mobility services.

