

Sustainable Communities Strategy



LEGISLATIVE BACKGROUND

Senate Bill 375 aims to reduce vehicle miles traveled and associated GHG emissions through the alignment of transportation and land use planning. Transportation-efficient land use patterns is one of several essential policy focus areas needed to achieve the state's climate action goals established by the California Global Warming Solutions Act of 2006 (AB 32).

Under SB 375, the California Air Resources Board (ARB) is responsible for setting regional targets for the reduction of per capita carbon dioxide (CO₂) emissions associated with passenger vehicles and light-duty trucks. All regions share the same starting point or baseline year (2005) and all regional targets are based the same planning years (2020 and 2035).

The state's 18 metropolitan planning organization (MPO) regions are charged with developing a Sustainable Communities Strategy (SCS) illustrating how the region intends to achieve their respective target. It sets forth a future development pattern in coordination with transportation policies, programs, and investment strategies. Should the region's SCS fail to meet its reduction target, an Alternative Planning Strategy (APS) is prepared in its place, illustrating what measures the region would take if additional funding and other tools or measures were available.

REGIONAL TARGET SETTING

For target setting purposes, MPOs were split into three categories based on size of the region, technical capabilities, and population growth rate. These categories are the big-four metropolitan regions (Southern California, San Francisco Bay Area, San Diego, and Sacramento); the eight San Joaquin Valley regions; and the six smaller MPO regions including Shasta County.

In considering what is ambitious and achievable for individual regions, larger regions were generally found to have higher population growth rates and greater technical capacity and resources to implement vehicle miles traveled reduction strategies. Conversely, smaller MPO region have markedly slower growth rates, less resources, and far fewer practical strategies for affecting near-term travel behavior and mode choice.

In February 2011, MPO regions received targets for the reduction of per capita CO₂ emissions from passenger vehicles and light trucks. Whereas regions had yet to complete their first SCS, initial targets were largely based on recommendations from each region's governing board. For the year 2020, targets ranged from an 8% reduction to 1% increase. For the year 2035, targets ranged from a 16% reduction to a 1% increase. Shasta County's initial target is a 0% change for both the year 2020 and 2035. Under SB 375, ARB is charged with periodically reviewing and updating regional targets in consultation with regions and based on the best available information. As such, one or both of Shasta County's targets may at some point be revised.

REGIONAL BLUEPRINT PLANNING

Development of the SCS for the Shasta County region began with the ShastaFORWARD>> Regional Blueprint, a three-year regional visioning effort completed in 2010. ShastaFORWARD>> included a comprehensive assessment of community values and priorities (Figure 14).

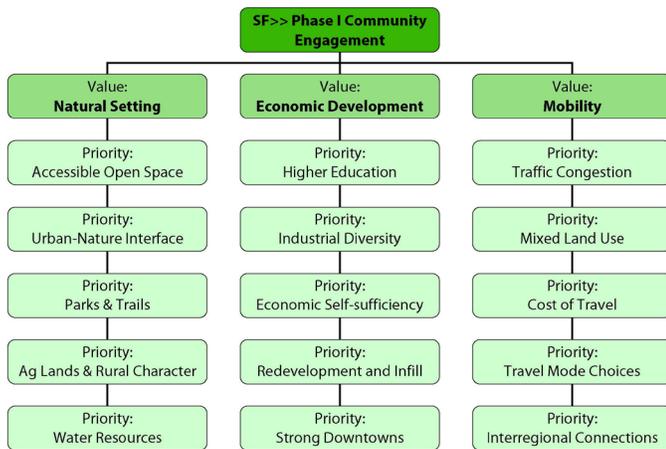


Figure 21 - ShastaFORWARD>> Values & Priorities

From documented community values and priorities and community workshops grew three regional growth and development scenarios, namely:

- **Scenario A:** Rural & Peripheral Growth;
- **Scenario B:** Urban Core & Corridors; and
- **Scenario C:** Distinct Cities & Towns.

The three scenarios were tested using the ‘UPlan’ urban growth model. UPlan geographically allocates forecast growth and associated development throughout the region based on numerically weighted growth ‘attractors’ (such as transportation accessibility, infrastructure capacity, and enterprise zones); growth ‘discouragers’ (such as flood zones, severe topography, and environmentally sensitive lands); and growth ‘masks’ (such as bodies of water). Land is developed within the model in order of highest attraction value, until all growth has been accommodated within the region.

GIS-based performance measures, travel demand modeling, and vehicle emissions modeling were used to evaluate the impact of each scenario in the following areas:

- **Land Developed Ratio** – i.e. among those lands in combined general plans designated for development, the percentage of which is needed to accommodate new growth.
- **Environmentally Sensitive Lands Impacted** – i.e. areas of environmentally sensitive land over which development may occur.
- **Air Quality** – i.e. Smog forming gases and particulate emissions from cars and trucks.
- **Fuel Consumption** – i.e. gas and diesel fuel used in Shasta County (intra-regional trips only)
- **Greenhouse Gas Emissions** – i.e. CO2 emissions from on-road vehicles (passenger cars and light-duty trucks).
- **Infrastructure Costs for New Development** – i.e. cost of streets, water, sewer, and utilities infrastructure. Walkability/Transportation Choices – i.e. percent of households within ¼ mile of shopping and transit service.
- **Average Commute Time** – i.e. average per capita drive time from home to employment.
- **Vehicle Miles Traveled** – i.e. daily VMT per household (based on 2.43 persons per household).
- **Prime Agricultural Land Impacted** – i.e. lands having prime soil for agriculture over which development may occur.
- **Water Consumption** – i.e. based on primary land-use related consumption categories.

Following an extensive public engagement effort, during which approximately one in seventy adult residents in Shasta County participated, near-equal

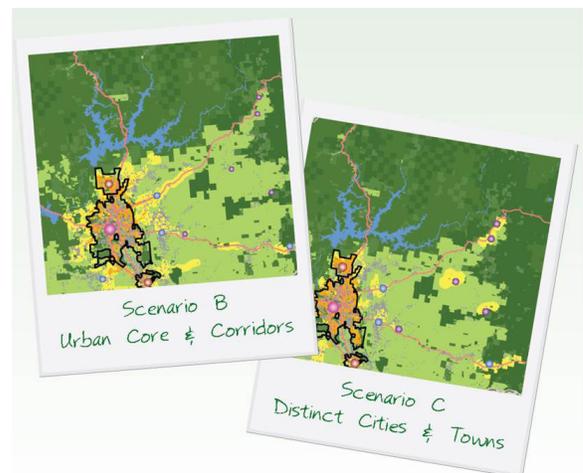


Figure 22 - ShastaFORWARD>> Scenarios B and C

preference was expressed for Scenario B (Urban Core & Corridor) and Scenario C (Distinct Cities & Towns) as shown in Figure 15. Viewed together, these two scenarios captured nearly 90% of the community's votes. The final report recommended that a melding of Scenario B and Scenario C be used to inform implementation efforts.

The completion of the ShastaFORWARD>> Regional Blueprint in March of 2010 aligned with the arrival of Sustainable Communities Strategy (SCS) planning requirements under SB 375. It was determined that the preferred regional growth vision and associated public input from the ShastaFORWARD>> Regional Blueprint would serve well as the building blocks for development of the SCS.

SCS DEVELOPMENT

At the core of every SCS produced by California's eighteen metropolitan planning regions is the principle of location efficiency. Households located in communities with highly dispersed and segregated land uses are more dependent on the automobile to meet day-to-day needs. Households in communities that are more compact and connected are able to meet the same needs with fewer trips and fewer miles traveled. Individuals are also more likely to choose alternative travel modes, including public transportation, bicycling, and walking.

In addition to mobility benefits, location-efficient communities enable households to better manage their transportation costs, which typically represent the second-highest expense after housing. Since the urban footprint is smaller, the impacts of growth and development on lands essential for agriculture, grazing, natural resource production, wildlife habitat, healthy ecosystems, and outdoor recreation are likewise minimized. Location-efficient neighborhoods also support a more active lifestyle, which strongly correlates to health and well-being.

The key variables known to effectively reduce vehicle miles traveled have been extensively researched and verified through observed data. These variables, summarized in Figure 16, are commonly known as the five 'D' factors.

In Shasta County, achieving the necessary combination and critical mass of 'D' factors is a

challenge given the region's dispersed development patterns, segregation of land uses, limited access to practical travel alternatives, and slow growth rate. Furthermore, no single 'D' factor by itself will yield reduction in automobile dependency; rather, it is the combination of factors and the degree to which they are present in a given area.

The Five 'D' Factors Affecting Automobile Dependency & Travel Mode Choice

Density – Number of persons, jobs, and dwellings

Diversity – Balance of residential, retail, office, and other land uses

Design – Street network and non-motorized travel accommodations

Destination Accessibility – Number of jobs and other attractions accessible via any travel mode

Distance to Transit – Proximity of high quality public service to home and work

Figure 23 - Description of the Five 'D' Factors

Applying the 'D' factors a little here and a little there over a predominately rural region such as Shasta County would provide marginal return-on-investment. Layering many strategies within geographically small areas should, in theory, yield measurable transportation efficiencies while at the same time reinforcing local planning and economic development objectives. In the context of Shasta County, it is recognized that some the 'D' factors will be more appropriate and effective than others. Consultation and coordination with local agencies is essential in selecting the right mix and intensity of activities.

The most likely candidate locations for application of the five 'D' factors are existing urban centers and corridors – locations where some measure of the 'D' factors is already present; where the necessary infrastructure is largely in place; and where existing local plans permit an appropriate range and intensity of land uses. Such locations are also where the community is more receptive to change.

To this end, SRTA worked alongside local agencies to identify small geographic areas known as ‘Strategic Growth Areas’ (SGAs). Within SGAs, it is intended that regional and local policies, programs, and investments be jointly focused and private sector investments be leveraged to achieve measurable short-term progress – if not cumulatively across the region, at least within designated focus areas.

Strategic Growth Areas for the three incorporated cities were developed in the following manner:

STEP 1: IDENTIFY PROSPECTIVE STRATEGIC GROWTH AREAS (SGAs)

SRTA utilized the following geographic information systems (GIS) spatial analysis tools to highlight prospective Strategic Growth Areas:

- Mobility Assessment Tool – A spatial measure of multi-modal connectivity between trip origins and destinations.
- Neighborhood Dynamic Scale – A spatial measure of economic activity (based on new business permits) and diversity of land uses.

These analyses, in combination with locally-identified factors and considerations, served to highlight a range of candidate SGA locations within each jurisdiction for further testing and consideration.

STEP 2: MEASURE THE ELASTICITY OF VMT AS A VARIABLE OF DENSITY WITHIN THE THREE CITIES STRATEGIC GROWTH AREAS

Once prospective SGAs had been identified, SRTA tested the elasticity of vehicle miles traveled as a variable of increased density therein. Based on total growth and development forecast figures for each respective jurisdiction, increments of residential, commercial, and office land uses were theoretically loaded within each SGA and the affects tested via ShastaSIM, the agency’s activity-based travel demand model. Three specific travel model runs were performed for the years 2020 and 2035:

- 25% of all future growth assumed within the jurisdiction occurs within SGAs;
- 50% of all future growth assumed within the jurisdiction occurs within SGAs; and
- 100% of all future growth assumed within the jurisdiction occurs within SGAs.

These model runs should not be viewed as scenarios, but rather a simple means of testing the relationship between population density and vehicle miles traveled, and highlighting those SGAs with a greater inherent propensity for reducing transportation sector greenhouse gas emissions. As a result of this analysis, the field of SGAs within incorporated city limits was reduced from eight SGAs to four SGAs.

STEP 3: IDENTIFY POPULATION AND DEVELOPMENT LIMITATIONS IN SGAS WITHIN THE THREE CITIES

Anticipated population and development capture rates (i.e. the portion of future growth that is expected to occur within identified SGAs) must take into consideration practical limiting factors. The following analyses provide a method and justifiable basis for estimating reasonable growth assumptions for each SGA:

- Land availability – i.e. the number and land use zoning constraints of vacant and underutilized parcels suitable for infill or redevelopment. Analysis is based on the ratio of assessed structure value over land value, and ground-truthed by local agency planning staff;
- Infrastructure capacity – i.e. available water and wastewater capacity (analysis initially limited to City of Redding SGAs);
- Transportation capacity – i.e. available transportation network capacity while maintaining acceptable peak hour vehicle level of service; and
- Market demand – i.e. number of new housing units by type (e.g. mixed use, multi-family, semi-detached, etc.) and square footage of non-residential building space (e.g., retail, office, etc.) that the market will demand over the planning horizon.

STEP 4: ADD UNINCORPORATED SHASTA COUNTY SGAs

A simplified version of the above steps was applied in unincorporated Shasta County, wherein wildfire risk and emergency response time were used as a proxy to screen for transportation efficiency and suitability for future growth and development. Based on this analysis and consultation with the Shasta County Planning Department, an additional four community centers were selected as SGAs and reasonable growth and development assumptions were assigned to each.

STEP 5: PERFORM TRAVEL DEMAND AND EMISSIONS MODELING FOR SCS

Inputs and assumptions for individual SGAs were modeled. One of the city SGAs was eliminated because per capita vehicle miles traveled fell above the regional average. A combined region-wide travel forecast was then modeled that included the final seven SGAs (one in each of the three cities plus four in unincorporated areas). Air-quality model post-processing (EMFAC2011) was used to calculate regional vehicle emissions for 2020 and 2035. Where the impact of individual strategies could not be calculated with the ShastaSIM travel demand model, well-documented and widely-accepted research was relied upon and referenced in the technical methodology portion of this RTP.

STEP 6 : ADJUST SGA BOUNDARIES AND INCREASE ASSUMPTIONS TO MEET REGIONAL TARGETS.

Where the SCS failed to reduce per capita greenhouse gas emissions sufficient to meet the region’s targets, more aggressive scenarios were modeled. The Downtown Redding SGA was substantially enlarged to include additional vacant and underutilized parcels needed to reasonably accommodate higher growth assumptions. The new growth assumptions were reevaluated and determined to be ambitious but reasonably achievable if accompanied by coordinated local and regional policies, programs, incentives, and investment strategies.

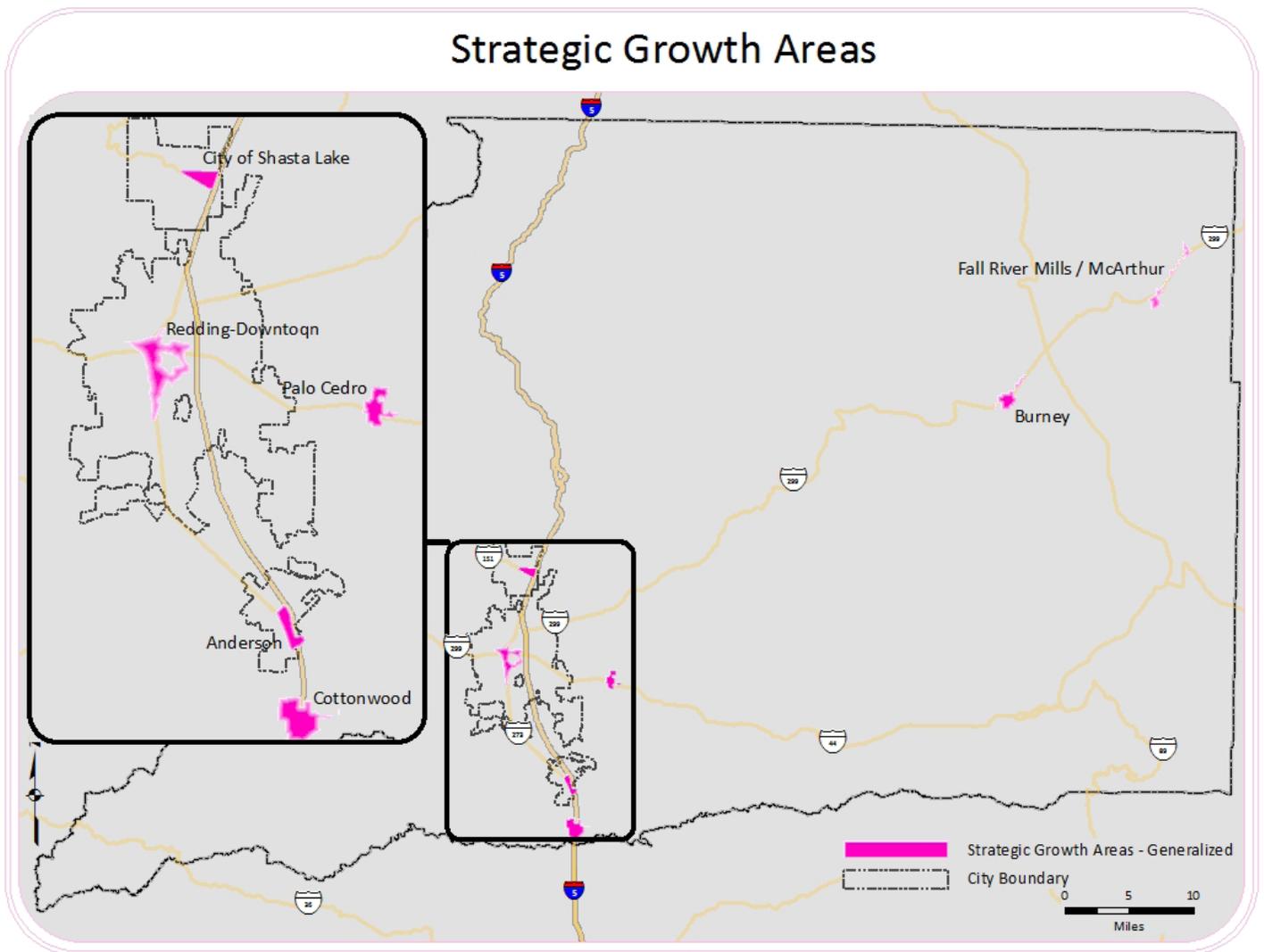


Figure 24 - Strategic Growth Areas (SGAs)

SCS INPUTS AND ASSUMPTIONS

As a result of the SCS development process, seven Strategic Growth Areas (SGAs) were ultimately included in the final SCS. As illustrated in Figure 17, these include urban core areas located in the cities of Shasta Lake, Redding, and Anderson plus four town centers located in unincorporated Shasta County (Cottonwood, Palo Cedro, Burney, and Fall River Mills/McArthur).

FACTORS AFFECTING VEHICLE MILES TRAVELED

Factors included in the SCS and utilized in travel demand and emissions modeling are described in the following pages and expounded upon via Appendix 2: SCS Technical Methodology. They are:

FACTOR #1: Population and employment shift to Strategic Growth Areas

FACTOR #2: Increased residential densities in Strategic Growth Areas

FACTOR #3: Increased automobile operation costs

FACTOR #4: Increased public transportation service frequency

FACTOR #5: Accelerated delivery of active transportation investments in Strategic Growth Areas

Viewed collectively, this package-set of factors and accompanying assumptions and inputs represent one potential future for the region. Actual observed data and performance outcomes will vary from this scenario; however, all assumptions and inputs used in the SCS are considered realistic and achievable if supported by coordinated local and regional policies, programs, and targeted public investments.

Many such activities are already occurring. The city of Redding, for example, has no limitations on residential density, commercial density, and building height in the downtown core. Transportation impact fees in downtown core have also been reduced in recognition of the mobility benefits associated with density, proximity to employment, and access to alternative modes. At the regional level, SRTA is making pre-development technical assistance grants available to developers and local agencies toward infill and redevelopment projects located in SGAs. Funding for a bicycle and pedestrian trail linking the Downtown Redding SGA to the nearby Sacramento River Trail corridor has also been committed. Caltrans, in partnership with the city of Redding, recently re-striped several streets in Downtown Redding from three vehicle lanes to two in order to add a new buffered bicycle lane.

As a result of these type of geographically focused and coordinated efforts applied over time, the region's Strategic Growth Areas will increase in population and the previously described 'D' factors will be more fully realized. The average number and distance of daily vehicle trips will decrease within SGAs and region-wide per capita greenhouse gas emissions will be able to meet the region's given targets.



FACTOR #1 - POPULATION AND EMPLOYMENT SHIFT TO SGAs

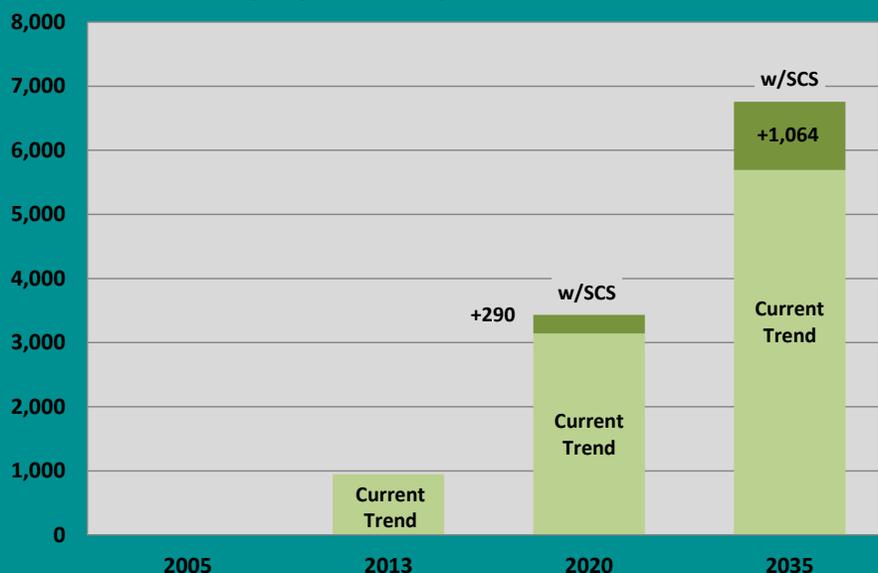
To determine what portion of future population growth might reasonably occur within designated SGAs, SRTA's activity-based travel demand model (ShastaSIM) was utilized to forecast regional growth and development patterns. Land available, infrastructure capacity, transportation system capacity, and real estate market trends were also evaluated and considered.

As a result of coordinated local and regional policies, programs, incentives, and target transportation infrastructure investments, forecast growth and development within SGAs was assumed to occur at a somewhat higher rate (+6-10%) than the current trend. Employment was assumed to be attracted to SGAs at a rate similar to residential development, with a context-appropriate assignment of employment type (e.g. office, industrial, retail, food, service, medical, government, and so forth).

Population Capture Rate in SGAs

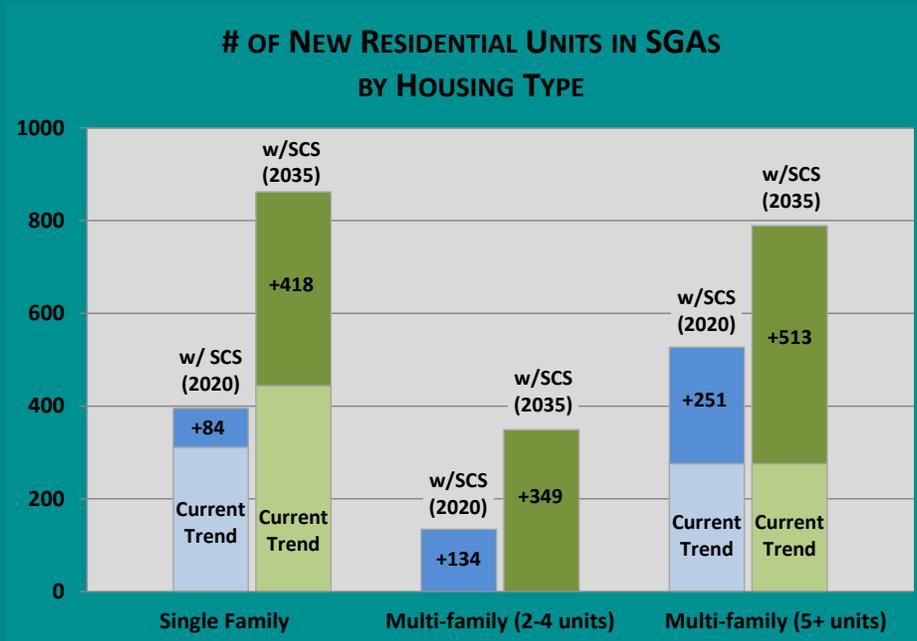


Employment Capture Rate in SGAs



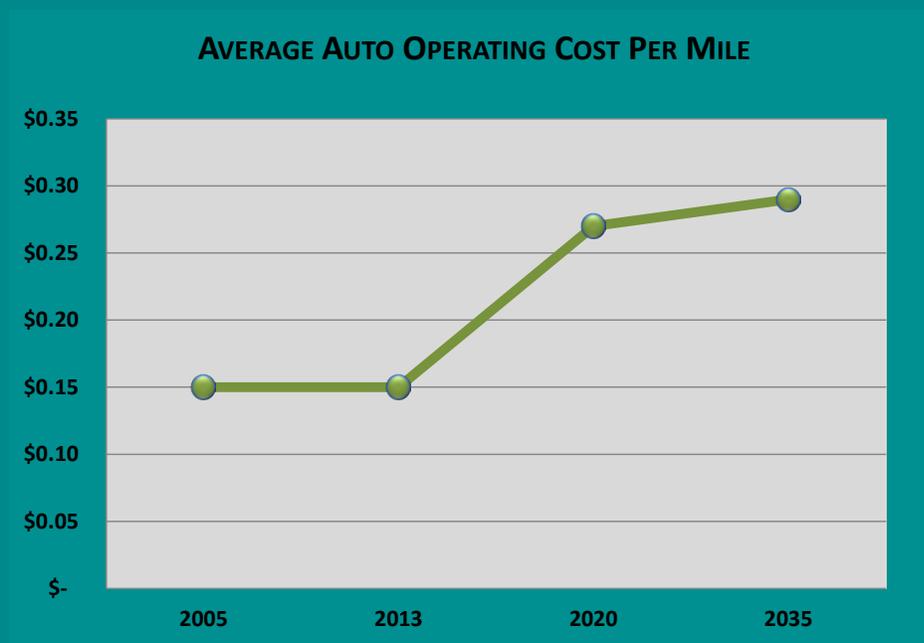
FACTOR #2 - INCREASED RESIDENTIAL DENSITIES IN SGAS

Based on technical analysis of regional demographics, real estate market trends†, and consultation with local agency planning departments, assumptions were drawn regarding the number of residential single family, multi-family 2-4 unit, and multi-family 5+ unit dwellings.



FACTOR #3 - INCREASED AUTOMOBILE OPERATING COSTS

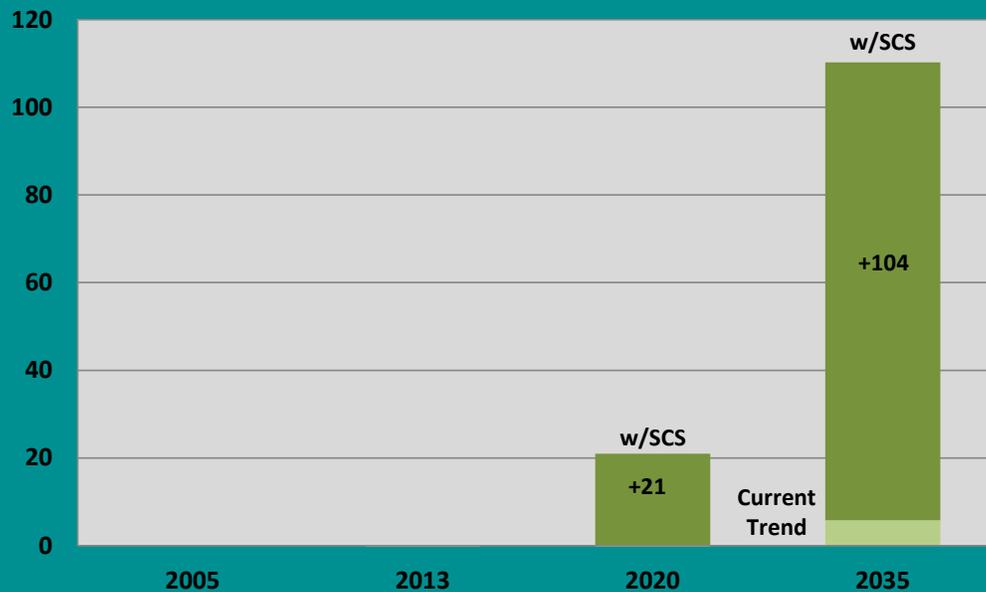
Auto operating costs ramp up from \$0.15/mile to \$0.29 by 2035.



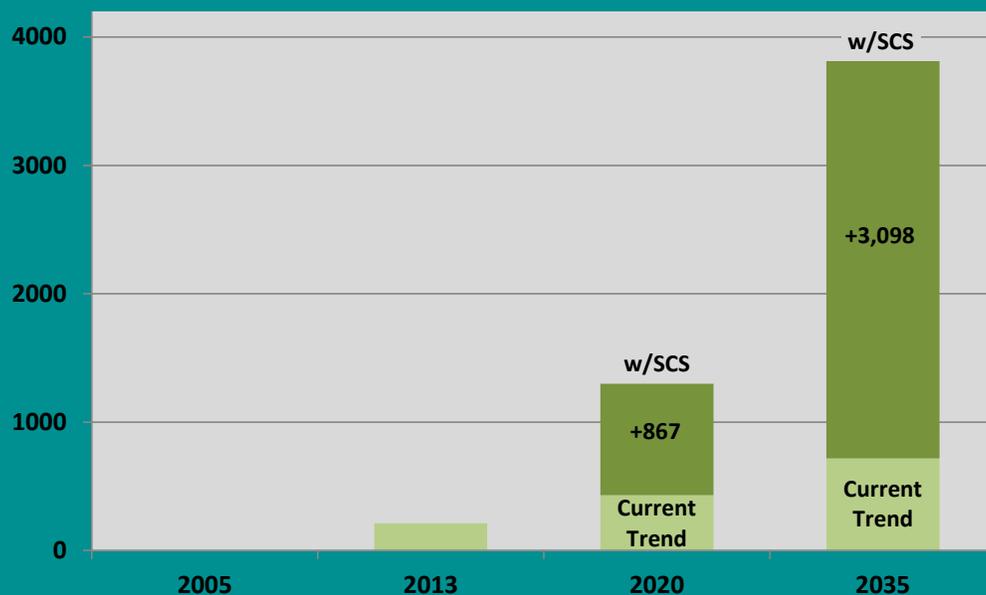
FACTOR #4 - INCREASED PUBLIC TRANSPORTATION SERVICE

Public transportation frequency was increased on select routes by 2020 and more extensively by 2035. Service frequency was assumed to be greater during peak travel times, from 60-minute headways to 30-minute or less headways on most routes. New service to Cottonwood is also assumed.

Increase In Daily Transit Service Hours



Increase in Daily Regional Transit Boardings



FACTOR #5 - ACCELERATED DELIVERY OF ACTIVE TRANSPORTATION INVESTMENT IN SGAS

As a result of the aggressive pursuit of active transportation funding, it is assumed that the region's non-motorized infrastructure projects will be delivered earlier, and those projects located in transportation-efficient Strategic Growth Areas will be prioritized.

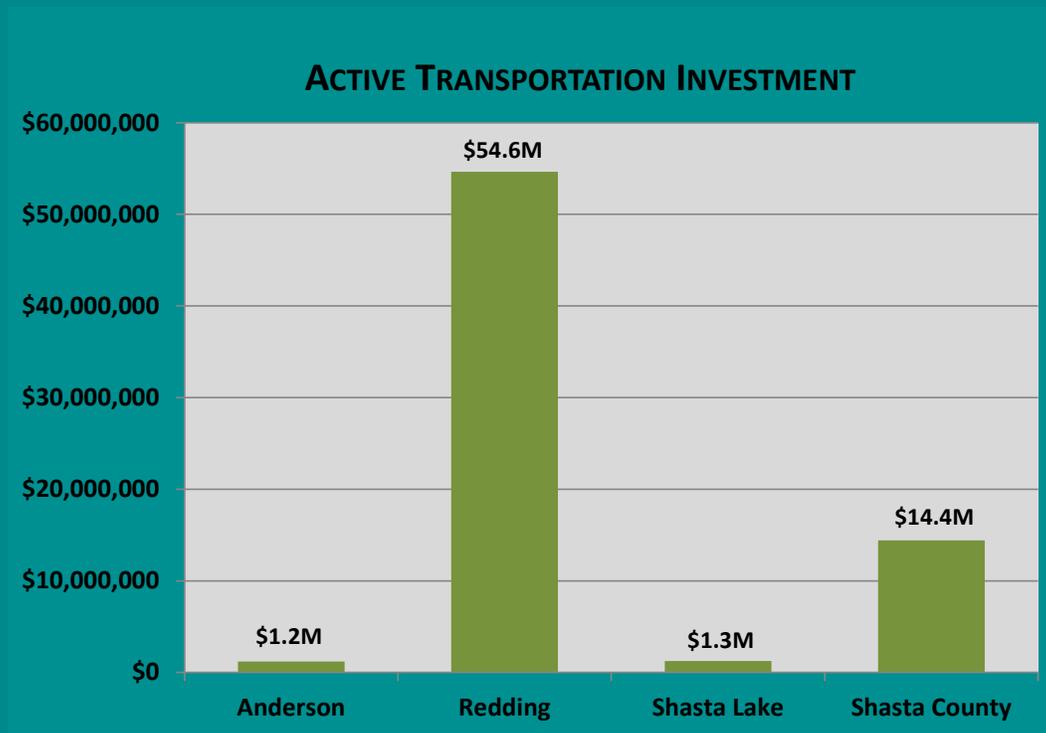


Figure 25 - Bicyclists on Pine Street in Downtown Redding

RESULTS OF THE 2015 SCS

The 2015 RTP SCS achieves per capita greenhouse gas emissions from passenger vehicles and light trucks in accordance with regional targets assigned by the California Air Resources Board (ARB) for the year 2020 and 2035.

The general location of land uses, residential densities, and building intensities under the region's SCS includes areas sufficient to house all forecast population through the year 2035, taking into account all economic segments of the population, net migration into the region, population growth, household formation, and employment growth.

Table 17 - SCS Daily GHG Emissions per Capita

| Year | SB 375 Emissions/ Capita ¹ | Change in Emissions from 2005 |
|----------------------|---------------------------------------|-------------------------------|
| 2005 Baseline | 21.3 lbs | - |
| 2020 | 20.3 lbs | -4.9% |
| 2035 | 21.2 lbs | -0.5% |

¹Results from ShastaSIM travel model. SB 375 emissions are calculated in 'lbs/CO2/capita.'

POTENTIAL STRATEGIES FOR FURTHER REDUCING GREENHOUSE GAS EMISSIONS

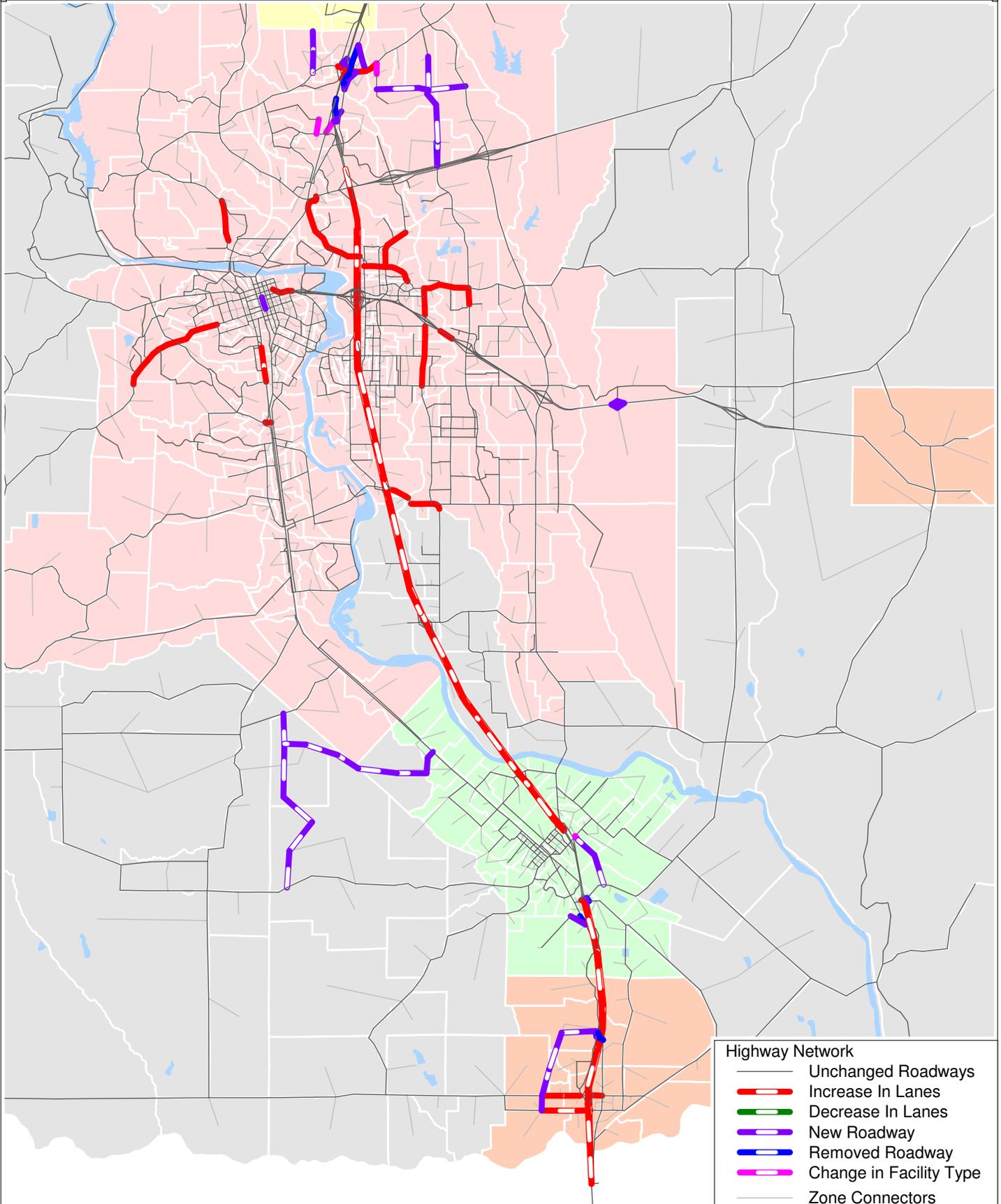
Looking toward the future, beyond the first SCS planning cycle, several additional strategies have been identified to further reduce emissions if additional planning and implementation funds are made available to SRTA, local agencies, and private sector partners.

The following strategies, if implemented, are believed to offer the highest greenhouse gas emission reduction benefit per dollar investment. And, as a result of accompanying economic, public health, and environmental benefits, the following strategies have garnered the general support of the community and local agencies. In addition the above strategies, the Draft Shasta County Climate Action Plan provides a range of greenhouse gas emission reduction strategies and anticipated reductions that may be implemented by local government.

- » **Expanded plug-in electric vehicle charging infrastructure**, including fast charging stations needed to accelerate the market penetration of zero-emission electric vehicles.
- » **Expansion of interregional public transportation options**, with a focus on replacing long-distance interregional vehicle trips to airports and other large-urban destination.
- » **Consolidated goods and freight hub**, including capital infrastructure investments needed to support the aggregation, wholesale, and distribution of agricultural commodities, natural resources, and other key industries in Shasta County and the North State.
- » **Expanded bicycle and pedestrian infrastructure**, including the completion of network gaps, enhanced integration with public transportation, and connections between regional trail corridors and the roadway network.
- » **Incentives for infill and redevelopment projects**, needed to spur location-efficient development patterns.
- » **Technology-based strategies**, including intelligent transportation systems (ITS) applications designed to enhance traffic operations and provide real-time travel information to system users.

Figure 26 - Regional Transportation Projects Completed by Year 2035

2015 RTP Projects Completed by 2035



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(Licensed to DKS Associates)

Figure 27 - Forecast Residential Land Use Growth by Year 2035

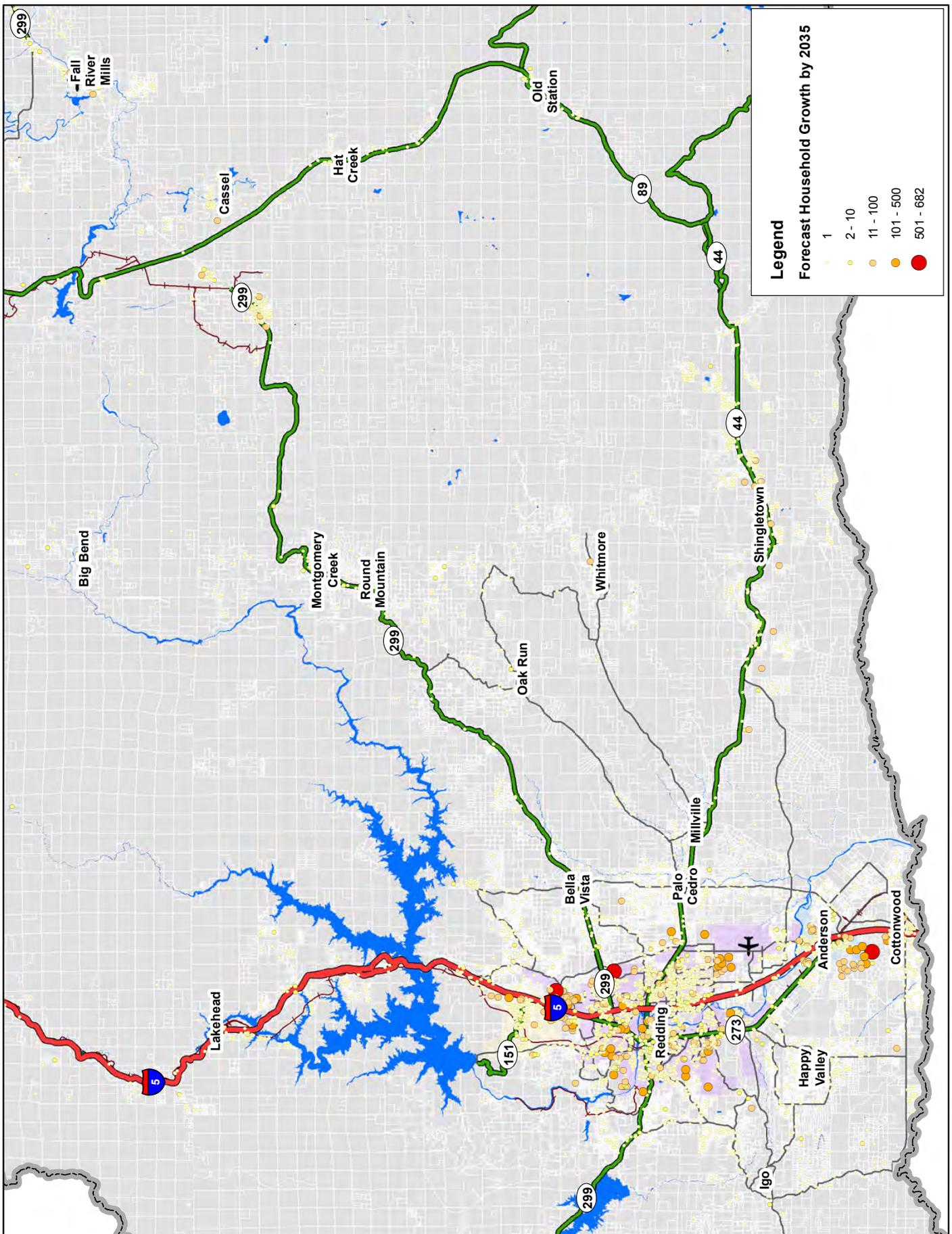
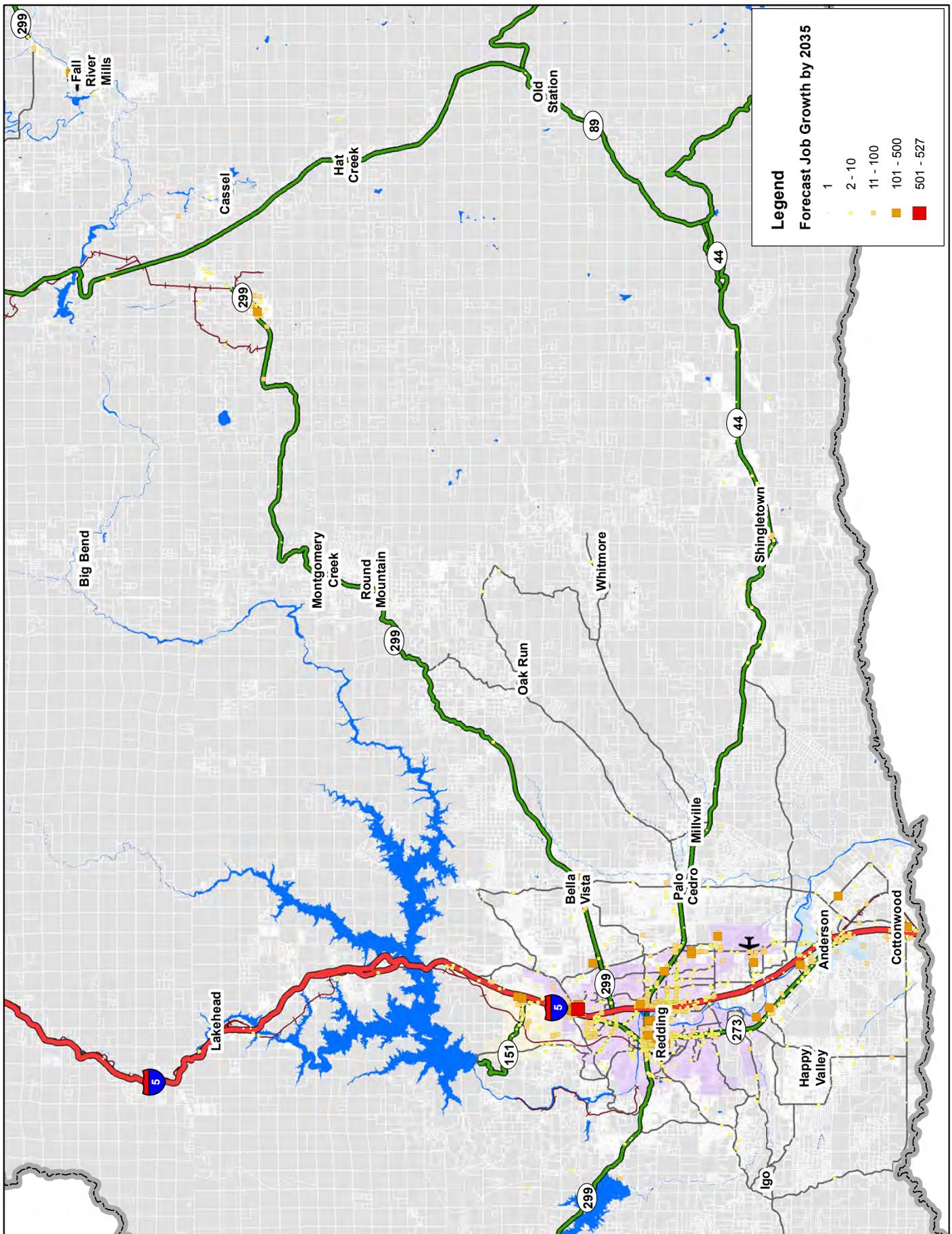


Figure 28 - Forecast Employment (Jobs) Growth by Year 2035



SB 375 COMPLIANCE AND CONSISTENCY FINDINGS

Consistency with locally adopted general plans

All land use assumptions used in the 2015 SCS are wholly consistent with local agency general plans.

Consistency with Regional Housing Needs Allocation (RHNA)

SB 375 requires that the SCS component of the RTP be consistent with the Regional Housing Needs Allocation (RHNA). The Shasta County region received its 2014-2019 RHNA on June 30, 2012. The SCS includes areas sufficient to house all forecast population, including all economic segments. SRTA reviewed the 2014-2019 RHNA allocations and has made adjustments to the November 2011 housing forecasts to ensure the RTP is consistent with RHNA.

As shown in the table below, SRTA estimates that the housing projections exceed the totals for the 2014-2019 RHNA. Approximately, 4,129 households are expected to be added to the region by 2020, far more than the 2,200 housing households required by local jurisdictions to plan for in approximately the same timeframe. These totals show that the RTP is consistent with the 2014-19 RHNA as provided by the

California Department of Housing and Community Development (HCD). Because SRTA is not responsible for land use planning, it will be up to each local agency to ensure adequate planning of housing units by income category. Additional information regarding the 2014-19 RHNA can be found on SRTA's website at: <http://www.srta.ca.gov/240/Regional-Housing-Need-Allocation-RHNA>.

SB 375-Specific Public Outreach Requirements

Local agencies were, by virtue of the steps described in the SCS portion of this RTP, integral to the planning process. All key decisions regarding the location of growth, development intensities, and the selection of secondary strategies were generated directly by local agencies or by SRTA in close consultation with local agencies. In addition, individual presentations were provided to respective city councils and county board of supervisors.

Public input for the SCS began with the three-year ShastaFORWARD>> Regional Blueprint process, which engaged upwards of 2,500 residents. The 2015 RTP Public outreach regarding specific land use and transportation strategies, policies, and project priorities featured two public hearings and 55-day public comment period pursuant to SB 375.

Table 18 - Housing Forecasts for Shasta County

| Year | City of Anderson | City of Redding | City of Shasta Lake | Shasta County (unincorporated) | Total |
|-------------------------|------------------|-----------------|---------------------|--------------------------------|--------|
| 2015 | 4,495 | 38,669 | 4,339 | 26,452 | 73,956 |
| 2020 | 4,682 | 40,704 | 4,545 | 28,123 | 78,085 |
| Total Change in Growth: | 187 | 2,035 | 206 | 1,671 | 4,129 |

Table 19 - 2014-19 Shasta County RHNA (by income category) Per California HCD

| Jurisdiction | Very-Low | Low | Moderate | Above-Moderate | Total |
|----------------|----------|-----|----------|----------------|-------|
| Anderson | 32 | 21 | 24 | 59 | 136 |
| Redding | 287 | 181 | 205 | 502 | 1,175 |
| Shasta Lake | 32 | 21 | 23 | 58 | 134 |
| Unincorporated | 189 | 117 | 128 | 321 | 755 |
| TOTAL: | 540 | 340 | 380 | 940 | 2,200 |

Areas of Significant Resources and Farmland not Developed as a Result of the SCS

Scientific information regarding resource areas and farmland in Shasta County was gathered and considered in the development of the SCS. The region has approximately 1.3 million acres of resource land and 12,600 acres of farmland. Land development assumptions in the travel demand model show that approximately 2,600 acres of resource areas and approximately 8 acres of farmland would not be developed as a result of the SCS land use forecast. The location of resources areas and the increase/decrease of households and employment as a result of the SCS is illustrated in Figure 18.

California Air Resources Board (ARB) acceptance of SCS technical methodology

Calculating SCS Vehicle miles traveled

In accordance with SB 375, the year 2005 was used as the baseline for calculating changes in per capita greenhouse gas emissions. SRTA’s activity-based model, known as ShastaSIM, was utilized for all travel modeling in the 2015 RTP. The base year for ShastaSIM is 2010. 2013 base year for EIR analysis. For SB 375 purposes, ShastaSIM was used to back-cast to the year 2005, using the latest population, housing, and employment information.

Data originally submitted to ARB during consideration of initial regional targets was based on SRTA’s previous four-step travel demand model. Using the new activity-based model for all model years – including the 2005 base year – provides consistency and efficiency moving forward during future planning cycles and when ARB reevaluates regional targets. ARB’s EMFAC 2011 air quality model was used to calculate GHG emissions for the SCS component.

Modeling of Interregional Trips

SRTA follows the 2009 “Recommendations of the Regional Targets Advisory Committee (RTAC) Pursuant to Senate Bill 375” report on modeling interregional trips and calculating VMT. Interregional trips are described as follows:

1. Internal-External (I-X) trips are trips that originate within Shasta County and have a destination outside of the region.
2. External-Internal (X-I) trips are trips that originate outside Shasta County and have a destination within the region.
3. External-External (X-X) or “through” trips are trips that travel through the region, but never stop.

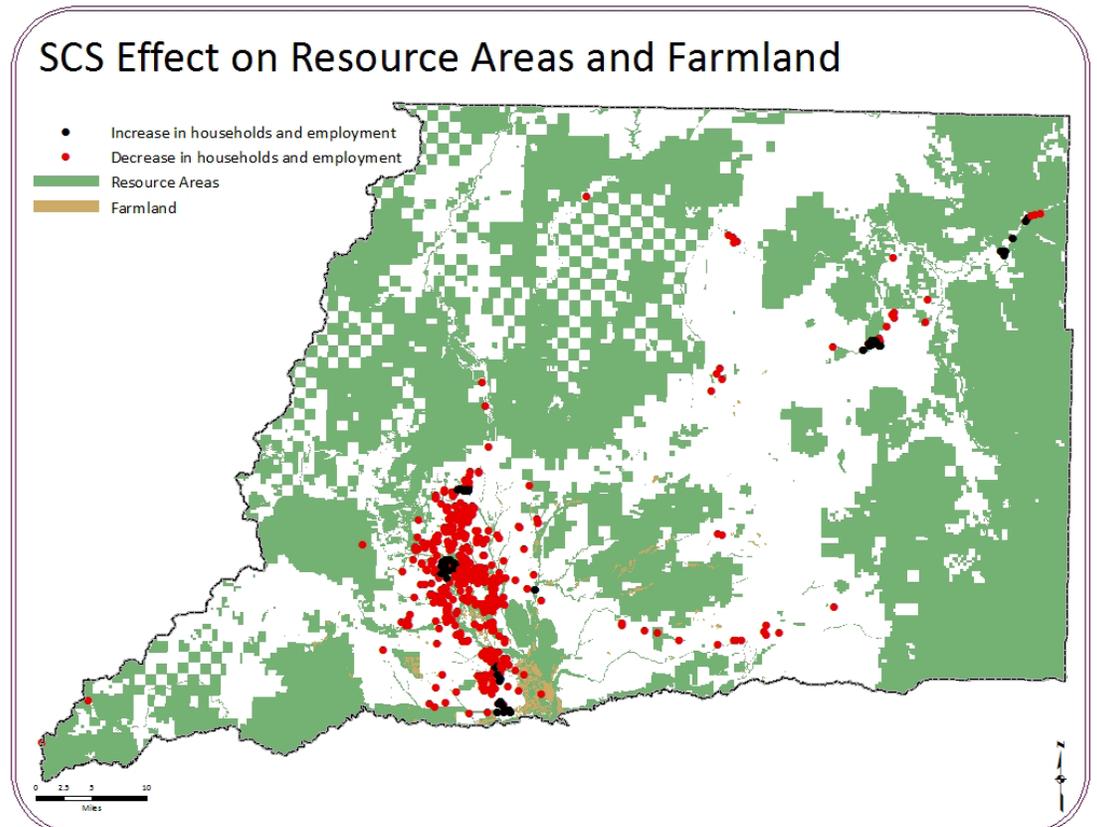


Figure 29 - Resource Areas and Farmland to be impacted by 2015 RTP

The following methodology is applied regarding interregional trips for purposes of GHG emissions estimation for the 2015 RTP:

- I-X trips – are modeled from their origin up to the Shasta County boundary.
- X-I trips – are modeled from the Shasta County boundary to their destination.
- X-X trips – are excluded from the SCS for GHG calculation.

VMT associated with interregional trips will be calculated for years 2005, 2010, 2013 (EIR baseline), 2020, and 2035. While the exclusion of interregional trips as described above will be used for calculating the region’s effort to meet the SB 375 GHG reduction target, all VMT will be calculated to estimate the overall impact VMT has on the region’s transportation system.

Greenhouse Gas Emissions Quantification and Reduction Estimation

For purposes of estimating GHG emissions for the 2015 RTP, SRTA will utilize the CARB’s EMFAC2011 air quality model. EMFAC2011 is the most current model available in California for estimating on-road vehicle emissions.

VMT outputs from the agency’s activity-based model serve as inputs into EMFAC2011. Emissions were estimated for years 2005, 2010, 2013, 2020 and 2035 to determine if the 2015 RTP would effectively meet the regional target of 0% increase in per capita CO₂ (carbon dioxide) emissions from passenger vehicles and light-duty trucks for the year 2020 and 2035 when compared to 2005 levels.

Consultation with ARB

SB 375 required that SRTA consult with ARB throughout the development of the 2015 RTP. This included providing a technical methodology on how the RTP, if implemented, would meet SRTA’s SB 375 GHG reduction targets.

After final approval of the RTP ARB will review and confirm acceptance of SRTA’s technical methodology.

Air Quality Conformity

Consistent with Section 176 of the federal Clean Air Act (U.S.C. Section 7506), the 2015 RTP will not cause or contribute to any violation in federal air quality

standards. Complete details, including mitigation measures, are provided in Section 4.2 of the 2015 RTP Environmental Impact Report.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) FINDINGS

The 2015 RTP EIR is a Program EIR. A Program EIR is prepared for a series of actions that can be characterized as one project, thereby allowing the lead agency to consider broad policy alternatives and “program wide mitigation measures” (CEQA Guidelines §15168(b)(4)). The Program EIR serves as a first-tier document for later CEQA review of individual projects included in the program. Project-specific CEQA reviews focus on project-specific impacts and mitigation measures need not repeat the broad analyses contained in the Program EIR. As discussed by the California Supreme Court, “it is proper for a lead agency to use its discretion to focus a first-tier EIR on only the...program, leaving project-specific details to subsequent EIRs when specific projects are considered.” (In re Bay Delta (2008) 43 Cal. 4th 1143, 1174).

Summary of CEQA Findings of Fact, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program

SRTA finds mitigation measures have been identified in the Final Program EIR that will avoid or substantially lessen the 2015 RTP’s incremental contribution to significant project and cumulative impacts to a less than significant level.

SRTA further finds that mitigation measures have been identified that will reduce the 2015 RTP’s incremental contribution to significant cumulative impacts, but not to a less than significant level. For these impacts, SRTA adopts and makes statements of overriding considerations concerning unavoidable significant impacts, explaining why the benefits of the 2015 RTP override and outweigh its unavoidable impacts. Each benefit set forth below constitutes an overriding consideration warranting approval of the project, independent of the other benefits, despite each and every unavoidable impact.

- A. The implementation of 2015 RTP transportation projects will provide for a comprehensive

transportation system of facilities and services that meets the public’s need for the movement of people and goods, and that is consistent with the social, economic, and environmental goals and policies of the region.

- B. The project will improve transportation mobility and accessibility in the county.
- C. The project will improve air quality by reducing emissions of ozone precursors compared to future No Project conditions.
- D. The SCS will contribute to a reduction in greenhouse gas (GHG) emissions from passenger vehicles and light trucks, helping the Shasta County area to achieve the regional GHG reduction targets set by the California Air Resources Board (ARB).
- E. The project will promote consistency between the California Transportation Plan 2025, the regional transportation plan and other plans developed by cities, counties, districts, Native American Tribal Governments, and State and Federal agencies in responding to Statewide and interregional transportation issues and needs.
- F. The construction of transportation projects will result in both short-term and long-term economic benefits to the Shasta County area and its residents. Transportation projects will indirectly provide for a number of jobs relating to construction and maintenance. The RTP program includes \$2.18 billion of transportation investments in the SRTA region. Other California MPO studies have shown that investments in regional transportation projects and programs provide numerous jobs locally (see, for example, [SANDAG 2050 RTP-SCS, Technical Appendix 3, Table TA 3.1](#), average annual increase of 18,500 jobs).

Mitigation and Monitoring and Reporting Program

SRTA finds that a Mitigation Monitoring and Reporting Program (MMRP) for the 2015 RTP has been prepared for the project and has been adopted concurrently with these Findings (Public Resources Code, § 21081.6(a)(1)). The MMRP is described in the following sections.

A. Purpose and Intended Use of the MMRP

The California Environmental Quality Act (CEQA) requires that an agency adopt a Mitigation Monitoring

or Reporting Program (MMRP) prior to approving a project that includes mitigation measures. This MMRP has been prepared in compliance with the requirements of Section 21081.6 of the California Public Resources Code and Sections 15091(d) and 15097 of the CEQA Guidelines.

The purpose of this MMRP is to ensure the adopted mitigation measures adopted in the findings of fact for the 2015 RTP are implemented, in accordance with CEQA requirements. The findings adopt feasible mitigation measures to reduce the significant environmental impacts of the 2015 RTP. This MMRP clarifies the process for SRTA and individual project lead agencies to ensure these mitigation measures are implemented, and designates responsibility for implementing, monitoring, and reporting mitigation.

B. Mitigation Measures Adopted with the 2015 RTP

The mitigation measures adopted in the 2015 RTP EIR findings are listed in Sections IV and V of these findings. Each mitigation measure identifies the parties responsible for implementation.

C. Enforcement

CEQA requires mitigation measures to be “fully enforceable” through the use of permit conditions, agreements, or other measures within each Lead Agency’s authority (Public Resources Code 21081.6(b)). The adopted mitigation measures are programmatic first-tier mitigation that can and should be implemented by other sponsor agencies during future project-specific design and environmental review. The Lead Agency for each future project is responsible for assuring the project-specific mitigation measures it adopts are enforceable.



Figure 30 - Benton Drive over Sacramento River

D. Implementation and Reporting

SRTA shall designate a staff person (Executive Director of SRTA or Designee) to serve as Coordinator with the member agencies (those agencies that would act as Lead Agencies for further environmental review of individual transportation projects) for overall implementation and administration of this MMRP, and its application to future projects. Agencies considering approval of future projects under the 2015 RTP would utilize the Program EIR as a basis in determining potential mitigation measures for subsequent activities. The agencies responsible for implementing the mitigation measures, described as “the individual project lead agency” in the Program EIR, will be the lead agency for the individual future projects under the 2015 RTP. The project lead agency for individual projects will involve one of the following agencies: the cities of Anderson, Redding, and Shasta Lake City, Shasta County, Caltrans, and public transit agencies. The individual project lead agency, which will be the lead agency for individual future projects under the 2015 RTP, will be responsible to monitor mitigation measures that are required to be implemented for the project.

Mitigation measures will typically occur at, or prior to, the following milestones:

- ***During individual environmental review.***

These are measures that need undertaking during individual project-level environmental review of RTP transportation projects. These measures include

items such as assessment of identification of specific project level noise reduction measures, and measures to reduce impacts on biological resources.

- ***Prior to issuance of a grading permit.*** These are measures that need to be undertaken before earth moving activities begin. These measures include items such as staking the limits of environmentally sensitive areas or vegetation to remain, confirming biological mitigation plans with resource agencies, and including pertinent design details in the project plans.

- ***During project construction.*** These measures are those that need to occur as the project is being constructed. They include monitoring the construction site for the proper implementation of dust and emission controls, erosion controls, biological protection, and examining grading areas for the presence of cultural materials.

- ***Following construction.*** These measures apply to project components that would go into effect at completion of the project construction phase, including items such as management or monitoring plans (e.g., revegetation, etc.).



Figure 31 - Oak Woodlands in Shasta County