

# Chapter 3

**H**uron, California *Rows of Lettuce*

## **Sustainable Communities Strategy** *People. Choices. Community.*

*While focusing attention on meeting Greenhouse Gas emission reduction targets, Fresno COG also established other important goals in its 2018 Sustainable Communities Strategy, aimed at improving the overall quality of life in the region.*

## 3.1 Sustainable Communities Strategy

California's Senate Bill 375 (SB 375) encourages planning practices that create sustainable communities. It calls for each Metropolitan Planning Organization (MPO) to prepare a Sustainable Communities Strategy (SCS) as an integrated element of the Regional Transportation Plan (RTP) that is updated every four years. The SCS is intended to show how integrated land use and transportation planning can lead to lower greenhouse gas (GHG) emissions from autos and light trucks. [Figure 3-1](#) shows Fresno COG's SCS development process with RTP/SCS adoption in July 2018. This will be Fresno COG's second SCS, which is based on the previous SCS adopted in 2014.

The 2018 RTP/SCS seeks to guide the Fresno County region toward a more sustainable future by integrating land use, housing and transportation planning to create communities that are more compact, walkable and transit-oriented. Sustainability is defined as simultaneously meeting current economic, environmental, and community needs, while ensuring that future generations' opportunities are not jeopardized. A prosperous **economy**, a healthy **environment** and social **equity** are considered sustainability's "Three Es."

The path toward living more sustainably is clear: Focus housing and job growth in established communities with existing and planned transportation infrastructure; protect sensitive habitats and open space; invest in a transportation network that provides residents and workers with options to reduce GHG emissions; and enact the plan through incentives and collaboration.

The 2018 RTP addresses vehicle miles traveled (VMT) from a broader range of vehicles than those addressed in

SB 375 – such as public transit buses, heavy duty trucks, and school buses. The SCS focuses only on SB 375's requirements, which call specifically for travel-related GHG reductions of cars and light trucks. Other performance metrics related to GHG emissions are addressed in the balance of the 2018 RTP chapters, where appropriate.

For cars and light trucks, there are three primary GHG-emissions-reduction strategies the State developed. SB 375's SCS requirements address regional land use and housing accommodation in the context of transportation investments. In future years, the State will also require more lower-carbon fuels and increased vehicle fuel efficiency.

The RTP's transportation strategies — investing in public transit systems, managing transportation demand, making transportation system improvements, and continuing to expand and improve bike and pedestrian facilities — are major SCS components. However, the SCS also focuses on the region's general land-use growth pattern because geographical relationships between land uses — including density and intensity — help determine travel needs.

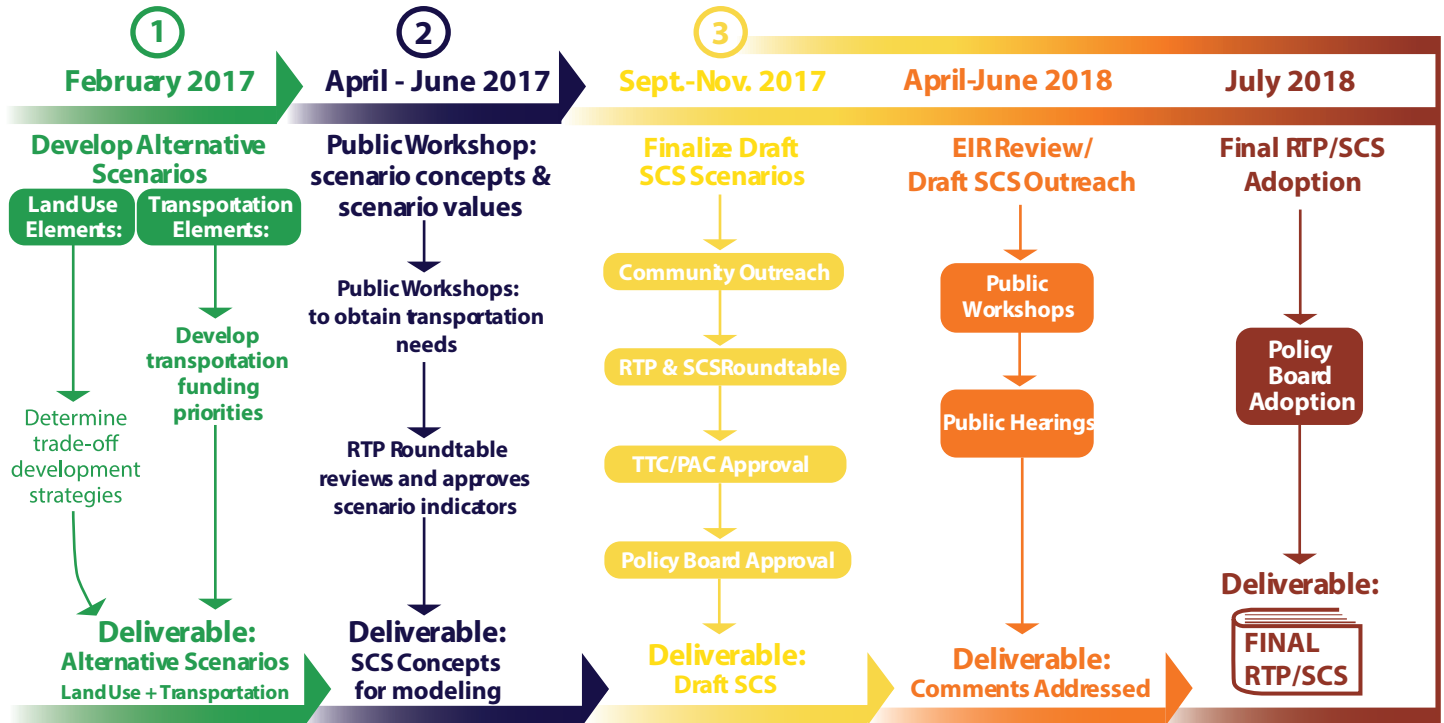
### In summary, under SB 375, an SCS must:

- Identify future land use patterns
- Identify areas to accommodate long-term housing needs as well as 8-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 GHG emission reduction targets

SCS requirements do not imply a mandate for certain land use policies at the local level. SB 375 specifically



Figure 3-1: Fresno COG's SCS development process and timeline



states, "Neither a sustainable communities strategy nor an alternative planning strategy regulates the use of land, nor, except as provided by subparagraph (J), shall either one be subject to any state approval. Nothing in a sustainable communities strategy shall be interpreted as superseding the exercise of land use authority of cities and counties within the region." (Government Code Section 65080(b)(2)(K)). Rather, the SCS provides a regional policy foundation that local governments may build upon as they choose.

Because local agencies have land use authority, there is no requirement for cities and counties to change or amend their general plans to be consistent with the SCS. Local jurisdictions maintain discretion and will be solely responsible for determining consistency of any future projects with the SCS, including discretion in certifying the environmental review for a project, regardless of eligibility for streamlining.

Cities and counties have been and will continue to be involved in the SCS planning process and will be encouraged to recognize SCS-developed land use and transportation policies. Since Federal and State transportation funds go through the MPOs to the

jurisdictions, there is an assumption of collaboration between regional and local agencies.

## 3.2 SCS Co-benefits

The 2018 RTP/SCS is expected to produce benefits beyond simply reducing GHG emissions. It will help the region contend with ongoing issues across a wide range of concerns, including place-making, the environment, responsiveness to the marketplace, and mobility:

- The 2018 RTP/SCS promotes development of better places to live and work through measures that encourage more compact development, varied housing options, bike and pedestrian improvements, and efficient transportation infrastructure.
- The region's demographic profile is changing as is the housing market. Residents will be looking for a "value lifestyle" in which both housing and transportation costs are minimized while maintaining a high quality of life. Strategies focused on high-quality places, compact infill development and more housing and transportation choices provide a response to these newly emerging market forces.

- By including options that create more compact neighborhoods and placing destinations and homes closer to one another, the 2018 RTP/SCS's strategies can reduce development costs for taxpayers, reduce everyday housing and transportation costs, and improve public health through a land-use pattern that fosters active transportation.
- Reducing the footprint of new development protects farmland and open space.
- The 2018 RTP/SCS does not envision wholesale regional redevelopment; the vast majority of neighborhoods and business districts that will exist in 2035 already exist today, and most of them will be unchanged in the next 20-25 years. Rather, it envisions a progressive development pattern for new and revitalized neighborhoods and business districts that will build upon current patterns to give residents more choices as they consider where to live and work.



Blueprint: Fresno COG, Kern Council of Governments (Kern COG), Kings County Association of Governments (KCAG), Madera County Transportation Commission (MCTC), Merced County Association of Governments (MCAG), San Joaquin Council of Governments (SJCOG), Stanislaus Council of Governments (StanCOG), and Tulare County Association of Governments (TCAG).

On April 1, 2009, the San Joaquin Valley Regional Policy Council – the decision-making body for the Valleywide process – approved Scenario B+ and

12 Smart Growth principles, concluding the Blueprint's planning phase. The Valley Blueprint became a vision for the San Joaquin Valley's future, in which less land is consumed for development, more resources are preserved for future generations, distinctive communities are enhanced, and more travel choices are available.

The adopted 12 Smart Growth principles are:

1. Create a range of housing opportunities and choices
2. Create walkable neighborhoods
3. Encourage community and stakeholder collaboration
4. Foster distinctive, attractive communities with a strong sense of place
5. Make development decisions predictable, fair, and cost-effective
6. Mix land uses
7. Preserve open space, farmland, natural beauty, and critical environmental areas
8. Provide a variety of transportation choices
9. Strengthen and direct development towards existing communities

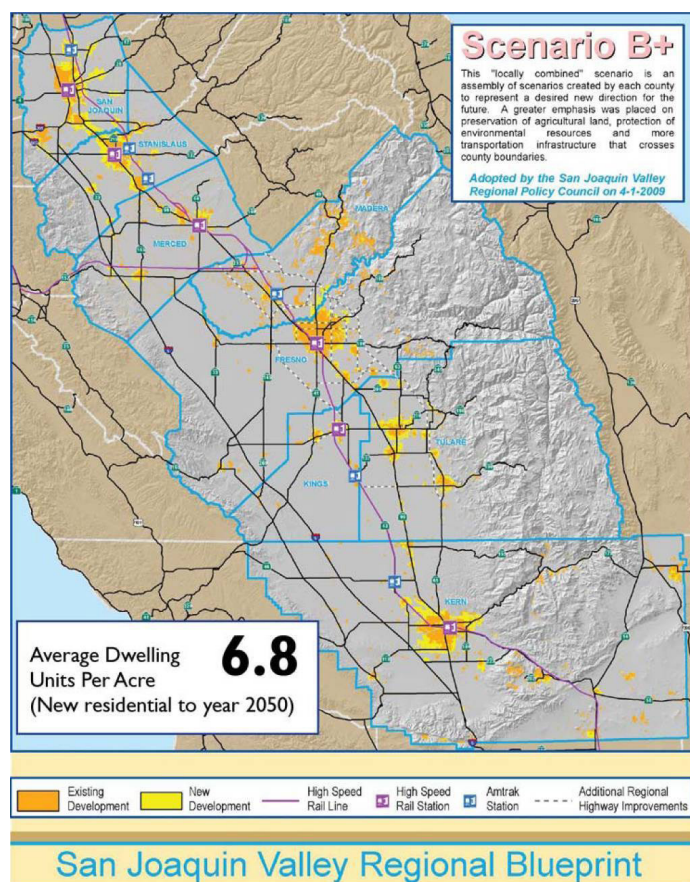
## 3.3 San Joaquin Valley Blueprint

The 2018 RTP/SCS continues the evolving Blueprint process that began in 2006. The Merced County Association of Governments, in coordination with the Great Valley Center, led the Valleywide Blueprint effort on behalf of the San Joaquin Valley organizations at its inception. Fresno COG assumed the lead agency role from Blueprint adoption through the Blueprint Roadmap, which included documenting the Blueprint planning process, a guidance framework, an institutional arrangements white paper, and the web-based Blueprint Planners Toolkit. Seven Valley COGs and one RTPA participated in the Valley



10. Take advantage of compact building design
11. Enhance the economic vitality of the region
12. Support actions that encourage environmental resource management

The Blueprint in many ways was a precursor to the growth alternative scenarios developed in the SCS process. The extensive public outreach conducted for the Blueprint and the resulting shared principles support and guide the SCS process.



## 3.4 Targets for Reducing Greenhouse Gas Emissions

In 2010, as part of its mandate under SB 375, the California Air Resources Board (CARB) set specific GHG emission

reduction targets for cars and light trucks for each of the state's 18 metropolitan planning organizations from a 2005 base year. The GHG targets set for the Fresno region in 2010 called for a 5 percent per capita reduction by 2020 and a 10 percent per capita reduction by 2035.

SB 375 requires that Fresno COG demonstrate in its SCS that GHG emission reduction targets will be met for 2020 and 2035. If not, then an Alternative Planning Strategy (APS) shall be prepared to demonstrate how the targets can be met through the alternative strategies in the APS. Fresno COG will be able to meet the targets set by the CARB through its 2018 RTP/SCS as shown in Table 3-1.

Table 3-1: Greenhouse Gas Reduction Targets

Year	Per Capita GHG Reduction Targets	Fresno COG Per Capita GHG Reduction
2020	5%	5%
2035	10%	10%
2042	NA	12%

Fresno COG will continue to update modeling tools and planning assumptions to reflect the latest information available. Should the likely future development pattern change, this would be reflected in the next regional growth forecast and SCS land use pattern. Fresno COG will also continue to improve modeling capabilities and update modeling assumptions to reflect the most recent published and accepted data regarding changes in travel behavior and technological advances.

## 3.5 Creating the SCS Scenarios

Fresno COG's SCS scenario process began in October 2016. Four scenarios were developed through an open and engaging public process, each representing a variation based on the preferred scenario from the 2014 SCS. Each scenario strove to embody a cohesive and self-consistent future for the Fresno region, each combining a unique set of transportation investment priorities with complementary land-use development assumptions.

### The four scenarios submitted to the Fresno COG Policy Board for consideration:

The scenarios were designed to explore and clearly convey the impacts of both where the region grows over the next 24 years (to what extent growth is focused within existing cities and towns, and how it grows), as well as the

- A Scenario A** reflects public input and current planning assumptions, with divestment from expanded roadway capacity improvements.
- B Scenario B** places emphasis on active transportation and transit-oriented development through higher densities, mixed-use development, and more urban growth.
- C Scenario C** emphasizes rural growth and a countywide preference for mixed-use development.
- D Scenario D** reflects public input and current planning assumptions, with slightly more investment in roadway improvements.

shape and style of the neighborhoods and transportation systems that will guide growth over that period.

Fresno COG's Policy Board selected Scenario D as the preferred SCS scenario for the Fresno County region in November 2017.

### Growth Forecast

Fresno County is now home to nearly 1 million people. The County is expected to accommodate nearly 300,000 additional people between 2015 to 2035, increasing to a total population of 1,258,860 by 2035 and 1,347,000 by 2042, with comparable housing unit and employment growth. This future growth will put additional pressure on an already congested transportation system, on communities and neighborhoods that have existed for several decades, and on the region's natural environment.

The 2018 RTP/SCS depends heavily on accurate and credible forecasts for population, housing and employment. Fresno COG selected Applied Development Economics to prepare jurisdiction-specific growth forecasts for the SCS.

The forecast models have been developed to allow Fresno COG to update the underlying data each year as updates are published by state and federal agencies. The ability to update this model is an important component considering that updates will allow the forecasts to better capture future demographic changes as they develop.

Three demographic measures form the primary forecasts: household population, housing units, and employment. The forecasts developed for the 2018 RTP/SCS are shown in [Table 3-2](#). Fresno COG staff held region-wide housing and employment forecasts constant for each SCS scenario, forming each scenario's basis for growth distribution.

### SCS Modeling

Fresno County will meet GHG reduction targets established by the California Air Resources Board (CARB) by focusing housing and employment growth in developed areas, protecting sensitive habitat and open space, and investing in a transportation system that provides residents and workers with transportation

Table 3-2: Forecasts for Fresno County 2014-2042, Preferred Scenario

Year	Household Population	Housing Units	Employment
2014	940,311	292,550	366,205
2020	1,028,750	327,807	398,050
2035	1,236,110	376,542	460,100
2042	1,322,660	397,443	482,600

options. Expectations for meeting GHG targets are based upon the modeling methodology described below.

In Fresno COG's 2018 RTP/SCS process, two primary land-use modeling tools helped forecast future land uses: "Cube Land" and "Envision Tomorrow."

Fresno COG added Cube Land to its land-use modeling methodology for the 2018 SCS to incorporate a predictive, economically-driven element to land-use forecasting. Cube Land takes target-year demographic and economic characteristics and pairs them with zoning and policy characteristics to create a virtual marketplace where households and employers can essentially bid against each other for land on which to reside and work. This creates a land-use development pattern that mirrors

actual real estate economics while considering the region's political climate and land-use planning assumptions.

Cube Land generates development patterns for future years that, when compared to base-year calibrated runs, provided sound patterns for new residential and commercial growth at the zone level. Using demographic forecast data from the Applied Development Economics (ADE) growth forecast, Fresno COG consulted with The Manhan Group to develop and run the Cube Land model for the 2014 base-year calibrated run and for the 2035 forecast run for the Fresno County region. The results from these runs were compared to create delta growth values for housing units and employment at the traffic analysis zone (TAZ) level.

These new growth zonal characteristics – which were discounted to 90% to allow flexibility to model policy and strategy impacts that might affect future growth patterns – were treated as control totals for the Envision Tomorrow tool, which produces development characteristics at the parcel level (a much finer scale). In short, Cube Land is used to determine an economically-driven growth pattern, but produces results at the large-grain TAZ level; then, Envision Tomorrow takes those zonal results and refines them to produce parcel-level growth assumptions.

Envision Tomorrow is a land-use scenario planning tool that uses development types to model possible future development patterns. In any given land-use scenario, parcel-level planning areas expected to acquire new development are assigned a development type, which determines the number and types of housing and employment projected to develop in that area. The aggregation of these areas, controlled to reflect countywide targets for population and employment, reflects one particular SCS scenario for the region.

The resulting land uses from these models were added to the travel-demand forecast model, known as the Model

Improvement Program 2 (MIP2) model, to estimate vehicle trips (i.e. every home or office will generate “x” number of vehicle trips). That output fed into the air quality model EMFAC2014 to determine GHG emission reductions.

The four land-use and transportation scenarios developed for the 2018 RTP/SCS process represent different transportation investment priorities, growth strategies, and applications of smart-growth principles. The strategies' effects are manifest in the four scenarios' relative growth patterns and growth allocations. For example, scenarios that reflect a strong preference for compact development will contain more high-density development types and will generally exhibit smaller growth footprints on average.



relative growth patterns and growth allocations. For example, scenarios that reflect a strong preference for compact development will contain more high-density development types and will generally exhibit smaller growth footprints on average.

Fresno COG staff used its four-step travel demand model along with EMFAC2014 to estimate GHG emissions. The four-step traffic model includes trip generation, trip distribution, mode choice and trip assignment. The improved Fresno COG traffic model is more sensitive to smart growth principles and incorporates the four Ds: density, destination, diversity and design. With the forecast socioeconomic data derived from the land-use patterns produced by Cube Land and Envision Tomorrow and the proposed transportation networks associated with each scenario, the traffic model estimates vehicle miles traveled by the region and provides information such as congestion level, speed, transit ridership, and travel by different modes.

The growth scenarios were revised and modified many times based on public and stakeholder input. Several iterations of each scenario were then run through the models before being finalized.

Please refer to the “Fresno COG Technical Methodology” memo submitted to CARB for more information regarding how Fresno COG modeled the GHG emission in the 2018 RTP/SCS. The traffic model documentation is available in

**Appendix I.** Documentation for the EMFAC2014 can be found at: [www.arb.ca.gov](http://www.arb.ca.gov).

## 3.6 SCS Public Participation

### SCS Public Participation Requirements

Some public outreach requirements are spelled out in Senate Bill (SB) 375, including an adopted Public Participation Plan and consultation with specific agencies during SCS development. It also requires that each planning agency conduct informational meetings and workshops for elected officials and the public during SCS development and after the draft SCS is released for public review and comment.

See RTP Chapter 6 for detailed information regarding the following Public Participation Activities, as well as **Appendix G**.

#### Requirement #1:

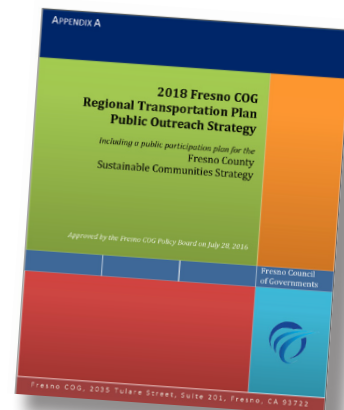
*The MPO shall adopt a Public Participation Plan in advance of developing an SCS and/or APS to include the following: Outreach efforts encouraging the active participation of a broad range of stakeholders in the planning process, consistent with the agency's adopted Federal Public Participation Plan. This includes, but is not limited to affordable housing advocates, transportation advocates, neighborhood and community groups, environmental advocates, home builder representatives, broad-based business organizations, landowners, commercial property interests, and homeowner associations.*

#### Requirement #2:

*Regional public workshops with information and tools providing a clear understanding of policy choices and issues. At least one workshop in each county. At least three workshops for counties with a population greater than 500,000. To the extent practicable, each workshop shall include urban simulation computer modeling to create visual representations of the SCS and APS.*

### Fresno COG's Public Participation Plans and Strategies

Fresno COG's Policy Board adopted its Public Participation Plan in July 2016. The plan included an RTP public outreach strategy which outlined the goals, strategies and methods to guide Fresno COG's public participation efforts with particular emphasis on the Sustainable Communities Strategy. The outreach strategy specifically listed tactics for reaching out to nontraditional as well as traditional audiences for inclusion in the transportation planning process. It was designed to help ensure that environmental justice issues were addressed and that interested parties had ample opportunity to understand and provide meaningful input from the early planning stages through adoption of the RTP/SCS.



In fact, the public helped develop the outreach strategy, including members of Fresno COG's Regional Transportation Plan Roundtable, Transportation Technical Committee, Policy Advisory Committee and Policy Board. It was adopted by the Board on July 28, 2016. The document includes all of the following strategies addressed throughout this chapter, with additional documentation and information available in RTP **Appendix G**.

### RTP Roundtable

The Regional Transportation Plan (RTP) update process was formally launched in October 2016 with the first Fresno COG Regional Transportation Plan Roundtable meeting. The Roundtable supported Fresno COG staff and its standing committees in preparing the 2018 RTP/SCS. The Roundtable considered issues that supported RTP/SCS development, providing comments and community-based consensus. The Roundtable comprises 34 seats – 16 held by member agency staff, 15 seats open to a variety of stakeholder groups, and three “at large” seats.

For complete descriptions of the 2018 Regional Transportation Plan public outreach conducted during the development of the Sustainable Communities Strategy please see RTP Chapter 6 and [Appendix G](#).

## 3.7 Scenarios and Outcomes

Fresno COG staff began preparing the 2018 SCS in October 2016. In February 2017, the RTP Roundtable developed four scenario concepts based on staff's analysis of feedback from the 2014 SCS process. In April 2017, COG staff hosted a public workshop where participants were asked to rate their support for these four scenario concepts, as well as provide input about their values and preferences with regards to transportation investments

and land-use strategies. During that same month, the Roundtable approved a subcommittee to consider various public input sources, including the public workshop results, to develop what would eventually become the four 2018 SCS scenarios. All four scenarios were heavily influenced by public input and were based on the 2014 SCS, which was the result of robust public outreach and interagency collaboration.

Scenarios A, B, C and D were presented to the public in October and November 2017 at a series of public workshops, community events, through an online survey and other media channels. COG staff discussed the the Scenarios with participants and requested they complete written surveys regarding scenario preferences, sharing with staff any foreseen negative impacts to their community due to the other scenarios. The four scenarios are shown in [Figure 3-2](#) on the previous page and described in the sections to follow.

Figure 3-2: SCS Scenario Comparisons

Scenario >	A	B	C	D
GHG Performance	Meets the 2035 GHG reduction target (10%)	Exceeds the 2035 GHG reduction target (12%)	Fails to meet the 2035 GHG reduction target (9%)	Meets the 2035 GHG reduction target (10%)
Transportation Funding Priorities	Highest investment in road maintenance and active transportation; lower investment in expanded roadway capacity; all transit projects funded	Highest investment in road maintenance and active transportation; lower investment in expanded roadway capacity; all transit projects funded	Highest investment in road maintenance and active transportation; lower investment in expanded roadway capacity; all transit projects funded	High investment in road maintenance; moderate investment in expanded roadway capacity and active transportation; all transit projects funded
Growth Pattern	Assumes balanced Countywide growth	Assumes more growth in Fresno-Clovis Metro Area (5% increase by 2035, 21% decrease from rural jurisdictions)	Assumes more growth in small incorporated cities and unincorporated rural communities (21% increase by 2035, 5% decrease from metro jurisdictions)	Assumes balanced Countywide growth
Land-Use Strategies	Moderately aggressive land-use strategies (lowest residential density and multi-family development) - identical to Scenario D	Most aggressive land-use strategies (highest projections for residential density, multi-family, and mixed-use development)	More aggressive mixed-use and multi-family strategies	Moderately aggressive land-use strategies (lowest residential density and multi-family development) - identical to Scenario A
Farmland Conservation	Significant improvement in farmland conservation (58% less farmland consumed than 2014 RTP)	Vast improvement in farmland conservation (88% less farmland consumed than 2014 RTP)	Improvement in farmland conservation (24% less farmland consumed than 2014 RTP)	Significant improvement in farmland conservation (58% less farmland consumed than 2014 RTP)

## Scenario A

Scenario A was designed to reflect public input as closely as possible and to refrain from making any land-use assumptions beyond the demographic forecast and the jurisdictions' current plans. Scenario A is typified by high levels of road maintenance investment, active transportation infrastructure and equity, with less investment in expanding roadway capacity. This scenario became a template for other scenarios, assuring that all scenarios would adhere reasonably closely to public input.

## Scenario B

Scenario B places a higher emphasis on active transportation and transit-oriented development by favoring high-density and mixed-use development, and by shifting some new growth to the Fresno-Clovis metropolitan area. This shift in housing and employment growth represents 5% of the metropolitan area's projected growth share (based on the demographic forecast), translating to about a 21% decrease in growth from the smaller cities and from the unincorporated areas.

## Scenario C

Scenario C envisions a higher share of new growth going to the small cities and unincorporated communities, the same 5% from the metropolitan area translating as a 21% increase for the rural areas. Furthermore, this scenario shows a slight preference for mixed-use development.

## Scenario D

Scenario D was designed as a slight variation of Scenario A: one that represented a less extreme divestment from roadway capacity enhancements, resulting in a slight decrease in road maintenance and active transportation investments. The land-use growth pattern in Scenario D is identical to that of Scenario A.

## Public Outreach Survey Results

Fresno COG received 1,339 SCS Survey Preference Surveys from the public during the Fall 2017 public involvement effort. The results are listed by percentage of vote received as follows:

- Scenario A - 28%
- Scenario B - 33.9%
- Scenario C - 17.4%
- Scenario D - 20.6%

Specific details regarding the Fall 2017 outreach efforts, polling results and breakdown of participant demographics is available in RTP Chapter 6 regarding public participation.

The polling data and results were forwarded to the RTP Roundtable, Transportation Technical Committee, Policy Advisory Committee and Policy Board for meaningful consideration prior to their selections of a preferred scenario. The information was also posted to the Fresno COG website and is included in [RTP Appendix G](#). The committees and board considered the public's input as evidenced by open meeting discussions regarding scenario benefits during each of their meetings. But, overall Scenario D was chosen as the Preferred SCS Scenario by each voting body. The reasons cited for this selection include the following:

- Implementation of Scenario B would require about 20% of job and housing growth be removed from the small, rural cities and the County areas and be placed in the urban Fresno-Clovis Metropolitan area. The implication of Scenario B is that the small cities and the unincorporated communities in the County would have higher unemployment and lose tax bases from housing development.
- Scenario C took 5% of the Metropolitan area's job and housing growth and placed them in the small cities and the County areas, which would result in more farmland consumption and more long distance traveling, thus resulting in the highest vehicle miles travelled and GHG emissions. Scenario C does not meet the greenhouse gas reduction targets.
- Scenario B & C are not consistent with demographic projections in local governments' approved General Plans.
- Scenario A & D have the same land use assumptions. However, Scenario D has a couple of capacity-increasing gap projects that improve the mobility for people living in the foothill areas, but were not included in scenario A. Due to this reason, Scenario D has less overall VMT than Scenario A.

Figure 3-3: GHG Emission Reductions compared to 2005

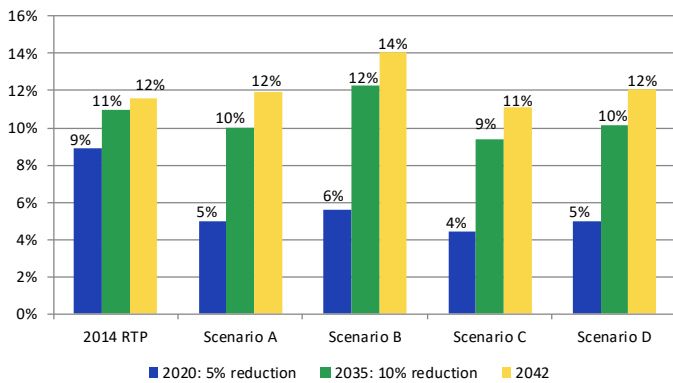


Figure 3-4: Housing types

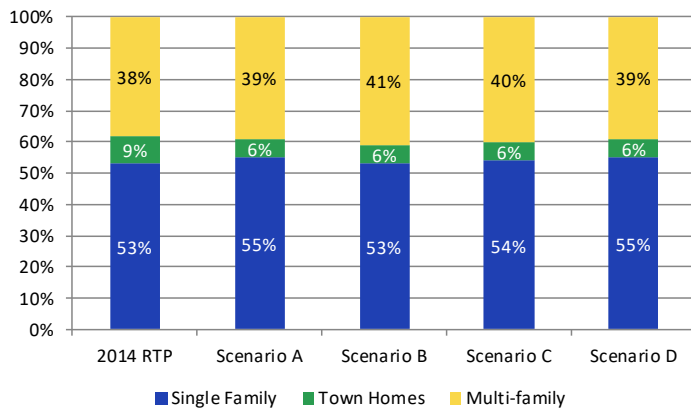


Figure 3-5: Residential density (units per acre)

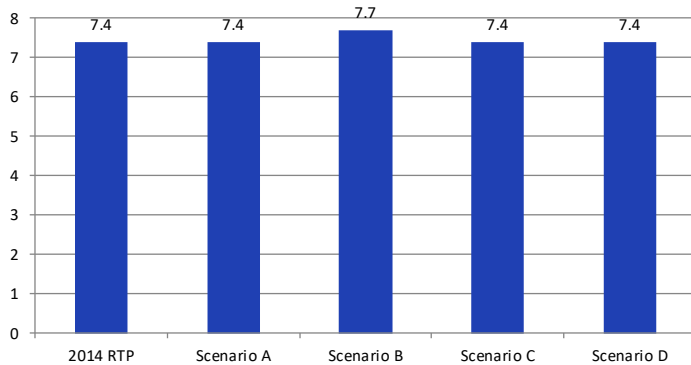


Figure 3-6: Transit Oriented Development

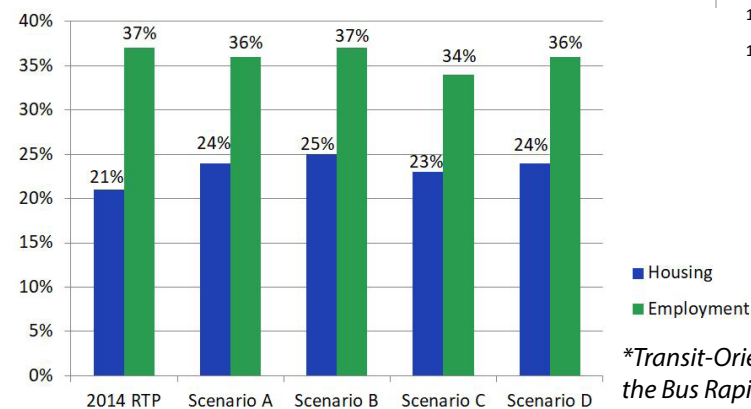


Figure 3-7: Acres of Important Farmland Consumed (by SB 375 definition)

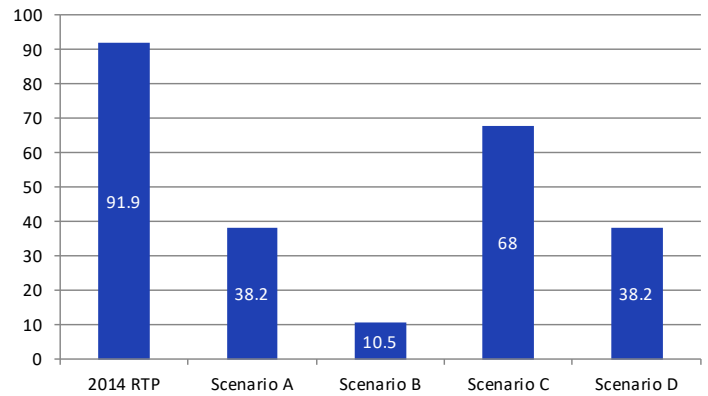


Figure 3-8: Criteria Pollutants Emissions (tons/day)

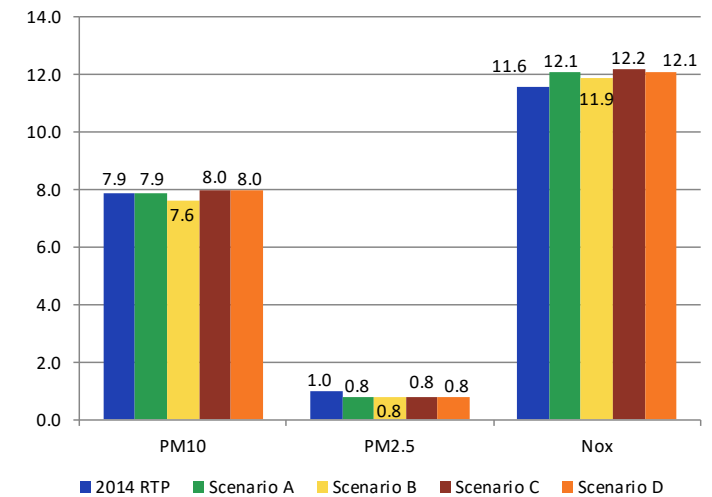
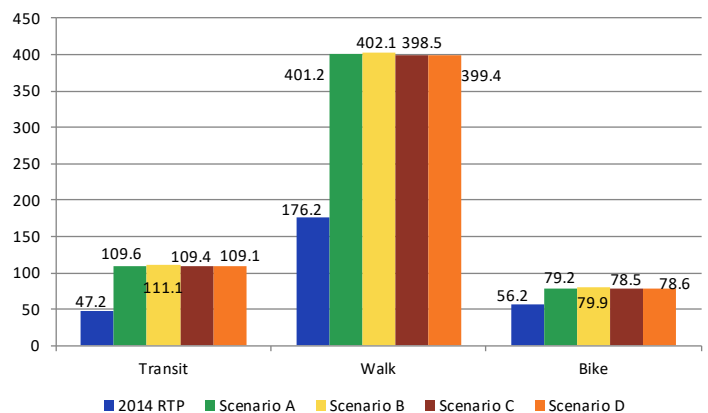


Figure 3-9: Active Transportation and Transit Travel (per 1,000 trips)



\*Transit-Oriented Development is defined as 1/2-mile from the Bus Rapid Transit (BRT) corridors.

Figure 3-10: Daily Vehicle Miles Traveled (million miles)

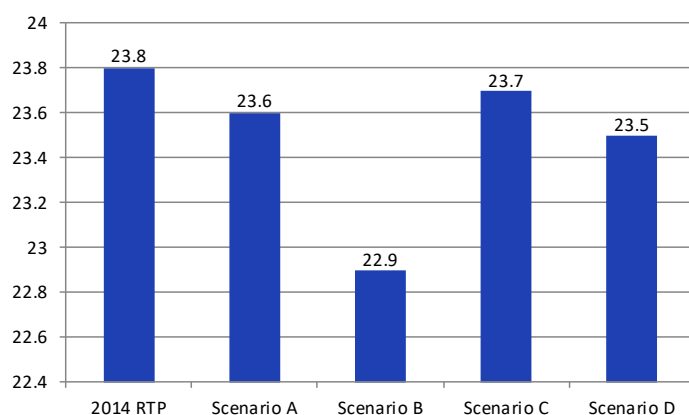
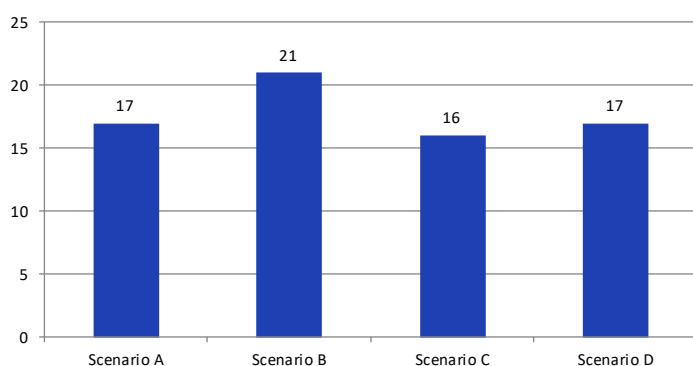


Figure 3-11: Premature Deaths Prevented Due To Active Travel



### The Merits of Scenario D

Although the majority of the scenarios meet the greenhouse gas emission reduction targets set by CARB, Scenario D represents a growth scenario that is both ambitious and achievable for the Fresno County region. The merits of Scenario D are summarized as follows:

- An ambitious sustainability plan with significant advancements over the status quo (i.e. the projected growth pattern before the 2014 SCS)
- A growth plan that acknowledges current planning assumptions and local land use authority
- On track to meet the San Joaquin Valley Blueprint's goals
- Meets SB 375 requirements
- A realistic and feasible growth scenario that allows the Fresno County region to grow at its own pace and retain its own character

Figure 3-12: Accessibility (average PM peak travel time in minutes)

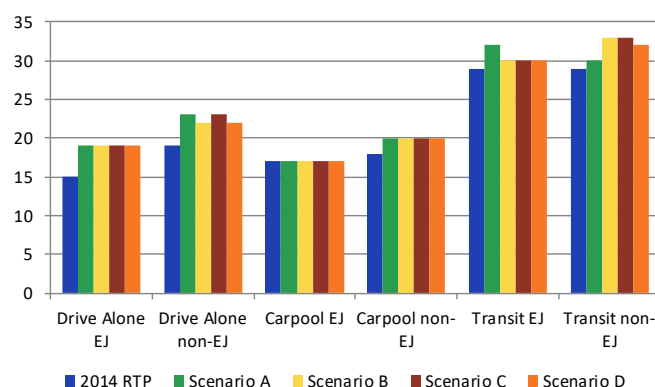
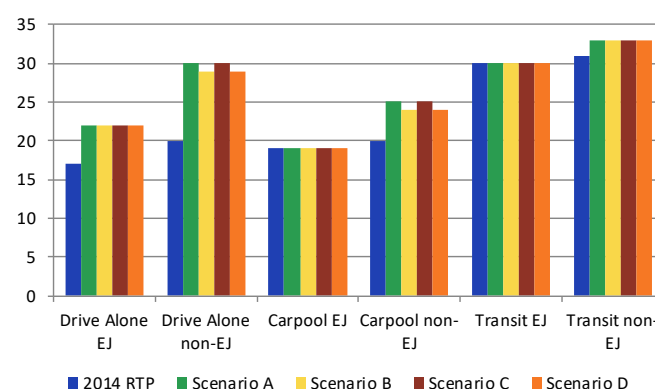


Figure 3-13: Accessibility (average AM peak travel time in minutes)



The Fresno COG Policy Board adopted Scenario D as the Preferred SCS scenario in November 2017.

## 3.8 Scenario Outcomes

COG staff used computer models to estimate a broad set of land use, transportation, health, and environmental impacts to compare the four scenarios. [Figures 3-3 through 3-13](#) compare the top 10 performance indicators for the four SCS scenarios.

By design, many of the performance indicators closely mirror those from the 2014 SCS—such as residential density and housing type mix. There were also some significant improvements across all scenarios (compared to the 2014 SCS), specifically with regards to farmland conservation.

predictive growth patterns based on market and policy conditions.

Fresno County jurisdictions continue to implement their own local land use and transportation projects that support the 2018 RTP/SCS. These local efforts were considered in the document's overall land-use pattern development. It is clear that there has been, and continues to be, a significant trend of local development policies and decisions toward increased land use and transportation integration.

Municipal governments' combined vision and efforts are yielding significant strides toward sustainable growth, walkable and bikable communities, and mixed-use development—values that are evident in their current planning assumptions and reflected in the SCS.

Fresno COG's 2018 RTP/SCS reflects Fresno County residents' core values identified in the Blueprint process and refines the robust collaborative effort achieved in the 2014 SCS. The Blueprint Smart Growth principles were reflected and implemented in general plan updates and specific plans that are part of the SCS. The Fresno region's SCS creates a range of housing opportunities and choices by providing a more balanced supply of various housing types. The increased density and mixed-use development proposed in the SCS helps preserve the region's precious farmland and also protects other natural resources, such as critical habitat, wetland and vernal pools, etc. In addition, 23% of new housing and 36% of new employment are allocated along high-capacity transit corridors and activity centers, which provides the foundation for Transit Oriented Development (TOD).

Figure 3-14: 2035 Land use pattern

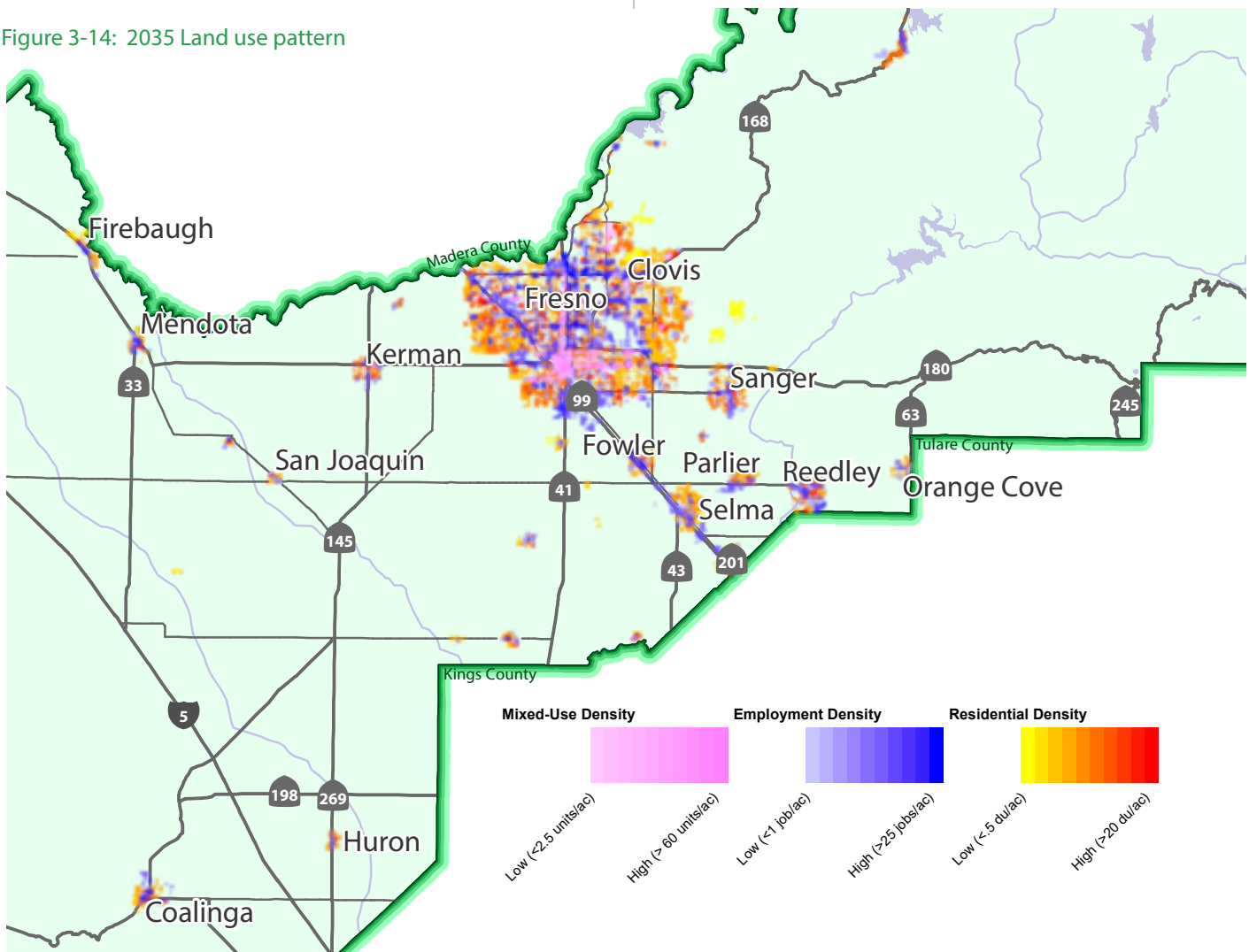
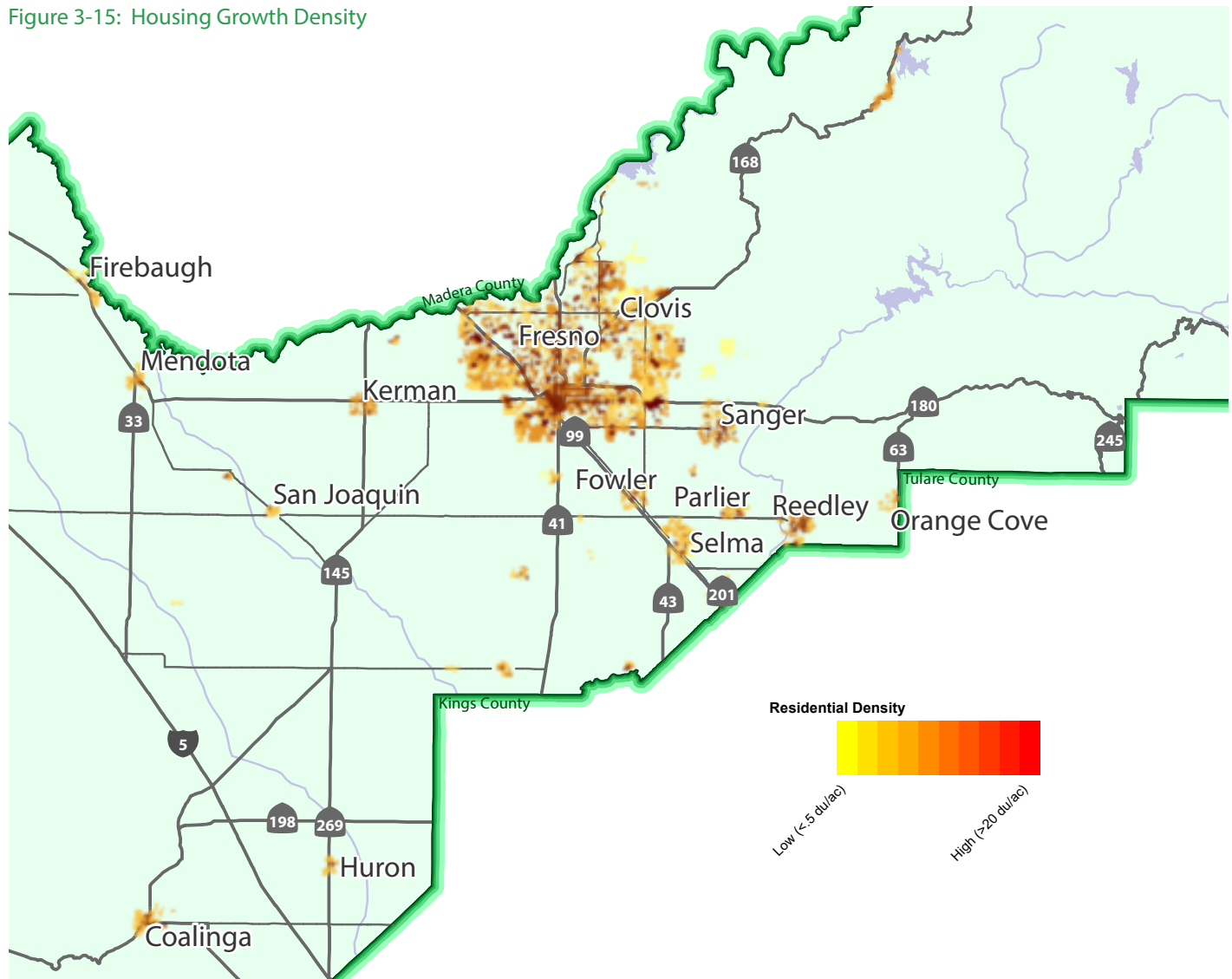


Figure 3-15: Housing Growth Density



Most importantly, three of the four scenarios met the 5% and 10% per capita GHG reduction targets for 2020 and 2035, respectively.

### Major features and benefits of Scenario D include:

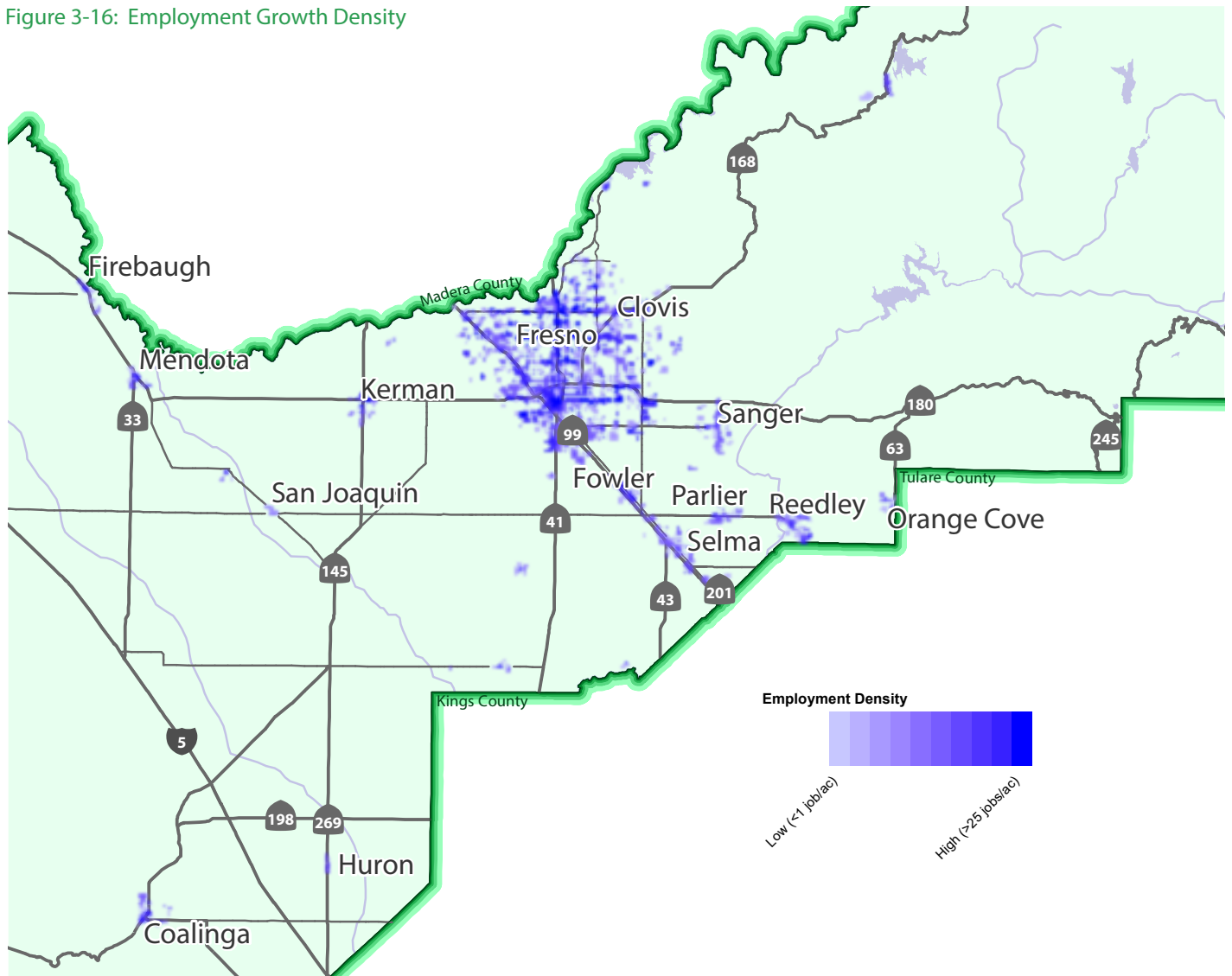
- Being based on the 2014 SCS, Scenario D represents the same vast improvements over the status quo (as demonstrated in the 2014 RTP/SCS) with regard to smart growth principles, such as increased transit and active transportation trips, higher residential densities, more strategic transit-oriented development and a wider range of housing choices.
- Compared to the 2014 SCS, Scenario D decreases

farmland consumption by 58%.

- With Scenario D, 23% of all new housing and 36% of new employment will take place within ½ mile of bus rapid transit.
- Due to increased activity through active transportation, Scenario D is projected to prevent 17 premature deaths per year compared to the status quo.

Figures 3-14 to 3-16 illustrate Scenario D's growth pattern, including residential, commercial, and mixed-use densities.

Figure 3-16: Employment Growth Density

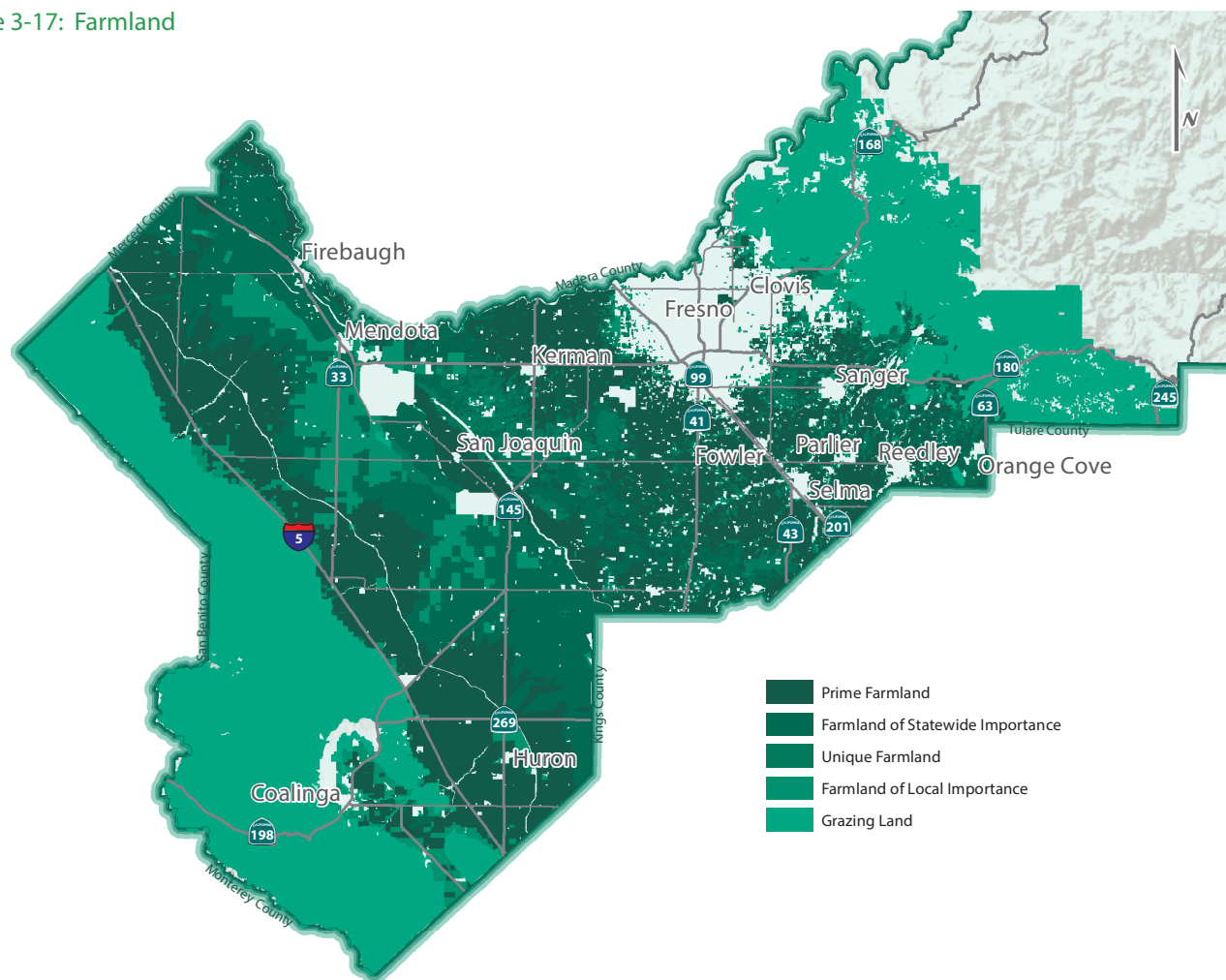


## 3.9 The SCS Land Use Pattern

Fresno COG used the feedback from local planning sessions, public outreach workshops and consultation with local jurisdictions while working with policymakers, stakeholders and local governments to develop and analyze four SCS growth scenarios. On November 16, 2017, the Fresno COG Policy Board unanimously selected Scenario D as the preferred SCS scenario for the 2018 RTP/SCS. Scenario D was built primarily from existing local General Plans, general plan updates, and insights from the Cube Land economic land-use model regarding

The SCS also reflects sustainability principles of directing and strengthening development towards existing communities. The City of Fresno's updated general plan calls for 50 percent of new growth in designated infill. The SCS also reflects sustainability principles of directing and strengthening development towards existing communities. The City of Fresno's updated general plan calls for 50 percent of new growth in designated infill development areas and proposes no sphere of influence expansion through 2035, which will help rein in fringe development in a traditionally sprawling region. The City's general plan also includes "complete neighborhood" elements, where residents have easier access to jobs, schools and other services by different transportation modes. The complete neighborhood concepts foster distinctive and attractive communities with a strong sense of place. The communities

Figure 3-17: Farmland



the SCS envisions will be more people-friendly with more access to bicycle and pedestrian facilities.

SB 375 requires consistency between the Regional Housing Needs Allocation (RHNA) and the development pattern of the SCS.



The 2014 RHNA Plan was adopted by the Fresno COG Policy Board on July 31, 2014 and was consistent with the 2014 RTP. The next RHNA Plan will be adopted to coincide with the 2022 RTP/SCS.

## 3.10 Protecting Resources and Farmland

In identifying the overall land use pattern, the 2018 RTP/SCS also considers areas to be protected from development. These farmlands, open space and natural resource areas are critical for the region's environmental and economic health.

The California Department of Conservation administers the Farmland Mapping and Monitoring Program (FMMP), which analyzes State agriculture impacts. FMMP maps are updated every two years to characterize existing farmland, agricultural resources and farmland loss to other uses. The FMMP uses four categories of agricultural productivity developed by the United States Department

Figure 3-18: Critical Habitat

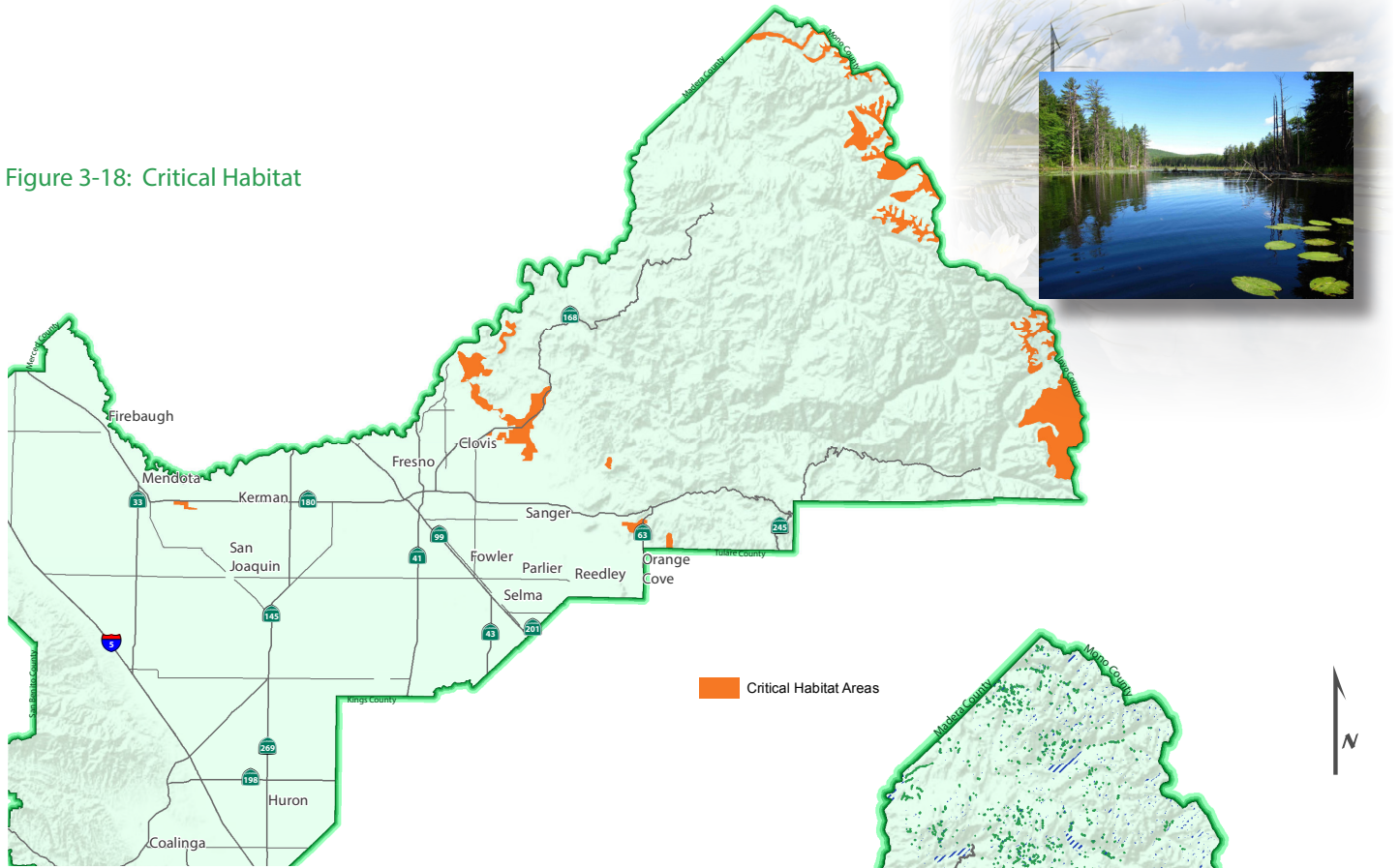


Figure 3-19: Wetlands, Riparian Forests and Vernal Pools

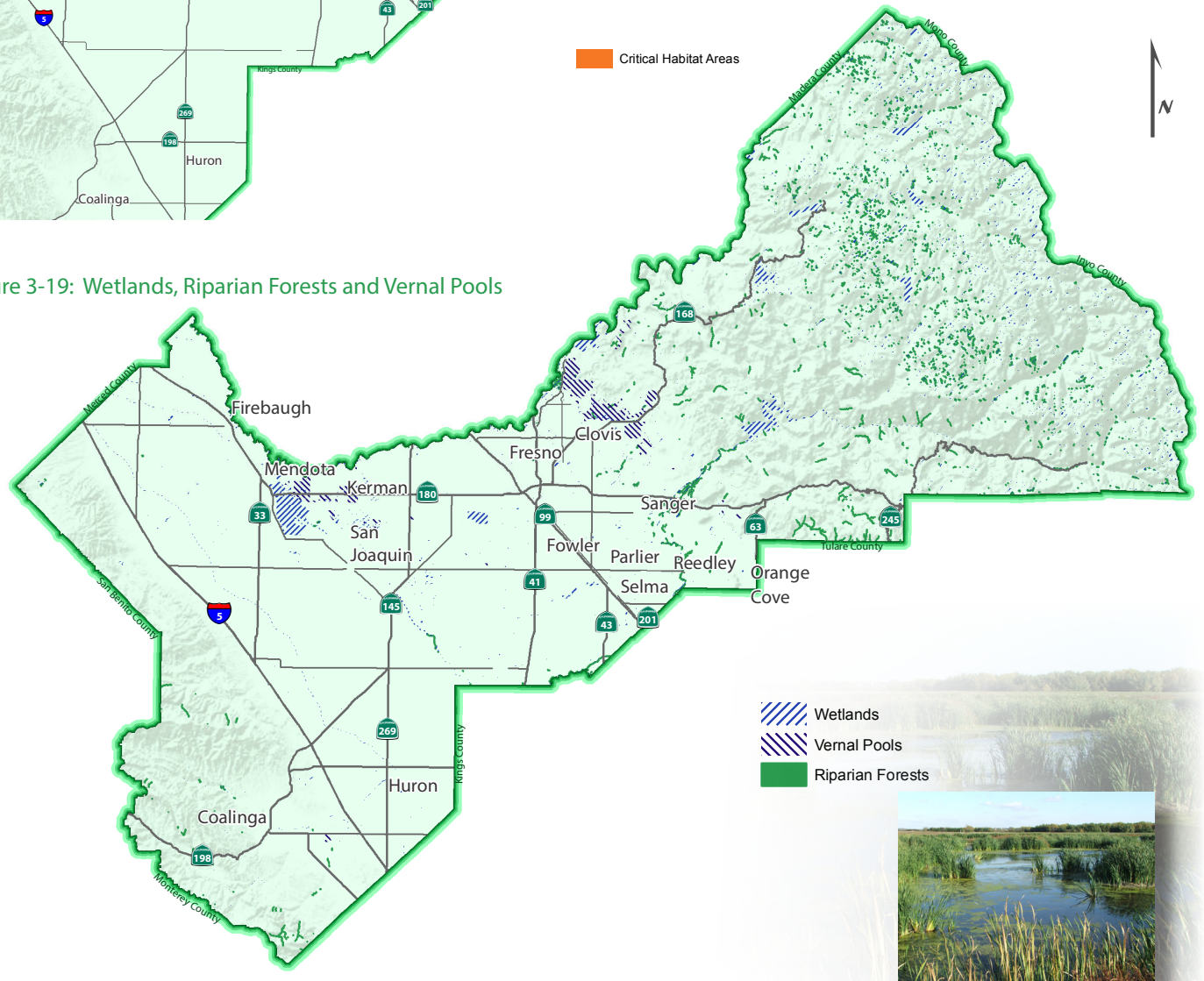


Figure 3-20: Floodplains and Groundwater Recharge Zones

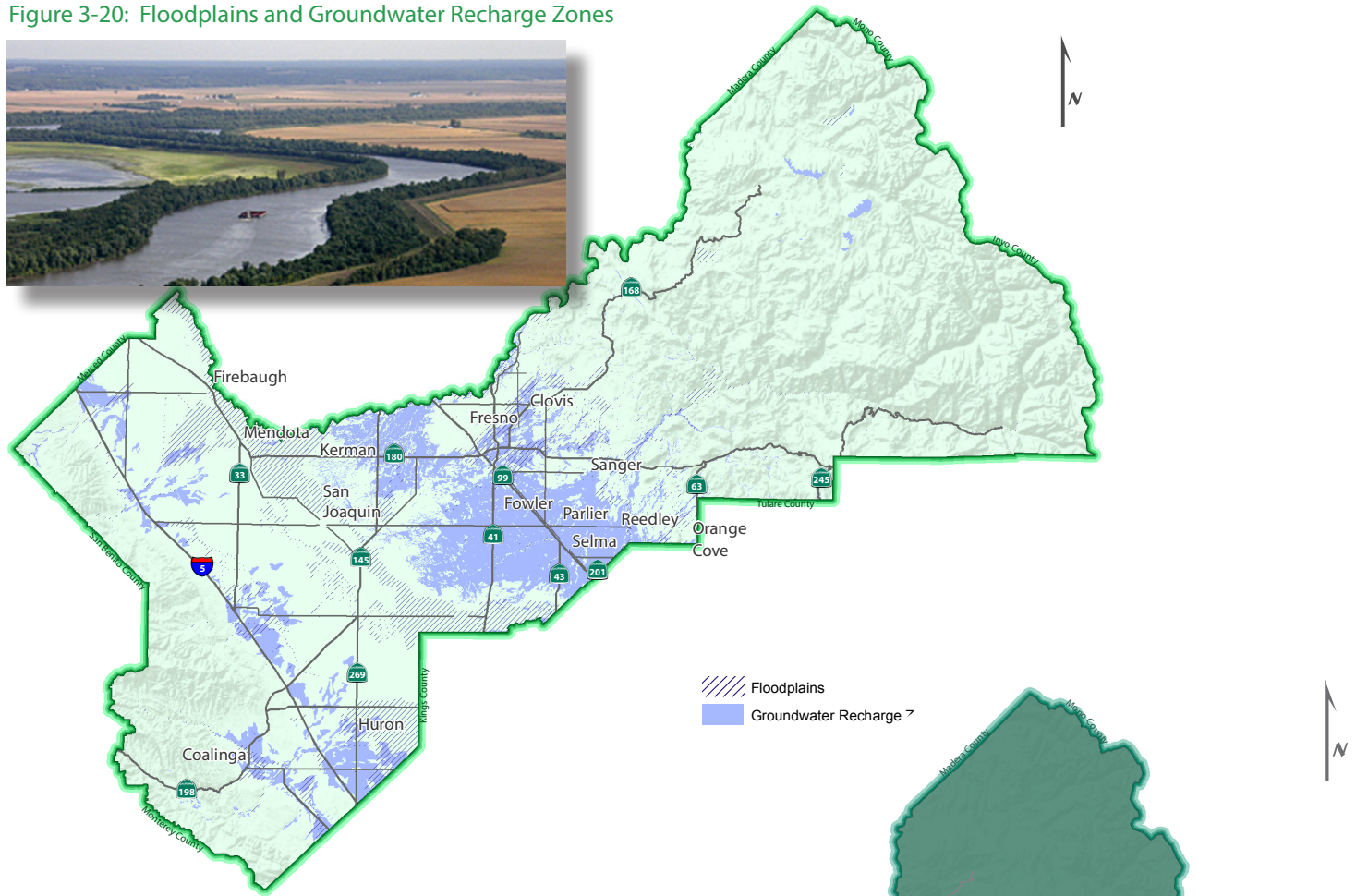
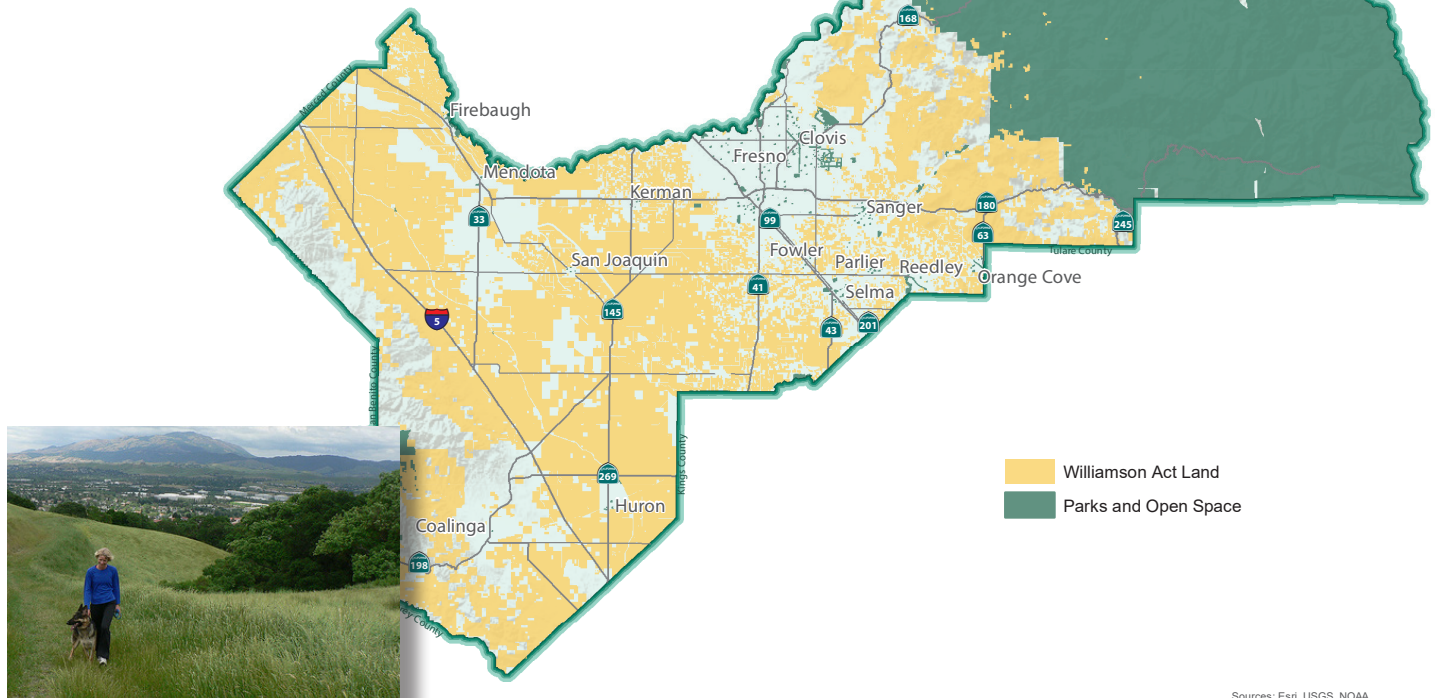


Figure 3-21: Parks and Open Space and Williamson Act Land



Sources: Esri, USGS, NOAA

of Agriculture (USDA) that consider factors such as soil quality, water availability, slope, and flooding potential. Areas designated as active farmland by this dataset were incorporated into the land-use modeling process as constraints to new development, resulting in between a 24% and 88% reduction in farmland consumed across the four scenarios compared to the 2014 SCS. These designated farmland categories are shown in [Figure 3-17](#). The future development pattern proposed in the 2018 SCS will consume 38.2 acres of Important Farmland as defined by SB 375 and categorized as follows:

<b>Prime Farmland</b>	<b>24.9 acres</b>
<b>Farmland of Statewide Importance</b>	<b>8.3 acres</b>
<b>Unique Farmland</b>	<b>5.0 acres</b>

In addition, the SCS will convert an estimated 55.7 acres of grazing land and 94.1 acres of locally important farmland to new development, bringing the total farmland conversion to 188 acres, or 1.4% of the total land consumed for new growth between 2014 and 2035. The San Joaquin Valley Greenprint project, funded by the Strategic Growth Council, has documented how natural resources support the region's economy, health and quality of life; and has identified strategies to guide land, water, and living resources stewardship. The project covers all eight Valley counties under the San Joaquin Valley Regional Policy Council. Throughout the process, public officials, property owners, interest groups, technical experts and the public have been invited to participate and provide input. A Steering Committee comprising public and private sector representatives and a diverse range of interests in the Valley's resources has helped guide the process. The Greenprint project was completed in mid-2015. The first phase identified and compiled data for San Joaquin Valley natural resources. The second phase developed principles to guide resource management options and strategies.

The Greenprint project has provided valuable information regarding natural resources land for the Fresno COG SCS process. Project stakeholders recommended a list of natural resource datasets to be considered in the SCS planning process. These areas were incorporated into the SCS planning process as constraints for new development, leading to significant improvements in resource land

consumption compared to the 2014 SCS. [Figures 3-18 through 3-21](#) provide the location of some of the Fresno Region's natural resources.

## 3.11 Resilience and Reliability of the Transportation System Under Climate Change

The Fresno region's climate can be expected to change even with GHG reductions in the 2018 RTP/SCS. Climate change in the San Joaquin Valley may include: water shortages, longer wildfire seasons, more intense heat waves, flooding, and increased energy use. In addition, air quality could deteriorate given increased periods of stagnant air mixing. Climate change can have long-term impacts on the transportation network, including:

- More frequent/severe flooding of low-lying infrastructure, requiring more effective stormwater management, due to more intense precipitation events.
- Greater thermal expansion of bridge joints and paved surfaces, potentially causing premature degradation.
- Higher maintenance/construction costs for roads and bridges, due to increased temperatures.
- Asphalt degradation and shorter replacement cycles, leading to limited access and higher costs, due to higher temperatures.
- Air traffic disruptions, due to severe weather and precipitation events that impact arrival and departure rates.

In addition to climate change's direct impacts, transportation systems may also have to adapt to changes in settlement or economic activity patterns. For example, changes in agricultural production locations may require changes in the transportation system. Better understanding of broad climate change impacts and adaptation strategies will permit a better understanding of potential direct and indirect impacts on transportation.

Preparing transportation infrastructure for climate change impacts is a new priority, considering future projects are designed and the current system is maintained. Resilience and sustainability should be considered early in the decision-making process when options and priorities are considered to meet communities' goals. Fresno COG is exploring tools and approaches in addressing climate resilience issues with member agencies; for instance, Fresno COG has submitted a grant application to conduct a vulnerability assessment on the regional transportation network. FHWA provides resources for such planning efforts, which can be found at: [https://www.fhwa.dot.gov/environment/sustainability/resilience/publications/bcrt\\_brochure.cfm](https://www.fhwa.dot.gov/environment/sustainability/resilience/publications/bcrt_brochure.cfm). The State has also developed tools and resources to help inform local decision-makers to incorporate climate impacts into their work.

Figure 3-22: Proposed Investments in the Revenue Constrained Transportation Network in the SCS

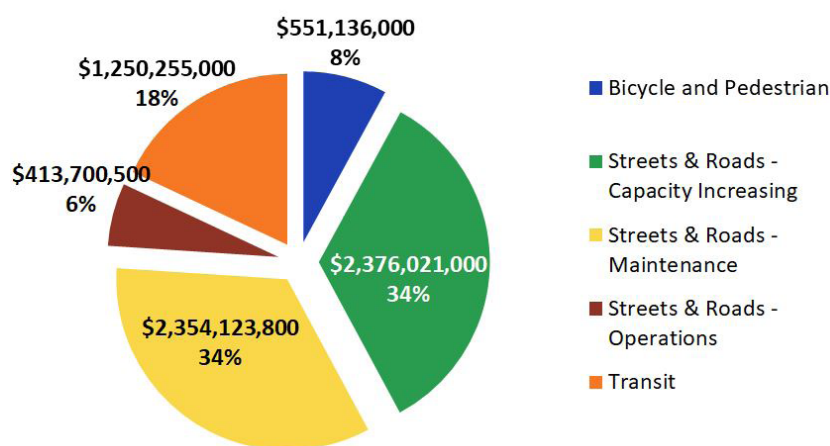
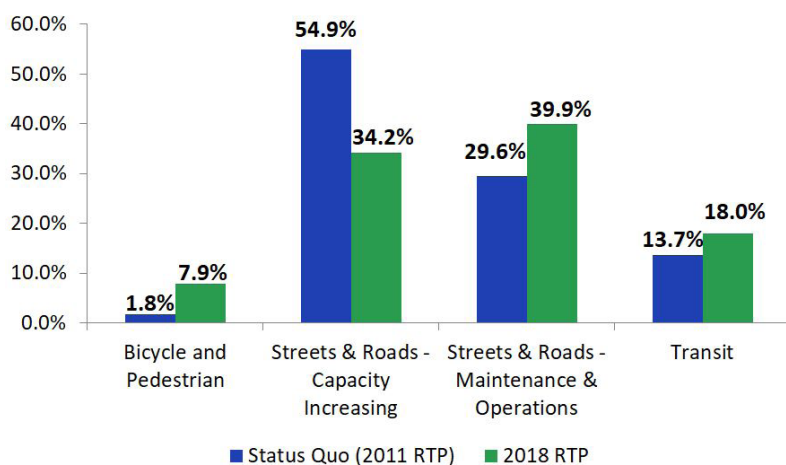


Figure 3-23: Comparison of status quo (2011 RTP) and 2018 RTP projects programmed by mode



## 3.12 Transportation Strategies

Per-capita GHG emissions reductions calculations do not consider widespread alternative fuel consumption. Also, they do not consider California's low-carbon fuel standard program, which calls for a reduction of at least 10 percent in transportation fuel's carbon intensity by 2020. Nor do they consider the benefits from vehicle efficiency ("Pavley" regulations that reduce GHG emissions in new passenger vehicles). Although Fresno COG is not able to take credit for these transportation measures toward meeting the state-mandated GHG emissions targets for the region pursuant to SB 375, Fresno COG recognizes the role that regional and local governments can play in accelerating alternative fuel vehicles, as well as fueling and recharging station development. Fresno COG has been active in this

area, which, in turn, helps the state meet its overall GHG reduction target. RTP/SCS strategies are aimed at reducing travel and providing additional travel choices. As such, the plan complies with Clean Air Act conformity requirements, as further detailed in the conformity document.

An important part of the Revenue-Constrained Transportation Network, described more fully in RTP Chapter 5, is a significant investment in public transit as well as facilities that encourage walking and bicycling. These investments aim to make public transit, walking, and bicycling more attractive options – particularly in areas planned for more compact and mixed-use development. Local streets and roads investments, including access to regional airports, goods movement projects, Transportation Demand Measures (TDM), and Transportation System Measure (TSM) projects and programs, also are integral to the overall transportation network. Proposed investments in the Revenue Constrained Transportation Network in the 2018 RTP/SCS are shown in Figure 3-22.

The 2018 RTP/SCS brings about big changes to transportation planning and funding. Figure 3-23 shows the difference in projects programmed by mode between the status quo and current RTP/SCS.

The most notable change in investment is represented by active transportation projects, which received over 400% greater investment in the 2018 RTP compared to the status quo (2011 RTP). This is largely due to the completion of the Fresno County Active Transportation Plan (ATP), which was responsible for adding hundreds of new bike and pedestrian projects to the submitted project list for the RTP. Additionally, the maintenance of Fresno County's streets and roads continues to be a priority for the region, with investments in maintenance and operations projects increasing by 35% compared to the status quo (2011 RTP).

Another noteworthy development in the RTP process is in the overall increase in the number of submitted projects by Fresno COG's member jurisdictions. The aforementioned ATP was instrumental in more than doubling the number of submitted bike and pedestrian projects, from 202 in 2014 to 522 in 2018.



### Transportation Demand Management

Transportation Demand Management (TDM) programs are designed to reduce single-occupant vehicle trips by changing traveling behavior and encouraging alternative transportation modes. TDM strategies also reduce vehicle trips during peak traffic periods, thereby reducing GHG emissions. Managing demand can be a cost-effective alternative to increasing capacity. A demand management approach also has the potential to deliver better environmental outcomes, improved public health and more livable communities.

#### **TDM strategies in Fresno County include, but are not limited to:**

- Measure C's Carpool Incentive program provides commuter incentives for sharing rides to work or school

- Measure C's Commuter and Agricultural Worker Vanpool Subsidy programs provide funding to new and existing commuter vanpools
- CalVans, a Joint Powers Public Transportation Agency comprising local transportation planning agencies and operating a multi-county vanpool program
- Fresno COG's Valleyrides.com website and carpool mobile application offers commuters free ride matching and serve as the database for Measure C's Carpool and Vanpool Programs
- Flex-time work schedules to reduce peak congestion
- Other trip reduction programs

Fresno County's Measure C Extension, a half-cent sales tax measure, allocates close to \$20 million over its 20-year lifespan to fund carpool, vanpool and agricultural worker vanpool programs. The San Joaquin Valley Air Pollution Control District's (SJVAPCD) Rule 9410: Employer-Based Trip Reduction, is another good example of programs designed to encourage employees to reduce single-occupancy vehicle trips.

### Transportation Systems Management

The Transportation Systems Management (TSM) approach to congestion mitigation and GHG emission reduction seeks to optimize existing transportation systems. Through better transportation infrastructure management and operation, these techniques are designed to improve traffic flow, air quality and safety.

TSM measures include, but are not limited to:

- Intersection operational improvements, including traffic signal synchronization
- Geometric changes and bottleneck alleviation
- Arterial access management
- Traffic/freeway management system
- Special events management strategies
- Incident management/emergency services

The 2018 RTP/SCS programs about \$295 million over its planning horizon to fund TSM operational improvement projects.

## Public Transit

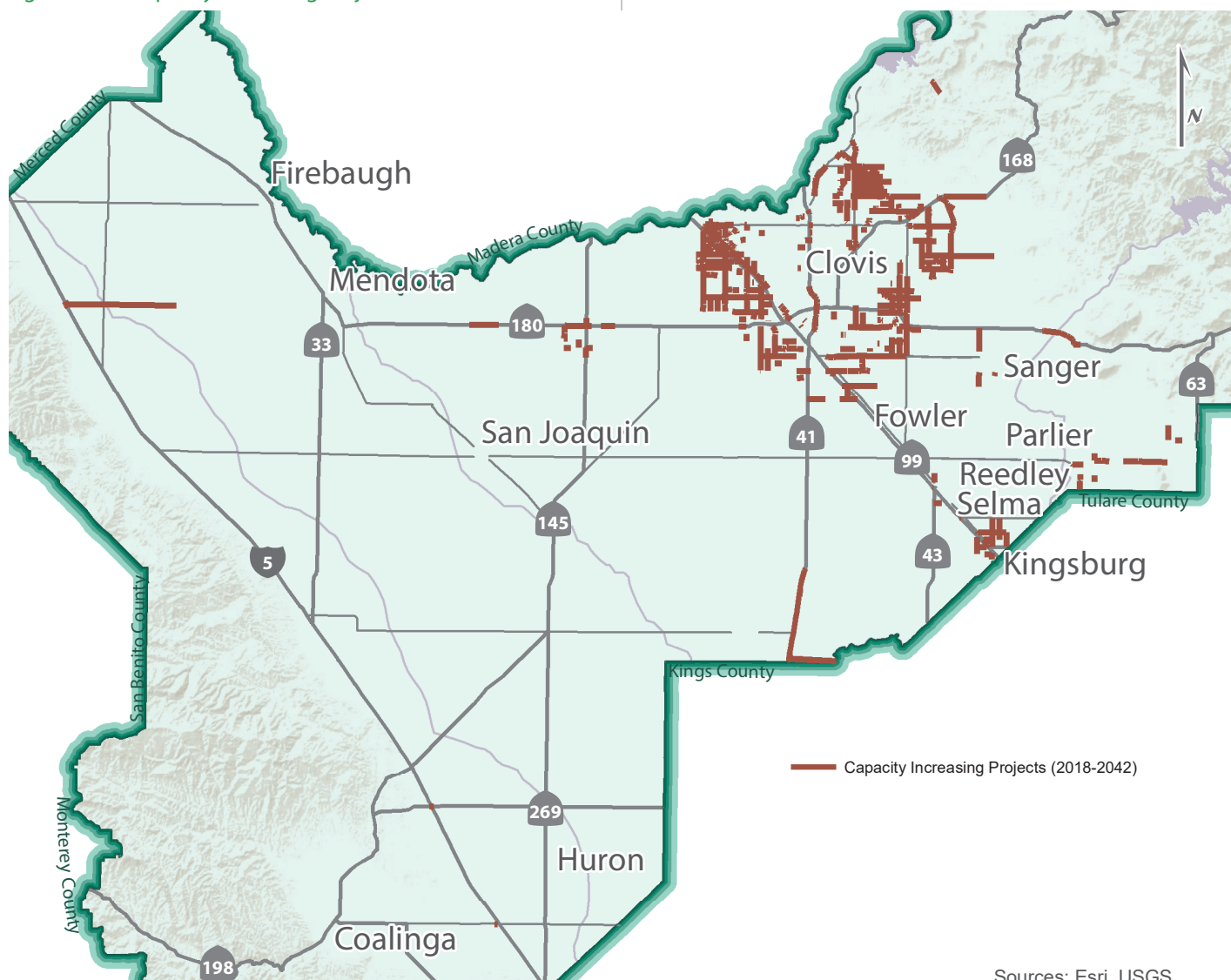
The 2018 RTP/SCS calls for expanding the public transit network and providing transit service on new routes, resulting in greater regional transit accessibility and connectivity. Transit expansion and improvement includes new corridors and improving existing service, as well introducing the region's first bus rapid transit (BRT) system in the City of Fresno. Also included is California's High-Speed Train (HST) project.

The Bus Rapid Transit (BRT) corridors defined in Fresno COG's SCS conform to the City of Fresno's 2035 General Plan Update and are an integral part of high-capacity transit corridors that link major activity centers within the urbanized area. The BRT corridors are planned for

Blackstone Avenue from Friant Road to the Central Business District (CBD), and the Ventura Avenue/Kings Canyon corridor from Clovis Avenue to the CBD. Shaw Avenue from Highway City in the west to State Route 168 to the east is proposed as the second BRT corridor. Other BRT planned corridors are California Avenue in Southwest Fresno, Cedar Avenue BRT, and the Southeast Growth Area (SEGA) BRT extension.

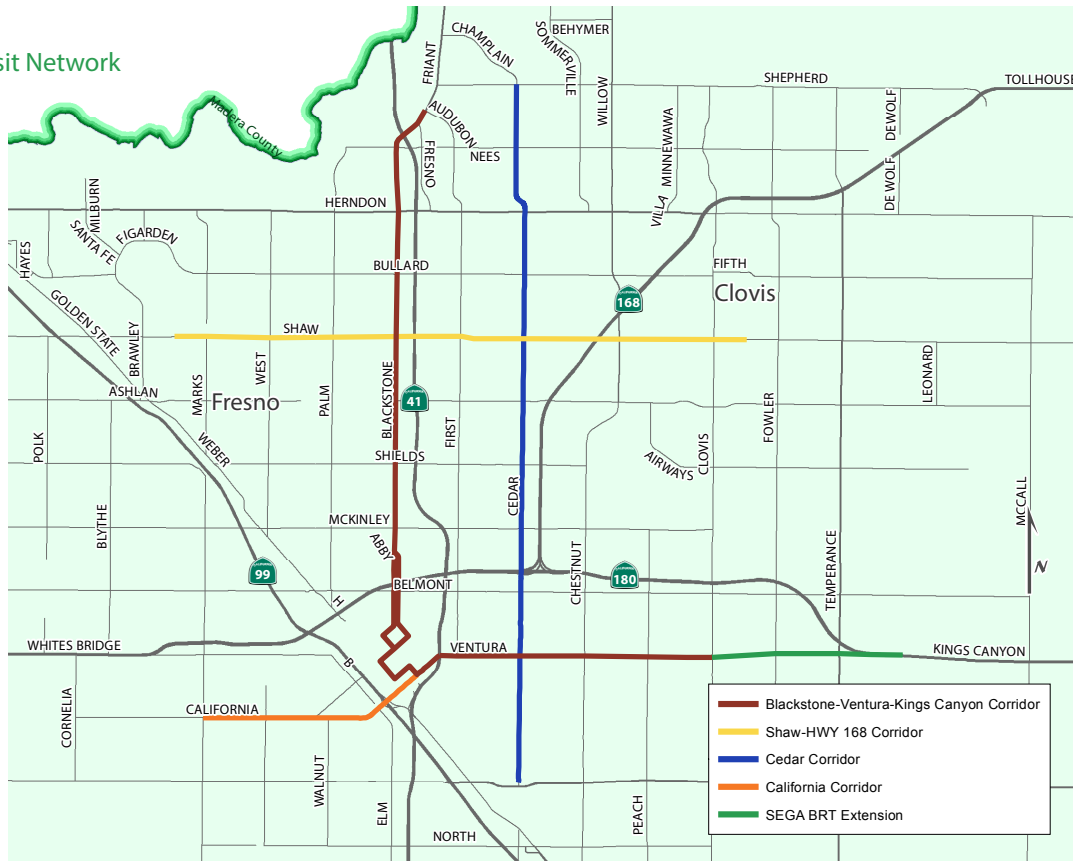
The BRT corridors form vital links to existing and planned activity centers within Fresno. These activity centers include mixed land uses with buildings in close proximity and are well integrated with multiple transportation modes. Frequent and reliable BRT service will be a cornerstone of these activity centers.

Figure 3-24: Capacity Increasing Projects



Sources: Esri, USGS,

Figure 3-25:  
Bus Rapid Transit Network



### Vehicle Technology/Enhanced Mobility

Governor Brown's Executive Order B-16-2012 established a goal to get 1.5 million Electric Vehicles (EV) on the road by 2025. The State Legislature has passed a series of bills and laws to support EV use. The Fresno region has been taking progressive steps in making the communities EV ready. State Route 41 from Fish Camp to Chandon (Fresno segment included) was recently designated by Federal Highways as one of the Electric Vehicle pending corridors in California. Several initiatives have been taken to incentivize the installation of EV charging infrastructures across the region for both public transit fleet and private vehicles.

- PG&E is implementing \$49 million in EPIC Grants to install chargers.
- Fresno County Rural Transit Agency has installed \$3 million worth of units and will receive another allocation of \$4 million for additional units in municipalities.

- The San Joaquin Valley Air Pollution Control District's Charge Up program is allocating \$3 million annually to incentivize installation of units.
- The California Air Resources Board has multiple rebates available to fund and incentivize charging units.
- California Energy Commission launched a \$4 million incentive program in Fresno County to install level 2 chargers.
- Volkswagen Settlement is planning to invest over \$800 million in charging infrastructure statewide, and Fresno County was designated as one of the metropolitan areas to receive funds in the 1st Cycle Investment Plan.



## Bike and Pedestrian Facilities

The 2018 RTP/SCS also includes a notable increase in the regional active transportation network for walking and bicycling. Active transportation is an essential part of the Fresno COG transportation system, is low cost, does not emit GHG, can help reduce roadway congestion, and increases residents' health and quality of life. This emphasis signifies an important opportunity to advance SB 375's goals by increasing non-motorized transportation



modes, thereby expanding access to a variety of land uses and transit and improving public health and air quality. Nearly \$507 million is proposed in the 2018 RTP/SCS to fund bike and pedestrian projects, with more than 280 bike lane miles and 500 miles of sidewalks to be added by the end of the 2042. These improvements, combined with SCS strategic growth patterns, are projected to help improve public health through active travel.

These transit and active transportation expansions complement the preferred land-use pattern and support expected growth throughout the region. The overall land-use pattern's focus on locating additional growth along transit corridors in the Fresno metropolitan area relies on developing efficient transportation corridors, significant VMT reductions and other benefits from higher walk/bike mode share, more transit use, and shorter auto trips.

The transportation network, including proposed roadway expansion and existing and future transit lines are shown in [Figures 3-24 and 3-25](#).

Fresno COG, in partnership with Fresno County Rural Transit Agency, has been actively seeking funding to develop a Regional EV Infrastructure network Plan. Under the Plan, a gap analysis will be conducted to identify the needs for EV infrastructure and deficiencies of the

EV charging network that has been built and planned. The Plan will also develop prioritization for tiers of charging locations, which will provide guidance for future investment in the EV infrastructure.

Fresno COG and the other seven Valley MPOs conducted a study to identify opportunities for shared mobility services in the rural communities in the San Joaquin Valley. The study served to address rural area transportation needs that could not be addressed by traditional public transportation services due to ridership and fare box issues. This study identified shared-use services such as ride-sourcing, ridesharing, car-sharing and bike-sharing that could supplement traditional fixed-route and dial-a-ride services.

Efforts to implement shared mobility services in the rural areas with zero-emission vehicles have been explored and launched by multiple entities including regional governments, transit agencies, colleges and non-profit organizations.

- [Fresno City College](#) has been awarded \$750,000 by the California Energy Commission for a “Bolt to College” program. The program will provide on-demand door-to-door ridersharing service for students in the Kerman area with Chevrolet Bolt EVs.
- [Fresno County Rural Transit Agency](#) is seeking funding to launch a region-wide ridesharing service with 25 to 50 Bolt EVs servicing the non-Metro areas of Fresno County, to address transportation needs in the rural disadvantaged communities.
- [Just Transit Grants](#): two rural communities in Fresno County have received grants from Just Transit to develop community-based shared-ride service with zero-emission vehicles:
  - o [Green Raiteros](#) is a ridesharing service with EV fleet based in Huron that offers ride to community members ; and
  - o [Van y Vienen](#) is a vanpool service in the unincorporated communities of Cantua Creek and El Porvenir with Tesla vans.

In the urban area, similar EV-based shared mobility services have also been implemented. Funded through the Transformative Climate Change (TCC) program, City

of Fresno is implementing a “Clean Shared Mobility Network” that consists of an EV car-sharing program, a volunteer driver program providing EV rides to underserved residents, an electric vanpool program to provide access to employment centers, and an electric bike-share program.

## 3.13 Consultation with the Local Agency Formation Commission

SB 375 requires that SCS preparation include coordinating with the Local Agency Formation Commission (LAFCo) to specifically consider its adopted Spheres of Influence (SOI). LAFCo works to promote orderly development, ensure that urban services can be provided, and preserve open space and agricultural lands. Fresno LAFCo has adopted SOIs for each city and special district in Fresno County, which are considered the probable future urban boundaries for each agency. Within the SOI, orderly annexations may take place if the proposal is consistent with the General Plan, the subject property is pre-zoned consistent with the General Plan designation, and other LAFCo requirements are met.

During the 2018 RTP/SCS development process, Fresno LAFCo was a member of the RTP Roundtable and was consulted and updated regularly.

## 3.14 Considering Social Equity in the SCS

In the wake of federal guidelines for environmental justice (EJ) based on the Civil Rights Act’s Title VI, Fresno COG has

worked to incorporate EJ principles into transportation planning by developing methods to assess impacts from its planning processes on low-income and minority populations. Under Title VI and related statutes, Fresno COG assures that no person shall be excluded from participation in, be denied the benefits of, or otherwise subjected to discrimination under any agency-sponsored program or activity on the grounds of race, color, or national origin, as provided by Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1987 (P.L. 100.259). Neither shall sex, age or disability stand in the way of fair treatment of all individuals. Fresno COG commits to practicing nondiscrimination in all of its programs and activities, regardless of whether they are federally funded.

The SCS’s population and housing projections include population growth of 295,799 persons in 81,299 households to 2035 (compared to 2014). These projections include all economic segments of the population. Multifamily housing units are projected to increase from 18 percent of housing stock to 22 percent, providing the greatest opportunity for affordable housing to be built. Additionally, 23 percent of all new housing and 36 percent of all new employment will take place within one-half mile of planned Bus Rapid Transit lines. The opportunities for affordable housing and access to public transit are expected to reduce housing and transportation costs on lower-income individuals and families.

### Public Outreach

Fresno COG’s extensive public outreach process provided people (regardless of race, income, color or national origin) equal access and opportunities to provide input into SCS Scenario development. Fresno COG staff exerted considerable effort to engage underserved populations traditionally hard to reach. Briefly summarized, Fresno COG provided seven, \$5,000 “mini grants” for community based organizations to assist COG staff in engaging members of the public from throughout the county. In June 2017 15 workshops were conducted, several within disadvantaged communities, to discuss SCS development with residents and obtain their regional transportation suggestions. An online, interactive survey was also publicized and available in English and Spanish.



Furthermore, in October 2017, Fresno COG staff hosted 20 informational booths at community events throughout Fresno County, gave 11 interactive presentations at the request of community and business organizations and developed an online survey in English and Spanish to gather the public's scenario preferences.

At workshops and events interpreters were provided, presentations were given in requested languages (English or Spanish) with all materials available in English or Spanish and materials, information and outreach input published on Fresno COG's website. For those who wished to attend workshops Fresno COG provided transit, dinner and childcare free of charge. For complete details about all public outreach conducted, please refer to RTP Chapter 6: Public Participation.

### Environmental Justice Advisory Committee

Fresno COG formed an Environmental Justice (EJ) Advisory Committee to guide its RTP's EJ analysis. The committee was comprised of low income, minority, senior and disabled community representatives. An EJ Committee representative also participated as a voting member of the RTP Roundtable Committee. During the RTP planning process the EJ Advisory Committee helped define "Environmental Justice Communities" in Fresno County as well as the low-income thresholds for the EJ analysis. Detailed information regarding the EJ Advisory Committee's involvement in the 2018 RTP/SCS is summarized in RTP Chapter 7 regarding Environmental Justice and RTP Chapter 6 regarding Public Participation.

### Environmental Justice Analysis

Environmental justice analysis completed on the RTP compared several factors including impacts to different geographical areas such as the Fresno-Clovis Sphere of Influence (SOI), the remainder of the County and countywide impacts. The analysis concluded that EJ communities are not "disproportionately burdened

by high and adverse" effects and do share equitably in benefits from the 2018 RTP/SCS; in most cases, EJ communities fare better than non-EJ communities. However, additional steps toward further improving equity were identified and committed to in the analysis. Please refer to RTP Chapter 7 on the Environmental Justice Report for additional details.

## 3.15 Considering Public Health in the SCS

In much of Fresno County, housing, schools, shopping, employment and parks are separated from each other by distances that discourage walking and biking and encourage dependence on cars. In an effort to improve residents' health, cities are promoting physical activity—particularly walking and biking—through their general plans, zoning codes, and transportation planning. These strategies address health conditions linked to sedentary lifestyles—such as obesity, cardiovascular disease, diabetes, and dementia—as well as state mandates to reduce GHG. A healthy population and environment are among the co-benefits of using the general plan, zoning code and infrastructure investments to promote safe, active transportation, increased open space and nutritious food.

Cities throughout the region are using their planning processes to address the obesity epidemic (i.e. rates of obesity increase in proportion to vehicular miles traveled).



Many are including a focus on smart growth principles – developing healthy, vibrant communities where homes, jobs, schools and recreational spaces are nearby each other and linked by walking, biking and transit routes. The smart growth approach is gaining ground as GHG emission reduction mandates shape transportation and housing planning. Examples of smart growth incorporated into the

2018 RTP/SCS include:

- Promotion of compact, mixed-use and transit-oriented development
- Increased walking and biking through street design
- Targeting infrastructure investments in walking, biking, and transit
- The selected SCS land-use scenario moves the region towards a healthier future by improving land-use and transportation connections, resulting in more walkable communities, increased bicycling, more people using transit, and better access to healthy food



The 2018 RTP/SCS employs the two following main strategies to measure and quantify health concerns in the Fresno County region:

### The ITHIM Modeling Tool

The 2018 SCS incorporates the Integrated Transport and Health Impact Modelling Tool (ITHIM) to quantify the positive impact of these strategies and policies on public health. This tool uses regional health data to look specifically at conditions that are linked with sedentary lifestyles and calculates the various improvements to public health that would result from an increased engagement in active travel modes such as walking and biking.

With the implementation of the ITHIM tool, it became possible to add a new, health-related performance indicator to the SCS analysis process: the net annual prevention of premature deaths due to an increase in active travel. According to this tool, the improvements in active travel in the preferred scenario (after adjusting for roadway safety conditions) project a net annual prevention of 17 premature deaths due to health conditions brought about by sedentary lifestyles.

### The Fresno County Health Priority Index

Recently, the Fresno County Department of Public Health, in collaboration with The Fresno Community Health Improvement Partnership (FCHIP) Land Use and Planning

Workgroup, developed a Health Priority Index (HPI) for Fresno County. The HPI compiles data from national, state, and local sources to visualize levels of health burden within each census tract in Fresno County.

The HPI was used in the RTP project scoring criteria to prioritize transit and active transportation projects in health-burdened areas. More information about the HPI's consideration in the scoring process can be found in RTP Chapter 5.

## 3.16 Streamlining the CEQA Process

Under SB 375, general consistency with a CARB-approved SCS allows projects to qualify for two types of California Environmental Quality Act (CEQA) streamlining:

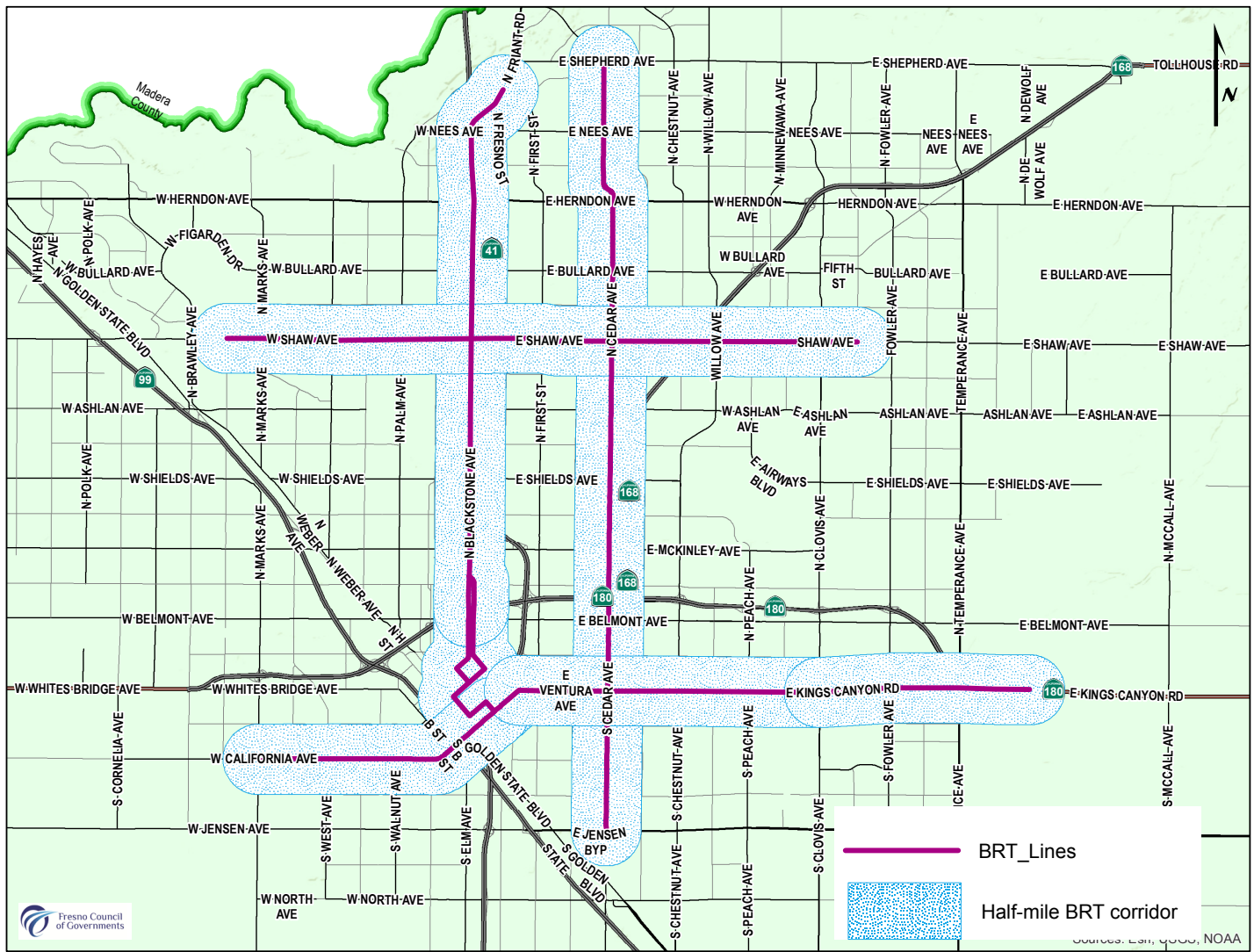
### Projects Consistent with the SCS or APS

A residential or mixed-use project consistent with the density and policies in an SCS is not required to discuss (1) growth-inducing impacts, or (2) project-specific or cumulative impacts from cars and light-duty truck trips on global warming or the regional transportation network (if the project incorporates the mitigation measures required by an applicable, prior environmental document).

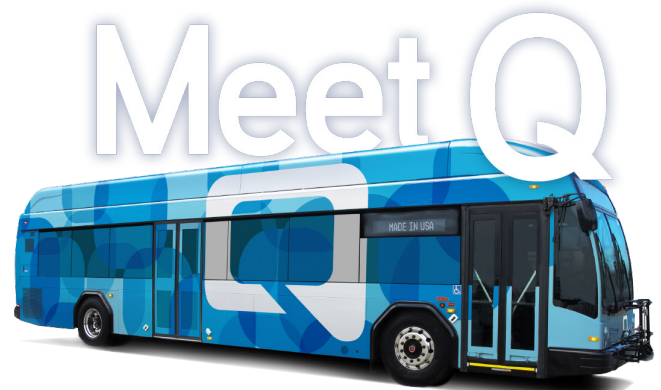
### Three Types of Streamlining for Transit Priority Projects

SB 375 established "transit priority projects" (TPP) that must meet three requirements:

Figure 3-26: Bus Rapid Transit Network



1. Include at least 50% residential use
2. Have a minimum net density of 20 units per acre
3. Be located within one-half mile of a major transit stop or high-quality transit corridor included in an RTP. A major transit stop refers to an existing rail transit station, a ferry terminal, or the intersection of two or more major bus routes with a frequency-of-service interval of 15 minutes or less during peak commute periods. (There are no bus routes in Fresno County with 15-minute service intervals during peak commute periods.) A high-quality transit corridor means a corridor with fixed-route service with intervals of 15 minutes or less during peak commute hours.



(Proposed BRT routes in the 2018 RTP/SCS meet the high-quality transit corridor definition.) **Figure 3-26** shows the ½-mile corridors of high-capacity transit in Fresno County.

A TPP is exempt from CEQA if the following applies:

- It is not more than 200 units on not more than eight acres
- It can be served by existing utilities
- It does not affect historical resources; buildings are 15 percent more energy efficient than required
- The project is designed to achieve 25 percent less water usage
- It provides either a minimum of five acres/1,000 residents of open space, or housing for moderate, low, or very low income residents

A TPP that does not qualify for an exemption may qualify for a sustainable community environmental assessment (SCEA) if the project incorporates mitigation measures, performance standards, or criteria from prior applicable environmental impact reports. A SCEA is similar to a negative declaration under CEQA.

SB 375 also authorizes specific traffic mitigation measures that apply to TPPs to include requirements for traffic control improvements, street or road improvements, transit passes or other measures that will mitigate transit priority projects' traffic impacts. A TPP does not need to comply with additional mitigation measures if traffic mitigation measures have been adopted.

However, it is widely believed that very few development projects in Fresno County could qualify as TPPs, at least in the near future. TPPs are designed for more urban locations with higher development concentrations such as the Bay Area and the Southern California region. Local jurisdictions maintain the discretion and will be solely responsible for determining future projects' SCS consistency. Fresno COG staff may provide a lead agency with readily available data and documentation to help support its finding upon request.

## 3.17 What Is Next?

The 2018 RTP/SCS will reduce GHG emissions by focusing growth in developed areas, moderately increasing residential densities, encouraging infill development, protecting open space and agricultural land, and providing transportation alternatives to the private automobile. New opportunities to reduce GHG emissions will occur with each four-year update.

Fresno COG will update its RTP/SCS in 2022, according to applicable federal and state laws. As part of this update, Fresno COG will be reviewing its own progress implementing RTP strategies. In addition, ARB re-evaluates GHG emission reduction targets at least every eight years and may revise them every four years. This will enable the State and Fresno COG to consider circumstantial changes, funding availability, technological advances, new legislation, and other considerations that could arise over time.

Fresno COG will also track its own progress in implementing its 2018 RTP/SCS strategies while developing its Overall Work Programs and annual budgets. The OWP/budget process provides an opportunity for Fresno COG to allocate staff resources and funding to implement RTP/SCS short-term and mid-term strategies. In addition, Fresno COG will periodically monitor progress from the State, CTC, local jurisdictions, and other agencies and entities in implementing the strategies this plan identifies.