Chapter 5

Sanger, California *Campbell Mountain*

Financing Mobility

Funding Our Transportation System

The Financial Element of the RTP
provides over $4.4 billion in transportation project funding

5.1 Introduction

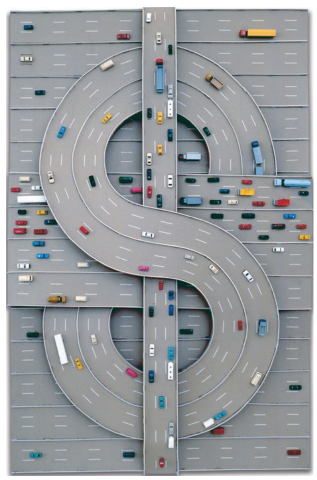
The Financial Element discusses the investment decisions and revenue assumptions contained in the (RTP/SCS). It identifies anticipated revenue sources as well as the financing techniques available for the region's planned transportation investments, ongoing operations, and maintenance. This element addresses both available revenue sources as well as federal, state, regional, and local revenues the region may expect over the next 25 years.

Among other considerations, the Financial Element:

1. Estimates the costs and projects the revenues available for transportation system improvements recommended in the RTP's Action Element. In doing so, it contains financial assumptions and projections that set parameters for the Regional Transportation Improvement Program (RTIP).
2. Describes how revenue projection models were analyzed leading to a preferred project scenario. It serves as an inventory of existing and potential new transportation funding sources for transportation system improvements in Fresno County.
3. Identifies potential funding shortfalls along with recommendations for potential revenue sources that the region could pursue to implement the transportation vision over the long term.
4. Includes a "financially constrained" program as required by federal legislation. Financial forecasts are used to plan investments using revenues that are reasonably expected to be available. Also included is a list of projects ("financially unconstrained") that are both necessary and desirable should funding become reasonably available.
5. Includes a general discussion of how projects are programmed into the RTP's financially constrained and unconstrained list.
6. Lastly, it discusses how the region will implement the RTP/SCS plan investments through subsequent programming actions.

5.2 RTP/SCS Revenue Projections

As required by federal transportation law (23CFR450.322), the RTP shall be financially constrained. A financially constrained project list identifies a program for which funding has been identified or is reasonably expected to be available within the RTP's planning horizon. A financially unconstrained project list reflects projects that are both necessary and desirable *should funds become reasonably available.* Federal statute states that a financial plan must demonstrate how the projects can be built while the existing transportation system is being maintained. To meet this requirement, the RTP compares revenue projections for its 25-year planning horizon against all projects needed to support the region's member-provided surface transportation investments.



The Financial Element's assumptions include revenue estimates for specific governmental funding programs, local contributions and tax initiatives. The assumptions provide a level of financial detail adequate for local and state decision-makers to exercise options. Member agencies submit planned projects that are expected to be completed within the RTP's 25-year planning horizon. This process then allows Fresno COG to compare estimated project costs against projected revenues to ensure that the adopted program of projects will not exceed reasonably foreseeable future revenues.

Revenue Assumptions

The RTP's estimated revenues assume an inflation rate of two percent and are reported in expenditure year dollars. The financial assumptions used to develop revenue and cost projections are listed in Appendix C. The totals reflect an estimated annual average amount from each of the various funding sources for the years 2018 through 2042.

Fresno COG relied on the following assumptions to develop revenue and cost projections:

- Local Transportation Fund revenues are assumed to be constant throughout the RTP's life.
- The Surface Transportation Block Grant Program (STBG) and Congestion Mitigation and Air Quality Improvement (CMAQ) Program, will continue or be replaced by similar programs throughout the RTP's life.
- Federal and State Transit funds are assumed to remain at their present levels throughout the plan's life.
- Projected state and federal highway revenues reflect the average amounts programmed in the State Transportation Improvement Program (STIP) and are consistent with the CTC-adopted, five-year STIP fund estimate.
- Measure C, Fresno County's local ½-cent sales tax for transportation improvements, will be renewed and/or augmented before it expires in 2027. Voters have extended the measure once already, in 2006.
- Respective transit operators have provided specific revenue projections for their services.
- Fresno COG's member agencies have provided local streets and roads revenue projections.

All projects identified in the 2018 RTP are consistent with the Policy Element's goals, policies, and objectives.

Existing Major Revenue Sources

MAP-21 restructured core highway formula programs that played a major role in previous RTPs' financial forecasts. The FAST Act continued those changes. Activities under some existing formula programs – such as the National Highway System Program, the Interstate Maintenance Program, the Highway Bridge Program and the Transportation Enhancement Program were incorporated into the following new core formula program structure:

- National Highway Performance Program (NHPP)
- Surface Transportation Block Grant Program (STBG)
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Highway Safety Improvement Program (HSIP)
- Railway-Highway Crossings (set-aside from HSIP)
- Metropolitan Planning

The FAST Act replaced the Transportation Alternatives Program (TAP) under MAP-21 with a set-aside of funds under the Surface Transportation Block Grant (STBG) program to pay for transportation alternatives (TA). These set-aside funds include all projects and activities that were previously eligible under TAP, encompassing a variety of smaller-scale transportation projects such as: pedestrian and bicycle facilities; recreational trails; Safe Routes to Schools projects; community improvements, such as historic preservation and vegetation management and; environmental mitigation related to stormwater and habitat connectivity.

The following funding programs are considered to be the principal sources anticipated to be available for funding of the RTP projects.

Federal Programs

Congestion Mitigation and Air Quality Program (CMAQ)

The CMAQ Program provides a flexible funding source to state and local governments for transportation projects and programs to help meet federal Clean Air Act requirements. Funding is available for areas that do not meet the National Ambient Air Quality Standards (non-attainment areas), as well as former non-attainment areas that are now in compliance (maintenance areas). Funds are distributed to states based on a formula that considers an area's population by county and the severity of its air quality problems.

CMAQ-eligible projects or programs are those that help regions attain the National Ambient Air Quality Standards for ozone, carbon monoxide, and/or particulate matter. At least 25% of CMAQ funds must be used on projects that have PM2.5 emission reductions, and the rest of the CMAQ funding must be used on projects with other emission reductions (NOx, VOC, or CO).
Typical projects include:

- Public transit improvements

- High-Occupancy Vehicle (HOV) lanes
- Employer-based transportation management plans and incentives
- Traffic flow improvement programs (signal coordination)
- Fringe parking facilities serving multiple occupancy vehicles
- Shared ride services
- Bicycle and pedestrian facilities
- Flexible work-hour programs
- "PM-10" projects, under certain conditions

Highway Safety Improvement Program (HSIP)
The FAST Act continues the HSIP to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance.

A highway safety improvement project is any strategy, activity or project that is consistent with the data-driven State Strategic Highway Safety Plan (SHSP) and corrects or improves a hazardous road location or feature or addresses a highway safety problem. HSIP funds are eligible for work on any public road or publicly owned bicycle or pedestrian pathway or trail, or on tribal lands, that corrects or improves the safety for its users. The 24 project categories are broad and listed under 23 U.S.C. §148(a)(4)(B). Workforce development, training and education activities are also HSIP eligible.

Railway-Highway Crossings (Section 130) Program
The Railway-Highway Crossings program provides funds for safety improvements to reduce the number of fatalities, injuries, and crashes at public railway-highway grade crossings. This program is funded by contract authority from the Highway Trust Fund's Highway Account and are derived from a set-aside of the Highway Safety Improvement Program (HSIP). Eligible projects include any at-grade crossing between a road and a railroad track that the California Public Utilities Commission (CPUC) recommends, and where a 10% match funding source is identified. The selection process begins with an investigation of any project that Caltrans, a local agency or a railroad identifies. The investigation usually consists of a field review, discussion between all parties, a jointly developed and recommended improvement and a preliminary funding schedule. The final selection is determined when the local agency provides the 10% matching funds to a project or the CPUC list of recommended highway/rail grade crossing projects.

Metropolitan Planning
The purpose of Metropolitan Planning funds is to carry out the requirements of 23 U.S.C. 134 and provide for a continuing, comprehensive and cooperative (3-C) metropolitan transportation planning process. Following 23 U.S.C. 104, generally, Metropolitan Planning funds shall be made available to each Metropolitan Planning Organization (MPO) designated for an urbanized area with a population of more than 50,000 individuals and responsible for carrying out the 3-C metropolitan planning process.

National Highway Freight Program (NHFP)
The FAST Act established the NHFP to improve efficient movement of freight on the National Highway Freight Network (NHFN) and support several goals, including:

- Investing in infrastructure and operational improvements that strengthen economic competitiveness, reduce congestion, reduce the cost of freight transportation, improve reliability and increase productivity
- Improving the safety, security, efficiency and resiliency of freight transportation in rural and urban areas
- Improving the state of good repair of the NHFN
- Using innovation and advanced technology to improve NHFN safety, efficiency, and reliability
- Improving NHFN efficiency and productivity
- Improving State flexibility to support multi-State corridor planning and address highway freight connectivity

National Highway Freight Network

- Reducing the environmental impacts of freight movement on the NHFN

National Highway Performance Program (NHPP)
The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that federal investments are directed toward performance targets established in a State's NHS asset management plan.

NHPP projects must be on an eligible facility and support progress toward achievement of national performance goals for improving NHS infrastructure condition, safety, mobility or freight movement, and be consistent with metropolitan and statewide planning requirements.

Eligible activities include:

- NHS segment construction, reconstruction, resurfacing, restoration, rehabilitation, preservation, or operational improvements
- NHS bridge and tunnel construction, replacement (including replacement with fill material), rehabilitation, preservation, and protection (including scour countermeasures, seismic retrofits, impact protection measures, security countermeasures and protection against extreme events)
- NHS bridge,tunnel and other highway infrastructure assets' inspection and evaluation
- Training bridge and tunnel inspectors
- Constructing, rehabilitating, or replacing existing ferry boats and facilities, including approaches that connect NHS road segments
- Constructing, reconstructing, resurfacing, restoring, rehabilitating and preserving, and operational improvements for, a federal-aid highway not on the NHS
- Transit projects eligible for assistance under chapter 53 of title 49, if the project is in the same corridor and in proximity to a fully access-controlled NHS route, if the improvement is more cost-effective (as determined by a benefit-cost analysis) than an NHS improvement and will reduce delays or produce travel time savings on the NHS route and improve regional traffic flow
- Bicycle transportation and pedestrian walkways
- NHS highway safety improvements
- Capital and operating costs for traffic and traveler information, monitoring, management, and control facilities and programs
- Data collection, maintenance and integration, software costs and equipment costs to develop a State Asset Management Plan for the NHS

- Infrastructure-based ITS capital improvements
- Environmental restoration and pollution abatement
- Controlling noxious weeds and establishing native species
- NHPP project environmental mitigation costs
- New, publicly owned intracity or intercity bus terminals serving the NHS

Nationally Significant Federal Lands and Tribal Projects (NSFLTP)
The NSFLTP program provides funding for the construction, reconstruction, and rehabilitation of nationally-significant projects on Federal or tribal lands.

Financial assistance may be provided only for a single continuous project that:

- Is on a Federal lands transportation facility, Federal lands access transportation facility or tribal transportation facility, (the facility is not required to be listed in the national tribal transportation facility inventory or the national Federal lands transportation facility inventory);
- Has completed the National Environmental Policy Act (NEPA) process with a finding of no significant impact, or categorical exclusion determination; and
- Has an estimated cost of at least $25 million (with priority consideration for projects with an estimated cost of at least $50 million).

When considering projects to be funding with NSFLTP, the following criteria is considered:

- Furthers the Department's goals, including state of good repair, economic competitiveness, quality of life, and safety;
- Improves the condition of critical transportation facilities, including multimodal transportation facilities;
- Needs construction, reconstruction, or rehabilitation;
- Has matching funds (projects with a greater percentage of matching funds rank higher than projects with a lesser percentage of matching funds);
- Is included on or eligible for the National Register of Historic Places;
- Uses new technologies and innovations to increase project efficiency;
- Is supported (whether for construction or for operation and maintenance) by funds other than those received under this program;
- Spans two or more States; and
- Serves land owned by multiple Federal agencies or Indian tribes

Nationally Significant Freight and Highway Projects (NSFHP)
NSFHP provides financial assistance – grants, known as FASTLANE grants, or credit assistance – to nationally and regionally significant freight and highway projects that align with the program goals to:

- Improve safety, efficiency, and reliability of the movement of freight and people
- Generate national or regional economic benefits and an increase in U.S. global economic competitiveness
- Reduce highway congestion and bottlenecks
- Improve connectivity between modes of freight transportation
- Enhance the resiliency of critical highway infrastructure and help protect the environment
- Improve roadways vital to national energy security
- Address the impact of population growth on the movement of people and freight
- Mitigate impacts of freight movements on communities

Surface Transportation Block Grant Program (STBG)
The FAST Act converts the long-standing Surface Transportation Program into the Surface Transportation Block Grant Program (STBG). STBG provides flexible funding that states and local governments may use for projects on any federal-aid highway, including the National Highway System (NHS); bridge projects on any public road; transit capital projects and; public bus terminals and facilities. Funds are distributed among the states based on federal-aid highway lane miles, (including on the NHS), total vehicle-miles traveled on those federal-aid highways, and estimated contributions to the Highway Trust Fund's Highway Account. A portion of the STBG is set aside for Transportation Alternatives (TA), State Planning and Research, and funding for bridges not on federal-aid highways. The State sub-allocates Federal STBG funds to regions based on population and serves as Fresno COG's Regional Surface Transportation Block Grant Program (STBG). MAP-21 permits a portion of funds reserved for rural areas to be spent on rural minor collectors.

Eligible projects include but are not limited to:

- Highway projects
- Bridges (including construction, reconstruction, seismic retrofit and painting) on all public roads
- Transit capital improvements
- Carpool, bicycle and pedestrian facilities
- Safety improvements and hazard elimination
- Research and traffic management systems
- Planning
- Transportation enhancement activities and control measures
- Safety improvements and bridge replacement projects on local roads and rural minor collectors

Federal Transit Administration Section 5307 (Urbanized Area Formula Grants [JARC])
This program provides financial operating and capital purchase assistance to urban public transportation service operators. Funds are apportioned to urbanized areas with populations greater than 50,000 based on a formula using population and population density.

Federal Transit Administration Section 5309 (Fixed Guideway Capital Investment Grants)
This is FTA's primary grant program for funding major transit capital investments, including: rapid rail, light rail, bus rapid transit, commuter rail and ferries. Section 5309 provides grants for new and expanded rail, bus rapid transit and ferry systems that reflect local priorities to improve transportation options in key corridors. This program defines a new category of eligible projects, known as core capacity projects, which expand capacity by at least 10% in existing fixed-guideway transit corridors that are already at or above capacity today, or are expected to be at or above capacity within five years. The program also includes provisions for streamlining the New Starts process to increase efficiency in meeting critical milestones.

Federal Transit Administration Section 5310 (Enhanced Mobility of Seniors and Individuals with Disabilities [New Freedom])
This program funds capital expenses for private, non-profit corporations to support the transportation services to meet the needs of elderly and disabled persons. Capital assistance is provided for up to 88.53% of the net project cost.

Federal Transit Administration Section 5311 (Rural Area Formula Grants)
This program provides formula-based funding for capital and/or operating assistance to rural areas with a population fewer than 50,000. Capital assistance is provided for up to 88.53% of the net project cost. Operational assistance has a 50% federal participation ceiling.

State Programs

Active Transportation Program (ATP)
The ATP consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA) and State Safe Routes to School (SR2S), into a single program with a focus on making California a national leader in active transportation. The Division of Local Assistance, Office of Active Transportation and Special Programs administers the ATP.

The ATP encourages active transportation modes by:

- Increasing biking and walking trips
- Increasing non-motorized users' safety and mobility
- Advancing regional agencies active transportation efforts to achieve greenhouse gas (GHG) reduction goals, pursuant to SB 375 (of 2008) and SB 341 (of 2009)
- Enhancing public health
- Ensuring that disadvantaged communities fully share in the program's benefits
- Providing a broad spectrum of projects to benefit many types of active transportation users

State and federal law segregate program funding into three components and is distributed as follows:

- 50% to the state for a statewide competitive program
- 10% to small urban and rural regions with populations of 200,000 or less for the small urban and rural area competitive program
- 40% to Metropolitan Planning Organizations in urban areas with populations greater than 200,000 for the large urbanized area competitive program

Cap and Trade
California's Cap-and-Trade Program (derived from AB 32, the California Global Warming Solutions Act of 2006) is an emissions trading program designed to reduce greenhouse gases (GHGs) from multiple sources. The State's proceeds from Cap-and-Trade auctions are deposited in the Greenhouse Gas Reduction Fund (GGRF) and are used to achieve GHG emission reductions. The following transportation programs are funded through GGRF allocations:

Active Transportation Program (ATP): (Described in the previous section).

Low Carbon Transit Operations Program (LCTOP): The LCTOP provides transit agencies with operating and capital assistance to reduce greenhouse gas emissions and improve mobility, with a priority on serving disadvantaged communities. LCTOP projects support new or expanded bus or rail services, expanded intermodal transit facilities, and may include equipment acquisition, fueling, maintenance and other costs to operate those services or facilities. For agencies whose service area includes disadvantaged communities, at least 50% of funds received are used on projects to benefit disadvantaged communities.

Local Transportation Funds
Local Transportation Funds (LTF) are derived from ¼-cent of the statewide sales tax. LTF revenue is returned to local governments, primarily for public transportation; however, bicycle and pedestrian facilities, and streets and roads may also qualify. The LTF is distributed to each city and unincorporated area based on population.

In the San Joaquin Valley, LTF funds may be used for both transit and streets and roads purposes as long as all transit needs that are reasonable to meet are addressed. The City of Fresno uses all of its LTF funds for Fresno Area Express (FAX); however, Fresno County and the remaining cities use some LTF funds for roads.

State Transportation Improvement Program (STIP)
The STIP is split into two programs: the Regional Transportation Improvement Program (RTIP) and the Interregional Transportation Improvement Program (ITIP). Pursuant to SB 45, 75% of the overall STIP funding goes to regional authorities to pay for accepted RTIP projects, and the remaining 25% of the overall STIP funding is used to pay for ITIP projects, as determined by Caltrans. Once the Fresno County region has selected the projects for the RTIPs, the California Transportation Commission (CTC) must allocate funds for the projects based on estimated construction costs. The funds are programmed in the Federal Transportation Improvement Programs (FTIP) for inclusion in the State Transportation Improvement Program (STIP). Pursuant to SB 45, allocations of Regional Choice funds are known as "County Shares" and replace the previous "County Minimums."

Eligible projects include:

- Local streets and roads
- Public transit
- Intercity transit
- Pedestrian and bikeway facilities
- State highway improvements
- Grade separations
- Intermodal facilities
- Safety projects
- Transportation System Management projects
- Soundwalls

Interregional Improvement Program (IIP)
IIP funds represent 25% of available State Highway Account funding. Caltrans programs the funds on a statewide priority basis, primarily for the State highway system (outside urbanized areas). Regional agencies may also nominate projects that generate economic development. Regional agencies may nominate projects if they can show a better, cost-effective use of funds.

Eligible projects include:

- Interregional roads (outside of metropolitan areas)
- Interstate 5
- State Highways 41, 99, 168, 198 and 180 east
- Intercity rail
- "Flex" projects which promote economic development

Senate Bill 1 (SB 1)
SB 1 (The Road Repair and Accountability Act of 2017), provides the largest increase in state transportation funding in the last 25 years. SB 1 provides additional funding for transportation programs detailed in this chapter (including ATP, SHOPP, STIP, and Local Streets/Roads funds). It also revives programs that were part of the now expired Prop 1B. Those programs include:

Local Partnership Program (LPP): LPP funds are for counties that employ local transportation funding taxes or that have imposed fees, including uniform developer fees. As part of SB 1, the LPP is a 50% competitive program, and 50% formula program.

Eligible projects include:

- State highway and local road system improvements for major rehabilitation, mobility and congestion relief through new capacity, and safety and operational improvements
- Transit facility improvements
- Transit equipment purchases
- Bicycle or pedestrian infrastructure improvements for safety or mobility
- Transportation infrastructure environmental mitigation on a locality's or region's air quality or water quality, commonly known as "urban runoff," including capturing or treating it
- Project-level environmental impact mitigation (sound walls, landscaping, wetlands or habitat restoration or creation, replacement plantings, and drainage facilities).
- Freeway soundwalls, under specified conditions
- Road maintenance and rehabilitation

Trade Corridor Enhancement Program (TCEP): The TCEP program funds infrastructure improvements on federally designated Trade Corridors of National and Regional Significance, on the Primary Freight Network, and along other corridors that have high freight volumes. Freight projects contribute to the freight system's economic activity or vitality; relieve congestion; improve the system's safety, security, or resilience; improve or preserve system infrastructure; implement technology or innovation to reduce or avoid negative impacts; or reduce or avoid the system's adverse community and/or environmental impacts.

SB 1 also created the following new funding program:

Solutions for Congested Corridors Program (SCCP): SCCP funds projects designed to reduce congestion in highly traveled and highly congested corridors through performance improvements that balance transportation improvements, community impacts, and that provide environmental benefits. Improvements may be on the state highway system, local streets and roads, public transit facilities, bicycle and pedestrian facilities or required mitigation or restoration or some combination thereof. All projects nominated for the SCCP must be in a multimodal corridor plan and will only fund the construction component of a project.

State Highway Operation and Protection Program (SHOPP)
The SHOPP maintains the highway system's operational integrity and safety through a variety of projects, including: pavement rehabilitation seismic retrofit, land and building projects, landscaping, some operational improvements and bridge replacements. Unlike the STIP, SHOPP projects may not increase roadway capacity. SHOPP revenues are not formula-based, meaning the Fresno County region could receive a large share of revenues in one cycle, and much less in future cycles.

State Transit Assistance Fund (STA)
The STA is derived from a portion of the Motor Vehicle Fuel Tax. The STA supports public transportation services, and is apportioned through the Regional Transportation Planning Agencies (RTPA) to their member agencies on a population basis, although some funds are apportioned directly to transit operators based on their fare-box revenues.

STA funds may be used for mass transit (capital or operating expenses) or transportation planning but not streets and roads.

Local Programs

Fresno County Local Sales Tax--(Measure C Funds)
In 2006, Fresno County voters approved a 20-year extension of a 1/2 cent local sales tax (Measure C) for transportation purposes. The tax is projected to generate approximately $1.4 billion to be administered through the Fresno County Transportation Authority (FCTA). Fresno COG is legislatively responsible for preparing a highway revenues expenditure plan.

Local agencies will receive at least 34.6% of the approximately $1.4 billion, for a wide variety of transportation programs and projects on their respective transportation networks. The FCTA's oversight involves identifying funding to be made available to the local agencies, managing the claims process and annually auditing to ensure that funds were used for eligible transportation purposes. The Measure C Extension Plan funding breakdown is located in Appendix C.

City/County Revenue Funds
Several transportation funding sources have their origins in city revenues. These include general fund revenues used for street purposes, gas tax shares, proceeds from bond sales for street purposes, street assessment levies and traffic safety fund revenues.

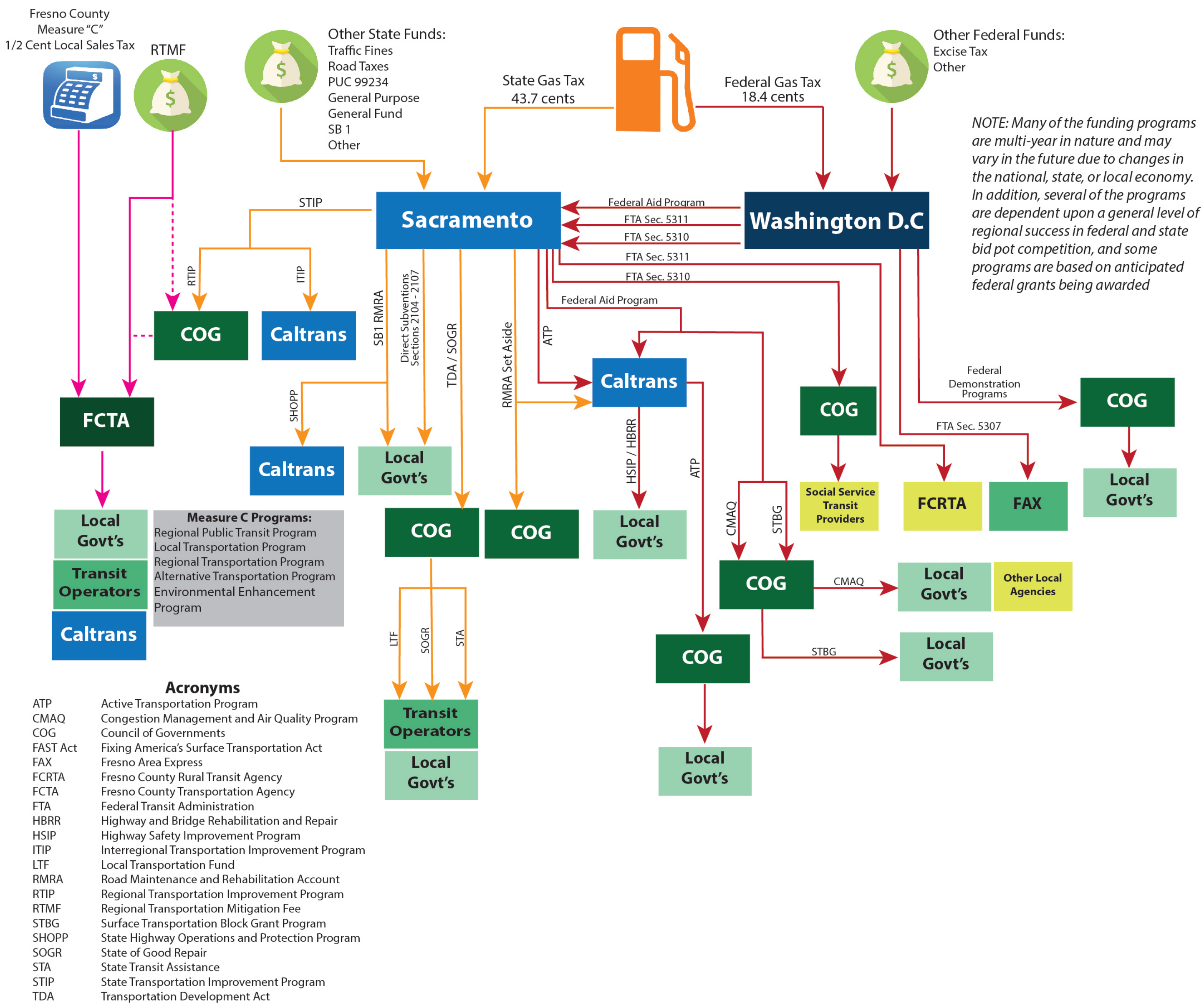
Regional Transportation Mitigation Fee (RTMF)
The RTMF is an important part of the Measure C Extension approved by Fresno County voters in 2006. The RTMF is intended to ensure that future development contributes to its fair share towards the cost of infrastructure to mitigate the cumulative, indirect regional transportation impacts of new growth in a manner consistent with the provisions of the State of California Mitigation Fee Act. The fees will help fund improvements needed to maintain the target level of service in the face of higher traffic volumes brought on by new developments.

5.3 Project Evaluation Criteria

A Project Evaluation Criteria was used to score and prioritize projects submitted during the RTP Call for Projects (discussed below) in the event that the cost of project submittals exceeded projected available funding.

An RTP Project Evaluation Criteria Focus Group was created to discuss in-depth revisions and updates to the 2018 RTP Project Evaluation Criteria. The Focus Group consisted of representatives from six member agencies, as well as representatives from various non-governmental

Figure 5-1: Transportation Funding Flow Chart



organizations with interest in bike/ped, air quality, health, and transportation equity. The Focus Group met on five separate occasions in an effort to assure a comprehensive set of criteria, and the Criteria was approved by the Fresno COG Policy Board on July 27, 2017.

Highlights of the revisions made to the 2018 RTP Project Evaluation Criteria include:

- A health priority index criterion was added to bike/ped and transit sections, in an effort to steer some project preference to areas that are the most health burdened, and are also likely the most disadvantaged
- Level of Service in Capacity Increasing Criteria was updated to "Congestion Relief" instead, but the premise behind the criteria is basically the same - to prioritize capacity-increasing projects by the level of congestion a roadway is experiencing
- The Streets and Roads Non-capacity Increasing section was broken into two separate evaluation criteria: one for Maintenance, and the other for Operations

The 2018 RTP Project Evaluation Criteria was used solely to determine a project's ranking in the RTP in terms of projected funding. The Criteria was used to create the RTP's constrained and unconstrained list of projects. See Appendix C for the 2018 RTP Project Evaluation Criteria.

5.4 Project Scenarios

In the 2014 RTP, Fresno COG analyzed four alternative revenue projections which would produce four alternative project lists for the Sustainable Communities Strategy (SCS) analysis. In the 2018 RTP, however, Fresno COG strived to put the focus on alternative project lists based on the priorities of the four scenarios generated through the 2018 SCS process (discussed in Chapter 3).

For the 2018 RTP, only one Revenue Projection was developed (see Appendix C), and a Project Scenario Tool was created in order to automate the process for determining which projects should be considered for flexible funding sources (See Appendix C for further discussion on the Project Scenario Tool). The priorities of each project scenario determined where flexible funding sources would be allocated. The Project Scenario Tool took into consideration the scores each project received for certain questions in the RTP Project Evaluation Criteria, and the scores determined the priorities emphasized in each of the four SCS scenarios. All four alternatives were fine-tuned by fluctuating five, main flexible funding sources:

- Surface Transportation Block Grant Program (STBG)
- Congestion Mitigation and Air Quality Program (CMAQ)
- Highway Safety Improvement Program (HSIP)
- Various Local Funding Sources
- Future Local Measure C Extension projected funding

The Four SCS Scenarios

Project Scenario 1-SCS Scenario A

1

Sustainable Communities Strategy (SCS) Scenario A consists of a balanced approach to maintaining existing roadways and improving air quality. Within the Project Scenario Tool, projects that prioritized road maintenance and air quality mitigation received priority ranking in Scenario A for the constrained list. Secondary priorities are active transportation projects and those that address transportation issues near disadvantaged populations.

Project Scenario 2- SCS Scenario B

2

Scenario B is similar to Scenario A in terms of transportation priorities, with prioritization given to projects with maintenance and air quality mitigation components; however, projects with active transportation components are given higher prioritization. Scenario B envisions a region where homes, worksites and shopping options are all close enough which makes transit, walking or biking a more realistic option. Scenario B also allocates more growth in the Fresno-Clovis Metropolitan Area.

Project Scenario 3- SCS Scenario C

3

Scenario C reinvests in the region's more disadvantaged communities by encouraging more growth in small cities and rural locations. The scenario's project list places an emphasis on projects that maintain roads, reduce pollutants and support disadvantaged communities. Project Scenario 3 also has a secondary emphasis in transit and active transportation projects.

Figure 5-2: Scenario Funding Priorities

Project Scenario 4- SCS Scenario D

The project list that corresponds with Scenario D focuses on rehabilitating the existing roadway system and maintaining it in good repair. It also increases investment by widening some roads, thereby relieving congestion delays and reducing roadway disrepair. This scenario increases capacity at an average level. The other scenarios had the capacity-increasing projects at the lowest funding level. Road maintenance and air quality are also priorities for Scenario D.

A comparison of each project scenario by transportation funding priorities is shown in Figure 5-2.

5.5 RTP Call for Projects

Fresno COG initiated the 2018 RTP's call for projects in July 2017, where the 16-member agencies had the opportunity to submit projects that are expected to be completed in the 25-year lifespan of the RTP, including streets and roads projects, bike and pedestrian projects and transit projects.
Fresno COG compiled all of the projects submitted and compared total costs with its four project scenarios. None of the four scenarios will be fully funded, based on revenue projections.

On November 16, 2017 the Fresno COG Policy Board chose Scenario D, and the corresponding Project Scenario 4, as the preferred scenarios for the 2018 RTP. See Appendix C for the Scenario 4 constrained and unconstrained project lists.

The 2018 RTP financially constrained listing reflects a total project amount of $6,945,236,300. Table 5-1 below reflects the project distribution per mode, categorized by percentage of total dollar amount and percentage of total projects.

5.6 Analysis of the Chosen Project Scenario

As noted above, the Fresno COG Policy Board chose Scenario D, and the corresponding Project Scenario 4, as the preferred scenarios for the 2018 RTP. Project Scenario 4 consists of projects that sufficiently meet the region's policy goals and objectives in the following ways:

- Scenario 4 projects provide for an integrated and efficient highways, streets and roads network by focusing on projects that foster the development of safety, maintenance, and operational improvements, as well as relieve current and future congestion.
- Scenario 4 projects preserve and promote the use of existing transportation facilities through its focus on rehabilitating the existing roadway system and maintaining it in good repair.
- Scenario 4 project listing includes 306 more Bicycle & Pedestrian projects than the 2014 RTP Project listing, thereby working towards the goal of increasing bicycling and pedestrian trips. These projects work towards the goal of providing a safe, convenient, and continuous route system for bicyclists and pedestrians that interfaces with a multimodal transportation system.

Though 30% of revenues allocated to Streets & Roads-Capacity Increasing projects, it is important to highlight a few key elements associated with project costs. For example, there are actually 151 more bike and pedestrian projects than capacity increasing projects. Though capacity increasing projects make up 34% of the funding allocation, it is important to note that they also cost significantly

Table 5-1: Revenues Programmed by Transportation Mode

	Total Dollars		Number of Projects	
Project Type	*Dollar Amount*	*Percentage*	*Number*	*Percentage*
Bicycle & Pedestrian	$551,136,000	7.94%	523	16.73%
Streets & Roads Capacity Increasing	$2,376,021,000	34.21%	372	11.90%
Streets & Roads Operations and Maintenance	$2,767,824,300	39.85%	2147	68.68%
Transit	$1,250,255,000	18.00%	84	2.69%
TOTAL	$6,945,236,300	100.00%	3126	100.00%

more than standalone bike and pedestrian projects, and as previously illustrated and analyzed in the 2014 RTP, it is likely that those projects will also include a bike and pedestrian component which is integrated into the overall cost of the project. Many of Fresno COG's member agencies have a Complete Streets policy, which means when a widening project is constructed or a maintenance project is implemented, a sidewalk and/or bike lane is also added.

5.7 Maintenance & Rehabilitation

Current Conditions and Needs

Like other areas in California, Fresno County and its incorporated cities suffer considerable unmet needs with regards to the rural, metropolitan and regional transportation networks. As the region's population continues to grow, the transportation system will experience continuing demands it will be unable to meet. Fresno County's economic vitality in the coming years is dependent upon today's investments in the region's transportation network infrastructure. The local transportation network is struggling to cope with population growth, deferred maintenance and lack of investment in necessary improvements. Clearly, if Fresno County is to remain economically competitive, solutions such as new facilities an increase in active transportation, transit, and system maintenance, preservation and rehabilitation will need to be addressed.

The County of Fresno's road system – with approximately 3,600 miles of roads and 550 bridges – is the largest network (in terms of mileage) of any county in California. This system represents an approximately $1 billion infrastructure investment and provides for the majority of intracounty travel for both people and goods within the 6,000 square-mile county. It also plays a vital role in the county's multi-billion dollar agricultural economy. As the No. 3 agricultural county in the world ($6 billion+ annually), a considerable portion of the region's economy is dependent on efficient goods movement from farm to market. In addition, the road system serves the entire business community and offers mobility to the county's far-reaching corners. Clearly, if Fresno County strives to maintain its ranking in agriculture and remain economically competitive on a global scale, it must maintain its existing transportation system in good operating condition. The lack of adequate funding to protect the hundreds of millions of dollars' worth of improvements on the county road system over the past 40 years is probably the network's single greatest unmet need.

Fresno County estimates that its road system's maintenance shortfall is upwards of $31 million dollars annually. Fresno County is also responsible for road reconstruction, safety and capacity improvements on its system when funds are

available. The shortfall on those County-maintained roads that require reconstruction, system safety and congestion management improvements is estimated to be upwards of $20 million dollars annually. Preventive maintenance is essential to avoid significant costly repairs or reconstruction when the pavement deteriorates beyond a maintainable level. Studies show that reconstruction costs are approximately five times the cost per mile of preventative maintenance. There are two primary factors that contribute to the road system degradation, auto traffic increases and truck traffic increases. In just the last 20 years, average daily traffic (ADT) on the Fresno County road system has almost doubled.

In recent years, truck traffic has increased at a faster rate than automobile traffic on many county roads. Engineering studies demonstrate that a typical 18-wheel semi-trailer truck has the equivalent loading effect of between 3,000 and 6,000 passenger vehicles. Due to the agricultural industry's economic growth, engineers estimate that "farm-to-market" trips on the road system will continue to grow. As many of the rural, less structurally sound roads are exposed to increases in heavy truck traffic, "exponential" damage to the system may occur.

The urban communities within Fresno County also face difficult revenue shortfalls. Within the City of Fresno the circulation system consists of more than 1,600 miles of local and major streets, i.e. expressways, super arterials, arterials, and collectors. Like the county road system, the metropolitan system is also facing extensive maintenance and rehabilitation needs to keep it functioning at maximum capacity and efficiency. These maintenance needs consist of repairing potholes, sealing cracks in the pavement, asphalt-concrete overlays, drainage pipeline and inlets maintenance and other routine maintenance.

5.8 Other Potential Revenue and Funding Opportunities

Despite increased local, state, and federal funding sources throughout the last decade, regional and local agencies continue to experience a revenue shortfall for system expansion. This shortfall is expected to continue for two very basic reasons: (1) the revenues to support the transportation network's maintenance and improvement are not increasing fast enough to keep pace with inflation and (2) the demands for more maintenance and improvements have expanded beyond the normal inflation rate. In 2013, the Congressional Budget Office reported that: "the current trajectory of the Highway Trust Fund is unsustainable. Starting the fiscal year 2015, the trust fund will have insufficient amounts to meet all of its obligations, resulting in steadily accumulating shortfalls." Originally, transportation funding was established with a strong connection between revenue and expenses. Unfortunately, because of increased auto fuel efficiency, fuel taxes that have not historically been indexed for inflation and a new reliance on sales taxes, the previously strong connection to revenue sources and use has deteriorated. The following section discusses a variety of financing mechanisms that offer potential relief for the transportation revenue shortfall.

Environmental Enhancement and Mitigation (EEM) Program

Applicants may apply to undertake EEM projects that are directly or indirectly related to modifying existing transportation facilities, or for new transportation facilities' design, construction or expansion. The EEM project must be over and above required mitigation for the related transportation project.

All participating project costs incurred are funded in arrears on a reimbursement basis of the state's proportionate share of actual costs. No matching funds or cost shares from the applicant or other funding sources are required to apply for an EEM grant. However, projects with the greatest funding match will be rated highest. Grants are generally limited to $350,000.

"Additional" Local Dedicated Sales Tax

The reauthorized Measure C 20-year tax is projected to generate approximately $1.4 billion through 2027. Sales tax revenues are always susceptible to revenue fluctuations that coincide with the region's economic health over the tax's life span. It is reasonable to assume that taxpayers will vote to extend the ½ cent sales tax after 2027, extending through the RTP's planning horizon.

Benefit Assessment District Fees

An assessment district is an area of land specifically benefiting from a public improvement. A property tax assessment is levied against each parcel that benefits from the improvement, in proportion to the benefit. Bonds are then sold to finance improvements, which land owners repay over time. Traditionally this approach has been used to finance urban public improvement projects (i.e. sewer, water, curbs, gutters, etc.) on a community or neighborhood level. Using this approach on a "regional" basis has proven problematic because of the multiple legislative bodies (i.e. City Councils, Boards of Supervisors, etc.) necessary to achieve political consensus. In addition, there could be great difficulty in establishing a regionwide zone of benefit.

Cap and Trade Funds

AB 32 requires California to return to 1990 greenhouse gas emission levels by 2020. All AB 32 programs contribute to GHG reductions, and will deliver an overall 15% reduction compared to the 'business-as-usual' scenario in 2020.

The cap-and-trade program is a key element in California's climate plan. It sets a statewide limit on sources responsible for 85% of California's GHG emissions, and establishes a price signal needed to drive long-term investment in cleaner fuels and more energy efficiency. The program is designed to provide covered entities the flexibility to seek out and implement the lowest-cost options to reduce emissions.

Congestion Pricing Strategies

Congestion-pricing (also known as peak-hour pricing) involves charging higher fees or fares to transportation system users during peak hours. Routinely, service demands exhibit a peaking characteristic related to the time of day or seasonal time of the year. For instance, the twice-daily work commute trip places significant demand peaks on the region's transportation network. This impact can be recovered from peak period users—rather than the system users as a whole — by charging fee during peak periods. There are few, if any, facilities in this region that operate consistently at levels of service that would warrant congestion pricing.

"Local" Motor Vehicle Fuel Tax

SB 215 allows counties to hold general elections for a local sales tax on motor vehicle fuel (gasoline, diesel) to finance the regional transportation network. The uses, execution, advantages and disadvantages are similar to that of a sales tax. One advantage is that it is user-oriented. Because fuel consumption is related to road use, heavier users bear a higher burden of the cost.

Instituting a local gas tax is a relatively equitable local financing option. Motor fuel taxes are easily administered, and are tied to fuel prices that tend to rise with inflation.

Some issues relating to this type of program include:

- The ballot initiative requires approval from a majority of the city governments with a majority of the county's population
- Both a majority of city governments representing a majority of the population and the county supervisors must agree on a distribution formula before the measure can be placed on the ballot
- A two-thirds majority vote is required for approval
- Statutes do not limit the tax increase that may be considered

Motor Vehicle Taxes and Fees

An array of fees and taxes on motor vehicles could be increased and implemented statewide, regionally or locally to generate transportation funds. Examples include vehicle registration surcharges (similar to the Air District's AB 2766 fees currently collected); increased surcharges on driver's license fees; mileage taxes; parts and repair excise taxes; heavy-vehicle taxes; fees for "vanity plates," tire taxes, and personal property taxes on motor vehicles. One of this approach's drawbacks, however, is the need for enabling legislation (statewide, regionally or locally).

Public and Private Parking Fees

This mechanism increases public and private parking charges and institutes parking fees where parking is now free. Most cities in California have become more aggressive in pricing downtown parking -- both at meters and in lots. In some cities, extending parking lot hours and substantially greater enforcement have increased parking fee revenues. Often these funds are treated as a general fund source rather than tied to specific transportation expenditures. If public parking fees were to be initiated, several issues would need to be addressed. For example, the fees would probably have to be implemented on a countywide or regionwide basis to address equity and consistency issues

among the local jurisdictions. In addition to representing a potential revenue source, parking pricing has also been shown to be one of the most significant factors in reducing drive-alone trips, and is used as a common transportation demand management strategy.

Recreational Trails Program
The Recreational Trails Program (RTP) provides funds annually for recreational trails and trails-related projects. The RTP is administered at the federal level by the Federal Highway Administration (FHWA). It is administered at the state level by the California Department of Parks and Recreation (DPR). Non-motorized projects are administered by the Department's Office of Grants and Local Services and motorized projects are administered by the Department's Off-Highway Motor Vehicle Recreation Division. Eligible applicants include; cities and counties, districts, state agencies, federal agencies, and non-profit organizations with management responsibilities of public lands.

Regional Transient Occupancy Tax (Hotel/Motel)
The Transient Occupancy Tax is a tax on visitor accommodations. These visitor-based taxes can be imposed on hotel/motel establishments in two different ways. One method is to tax each lodging establishment annually on a per unit basis. Another method is a tax charged directly to the patron for each night of lodging. An advantage is that the tax does not directly affect local residents. Its major disadvantages are its susceptibility to fluctuations in the tourist economy and the need to have the fees implemented on countywide or region wide basis in order to address issues of equity and consistency among the local jurisdictions.

Regional Transportation Facilities Impact Fee
A regional transportation facilities impact-fee would distribute the costs of regional transportation facilities among all new development within the region, using the size of a proposed development or estimates of a project's trip generating capacity as criterion. This type of development impact fee would be required to meet AB 1600 nexus findings in order to be implemented. The reauthorization of Measure C required that all local agencies adopt a regional transportation impact fee by January 1, 2009 or risk losing their local street maintenance and rehabilitation funding authorized by the Measure. A Regional Transportation Mitigation Fee (RTMF) was adopted by the Fresno COG Policy Board on October 29, 2009 and became effective January 1, 2010. The current RTMF policy will expire with the Measure C program in 2027 but it is reasonable to assume that the voters will extend the Measure C ½ cent sales tax through the year 2040.

A similar mechanism is for developers to make dedications in lieu of paying development fees, such as land dedications, construction of public utility infrastructure, local roads or whatever type of public improvement is needed. The dedications must be linked to the impacts of the development on the regional transportation network in order to meet AB 1600 requirements. The use of development assessments with land use incentives can be used to encourage more transit-oriented and pedestrian-oriented development, which would reduce the demand, and subsequent need for extensive highway and road construction.

Toll Facilities
Tolls help finance roadway infrastructure construction, operation and maintenance. This is a familiar source of funding for bridges, tunnels, and turnpikes, primarily along the East Coast; however, more and more toll facilities are being built in California. Tolling provides a means of generating up-front debt funding to construct transportation facilities without disturbing existing governmental agency budgets and programs, or requiring new or additional taxes. Nevertheless, financing costs in terms of interest on debt over bonds' lifetime can be substantial. After a toll facility is completed, tolls usually provide income to operate and maintain the facility, as well as amortize the outstanding debt.

With new and emerging electronic toll-collection technologies, toll roads may be more feasible than before. Federal highway officials are reconsidering toll road merits to supplement urban transportation facilities. Problems that may face this region are the limited number of high-volume facilities that would justify toll collection, and the direct and indirect costs involved in collecting tolls.

Vehicle Miles Traveled Fee

This financing mechanism is a vehicle-use fee based on the number of miles driven, which has the potential to generate substantial revenues, implement increased-mobility policy goals and is strongly related to transportation demand and congestion. Vehicle Miles Traveled (VMT) fees would appear to be a stable and growing source of revenue given Californians' propensity to use their automobiles. VMT fees would also maintain an ability to capture revenues from a growing fleet of alternative fuel vehicles within the state.

Emissions Fee

An emissions fee could work in a manner similar to the Vehicle Miles Traveled fee program, except that user charges would be based on emission levels rather than miles traveled. The measure would be recorded at the time the vehicle is smog checked, and the driver would pay a fee based on a sliding scale. Revenue formulas would have to be adjusted due California's vehicle fleet becoming "cleaner" as older polluting vehicles are retired and replaced with vehicles that have improved emission technology.

A VMT fee program could be linked to the vehicle smog certification program. Although the Department of Motor Vehicles does not collect mileage data, the state is moving toward improved databases, while auto manufacturers are making vehicles with sealed, "tamper resistant" odometers. Proposals to implement VMT fees could also be adjusted for low-income and rural drivers.

FTA Section 5312

The National Research and Technology Program (49 U.S.C. 5312) seeks to improve public transportation by funding research, development, demonstration and deployment projects. Eligible recipients are determined for each competition, and may include: universities, public transportation systems, state DOTs, non-profit and for-profit entities, amongst others. Eligible activities include; research, development, demonstration and deployment projects, and evaluation of technology of national significance to public transportation.

FTA Section 5313

The Transit Cooperative Research Program (49 U.S.C. 5313; TCRP) is an applied, contract research program that develops near-term, practical solutions to problems facing transit agencies. The transit industry-driven program, promotes the public transportation industry's operating effectiveness and efficiency by conducting practical, near-term research designed to solve operational problems, adopt useful technologies from related industries and introduce innovation that provides better customer service. The industry-driven program serves as one of the principal means by which the transit industry can develop innovative short-term solutions to meet demands placed on it.

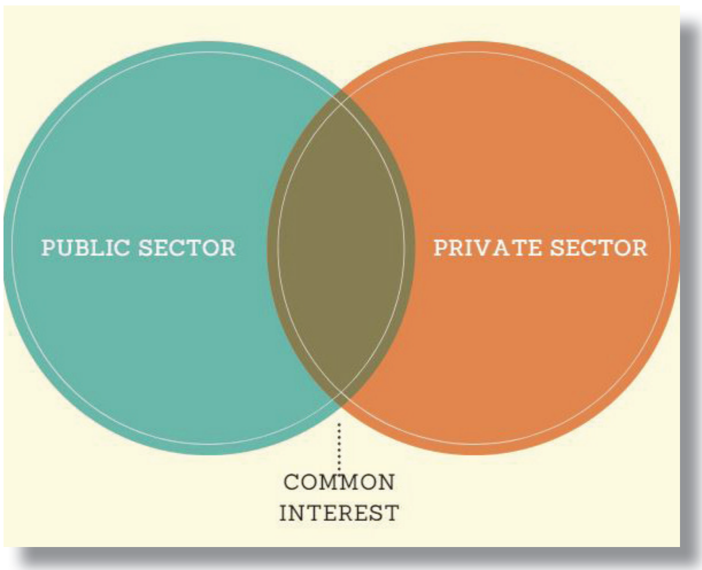
Transportation Infrastructure Finance and Innovation Act (TIFIA)

The TIFIA program provides credit assistance for qualified projects of regional and national significance. Many large-scale, surface transportation projects - highway, transit, railroad, intermodal freight, and port access - are eligible. Eligible applicants include state and local governments, transit agencies, railroad companies, special authorities, special districts, and private entities. The TIFIA credit program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital. Each dollar of Federal funds can provide up to $10 in TIFIA credit assistance and support up to $30 in transportation infrastructure investment. MAP-21 reforms included a

10% set-aside for rural projects; an increase in the share of eligible project costs that TIFIA may support; and a rolling application process.

Public-Private Partnerships

A public-private partnership (PPP or P3) represent a broad category of financing mechanisms that are being used to harness public sector participation. PPPs have been used with mixed success in several states nationwide. The State of California has enacted legislation to permit PPP approaches for transportation infrastructure development (Caltrans, 2013c).



5.9 Sustainable Infrastructure Planning Grant Program

During the 2014 RTP adoption process, interested members of the community requested a Sustainable Planning and Infrastructure Program to further the goals of the RTP/SCS and address the transportation needs in the disadvantaged communities. In 2017, California's SB 1 offered a revenue source for such a program to support and enhance SCS implementation across Fresno County. Fresno COG created a regionally competitive program in collaboration with stakeholders, local member agencies, and project sponsors in order to establish an equitable program.

The grant specific objective is to encourage local and regional multimodal transportation and land use planning that furthers the region's RTP/SCS, contributes to the State's GHG reduction targets and other State goals, including but not limited to, the goals and best practices cited in the 2017 RTP Guidelines, address the needs of disadvantaged communities, and also assist in achieving the Caltrans Mission and Grant Program Overarching Objectives.
For more information on the Sustainable Infrastructure Planning Grant Program, visit https://www.fresnocog.org/project/fresno-cog-administered-grant-programs/.

5.10 From Planning to Programming

Local, state, and federal transportation fund programming is a complicated but necessary process that ensures local agencies receive funds for projects that have either been allocated or awarded to them. In order to explain this complicated process, what follows is an example of how a project moves from inception to completion within the Fresno COG programming system. A transportation funding flow chart is also included in Figure 5-1.

- A city/the county submits Main Avenue from A Street to D Street; Reconstruction during the 2018 RTP Call for Projects
- The total project cost (for all projects submitted) is compared against the Revenue Projections and it is determined that somewhere within the 25 year life of the RTP there will be funding to complete Main Avenue from A Street to D Street: Reconstruction
- Project is given a metropolitan planning organization (MPO) number and placed on the financially constrained project list within the 2018 RTP
- During the 2019 Federal Transportation Improvement Program (FTIP) update Fresno COG holds a Surface Transportation Block Grant Program (STBG) Call for Projects

  ** STBG is just one of the many fund sources listed in the RTP and is being listed here as an example only*

- A city/the county submits Main Avenue from A Street to B Street
- Reconstruction to be considered for $100,000 in eligible funding
- The entire length of the project was included in the 2018 RTP so it is scored by the STBG scoring committee and awarded $100,000
- Main Avenue from A Street to B Street
- Reconstruction is programmed in the 2019 FTIP with $100,000 and the project listing in the RTP is updated to Main Avenue from C Street to D Street
- Reconstruction now that the first segment has been fully funded
- When the city/county is ready to begin work on Main Avenue from A Street to B Street; Reconstruction they submit a Request for Authorization (RFA) to Caltrans Local Assistance
- Caltrans Local Assistance and Caltrans Headquarters approve the request and the funds are allocated to the city/county for use
- Once the funds are expended the city/county must continue to submit invoices to Caltrans, in order to receive federal highway reimbursement and in order to maintain active status, until the last dollar is spent and the project is closed out