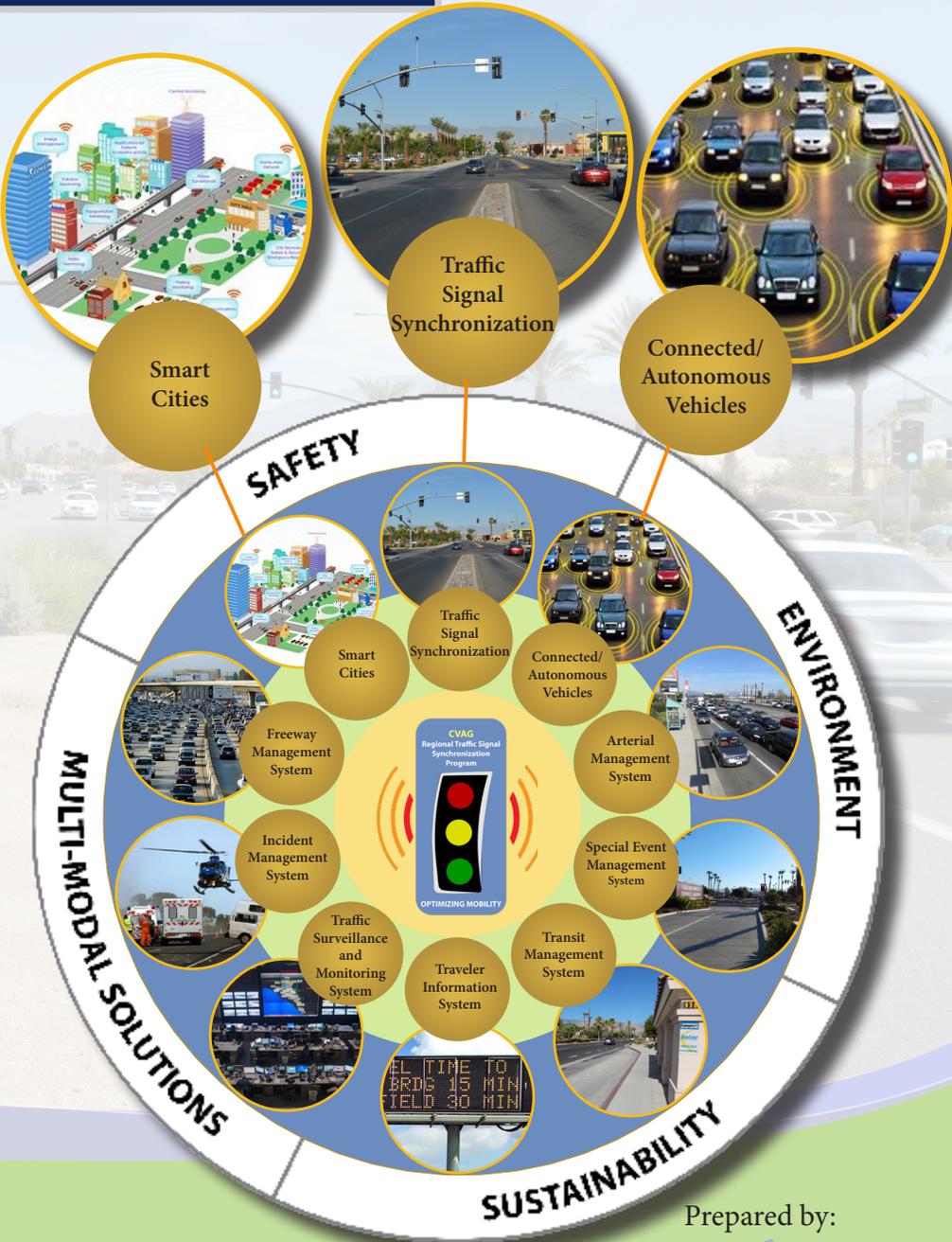


COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS (CVAG) REGIONAL TRAFFIC SIGNAL SYNCHRONIZATION PROJECT

TRAFFIC SIGNAL INTERCONNECT MASTER PLAN

FUNDING STRATEGIES PLAN



Prepared for:



Coachella Valley Association
of Governments

Prepared by:



ADVANTEC
Consulting Engineers

**COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS
(CVAG)**

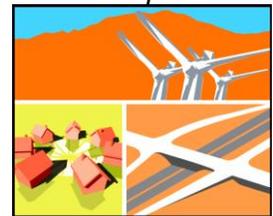
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Coachella Valley Association of Governments (CVAG)

Prepared by:



1200 Roosevelt
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October 24, 2017

COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS (CVAG)

REGIONAL TRAFFIC SIGNAL SYNCHRONIZATION PROJECT

TRAFFIC SIGNAL INTERCONNECT MASTER PLAN

Funding Strategies Plan

Prepared By



Under the Supervision of:

_____ Date: _____

Carlos A. Ortiz, P.E., T.E., P.T.O.E.

October 24, 2017



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REVISION HISTORY

Version	Date	Author/ QA/QC	Comment
1.0	10/24/2017	John C. / John D. / Carlos O.	For Distribution

PROJECT WEBSITE

An electronic copy of this report can be found at: <http://cvag-regionaltssp.com/>

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LIST OF ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
ATC	Advanced Transportation Controller
ATMS	Advanced Traffic Management System
C2C	Center-to-Center communications
C2F	Center-to-Field communications
CAD	Computer Aided Dispatch
Caltrans	California State Department of Transportation
CCTV	Closed-Circuit Television
CMS	Changeable Message Sign
DAC	Data Aggregation Center
DOT	Department of Transportation
DSRC	Dedicated Short Range Communication
EAS	Ethernet Access Switch
FHWA	Federal Highway Administration
GHG	Greenhouse Gas
ICM	Integrated Corridor Management
IP	Internet Protocol
IT	Information Technology
IoT	Internet of Things
ITE	Institute of Transportation Engineers
ITS	Intelligent Transportation Systems
MAP-21	Moving Ahead for Progress in the 21 st Century Act
MOU	Memorandum of Understanding
MPAH	Master Plan of Arterial Highways
NEMA	National Electrical Manufacturers Association
NTCIP	National Transportation Communications for ITS Protocol
SDP	Strategic Deployment Plan
SR	State Route
TMC	Traffic Management Center
TMS	Traffic Management System
TSS	Traffic Signal Synchronization
V2I	Connected Vehicle to Infrastructure
V2V	Connected Vehicle to Vehicle
V2X	Connected Vehicle to Everything
VMS	Video Management System



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8-1. INTRODUCTION

The Coachella Valley and its local stakeholders can pursue federal, state and local ITS funding opportunities for implementation of future project phases that are recommended in the Regional Traffic Signal Interconnect (TSI) Master Plan. The Regional TSI Master Plan is a key document to use when pursuing grants to help secure funding for the future/planned ITS deployments.



This Funding Sources Plan identifies the local, regional, state, and federal ITS funding sources that CVAG or the local agencies will be able to pursue for implementation of future phases recommended in the Coachella Valley's Regional TSI Master Plan. It will also help improve the quality and chances of being selected for funding through these programs.

Transportation funding is extremely complex with funds coming from the local, State, and Federal governments through their taxing sources. This Funding Strategies Plan is intended to assist the Coachella Valley in understanding the various funding sources available and their eligibility. The Funding Strategies Plan is organized per funding program source and presented by three distinct governmental sources of revenue (Federal, State, and Local) and where appropriate, including estimates of the funding available.

8-2. TRANSPORTATION FUNDING SOURCES

Overall Transportation in California is funded by a variety of federal, state, and local revenue sources, which fall into the following three basic categories:

- **User Fees:** gas tax, vehicle tax, tolls, public transit fees
- **Property Access Charges:** property taxes, benefit assessment districts, developer fees
- **Subsidies:** sales taxes, Federal/state/local general funds, externalized costs

The fiscal year 2016-17 Governor's Budget authorizes \$10.49 billion in expenditures for the California Department of Transportation (Caltrans). The following is a breakdown of California's transportation network funding sources, subject to Caltrans, California Transportation Commission (CTC), FHWA and Federal Transit Administration (FTA) approvals.

8-2.1. Federal Funding

Federal transportation funding is generally apportioned to California based on the state's contribution of revenues derived from federal excise taxes on motor vehicle fuels to the Highway Trust Fund. These revenues pay mostly for capital improvements and expansion projects. Federal transportation funding is generally provided according to a two-step process: (1) authorization; and (2) appropriations.

■ **Authorization**

Authorizing legislation provides the legal authority for the federal government to spend funds on programs within a particular public policy area, such as transportation, for a given period of time. Usually covering a period of five to six years, authorizing legislation sets the maximum amount of funding that may be appropriated for programs within a particular public policy area for each fiscal year of the authorization period. It also includes provisions governing the structure of the various programs within a particular public policy area.

■ **Appropriations**

Every year, Congress considers appropriations bills for all federal agencies, departments and programs, including one for transportation. These measures provide the legal authority for federal agencies to spend money during the upcoming fiscal year for the programs they administer. In developing these appropriations bills, Congress may allocate funding for programs within a particular policy area up to the maximum amount included in the related authorizing legislation, but no more.

In general, the **Federal Fund Processes** is as follows:



8-2.1.1. Federal Funding Programs

National Highway Performance Program (MAP-21)

Moving Ahead for Progress in the 21st Century Act (MAP-21) consolidates the old Interstate Maintenance, National Highway System and Highway Bridge Programs into a new National Highway Performance Program that focuses on the most critical 161,000 miles of roadways and bridges in the United States. The aim of this new formula program is to improve conditions and performance on these facilities, with an emphasis on state of good repair.

MAP-21 directs the Transportation Secretary to conduct a rulemaking to establish performance standards for the minimum condition of pavement and bridges on the National Highway System, and requires states to develop risk-based asset management plans for these facilities. States that fail to meet these standards over time would be required to spend a portion of their National Highway Performance Program funding to address the deficiencies. California’s share of these funds will be programmed for State Highway Operation and Protection Program (SHOPP) projects, as well as through the State Transportation Improvement Program (STIP) process.

Fixing America's Surface Transportation (FAST) Act

The Fixing America's Surface Transportation (FAST) Act, signed into law December 2015, is the first federal law in over a decade to provide long-term funding certainty for surface transportation infrastructure planning and investment. The FAST Act authorizes \$305 billion over fiscal years 2016 through 2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs. The FAST Act maintains US Department of Transportation's (USDOT) focus on safety, keeps intact the established structure of the various federal highway-related programs, continues efforts to streamline project delivery and, for the first time, provides a dedicated source of federal dollars for freight projects. The FAST Act also reestablished the Bus Discretionary Program that allows states to apply for project-specific funding via a competitive process.

The FAST Act generally kept in place the core highway formula programs. These programs include: National Highway Performance Program (NHPP), Surface Transportation Program (STP), Congestion Mitigation and Air Quality Improvement Program (CMAQ), Highway Safety Improvement Program (HSIP), Railway-Highway Crossings (set-aside from HSIP), and Metropolitan Planning (PL).

Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD)

The FAST Act established the Advanced Transportation and Congestion Management Technologies Deployment Program to make competitive grants for the development of model deployment sites for large scale installation and operation of advanced transportation technologies to improve safety, efficiency, system performance, and infrastructure return on investment. The FAST Act funds the program through a set-aside from the Highway Research and Development, Technology and Innovation Deployment, and Intelligent Transportation System Research Programs.

Grant recipients may use funds under this program to deploy advanced transportation and congestion management technologies, including:

- Advanced traveler information systems;
- Advanced transportation management technologies;
- Infrastructure maintenance, monitoring, and condition assessment;
- Advanced public transportation systems;
- Transportation system performance data collection, analysis, and dissemination systems;
- Advanced safety systems, including vehicle-to-vehicle and vehicle-to-infrastructure communications;
- Technologies associated with autonomous vehicles, and other collision avoidance technologies, including systems using cellular technology;
- Integration of intelligent transportation systems with the Smart Grid and other energy distribution and charging systems;
- Electronic pricing and payment systems; or
- Advanced mobility and access technologies, such as dynamic ridesharing and information systems to support human services for elderly and disabled individuals.

A grant recipient may use up to 5% of the funds awarded each fiscal year to carry out planning and reporting requirements under the program.

Eligible applicants include state or local government or political subdivision thereof, Transit agency, Metropolitan planning organization (MPO) representing a population of more than 200,000, Multijurisdictional group made up of the above eligible applicants, with a signed agreement to implement the initiative across jurisdictional boundaries, and Consortium of research or academic institutions.

The FAST Act requires the Secretary to develop criteria for selection of an eligible entity to receive a grant, including how the proposed deployment of technology will promote the following:

- Reduce costs and improve return on investments, including through the enhanced use of existing transportation capacity;
- Deliver environmental benefits that alleviate congestion and streamline traffic flow;
- Measure and improve the operational performance of the applicable transportation network;
- Reduce the number and severity of traffic crashes and increase driver, passenger, and pedestrian safety;
- Collect, disseminate, and use real-time traffic, transit, parking, and other transportation-related information to improve mobility, reduce congestion, and provide for more efficient and accessible transportation;
- Monitor transportation assets to improve infrastructure management, reduce maintenance costs, prioritize investment decisions, and ensure a state of good repair;
- Deliver economic benefits by reducing delays, improving system performance, and providing for the efficient and reliable movement of goods and services; or
- Accelerate the deployment of vehicle-to-vehicle, vehicle-to-infrastructure, autonomous vehicles, and other technologies.

The FAST Act requires the Secretary to request applications each fiscal year and to award grants to at least 5 and not more than 10 eligible entities, and further requires that the awards be diverse in both the technologies to be deployed and geographically. The Secretary may not award more than 20% of program funding for a fiscal year to a single grant recipient.

Highway Safety Improvement Program (HSIP)

This formula program provides federal resources to states for infrastructure improvements on public roadways that achieve a significant reduction in traffic fatalities and serious injuries. Under the provisions of MAP-21, states would be required to meet safety performance targets over time and to spend a portion of these funds to address any deficiencies if the targets are not met. The bill also requires an annual set-aside of \$220 million for highway-railroad grade crossing projects. California's share of these funds is primarily programmed through the SHOPP.

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

CMAQ funds, which are programmed by the MPOs, are available to urbanized areas that have not attained the ozone, carbon monoxide or particulate matter air quality standards established under the federal Clean Air Act; or that have been designated as maintenance areas for ozone, carbon monoxide or particular matter. The funds may be applied to projects and programs that will contribute to the attainment of these air quality standards.

Congestion Mitigation and Air Quality (CMAQ) funds are awarded to projects that relieve traffic congestion and improve air quality. Air quality analysis will demonstrate emissions reductions usually by improving traffic operations. Funds are typically not awarded to projects that add capacity. City staff must coordinate with Caltrans local assistance staff in order to deliver the projects. For major ITS projects, a **Systems Engineering Management Plan (SEMP)** is required to ensure the project delivers based on the needs of the ITS users.

Transportation Alternatives Program (TAP)

MAP-21 consolidates the Transportation Enhancements, Safe Routes to School, Recreational Trails, and Scenic Byways Programs into a new Transportation Alternatives Program. Under this new program, 50 percent of the funding is allocated to the MPOs and 50 percent to the states.

Surface Transportation Program (STP)

The STP is intended to fund a wide range of transportation projects from capital improvements to planning activities. Projects previously approved for STP funds include freeway interchanges, roadway widening, signal installations, road rehabilitations, and planning studies.

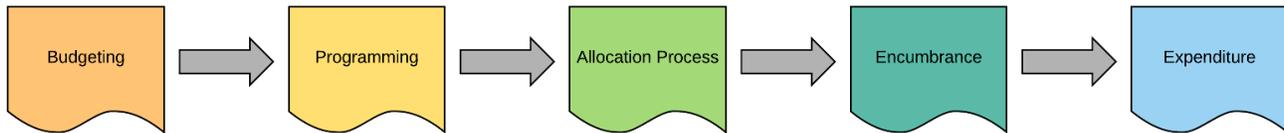
8-2.2. State Funding

A large portion of transportation funding in California is collected at the gasoline pump. In the case of gasoline, revenues for transportation are collected in the following manner:

- 18 cents in state excise taxes for each gallon purchased. This is considered to be the “base” rate
- 17.3 cents in state excise taxes for each gallon purchased. This increment of the state excise tax was imposed in 2011 to compensate for exempting gasoline from the state sales tax
- 18.4 cents in federal excise taxes for each gallon purchased
- Local sales taxes

Ongoing state transportation funding consists primarily of the state excise tax on gasoline and diesel fuel, and the state sales tax on diesel fuel. Additional state funding sources can include bond revenues and appropriations from the General Fund.

In general, the **State Fund Processes** is as follows:



8-2.2.1. State Funding Programs

State Transportation Improvement Program (STIP)

The California Transportation Commission (CTC) develops the STIP in April of every even year. Each County transportation agency in the state is responsible for programming projects on or off the state highway system with Regional Improvements Program (RIP) funds. Eligible projects include capital improvement projects (**e.g. interchange improvements, freeway and arterial widening, commuter rail stations, etc.**) and planning and rideshare activities.

SB 375 Sustainable Communities and Climate Protection Act - Voted into law in 2008, SB 375 sets targets for Greenhouse Gas (GHG) emissions reductions. **An approved method for reducing GHG emissions is to invest in traffic signal synchronization.** This method was amended as law under AB-1447 in September of 2014.

SB 45 (Kopp), which was enacted into law in 1997, brought about various changes to the process for programming transportation dollars through the STIP. In general, this legislation simplified the programming process by consolidating nine separate state transportation funding pots into two broad categories: (1) the Regional Transportation Improvement Program (RTIP); and (2) the Interregional Transportation Improvement Program (ITIP). Under SB 45, the RTPAs have programming responsibility for 75 percent of available STIP funds through their RTIPs. Of this amount, 60 percent flows to the counties in Southern California and 40 percent to the counties in Northern California. This formula is known as the “north-south split.”

State Highway Account

Revenues generated from federal and state gasoline and diesel fuel taxes, and from vehicle weight fees are deposited into the State Highway Account. Vehicle weight fee revenues are then transferred to the General Fund to pay for debt service on general obligation bonds that have been issued for transportation purposes. Of the remaining balance in the State Highway Account, funds for Caltrans administration; maintenance of the state highway system; and rehabilitation, safety and seismic retrofit projects related to the state highway system identified in the **State Highway Operation and Protection Program (SHOPP)** are taken “off the top.” Any remaining funds are then programmed through the State Transportation Improvement Program (STIP). The STIP, which is adopted during even numbered years by the California Transportation Commission (CTC), outlines the cost and schedule estimates for all transportation capital improvement projects funded with fuel tax revenues from the State Highway Account. **Any transportation capital improvement project is eligible for funding through the STIP, including the construction of fixed guideway mass transit projects.**

Active Transportation Program (ATP)

The Active Transportation Program (ATP) was created by Senate Bill 99 (Chapter 359, Statutes of 2013) and Assembly Bill 101 (Chapter 354, Statutes of 2013) to encourage increased use of active modes of transportation, such as biking and walking.

Pursuant to statute, the goals of the Active Transportation Program are to:

- Increase the proportion of trips accomplished by biking and walking.
- Increase the safety and mobility of non-motorized users.
- Provide a broad spectrum of projects to benefit many types of active transportation users.

State of Good Repair (Section 5337)

A new formula-based State of Good Repair program is FTA's first stand-alone initiative written into law that is dedicated to repairing and upgrading the nation's rail transit systems along with high-intensity motor bus systems that use high-occupancy vehicle lanes, **including bus rapid transit (BRT)**. These funds reflect a commitment to ensuring that public transit operates safely, efficiently, reliably, and sustainably so that communities can offer balanced transportation choices that help to improve mobility, reduce congestion, and encourage economic development.

SB 821 Bicycle and Pedestrian Facilities Program

Each year 2% of the Local Transportation Fund (LTF) revenue is made available for use on bicycle and pedestrian facility projects through the Commission's SB 821 Program. All the cities and the county of Riverside are notified of the SB821 program estimate of available funding and are requested to submit project proposals. Eligible projects include sidewalks, access ramps, bicycle facilities, and bicycle plan development. A Call for Projects is issued biennially in February and funds are allocated each June. An evaluation committee typically reviews and ranks the projects based on evaluation criteria approved by the Commission. The evaluation committee composed of the Technical Advisory Committee makes recommendations for projects and funding award amounts to the Commission for their final approval.

Proposition 1B - Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006

Proposition 1B, approved by the voters in November 2006 Authorized the issuance on \$19.925 billion in state general obligation bonds for specific transportation programs intended to relieve congestion, facilitate goods movement, improve air quality, and enhance the safety of the state's transportation system. These transportation programs included the Corridor Mobility Improvement Account (CMIA), SR 99 Corridor Account, Trade Corridors Improvement Fund (TCIF), State Local Partnership Programs (SLPP), Local Bridge Seismic Retrofit Account (LBSRA), Highway-Railroad Crossing Safety Account (HRCSA), Traffic Light Synchronization Program (TLSP) and the augmentations of the existing STIP and the SHOPP.

Senate Bill 01 (SB1)

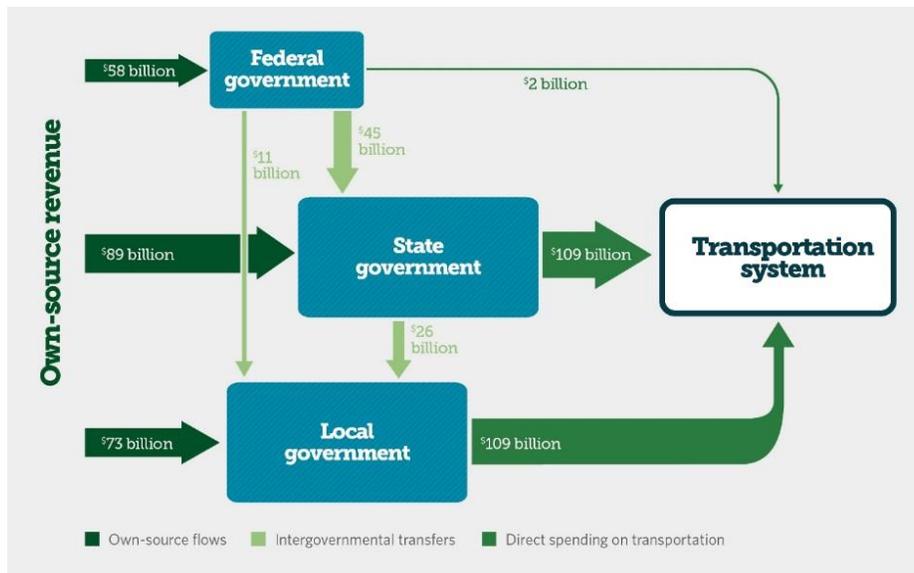
The Road Repair and Accountability Act of 2017 (Senate Bill [SB] 1, Chapter 5, Statutes of 2017) created the Local Partnership Program and continuously appropriates two hundred million dollars \$200,000,000 annually to be allocated by the California Transportation Commission (Commission) to local or regional transportation agencies that have sought and received voter approval of taxes or that have imposed fees, which taxes or fees are dedicated solely for transportation improvements. The Local Partnership

Program was subsequently amended by Assembly Bill (AB) 115 (Chapter 20, Statutes of 2017) and AB 135 (Committee on Budget, Chapter 255, Statutes of 2017).

Amounts for the incentive grants will be included in the formulaic shares adopted in August of each year. Funding for the incentive grants will be deducted from the subsequent round of Competitive Grant Program funding.

Figure 8.1 depicts a typical programmed funding flow among levels of government.

Figure 8.1 Transportation funding flows between levels of Government



8-2.3. Local Funding

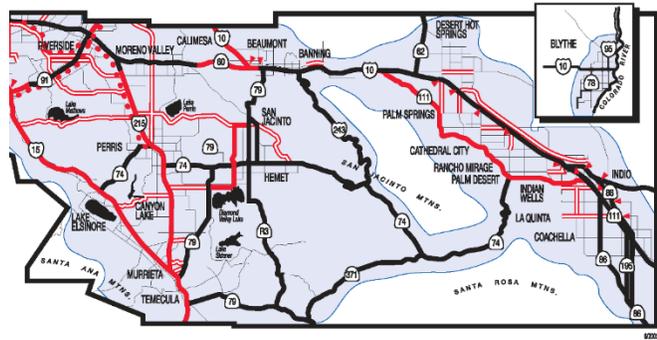
Local dollars for transportation are derived from a variety of revenue sources. These sources include a statewide 1/4 percent tax on the sale of all goods and services, additional optional local sales taxes that have been approved by county voters, property taxes, and public transit fares.

Local Funding Sources

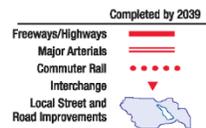
Counties may place a sales tax measure for transportation purposes on the ballot for voter approval. With federal and state funding historically being insufficient to meet all of California’s mobility needs, local sales tax revenues have provided more than 50 percent of new capital funding for the state’s transportation infrastructure over the last several decades. Counties representing more than 85 percent of the state’s population currently have in place local sales taxes for transportation purposes. Most of these taxes are temporary in nature and will expire if they are not renewed by the voters.

County of Riverside - Measure A

The ordinance institutes a half cent sales tax for transportation to supplement revenues and revenues to be generated through locally-adopted developer fees. The ordinance states that approximately \$300 million of the collected revenues will be used to improve the regional arterial system. Among the improvements are the needs for coordinated traffic signals.



New Measure A



In 2002, Measure A was extended by Riverside County voters. Now, Measure A will continue to fund transportation improvements through 2039. As calls for projects are released for Measure A, the City of Coachella will utilize the ITS Master Plan to assist in the development of project applications.

Transportation Uniform Mitigation Fee (TUMF)

When voters approved the extension of Measure A in 2002, they also approved an innovative program for western Riverside County, the Transportation Uniform Mitigation Fee or TUMF. Western Riverside County’s TUMF was patterned after a program by the same name in the Coachella Valley.

Under the TUMF, developers of residential, industrial, and commercial property pay a development fee to fund transportation projects that will be required because of the growth the projects create. The Western Riverside Council of Governments administers the TUMF.

The TUMF funds both local and regional arterial projects. Local area projects receive 48.1% of all funds and the funds are programmed in each of five “zones” proportionately to the fees paid. These zone projects are proposed by local jurisdictions.

The TUMF is expected to create almost \$3 billion in transportation projects for western Riverside County, with more than \$1.4 billion programmed and implemented by RCTC.

8-2.4. CVAG Funding Strategies

CVAG develops projects through its Transportation Project Prioritization Study (TPPS), an exercise that takes place approximately every five years. The top ten percent of these projects are typically considered for funding when a City brings it forward. A project begins with an assumption that it will be funded with 75% regional funding and 25% local funding. The regional share is comprised of Measure A and TUMF, currently at a 65%/35% ratio. CVAG looks for, and encourages local jurisdictions to look for external funding sources for their projects.

Otherwise, external funding has been obtained from many sources. On the Federal side, CVAG has been successful in utilizing CMAQ and STIP funding. At the State level, they have accessed Bicycle and Freight grants. CVAG has also received SCAQMD, MSRC, ATP, Health District and Recreation District funding to utilize in their transportation project funding.

8-3. FUNDING OPPORTUNITIES AND PROGRAMMING

Federal, state, and local revenues are used to fund the Coachella Valley transportation network. At the County level, Riverside County Transportation Commission (RCTC) is responsible for planning, coordinating, and administering federal, state, and local funds to enhance the region’s transportation network by working with the county, cities, and transit operators to maximize available funding sources.



Today, in addition to Measure A revenues, RCTC also allocates state and federal transportation funds in Riverside County and plans and implements region-wide projects funded under the Transportation Uniform Mitigation Fee (TUMF), a fee paid by new development to mitigate new transportation demands caused by growth.

It should be noted RCTC member agencies are eligible to compete at the statewide level for ATP funds and at the Metropolitan Planning Organization (MPO) level through the Southern California Association of Governments (SCAG).

Table 8.1 summarizes available funding resources and programs to CVAG and Local Agencies.

Table 8.1- Transportation Funding Sources and Programs

FUNDING SOURCE	DESCRIPTION	ELIGIBLE USES
National Highway Performance Program (MAP-21)	(MAP-21) consolidates the old Interstate Maintenance, National Highway System and Highway Bridge Programs into a new National Highway Performance Program that focuses on the most critical 161,000 miles of roadways and bridges in the United States.	California’s share of these funds will be programmed for State Highway Operation and Protection Program (SHOPP) projects, as well as through the State Transportation Improvement Program (STIP) process.
Fixing America’s Surface Transportation (FAST) Act	FAST (Fixing America’s Surface Transportation) Act is the Federal transportation authorization act.	FAST Act and/or United States Code section numbers are listed for each program. All projects must be approved in advance by FHWA or FTA.
Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD)	The FAST Act established the Advanced Transportation and Congestion Management Technologies Deployment Program to make competitive grants for the development of model deployment sites for large scale installation and operation of advanced transportation technologies to improve safety, efficiency, system	State or local government or political subdivision thereof, Transit agency, Metropolitan planning organization (MPO) representing a population of more than 200,000, Multijurisdictional group made up of the above eligible applicants, with a signed agreement to implement the initiative across jurisdictional boundaries, and



Funding Strategies Plan

FUNDING SOURCE	DESCRIPTION	ELIGIBLE USES
<p>Congestion Mitigation & Air Quality Program (CMAQ)</p>	<p>performance, and infrastructure return on investment.</p> <p>An FHWA FAST Act program. A flexible funding source for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (PM), nonattainment areas and for former nonattainment areas that are now in compliance, which are referred to as maintenance areas.</p>	<p>Consortium of research or academic institutions.</p> <p>Transportation projects likely to contribute to the attainment or maintenance of a national ambient air quality standard, with a high level of effectiveness in reducing air pollution. Projects for PM-10 levels of “coarse” pollutants coming from diesel vehicles, non-attainment areas; traffic monitoring, management, and control facilities; projects that improve traffic flow; emergency communications equipment; projects that shift traffic demand to nonpeak hours or other transportation modes, increase vehicle occupancy rates or otherwise reduce demand; diesel retrofits; facilities serving electric or national gas-fueled vehicles; certain transit operations.</p>
<p>Highway Safety Improvement Program (HSIP)</p> <p>\$2.4 billion nationwide by formula</p>	<p>An FHWA FAST ACT program. A core funding program whose purpose is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads. Requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. Set-asides: \$220 million for Railway-Highway Crossings, a proportionate share of funds for the State’s Transportation Alternatives (TA) program, 2% for State Planning and Research.</p>	<p>Any strategy, activity or project on a public road 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. The State must develop, evaluate and update an SHSP. Administered by the State.</p>
<p>Intelligent Transportation Systems (ITS) Research & Development</p> <p>\$100 million nationwide per year discretionary</p>	<p>Guided by the required five-year ITS Strategic Plan, the program is currently focused on significantly reducing crashes through advanced safety systems based on interoperable wireless communications among surface transportation vehicles of all types, traffic signals, other infrastructure systems, pedestrians, wireless devices, and automated vehicle systems. Federal share is 80%.</p>	<p>To carry out a comprehensive program of intelligent transportation system research, development and operational tests of intelligent vehicles and intelligent infrastructure systems.</p>



Funding Strategies Plan

FUNDING SOURCE	DESCRIPTION	ELIGIBLE USES
<p>Surface Transportation Program (STP)</p>	<p>The STP is intended to fund a wide range of transportation projects from capital improvements to planning activities.</p>	<p>Projects previously approved for STP funds include freeway interchanges, roadway widening, signal installations, road rehabilitations, and planning studies.</p>
<p>State Transportation Improvement Program (STIP)</p>	<p>A five-year state-regional program, adopted every two even years, of capital improvements on and off the State Highway System that increase the capacity of the transportation system. The STIP consists of two broad programs – the regional program (RIP) funded from 75% of new STIP funding and the interregional program (IIP) funded from 25% of new STIP funding. The projects are proposed by regional agencies in their RTIPs (75%) and by Caltrans in its ITIP (25%).</p>	<p>The California Transportation Commission (CTC) must approve each County’s STIP in its entirety. CTC allocation is required by the end of the fiscal year that the project is listed in the STIP.</p>
<p>Active Transportation Program (ATP)</p> <p>\$123 million per year discretionary</p>	<p>SB 99 of 2013 consolidated five existing programs (Federal Transportation Alternatives Program, Recreational Trails Program, Safe Routes to Schools Program, Bicycle Transportation Account, and Bikeway Account) into a single program. The ATP will streamline the application process for bicycle and pedestrian projects and fund projects with potential to increase mode share for active transportation; improve mobility, health, and safety for non-motorized users; decrease greenhouse gas emissions</p>	<p>Infrastructure projects: capital improvements that further ATP goals, including environmental, design, right-of-way, and/or construction phases of capital projects</p> <p>Non-infrastructure projects: education, encouragement, and enforcement activities that further ATP goals, with focus on start-up projects (ATP cannot fund ongoing program operations)</p>
<p>SB 821 Bicycle and Pedestrian Facilities Program</p>	<p>Each year 2% of the Local Transportation Fund (LTF) revenue is made available for use on bicycle and pedestrian facility projects through the Commission's SB 821 Program. All the cities and the county of Riverside are notified of the SB821 program estimate of available funding and are requested to submit project proposals</p>	<p>Eligible projects include sidewalks, access ramps, bicycle facilities, and bicycle plan development. A Call for Projects is issued biennially in February and funds are allocated each June. An evaluation committee typically reviews and ranks the projects based on evaluation criteria.</p>



Funding Strategies Plan

FUNDING SOURCE	DESCRIPTION	ELIGIBLE USES
Proposition 1B	Specific transportation program intended to relieve congestion, facilitate goods movement, improve air quality, and enhance the safety of the state's transportation system.	Highway-Railroad Crossing Safety Account (HRCSA), Traffic Light Synchronization Program (TLSP) and the augmentations of the existing STIP and the SHOPP.
Local Assistance Program (Caltrans)	The program provides entities with the opportunity to improve their transportation infrastructure or provide additional services.	Caltrans administers more than \$1 billion annually in federal and state funding to over 600 cities, counties, and regional agencies.
Riverside County – Measure A	In 2002, Measure A was extended by Riverside County voters. Now, Measure A will continue to fund transportation improvements through 2039.	Funds go back to each of three districts: Western Riverside County, the Coachella Valley, and Palo Verde, in proportion to what they contribute. In addition to major highway projects, over half a billion dollars has improved local streets and roads everywhere in Riverside County.
Transportation Uniform Mitigation Fee (TUMF)	An innovative program for western Riverside County, the Transportation Uniform Mitigation Fee or TUMF. Western Riverside County's TUMF was patterned after a program by the same name in the Coachella Valley.	TUMF funds both local and regional arterial projects. Local area projects receive 48.1% of all funds and the funds are programmed in each of five "zones" proportionately to the fees paid. These zone projects are proposed by local jurisdictions.

8-4. NEXT STEPS

As mentioned previously, this chapter identifies the local, Regional, State, and Federal ITS funding sources that CVAG or the local agencies will be able to pursue for implementation of **future phases** recommended in the Coachella Valley's Regional TSI Master Plan. The Regional TSI Master Plan is a key requirement for many funding sources that are related to ITS deployments. It will also increase the chances of being selected for funding.

As part of the Phase I improvements of the Regional TSI Master Plan, a majority of the recommended **near-term** deployments will be **funded** through CVAG. This will achieve the Coachella Valley's immediate goals of providing Ethernet IP communications, updated centralized ATMS system for each agency, and local TMCs, sub-regional DAC, and a regional TMC. This includes newly deployed Advanced Transportation Controllers (ATC), HD IP CCTV cameras at several high-volume intersections, arterial management systems for data collection and reporting of real-time traffic conditions, and Changeable Message Sign (CMS) systems to disseminate traffic information and messages to the motoring public.

For **future** Phase II and Phase III improvements of the Regional TSI Master Plan, **it is recommended for CVAG and the local agencies to pursue these funding sources** as identified in this **Funding Strategies Plan**; and secure funding for the subsequent phases until buildout.

In summary, the Regional TSI Master Plan provides a toolbox for CVAG and the local agencies to access planned improvements, qualify for funding sources, and to expand their respective systems until buildout. The average life span of the typical ITS element is ten (10) years before needing replacement. Some roadside ITS traffic elements may be extended up to 15 years based on use case. Life-cycles vary and the technological advancements in the transportation industry are rapidly improving. As a general rule, future Phase II and Phase III improvements may be programmed within a 5-year window of each other to further buildout communications and improvements to City/Agency limits. After all phases of the TSI Master Plan have been completed, the valley may then begin to re-visit improvements made under Phase I, as traffic patterns and aging improvements can be re-evaluated at that time. As a result, it is recommended that the Regional TSI Master Plan should be updated to identify new improvements/upgrades, and CVAG and the local agencies should pursue the latest funding sources in order to update to the latest ITS technologies, SMART cities, and connected and autonomous vehicle initiatives.