CHAPTER 4

Summary of Budget and Investments

Development of the MTP/SCS Budget and Investments

Each MTP/SCS update cycle, SACOG works with member and partner agencies to develop a list of transportation projects that account for forecasted changes in land use patterns intended to accommodate population, housing, and employment growth over the next two decades. The MTP/SCS will make investments totaling $35 billion (in 2015 dollars) to improve the regional transportation system. Table 4.1 on the next page shows the general categories of investment included in the MTP/SCS through 2036.

SACOG's Board of Directors provides policy direction that helps define the priorities for projects included in the plan. Chapter 2 provides additional detail on the SACOG board-endorsed implementation themes that drove the development of the MTP/SCS. In terms of transportation investments, the board directed staff to focus on the timing of investments to better align with changes in land use patterns and travel demand, and to take a closer look at prioritizing road maintenance and rehabilitation needs. Chapter 5 provides more details on the technical work that SACOG conducted with transportation planning partners to help realize the board's objectives for a high performing and cost effective plan that focuses on maintaining and preserving existing assets.

The specific projects making up the investments are the product of months of technical and financial analysis, and coordination with cities, counties, transit agencies, Caltrans, the El Dorado County Transportation Commission, and Placer County Transportation Planning Agency. SACOG consults with local governments and stakeholders as it considers the levels and types of investments made in the MTP/SCS. The SACOG Regional Planning Partnership advisory committee was the primary venue for ongoing coordination between local agency transportation planning staff and SACOG; however, SACOG also held a number of jurisdiction-specific meetings and comment periods. Beginning in the winter of 2013 SACOG staff issued a call for project updates and met with each jurisdiction individually to discuss the plan update process and to collect new and/or updated transportation project information. Local agencies were also informed of key dates, milestones, and comment periods through regular updates at the Regional Planning Partnership and Transit Coordinating Committee. Throughout the process of developing the package of transportation investments and budget (from Summer 2013 to April 2015), SACOG held several review periods to build and refine the final set of projects included in the plan.

All of the expenditures planned for in the MTP/SCS must be financially constrained to the revenues that the region can reasonably expect to be available during the planning period. To this end, SACOG developed a set of financial projections, relying on the latest data, forecasts, and policy direction from local, state, and federal sources to help guide future transportation investments. The financial projections supporting the investments in the MTP/SCS consider trends in the economy, policy and regulatory frameworks, fuel prices and consumption patterns, and other drivers of transportation investment. Table 4.1 summarizes the total federal, state, and local revenues forecasted to be reasonably available to support transportation investments in the SACOG region over the next 20 years. More information about the revenue forecast for the plan is available at the end of this chapter and in Appendix B-1 – Financial Plan.

All of the dollar figures contained in the MTP/SCS are expressed in current dollars as well as year-of-expenditure dollars. The federal Moving Ahead for Progress in the 21st Century Act (MAP-21) requires that all cost estimates be escalated to year-of-expenditure (YOE) values, to reflect both the likely decrease in purchasing power of today's dollar and increase in costs for maintaining and building the transportation system over the next 20 years.

<table>
<thead>
<tr>
<th>Revenue Source</th>
<th>Current year (2015) Dollars</th>
<th>Year of Expenditure Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>$3.6 Billion</td>
<td>$4.8 Billion</td>
</tr>
<tr>
<td>State</td>
<td>$9.7 Billion</td>
<td>$12.7 Billion</td>
</tr>
<tr>
<td>Local</td>
<td>$21.7 Billion</td>
<td>$29.1 Billion</td>
</tr>
<tr>
<td>Total</td>
<td>$35.0 Billion</td>
<td>$46.6 Billion</td>
</tr>
</tbody>
</table>
## Table 4.2
### Summary of MTP/SCS Investments

<table>
<thead>
<tr>
<th>Program Category</th>
<th>TOTAL BUDGET- 2015 THROUGH 2036 (IN BILLIONS)</th>
<th>2016 MTP/SCS</th>
<th>2012 MTP/SCS</th>
<th>Total Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Maintenance &amp; Rehabilitation (Current Year $*)</td>
<td></td>
<td>$12.6</td>
<td>$10.5</td>
<td>+20%</td>
</tr>
<tr>
<td>Year of Expenditure $</td>
<td></td>
<td>$16.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maintain Caltrans highways &amp; freeways, maintain local streets &amp; roads, safety investments as part of rehabilitation projects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Road Capital &amp; Operations Projects (Current Year $*)</td>
<td></td>
<td>$5.8</td>
<td>$6.4</td>
<td>-9%</td>
</tr>
<tr>
<td>Year of Expenditure $</td>
<td></td>
<td>$7.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New &amp; widened roads, river crossings, interchanges, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 System Management and Operations</td>
<td></td>
<td>$1.5</td>
<td>$0.8</td>
<td>+87%</td>
</tr>
<tr>
<td>Year of Expenditure $</td>
<td></td>
<td>$2.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Safety projects, Technology and operational improvements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Transit Operations (Current Year $*)</td>
<td></td>
<td>$7.1</td>
<td>$7.1</td>
<td>No change</td>
</tr>
<tr>
<td>Year of Expenditure $</td>
<td></td>
<td>$9.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bus and rail operations and maintenance, Paratransit services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Transit Capital (Current Year $*)</td>
<td></td>
<td>$3.5</td>
<td>$3.3</td>
<td>+6%</td>
</tr>
<tr>
<td>Year of Expenditure $</td>
<td></td>
<td>$4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strategic Bus &amp; Rail Infrastructure Expansion, Vehicle purchases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Bike/Pedestrian (Current Year $*)</td>
<td></td>
<td>$2.8</td>
<td>$2.5</td>
<td>+12%</td>
</tr>
<tr>
<td>Year of Expenditure $</td>
<td></td>
<td>$3.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bicycle Facilities, Pedestrian Improvements, ADA retrofits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Programs, Planning, Enhancements (Current Year $*)</td>
<td></td>
<td>$1.7</td>
<td>$1.8</td>
<td>-6%</td>
</tr>
<tr>
<td>Year of Expenditure $</td>
<td></td>
<td>$2.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Project Analysis and Development, Community Design Program, Air Quality Programs, TDM &amp; Traveler Information, Landscaping &amp; Transportation Enhancements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Totals (Current Year $*)</td>
<td></td>
<td>$35.2</td>
<td>$32.4</td>
<td>+8%</td>
</tr>
<tr>
<td>Year of Expenditure $</td>
<td></td>
<td>$45.8</td>
<td>$67.7</td>
<td></td>
</tr>
</tbody>
</table>

* See Appendix B-1 for documentation of how costs and revenues are calculated and noted throughout this plan in order to meet SAFETEA-LU financial reporting requirements.
MTP/SCS Projects and Investments

The transportation projects contained in the MTP/SCS are matched to the available revenues for the planning period. The general level, type, and extent of investments covered by the MTP/SCS are described in more detail below.

- $12.6 billion ($16.3 billion YOE) goes to road and highway maintenance and rehabilitation, including routine maintenance, major reconstructions, and various safety improvements.
- $10.6 ($13.8 billion YOE) billion goes to transit investments, including a 122 percent increase in bus service hours. An estimated $3.5 billion ($4.7 billion YOE) in capital investments support the $7.1 billion ($9.1 billion YOE) needed to operate these transit services.
- $5.8 billion ($7.7 billion YOE) goes to road and highway capital improvements, including road widening in growth areas, carpool and auxiliary lanes on highways, and new connections for local access.
- $1.5 billion ($2.1 billion YOE) goes to system management and operations, including intersection improvements, safety projects, signal timing.
- $2.8 billion ($3.6 billion YOE) goes to bicycle and pedestrian improvements, including bicycle trails, sidewalks, ADA retrofits, and supporting facilities. In addition, an estimated 8 percent or more of the road capital projects have a bicycle or pedestrian feature that is not included separately in the bicycle and pedestrian improvement allocation.
- $1.7 billion ($2.3 billion YOE) for other types of improvements important to achieving regional goals, including project development and analysis, community design incentives, travel demand management (including the regional rideshare program), clean air, open space, technology deployment, and enhancement programs.
**Table of Illustrative Projects**

Table 4.3 provides a set of key projects from the MTP/SCS. Appendix A-1 – Project List includes the full listing of projects.

<table>
<thead>
<tr>
<th><strong>New Rail</strong></th>
<th>Draft Preferred Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail</td>
<td>Capitl Corridor connecting Placer County, Sacramento, and Yolo Counties to the Bay Area by 2036</td>
</tr>
<tr>
<td></td>
<td>Green Line Light Rail to the Sacramento International Airport by 2036</td>
</tr>
<tr>
<td></td>
<td>Downtown Sacramento to West Sacramento streetcar by 2020</td>
</tr>
<tr>
<td></td>
<td>High Speed Rail - Altamont connection from points south, terminating at Sacramento Valley station by 2036</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>New Bus</strong></th>
<th>Draft Preferred Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local &amp; Express Buses, Neighborhood Shuttles</td>
<td>Increase bus service with 15 minute or better service from roughly one quarter of all services in 2012 to about half of all services by 2036</td>
</tr>
<tr>
<td>Bus Rapid Transit (BRT)</td>
<td>Nine BRT lines with 15-30-minute service connecting Roseville, eastern Sac County, Citrus Heights, northern Sac County, Natomas, Rancho Cordova, South Sac, Elk Grove, Downtown (phased completion)</td>
</tr>
<tr>
<td></td>
<td>Various street &amp; operational improvements coordinated with complete streets corridor enhancements to enhance bus transit (phased completion)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>New Bike/Pedestrian</strong></th>
<th>Draft Preferred Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bike Lanes, Complete Streets &amp; Recreational Trails</td>
<td>Emphasis on complete street connections within and between cities, areas of high pedestrian-scale development, and to transit and school facilities (phased completion)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>New Roads</strong></th>
<th>Draft Preferred Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 50 El Dorado</td>
<td>New Silva Valley Parkway Interchange by 2020</td>
</tr>
<tr>
<td></td>
<td>4-lane Green Valley Road, Folsom to El Dorado Hills by 2036</td>
</tr>
<tr>
<td>US 50 Sacramento</td>
<td>New carpool lanes, Watt Ave to downtown Sacramento by 2036</td>
</tr>
<tr>
<td></td>
<td>Modified interchange operational improvements at US50 &amp; SR99, US50 &amp; I-5 (phased completion)</td>
</tr>
<tr>
<td></td>
<td>New auxiliary lanes, various locations in Sacramento, Rancho Cordova, and Folsom (phased completion)</td>
</tr>
<tr>
<td>New Roads</td>
<td>Draft Preferred Scenario</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| I-80 & I-5 Yolo/North Sacramento | New auxiliary lanes from Del Paso Rd. to Hwy. 99 by 2036  
I-5/State Route 99 interchange improvements by 2020  
New carpool lanes on I-80 and U.S. 50 connecting Davis to Downtown Sacramento, with new bike bridge across the Yolo Causeway by 2036  
New carpool lanes on I-5 and I-80 to downtown Sacramento by 2036 |
| I-80 Sacramento                   | Carpool lane extension, Watt/Longview west to I-5 by 2020  
Business 80/Capital City freeway capacity and operational improvements by 2036  
Roseville Road widened to 4 lanes, from Watt Ave to Walerga Road by 2036 |
| I-80 Placer                       | I-80/SR 65 interchange improvements by 2036  
Truck climbing lane from Colfax to Magra Road by 2020 |
| SR 65                             | Operational improvements in Marysville through area where SR 20, 65 and 70 come together by 2020  
Capacity and operational improvements from Galleria Blvd. to Lincoln Blvd. |
| Placer Parkway                    | New 4-lane divided facility from SR 65 to Watt Ave; Interchange at SR 65 Whitney Ranch; at-grade crossings at Fiddyment, Foothills, and Watt by 2036 |
| SR 99/70, Sacramento, Sutter & Yuba | Operational improvements between I-5 and Placer Parkway (phased completion)                                                                 |
| I-5 South, Sacramento             | New carpool lanes, downtown Sacramento to Morrison Creek by 2036                                                                                                                                                 |
| SR 99, Sacramento                 | New southbound auxiliary lane, Elk Grove Blvd. to Laguna Blvd by 2036                                                                                                                                             |
| Capital Southeast Connector       | New four lane connector along White Rock and Grant Line Road from US 50 in El Dorado County to Douglas Road in Sacramento County, continuing with four lanes on Grant line from Bradshaw Road to Kammerer Road. (phased completion) |
|                                   | Future work will include four lanes on Grant Line between Bradshaw Road and Douglas Road \ |
| New River Crossings               | 5th St. Feather River bridge rebuilt/widened to 4 lanes by 2020                                                                                                                                                 |
|                                   | 1 Street Bridge Replacement between Sacramento and West Sacramento by 2020                                                                                                                                       |
|                                   | 10th St. Feather River bridge widened to 6 lanes by 2036                                                                                                                                                        |
|                                   | New Broadway Bridge connecting Sacramento and West Sacramento by 2036                                                                                                                                            |
|                                   | New all-modal river crossing between Downtown and Natomas by 2036                                                                                                                                              |
Emphasis on road maintenance and rehabilitation to help keep the transportation system in a state of good repair.

The plan area covers approximately 22,000 lane miles of existing collector and local streets, over 5,000 lane miles of freeway, high-occupancy vehicle (HOV), auxiliary, expressway, and arterials, and numerous small and large bridges that must be kept in a good state of repair for the transportation system to operate efficiently.

The maintenance and rehabilitation budget spends $12.6 billion ($16.3 billion YOE) to preserve, maintain, and rehabilitate the region’s roads, highways, bridges, trails, sidewalks and other bicycle and pedestrian facilities. For the 2016 MTP/SCS, SACOG took a renewed focus on preserving existing assets and reducing maintenance backlogs before adding new infrastructure that would require even more maintenance spending in the future.

Compared to the 2012 MTP/SCS, the 2016 plan increases the budget for maintenance and rehabilitation by more than $2 billion in current year dollars or 20 percent. This increase comes from a greater focus on system preservation using existing revenues by shifting funding away from expanded roadways and new revenues including sales taxes, state cap and trade funding, and a better accounting of federal funding for bridge preservation. Around two-thirds of the maintenance and rehabilitation budget is related to city and county maintenance of local streets and facilities. The balance is administered by Caltrans for maintenance of the state highway system.

Types of maintenance and rehabilitation projects include:

- Routine and preventive maintenance projects intended to extend the life of roads, and highways, including sealing cracks, repairing pavement, cleaning and repairing drains, fixing signals, and sweeping streets;
- More extensive repair, rehabilitation, and reconstruction of roadways, including sealing pavement, repaving, reconstructing subgrade and drainage, and reconfiguring intersections; and
- Bicycle, pedestrian, safety and aesthetic improvements, such as striping, curb ramps, sidewalk gap closures, rail crossings, and landscaping as part of larger rehabilitation projects.
- Replacement, rehabilitation, painting, scour countermeasures, and bridge approach barrier and railing replacements on local and state-owned bridges.

Many road maintenance or rehabilitation projects present opportunities to improve the travel experience of bicyclists and pedestrians. In addition to the direct investments assumed for the bicycle and pedestrian budget, discussed below, SACOG assumes that when appropriate and feasible, maintenance projects will include bicycle and pedestrian components such as striping and signage, sidewalk gap closures, ADA retrofits, and intersection improvements.

SACOG assumes complete streets improvements are considered as part of rehabilitation projects to help improve mobility for all travel modes. In the past, the planning, design, construction and operation of a street improvements, rehabilitation or new construction, might have focused on vehicular capacity and flow only. Complete streets projects balance the needs of all potential users of a street. Specifically, complete streets are roadways that provide for the effective movement of all public right-of-way users. Complete streets do more than just provide facilities for pedestrians, bicycles, transit, and cars. They include consideration of ADA accessibility, comfort and safety of all users, quality of life, regional and local transportation demand, and goods movement. SACOG’s Complete Streets Toolkit (http://www.sacog.org/complete-streets/toolkit/START.html) includes an up to date collection of resources related to planning, building, and maintaining complete streets as part of the transportation system.

SACOG estimates that at least one-third of the roadway projects in the MTP/SCS include complete streets elements. However, due to the nature of the project list being a long-term investment strategy; some listed projects have not yet been studied to the point where the described scope includes all elements that will ultimately be included in the project. The MTP/SCS makes provisions for the inclusion of complete streets by including lump sums in the project list for bicycle, pedestrian, and roadway improvements that
can improve a roadway’s accessibility to all users and through policies and strategies that encourage complete streets considerations whenever feasible. In addition to the plan’s increased investment in complete streets along urban corridors, there is also an increase in investment in complete corridor treatments in rural communities, where closing a shoulder gap or improving a county road intersection can significantly improve the safety of travel for all modes.

**Road, Highway, and Bridge Capital Investments**

**Emphasis on strategic investments to improve bottlenecks**

The MTP/SCS spends $5.8 billion ($7.7 billion YOE) on road, highway and bridge operational and capacity projects. The budget is notably different from earlier MTPs in its emphasis on operational improvements to improve system productivity over capacity projects. Compared to the 2012 MTP/SCS, road capacity investments are reduced by 9 percent. Despite the decline in overall roadway investment level, the MTP/SCS maintains performance from the previous plan due to a close alignment of projects with the land use pattern supporting the MTP/SCS. Chapter 5A provides a discussion of this land use/transportation connection and its associated impact on performance metrics.

More than two-thirds of the total road and highway investment pays for capacity expansion on existing facilities, while the remainder of the budget includes a mix of new road and highway investments to serve infill and greenfield growth areas. Figure 4.1 depicts the 2036 road and highway network contained in the MTP/SCS.

A continued shift in MTP/SCS roadway investment priorities from prior plans is reflected in an investment package that focuses on more cost-effective and strategic capacity projects. Right-sizing, or value-engineering, of roadway investments for maximum cost-effectiveness is an important component of an MTP/SCS that achieves strong performance benefits with lower funding levels. The 2016 MTP/SCS includes a reduction in expanded lane miles from the 2012 MTP/SCS of around 9 percent.

Of the $5.8 billion ($7.7 billion YOE) total in this category, the MTP/SCS invests nearly two-thirds of the budget in local roads to accommodate projected growth. More than 90 percent of new lane miles in the MTP/SCS are on surface streets, not freeways. The MTP/SCS roadway investments emphasize access to infill development areas, congestion relief, support for bus and rail transit, and improved bicycle and pedestrian access. Local road investments increase capacity for local passenger travel, creating a benefit to goods movement on highways.

Examples of local road investments in the MTP/SCS:

- New and expanded urban arterial roadways to meet community and regional travel needs. These roadway improvements primarily serve emerging activity centers, including Rancho Cordova, Folsom, West Sacramento and southern Placer County that shoulder a significant share of projected employment and housing growth by the 2036 horizon year. These expansions include complete streets features in order also to support transit and bicycle/pedestrian travel.

- Connectors, including the Placer Parkway in southern Placer County and the Capitol Southeast Connector serving Elk Grove, Rancho Cordova and Folsom. The Placer Parkway is a four-lane roadway in a new right-of-way, while the Capitol Southeast Connector in the MTP/SCS is an expansion of existing segments of Kammerer Road, Bruceville Road, Grant Line Road and White Rock Road.

**State Highway Investments**

The MTP/SCS invests the remaining third of the road capacity budget in projects that will primarily be carried out by Caltrans. The investment focus is on strategic new carpool lanes, auxiliary lanes, and interchanges along the freeway system. Collectively, these investments serve travel between activity centers and accommodate trucks for inter-regional goods movement. Fixing bottlenecks along trucking corridors is important for effective movement of goods throughout the region and for traffic management, as each truck represents the traffic-generating equivalent of two to four automobiles in stop-and-go traffic.

Added freeway lane miles account for less than 5 percent of the total in new roadway capacity. Of this
Figure 4.1
2036 Local Road and Highway Network

- 2 Lane Surface Street
- 4 Lane Surface Street
- 6 Lane Surface Street
- Connectors
- Freeway/Expressway
- Rural Highway
- Freeway with Carpool Lanes
- Auxiliary Lane
- County Boundaries

MILES

KILOMETERS

0 5 10 15 20

0 5 10 15 20
increase in freeway lane miles, nearly all of them are carpool lanes, auxiliary lanes, new ramps or widened ramps. Most of the carpool, auxiliary, and transition lane additions occur in the urbanized part of the region and are directed at closing gaps that relieve congestion along major commute corridors during peak commute periods and to serve suburban job centers where it will take time to build up employment densities to the point that transit becomes a serious option for commuting.

Example state highway projects include:

- Carpool lanes between Davis and West Sacramento on I-80/U.S. 50 in Yolo County; as far north as the I-80 interchange on I-5 in Sacramento County; and on the Capital City Freeway (SR 51) from J Street to Arden Way.
- Auxiliary and transition lanes at and between major interchanges to improve traffic flow
- New interchanges with major arterials along freeways in high growth areas including along Highway 50 in Folsom and El Dorado, the junction of Highway 65 and I-80, and the interchange at Highway 99 and Riego Road in Sutter County.

**Bridge and River Crossing Investments**

As a subset of the local road and state highway investments, the 2016 MTP/SCS includes over $600 million ($800 million YOE) in investments for the development of more road, transit, bicycle, and pedestrian capacity on the region’s bridges. Three-quarters of this budget pays for major crossings of the American, Sacramento, and Feather Rivers, with the remainder going towards minor capacity expansions on small crossings of creeks and tributaries.

Example bridge projects include:

- Improved river access across the American and Sacramento Rivers into downtown Sacramento – New river crossings across the lower American River from Sacramento to South Natomas, and across the Sacramento River from West Sacramento to Sacramento to provide access into downtown Sacramento where there will be a large increase in jobs and residents by 2036.
- Feather River Crossing – Improvements to the 5th Street Bridge, with redesigned approaches and distribution on both ends, to link Yuba City and Marysville more effectively.
- One-to-two and two-to-four lane widenings on a number of small creek crossings.
- Bicycle and pedestrian retrofits on existing and new bridges.

**System Management and Operations**

The MTP/SCS invests $1.5 billion ($2.1 billion YOE) in system management and operational improvements. These investments are intended to improve the efficiency and safety of the transportation system. Oftentimes, operational improvements can offer an effective alternative to adding new capacity to the roadway system by improving the flow of traffic on existing lanes.

Examples of system management and operations investments in the MTP/SCS:

- Road operational improvements for rural and small communities. Improving roadway safety along farm-to-market routes and corridors along the urban/rural edge is a focus for investments. Operational improvements include closing shoulder gaps, improving rural road intersections, and safer crossings within communities divided by highways or railroads.
- Road operational improvements for urban and suburban areas. The plan includes near-term and longer-term projects, including interchange and intersection bottleneck relief, street improvements to support improved transit access, and investments to support BRT corridors and improve access to transit-oriented developments. The focus areas for these investments are the Center and Corridor and Established Community Types.
- Street safety measures, such as left-turn lanes at intersections, improved lighting and signage, special paving, and median strips, particularly where there are high numbers of automobile or pedestrian accidents. Safety investments are also made at rail grade-crossings and urban interchanges.
- Safer crossings at major freight and passenger rail lines for automobiles, bicyclists, and pedestrians.
- Operational improvements for congested or unsafe interchanges, including freeway-to-free-
way interchanges along U.S. 50 and I-80 and at primary freeway-to-arterial corridors, including Watt Avenue and U.S. 50, and Elkhorn Boulevard and Route 99.

- Guardrails and improved shoulders along critical sections of freeways and highways.
- Special paving (e.g., diamond grooving, reflectors, skid-reducing material) and lighting along specific road segments to improve safety.
- Incident management investments, including changeable message signs for traffic alerts and increased freeway service patrols.

Public Transit Investments

Emphasis on frequent and reliable bus and rail services along corridors that have transit-supportive land uses.

The MTP/SCS provides $10.6 billion ($13.8 billion YOE) in transit capital and operating investments. Most of this investment, 67 percent of the total, is consumed by the cost of operating and maintaining the transit system. Intercity rail operations take up about 7 percent of the transit budget or roughly $800 million ($1.1 billion YOE) and are covered by state funding outside the control of regional operators. The remaining $3.5 billion ($4.7 billion YOE) pays for capital expenses such as purchasing new buses and rail vehicles, infrastructure associated with adding routes and stations to the bus and rail system, building new storage and maintenance facilities, and improvements to help buses move more quickly through traffic.

Providing high-frequency service of 15 minutes or better in areas with more compact and mixed uses allows the MTP/SCS to provide cost-effective and productive transit service. Because of higher productivity, there is a significantly higher percentage of operating costs covered by fares - rising from around 24 percent of operating costs in 2012 to 38 percent of operating costs,$2.2 billion ($3.0 billion YOE), by 2036. Saving public dollars through higher farebox recovery allows the transit investments in the MTP/SCS to have a larger impact. With the increased transit productivity, by 2036 the MTP/SCS provides roughly double the amount of transit service provided in 2012 and increases total daily transit trips by more than 200 percent. Chapters 5 and 10 provide additional discussion of transit productivity.

The MTP/SCS provides increased transit coverage across the region, but focuses on corridors with land uses that support productive transit services. The types of transit offered in the plan vary by areas of the region. Investments include increasing the amount of service on existing routes, introducing new services, and adding high-capacity rail to high-demand corridors. The resulting 2036 transit network is depicted in Figure 4.2. Types of MTP/SCS transit projects include:

- Increased transit options in local areas to better match transit type to the density of development and related demand for service. Options range from increasing the amount of service on existing fixed route and express bus lines, to introducing new services including Bus Rapid Transit and neighborhood shuttles.
- More frequent transit service with greater regional coverage, with 15-minute or less service on many corridors. The plan calls for more than half of all transit services (bus and rail) to operate 15-minute or better service by 2036, versus less than a quarter of services today.
- Expansion of ADA paratransit services to keep up with the fast-growing senior population. The MTP/SCS also calls for paratransit vans to be replaced regularly and equipped with technologies that optimize trip planning, as well as use of quality vehicles.
- More replacement buses, running on alternative fuels.
- Strategic expansion of regional and local rail where it can be cost-effective given surrounding housing and employment densities. New local rail expansions include light rail to Cosumnes River College and the Sacramento International Airport and a new streetcar line between downtown Sacramento and West Sacramento.
- Additional service on the existing Capitol Corridor interregional rail line, provided by Caltrans/Amtrak through a Joint Powers Authority.
- Additional service on the existing San Joaquin intercity rail line, operated by Amtrak and funded by Caltrans.
Figure 4.2: 2035 Transit Network

Yuba County
- Yuba City
- Marysville

Sutter County
- Marysville
- Wheatland
- Colfax

Placer County
- Auburn
- Loomis
- Roseville

El Dorado County
- Placerville

Sacramento County
- Folsom
- Woodland
- Citrus Heights
- Galt

Miles and Kilometers

Express Bus Routes
Neighborhood Shuttle
Local Bus Routes
Bus Rapid Transit/High Bus
Light Rail Transit
Streetcar
Limited Service Routes
County Boundaries
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- Operational improvements to improve rail service frequencies.
- Renovation and reconfiguration of the Sacramento Amtrak station (also called the Sacramento Valley Station) as a central intermodal facility for bus and rail connections. Project elements include moving and renovation of the old Southern Pacific depot and building new sidewalks, a parking garage and improved freeway ramps.
- Increased transit security (patrols, lighting, etc.) and trash collection to enhance the attractiveness of transit travel.

Bicycle and Pedestrian Investments

Emphasis on a network of complete streets and corridors between and within the communities in the region.

In addition to “complete street” investments described earlier, the MTP/SCS includes $2.8 billion ($3.6 billion YOE) in direct investments for bicycle and pedestrian facilities.

Types of bicycle and pedestrian projects in the MTP/SCS:
- Sidewalk network extensions in neighborhoods, with segments widened where needed.
- Pedestrian bridges and pedestrian intersection improvements that include ADA-compatible ramps, bulb-outs and special crossing signals.
- Bike lanes on more neighborhood and major streets.
- Multi-use bike/pedestrian trails (off-street, grade-separated) that offer residents the opportunity to make utilitarian and leisure trips separated from vehicular traffic.
- Bike facilities (racks, lockers, restrooms) at major transit stops/hubs (light rail, BRT, etc.) and at key activity centers (downtown Sacramento, shopping malls, large office complexes, etc.)

Projects reflecting the range of bicycle and pedestrian investments in the MTP/SCS are listed in the Regional Bicycle, Pedestrian, and Trails Master Plan (Master Plan). This document provides the framework to support a regional pedestrian and bikeway network. The Master Plan provides a summary of planned bicycle and pedestrian infrastructure projects in each jurisdiction, and among multiple jurisdictions. The goal is to develop a connected system of facilities that provide safe and convenient bicycle and pedestrian travel throughout the region. The development of the regional network is oriented towards utilitarian trips and emphasizes connectivity to current facilities and connections to transit systems and key destinations.

The Master Plan was adopted by the SACOG Board in 2003 and last amended in early 2015. The Master Plan also guides the long-term priorities for the Bicycle and Pedestrian Funding Program (Funding Program). Projects identified in this plan will serve as the main list of projects eligible to receive funding through the Funding Program. The Master Plan and the corresponding Funding Program’s emphases are to provide infrastructure for walking and bicycling within and between the cities and towns of the six-county region.

Programs, Planning, and Operations

The plan supports $1.7 billion ($2.3 billion YOE) in funding for supplementary programs and planning efforts.

Example programs and planning and operations projects include:
- Community Design: Seed funding to encourage smart-growth development projects complementary to the MTP/SCS that may otherwise not happen.
- Air Quality Improvement Programs: Current funding focuses on Transportation Control Measures (TCMs) that sunset in 2018. Existing TCMs include the Sacramento Emergency Clean Air and Transportation (SECAT) grant program for replacing or retrofitting diesel engines and trucks, and Spare the Air programs to reduce vehicle miles traveled on bad air days. Active efforts are underway to identify air quality improvement programs beyond 2018 that offer strong performance benefits.
- Intelligent Transportation Systems (ITS): With a focus on cost-effective operational improvements, future ITS investments are important strategies.
Chapter 4: Summary of Budget and Investments

to realize MTP/SCS performance targets. Anticipated investments include additional automated message signs, crosswalk signals with pedestrian countdown timers, real-time transit message signs, and transit signal priority for buses. These investments also include Smart Corridors, including Sunrise and Hazel avenues in Sacramento, where near-term ITS strategies are planned by local agencies, and expansion of Traffic Operations Centers.

- Travel Demand Management (TDM): Current funding through an air quality Transportation Control Measure (TCM) provides support to programs implemented by Transportation Management Associations (TMAs), promotional campaigns including May is Bike Month and rideshare matching services. Strategic planning efforts are underway to identify TDM funding opportunities beyond 2018 that offer strong performance benefits.

- 511 Traveler Information: This existing phone and web-based service will continue to expand as a more highly developed and user-friendly source of detailed travel information. Goals for the future include real-time web-based traffic information, voice interactivity, and a public transit trip planner. The web version will include useful maps for alternative modes (transit system networks, bike routes, etc.). A related project is improved highway advisory radio on weather conditions, road closures, or construction on key highways.

- Community Enhancements: Funding for investments, including soundwalls, traffic calming, and streetscaping features, that can make a corridor or intersection more attractive while also improving its safety and operation. Traffic-calming investments include street narrowing, alignment changes, roundabouts, sidewalk bulbouts, refuge islands at intersections, pavement treatments, and angled parking. Streetscape investments include landscaped buffers between streets and sidewalks, landscaped median islands, lighting, signage, and street furniture.

- Project Development Support: Funding for projects outside of the planning period of the MTP/SCS to begin early stages of development, including project design, preliminary engineering, environmental clearance, and right-of-way acquisition. Due to limited revenues in the financially constrained MTP/SCS, these projects are not anticipated to have sufficient funding to complete construction during the planning period. This category also includes funding for detailed studies on a wide range of subjects including rail transit opportunities, a regional open space strategy, complete streets design guidelines, and implementation of the Rural-Urban Connections Strategy.
Paying for the MTP/SCS

Funding to support the transportation investments in the MTP/SCS comes from a number of federal, state, and local sources, each with specific purposes and restrictions. In total, SACOG forecasts $35 billion ($45.8 billion YOE) in revenues over the planning period. On average, this comes out to $1.6 billion ($2.1 billion YOE) per year over 22 years.

Federal and state laws require that the MTP/SCS must constrain its budget by assuming only revenues that can reasonably be expected over the next two decades. Therefore, the revenue assumptions contained in this plan assume that current sources of revenue in the region will continue into the future at rates of growth consistent with historical trends and projected future economic conditions. The plan also includes assumptions for new revenues coming from eventual sales taxes or equivalent funding mechanisms in Sacramento and Placer counties. The new state of California Cap and Trade Program provides additional funding for certain greenhouse gas reducing transportation projects and transit operations.

The following section provides a summary of MTP/SCS revenues by federal, state, and local sources. Appendix B-1 provides a more detailed description of SACOG’s budget, revenue and investment assumptions.

Federal Revenues

Federal revenues in the MTP/SCS total $4.1 billion ($4.8 billion YOE), or 12 percent of the total budget. Federal programs typically support one-time capital investments over ongoing investments for road maintenance and transit operations. However, some federal funds are available to support major road rehabilitation projects such as reconstruciton and replacement of decaying bridges, as well as transit preventative maintenance aimed at extending the life of transit facilities or vehicles. Federal funding sources come in the form of Congestion, Mitigation, and Air Quality Program (CMAQ), Regional Surface Transportation Program (RSTP), and Federal Transit Administration Chapter 53 funds, the Highway Bridge Program, and a few other smaller federal discretionary programs.

State Revenues

State funds in the MTP/SCS total $11.4 billion ($12.8 billion YOE), or 32 percent of the total budget. California Department of Transportation (Caltrans) maintenance and capital investments for the state highway system and intercity rail services operated within the region comprise 75 percent of the state revenues in the MTP/SCS. State assistance for local projects is similar to federal programs in its support of one-time capital investments. One notable exception is State Transit Assistance (STA), which can be used to support local transit operations. However, in the region, STA typically makes up less than 10 percent of annual transit operating budgets. The new statewide Cap and Trade program also includes some funding for providing ongoing support for transit operations.

Local Revenues

Local funds in the MTP/SCS total $19.5 billion ($29.1 billion YOE), or 56 percent of the total budget. Local revenues are the primary financial support for the basic maintenance and operation of the region’s road and transit system (over 95 percent of local road maintenance and rehabilitation and over 75 percent of transit operations). The principal sources of local revenues are sales taxes, developer fees and contributions, local general funds, and transit fares. On average, local revenues also cover 65 to 90 percent of major capital improvements on local road systems and frequently pay for 100 percent of relatively minor improvements.
Implementing the MTP/SCS Transportation Projects: From Planning to Programming

Implementation of MTP/SCS is carried out gradually through shorter-term decisions that assign state and federal funds to specific projects through periodic funding or programming cycles. By adopting the MTP/SCS, the region will achieve consensus on transportation system needs over the next two decades, and it will also set the stage for the short-term strategy to implement the plan.

The plan must spread projects throughout the planning period to match the flow of revenues. Because many local agencies want to build most of their projects within the next 10 years or so, the scheduling of projects to match availability of revenues tells them that they cannot realistically expect to build all those projects at once, and forces SACOG and local agencies to collaborate to arrange projects in a priority and schedule order. Therefore, the completion year of a project in the MTP/SCS may reflect either its priority or its realistic schedule (regardless of priority). The MTP/SCS spreads out completion years of projects, with higher priority projects taking place earlier. However, one should not interpret a project’s priority solely by its completion year. A project’s completion year may simply reflect its schedule constraints. For example, a larger, more complex project may begin early but show a completion year beyond where its relative priority would warrant.

The draft project list meets the following objectives:

- **Balance revenues and expenditures over the 22-year planning period** – Projects are scheduled to match the pace at which revenues are available proportionally over 22 years, which limits the number of projects that can be planned for any given year and forces decisions about relative priority.

- **Support attainment of air quality standards** – SACOG analyzes the MTP as an overall package via a computer model to verify that its implementation would meet federal air quality requirements in the region’s Rate of Progress State Implementation Plan, and the sequence in which projects are scheduled could make a difference in that analysis. This test is called air quality conformity.

It is typical that, as project sponsors implement projects contained in the MTP/SCS, they may need to change their project in the plan. For this reason, SACOG may amend the MTP/SCS from time to time. When it does, it must verify both financial constraint and air quality conformity. SACOG may amend the plan in order to reflect the latest cost, scope, or schedule of projects.

Several sources of “regional” funding are included in the MTP/SCS and are used to implement the MTP/SCS. Federal and state laws designate certain funds as regional, and the regional agency decides how those funds are used. SACOG acts as the regional transportation planning agency (RTPA) under state law for four counties (Sacramento, Sutter, Yolo and Yuba), and as the metropolitan planning organization (MPO) under federal law for all six counties in the region (including Placer and El Dorado). Under federal and state law, SACOG, as an MPO, receives apportionments of two kinds of federal funds annually — Congestion Mitigation and Air Quality (CMAQ) and Regional Surface Transportation Program (RSTP) — currently amounting to about $40 million per year. SACOG programs these funds for the four counties. Per memoranda of understanding with El Dorado County Transportation Planning Commission (EDCTC) and Placer County Transportation Planning Agency (PCTPA), these agencies program CMAQ and RSTP separately for El Dorado and Placer Counties.

Under state law, SACOG, as an RTPA, receives a share of funds through the State Transportation Improvement Program (STIP) every two years, currently amounting to about $20 million per year. STIP funds are comprised of both state and federal fund sources. EDCTC and PCTPA – also RTPAs – receive STIP funds directly.

Under state law, SACOG, as an MPO, receives a share of Regional Active Transportation Program (Regional ATP) funds through the STIP every two years. Regional ATP funds are comprised of both state and federal fund sources. Regional ATP is the one source of funding programmed by SACOG for the entire six-county region.
SACOG indicates in the MTP/SCS the types of projects on which it intends to spend regional funds during the 22 years of the plan. While the plan identifies a long list of specific projects, it does not specify which funds will be used to build which projects. Selection of projects for funding is done through a separate process known as “programming.” SACOG typically programs projects every two years; programming for federal and state funding in El Dorado and Placer counties is managed separately through EDCTC and PCTPA, respectively.

Project sponsors, including cities, counties, transit operators, and Caltrans, carry out the MTP/SCS by using available resources to implement the projects designated in the plan. In programming, SACOG assigns its regional funds in specified amounts to specific projects, shown in a document that SACOG calls the Metropolitan Transportation Improvement Program (MTIP). After being approved by Caltrans, the Federal Highway Administration, and the Federal Transit Administration, the MTIP officially becomes part of a broader statewide document called the Federal Statewide Transportation Improvement Program (FSTIP). When an agency seeks an allocation of federal funds to spend on a project, or needs a federal permit to continue project work, federal and state agencies check to see that the project and funding are shown in the MTIP/FSTIP. Besides being a programming document, the MTIP serves as a current snapshot of the progress and schedule for implementing projects, and it lays out the commitments of funding that the agencies will need to complete those projects in a manner that is consistent with the MTP/SCS.

Under current law, the MTIP covers four federal fiscal years (FFYs) and has a shelf life of four years. The current MTIP covers the federal fiscal years 2015–2018 and expires in December 2018. Although it expires after four years, SACOG adopts a new one every two years, so the next MTIP is due in mid-2016. SACOG also amends its MTIP periodically, usually to reflect changes in cost, funding, or schedule to projects, but also occasionally to redefine the scope of a project.

The MTP/SCS and MTIP are linked in two ways. First, any project to be programmed in the MTIP must be consistent with the MTP/SCS. Second, although SACOG does not have to program projects exactly according to the timing and cost laid out in the MTP/SCS, once it does program projects from the plan into the MTIP, the MTIP supersedes the MTP/SCS; in essence, the MTIP becomes the first four years of the plan. A new MTIP or a major amendment to the MTIP will often have to be accompanied by an amendment to the MTP/SCS to keep them consistent.

The MTP/SCS and the MTIP thus form a two-step plan and implementation process. Because of federal and state laws and regulations, the process to keep the MTIP and MTP/SCS current and consistent is not simple. SACOG must provide for public review of amendments, as specified in its Public Participation Plan. SACOG must verify financial constraint. For the MTP/SCS, the total cost of projects and activities cannot exceed an estimate of funds reasonably expected to be available going out to 2036, determined according to various assumptions described in the plan about funding in the future. For the MTIP, the test is much tighter: Funds programmed in the four years of the MTIP must be available, identified, or committed, and the MTIP assigns those funds to specific projects and types of work. Finally, SACOG must verify air quality conformity, which, in effect, shows that projects in the MTIP and MTP/SCS produce air pollution emissions no greater than allowed by emissions budgets specified in the region’s air quality plan (SIP).

The responsibility to complete environmental studies, design, construct, and operate projects falls to the project sponsor. For some projects, local agencies seek federal or state funds through SACOG, and, if SACOG programs funds to a project, the project must be amended into the MTIP and kept current. The project sponsor sometimes changes aspects of a project during this delivery process. For example, as engineering work progresses, the sponsor may make more precise cost estimates. These may lead to a need to amend the MTIP (and perhaps the MTP/SCS as well) if the sponsor is relying on federal or state funds to finish the project. As each phase of work on a state or federally funded project becomes ready to proceed, the implementing agency may require the cooperation of SACOG, the State, and/or, federal government. If state funds are involved, Caltrans and the California Transportation Commission must approve the allocation. At this point, if all requirements have been met and all information is shown correctly, the allocation becomes a quick ministerial action, and the agency can then use the funds to reimburse itself as it pays the bills for project work.