



10-Year Delivery Plan ²⁰¹⁹

San Bernardino County Transportation Authority
1170 W. Third Street, San Bernardino, CA 92410
909.884.8276

www.gosbcta.com



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INTRODUCTION

INTRODUCTION

ORDINANCE AND EXPENDITURE PLAN

STRATEGIC PLAN

Introduction

In November 1989 County voters approved Measure I, supporting a half-cent sales tax in the incorporated and unincorporated areas of the County for the 20-year period between April 1, 1990, and March 31, 2010.

Early in the second decade of Measure I, it became apparent that continuation of the half-cent sales tax would be critical to maintaining funding for transportation projects in San Bernardino County. Ultimately the voters of San Bernardino County approved San Bernardino County Transportation Authority Ordinance 04-01 on November 4, 2004, extending the half-cent sales tax for 30 years to March 31, 2040. The Ordinance is referred to as Measure I 2010-2040 to distinguish it from the 20-year half-cent sales tax measure that took effect in April 1990.

On April 1, 2009, the SBCTA Board approved a Strategic Plan to define the policy framework for delivery of the projects and programs referenced in the Measure. The Strategic Plan is the official guide and reference for the allocation and administration of the combination of Measure I funds, State and Federal transportation revenues, and private fair-share contributions from new development to regional transportation facilities. One of the key requirements of the Strategic Plan was the preparation of a 10-Year Delivery Plan.

The purpose of the 10-Year Delivery Plan is to provide a transparent list of projects that will be developed during the next ten years and to define the scope, schedule, and budget for these projects, given current information and assumptions. The 10-Year Delivery Plan establishes a common understanding among members of the SBCTA Board, staff, member agencies, and citizens of San Bernardino County; sets a baseline upon which future changes in revenues, costs, scopes, and schedules are measured; enables SBCTA to meet the requirements of bond rating agencies for the future sale of bonds; serves as a SBCTA commitment to fund specific projects; and provides the basis for the preparation of SBCTA's annual budgets for capital projects.

The 10-Year Delivery Plan is a living document that will be revised as revenue and project information change. The 10-Year Delivery Plan was first adopted by the SBCTA Board in January 2012 and is updated every two years to capture revisions and updates and to stay current. This 2019 Update has incorporated project changes that have occurred since 2017 as well as significant SBCTA Board actions affecting the projects to be implemented over the next ten years.

Major changes from the 2017 Update include reflection of the awarded I-10 Corridor Contract 1, which adds express lanes on I-10 from the Los Angeles County line to I-15, and a phasing strategy for the next express lanes projects on I-15 and I-10. Additionally SBCTA is nearing completion of the environmental studies for the West Valley Connector Phase 1

project, which adds bus rapid transit service from the Downtown Pomona Metrolink Station to Victoria Gardens in Rancho Cucamonga; however, this project requires significant future grant funding to achieve full funding. SBCTA has also taken on the lead agency status for the Mount Vernon Avenue Viaduct Project, which will reconstruct the Mount Vernon Avenue Bridge over the BNSF Railway intermodal yard in San Bernardino. Finally SBCTA was awarded a state Transit and Intercity Rail Capital Program grant for research and development of a preferred technology alternative for converting a Diesel Multiple Unit rail vehicle to a Zero Emission Multiple Unit vehicle that would be used for the future Arrow passenger rail service that will operate between the City of Redlands and the City of San Bernardino.

Projects that have been completed since the last update are reflected in Section 11. Some notable projects include:

- I-215 Bi-County Gap Closure (High Occupancy Vehicle Lane) Project
- Interchanges at I-15/Base Line Road, I-10/Pepper Avenue, and SR 210/Pepper Avenue
- Grade Separations at North Vineyard and South Milliken in the City of Ontario
- Metrolink extension to the Downtown San Bernardino Transit Center
- Yucca Loma Road/Yates Road bridge construction and road widening in the Victor Valley Subarea

1.1 ORDINANCE & EXPENDITURE PLAN

The Measure I Ordinance contains maintenance-of-effort (MOE) provisions that state that funds provided to government agencies by Measure I are to supplement and not replace existing local revenues being used for transportation purposes. In 2016, SBCTA instituted a formal process to monitor MOE on the part of local agencies required by the Measure I Ordinance. This process includes adoption by resolution of the governing bodies of MOE base year level amounts that are equivalent to the Fiscal Year 2008/2009 General Fund expenditures for street and highway purposes. Jurisdictions annually provide a statement in the resolution of the governing body adopting the Measure I Local Street Projects Program Five-Year Capital Improvement Plan that acknowledges the jurisdiction will maintain the required MOE base year level in that fiscal year. A similar requirement is in place for transit operators to ensure the Measure I Senior and Disabled Transit Service Program funds do not supplant Federal, State, and local funds used for operating purposes.

In addition, Measure I 2010-2040 revenues are not to replace requirements for new development to provide for its own road needs. The Ordinance further states that Measure I funding priority should be given to addressing current road needs, easing congestion, and improving roadway safety. Eligible expenditures include those for planning, environmental reviews, engineering and design costs, related right-of-way acquisition, and construction. Eligible expenditures also include debt service on bonds and expenses in connection with issuance of bonds.

Measure I has a return-to-source provision that states that funds will be allocated to Subareas in accordance with the actual revenue collected in each Subarea. In addition to the Subareas, the Expenditure Plan established a funding mechanism known as the Cajon Pass Expenditure Plan for transportation improvement projects in the Cajon Pass. The Cajon Pass serves as a major transportation corridor linking the two major urbanized areas of San Bernardino County; therefore, the funding is provided by the San Bernardino Valley and the Victor Valley Subareas. Three percent of the revenue generated by the two Subareas is assigned to the Cajon Pass. Based on the current revenue forecast and demographic projections, the Measure I estimated to be allocated among the Subareas and Cajon Pass is as follows as shown in Figure 1.1.1.

1. Cajon Pass 2.83%
2. Colorado River .14%
3. Morongo Basin 1.35%
4. Mountains 1.17%
5. North Desert 2.86%
6. San Bernardino Valley 80.62%
7. Victor Valley 11.03%

*Percentages are adjusted annually based on actual revenue.

FIGURE 1.1.1

SAN BERNARDINO COUNTY SUBAREAS

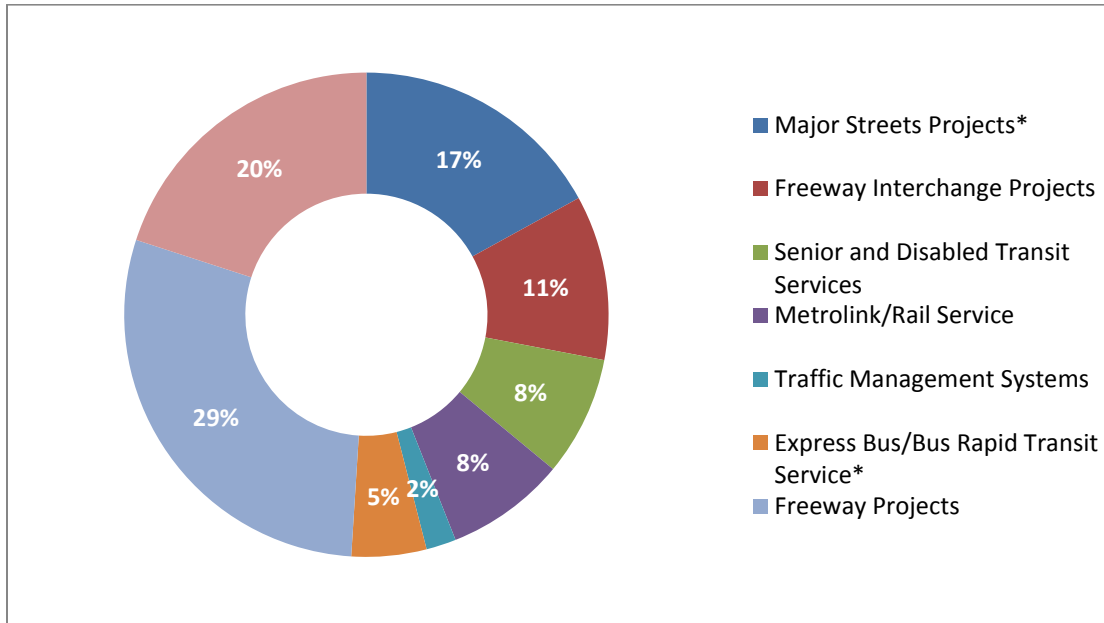


The Colorado River, Morongo Basin, Mountains, and North Desert Subareas are commonly referred to as the Rural Mountain/Desert Subareas.

Revenues are allocated to specified project categories in each of the Subareas. These project categories are called Programs. Figure 1.1.2 shows the percentage distribution of revenue allocations for the San Bernardino Valley Subarea. Note that in April 2020, the Major Street Projects Program will reduce from 20% to 17% and the Express Bus/Bus Rapid Transit Service Program will increase from 2% to 5% of the San Bernardino Valley Measure I Revenue. Revenue for the Programs in the Victor Valley and Rural Mountain/Desert Subareas are allocated per Figure 1.1.3. Note that in the Victor Valley Subarea beginning in Fiscal Year 2015/2016 and every five years thereafter, the Local Street Projects Program decreases by 0.5% and the Senior and Disabled Transit Service Program increases by 0.5% up to a total of 7.5% of the Measure I Revenue unless each local jurisdiction within the subarea makes a finding that such increase is not required to address unmet transit needs of senior and disabled transit users. As such, in April 2020, the Local Street Projects Program will decrease to 67% and the Senior and Disabled Transit Service Program will increase to 6% of Victor Valley Subarea Measure I Revenue. Jurisdictions in the Rural Mountain/Desert Subareas have the option to increase the revenue to the Senior and Disabled Transit Service Program in a similar manner, although that has not been done to date.

FIGURE 1.1.2

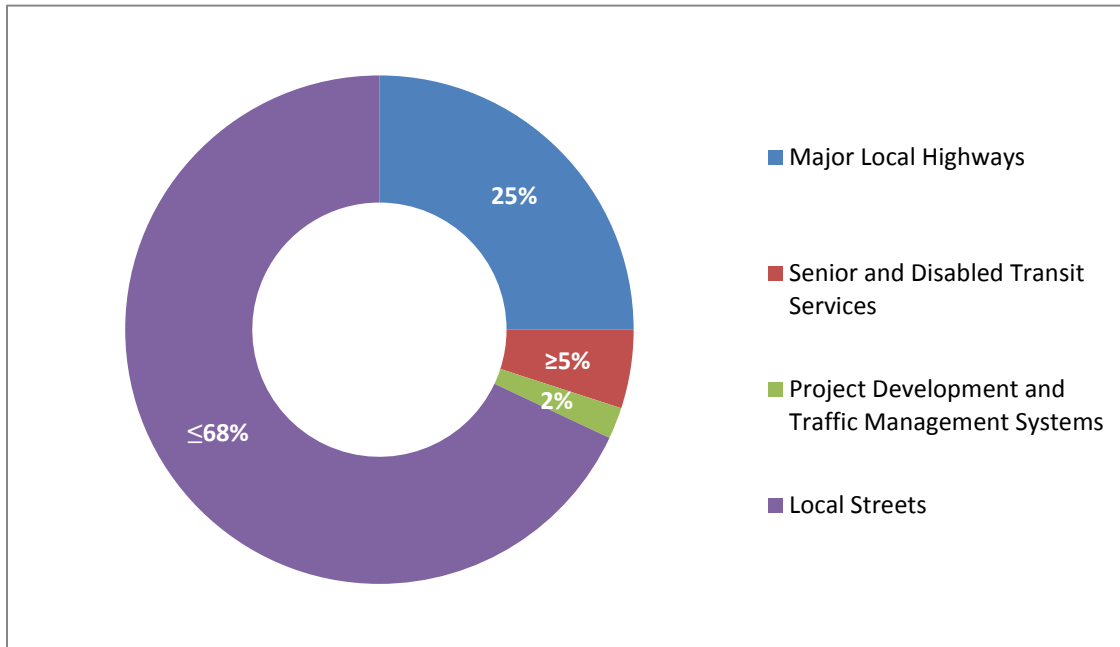
DISTRIBUTION OF MEASURE I REVENUE FOR SAN BERNARDINO VALLEY SUBAREA PROGRAMS



*Reflects the changes to percentages that will be effective April 2020.

FIGURE 1.1.3

DISTRIBUTION OF MEASURE I REVENUE FOR VICTOR VALLEY AND RURAL MOUNTAIN/DESERT SUBAREAS PROGRAMS



1.2 STRATEGIC PLAN

In April 2009, the SBCTA Board of Directors approved a Strategic Plan to provide a policy manual for the delivery of Measure I Programs by SBCTA and its member agencies for the 30-year life of the Measure. The Strategic Plan addresses significant policy, fiscal, and institutional issues associated with the administration and implementation of Measure I 2010-2040, including managing the different goals and priorities among the San Bernardino Valley, Victor Valley, and Rural Mountain/Desert Subareas of the County. By approving the Strategic Plan, SBCTA set a course for implementation through a measured, comprehensive, and strategic planning process. The Strategic Plan is the official guide and reference for the allocation and administration of a combination of funding sources, including sales tax, State and Federal transportation programs, and private fair-share contributions from new development. The Strategic Plan is organized by Subarea and establishes the scope and financial analysis for each Program, including revenue constraints, funding shortfalls, and Program constraints. Policies and implementation actions were also established from those findings. The Strategic Plan is intended to be updated periodically to reflect changes in project costs, revenues, economic conditions, and project priorities that occur over the 30-year life of the Measure. In September 2017, a comprehensive update was approved by the SBCTA Board to make the financial and project data more current, to adopt policy wording changes needed to be more consistent with current practice, and to reflect the change in entity from SANBAG to SBCTA. Although changes to the findings are further discussed in the “Background” section of each Program, highlights are listed below:

Cajon Pass Subarea

- The I-15/I-215 Devore Interchange was fully funded with a combination of Measure I, State, and Federal funds and was open to traffic in June 2016.
- Remaining Program funds are anticipated to be used beyond the 2019 10-Year Delivery Plan on improvements through the Cajon Pass as part of the I-15 Express Lanes project from the Riverside County Line to US-395. It is assumed the project will be heavily funded with toll revenue.

San Bernardino Valley Local Street Projects Program

- Expenditures based on Five-Year Capital Improvement Plans adopted by local jurisdictions.
- Funding allocations on a per-capita basis.

San Bernardino Valley Freeway Projects Program

- Reduced project scopes and innovative funding are required to address anticipated funding shortfall.
- Project delivery sequence may need to be adjusted.
- Bond financing recommended to accelerate delivery of Freeway Program.

San Bernardino Valley Freeway Interchange Projects Program

- Continue to leverage State and Federal appropriations to maintain full funding.
- Bonding was required for the interchanges in the Trade Corridor Improvement Fund (TCIF) Program (I-10/Cherry, I-10/Citrus, I-10/Riverside).

San Bernardino Valley Major Street Projects Program

- Measure I revenue to be split 80% to the Arterial Sub-program and 20% to the Rail-Highway Grade Separation Sub-program.
- Program includes 400 projects, including 19 grade separation projects.
- A funding shortfall is anticipated.
- Funding gap can be bridged by State and Federal revenue and higher private participation.
- Bonding was required for the rail-highway grade separation projects included in the TCIF Program.

San Bernardino Valley Metrolink/Rail Service Program

- A funding shortfall is anticipated.
- Shortfall addressed by re-scoping and reprioritizing capital investments.
- Bond financing recommended to accelerate delivery of passenger rail projects.

San Bernardino Valley Express Bus/Bus Rapid Transit Service Program

- A funding shortfall is anticipated.
- The E Street corridor was selected as first Bus Rapid Transit (BRT) corridor.
- Nine other potential BRT corridors were identified with the West Valley Connector Phase 1 being the first to be studied in detail.
- Bond financing recommended to accelerate delivery of BRT projects and can likely only fund one more project.

San Bernardino Valley Senior and Disabled Transit Service Program

- Requires formation of the Valley Consolidated Transportation Services Agency (CTSA), which is operated by Omnitrans.
- Program treated as a pass-through contribution to Omnitrans for fare subsidies or enhancements to transit service provided to seniors and persons with disabilities.
- Program treated as pay-as-you-go.

San Bernardino Valley Traffic Management Systems Program

- Funded on a case-by-case basis.
- Program treated as pay-as-you-go.

Victor Valley Local Street Projects Program

- Expenditures based on Five-Year Capital Improvement Plans adopted by local jurisdictions.
- Funding allocations based on a 50% population/50% return to source basis.

Victor Valley Major Local Highway Projects Program

- Several projects may be bond-funded and others pay-as-you-go.
- Requires Project Funding Agreement between local jurisdiction and SBCTA.

Victor Valley Senior and Disabled Transit Service Program

- Program treated as a pass-through contribution to the transit operator in the Subarea for fare subsidies or enhancements to transit service provided to seniors and persons with disabilities.
- Program treated as pay-as-you-go.

Victor Valley Project Development and Traffic Management Systems Program

- Funded on a case-by-case basis.
- Program treated as pay-as-you-go.

Rural Mountain/Desert Local Street Projects Program

- Expenditures based on Five-Year Capital Improvement Plans adopted by local jurisdictions.
- Funding allocations based on a 50% population/50% return to source basis.

Rural Mountain/Desert Major Local Highway Projects Program

- Program treated as pay-as-you-go.
- Funds used to leverage other State and Federal funds.
- Requires Project Funding Agreement between local jurisdiction and SBCTA.

Rural Mountain/Desert Senior and Disabled Transit Service Program

- Programs are treated as pass-through contributions to the transit operators in the Subareas for fare subsidies or enhancements to transit service provided to seniors and persons with disabilities.
- Program treated as pay-as-you-go.



***DEVELOPMENT OF
THE 10-YEAR
DELIVERY PLAN***

**REVENUE PROJECTS
PROJECT COST, SCOPE & SCHEDULE
INFLATION AND ESCALATION
P6 & ECOSYS
FINANCIAL STRATEGY
BONDING ANALYSIS**

The preparation of the first 10-Year Delivery Plan in 2012 required an iterative process of evaluating an extensive amount of data to produce a list of recommended projects and corresponding funding levels. The subsequent updates to the 10-Year Delivery Plan expand on the initial plan to update revenue projections and project details and to include actions taken by the SBCTA Board since its adoption. The first step in this process is revenue projection. Revenue sources include Measure I (cash and bond), local contributions, and State and Federal funds. The second step is cost estimation for each candidate project. Since most projects span multiple years, project escalation and inflation factors must also be applied. Lastly, the timing of both revenues and costs substantially influences the ability to fund and deliver projects. Therefore, two sophisticated programs, EcoSys and Primavera P6, are used to manage all of the data and test multiple timing and funding scenarios.

2.1 REVENUE PROJECTIONS

The 10-Year Delivery Plan includes revenue forecasts in order to scale the Measure I Programs to revenue expectations. Measure I revenue is based on the half-cent sales tax applied to purchases within San Bernardino County. Given the current economic climate and recent recovery from the Great Recession, revenue forecasts have been volatile, creating challenges for planning the implementation of Measure I. For example, in 2006, the 30-year revenue projection estimated \$8 billion (2006 dollars) in Measure I funds. Since then the estimate has dropped to a low of \$4.5 billion (2010 dollars) and then increased to the current estimate of \$5.4 billion (2019 dollars) or an escalated estimate of \$6.5 billion.

Based on the current funding projections, the estimated Measure I revenue available over the next ten years is \$2.0 billion (escalated). Table 2.1.1 summarizes Measure I 2010-2040 revenues by Subarea received to date and projected to be available over the next ten years and beyond the next ten years. The revenue forecasts are estimated by Subarea in accordance with the current return to source proportions, revenue history, and estimated Subarea growth projections.

TABLE 2.1.1

MEASURE I ESCALATED FORECAST REVENUE (\$1,000s)

FISCAL YEAR (FY)	CAJON PASS	SB VALLEY	COLORADO RIVER	MORONGO BASIN	MTNS	NORTH DESERT	VICTOR VALLEY	TOTAL MEASURE I
FY10/11 to FY18/19*	\$37,458	\$1,068,979	\$1,956	\$19,408	\$16,733	\$49,218	\$142,235	\$1,335,987
FY 19/20	\$4,891	\$140,684	\$240	\$2,404	\$1,989	\$4,351	\$17,474	\$172,034
FY 20/21	\$5,062	\$145,439	\$249	\$2,474	\$2,058	\$4,521	\$18,235	\$178,037
FY 21/22	\$5,244	\$150,503	\$258	\$2,548	\$2,131	\$4,701	\$19,047	\$184,431
FY 22/23	\$5,433	\$155,782	\$267	\$2,625	\$2,207	\$4,890	\$19,900	\$191,105
FY 23/24	\$5,617	\$160,873	\$276	\$2,699	\$2,280	\$5,075	\$20,744	\$197,564
FY 24/25	\$5,814	\$166,329	\$286	\$2,778	\$2,359	\$5,273	\$21,649	\$204,487
FY 25/26	\$6,004	\$171,579	\$296	\$2,852	\$2,434	\$5,466	\$22,543	\$211,174
FY 26/27	\$6,199	\$176,972	\$306	\$2,929	\$2,512	\$5,666	\$23,470	\$218,054
FY 27/28	\$6,411	\$182,830	\$316	\$3,012	\$2,597	\$5,883	\$24,475	\$225,524
FY 28/29	\$6,636	\$189,011	\$328	\$3,099	\$2,686	\$6,112	\$25,540	\$233,412
10-Year Delivery Plan Total	\$57,312	\$1,640,001	\$2,821	\$27,420	\$23,253	\$51,938	\$213,076	\$2,015,821
FY29/30 to FY39/40	\$89,264	\$2,525,288	\$4,411	\$40,818	\$35,816	\$84,024	\$360,922	\$3,140,544
Total:	\$184,034	\$5,234,268	\$9,188	\$87,646	\$75,802	\$185,180	\$716,234	\$6,492,352

*Actuals through FY17/18 plus the estimated FY18/19

State and Federal funding continues to be an important component in the delivery of Measure I projects. The availability of State and Federal funding had been steadily declining over the past twenty years; however, the passage of Senate Bill 1 (SB1) in 2017 created opportunities to compete for state grant funds in specific transportation categories. The bill provides a comprehensive and multi-modal funding package with revenue set-asides for highways, local streets and roads, goods movement projects, active transportation projects, and transit projects and services through a variety of formula and competitive programs managed by numerous State departments and agencies. SB1 augmented the State Transportation Improvement Program (STIP), making up some of the lost revenue streams. Working closely with California Transportation Commission (CTC) staff and Commissioners, SBCTA was successful in securing more than its guaranteed share in the first two years of the 2018 STIP, making up in part the deprogramming amount from the 2016 STIP.

SBCTA staff is actively pursuing funding from various new sources, such as:

- Solutions for Congested Corridors Program (SCCP) for projects that implement specific transportation performance improvements and are part of a comprehensive corridor plan by providing more transportation choices while preserving the character of local communities and creating opportunities for neighborhood enhancement;
- Local Partnership Program (LPP) for regional transportation agencies and local jurisdictions that have passed sales tax measures, developer fees, or other imposed transportation fees to fund road maintenance and rehabilitation, sound walls, and other transportation improvement projects;
- Trade Corridor Enhancement Program (TCEP) for projects that more efficiently enhance the movement of goods along corridors that have a high freight volume; and
- State of Good Repair Program (SGR) that provides funding for capital assistance to rehabilitate and modernize California's existing local transit systems, with a focus on upgrading, repairing, and maintaining transit infrastructure in a state of good repair.

In California, through the mid-1990's, State and Federal transportation revenues accounted for almost 75% of total transportation funding; local agencies contributed approximately 25%. In this plan, local funding is approximately 50% of the total project funding, as compared with 69% in the 2017 Update. This is largely due to SBCTA's success in securing nearly \$290 million of competitive awards from SB1 programs. The Measure I Expenditure Plan requires that a proportional share of State and Federal funds be programmed within each of the Subareas. While State and Federal funds are not proposed to be used proportionally by Subarea through the term of this 2019 Update, shares are tracked so that a proportional distribution is achieved over time.

With the exception of the Local Transportation Fund, which is a general sales tax, it is conservatively assumed that State and Federal revenues will remain at current funding levels. Given that, it is estimated that \$1.6 billion in new State revenue, including Federal funds under State discretion, and \$943 million of new Federal revenue will be apportioned through formula programs over the next ten years. The balances available for new projects are estimated to be \$460 million (\$176 million of State funds and \$284 million of Federal funds) after commitments are completed for the projects in this 2019 Update, and not including funds dedicated to transit purposes, like Local Transportation Funds (LTF), State Transit Assistance Funds (STA), Low Carbon Transit Operations Program Funds, Federal Transit Administration 5307 and 5337 funds, and a portion of Congestion Mitigation and Air Quality (CMAQ) funds that continue to be a major source of funding for new transit bus purchases and rideshare programs. Allocation of available funds dedicated to transit purposes will be addressed in the update to the countywide Long Range Transit Plan that is planned for 2020. While the 10-Year Delivery Plan incorporates formula funds in the revenue forecast and discretionary funding that has already been awarded to projects, including new SB1 funds, it does not include an assumption of future discretionary funding. Table 2.1.2 below summarizes the State and Federal revenue sources that are programmed to deliver the projects in this 2019 Update.

TABLE 2.1.2

STATE AND FEDERAL REVENUES PROGRAMMED (\$1,000s)*

PROGRAMMED REVENUE	Prior**	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	TOTAL
STATE REVENUE												
Local Transportation Fund						\$8,100	\$377	\$778	\$801	\$3,037	\$3,115	\$16,208
California Transit Security Grant Program	\$5,245											\$5,245
Local Partnership Program - Competitive	\$19,181											\$19,181
Local Partnership Program - Formula	\$13,338	\$6,339	\$6,339									\$26,016
Low Carbon Transit Operations Program	\$3,014			\$1,986								\$5,000
Public Transportation Modernization Improvement and Service Enhancement Account*	\$1,584	\$16,730	\$2,379									\$20,693
Public Utilities Commission			\$5,000									\$5,000
Regional Improvement Program	\$99,778		\$12,826				\$112,019					\$224,623
Solutions for Congested Corridors Program	\$65,000											\$65,000
State Highway Operations & Protection Program	\$161,345											\$161,345
State Transit Assistance Fund	\$26,053	\$9,430	\$2,012	\$378				\$7,640				\$45,513
Trade Corridor Enhancement Program	\$142,096											\$142,096
Trade Corridor Improvement Funds	\$7,302											\$7,302
Transit and Intercity Rail Program	\$50,204							\$30,000				\$80,204
State Total	\$594,140	\$32,499	\$28,556	\$2,364	\$0	\$8,100	\$112,396	\$38,418	\$801	\$3,037	\$3,115	\$823,425
FEDERAL REVENUE												
Congestion Mitigation and Air Quality	\$134,077	\$18,878	\$5,361	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000				\$183,316
Surface Transportation Program	\$102,498	\$40,798	\$32,574	\$8,801	\$10,136	\$51,344	\$7,000	\$7,000	\$4,000	\$22,623		\$286,774
Federal Earmarks	\$21,944	\$10,758										\$32,701
Interstate Maintenance Discretionary	\$3,754											\$3,754
Projects of National and Regional Significance	\$16,070											\$16,070
FTA Section 5307	\$9,307	\$15,233	\$6,512	\$15,136								\$46,188
Highway Bridge Program	\$111,437	\$173,633	\$41,971	\$47,364								\$374,405
Highway Safety Improvement Program	\$607											\$607
Highway Infrastructure Program	\$7,544	\$2,300	\$3,054	\$0								\$12,898
TIGER		\$8,678										\$8,678
Federal Total	\$407,238	\$270,278	\$89,471	\$76,301	\$15,136	\$56,344	\$12,000	\$12,000	\$4,000	\$22,623	\$0	\$965,391
State & Federal Total	\$1,001,378	\$302,776	\$118,028	\$78,665	\$15,136	\$64,444	\$124,396	\$50,418	\$4,801	\$25,660	\$3,115	\$1,788,816

* Formula and competitive awards as programmed in this 10-Year Delivery Plan

** Funds obligated previously for projects in this 10-Year Delivery Plan

2.2 PROJECT SCOPE, COST, AND SCHEDULE

The 10-Year Delivery Plan includes all project costs to determine future funding needs. A cost validation is completed for each of the projects considered for inclusion. During the cost validation exercise, assumptions and rules are applied and documented for each of the projects. Local area bid results and contract cost data from Caltrans and other sources are routinely consulted to validate project costs. The following validation rules are typically applied as cost estimates are reviewed:

- Estimates are adjusted to a baseline cost expressed in current dollars.
- Unit prices are validated using a combination of state-wide Caltrans cost data and local area bid results.
- Escalation factors are applied to the baseline estimate to determine project costs at the midpoint of design, right of way, or construction phases. These midpoint costs are used to determine project funding needs.
- Project quantities are not validated during this type of review.

Project Funding Summaries are developed with input from project managers and local agencies to document schedule milestones, cost, scope, and project funding sources as approved by the Board through the 10-Year Delivery Plan and agreements with Caltrans and local agencies or reasonably expected to be available. Assumptions used in the development of the data are also included. Revised funding summaries are developed to capture changes to a project, which provides a documented history of the project.

2.3 INFLATION AND ESCALATION

The Delivery Plan assumes a combination of inflation and real growth in calculating Measure I revenue growth and escalates construction costs in the first five years consistent with current market conditions and thereafter at a rate relative to the revenue inflation rates. The growth rate data is based on a study completed in December 2018 by the University of California, Riverside (UCR) School of Business. Inflation rates are set at a rate that creates a reasonable estimate of overall revenue growth per a study by the UCR School of Business. Cost escalation rates typically follow inflation rates, but recent construction bids throughout Southern California have indicated a cost escalation that is exceeding inflation rates. For projects not yet in the construction phase, the 2019 Update assumes that cost escalation rates will be 4.0% per year to the mid-year of construction for estimates through the next five years and 2.75% thereafter.

The 2017 Delivery Plan assumed that revenue would be increasing at 3.3% per year through Fiscal Year 2025/2026. Measure I revenue increased by 5.6% in Fiscal Year 2015/2016 and 1.8% in Fiscal Year 2016/2017. In Fiscal Year 2017/2018, actual revenue received from the Department of Tax and Fee Administration (DTFA, formerly known as Board of Equalization) showed a 0.5% decrease; however, this was skewed as a result of repayment of prior years' overpayments from certain retailers and a delay in recognition of payments caused by a new financial system instituted by the DTFA. Taking into account these deviations, staff is recommending an estimate of revenue growth consistent with the UCR forecast and similar to the 2017 Delivery Plan of growth rates between 3.3% and 3.6% through 2029, as shown in Table 2.3.1, and then between 3.0% and 3.5% through 2040. However, because this update starts with a lower base value as a result of lower revenue than forecast in the interim years, the cumulative collections are less than those in the 2017 Delivery Plan, decreasing the \$6.8 billion total revenue in the 2017 Plan to \$6.5 billion projected in the 2019 Plan.

**TABLE 2.3.1
INFLATION, REAL GROWTH, AND ESCALATION**

FISCAL YEAR	REVENUE			COST ESCALATION**
	INFLATION	REAL GROWTH	TOTAL	
FY 18/19*	2.00%	1.23%	3.23%	4.00%
FY 19/20	2.40%	0.91%	3.31%	4.00%
FY 20/21	2.40%	1.09%	3.49%	4.00%
FY 21/22	2.40%	1.19%	3.59%	4.00%
FY 22/23	2.30%	1.32%	3.62%	4.00%
FY 23/24	2.30%	1.08%	3.38%	2.75%
FY 24/25	2.20%	1.30%	3.50%	2.75%
FY 25/26	2.20%	1.07%	3.27%	2.75%
FY 26/27	2.20%	1.06%	3.26%	2.75%
FY 27/28	2.00%	1.43%	3.43%	2.75%
FY 28/29	2.00%	1.50%	3.50%	2.75%

*FY18/19 estimated revenue growth from UCR projections; a comparison to actual FY17/18 revenue is skewed due to timing issues caused by implementation of a new tax reporting system by the DTFA and pay back of prior years' over payments.

**Escalation for construction to the mid-point of construction for projects not yet in construction and for right of way to the right of way certification estimate.

2.4 P6 AND ECOSYS

All of the SBCTA departments collaborate on a comprehensive review of a large amount of data pertaining to revenue projections, project costs, and the identification of risk elements associated with each project. The immense scale of the data, which includes more than 61 projects, 300 contracts, and 100 fund sources, presents a major challenge. Two sophisticated programs are used so that the data can be effectively managed, organized, and evaluated in the preparation of the 10-Year Delivery Plan.

The first program, Primavera P6 (P6), is a critical path scheduling tool. P6 schedules are developed by incorporating data from the project funding summaries and input from project managers. Project schedules are loaded with project costs and contracts at the phase and fund level. Resource curves spread project costs over time. The information from P6 is directly loaded into the second program, EcoSys. Using these two compatible programs allows staff to run “what if” scenarios and test the effect of scheduling or cost changes on fund balances, revenue streams, and bonding needs.

EcoSys manages the data input directly or imported from P6 by project, phase, contract, fund source, and fiscal year. Revenue sources and actual expenditures are entered into EcoSys. Once the information is in EcoSys, starting with current Board-approved projects, a detailed analysis is performed by allocating funds to identified projects and reviewing the resulting fund balances by fiscal year. When usable fund balances remain, more projects can be added for evaluation in the priority order established by the Strategic Plan.

EcoSys is an effective means to analyze the data from different perspectives, including by fund, project, and cumulative revenue balance. The program also provides an innovative means to develop a plan by allowing the creation and evaluation of different delivery scenarios. This results in information needed to strike a balance between the needs and revenues for the 10-Year Delivery Plan. Consistent with the Strategic Plan, a bonding analysis was completed to identify opportunities to accelerate projects, and EcoSys is able to effectively provide all the information in the necessary format for use in bonding models.

Figure 2.4.1 summarizes the process by which EcoSys is used to develop and maintain the Plan. Figure 2.4.2 depicts the iterative “scenario” process used to evaluate scenarios for the 10-Year Delivery Plan.

FIGURE 2.4.1
METHODOLOGY

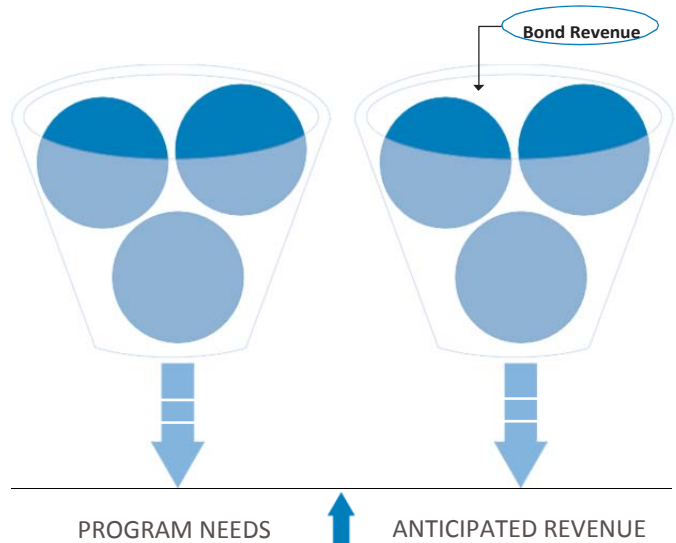
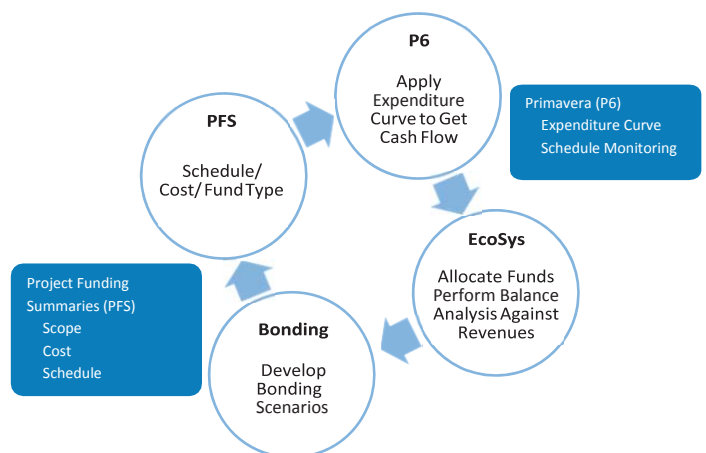


FIGURE 2.4.2
P6/ECOSYS ANALYSIS



2.5 FINANCIAL STRATEGY

The financial strategy used in the development of the 10-Year Delivery Plan includes:

- Apply ordinance and policy criteria.
- Preserve existing grants.
- Maximize available funds.

Apply ordinance and policy criteria. The 10-Year Delivery Plan is built off of the Measure I Ordinance and Board Policies.

Key Ordinance requirements are:

- Measure I revenues shall be allocated by formula to Subareas and Programs.
- State and Federal funds shall be allocated proportionally to Subareas over time.

Key Board Policies are:

- State and Federal funds shall be allocated to maintain geographic equity.
- Congestion Mitigation and Air Quality (CMAQ) funds for the San Bernardino Valley shall be allocated in the following priority: i) regional programs, ii) transit capital projects, iii) freeway HOV projects. There is no established policy for the Mountain/Desert Subareas.
- Surface Transportation Program (STP) funds for the San Bernardino Valley shall be allocated to the Freeway Projects Program. There is no established policy for the Mountain/Desert Subareas
- A Measure I Program that benefits from bonding shall accommodate the debt service within the Program's revenue.

Preserve existing grants. Numerous existing grants have to be used by a certain date or the grant is rescinded. The 10-Year Delivery Plan is developed to ensure these funds are not lost. This strategy is critical in the development of each 10-Year Delivery Plan to allow SBCTA to meet the delivery deadlines and make full use of grant awards that have allocation and award deadlines, like many of the competitive SB1 programs.

Maximize available funds. With SBCTA facing transportation funding challenges, maximizing all available funds is critical. State and Federal funds are subject to rescission if the funds are not used in a timely manner. The 10-Year Delivery Plan allows for the better management of all funds across Programs and Subareas, minimizing the potential for funds to be rescinded.

2.6 BONDING ANALYSIS

Consistent with the direction included in the Strategic Plan, borrowing against Measure I revenue for the Programs listed below can be used to accelerate project delivery. Currently, the cost of borrowing has remained low, even while project cost escalations are outpacing inflation, making bonding an attractive option. Bond financing can also leverage significant levels of State, Federal, or private funding that might not otherwise be available if borrowing were not to occur.

To assist SBCTA in the bonding analysis, the financial expertise of Montague DeRose and Associates (MDA) is employed. MDA developed bonding models that use the project and revenue information from EcoSys to determine the bonding needs for each of the Programs. Once the EcoSys data is incorporated, the MDA models produce cash flows by Subarea Program that account for the timing of bonds, bond amounts, and associated debt service costs. Using this information, cash flow analyses are performed and debt coverage ratios are calculated.

The bonding analysis is developed with the following criteria:

- Minimum Agency-wide debt coverage ratio: 2.0X
- Individual Programs must have a positive cash flow over the term on the bond.
- Bond interest rate: 5% for all future bond issuances
- Latest bond issuance: 2028

To minimize the costs associated with bonding, cash flow may be addressed with interim cash flow borrowing between Measure I Programs and/or commercial paper issuances. These strategies may be used as interim financing where the bonding amount needed in a year is less than \$100 million and could be combined with a bond issuance in the next year. The minimum Agency-wide debt coverage ratio on commercial paper is 1.5X.

Extensive analysis on bonding opportunities was completed for the following Programs that could not support Program costs on a pay-as-you-go basis:

- San Bernardino Valley Freeway Projects
- San Bernardino Valley Freeway Interchange Projects
- San Bernardino Valley Metrolink/Rail Service
- San Bernardino Valley Express Bus/Bus Rapid Transit Service

As part of the bonding analysis, a stress test is usually performed. A stress test is a "what-if" analysis that reduces revenues to see the effect on the bonding scenarios. In the current stress test case, the 2020 projected revenue was reduced by 10%, no growth was assumed in 2021 and 2022, and then the growth rates in Table 2.3.1 were applied, beginning in 2023 instead of 2020. This stress test scenario reduced the cumulative escalated Measure I revenue projection through 2040 by \$812 million. The scenario would not impact the ability to pay current debt service, but would increase the bonding amount needed in the 2022 issue in order to meet current program schedules. Additionally, future bond issues would be affected, and

planned expenditures might need to be reduced through schedule delays, scope reductions, or reduction of Measure I allocations, especially in the San Bernardino Valley Freeway, Freeway Interchange, and Express Bus/Bus Rapid Transit Service Programs. This could mean that future freeway widening projects after the I-10 Corridor Contract 1 Project would need to be re-analyzed, Measure I funds for operations of the Redlands Passenger Rail may need to be supplemented, less funds would be available for the Interchange Phasing projects and the unfunded need would grow larger for the West Valley Connector. Section 10 summarizes the bonding results by Subarea Program.



CAJON PASS SUBAREA

**CAJON PASS SUBAREA
BACKGROUND
CURRENT STATUS**

3.1 BACKGROUND

The Measure I Expenditure Plan included improvements for three projects within the Cajon Pass Program. The total cost for these improvements was estimated at \$230 million, to be funded with a combination of Measure I, State, and Federal funds. The Strategic Plan analysis found that the projected Measure I revenue would only fund the I-15/I-215 Devore Interchange project. An alternative funding source would need to be identified for the other improvements in the Cajon Pass.

3.2 CURRENT STATUS

The I-15/I-215 Devore Interchange was fully funded with a combination of Measure I, State, and Federal funds and was open to traffic in June 2016. Other improvements contemplated in the Cajon Pass include express lanes on I-15 but will need to be heavily funded with an alternative funding source, such as toll revenue bonds. The estimated uncommitted Measure I balance through 2040 is \$82 million for this Program. More information about projects completed since the inception of Measure I 2010-2040 can be found in Section 11.



4

SAN BERNARDINO VALLEY SUBAREA PROGRAMS

LOCAL STREETS PROJECTS PROGRAM

FREEWAY PROJECTS PROGRAM

INTERCHANGE PROJECTS PROGRAM

MAJOR STREETS PROJECTS PROGRAM

METROLINK/RAIL SERVICE PROGRAM

**EXPRESS BUS/BUS RAPID TRANSIT
SERVICE PROGRAM**

**SENIOR AND DISABLED TRANSIT
SERVICE PROGRAM**

**TRAFFIC MANAGEMENT SYSTEMS
PROGRAM**

4.1 SAN BERNARDINO VALLEY LOCAL STREET PROJECTS PROGRAM

4.1.1 BACKGROUND

The Measure I Expenditure Plan estimated \$904 million of Measure I revenue would be available for local street repair and improvements. Funds under this Program are distributed to cities and the County on a per capita basis. The Strategic Plan established policies for eligible expenditures, the adoption and development of the local jurisdiction's Five-Year Capital Improvement Plans, and funding allocations. Detailed policy information can be found in the San Bernardino Valley policy section of the Strategic Plan.

Local Street Projects Program funds can be used flexibly for any eligible transportation purpose determined to be a local priority, including local streets, major highways, state highway improvements, freeway interchanges, and other improvements/programs to maximize the use of transportation facilities. For example, Local Street Projects funding can be used for the widening of streets, installation of traffic signals, road maintenance efforts, median landscaping, sidewalk installations, storm drain facilities, and upgrades to Americans with Disabilities Act (ADA) standards.

4.1.2 CURRENT STATUS

In accordance with the Expenditure Plan and Strategic Plan, the Measure I funds apportioned to the San Bernardino Valley Local Street Projects Program were included in the 10-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects were included in the Plan. The current estimate for the Program over the next ten years is \$328 million.

4.2 SAN BERNARDINO VALLEY FREEWAY PROJECTS PROGRAM

4.2.2 BACKGROUND

The Measure I Expenditure Plan included improvements for six San Bernardino Valley freeway corridors. The total cost for these improvements was estimated at \$1.44 billion, to be funded from a combination of Measure I, State, and Federal funds. The six projects originally proposed were:

- I-10 Widening from I-15 to Riverside County Line
- I-15 Widening from Riverside County Line to I-215
- I-215 Widening from Riverside County Line to I-10
- I-215 Widening from SR 210 (formerly SR 30) to I-15
- SR 210 Widening from I-215 to I-10
- Carpool Lane Connectors

During the preparation of the Strategic Plan, it was determined that the projected revenue for the Freeway Program over the life of the Measure would not be adequate to fund all the improvements included in the Expenditure Plan. To obtain a financially balanced plan, the scope of some of the corridor improvements was reduced and an alternative funding source was assumed. The I-10 widening from I-15 to the Riverside County Line

scope was defined as a combination of HOV lanes to west of Ford Street in the City of Redlands and an eastbound truck-climbing lane east of Live Oak Canyon Road in the City of Yucaipa. The SR 210 Widening from I-215 to I-10 was reduced to adding an additional lane in each direction only for the segment from Highland Avenue in San Bernardino to I-10. Lastly, the Carpool Lane Connectors were not included in the Plan. The Strategic Plan included a bonding strategy to accelerate the completion of the freeway improvements. The following Freeway Program improvements, at an estimated total cost of \$2.79 billion, were included in the Strategic Plan:

1. I-10 Widening
 - Add one HOV lane in each direction from Haven Avenue in the City of Ontario to Ford Street in the City of Redlands.
 - Add an eastbound truck-climbing lane from Live Oak Canyon Road to Riverside County line.

2. I-15 Widening from Riverside County Line to I-215
 - Add two express lanes in each direction. Assumed 75% of project costs will be funded with toll revenue.
3. I-215 Widening from Riverside County Line to I-10
 - Add one HOV lane in each direction. The ultimate project, which adds an additional mixed-flow lane, is scheduled to commence project development near the end of the Measure.
 - Reconstruct I-215 and Barton Road interchange.
 - Reconstruct I-215 and Washington Street interchange.
4. I-215 Widening from SR 210 to I-15
 - Add one lane in each direction.
5. SR 210 Widening
 - Add one lane in each direction from Highland Avenue in the City of San Bernardino to I-10

4.2.2 CURRENT STATUS

The development of the Freeway Program resulted in some unique features in prior Delivery Plans as two alternatives for the I-10 and I-15 corridors were evaluated. The first alternative included the addition of an HOV lane in each direction on I-10 from Haven Avenue to Ford Street with no improvements on I-15, as was identified in the Strategic Plan. The second alternative included the addition of one or two express lanes on I-10 from the Los Angeles County line to Ford Street and on I-15 from SR 60 to the I-15/I-215 Devore Interchange.

Since the adoption of the 2017 Update, the express lanes alternative was selected as the preferred alternative for the I-10 Corridor, and SBCTA has awarded a design-build contract for Contract 1, which provides for two express lanes in each direction from the Los Angeles County Line to I-15. A Transportation Infrastructure Finance and Innovation Act (TIFIA) loan was secured in April 2019 for the project.

As the I-10 Corridor Contract 1 project moves into construction, SBCTA has evaluated options for the next express lanes project to be developed for construction. Significant construction cost increases over the last several years has led to a sequenced approach to construction on I-10 and I-15. In response to the robust market, construction cost and potential for toll revenue generation was analyzed for a variety of

segments on I-10 and I-15, taking into account available funding over the next ten years. The south segment of I-15, which would connect with the I-15 express lanes in Riverside County currently under construction and continue to a terminus just north of I-10, was determined to be the most feasible project to follow the I-10 Corridor Contract 1 Project. The next segment on I-10 would then begin construction approximately three years after the initial I-10 Corridor Contract 1 express lanes open to traffic. By constructing where the demand is currently greatest on I-10 and I-15, SBCTA will potentially be able to leverage toll revenue for the financing of the next projects, with the timing driven by the actual demand experienced on each corridor.

Additionally, in July 2014 the Board suspended the I-215 Mount Vernon Avenue/Washington Street Interchange Project until such time as the reconstruction of the interchange is needed to accommodate the ultimate I-215 widening or until an alternative funding source is identified. When the project was suspended, Caltrans initiated a project to correct a vertical clearance issue on the Mount Vernon/Washington Bridge over I-215 and to provide sufficient width to span the ultimate I-215 freeway configuration. SBCTA staff independently analyzed the interchange for local operational improvements that could be coordinated along with the Caltrans project, which were ultimately included in the Caltrans project.

In response to the freight program included in the Fixing America's Surface Transportation (FAST) Act, SBCTA has determined the I-10 truck climbing lane project to be a viable project for such funds and, for this reason, the 10-Year Delivery Plan includes project development for this project and an assumed match for future grant funding for construction.

The current revenue estimate for the next ten years is \$476 million. Consistent with the Strategic Plan, bonding is used to accelerate the projects. Freeway projects included in the 10-Year Delivery Plan and the overall cost and revenue requirements for the Freeway Projects Program are shown in Table 4.2.1. Project details are presented in Section 4.2.3. The estimated uncommitted balance through 2040 is \$122 million for this Program. The estimated uncommitted balance of State and Federal funds through 2040 is \$864 million for the San Bernardino Valley Subarea, which is generally shared between this Program and the San Bernardino Valley Metrolink/Rail Service and San Bernardino Valley Express Bus/Bus Rapid Transit Service Programs. More information about projects completed since the inception of Measure I 2010-2040 can be found in Section 11.

TABLE 4.2.1

**SAN BERNARDINO VALLEY FREEWAY PROJECTS PROGRAM
(COST AND REVENUE REQUIREMENTS) (1,000s)**

PROJECT		COST	FUNDING SOURCE		REVENUE
1	I-215 Bi-County Landscaping (Gap Closure)	\$10,955	Measure I		\$1,004,944
2	I-215/Barton Road IC	\$110,573	State/Federal Funds		\$685,751
3	SR 210 Widening	\$188,587	State/Federal Grants		\$117,831
4	I-10 Corridor Contract 1	\$928,975	Toll Revenue		\$225,000
	I-10 Contract 1 Measure I Investment	\$15,568	Measure I Interchange/Arterial		\$45,658
5	I-15 Corridor Contract 1*	\$251,439	Local/Private Funds		\$21,961
6	I-10 Corridor Contract 2A*	\$700,000	Unfunded		\$137,544
7	I-10 Truck Climbing Lane*	\$30,180			
I	I-215/Mount Vernon/Washington Bridge	\$2,411			
TOTAL:		\$2,238,689	TOTAL:		\$2,238,689

*Project is not fully funded.

The project locations are depicted in Figure 4.2.1. The project schedules are included as Figure 4.2.2.

FIGURE 4.2.1

SAN BERNARDINO VALLEY FREEWAY PROJECTS PROGRAM MAP

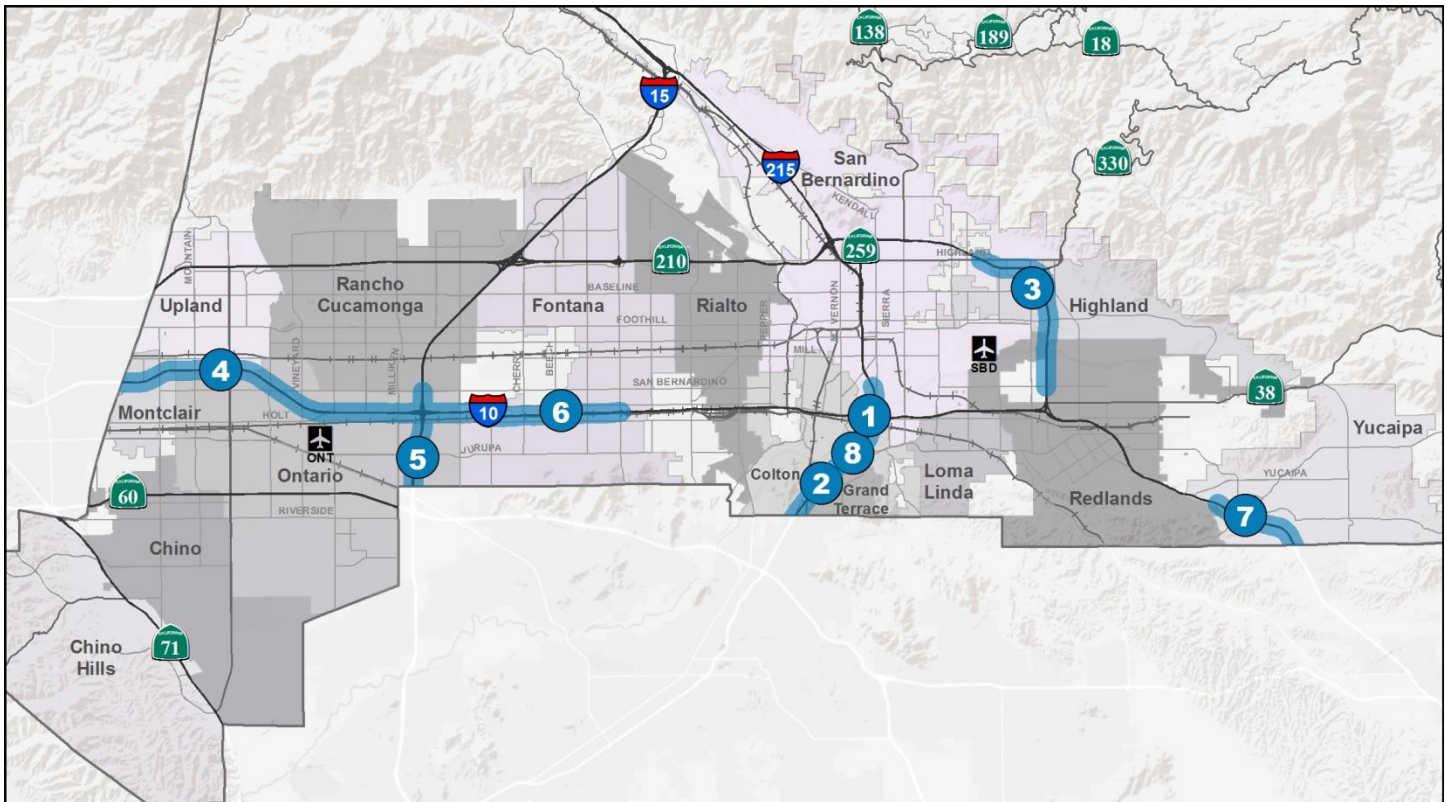
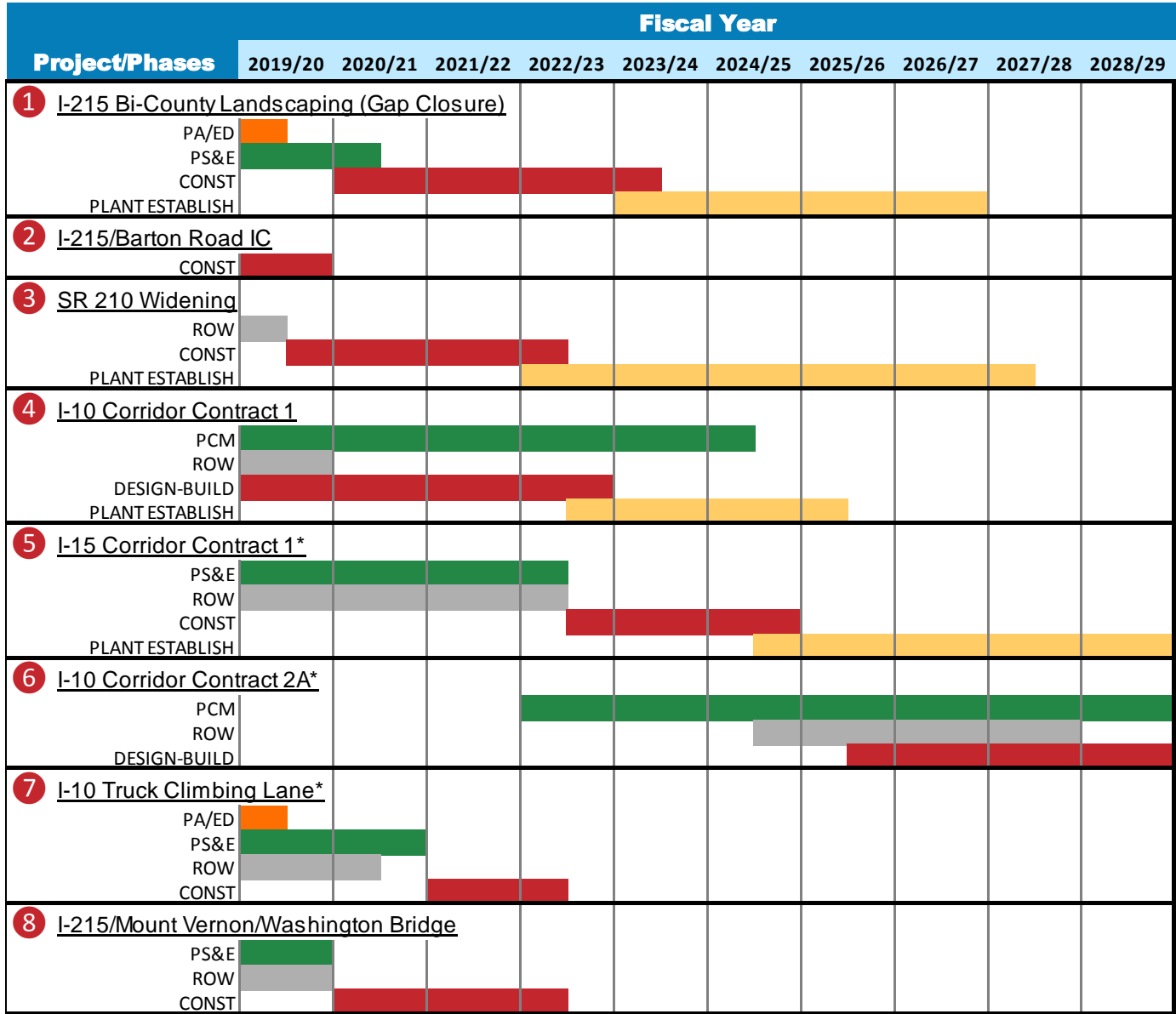


FIGURE 4.2.2

SAN BERNARDINO VALLEY FREEWAY PROJECTS PROGRAM SCHEDULE



* Schedule is contingent on securing grant funding for construction.

4.2.3 PROJECT DETAILS

1 I-215 BI-COUNTY LANDSCAPING

Project Description: The I-215 Bi-County HOV Gap Closure project was opened to traffic in June 2015. The project completed an HOV system along the I-215 Corridor between the SR 60/SR 91/I-215 Interchange in Riverside County and the Orange Show Road Interchange in the City of San Bernardino by adding an HOV lane in each direction of I-215, resulting in three general-purpose lanes and one HOV lane in each direction. Follow up corridor landscaping is scheduled for completion in 2023 and will have a four-year extended plant establishment period ending in 2027.

- The corridor landscaping project includes a one-year plant establishment period for replacement landscape planting and a four-year extended plant establishment period.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2023 (Landscaping)

Funding Plan: The project is funded as shown in the table below.

TABLE 4.2.2

I-215 BI-COUNTY LANDSCAPING (1,000s)

FUNDING	PHASE					Plant Establishment	TOTAL
	PM	PA/ED	PS&E	ROW	CON		
MEASURE I	\$420	\$554	\$668		\$8,439	\$874	\$10,955
TOTAL	\$420	\$554	\$668		\$8,439	\$874	\$10,955

2 I-215/BARTON ROAD INTERCHANGE

Project Description: The project will reconstruct the I-215/Barton Road Interchange to meet future traffic demand. The facility will accommodate the future ultimate widening of the freeway. The interchange reconstruction will involve the replacement of the bridge, realignment and widening of ramps, and reconfiguration of some local streets. The project includes a roundabout at La Crosse Avenue/Barton Road and southbound ramps to preserve ingress and egress.

- This project was selected as one of six statewide projects to use the Construction Manager/General Contractor (CM/GC) delivery method. With this method, the contractor assists Caltrans with the design to improve constructability.
- Landscaping for the project is included with the I-215 Bi-County Landscaping contract.
- The budgetary estimate is subject to potential increases in utility relocation costs and goodwill claims.

Project Lead Agency: SBCTA (ROW) / Caltrans (PS&E and Construction)

Current Development Phase: Construction by Caltrans

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in the table below.

TABLE 4.2.3

I-215/BARTON ROAD INTERCHANGE (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	Plant Establishment	
MEASURE I	\$1,244	\$650	\$350	\$14,444	\$47,416		\$64,104
MEASURE I (OLD)	\$308	\$1,825					\$2,134
RCTC		\$156					\$156
STIP				\$17,400			\$17,400
STP			\$909	\$4,567	\$10,632		\$16,108
EARMARKS					\$1,710		\$1,710
DEMO			\$2,257	\$4,224			\$6,481
SECTION 112			\$1,980				\$1,980
SECTION 115			\$501				\$501
TOTAL	\$1,552	\$2,631	\$5,997	\$40,635	\$59,758		\$110,573

3 SR 210 WIDENING

Project Description: The project will add one mixed-flow lane in each direction from Highland Avenue (San Bernardino) to San Bernardino Avenue (Redlands), auxiliary lanes between Base Line and 5th Streets, and an acceleration lane at the 5th Street eastbound ramp.

- As the SR 210 Widening and SR 210/Base Line Interchange projects align geographically and share similar delivery schedules, they have been combined for the design, right of way, and construction phases to save cost and expedite the schedule. The costs associated with the interchange are reflected in Section 4.3.
- Caltrans pavement rehabilitation work has been added through a cooperative agreement with Caltrans that includes new concrete pavement between 5th Street and Lugonia Avenue and is funded with State Highway Operation and Protection Program funds.
- The project includes widening of four bridges over Sand Creek, City Creek, Plunge Creek and the Santa Ana River.
- The Engineer’s Estimate is based on the 100% Design Plans dated October 2018. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PS&E and ROW

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in the table below.

TABLE 4.2.4

SR 210 WIDENING (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	Plant Establishment	
MEASURE I	\$1,440	\$2,574	\$8,869	\$5,256	\$103,023	\$305	\$121,466
SHOPP			\$3,375		\$38,746		\$42,121
STIP					\$25,000		\$25,000
TOTAL	\$1,440	\$2,574	\$12,244	\$5,256	\$166,769	\$305	\$188,587

4 I-10 CORRIDOR CONTRACT 1

Project Description: The project will provide two express lanes in each direction for ten miles from the Los Angeles County line to just east of I-15 in Ontario. The Record of Decision was approved in July 2017 for the entire I-10 Corridor Project from the Los Angeles County line to Ford Street in Redlands. A Project and Construction Management services consultant has been procured to manage the project through completion. Design-build contracts for both the express lanes construction and the toll services provider were awarded by the SBCTA Board in June 2018. A toll revenue-backed federal Transportation Infrastructure Finance and Innovation Act (TIFIA) loan was secured for construction of the project in April 2019.

- SBCTA has contracted with the Transportation Corridor Agencies for shared customer service center services.
- The geometric alternative included in the 10-Year Delivery Plan includes both standard and nonstandard features, primarily to minimize community impacts while accommodating the project improvements.
- Caltrans pavement rehabilitation and safety lighting work has been added through a cooperative agreement with Caltrans that is funded with State Highway Operation and Protection Program funds.
- The cost for interchange and arterial improvements resulting from this project will be paid by the Measure I Freeway Interchange Projects Program and Major Street Projects Program, respectively, and required local contributions. Details of those improvements are included in Sections 4.3 and 4.4 and funding is shown in table below.
- The Board has approved an estimated \$93 million Measure I investment for debt service and operations costs through 2040 or the TIFIA loan repayment period, whichever is sooner, which allowed SBCTA to maximize the TIFIA loan amount. Any use of these investment funds will be repaid with interest from toll revenue.
- The 10-Year Delivery Plan bond model includes an assumption that \$16 million is required for investment without repayment over the next ten years, per the severe downside scenario of traffic and revenue projections; however, it is not expected this investment will actually be used without repayment.
- The cost estimate includes a contingency of \$85.5 million.

Project Lead Agency: SBCTA

Current Development Phase: ROW and Design-Build

Complete for Beneficial Use: 2023

Funding Plan: The project is funded as shown in the table below.

TABLE 4.2.5

I-10 CORRIDOR CONTRACT 1 (1,000s)

FUNDING	PHASE							TOTAL
	PM*	PA/ED	PCM	ROW	DESIGN-BUILD	Plant Establishment	Financing/Reserves	
MEASURE I FWY	\$23,857	\$7,932	\$4,577	\$6,536	\$34,382	\$4,200	\$7,517	\$89,000
TIFIA LOAN					\$225,000			\$225,000
STP	\$19,200		\$32,695		\$85,678			\$137,573
CMAQ			\$2,561	\$24,701	\$96,204			\$123,466
STIP					\$39,745			\$39,745
LPP					\$6,169			\$6,169
TCEP					\$117,831			\$117,831
TCIF					\$4,973			\$4,973
SHOPP			\$11,000		\$106,755			\$117,755
MEASURE I IC	\$1,436	\$671	\$1,013	\$7,669	\$22,879			\$33,667
MEASURE I ART	\$728		\$579	\$1,035	\$9,649			\$11,991
LOCAL	\$1,540	\$213	\$574	\$2,170	\$17,307			\$21,805
TOTAL	\$46,761	\$8,815	\$53,000	\$42,111	\$766,572	\$4,200	\$7,517	\$928,975

* The PM phase includes SBCTA and CT oversight and project development costs

5 I-15 CORRIDOR CONTRACT 1

Project Description: The initial Express Lane Study includes the entire scope of the I-15 Corridor project from SR 60 through the Cajon Pass to US 395. The final environmental document for the portion of the study area from Cantu Galleano Ranch Road to 1.2 miles north of Duncan Canyon Road was approved in December 2018. The project proposed for delivery in the next ten years is from the north terminus of the Riverside County Transportation Commission’s express lanes project at Cantu Galleano Ranch Road in Riverside County to north of Fourth Street in the City of Rancho Cucamonga. The preliminary design includes the addition of two express lanes through most of the entire length of the project with transitions to general purpose lanes between Fourth Street and Foothill Boulevard.

- The scope, cost, and schedule are based on a preliminary design. The preliminary design includes non-standard geometrics that have received approval from Caltrans.
- The design-bid-build delivery method will be used for this project.
- Further discussion is required with Riverside County Transportation Commission regarding reimbursement of capital costs for work in Riverside County.
- Funding is currently planned through the PS&E and ROW phases so that the project can be a viable candidate for potential future State and/or Federal grant funding. A set-aside for construction has been established to provide a match for future grant funds.
- The Preliminary Engineer’s Estimate is dated February 13, 2019. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PS&E

Complete for Beneficial Use: 2025, pending funding availability

Funding Plan: The project is funded as shown in the table below.

TABLE 4.2.6

I-15 CORRIDOR CONTRACT 1 (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	Plant Establishment	
MEASURE I	\$2,650	\$11,061	\$14,333	\$3,796	\$145,313	\$2,012	\$179,165
UNFUNDED*					\$72,274		\$72,274
TOTAL	\$2,650	\$11,061	\$14,333	\$3,796	\$217,587	\$2,012	\$251,439

*Project is not fully funded.

6 I-10 CORRIDOR CONTRACT 2A

Project Description: The project will provide two express lanes in each direction from just east of I-15 to Sierra Avenue in Fontana, connecting to the I-10 Corridor Contract 1 express lanes currently under construction. The Record of Decision was approved in July 2017 for the entire I-10 Corridor Project from the Los Angeles County line to Ford Street in Redlands.

- The scope, cost, and schedule are based on preliminary engineering plans. The design includes non-standard geometrics that have received approval from Caltrans.
- Construction is scheduled to begin approximately three years after I-10 Corridor Contract 1 opens to traffic, enabling potential toll revenue leveraging for this project.
- Funding is currently planned through the ROW phase so that the project can be a viable candidate for potential future State and/or Federal grant funding.
- The design-build delivery method is assumed, but the design-bid-build delivery method will be considered.
- The Preliminary Engineer's Estimate is dated November 1, 2018. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: Project Development

Complete for Beneficial Use: 2029, pending funding availability

Funding Plan: The project is funded as shown in the table below.

TABLE 4.2.7

I-10 CORRIDOR CONTRACT 2A (1,000s)

FUNDING	PHASE				TOTAL
	PM*	PCM	ROW	DESIGN-BUILD	
MEASURE I	\$29,200	\$5,901	\$31,641	\$443,514	\$510,255
STP		\$30,000			\$30,000
STIP			\$39,745	\$72,274	\$112,019
UNFUNDED**				\$47,726	\$47,726
TOTAL	\$29,200	\$35,901	\$71,386	\$563,514	\$700,000

* The PM phase includes SBCTA oversight and project development costs

** Project is not fully funded

7 I-10 TRUCK CLIMBING LANE

Project Description: The project will construct a truck climbing lane on eastbound I-10 from west of the 16th Street Bridge in the City of Yucaipa through east of County Line Road Bridge at the San Bernardino and Riverside County line. This project will extend the existing eastbound truck climbing lane. The addition of the truck climbing lane will separate slow moving trucks climbing the steep grade from general traffic.

- The Project Study Report (PSR) for the Project was approved in June 2017.
- Preparation of the PA/ED is currently underway and anticipated to be approved in late 2019.
- Funding is currently planned through the PS&E phase so that the project can be a viable candidate for potential future freight program or goods movement grant funding. A set-aside for construction has been established to provide a match for future grant funds.
- The Preliminary Engineer's Estimate is based on the approved June 2017 PSR and adjusted for work elements to be constructed by others. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2022, pending funding availability

Funding Plan: The project is funded as shown in the table below.

TABLE 4.2.8

I-10 TRUCK CLIMBING LANE (1,000s)

FUNDING	PHASE					TOTAL
	PM	PA/ED	PS&E	ROW	CON	
MEASURE I	\$536	\$1,831			\$7,519	\$9,886
STIP			\$2,750			\$2,750
UNFUNDED*					\$17,544	\$17,544
TOTAL	\$536	\$1,831	\$2,750		\$25,063	\$30,180

*Project is not fully funded.

8 I-215/MOUNT VERNON AVENUE/WASHINGTON STREET BRIDGE

Project Description: The project will correct the substandard vertical clearance of the Washington Street Bridge over I-215 and provide sufficient width to span the ultimate I-215 freeway configuration. Additional traffic operational improvements will lengthen the dual left turn pockets and extend one of the left turn pockets over the bridge. This improvement widens the structure to 108 feet and increases the storage capacity on the local street to provide an acceptable level of service for the projected traffic volumes expected in the year 2040.

- SBCTA participation is part of a larger Caltrans project. SBCTA is only participating in the cost to widen the new structure to 108 feet and increase the storage capacity on the local street.
- The SBCTA contribution to the project is a fixed, lump sum contribution.

Project Lead Agency: Caltrans

Current Development Phase: PS&E

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in the table below.

TABLE 4.2.9

I-215/MOUNT VERNON AVENUE INTERCHANGE (1,000s)

FUNDING	Contribution to Caltrans	TOTAL
MEASURE I	\$2,411	\$2,411
TOTAL	\$2,411	\$2,411

4.3 SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROJECTS PROGRAM

4.3.1 BACKGROUND

The Measure I Expenditure Plan included, but was not limited to, improvements for 31 freeway interchanges along I-10, I-15, SR 60, I-215, and SR 210. The total cost for these improvements was estimated at \$862 million. Funding consisted of a combination of Measure I, development fees, and State and Federal funds. Through the development of the Strategic Plan, the interchange project list was further defined to a total of 38 interchanges.

The Expenditure Plan requires that new development pay its fair share of interchange projects. The fair share for each interchange project was established by the Nexus Study adopted by the Board in 2005. The Nexus Study is updated occasionally based on amendments approved by the Board with the most recent update approved in July 2018.

Forty percent of the Measure I San Bernardino Valley Freeway Interchange Projects Program revenue was allocated toward the reimbursement to jurisdictions that entered into Project Advancement Agreement (PAA) commitments for the advancement of three interchange projects until the PAA obligation was fulfilled. The three interchanges were I-10/Live Oak, I-10/Riverside, and I-10/Pepper (Phase 1). The total PAA commitment was \$17.5 million.

The Strategic Plan identified that bonding was required to meet the Measure I obligation for the I-10/Cherry, I-10/Citrus, and I-10/Riverside Interchange projects to avoid loss of other State grant funds. The remaining interchanges were to be developed on a pay-as-you-go basis. However, more recently the Board has been supportive of plans to advance delivery of the top interchanges, which requires bonding.

4.3.2 CURRENT STATUS

All PAA commitments have been repaid, and consistent with Board direction, project development has commenced on the ten highest priority interchanges with public share funding available through construction. Additionally, the Board approved an exception to policy to allow the lower-ranked I-10/Pepper Interchange Phase 2 to proceed with the majority of funding coming from a federal earmark. In addition to the top ten interchanges, several Tier 2 interchanges were added to the delivery plan in the 2017 Update with the construction of the I-10 Corridor Contract 1 Project, which will result in improvements to the I-10/Monte Vista, I-10/Euclid, and I-10/Vineyard Interchanges. The Board has approved Advance Expenditure Agreements (AEA) with the City of Ontario for

the SR 60/Euclid Interchange, the City of Rancho Cucamonga for the I-15/Base Line Interchange, and the County of San Bernardino for the I-15/Sierra Interchange, which allowed the projects to proceed using local funds with a guarantee of future Measure I reimbursement prior to beginning construction on a lower ranked interchange. Because the I-10/Vineyard Interchange is ranked lower than these interchanges, reimbursement of these AEAs is scheduled during this 10-year period.

The 2017 Update included a \$40 million reserve for a newly adopted interchange phasing program. Since adoption of the program, the City of Yucaipa has begun preliminary studies on partial improvements that could be made toward a future I-10/Wildwood Canyon Interchange. The \$40 million reserve continues to be maintained in the Delivery Plan through 2040, with the list of eligible projects included in Section 4.3.4; however, the magnitude of the Freeway Interchange Projects Program being delivered over the next five years could require implementation of the Phasing Program to be delayed and only \$21 million is included in this ten-year period. Additionally, since approval of the 2017 Update, the I-10/Pepper Avenue Interchange Phase 2 has been completed. Information regarding completed projects is included in Section 11.

In developing the interchange project schedules, it was assumed that the local agency would pay its fair share of the project costs. If the local agency cannot commit its fair share when project development of the interchange project is scheduled, project development will commence on the next highest priority project on which a local agency can commit its fair share.

The current revenue estimate for the next ten years is \$180 million. Consistent with the Strategic Plan, bonding is used to accelerate the projects. Assurance of the availability of local share funding for capital phases will be considered before future bond issuances. Freeway interchange projects included in the 10-Year Delivery Plan and the overall cost and revenue requirements for the San Bernardino Valley Freeway Interchange Program are shown in Table 4.3.1. Project details are presented in Section 4.3.3. The estimated uncommitted balance through 2040 is \$117 million for this Program.

TABLE 4.3.1

**SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROJECTS PROGRAM
(COST AND REVENUE REQUIREMENTS) (1,000s)**

PROJECT	COST	FUNDING SOURCE	REVENUE
1 I-10/Cedar Avenue IC	\$111,350	Measure I	\$228,661
2 SR 210/Base Line IC	\$32,618	State/Federal Funds	\$47,614
3 SR 60/Central Avenue IC	\$31,765	Local/Private Funds	\$110,148
4 I-10/University Street IC	\$5,439	TOTAL:	\$386,422
5 I-215/University Parkway IC	\$15,278		
6 I-10/Alabama Street IC	\$15,687		
7 SR 60/Archibald Avenue IC	\$22,540		
8 I-10/Mount Vernon Avenue IC	\$54,931		
9 I-10/Riverside Avenue IC Phase 2	\$23,089		
10 I-15/Base Line Road IC - AEA	\$48,974		
11 SR60/Euclid Avenue IC - AEA	\$1,000		
12 I-15/Sierra Avenue IC - AEA	\$2,750		
13 I-10/Euclid Avenue IC*	\$0		
14 I-10/Monte Vista Avenue IC*	\$0		
15 I-10/Vineyard Avenue IC*	\$0		
Interchange Phasing Program	\$21,000		
TOTAL:	\$386,422		

*Project costs are included in the I-10 Corridor Contract 1 project.

FIGURE 4.3.1

SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROJECTS PROGRAM MAP

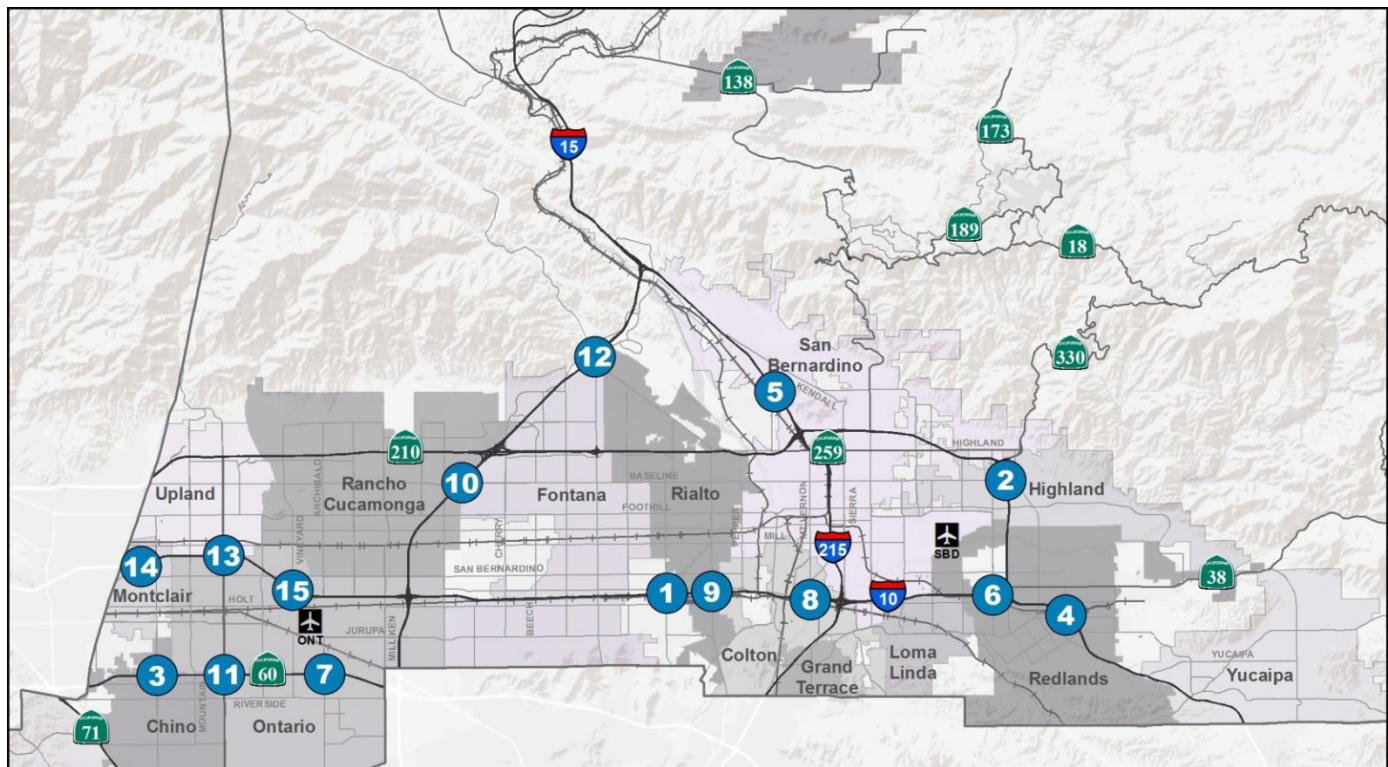
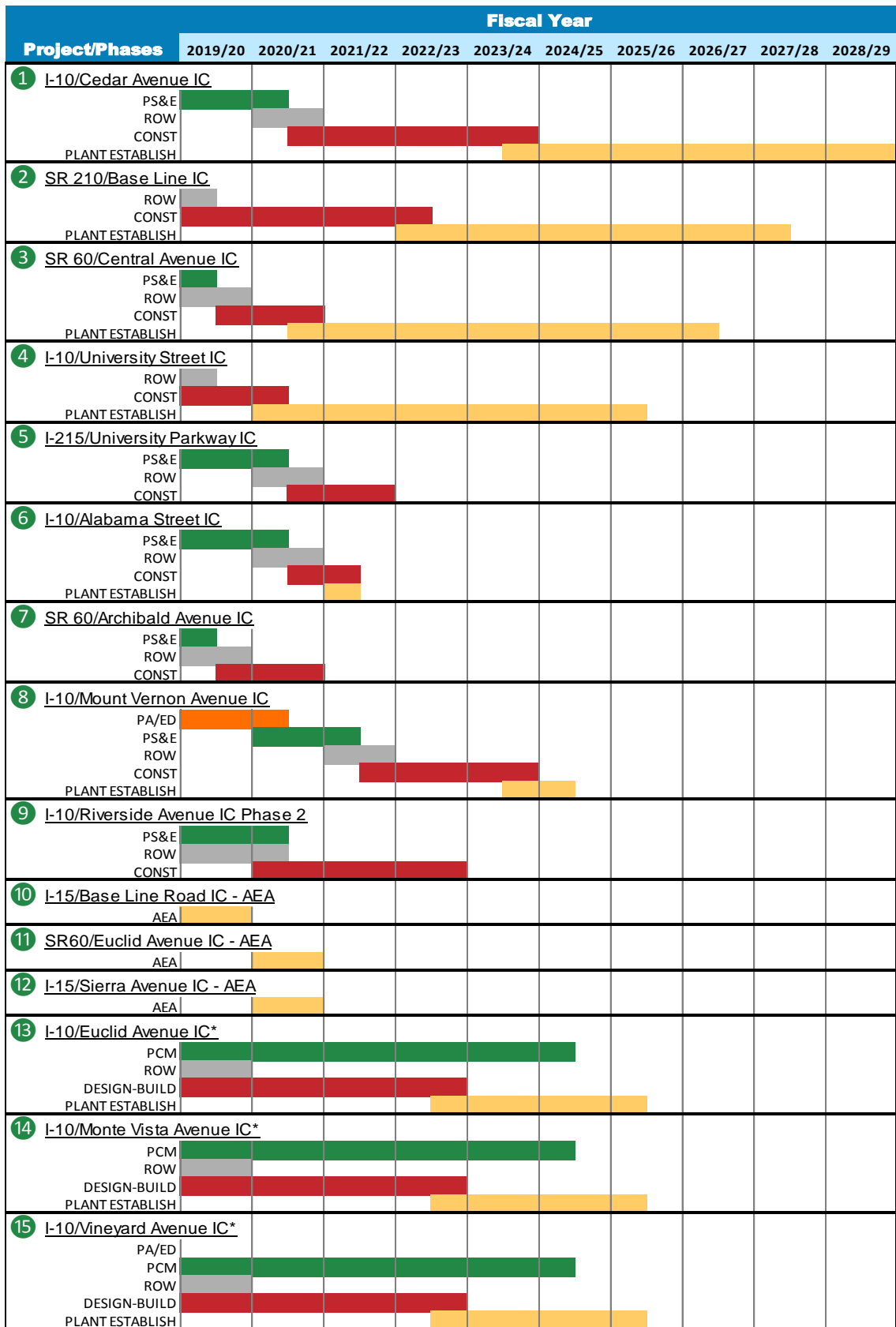


FIGURE 4.3.2

SAN BERNARDINO VALLEY FREEWAY INTERCHANGE PROJECTS PROGRAM SCHEDULE



*Schedule is consistent with the I-10 Corridor Contract 1 project.

4.3.3 PROJECT DETAILS

1 I-10/CEDAR AVENUE INTERCHANGE

Project Description: The project will reduce congestion and improve traffic operations along Cedar Avenue and the on/off-ramps of the I-10 Interchange. The project will improve Cedar Avenue generally between Slover Avenue and Bloomington Avenue, including left and right turn lanes, and modify the existing entrance and exit ramps. The project is located in the unincorporated area of Bloomington in the County of San Bernardino.

- The cost estimate was updated based on the preliminary cost estimate provided by Caltrans in November 2018. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: County of San Bernardino (PS&E) / SBCTA (ROW and Construction)

Current Development Phase: PS&E

Complete for Beneficial Use: 2024

Funding Plan: The project is funded as shown in the table below.

TABLE 4.3.2

I-10/CEDAR AVENUE INTERCHANGE (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	Plant Establishment	
MEASURE I	\$90		\$1,000	\$2,000	\$71,882	\$350	\$75,322
LOCAL DIF	\$500	\$559	\$175		\$28,144	\$150	\$29,528
STP			\$4,000	\$200			\$4,200
HIP			\$2,300				\$2,300
TOTAL	\$590	\$559	\$7,475	\$2,200	\$100,026	\$500	\$111,350

2 SR 210/BASE LINE INTERCHANGE

Project Description: This project will widen the Base Line overcrossing and improve interchange ramps and locally impacted streets.

- As the SR 210/Base Line Interchange and SR 210 Widening projects align geographically and share similar delivery schedules, they will be combined for the design, right of way, and construction phases to save cost and expedite the schedule.
- The Engineer's Estimate is based on the 100% Design Plans dated October 2018. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PS&E and ROW

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in the table below.

TABLE 4.3.3

SR 210/BASE LINE INTERCHANGE (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	Plant Establishment	
MEASURE I	\$364	\$607	\$908	\$574	\$16,120	\$378	\$18,951
LOCAL DIF	\$263	\$438	\$146	\$400	\$7,387	\$272	\$8,906
DIF LOAN			\$509	\$14	\$4,238		\$4,761
TOTAL	\$627	\$1,045	\$1,563	\$988	\$27,746	\$650	\$32,618

3 SR 60/CENTRAL AVENUE INTERCHANGE

Project Description: The project will improve local traffic operations by widening the Central Avenue overcrossing to improve the left turn movement for vehicles entering SR 60 from Central Avenue. The improvements will clear the queue that currently impacts through traffic on Central Avenue in addition to improving freeway access. The project will also add standard shoulders and sidewalks along the Central Avenue overcrossing.

- The cost estimate was developed as part of the 65% Plans, Specifications, and Estimates. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PS&E and ROW

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in the table below.

TABLE 4.3.4

SR 60/CENTRAL AVENUE INTERCHANGE (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	Plant Establishment	
MEASURE I	\$59	\$459	\$597	\$293	\$11,363	\$137	\$12,909
LOCAL DIF	\$550	\$624	\$853	\$418	\$16,217	\$195	\$18,857
TOTAL	\$609	\$1,083	\$1,450	\$711	\$27,580	\$332	\$31,765

4 I-10/UNIVERSITY STREET INTERCHANGE

Project Description: The project will reduce congestion and improve traffic operations along University Street between Citrus Avenue and Central Avenue in the City of Redlands. The proposed project will reconfigure travel lanes on University Street, install traffic signals on University Street at the eastbound I-10 off-ramp and westbound I-10 on-ramp intersections, and modify the signal at the intersection of University Street and Citrus Avenue.

- The cost estimate was updated based on Engineer's Estimate provided in August 2018. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PS&E

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in the table below.

TABLE 4.3.5

I-10/UNIVERSITY AVENUE INTERCHANGE (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	Plant Establishment	
MEASURE I	\$31	\$287	\$509		\$3,216	\$144	\$4,188
LOCAL DIF	\$345	\$63	\$111		\$701	\$31	\$1,251
TOTAL	\$376	\$350	\$620		\$3,918	\$175	\$5,439

5 I-215/UNIVERSITY PARKWAY INTERCHANGE

Project Description: The project will improve freeway access from University Parkway and improve local street traffic operations through a reconfiguration of the existing tight diamond interchange with a Diverging Diamond Interchange (DDI) configuration. The project includes ramp improvements, driveway modifications, new traffic signals, overhead signs, drainage improvements, and aesthetic improvements.

- The cost estimate is based on the preliminary estimate provided in the draft Project Report.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in the table below.

TABLE 4.3.6

I-215/UNIVERSITY PARKWAY INTERCHANGE (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	Plant Establishment	
MEASURE I	\$49	\$126		\$84	\$7,326		\$7,585
LOCAL DIF	\$544	\$24		\$16	\$1,375		\$1,958
STP		\$205	\$704	\$612	\$425		\$1,946
DEMO		\$735					\$735
HIP					\$3,054		\$3,054
TOTAL	\$593	\$1,089	\$704	\$712	\$12,180		\$15,278

6 I-10/ALABAMA STREET INTERCHANGE

Project Description: The project will improve Alabama Street between Orange Tree Lane and Industrial Park Avenue to enhance traffic operation and alleviate traffic congestion. In addition, the interchange on/off-ramps will be improved. The project is located in the City of Redlands.

- The Project Report is in the final stages of approval and includes an updated cost estimate. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PS&E

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in the table below.

TABLE 4.3.7

I-10/ALABAMA STREET INTERCHANGE (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	Plant Establishment	
MEASURE I	\$32	\$391	\$527	\$18	\$6,551	\$99	\$7,618
LOCAL DIF	\$330	\$398	\$538	\$18	\$6,684	\$101	\$8,069
TOTAL	\$362	\$789	\$1,065	\$36	\$13,235	\$200	\$15,687

7 SR 60/ARCHIBALD AVENUE INTERCHANGE

Project Description: The project will improve Archibald Avenue between East Oak Hill Drive and Monticello Place in order to relieve congestion and improve traffic flow. The project will also address existing interchange geometric deficiencies and the anticipated increased travel due to planned developments in the City of Ontario and surrounding areas.

- The Engineer's Estimate is based on the 100% Design Plans dated February 2019 that is currently under review. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.
- In order to secure TCIF funds, the construction contract must be awarded in 2019.

Project Lead Agency: SBCTA

Current Development Phase: PS&E and ROW

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in the table below.

TABLE 4.3.8

SR-60/ARCHIBALD AVENUE INTERCHANGE (1,000s)

FUNDING	PHASE					Plant Establishment	TOTAL
	PM	PA/ED	PS&E	ROW	CON		
MEASURE I	\$27	\$255	\$444	\$605	\$4,249		\$5,581
LOCAL DIF	\$515	\$498	\$866	\$1,180	\$10,840		\$13,899
TCIF					\$1,310		\$1,310
CITY					\$1,750		\$1,750
TOTAL	\$542	\$753	\$1,311	\$1,786	\$18,149		\$22,540

8 I-10/MOUNT VERNON AVENUE INTERCHANGE

Project Description: The project will improve local traffic operations associated with the I-10/Mount Vernon Avenue Interchange in the City of Colton. Improvements include lane additions, restriping, signal retiming, and the widening of the overcrossing, which will accommodate additional modes of travel.

- The project is in the early stages of delivery, and the budgetary estimate could be impacted by right of way and utility relocation costs, impacts to area businesses, and increases in construction costs.
- The cost estimate is based on the Project Initiation Document (PSR-PDS) dated December 2018. The cost estimate was validated and escalated as described in Sections 2.2 and 2.3.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2024

Funding Plan: The project is funded as shown in the table below.

TABLE 4.3.9

I-10 MOUNT VERNON AVENUE INTERCHANGE (1,000s)

FUNDING	PHASE					Plant Establishment	TOTAL
	PM	PA/ED	PS&E	ROW	CON		
MEASURE I	\$902	\$2,186	\$2,676	\$3,957	\$42,409		\$52,130
LOCAL DIF	\$48	\$117	\$144	\$213	\$2,279		\$2,801
TOTAL	\$950	\$2,303	\$2,820	\$4,170	\$44,688		\$54,931

9 I-10/RIVERSIDE AVENUE INTERCHANGE PHASE 2

Project Description: The second phase of the I-10/Riverside Avenue Interchange project includes widening of the existing bridge structure over the UPRR railway. The City of Rialto is seeking Highway Bridge Program funds as the primary funding source for Phase 2 and is continuing with PS&E. Upon determination of the right of way needs and a more accurate cost estimate, SBCTA anticipates entering into a cooperative agreement with the City of Rialto where SBCTA's public share contribution, which is applicable to the costs associated with the widening portion of the project, will be contributed to the project. Phase 1 of the I-10/Riverside Avenue Interchange was recently completed through a cooperative project with SBCTA and the City of Rialto.

- Determination of right of way needs, specifically UPRR requirements, remains outstanding.
- The cost estimate and schedule is based on the City of Rialto's 2018 Federal Highway Bridge Program Survey submittal of September 2018.

Project Lead Agency: City of Rialto

Current Development Phase: PS&E

Complete for Beneficial Use: 2023

Funding Plan: The project is funded as shown in the table below.

TABLE 4.3.10

I-10/RIVERSIDE AVENUE INTERCHANGE PHASE 2 (1,000s)

FUNDING	PHASE					TOTAL
	PM	PA/ED	PS&E	ROW	CON	
MEASURE I		\$7	\$255	\$4	\$1,587	\$1,854
LOCAL DIF		\$3	\$109	\$2	\$680	\$795
HBP		\$78	\$2,812	\$48	\$17,503	\$20,441
TOTAL		\$88	\$3,177	\$54	\$19,771	\$23,089

10 I-15/BASE LINE ROAD INTERCHANGE – ADVANCE EXPENDITURE AGREEMENT

Project Description: The project widened Base Line Road from four to six lanes (including bridges), widened East Avenue from two to four lanes, realigned and widened southbound and northbound diamond ramps from one to two lanes, added a southbound loop on-ramp, and constructed auxiliary lanes on I-15. An AEA was executed between SBCTA and the City of Rancho Cucamonga in which the City advanced the funds necessary to complete the project with the understanding that SBCTA would repay its contribution when sufficient San Bernardino Valley Freeway Interchange Projects Program funds became available. The total AEA amount is for \$20,853,000 and is expected to be paid in Fiscal Year 2019/2020.

Project Lead Agency: SBCTA

Current Development Phase: Close-out

Complete for Beneficial Use: 2016

Funding Plan: The project was funded as shown in the table below. Final cost reconciliation will occur before reimbursement.

TABLE 4.3.11

I-15/BASE LINE ROAD INTERCHANGE - AEA (1,000s)

FUNDING	PHASE					AEA	TOTAL
	PM	PA/ED	PS&E	ROW	CON		
MEASURE I						\$20,853	\$20,853
LOCAL DIF		\$124	\$2,105	\$714	\$12,805		\$15,748
FED EARMARK			\$419				\$419
DEMO				\$3,600	\$3,600		\$7,200
SLPP					\$1,000		\$1,000
IMD		\$752			\$3,002		\$3,754
TOTAL		\$876	\$2,524	\$4,314	\$20,407	\$20,853	\$48,974

11 SR 60/EUCLID AVENUE INTERCHANGE – ADVANCE EXPENDITURE AGREEMENT

Project Description: The project widened the westbound off-ramp from two to three lanes at the SR 60/Euclid Avenue Interchange. Additionally the project included landscape improvements; median island reconstruction; and traffic signal, signing, and striping modifications. An AEA was executed between SBCTA and the City of Ontario in which the City advanced the funds necessary to complete the project with the understanding that SBCTA would repay its contribution when sufficient San Bernardino Valley Freeway Interchange Projects Program funds became available. The total AEA amount is for \$277,500 and is expected to be paid in Fiscal Year 2020/2021.

Project Lead Agency: City of Ontario

Current Development Phase: Complete

Complete for Beneficial Use: 2013

Funding Plan: The project was funded as shown in the table below. Final cost reconciliation will occur before reimbursement.

TABLE 4.3.12

SR60/EUCLID AVENUE INTERCHANGE - AEA (1,000s)

FUNDING	PHASE					AEA	TOTAL
	PM	PA/ED	PS&E	ROW	CON		
MEASURE I						\$278	\$278
LOCAL DIF					\$223		\$223
SHOPP					\$500		\$500
TOTAL					\$723		\$1,000

12 I-15/SIERRA AVENUE INTERCHANGE – ADVANCE EXPENDITURE AGREEMENT

Project Description: The project signalized and widened the northbound and southbound ramp intersections at Sierra Avenue, widened Sierra Avenue from Riverside Avenue to north of the southbound I-15 off-ramp, and constructed drainage improvements. An AEA was executed between SBCTA and the County of San Bernardino in which the County advanced the funds necessary to complete the project with the understanding that SBCTA would repay its contribution when sufficient San Bernardino Valley Freeway Interchange Projects Program funds became available. The AEA repayment amount is up to \$393,015 and is expected to be paid in the Fiscal Year 2020/2021.

Project Lead Agency: Caltrans

Current Development Phase: Complete

Complete for Beneficial Use: 2015

Funding Plan: The project was funded as shown in the table below. Final cost reconciliation will occur before reimbursement.

TABLE 4.3.13

I-15/SIERRA AVENUE INTERCHANGE - AEA (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	AEA	
MEASURE I						\$393	\$393
LOCAL DIF					\$1,602		\$1,602
CALTRANS					\$755		\$755
TOTAL					\$2,357		\$2,750

13 I-10/EUCLID AVENUE INTERCHANGE

Project Description: The project will widen the existing ramps, widen Euclid Avenue, reconstruct the Euclid Avenue overcrossing structure, and provide additional turn lanes to accommodate the interchange, ramp, and local street movements.

- The project is being delivered with the I-10 Corridor Contract 1 project.
- A cooperative agreement with the Cities of Upland and Ontario has been executed for all phases of project delivery in accordance with the Measure I San Bernardino Valley Freeway Interchange Projects Program.

Project Lead Agency: SBCTA

Current Development Phase: ROW and Design-Build, as part of the I-10 Corridor Contract 1 project.

Complete for Beneficial Use: 2023

Funding Plan: The project is funded as shown in the table below.

TABLE 4.3.14

I-10/EUCLID AVENUE INTERCHANGE (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	LANDSCAPE	
MEASURE I	\$330	\$198	\$377	\$820	\$5,687		\$7,413
UPLAND DIF	\$42	\$25	\$48	\$104	\$719		\$937
ONTARIO DIF	\$28	\$17	\$32	\$69	\$479		\$625
TOTAL	\$400	\$240	\$456	\$993	\$6,885		\$8,974

14 I-10/MONTE VISTA AVENUE INTERCHANGE

Project Description: The project will reduce congestion and improve traffic operations along Monte Vista Avenue, Palo Verde Street and the on/off-ramps in the vicinity of the I-10 Interchange in the City of Montclair. The project improvements include widening the eastbound and westbound on/off-ramps, Monte Vista Avenue, and Palo Verde Street as well as reconstructing the bridge undercrossing structure.

- The project is being delivered with the I-10 Corridor Contract 1 project.
- A cooperative agreement with the City of Montclair has been executed for all phases of project delivery, in accordance with the Measure I San Bernardino Valley Freeway Interchange Projects Program.

Project Lead Agency: SBCTA

Current Development Phase: ROW and Design-Build, as part of the I-10 Corridor Contract 1 project.

Complete for Beneficial Use: 2023

Funding Plan: The project is funded as shown in the table below.

TABLE 4.3.15

I-10/MONTE VISTA AVENUE INTERCHANGE (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	LANDSCAPE	
MEASURE I	\$607	\$671	\$1,341	\$3,036	\$19,396		\$25,051
MONTCLAIR DIF	\$142	\$213	\$257	\$709	\$4,527		\$5,847
UPLAND DIF	\$51		\$169	\$255	\$1,632		\$2,108
MONTCLAIR			\$20		\$119		\$139
TOTAL	\$800	\$884	\$1,787	\$4,001	\$25,674		\$33,145

15 I-10/VINEYARD AVENUE INTERCHANGE

Project Description: The project will reduce congestion and improve traffic operations along Vineyard Avenue and the on/off-ramps in the vicinity of the I-10 Interchange. The project will widen portions of Vineyard Avenue, including left and right turn lanes and modify the existing entrance and exit ramps.

- The project is being delivered with the I-10 Corridor Contract 1 project.
- A cooperative agreement with the City of Ontario has been executed for all phases of project delivery in accordance with the Measure I San Bernardino Valley Freeway Interchange Projects Program.

Project Lead Agency: SBCTA

Current Development Phase: ROW and Design-Build, as part of the I-10 Corridor Contract 1 project.

Complete for Beneficial Use: 2023

Funding Plan: The project is funded as shown in the table below.

TABLE 4.3.16

I-10/VINEYARD AVENUE INTERCHANGE (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	LANDSCAPE	
MEASURE I	\$40	\$32	\$64	\$111	\$956		\$1,203
LOCAL DIF	\$60	\$48	\$96	\$166	\$1,434		\$1,805
TOTAL	\$100	\$80	\$161	\$277	\$2,390		\$3,008

4.3.4 INTERCHANGE PHASING PROGRAM

In December 2016, the Board approved an Interchange Phasing Program (Phasing Program). The Phasing Program is a result of the Board's direction to re-examine the San Bernardino Valley interchange priority list and evaluate lower-cost phased improvements to stretch resources to a greater number of interchanges. Consequently, the 2017 Update also included \$35 million for interchange phasing improvements, which when escalated to year of expenditure is approximately \$40 million. The 2019 Update continues to include funding for the Phasing Program; however, the magnitude of the Freeway Interchange Projects Program being delivered over the next five years could require implementation of the Phasing Program to be delayed and only \$21 million is included through 2029.

Since its adoption, the Phasing Program has prompted discussions on several interchanges for possible phased improvements. Currently, the City of Yucaipa has been allocated \$250,000 for the I-10/Wildwood Canyon Interchange for a share of the initial phase of project development. The Caltrans SHOPP program is also helping to fill funding gaps for other phased interchange improvements. SBCTA expects to allocate more of the interchange phasing funding as these partnerships move forward. Specific allocation requests will be brought to the Board for approval, consistent with Policy 40005/VFI-36.

The list of eligible projects under the Interchange Phasing Program is shown below.

TABLE 4.3.17

INTERCHANGE PHASING PROGRAM (in alphabetical order)

INTERCHANGE	PHASE IMPROVEMENT
I-10/California	Widen eastbound off-ramp
I-10/Euclid	Median southbound left turn (& restripe eastbound off-ramp)
I-10/Mountain View-A	Add side-by-side single left turn lanes
I-10/Mountain View-B	Widen eastbound off-ramp
I-10/Wildwood*	Construct partial interchange, remove rest stop
I-215/Palm-A	Widen northbound right turn ramp
I-215/Palm-B	Add westbound left turn pocket
SR-210/5th-A	Widen northbound off-ramp
SR-210/5th-B	Improve westbound between northbound & southbound intersections
SR-210/Del Rosa-A	Dual northbound left turn & widen westbound on-ramp & widen Del Rosa between Date & eastbound ramps
SR-210/Del Rosa-B	Widen eastbound off-ramp
SR-210/Waterman-A	Add right turn to eastbound off-ramp
SR-210/Waterman-B	Add 2 nd southbound right turn on Waterman approaching 30 th
SR-210/Waterman-C	Restripe southbound at eastbound ramp & widen eastbound ramp
SR-60/Euclid-A	Widen eastbound off-ramp
SR-60/Euclid-B	Add northbound dual left turn at westbound ramps & northbound thru lane at eastbound ramps
SR-60/Euclid-C	Add southbound dual left turn at eastbound ramps
SR-60/Grove-A	Widen eastbound off-ramp
SR-60/Grove-B	Widen westbound off-ramp
SR-60/Grove-C	Northbound & southbound dual left turn lanes
SR-60/Mountain-A	Widen westbound off-ramp
SR-60/Mountain-B	Add southbound right turn lane at westbound ramps
SR-60/Ramona-A	Widen eastbound off-ramp
SR-60/Ramona-B	Add northbound left turn at westbound on-ramp
SR-60/Vineyard-A	Widen eastbound off-ramp
SR-60/Vineyard-B	Widen westbound off-ramp
SR-60/Vineyard-C	Northbound & southbound dual left turns

4.4 SAN BERNARDINO VALLEY MAJOR STREET PROJECTS PROGRAM

4.4.1 BACKGROUND

The Measure I Expenditure Plan included improvements to major streets that connect communities, serve major destinations, and provide freeway access. The total cost for the anticipated major street project improvements in the Measure I Expenditure Plan was estimated at \$1.34 billion, which would be funded from a combination of Measure I, development fees, and State and Federal funds. Projects eligible to receive funding allocations must be included in the current adopted SBCTA Development Mitigation Nexus Study, and the local jurisdiction must have the project included in their development mitigation program.

The Program initially receives 20% of revenue collected in the San Bernardino Valley until March 31, 2020. Beginning ten years after initial revenue collection, the Measure I Expenditure Plan requires the SBCTA Board to increase the amount of Measure I revenue dedicated to the Measure I San Bernardino Valley Express Bus/Bus Rapid Transit (BRT) Service Program to at least 5%, but no more than 10%, of the San Bernardino Valley Subarea funding with the Major Street Projects Program being reduced by a like amount. On January 9, 2019, the Board took action to reduce the Major Street Projects Program to 17% effective April 1, 2020, to allow for a 5% allocation to the San Bernardino Valley Express Bus/BRT Service Program.

Through the development of the Strategic Plan, the Major Street Projects Program was further divided into an Arterial Sub-program and a Rail-Highway Grade Separation Sub-program. These sub-programs consist of approximately 400 projects, including 19 grade separations, with a total estimated cost of \$1.6 billion.

The Strategic Plan policies defined the reimbursement to jurisdictions that entered into a Project Advancement Agreement (PAA) commitment for the advancement of major street projects. Forty percent of the revenue was allocated to the reimbursement of PAA commitments until the PAA obligation was fulfilled. The Strategic Plan policies also defined the split of Measure I revenue between the two sub-programs. After the PAA allocation, 80% of the balance is apportioned to the Arterial Sub-program and 20% is apportioned to the Grade Separation Sub-program. In 2006, the passage of Proposition 1B brought additional State grants for goods movement projects. Six grade separation projects in San Bernardino County received Proposition 1B Trade Corridors Improvement Fund (TCIF) funds totaling \$50 million. The stakeholders, including SBCTA, local jurisdictions, and State entities, entered into project Baseline Agreements to demonstrate their commitment to the delivery of these projects. The California Transportation Commission (CTC) TCIF guidelines required all TCIF projects to be under construction no later than December 2013. Because TCIF funds would be lost if deadlines were not met, the Strategic Plan determined that bonding was

required. Substantial construction award savings have occurred in the TCIF program; therefore, the CTC has extended this deadline to December 2019 so that additional projects can be delivered.

The 2012 10-Year Delivery Plan initial financial analysis was performed based on the 80%-20% split between the sub-programs established in the Strategic Plan. This initial analysis determined that the amount of revenue for the Grade Separation Sub-program expenditure plan would not support the bonds required to deliver the grade separation projects on schedule so as not to jeopardize the TCIF funds. Keeping SBCTA's PAA reimbursement commitment, options were considered to address the funding shortfall, including the cancellation of projects, which would result in the loss of State and Federal grants; supplementing revenue with additional local funding; and the adjustment of distribution percentages between the two sub-programs. Ultimately the Board amended Policy 40006, San Bernardino Valley Major Street Program Measure I 2010-2040 Strategic Plan to reflect the revenue funding splits described below:

- After the 40% PAA distribution, the Arterial Sub-program will receive 67% of Measure I Major Street Projects Program funds for the first ten years, 70% for the second ten years, and 78% for the last ten years.
- After the 40% PAA distribution, the Rail-Highway Grade Separation Sub-program will receive 33% for the first ten years, 30% for the second ten years, and 22% for the last ten years.
- The revenue funding splits described above are limited to the completion of the grade separation projects funded with TCIF funds. Any additional revenues or savings that are not required for the completion of these grade separations shall be transferred to the Arterial Sub-program until the Arterial Sub-program reaches 80% of the revenue allocated to the Major Street Projects Program.

4.4.2 CURRENT STATUS

SBCTA and other project sponsors successfully delivered all of the initial TCIF projects by the December 2013 deadline. Phase 1 of the Glen Helen Grade Separation has been completed and closed out, but \$2.97 million of Rail-Highway Grade Separation Sub-program funds remain programmed for Phase 2 construction necessary to tie in the completed grade separation with the future Glen Helen Parkway Bridge replacement project over Cajon Wash. Additionally, savings in the initial program allowed the addition of the Monte Vista Grade Separation to the program. Bonding was necessary to support the matching requirements of the TCIF program and the Proposition 1B State-Local Partnership program funds that have played a large role in the ability to fully fund these projects. Based on favorable bid results where most bids came in below the engineer's estimate and current revenue projections, there is no further adjustment between sub-programs and the split between sub-programs has returned to 80% for the Arterial Sub-program and 20% for the Rail-Highway Grade Separation Sub-program on an annual basis with possible further reductions to the Rail-Highway Grade Separation Sub-

program after 2030 to ensure no more than 20% is allocated to that sub-program through 2040. All PAA commitments have been fulfilled, and no other agreements are outstanding under this program.

The current revenue estimate for the next ten years is \$283 million, with \$57 million available for the Rail-Highway Grade Separation Sub-program and \$226 million available for the Arterial Sub-program. No further bonding is expected for the Rail-Highway Grade Separation Sub-program as most of the future revenue is dedicated to debt service on prior bonds. The estimated uncommitted balance through 2040 is \$40 million for this sub-program. The Arterial Sub-program is a pay-as-you-go, reimbursement program with project selection consistent with the Nexus Study but at the local level. Only projects where SBCTA is acting as the lead agency are included in the 10-Year Delivery Plan at this time. The overall cost and revenue requirements for the projects included in this Delivery Plan are shown in Table 4.4.1. Project details are presented in Section 4.4.3. More information about Rail-Highway Grade Separation Sub-Program projects completed since the inception of Measure I 2010-2040 can be found in Section 11.

TABLE 4.4.1

SAN BERNARDINO VALLEY MAJOR STREET PROJECTS PROGRAM (COST AND REVENUE REQUIREMENTS) (1,000s)

PROJECT	COST	FUNDING SOURCE	REVENUE
① Monte Vista Avenue Grade Separation (UP)	\$24,814	Measure I	\$4,897
② Mount Vernon Viaduct	\$209,332	State/Federal Funds	\$196,513
③ I-10/Fourth Street Bridge Undercrossing*	\$0	Local Funds	\$32,736
TOTAL:	\$234,146	TOTAL:	\$234,146

*Project costs are included in the I-10 Corridor Contract 1 project.

The project locations are depicted in Figure 4.4.1. The project schedules are included as Figure 4.4.2.

FIGURE 4.4.1

SAN BERNARDINO VALLEY MAJOR STREET PROJECTS PROGRAM MAP

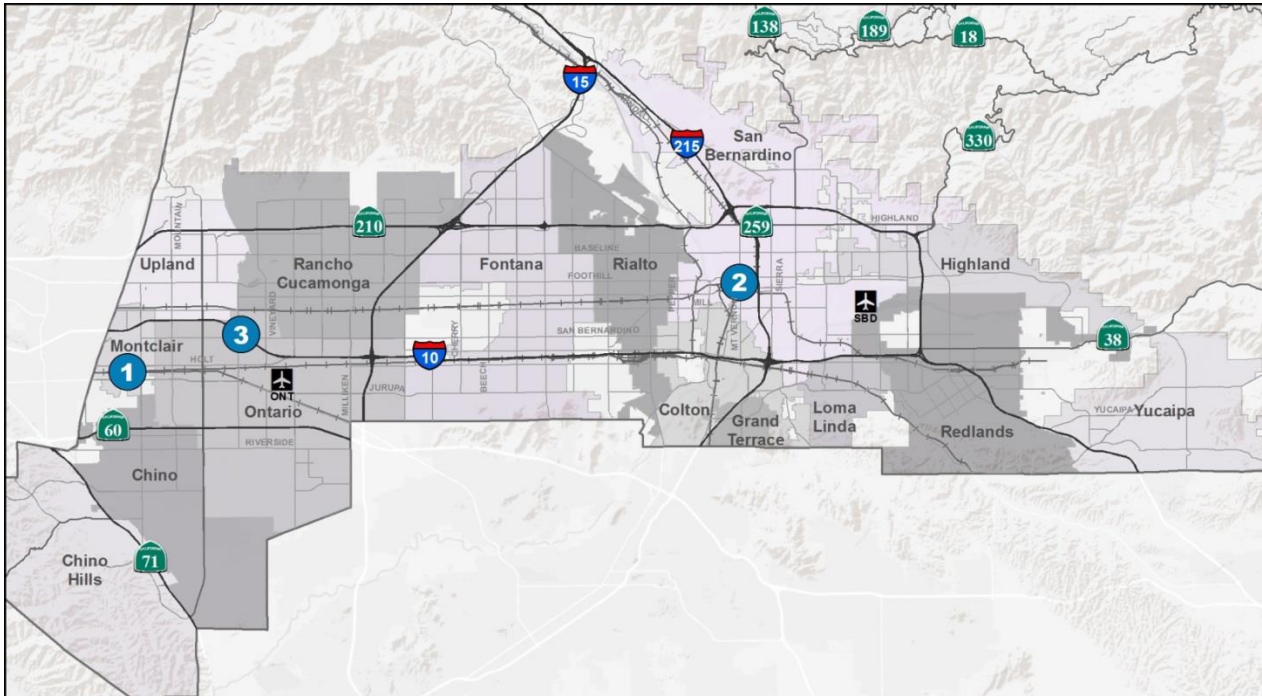


FIGURE 4.4.2

SAN BERNARDINO VALLEY MAJOR STREET PROJECTS PROGRAM SCHEDULE

Project/Phases	Fiscal Year										
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	
① Monte Vista Avenue Grade Separation (UP)											
CONST		■	■								
② Mount Vernon Viaduct											
PCM		■									
ROW		■	■	■							
DESIGN-BUILD				■	■	■	■				
③ I-10/Fourth Street Bridge Undercrossing*											
PCM		■	■	■	■	■					
ROW		■	■	■	■	■					
DESIGN-BUILD				■	■	■	■				
PLANT ESTABLISH						■	■	■			

*Schedule is consistent with the I-10 Corridor Contract 1 project.

4.4.3 PROJECT DETAILS

1 MONTE VISTA AVENUE GRADE SEPARATION (UP)

Project Description: The project will construct a grade separation on Monte Vista Avenue over the Union Pacific Railroad. The project is located in the City of Montclair.

- The construction contract was awarded in July 2017.

Project Lead Agency: City of Montclair (PS&E) / SBCTA (Construction)

Current Development Phase: Construction

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in the table below.

TABLE 4.4.2

MONTE VISTA GRADE SEPARATION (UP) (1,000s)

FUNDING	PHASE					TOTAL
	PM	PA/ED	PS&E	ROW	CON	
MEASURE I					\$4,897	\$4,897
CITY DIF	\$620				\$1,540	\$2,160
PUC					\$5,000	\$5,000
UPRR					\$1,076	\$1,076
PNRS					\$10,661	\$10,661
TCIF					\$1,019	\$1,019
TOTAL	\$620				\$24,193	\$24,814

2 MOUNT VERNON VIADUCT

Project Description: The project will replace the Mount Vernon Avenue Bridge over the BNSF tracks and intermodal facility and Metrolink tracks from Rialto Avenue to 5th Street in the City of San Bernardino.

- Based on the current cost estimate, the BNSF contribution will cover all HBP match requirements; however, it may be necessary to supplement with the City of San Bernardino's share of Measure I Arterial Sub-program funds and DIF if costs increase.
- Development of a Construction and Maintenance Agreement is underway with Burlington Northern Santa Fe (BNSF) and Metrolink.
- The project will be a Design-Build project.
- The cost is based on a Preliminary Estimate dated November 2018.

Project Lead Agency: SBCTA

Current Development Phase: Procurement

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in the table below.

TABLE 4.4.3

MOUNT VERNON VIADUCT (1,000s)

FUNDING	PHASE					TOTAL
	PM	PA/ED	PCM	ROW	DESIGN-BUILD	
HBP		\$4,697	\$13,719	\$75,581	\$85,835	\$179,832
BNSF	\$1,259	\$608	\$1,777	\$9,792	\$16,062	\$29,500
TOTAL	\$1,259	\$5,305	\$15,497	\$85,374	\$101,898	\$209,332

3 I-10/FOURTH STREET BRIDGE UNDERCROSSING

Project Description: The project will reconstruct the I-10/Fourth Street undercrossing bridge structure in the City of Ontario and provide related roadway, drainage, and operational improvements to widen Fourth Street for an additional lane in each direction, including traffic signal modifications and related turning lanes.

- The project is being delivered with the I-10 Corridor Contract 1 project.
- A cooperative agreement with the City of Ontario has been executed for all phases of project delivery in accordance with the Measure I San Bernardino Valley Major Street Projects Program.

Project Lead Agency: SBCTA

Current Development Phase: ROW and Design-Build, as part of the I-10 Corridor Contract 1 project.

Complete for Beneficial Use: 2023

Funding Plan: The project is funded as shown in the table below.

TABLE 4.4.4

I-10/FOURTH STREET BRIDGE UNDERCROSSING (1,000s)

FUNDING	PHASE					TOTAL
	PM	PA/ED	PS&E	ROW	CON	
MEASURE I	\$222	\$348	\$610	\$1,162	\$9,649	\$11,991
CITY DIF	\$178	\$278	\$487	\$928	\$7,705	\$9,576
CITY LOCAL			\$77		\$693	\$770
TOTAL	\$400	\$625	\$1,174	\$2,091	\$18,046	\$22,336

4.5 SAN BERNARDINO VALLEY METROLINK / RAIL SERVICE PROGRAM

4.5.1 BACKGROUND

The Measure I Expenditure Plan identified two rail projects, the extension of passenger rail to Redlands and Gold Line Extension to Montclair, and other expansions of the current Metrolink service estimated at \$692 million to be funded with a combination of Measure I, State, and Federal funds. During development of the Measure I Strategic Plan in 2008, the SBCTA Transit Committee (formerly the Commuter Rail and Transit Committee) recommended approving the use of bonding, re-scoping, and prioritization of the Metrolink/Rail Service Program based on funding availability. The Measure I Expenditure Plan and Strategic Plan identify the Metrolink line and facility improvements necessary to increase service for San Bernardino County, the purchase of expansion commuter rail passenger cars and locomotives, the Redlands Passenger Rail Project, and the Gold Line Extension to Montclair as projects to be funded from this Program. In February 2014, the SBCTA Board approved maintaining commitment to the following projects: the extension of passenger rail to Redlands, Metrolink San Bernardino Line Double Track – control point (CP) Lilac Avenue to CP Rancho Avenue, and the Gold Line Extension to Montclair.

4.5.2 CURRENT STATUS

Since approval of the 2017 10-Year Delivery Plan, construction was completed and service began on the Metrolink extension to downtown San Bernardino, construction has commenced on the Redlands Passenger Rail Project, and construction bids were received by the Gold Line Authority for the Gold Line extension to Montclair. Although Redlands Passenger Rail Project costs have increased since initial estimates, the project has received over \$93.7 million in grant awards, including \$75.8 million from Senate Bill 1 competitive programs, namely \$65 million from the Solutions for Congested Corridors Program (SCCP) and \$10.8 million from the Local Partnership Program (LPP competitive), in addition to \$8.7 million from the Federal Transportation Investment Generating Economic Recovery (TIGER) Program and \$9.2 million from the State Transit and Intercity Rail Capital Program (TIRCP). Construction of the mainline of the Redlands Passenger Rail Project, consisting of nine miles of new passenger rail line, will start in July 2019.

With the implementation of the Redlands Passenger Rail Project will come the introduction of the Arrow service using

diesel multiple unit (DMU) rail vehicles. The DMUs purchased for the Arrow service are powered via a diesel engine “generator” providing power to electric motors at the wheels. SBCTA recognized an opportunity to convert the power generator to an alternative propulsion technology in an effort to produce a zero or low emission vehicle that could run on existing heavy rail infrastructure, thus reducing greenhouse gas emissions and improving air quality while maximizing the use of our existing rail infrastructure. SBCTA was successful in securing a \$30 million TIRCP grant to conduct the research and development efforts necessary to convert the DMU to a zero or low emission vehicle, purchase a converted vehicle, construct the necessary infrastructure to support the alternative propulsion technology, and test the converted vehicle on the Arrow service corridor. In addition, the State wants one of the first three DMUs purchased for the Arrow service to be converted in the future, with the ultimate goal being to operate the entire Arrow corridor as a zero or low emission revenue operation.

The Gold Line Extension Project was awarded over \$290 million of TIRCP funds in an application submitted by the Los Angeles County Metropolitan Transportation Authority (Metro), including \$41 million for the portion within San Bernardino County from the Los Angeles County line to Montclair. Although funding for the project was thought to be secured, the design-build bids came in significantly higher than estimated, and the project construction is now being phased. The project is currently being re-advertised with the phasing defined as beginning with construction within Los Angeles County to the City of Pomona. Funding for the portion from Pomona to the Los Angeles County/San Bernardino County line has not yet been identified by Metro; therefore, the portion within San Bernardino County is anticipated to be delayed by approximately two years. The funding gap recognized in the first round of bids was \$15 million. SBCTA is waiting to learn the revised amount when bids are opened for the repackaged project, but remains committed to working to identify the additional funding needed to close the gap for the San Bernardino County portion of the project, presuming that Metro is able to close the gap from Pomona to the County line. (Note that for the purposes of completing this update, SBCTA is showing the \$15.2 million funding gap identified from the rejected bids).

In response to the Board’s desire to advance delivery of the Downtown San Bernardino and Redlands Passenger Rail Projects and the Gold Line extension, bonding is required for the Program. Bonding will be used only for capital investments. Prior to determining the capital project needs, Measure I Metrolink/Rail Service Program expenditures for

operation of the Arrow service in future years have been identified and have been accounted for in EcoSys. Additionally, Congestion Mitigation and Air Quality (CMAQ) funds contribute to operation costs; however, CMAQ limits eligibility for operations to the first five years of new service. Measure I funds can only be used to fund capital and operations of a new passenger rail service between the cities of San Bernardino and Redlands or the extension of the Gold Line to Montclair, and all other expenditures, including other San Bernardino Valley transit expenditures, are ineligible. Local Transportation Funds have been identified for the operation of the Downtown San Bernardino Passenger Rail Service and the Gold Line extension.

The current revenue estimate for the Measure I Metrolink/Rail Service Program for the next ten years is \$131 million. Consistent with the Strategic Plan, bonding is used to accelerate the projects. Rail projects included

in the 10-Year Delivery Plan and the overall cost and revenue requirements for the San Bernardino Valley Metrolink/Rail Service Program are shown in Table 4.5.1. Project details are presented in Section 4.5.3. The estimated uncommitted balance through 2040 is \$59 million for this Program. The estimated uncommitted balance of State and Federal funds through 2040 is \$857 million for the San Bernardino Valley Subarea, which is generally shared between this Program and the San Bernardino Valley Freeway Projects Program and San Bernardino Valley Express Bus/Bus Rapid Transit Service Programs and excludes State and Federal funds dedicated solely to transit purposes. An update to the countywide Long Range Transit Plan that is planned for 2020 will better inform the availability of future State and Federal funds that are dedicated to transit purposes. More information about projects completed since the inception of Measure I 2010-2040 can be found in Section 11.

**TABLE 4.5.1
SAN BERNARDINO VALLEY METROLINK/RAIL SERVICE PROGRAM
(COST AND REVENUE REQUIREMENTS) (1,000s)**

PROJECT		COST	FUNDING SOURCE		REVENUE
1	Redlands Passenger Rail - Capital	\$355,361	Measure I		\$178,382
	Redlands Passenger Rail - Operations	\$97,098	State/Federal Funds		\$152,252
2	San Bernardino Line Double Track*	\$75,143	State/Federal Grants		\$164,713
3	Gold Line to Montclair - Capital*	\$95,200	Local/Private Funds		\$6,803
	Gold Line to Montclair - Operations	\$5,394	STALTF		\$55,953
4	DMU to ZEMU	\$30,000	Unfunded		\$88,021
TOTAL:		\$658,196	Fare Revenue		\$12,071
*Project not fully funded			TOTAL:		\$658,195

The projects are depicted in Figure 4.5.1. The project schedules are included as Figure 4.5.2.

FIGURE 4.5.1

SAN BERNARDINO VALLEY METROLINK/ RAIL SERVICE PROGRAM MAP

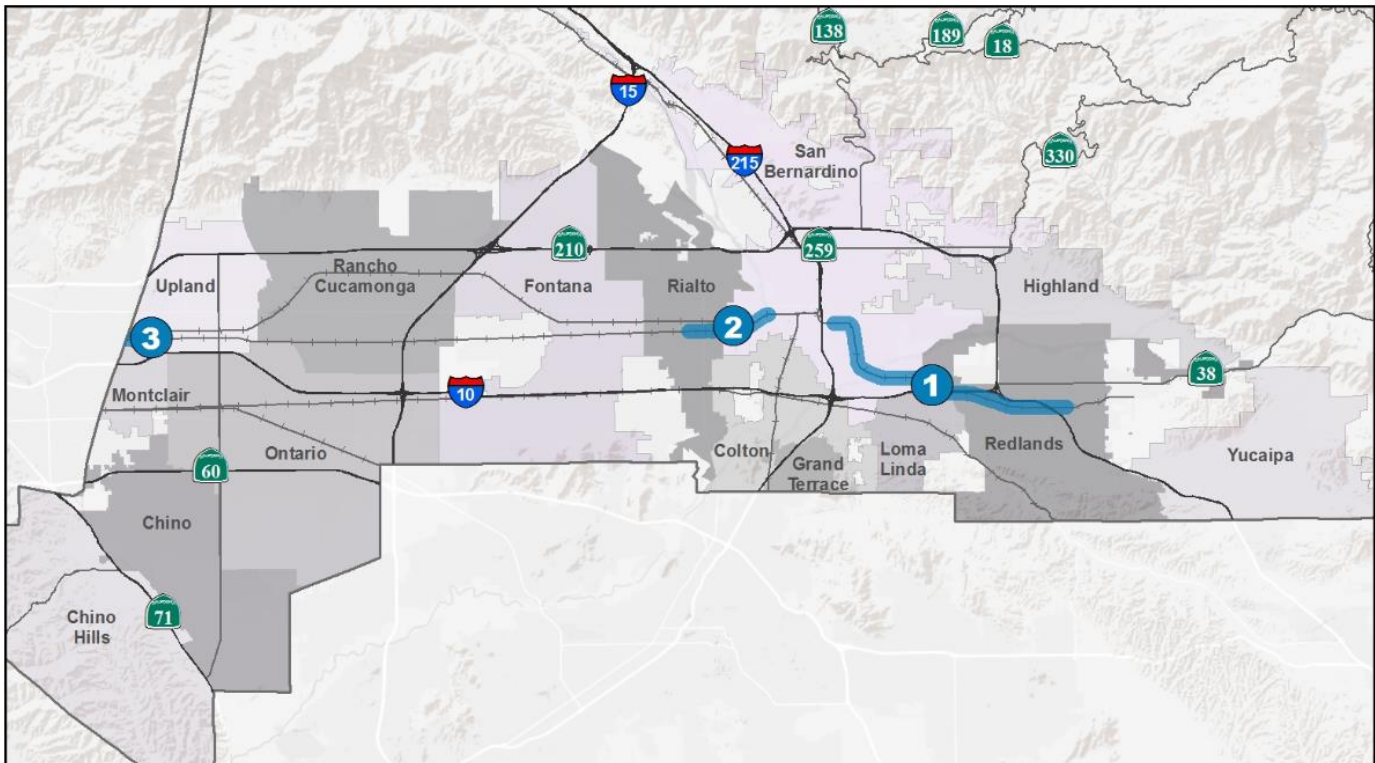


FIGURE 4.5.2

SAN BERNARDINO VALLEY METROLINK/RAIL SERVICE PROGRAM SCHEDULE

Project/Phases	Fiscal Year									
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
1 Redlands Passenger Rail - Capital										
CONST										
2 San Bernardino Line Double Track*										
PS&E										
CONST										
3 Gold Line to Montclair - Capital**										
PA/ED										
ROW										
DESIGN-BUILD										
4 DMU to ZEMU										
PA/ED										
PS&E										
CONST										

* Schedule is contingent on securing grant funding for PS&E and construction. Currently no work is progressing due to lack of funding.

**Schedule is contingent on Metro funding the project to the Los Angeles County line

4.5.3 PROJECT DETAILS

1 REDLANDS PASSENGER RAIL

Project Description: The project includes construction of approximately nine miles of rail improvements with use of Diesel Multiple Unit (DMU) rail vehicles, also known as Hybrid-rail vehicles, to implement the Arrow commuter rail service from the San Bernardino Transit Center at Rialto Avenue and E Street in the City of San Bernardino to the University of Redlands in the City of Redlands. Metrolink will also provide up to two round-trip express trains serving the Downtown Redlands Station during the commute hours. The project will use right of way acquired by SBCTA from Santa Fe Railway in 1992, replacing the entire infrastructure along the corridor. Additionally, SBCTA is partnering with Esri, which will fund the entire station at New York Street and Redlands Boulevard adjacent to their campus; the City of Redlands for enhancements to the Downtown Redlands Station; and the University of Redlands for enhancements at the University Station location.

- As the Project progresses, the top risks include unforeseen utility conflicts and delays due to third parties.
- Omnitrans will provide the Arrow commuter rail service and maintenance of the Hybrid-rail vehicles, while Metrolink will provide dispatching and maintenance-of-way services, as well as operate limited Metrolink locomotive hauled coach service between the San Bernardino Transit Center and Downtown Redlands. Measure I Metrolink/Rail Service Program funds are expected to fund operation costs, augmented with CMAQ as permitted.
- Construction of the mainline is scheduled to commence in July 2019 and construction of the DMU maintenance facility is scheduled to begin in August 2019.
- Additional safety enhancements will be completed along the entire Arrow service corridor allowing for the cities to implement quiet zones where the routine sounding of locomotive horns will not occur.
- Revenue service is projected to commence in late 2021.

Project Lead Agency: SBCTA

Current Development Phase: Construction

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in the table below.

TABLE 4.5.2

REDLANDS PASSENGER RAIL (1,000s)

FUNDING	PHASE							Operations*	TOTAL
	PM	PA/ED	PS&E	ROW & UTILITIES	CONST	ROLLING STOCK	CAPITAL TOTAL		
MEASURE I	\$19,993	\$11,453	\$25,402	\$17,103	\$19,796	\$5,431	\$99,178	\$60,944	\$160,122
STA	\$28		\$8,088	\$13,971	\$12,912		\$34,999		\$34,999
CITY/PRIVATE			\$1,073	\$2,352	\$3,378		\$6,803		\$6,803
TIGER					\$8,678		\$8,678		\$8,678
CMAQ					\$34,850		\$34,850	\$25,000	\$59,850
TIRCP					\$9,204		\$9,204		\$9,204
PROP 1B SECURITY						\$5,245	\$5,245		\$5,245
PTMISEA						\$19,109	\$19,109		\$19,109
LPP COMPETITIVE					\$10,831		\$10,831		\$10,831
LPP FORMULA					\$6,169		\$6,169		\$6,169
SCCP					\$65,000		\$65,000		\$65,000
FTA 5307					\$42,469		\$42,469		\$42,469
STIP					\$12,826		\$12,826		\$12,826
FARE REVENUE								\$11,153	\$11,153
TOTAL	\$20,022	\$11,453	\$34,562	\$33,426	\$226,114	\$29,785	\$355,361	\$97,098	\$452,459

* Operations costs represent the costs of startup and operations between Fiscal Year 2021/2022 and 2028/2029

2 SAN BERNARDINO LINE DOUBLE TRACK

Project Description: The project entails construction of approximately three miles of second mainline track along the Metrolink San Bernardino Line from Control Point (CP) Lilac to CP Rancho which includes ten at-grade crossings, quiet zone ready safety enhancements, and the addition of a second platform and underpass at the Rialto Metrolink Station. Once constructed, this project will provide for increased service reliability, support future expansion of service, and make it more feasible to run peak hour express service as stipulated by the Metrolink Strategic Plan. Preliminary engineering and CEQA clearance is complete. While not funded as part of the initial wave of the Metrolink Southern California Optimized Rail Expansion (SCORE) Program, Metrolink has identified a substantial portion of this segment, from CP Lilac to CP Rialto, as a priority in the multi-year SCORE Program.

- Prioritization of this project and ability to secure grant funding is contingent upon additional funding for the SCORE Program.
- The project cost is based on 2019 construction dollars; delays will increase the cost.
- The design-build delivery method may be considered for this project.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED complete; on hold until funding identified

Complete for Beneficial Use: To be determined; dependent on funding availability

Funding Plan: The project is funded as shown in the table below.

TABLE 4.5.3

SAN BERNARDINO LINE DOUBLE TRACK (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
PTMISEA	\$1,584				\$1,584
STA	\$738				\$738
UNFUNDED		\$7,961	\$400	\$64,460	\$72,821
TOTAL	\$2,322	\$7,961	\$400	\$64,460	\$75,143

*Funding is only for environmental and preliminary engineering to define conceptual scope of the project

3 GOLD LINE TO MONTCLAIR

Project Description: The project includes a 0.67 mile extension of the Metro Gold Line from the Los Angeles County line to the Montclair Metrolink Station in the City of Montclair. The Foothill Gold Line Construction Authority (GLA) is the entity tasked with delivery of the entire Gold Line Extension from Azusa to Montclair with funding provided by Los Angeles County Metropolitan Transportation Authority (Metro) for the Los Angeles County portion and SBCTA for the San Bernardino County portion. Because the cost of the project is significantly higher than originally estimated, the GLA has implemented a phased approach to delivering the project. GLA has repackaged the project reflecting the phased approach delaying the San Bernardino County portion by up to two years. Revised bids will be opened in mid-May. SBCTA currently has a \$15.2 million funding gap for the San Bernardino County portion of the project, which will be revised to reflect the latest bid price once known.

- SBCTA staff will bring funding options before the SBCTA Board to fully fund its portion of the project if Metro is able to fund construction to the San Bernardino County line.
- A Supplemental Environmental Impact Report was prepared and circulated to address the phased approach.
- The project is not federalized, which limits the types of funding available to fund the project.
- There is potential for additional cost increases for the portion within San Bernardino County due to the delay in construction.
- SBCTA has identified Local Transportation Funds to fund approximately \$2.7 million/year needed for operations and maintenance. Operations and maintenance cost is a preliminary estimate.

Project Lead Agency: Foothill Gold Line Construction Authority

Current Development Phase: Design-Build starting with the Los Angeles County portion from Glendora to Pomona

Complete for Beneficial Use: 2028; dependent on Metro completing construction to the county line

Funding Plan: The project is funded as shown in the table below.

TABLE 4.5.4

GOLD LINE TO MONTCLAIR (1,000s)

FUNDING	PHASE			TOTAL CAPITAL	Operations*	TOTAL
	PA/ED	ROW	DESIGN-BUILD			
MEASURE I	\$3,000		\$15,260	\$18,260		\$18,260
STA		\$2,200	\$5,440	\$7,640		\$7,640
LTF			\$8,100	\$8,100	\$4,477	\$12,577
LCTOP			\$5,000	\$5,000		\$5,000
TIRCP			\$41,000	\$41,000		\$41,000
UNFUNDED			\$15,200	\$15,200		\$15,200
FARE REVENUE					\$918	\$918
TOTAL	\$3,000	\$2,200	\$90,000	\$95,200	\$5,394	\$100,594

* Operations costs represent the costs of start-up and operations between Fiscal Year 2021/2022 and 2028/2029.

4 DMU TO ZEMU

Project Description: This project will conduct the research and development efforts necessary to convert the diesel multiple unit (DMU) rail vehicle planned for use on the Arrow service to a zero or low emission (ZEMU) vehicle, purchase a converted vehicle, construct the necessary infrastructure to support the alternative propulsion technology, and test the converted vehicle on the Arrow service corridor. The ultimate goal of this project is to allow for the entire Arrow corridor to operate as a zero or low emission revenue operation. This conversion could very well mark the introduction of ZEMU's in the United States.

- ZEMUs are not yet operated in revenue service.
- The schedule is dependent upon progress with the Federal Railroad Administration (FRA).
- The project requires identification and approval of an alternative propulsion system such as batteries and/or hydrogen fuel cells, which vary in cost and form.
- The project requires specialized maintenance and fueling or recharging facilities.

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2024, dependent on FRA

Funding Plan: The project is funded as shown in the table below.

TABLE 4.5.5

DMU TO ZEMU (1,000s)

PHASE	FUNDING				TOTAL
	PA/ED	PS&E	CON	Rolling Stock	
TIRCP	\$750	\$7,250	\$10,000	\$12,000	\$30,000
TOTAL	\$750	\$7,250	\$10,000	\$12,000	\$30,000

4.6 SAN BERNARDINO VALLEY EXPRESS BUS/BUS RAPID TRANSIT SERVICE PROGRAM

4.6.1 BACKGROUND

The Measure I San Bernardino Valley Express Bus/Bus Rapid Transit (BRT) Service Program provides specific funding for development, implementation, and operation of express bus and BRT in high density corridors. The Program initially receives 2% of revenue collected in the San Bernardino Valley until March 31, 2020. Beginning ten years after initial revenue collection, the Measure I Expenditure Plan requires the SBCTA Board to increase the amount of Measure I revenue dedicated to the Program to at least 5%, but no more than 10%, of the San Bernardino Valley Subarea funding. On January 9, 2019, the Board took action to set the revenue at 5% effective April 1, 2020. The Major Street Projects Program will be reduced by a like amount. The Measure I Expenditure Plan estimated that \$301 million in Measure I, State, and Federal funds would be available to this Program over the life of the Measure.

4.6.2 CURRENT STATUS

SBCTA supports the overall objective of cost effective enhanced transit service throughout the County and specifically the growth of express bus and BRT service. In October 2010, Omnitrans developed a system of ten planned BRT corridors identified as the sbX System Corridors. In 2014 the E Street sbX BRT corridor, or Green Line, in San Bernardino and Loma Linda was the first of the ten corridors implemented. After studying additional BRT corridors with high ridership, Omnitrans began developing the West Valley Connector project, taking into account the highest ridership sections of the Holt and Foothill Corridors, in an effort to provide more frequent and more direct bus service to connect major destinations throughout the western part of the San Bernardino Valley. Omnitrans proceeded with development of a dedicated bus lanes alternative approved by their Board in November 2015, intending to seek a Federal Transit Administration (FTA) Small Starts Grant as a means to fully fund the project. In January 2017, the SBCTA Board designated SBCTA as the lead agency for the project. In May 2017, the SBCTA Board took action to ensure a set-aside of funding needed for operations and maintenance (O&M) prior to fully funding the capital costs. It was estimated that \$95 million of Measure I San Bernardino Valley Express Bus/Bus Rapid Transit Service Program revenue would be available for

capital costs for the Locally Preferred Alternative, and SBCTA pursued funding to close the estimated \$71 million capital funding gap. As the project continued through the FTA grant rating application process, the cost estimate and ridership forecast were updated based on the latest design and related bid results, and it was determined the project cost was significantly higher than the original estimate and that a relatively large number of riders would be existing riders shifting from existing service rather than new riders, resulting in less new fare revenue and much higher O&M costs than originally considered. Increases to O&M costs, which are funded from future Measure I San Bernardino Valley Express Bus/Bus Rapid Transit Service Program revenue, result in decreases of Measure I revenue for capital costs.

SBCTA continues to look at mitigating the cost increase by considering other design configurations. Another factor to be considered is the solvency of existing bus service as operating costs are increasing at a rate higher than operating revenues based on a draft financial plan prepared for Omnitrans' underlying bus service and presented to the Omnitrans Board.

The current revenue estimate for this Program for the next ten years is \$78 million. If the additional funds are identified to complete the capital project and O&M is supported, bonding against future Program funds may be required for the capital project. However, bonding will only be used for capital investments, and funding for the operational needs of the project will continue to be set aside in EcoSys prior to funding capital costs, consistent with the SBCTA Board's direction. Assuming the project moves forward as shown in this plan, the estimated uncommitted balance through 2040 is \$15 million for this Program. The estimated uncommitted balance of State and Federal funds through 2040 is \$864 million for the San Bernardino Valley Subarea, which is generally shared between this Program and the San Bernardino Valley Freeway Projects and Metrolink/Rail Service Programs and excludes State and Federal funds dedicated solely to transit purposes. An update to the countywide Long Range Transit Plan that is planned for 2020 will better inform the availability of future State and Federal funds that are dedicated to transit purposes.

The current proposed alignment and project cost for the West Valley Connector Phase I project is depicted in Figure 4.6.1 and Table 4.6.2, respectively. Information regarding the E Street sbX BRT is included in Section 11.

TABLE 4.6.1

SAN BERNARDINO VALLEY EXPRESS BUS & BUS RAPID TRANSIT SERVICE PROGRAM (COST AND REVENUE REQUIREMENTS) (1,000S)

PROJECT	COST	FUNDING SOURCE	REVENUE
① West Valley Connector Phase 1 - Capital*	\$286,966	Measure I	\$108,098
West Valley Connector Phase 1 - Operations	\$26,314	State/Federal Funds	\$5,855
TOTAL:	\$313,280	Local/Private Funds	\$35,898
		STA/LTF	\$3,631
		Unfunded	\$157,313
		Fare Revenue	\$2,485
		TOTAL:	\$313,280

*Project is not fully funded

FIGURE 4.6.1

SAN BERNARDINO VALLEY EXPRESS BUS & BUS RAPID TRANSIT SERVICE PROGRAM MAP

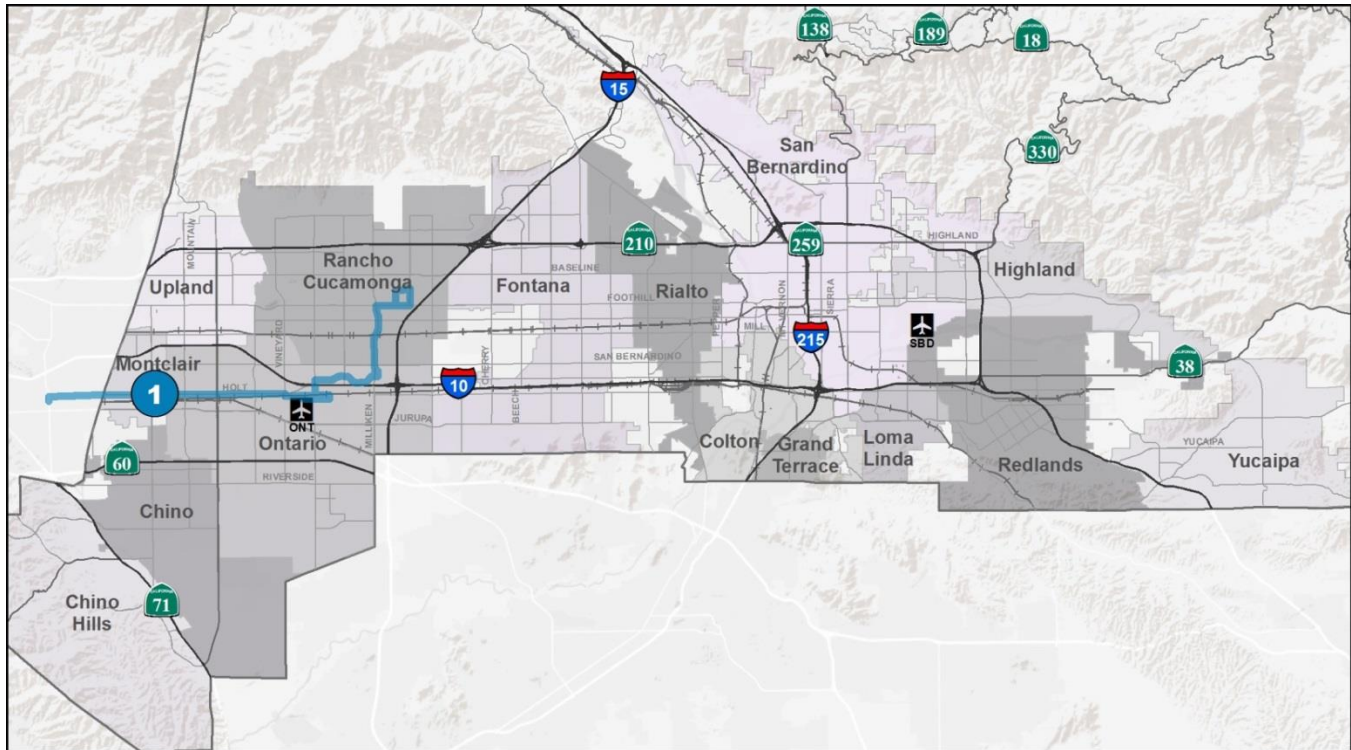


FIGURE 4.6.2

SAN BERNARDINO VALLEY EXPRESS BUS & BUS RAPID TRANSIT SERVICE PROGRAM SCHEDULE

Project/Phases	Fiscal Year									
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
① West Valley Connector Phase 1 - Capital*										
PA/ED	■									
PS&E		■	■							
ROW		■	■							
CONST				■	■	■				

*Schedule is contingent on securing grant funding for ROW and construction

1 WEST VALLEY CONNECTOR PHASE 1

Project Description: The West Valley Connector (WVC) Project is a 33.5-mile-long BRT project that proposes limited stops, providing speed and quality improvements to the public transit system within the corridor. The BRT will serve the cities of Pomona, Montclair, Ontario, Rancho Cucamonga, and Fontana and will interconnect with three Metrolink stations. The current project is divided into two separate phases: Phase 1 between the Downtown Pomona Metrolink Station and Victoria Gardens in Rancho Cucamonga and Phase 2 extending the service into Fontana along Foothill and Sierra Avenue. A new operation and maintenance (O&M) facility for light maintenance activities is also proposed as part of the WVC Project Phase 1. The costs reflected on the funding table are for the development and construction of Phase 1.

- Completion of Phase 1 is contingent on grant funding. SBCTA anticipates applying for a Federal Transit Administration (FTA) Capital Investments Grant (CIG) Small Starts grant.
- Phase 1 of the project as proposed in this 10-Year Delivery Plan includes a 3.5 mile-long segment with substantial right of way acquisitions that could impact the overall delivery schedule and capital cost. As mentioned above, SBCTA continues to consider other design configurations.
- Project delays could result from unforeseen utility conflicts and third parties.
- The project includes the maintenance facility land as in-kind contribution from the City of Ontario.
- Intersection improvements at Holt Boulevard/Mountain Avenue and Holt Boulevard/Grove Avenue within the City of Ontario are included in the overall project cost, with the City as lead agency for the funding and construction.
- Operational costs are estimated based on the latest project information and will need to be refined as the project progresses to the next phases.
- The Engineer's Estimate was completed for the Draft Environmental Document (2019).

Project Lead Agency: SBCTA

Current Development Phase: PA/ED

Complete for Beneficial Use: 2024, pending funding availability

Funding Plan: The project is funded as shown in the table below.

TABLE 4.6.2

WEST VALLEY CONNECTOR PHASE 1 (1,000s)

FUNDING	PHASE						CAPITAL TOTAL	Operations**	TOTAL
	PM	PA/ED	PSE	ROW	CON	VEHICLES			
MEASURE I	\$9,415	\$6,704	\$5,221	\$66,560			\$87,900	\$20,198	\$108,098
OMNITRANS MID VALLEY LAND SALE	\$1,716		\$4,088	\$19,295			\$25,098		\$25,098
OMNITRANS FTA 5307 SET ASIDE					\$3,719		\$3,719		\$3,719
OMNITRANS STA (FTA 5307 MATCH)				\$2,136			\$2,136		\$2,136
CITY OF ONTARIO IN-KIND STREET WIDENING					\$9,300		\$9,300		\$9,300
LACMTA CALL FOR PROJECTS					\$1,500		\$1,500		\$1,500
UNFUNDED				\$4,321	\$125,832	\$27,160	\$157,313		\$157,313
LTF (ENHANCED HAVEN SERVICE) FARE REVENUE								\$3,631	\$3,631
								\$2,485	\$2,485
TOTAL	\$11,131	\$6,704	\$9,309	\$92,311	\$140,350	\$27,160	\$286,966	\$26,314	\$313,280

*Project is not fully funded

**Operations costs represent the cost of operations between Fiscal Year 2024/2025 and 2028/2029

4.7 SAN BERNARDINO VALLEY SENIOR AND DISABLED TRANSIT SERVICE PROGRAM

4.7.1 BACKGROUND

Within the San Bernardino Valley Subarea, the amount of Measure I revenue apportioned to the Senior and Disabled Transit Service Program is 8%, of which a minimum of 25% is made available for the creation and operation of a Consolidated Transportation Services Agency (CTSA) that is responsible for the coordination of social service transportation for elderly individuals, individuals with disabilities, and families of limited financial means. The Measure I Expenditure Plan estimated \$362 million of Measure I revenue would be available for the Program, of which \$90.5 million was for the CTSA. In October 2010, Valley Transportation Services (VTrans) was created and designated as the CTSA for the San Bernardino Valley by the SBCTA Board. In November 2015, the Board concluded that consolidation of the CTSA operations under Omnitrans would be more cost-effective, thereby increasing the funding available for programs that benefit senior citizens and persons with disabilities.

The remaining \$271.5 million (75%) of Program revenue may be expended to reduce fares and support existing, new, expanded, or enhanced transportation services, including capital projects, for senior citizens and individuals with disabilities.

4.7.2 CURRENT STATUS

In July 2018, the SBCTA Board approved a revision to Policy 40009 to allow all San Bernardino Valley Senior and Disabled Transit Service Program funds approved for allocation to be passed through monthly to Omnitrans as the transit operator and CTSA for the San Bernardino Valley Subarea. Program funds are used on services and projects identified as eligible expenditures for senior citizens and persons with disabilities, consistent with Omnitrans' Short Range Transit Plan. The current revenue estimate for the next ten years is \$131 million.

In addition to these pass through Program funds, SBCTA passes through and/or allocates shares of Senate Bill 1 State of Good Repair funds, Low Carbon Transit Operations Program funds, State Transit Assistance funds, Local Transportation Funds, Federal formula funds, and Congestion Mitigation and Air Quality (CMAQ) funds to Omnitrans for additional needs identified in its SRTP as part of annual capital and operating subsidies.

4.8 SAN BERNARDINO VALLEY TRAFFIC MANAGEMENT SYSTEMS PROGRAM

4.8.1 BACKGROUND

The San Bernardino Valley Traffic Management Systems Program is funded by 2% of the revenue collected within the San Bernardino Valley Subarea, which was estimated to be \$90 million in total revenue. The amount is not intended to deliver sizeable infrastructure projects. The Traffic Management Systems Program funds are to provide seed money to support transportation planning, creation of transportation management programs, implementation of traffic operational improvements on regional facilities, and environmental enhancements. The Traffic Management System Program funding can be used to strategically leverage State, Federal, local, and private funding.

Measure I defines a non-comprehensive list of eligible projects under this category that include signal synchronization, systems to improve traffic flow, commuter assistance programs, and the freeway service patrol. Additional project types that are consistent with traffic management systems and environmental enhancement include corridor greenbelts, HOV inducements, bike and pedestrian trails, open space development, and air quality-related inducements, including alternative fuel programs.

4.8.2 CURRENT STATUS

This Program will be managed on a pay-as-you-go basis. This program annually supports SBCTA staff subregional planning and project development and commuter assistance efforts.

Funds from this Program also contributed towards project management costs associated with the coordination of approximately 1,250 signals on major arterial corridors in the San Bernardino Valley, with total investments from all sources that exceeded \$15 million and involved coordination with sixteen separate local agencies and Caltrans. At system “turn-on” the project showed significant improvements in arterial travel times and reductions in stops and delays. On-going maintenance and operations of the

system relies on grants, contributions from local agencies, and Traffic Management System Program funds, which are primarily used as incentive funds for local agencies that ensure their signals are operational and coordinated. Additionally, Program funds are being used to supplement an Active Transportation Program (ATP) grant award and Local Transportation Fund Article 3 Bicycle and Pedestrian funds as part of a \$4.8 million project to provide safe pedestrian and bicycle access, high-visibility crosswalks, way-finding signage, and other improvements to key corridors at Metrolink Stations in the cities of Montclair, Upland, Rancho Cucamonga, Fontana, Rialto, and San Bernardino.

The current revenue estimate for the next ten years is \$33 million.



VICTOR VALLEY SUBAREA PROGRAMS

**VICTOR VALLEY
LOCAL STREET PROJECTS PROGRAM**

**VICTOR VALLEY
MAJOR LOCAL HIGHWAY PROJECTS
PROGRAM**

**VICTOR VALLEY
SENIOR AND DISABLED TRANSIT
SERVICE PROGRAM**

**VICTOR VALLEY
PROJECT DEVELOPMENT AND TRAFFIC
MANAGEMENT SYSTEMS PROGRAM**

5.1 VICTOR VALLEY LOCAL STREET PROJECTS PROGRAM

5.1.1 BACKGROUND

The Measure I Expenditure Plan estimated \$579 million of Measure I revenue would be available for local street projects. Seventy percent (less 2% retained by SBCTA for the Project Development and Traffic Management Systems Program) of the funds collected in the Subarea would be distributed on a monthly basis to the jurisdiction based on population (50%) and tax generation (50%).

The Strategic Plan established policies for eligible expenditures, funding allocations, and adoption and development of the local jurisdiction's Five-Year Capital Improvement Plans. Detailed information can be found in the Victor Valley Strategic Plan Local Street Projects Program Policy 40012.

5.1.2 CURRENT STATUS

In accordance with the Expenditure Plan and the Strategic Plan, the Measure I funds apportioned to the Local Street Projects Program are included in the 10-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects are included in this Plan. The current estimate for the Program over the next ten years is \$142 million.

5.2 VICTOR VALLEY MAJOR LOCAL HIGHWAY PROJECTS PROGRAM

5.2.1 BACKGROUND

The Measure I Expenditure Plan included contributions to projects along major streets and highways serving as current or future primary routes of travel within the Subarea, which may include interchanges and freeway improvements along I-15, SR 138, US 395, and the proposed High Desert Corridor. The total cost for the contribution was estimated at \$413 million, which will be funded from a combination of Measure I, development fees, and State and Federal funds.

Through the development of the Strategic Plan, candidate project lists were developed with the assistance of the Victor Valley Subarea jurisdiction representatives that included interchange projects, arterial projects, grade separation projects, state highway projects, and highway corridor projects. Measure I allocation to projects within this Program is at the full discretion of Victor Valley Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board. The Advanced Expenditure Program is available for projects meeting the eligibility detailed in the Victor Valley Strategic Plan Policy 40011 and Policy 40013.

5.2.2 CURRENT STATUS

Significant progress is being made in the delivery of the priorities identified for development in Measure I 2010-2040. The I-15/La Mesa Nisqualli Interchange opened to traffic in 2013 and the I-15/Ranchero Interchange opened to

traffic in February 2016. Two segments of the Yucca Loma Corridor, the Yucca Loma Bridge and a segment of the Yucca Loma Road widening opened to traffic in 2017. The Green Tree Boulevard section of the Yucca Loma Corridor is in the right of way phase and is expected to be under construction in 2020. Current projects include Rancho Road widening, US 395 widening Phase 1, Apple Valley Road/SR 18 Realignment, Rock Springs Road Bridge, and Main Street Widening. More information about projects completed since the inception of Measure I 2010-2040 can be found in Section 11.

The current estimate for the Program over the next ten years is \$53 million. During the development of the 2019 Delivery Plan, the Victor Valley Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board established and approved a list of priority projects for inclusion in the 10-Year Delivery Plan. The overall cost and revenue requirements for the Major Local Highway Projects Program are shown in Table 5.2.1. Project details are presented in Section 5.2.3. Consistent with the Strategic Plan, bonding has been used to accelerate projects. The estimated uncommitted balance through 2040 is \$70 million for this Program. The estimated uncommitted balance of State and Federal funds through 2040 is \$234 million for this Program.

TABLE 5.2.1

**VICTOR VALLEY MAJOR LOCAL HIGHWAY PROJECTS PROGRAM
(COST AND REVENUE REQUIREMENTS) (1,000s)**

PROJECT	COST	FUNDING SOURCE	REVENUE
1 US 395 Widening, Phase 1 from SR 18 to Chamberlaine Way	\$58,004	Measure I	\$42,899
2 Apple Valley Road and SR 18 Realignment	\$9,637	State/Federal Funds	\$169,906
3 Bear Valley Bridge over Mojave River	\$40,571	State/Federal Grants	\$32,615
4 Yucca Loma Road Widening Apple Valley Road to Rincon Road	\$6,349	Local/Private Funds	\$77,298
5 Rancho Road Corridor Widening	\$44,636	TOTAL:	\$322,719
6 Main Street Widening from US 395 to 11th Avenue Phase 1	\$12,340		
7 Main Street Widening from US 395 to 11th Avenue Phase 2	\$30,222		
8 Yucca Loma Corridor - Green Tree Boulevard Extension	\$44,690		
9 Rock Springs Road Bridge over Mojave River	\$20,235		
10 Phelan Road Widening SR 138 to Hesperia City Limits	\$56,035		
TOTAL:	\$322,719		

The project locations are depicted in Figure 5.2.1. The project schedules are included as Figure 5.2.2.

FIGURE 5.2.1

VICTOR VALLEY MAJOR LOCAL HIGHWAY PROJECTS PROGRAM MAP

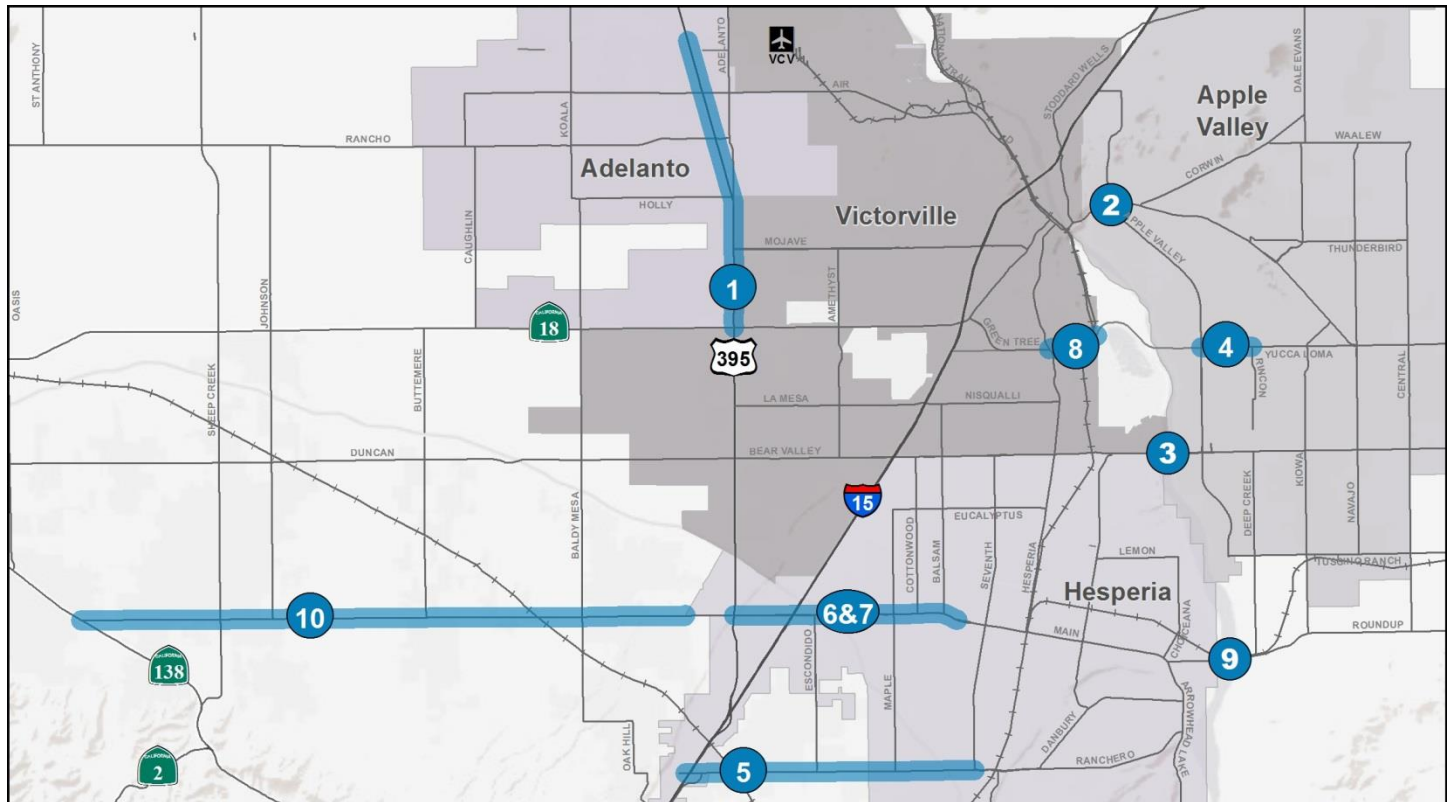
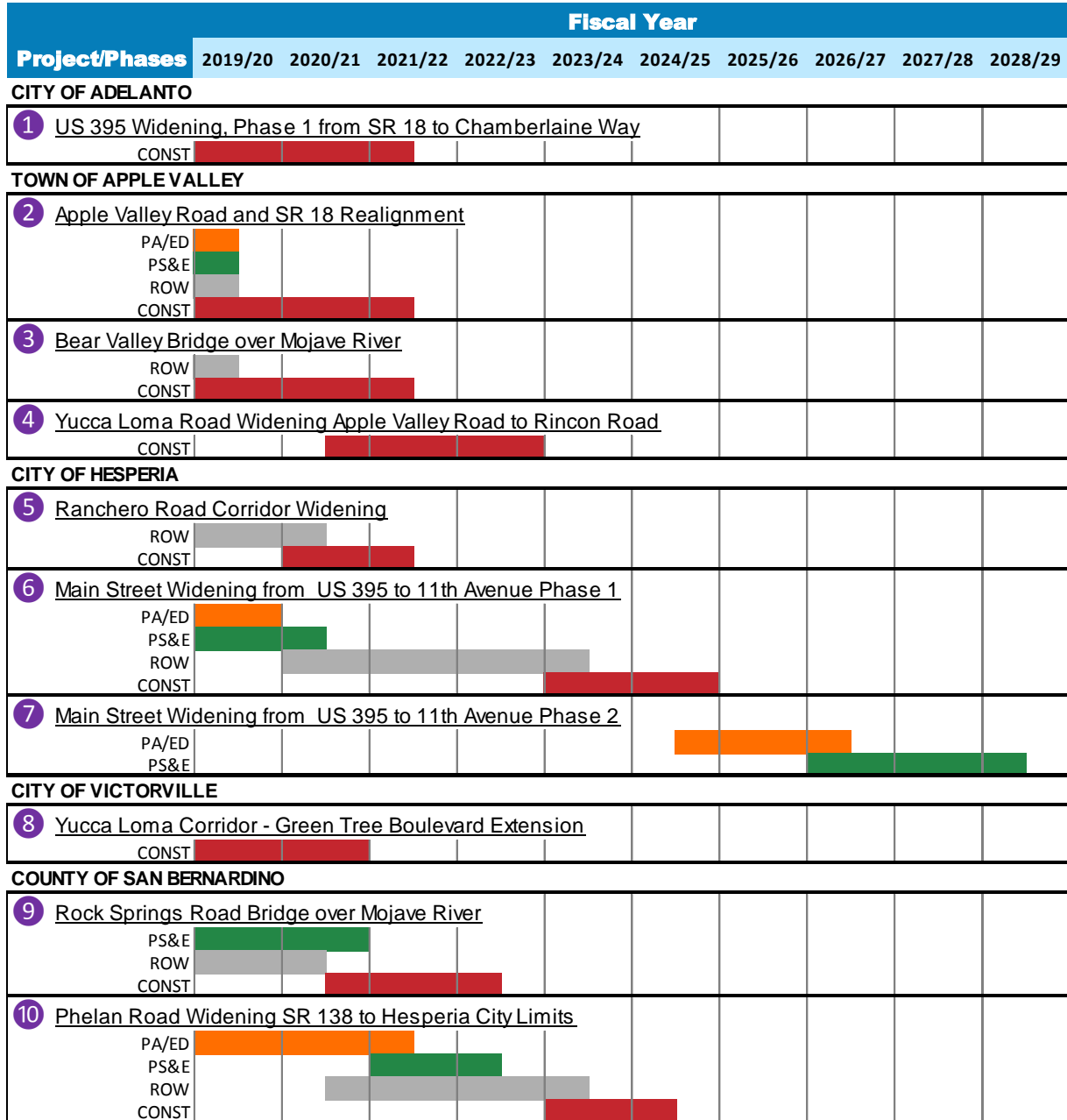


FIGURE 5.2.2

VICTOR VALLEY MAJOR LOCAL HIGHWAY PROJECTS PROGRAM SCHEDULE



5.2.3 PROJECT DETAILS

CITY OF ADELANTO PROJECTS

1 US 395 CORRIDOR – PHASE 1 WIDENING FROM SR 18 TO CHAMBERLAINE WAY

Project Description: The project will widen sections of US 395 from two to four lanes between SR 18 and Chamberlaine Way in the City of Adelanto. Proposed improvements also include operational enhancements such as adding turn lanes and signal upgrades at intersections. Future improvements include: Phase 2 widening from Chamberlaine to Desert Flower Road and Phase 3 widening from I-15 to SR 18. Environmental clearance was approved for all phases in 2010.

Project Lead Agency: Caltrans (PS&E) / SBCTA (ROW and Construction)

Current Development Phase: Construction

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in the table below.

TABLE 5.2.2

US 395 WIDENING PHASE 1 (1,000s)

FUNDING	PHASE					TOTAL
	PM	PA/ED	PS&E	ROW	CON	
MEASURE I	\$917			\$641	\$200	\$1,758
CITY LOCAL		\$600				\$600
STIP				\$5,550	\$9,333	\$14,883
SHOPP					\$214	\$214
TCEP					\$24,265	\$24,265
REPURP EARMARK					\$2,558	\$2,558
STP		\$1,400	\$6,015	\$5,950		\$13,365
DEMO				\$361		\$361
TOTAL	\$917	\$2,000	\$6,015	\$12,502	\$36,570	\$58,004

TOWN OF APPLE VALLEY PROJECTS

2 APPLE VALLEY ROAD AND SR 18 REALIGNMENT

Project Description: The project will realign and construct intersection improvements at Apple Valley Road and SR 18 in the Town of Apple Valley. The project is currently undergoing a revalidation of the environmental document and is expected to begin construction in Fall 2019.

Project Lead Agency: Town of Apple Valley

Current Development Phase: PS&E

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in the table below.

TABLE 5.2.3

APPLE VALLEY ROAD AT SR 18 REALIGNMENT (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I				\$4,337	\$4,337
LOCAL DIF				\$850	\$850
LPP COMPETITIVE				\$4,450	\$4,450
TOTAL				\$9,637	\$9,637

3 BEAR VALLEY BRIDGE OVER MOJAVE RIVER

Project Description: The project will consist of rehabilitation and replacement of Bear Valley Road Bridge over the Mojave River.

Project Lead Agency: Town of Apple Valley

Current Development Phase: PS&E

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in the table below.

TABLE 5.2.4

BEAR VALLEY BRIDGE OVER MOJAVE RIVER (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I				\$1,916	\$1,916
LOCAL DIF	\$132	\$186	\$78	\$2,342	\$2,737
HBP	\$1,018	\$1,432	\$602	\$32,865	\$35,917
TOTAL	\$1,150	\$1,618	\$680	\$37,123	\$40,571

4 YUCCA LOMA ROAD WIDENING FROM APPLE VALLEY ROAD TO RINCON ROAD

Project Description: The project will widen Yucca Loma Road from two to four lanes from Apple Valley Road to Rincon Road.

Project Lead Agency: Town of Apple Valley

Current Development Phase: ROW

Complete for Beneficial Use: 2023

Funding Plan: The project is funded as shown in the table below.

TABLE 5.2.5

YUCCA LOMA ROAD WIDENING, APPLE VALLEY TO RINCON (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I		\$225		\$2,632	\$2,857
LOCAL DIF		\$275		\$3,217	\$3,492
TOTAL		\$500		\$5,849	\$6,349

CITY OF HESPERIA PROJECTS

5 RANCHERO ROAD CORRIDOR WIDENING

Project Description: The project will widen and reconstruct Ranchero Road from four to six lanes with a center median from 0.3 miles east of Mariposa to 7th Street at various locations. Improvements include widening of the bridge over the California Aqueduct and at-grade UPRR railroad crossing improvements.

- The current estimate includes the cost for providing a 10-ft vertical clearance over the California Aqueduct.
- Completion of the project is dependent on the availability of developer funding from both the County of San Bernardino and the City of Hesperia.

Project Lead Agencies: City of Hesperia and County of San Bernardino

Current Development Phase: ROW

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in the table below.

TABLE 5.2.6

RANCHERO ROAD CORRIDOR WIDENING (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I			\$2,680	\$3,971	\$6,651
LPP FORMULA				\$12,678	\$12,678
CITY DIF	\$424	\$188	\$1,670	\$10,086	\$12,368
CITY LOCAL	\$629	\$824			\$1,452
LPP COMPETITIVE				\$3,900	\$3,900
COUNTY DIF	\$307	\$1,318	\$1,075	\$4,887	\$7,587
TOTAL	\$1,359	\$2,329	\$5,425	\$35,523	\$44,636

6 MAIN STREET WIDENING FROM US 395 TO 11TH AVENUE, PHASE 1

Project Description: Phase 1 of the project is to widen the Main Street Bridge over the California Aqueduct from four to six lanes.

Project Lead Agency: City of Hesperia

Current Development Phase: Planning

Complete for Beneficial Use: 2025

Funding Plan: The project is funded as shown in the table below.

TABLE 5.2.7

MAIN STREET WIDENING, US 395 TO 11TH AVENUE - PHASE 1 (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I			\$755	\$3,857	\$4,612
LOCAL DIF	\$72	\$490	\$1,082	\$5,528	\$7,171
TOTAL	\$139	\$980	\$1,837	\$9,385	\$12,340

7 MAIN STREET WIDENING FROM US 395 TO 11TH AVENUE, PHASE 2

Project Description: Phase 2 of the project is to widen and reconstruct Main Street at various locations from four lanes to six lanes with a center median.

Project Lead Agency: City of Hesperia

Current Development Phase: Planning

Complete for Beneficial Use: 2032

Funding Plan: The project is funded as shown in the table below.

TABLE 5.2.8

MAIN STREET WIDENING, US 395 TO 11TH AVENUE - PHASE 2 (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I			\$2,173	\$9,739	\$11,912
CITY DIF	\$353	\$267	\$3,114	\$13,957	\$17,691
CITY LOCAL	\$353	\$267			\$619
TOTAL	\$705	\$534	\$5,288	\$23,696	\$30,222

CITY OF VICTORVILLE PROJECTS

8 YUCCA LOMA CORRIDOR – GREEN TREE BOULEVARD EXTENSION

Project Description: This project is the final segment of the Yucca Loma Corridor and will construct Green Tree Boulevard from Hesperia Road to Ridgecrest Road/Yates Road, a new four-lane road including a bridge over the BNSF railroad.

- If it is necessary to bond against Measure I to accommodate the DIF loan, the City of Victorville must approve and repay the bond costs.

Project Lead Agency: City of Victorville with County of San Bernardino

Current Development Phase: ROW

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in the table below.

TABLE 5.2.9

YUCCA LOMA CORRIDOR GREEN TREE EXTENSION (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I			\$1,282		\$1,282
FED EARMARK		\$3,188	\$760		\$3,948
STP				\$8,903	\$8,903
HIP				\$7,544	\$7,544
REPURP EARMARK				\$4,219	\$4,219
CITY DIF				\$1,366	\$1,366
CITY DIF LOAN				\$12,529	\$12,529
APPLE VLY/COUNTY DIF REPAY				\$4,307	\$4,307
COUNTY DIF			\$9	\$583	\$592
TOTAL		\$3,188	\$2,050	\$39,451	\$44,689

COUNTY OF SAN BERNARDINO

9 ROCK SPRINGS BRIDGE OVER MOJAVE RIVER

Project Description: The project will replace an existing two-lane low-water crossing with a new two-lane bridge.

Project Lead Agency: County of San Bernardino

Current Development Phase: PS&E

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in the table below.

TABLE 5.2.10

ROCK SPRINGS ROAD BRIDGE OVER MOJAVE RIVER (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I		\$245	\$26	\$1,187	\$1,457
LOCAL DIF	\$1,433	\$327	\$34	\$1,586	\$3,380
HBP			\$460	\$14,938	\$15,398
TOTAL	\$1,433	\$572	\$520	\$17,710	\$20,235

10 PHELAN ROAD WIDENING, SR 138 TO HESPERIA CITY LIMITS

Project Description: The project is located on Phelan Road from SR 138 to Los Banos Avenue (12.1 miles) in the Phelan area. The project will widen Phelan Road from two to five lanes, which includes one continuous left turn lane, and will mill and overlay the existing pavement with asphalt concrete.

Project Lead Agency: County of San Bernardino

Current Development Phase: Planning

Complete for Beneficial Use: 2024

Funding Plan: The project is funded as shown in the table below.

TABLE 5.2.11

PHELAN ROAD WIDENING, SR 138 TO HESPERIA CITY LIMITS (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I	\$3,786	\$2,332			\$6,118
STP			\$2,574	\$47,344	\$49,918
TOTAL	\$3,786	\$2,332	\$2,574	\$47,344	\$56,035

5.3 VICTOR VALLEY SENIOR AND DISABLED TRANSIT SERVICE PROGRAM

5.3.1 BACKGROUND

The Measure I Expenditure Plan included \$43 million estimated revenue for the Victor Valley Senior and Disabled Transit Service Program. Note beginning in Fiscal Year 2015/2016 and every five years thereafter, the Local Street Projects Program decreases by 0.5% and the Senior and Disabled Transit Service Program increases by 0.5% up to a total of 7.5% of the Measure I Revenue in the Victor Valley Subarea unless each local jurisdiction within the Subarea makes a finding that such increase is not required to address unmet transit needs of senior and disabled transit users.

Detailed implementation policies can be found in the Victor Valley Strategic Plan Policy 40014.

5.3.2 CURRENT STATUS

In September 2017, the SBCTA Board approved a Strategic Plan update including a revision to Policy 40014 to allow funds approved for allocation to be passed through monthly to the Victor Valley Transit Authority (VVTA) as the transit operator for the Victor Valley Subarea. Program funds are used on services and projects identified as eligible expenditures for senior citizens and persons with disabilities, consistent with VVTA's Short Range Transit Plan. In March 2019, the SBCTA Board accepted direction

from the Mountain/Desert Policy Committee that no finding should be made against the Program increase, and therefore beginning April 2020, the Program will increase 0.5% from 5.5% to 6.0% of the Victor Valley Subarea revenue. The 10-Year Delivery Plan assumes the Program revenues will increase to 6.5% in April 2025. Unlike the San Bernardino Valley Subarea, there is no set-aside for a Consolidated Transportation Services Agency (CTSA) required in the Victor Valley Subarea, although VVTA is designated as the CTSA for their service area. The current revenue estimate for the next ten years is \$13 million.

In addition to these pass through Program funds, SBCTA passes through and/or allocates shares of Senate Bill 1 State of Good Repair funds, Low Carbon Transit Operations Program funds, State Transit Assistance funds, Local Transportation Funds, and Congestion Mitigation and Air Quality (CMAQ) funds to VVTA for additional needs identified in its SRTP as part of annual capital and operating subsidies. Historically a portion of the Local Transportation Funds allocated to VVTA is returned to the local jurisdictions for local streets and roads purposes; however, as the need for fare subsidy increases at a rate higher than the revenue increases, this will likely not be the case in the coming years.

5.4 VICTOR VALLEY PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT SYSTEMS PROGRAM

5.4.1 BACKGROUND

The Victor Valley Project Development and Traffic Management Systems Program is funded by 2% of the revenue collected within the Victor Valley Subarea, which was estimated to be \$17 million, and reserved in this special account. Allocation to projects within this Program is at the full discretion of Victor Valley Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board. The Program funds may be used for costs associated with corridor studies and project study reports, projects to improve traffic flow and maximize use of transportation facilities, congestion management, commuter assistance programs, and projects which contribute to environmental enhancement associated with highway facilities. Detailed policies such as project eligibility can be found in the Victor Valley Strategic Plan Policy 40015.

5.4.2 CURRENT STATUS

The total cost of the Program is to be covered by the anticipated revenue allowing for the Program to be run on a pay-as-you-go basis. This program also annually supports SBCTA staff subregional planning and project development efforts. To that end, the 10-Year Delivery Plan includes \$400,000 of Program funds for a SR 18/SR 138 Corridor Study that was recommended by the High Desert Corridor Joint Powers Authority at its December 2018 meeting. The Study will be a joint effort of SBCTA and Los Angeles Metropolitan Transportation Authority to identify a possible near-term improvement to east-west flows between the Antelope and Victor Valleys while waiting for funding to materialize for the full High Desert Corridor project. The current revenue estimate for the next ten years is \$4 million.



6

***NORTH DESERT SUBAREA
PROGRAMS***

**NORTH DESERT
LOCAL STREET PROJECTS PROGRAM**

**NORTH DESERT
MAJOR LOCAL HIGHWAY PROJECTS
PROGRAM**

**NORTH DESERT
SENIOR AND DISABLED TRANSIT
SERVICE PROGRAM**

**NORTH DESERT
PROJECT DEVELOPMENT AND
TRAFFIC MANAGEMENT SYSTEMS
PROGRAM**

6.1 NORTH DESERT LOCAL STREET PROJECTS PROGRAM

6.1.1 BACKGROUND

The Measure I Expenditure Plan estimated \$65 million of Measure I revenue would be available for local street projects. Seventy percent (less 2% retained by SBCTA for the Project Development and Traffic Management Systems Program) of the funds collected in the Subarea would be distributed on a monthly basis to the jurisdiction based on population (50%) and tax generation (50%).

The Strategic Plan established policies for eligible expenditures, funding allocations, and adoption and development of the local jurisdiction's Five-Year Capital Improvement Plans. Detailed information can be found in the Rural Mountain/Desert Strategic Plan Policy 40016.

6.1.2 CURRENT STATUS

In accordance with the Expenditure Plan and the Strategic Plan, the Measure I funds apportioned to the Local Street Projects Program are included in the 10-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects are included in this Plan. The current estimate for the Program over the next ten years is \$35 million.

6.2 NORTH DESERT MAJOR LOCAL HIGHWAY PROJECTS PROGRAM

6.2.1 BACKGROUND

The Measure I Expenditure Plan included contributions to projects along major streets and highways serving as current or future primary routes of travel within the Subarea, which may include but are not limited to contributions to SR 58 widening and improvements, US 395 widening and improvements, and grade separations at Lenwood Road in Barstow and Vista Road/Shadow Mountain Road in Helendale. The total Measure I available for these projects was estimated at \$24 million, which would need to be supplemented with a combination of development fees and State and Federal funds.

Through the development of the Strategic Plan, candidate project lists were developed with the assistance of the North Desert Subarea jurisdiction representatives that included arterial projects, grade separation projects, and bridge replacement projects. Measure I allocation to projects within this Program is at the full discretion of North Desert Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board.

6.2.2 CURRENT STATUS

The current estimate for the Program over the next ten years is \$13 million. During development of the 2019 Delivery Plan, the North Desert Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board established and approved a list of priority projects for inclusion in the 10-Year Delivery Plan. The overall cost and revenue requirements for the Major Local Highway Projects Program are shown in Table 6.2.1. Project details are presented in Section 6.2.3. The estimated uncommitted balance through 2040 is \$27 million for this Program. The estimated uncommitted balance of State and Federal funds through 2040 is \$104 million for this Program. More

information about projects completed since the inception of Measure I 2010-2040 can be found in Section 11.

TABLE 6.2.1

**NORTH DESERT MAJOR LOCAL HIGHWAY PROJECTS PROGRAM
(COST AND REVENUE REQUIREMENTS) (1,000s)**

PROJECT	COST	FUNDING SOURCE	REVENUE
1 Rimrock Road Rehabilitation	\$749	Measure I	\$21,320
2 North First Avenue Bridge over BNSF	\$72,915	State/Federal Funds	\$129,083
3 North First Avenue Bridges over Mojave River & Overflow	\$64,550	Local/Private Funds	\$440
4 Irwin Road Rehabilitation	\$630	TOTAL:	\$150,844
5 National Trails Highway Resurfacing	\$3,600		
6 National Trails Highway Bridges <20' Replacement	\$8,400		
TOTAL:	\$150,844		

The project locations are depicted in Figure 6.2.1. The project schedules are included as Figure 6.2.2.

FIGURE 6.2.1

NORTH DESERT MAJOR LOCAL HIGHWAY PROJECTS PROGRAM MAP

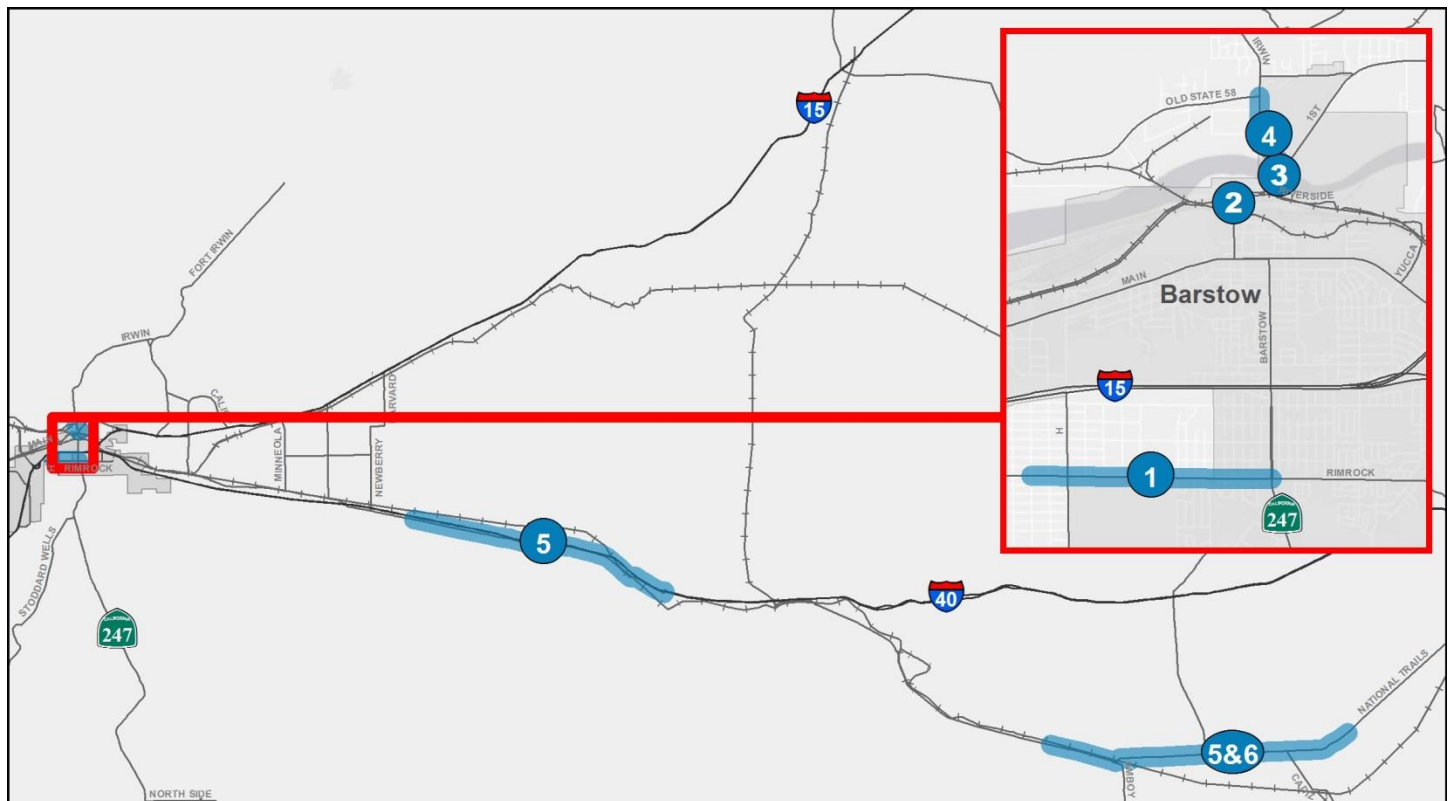
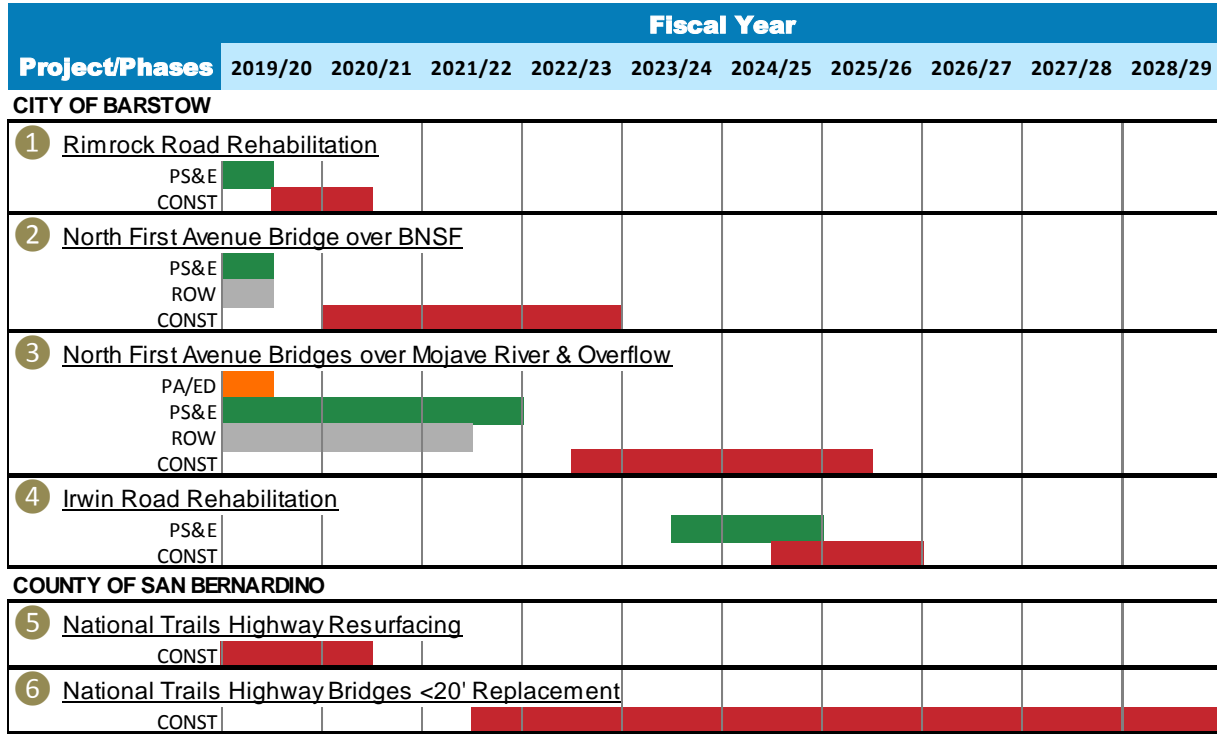


FIGURE 6.2.2

NORTH DESERT MAJOR LOCAL HIGHWAY PROJECTS PROGRAM SCHEDULE



6.2.3 PROJECT DETAILS

CITY OF BARSTOW

1 RIMROCK ROAD REHABILITATION

Project Description: The project consists of pavement rehabilitation and resurfacing on Rimrock Road from Barstow Road to Avenue J.

Project Lead Agency: City of Barstow

Current Development Phase: PS&E

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in the table below.

TABLE 6.2.2

RIMROCK ROAD REHABILITATION (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I		\$75		\$674	\$749
TOTAL		\$75		\$674	\$749

2 NORTH FIRST AVENUE BRIDGE OVER BNSF

Project Description: This project will replace an existing bridge on North First Avenue over the Burlington Northern Santa Fe railroad.

Project Lead Agency: City of Barstow

Current Development Phase: PS&E and ROW

Complete for Beneficial Use: 2023

Funding Plan: The project is funded as shown in the table below.

TABLE 6.2.3

NORTH FIRST AVENUE BRIDGE OVER BNSF (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I		\$551	\$1,835	\$5,438	\$7,824
HBP	\$1,872	\$4,249	\$14,165	\$41,971	\$62,258
REPURP EARMARK				\$2,591	\$2,591
CITY LOCAL	\$243				\$243
TOTAL	\$2,115	\$4,800	\$16,000	\$50,000	\$72,915

3 NORTH FIRST AVENUE BRIDGES OVER MOJAVE RIVER & OVERFLOW

Project Description: This project will replace existing bridges on North First Avenue over the Mojave River and the Mojave River Overflow.

Project Lead Agency: City of Barstow

Current Development Phase: PA/ED

Complete for Beneficial Use: 2025

Funding Plan: The project is funded as shown in the table below.

TABLE 6.2.4

NORTH FIRST AVENUE BRIDGES OVER MOJAVE RIVER & OVERFLOW (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I	\$315	\$528	\$424		\$1,267
HBP	\$2,435	\$4,072	\$3,276	\$47,364	\$57,146
STP				\$6,136	\$6,136
TOTAL	\$2,750	\$4,600	\$3,700	\$53,500	\$64,550

4 IRWIN ROAD REHABILITATION

Project Description: The project consists of pavement rehabilitation and resurfacing on Irwin Road from First Avenue to Old Hwy 58.

Project Lead Agency: City of Barstow

Current Development Phase: Planning

Complete for Beneficial Use: 2026

Funding Plan: The project is funded as shown in the table below.

TABLE 6.2.5

IRWIN ROAD REHABILITATION (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I		\$43		\$587	\$630
TOTAL		\$43		\$587	\$630

COUNTY OF SAN BERNARDINO

5 NATIONAL TRAILS HIGHWAY RESURFACING

Project Description: The project is located on 2 segments of National Trails Highway: Segment 1 between Fort Cady Road and Lavic Road (18.3 miles) and Segment 2 between 4.43 miles west of Amboy Road to 17 miles east of Amboy Road (21.43 miles). The scope of work for Segment 1 is maintenance overlay (just under 1") and for Segment 2 is scrub seal. The work will be performed by County forces as a maintenance project.

Project Lead Agency: County of San Bernardino

Current Development Phase: Construction

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown in the table below.

TABLE 6.2.6

NATIONAL TRAILS HIGHWAY RESURFACING (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I				\$3,402	\$3,402
LOCAL	\$10			\$188	\$198
TOTAL	\$10			\$3,590	\$3,600

6 NATIONAL TRAILS HIGHWAY BRIDGES <20' REPLACEMENT

Project Description: The project will replace bridges less than 20 feet in length on National Trails Highway from 4.43 miles west of Amboy Road to 17 miles east of Amboy Road (21.43 miles).

- Measure I is a contribution to a larger project cost to be determined and funded by the County of San Bernardino.

Project Lead Agency: County of San Bernardino

Current Development Phase: Planning

Complete for Beneficial Use: 2023 to 2029

Funding Plan: The project is funded as shown in the table below.

TABLE 6.2.7

NATIONAL TRAILS HIGHWAY BRIDGES REPLACEMENT (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I				\$8,400	\$8,400
TOTAL				\$8,400	\$8,400

6.3 NORTH DESERT SENIOR AND DISABLED TRANSIT SERVICE PROGRAM

6.3.1 BACKGROUND

The Measure I Expenditure Plan included \$5 million estimated revenue for the North Desert Senior and Disabled Transit Service Program. The amount of Measure I revenue apportioned to this Program will be 5% initially. Jurisdictions in the Rural Mountain/Desert Subareas have the option to increase the revenue to the Senior and Disabled Transit Service Program, although that has not been done to date. All increases above the initial 5% shall come from the North Desert Local Street Projects Program.

Detailed implementation policies can be found in the Rural Mountain/Desert Strategic Plan Policy 40018.

6.3.2 CURRENT STATUS

In September 2017, the SBCTA Board approved a Strategic

Plan update including a revision to Policy 40018 to allow funds approved for allocation to be passed through monthly to the transit operator and/or Consolidated Transportation Services Agency (CTSA) within each of the Rural Mountain/Desert Subareas. Program funds in the North Desert Subarea are passed through to Victor Valley Transit Authority (VVTA), which provides transit service to Barstow and unincorporated rural areas of the North Desert Subarea, to be used on services and projects identified as eligible expenditures for senior citizens and persons with disabilities, consistent with the operator's Short Range Transit Plans. Unlike the San Bernardino Valley Subarea, there is no set-aside for a CTSA required in the North Desert Subarea, although VVTA is designated as the CTSA for their service area. The current revenue estimate for the next ten years is \$3 million.

6.4 NORTH DESERT PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT SYSTEMS PROGRAM

6.4.1 BACKGROUND

The North Desert Project Development and Traffic Management Systems Program is funded by 2% of the revenue collected within the North Desert Subarea, which was estimated to be \$2 million, and reserved in this special account. Allocation to projects within this Program is at the full discretion of North Desert Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board. The Program funds may be used for costs associated with corridor studies and project study reports, projects to improve traffic flow and maximize use of transportation facilities, congestion management, commuter assistance programs, and projects that contribute to environmental enhancement associated with highway facilities.

Detailed policies such as project eligibility can be found in the Rural Mountain/Desert Strategic Plan Policy 40019.

6.4.2 CURRENT STATUS

The total cost of the Program is to be covered by the anticipated revenue allowing for the Program to be run on a pay-as-you-go basis. This program also annually supports SBCTA staff subregional planning and project development efforts. The current revenue estimate for the next ten years is \$1 million.



MOUNTAIN SUBAREA PROGRAMS

**MOUNTAINS
LOCAL STREET PROJECTS PROGRAM**

**MOUNTAINS
MAJOR LOCAL HIGHWAY PROJECTS
PROGRAM**

**MOUNTAINS
SENIOR AND DISABLED TRANSIT
SERVICE PROGRAM**

**MOUNTAINS
PROJECT DEVELOPMENT AND
TRAFFIC MANAGEMENT SYSTEMS
PROGRAM**

7.1 MOUNTAINS LOCAL STREET PROJECTS PROGRAM

7.1.1 BACKGROUND

The Measure I Expenditure Plan estimated \$81 million of Measure I revenue to be available for local street projects. Seventy percent (less 2% retained by SBCTA for the Project Development and Traffic Management Systems Program) of the funds collected in the Subarea would be distributed on a monthly basis to the jurisdiction based on population (50%) and tax generation (50%).

The Strategic Plan established policies for eligible expenditures, funding allocations, and adoption and development of the local jurisdiction's Five-Year Capital Improvement Plans. Detailed information can be found in the Rural Mountain/Desert Strategic Plan Policy 40016.

7.1.2 CURRENT STATUS

In accordance with the Expenditure Plan and the Strategic Plan, the Measure I funds apportioned to the Local Street Projects Program are included in the 10-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects are included in this Plan. The current estimate for the Program over the next ten years is \$16 million.

7.2 MOUNTAINS MAJOR LOCAL HIGHWAY PROJECTS PROGRAM

7.2.1 BACKGROUND

The Measure I Expenditure Plan included contributions to projects along major streets and highways serving as current or future primary routes of travel within the Subarea, which may include but are not limited to contributions to SR 18, SR 38 and SR 330 safety and traffic flow improvements, SR 138 and SR 18 safety and intersection improvements, and realignment and rehabilitation of Daley Canyon Road and Kuffle Canyon Road. The total Measure I available for these projects was estimated at \$30 million, which would need to be supplemented with a combination of development fees and State and Federal funds.

Through the development of the Strategic Plan, candidate project lists were developed with the assistance of the Mountains Subarea jurisdiction representatives that included arterial projects and bridge replacement projects. Measure I allocation to projects within this Program is at the full discretion of the Mountains Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board.

7.2.2 CURRENT STATUS

The stakeholders in the Mountains Subarea completed the Mountain Area Transportation Study (MATS) in 2017. Its goal was to identify the transportation needs of the mountain areas including Wrightwood, Lake Arrowhead, Crestline, Running Springs, and Big Bear Lake. The

mountain areas experience different trends in transportation than the rest of the county. This is due to the seasonal nature of the traffic and to dealing with the mountainous terrain. This study identified deficiencies in the current system and developed potential solutions to these problems. It provided guidelines for local agencies to use in collaboration on funding, responsibility, and project schedules with a list of priority projects for implementation. Further discussions will occur on these recommendations and some of these projects could ultimately be included in the 10-Year Delivery Plan and/or Caltrans, SBCTA, and local programming documents for implementation.

The current revenue estimate for the next ten years is \$6 million. During the development of the 2019 Update to the Delivery Plan, the Mountains Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board established and approved a list of priority projects for inclusion in the 10-Year Delivery Plan. The overall cost and revenue requirements for the Major Local Highway Projects Program are shown in Table 7.2.1. Project details are presented in Section 7.2.3. The estimated uncommitted balance through 2040 is \$13 million for this Program. The estimated uncommitted balance of State and Federal funds through 2040 is \$58 million for this Program. More information about projects completed since the inception of Measure I 2010-2040 can be found in Section 11.

TABLE 7.2.1

**MOUNTAINS MAJOR LOCAL HIGHWAY PROJECTS PROGRAM
(COST AND REVENUE REQUIREMENTS) (1,000s)**

PROJECT	COST	FUNDING SOURCE	REVENUE
1 Arrowbear Drive Bridge at Arrowbear Spillway	\$3,000	Measure I	\$4,500
2 Moonridge Road Realignment and Roundabouts - AEA	\$4,500	Local Funds	\$3,000
TOTAL:	\$7,500	TOTAL:	\$7,500

The project locations are depicted in Figure 7.2.1. The project schedules are included as Figure 7.2.2.

FIGURE 7.2.1

MOUNTAINS MAJOR LOCAL HIGHWAY PROJECTS PROGRAM MAP

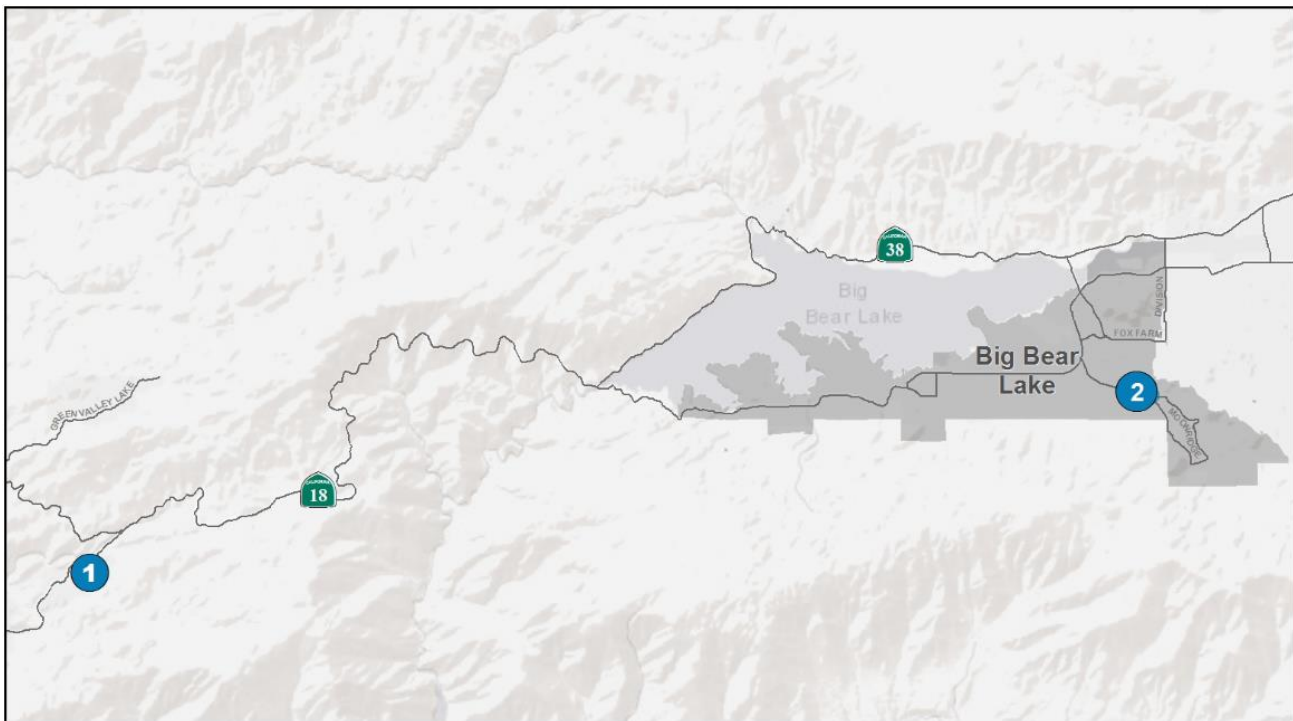


FIGURE 7.2.2

MOUNTAINS MAJOR LOCAL HIGHWAY PROJECTS PROGRAM SCHEDULE

Project/Phases	Fiscal Year									
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
COUNTY OF SAN BERNARDINO										
1 Arrowbear Drive Bridge at Arrowbear Spillway										
PA/ED	█									
PS&E		█	█	█						
ROW			█	█						
CONST					█	█				
CITY OF BIG BEAR LAKE										
2 Moonridge Road Realignment and Roundabouts - AEA										
AEA						█				

7.2.3 PROJECT DETAILS

COUNTY OF SAN BERNARDINO

1 ARROWBEAR DRIVE BRIDGE AT ARROWBEAR SPILLWAY

Project Description: The project is located at the spillway of Arrowbear Lake on Arrowbear Drive in the community of Arrowbear. The scope of work is bridge replacement. Studies are underway to determine whether replacement of the spillway is necessary in addition to roadway replacement.

Project Lead Agency: County of San Bernardino

Current Development Phase: PA/ED

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in the table below.

TABLE 7.2.2

ARROWBEAR DRIVE BRIDGE AT ARROWBEAR SPILLWAY (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	Const	
MEASURE I	\$200	\$425	\$179	\$2,196	\$3,000
TOTAL	\$200	\$425	\$179	\$2,196	\$3,000

CITY OF BIG BEAR LAKE

2 MOONRIDGE ROAD REALIGNMENT AND ROUNDABOUTS – ADVANCE EXPENDITURE AGREEMENT

Project Description: The project is primary arterial reconstruction, including two roundabouts, bicycle and pedestrian facilities, bus stops, and lighting. An AEA will be executed between SBCTA and City of Big Bear Lake in which the City will advance the funds necessary to complete the project with the understanding that SBCTA will repay its contribution when sufficient Mountains Subarea Major Local Highway Projects Program funds become available. The estimated year of AEA reimbursement is Fiscal Year 2024/2025.

Project Lead Agency: City of Big Bear Lake

Current Development Phase: PS&E

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in the table below.

TABLE 7.2.3

MOONRIDGE ROAD REALIGNMENT AND ROUNDABOUTS – AEA (1,000s)

FUNDING	PHASE					TOTAL
	PA/ED	PS&E	ROW	CON	AEA	
MEASURE I					\$1,500	\$1,500
LOCAL		\$300		\$2,700		\$3,000
TOTAL		\$300		\$2,700	\$1,500	\$4,500

7.3 MOUNTAINS SENIOR AND DISABLED TRANSIT SERVICE PROGRAM

7.3.1 BACKGROUND

The Measure I Expenditure Plan included \$6 million estimated revenue for the Mountains Senior and Disabled Transit Service Program. The amount of Measure I revenue apportioned to this Program will be 5% initially. Jurisdictions in the Rural Mountain/Desert Subareas have the option to increase the revenue to the Senior and Disabled Transit Service Program, although that has not been done to date. All increases above the initial 5% shall come from the Mountains Local Street Projects Program.

Detailed implementation policies can be found in the Rural Mountain/Desert Strategic Plan Policy 40018.

7.3.2 CURRENT STATUS

In September 2017, the SBCTA Board approved a Strategic Plan update including a revision to Policy 40018 to allow funds approved for allocation to be passed through monthly

to the transit operator and/or Consolidated Transportation Services Agency (CTSA) within each of the Rural Mountain/Desert Subareas. Program funds in the Mountains Subarea are passed through to Mountain Transit to be used on services and projects identified as eligible expenditures for senior citizens and persons with disabilities, consistent with the operator's Short Range Transit Plans (SRTP). Unlike the San Bernardino Valley Subarea, there is no set-aside for a CTSA required in the Mountains Subarea. The current revenue estimate for the next ten years is \$1 million.

In addition to these pass through Program funds, SBCTA passes through and/or allocates shares of Senate Bill 1 State of Good Repair funds, Low Carbon Transit Operations Program funds, State Transit Assistance funds, Local Transportation Funds, and Congestion Mitigation and Air Quality (CMAQ) to Mountain Transit for additional needs identified in its SRTP as part of annual capital and operating subsidies.

7.4 MOUNTAINS PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT SYSTEMS PROGRAM

7.4.1 BACKGROUND

The Mountains Project Development and Traffic Management Systems Program is funded by 2% of the revenue collected within the Mountains Subarea, which was estimated to be \$2 million, and reserved in this special account. Allocation to projects within this Program is at the full discretion of Mountains Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board. The Program funds may be used for costs associated with corridor studies and project study reports, projects to improve traffic flow and maximize use of transportation facilities, congestion management, commuter assistance programs, and projects that contribute to environmental enhancement associated with highway facilities.

Detailed policies such as project eligibility can be found in the Rural Mountain/Desert Strategic Plan Policy 40019.

7.4.2 CURRENT STATUS

The total cost of the Program is to be covered by the anticipated revenue allowing for the Program to be run on a pay-as-you-go basis. This program supported the development of the Mountain Area Transportation Study discussed in Section 7.2.2 and also annually supports SBCTA staff subregional planning and project development efforts. The current revenue estimate for the next ten years is \$465,000.



MORONGO BASIN SUBAREA PROGRAMS

**MORONGO BASIN
LOCAL STREET PROJECTS PROGRAM**

**MORONGO BASIN
MAJOR LOCAL HIGHWAY PROJECTS
PROGRAM**

**MORONGO BASIN
SENIOR AND DISABLED TRANSIT
SERVICE PROGRAM**

**MORONGO BASIN
PROJECT DEVELOPMENT**

8.1 MORONGO BASIN LOCAL STREET PROJECTS PROGRAM

8.1.1 BACKGROUND

The Measure I Expenditure Plan estimated \$85 million of Measure I revenue would be available for local street projects. Seventy percent (less 2% retained by SBCTA for the Project Development and Traffic Management Systems Program) of the funds collected in the Subarea would be distributed on a monthly basis to the jurisdiction based on population (50%) and tax generation (50%).

The Strategic Plan established policies for eligible expenditures, funding allocations, and adoption and development of the local jurisdiction's Five-Year Capital Improvement Plans. Detailed information can be found in the Rural Mountain/Desert Strategic Plan Policy 40016.

8.1.2 CURRENT STATUS

In accordance with the Expenditure Plan and the Strategic Plan, the Measure I funds apportioned to the Local Street Projects Program are included in the 10-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects are included in this Plan. The current estimate for the Program over the next ten years is \$19 million.

8.2 MORONGO BASIN MAJOR LOCAL HIGHWAY PROJECTS PROGRAM

8.2.1 BACKGROUND

The Measure I Expenditure Plan included contributions to projects along major streets and highways serving as current or future primary routes of travel within the Subarea, which may include but are not limited to contributions to SR 62 and SR 247 widening and safety improvements and SR 62 widening and safety improvements between Morongo Basin and the Coachella Valley. The total Measure I available for these projects was estimated at \$31 million, which would need to be supplemented with a combination of development fees and State and Federal funds.

Through the development of the Strategic Plan, candidate project lists were developed with the assistance of the Morongo Basin Subarea jurisdiction representatives that included arterial projects and intersection improvements and signalization. Measure I allocation to projects within this Program is at the full discretion of Morongo Basin Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board.

The current revenue estimate for the next ten years is \$7 million. During development of the 2019 Delivery Plan, the Morongo Basin Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board established and approved a list of priority projects for inclusion in the 10-Year Delivery Plan. The overall cost and revenue requirements for the Major Local Highway Projects Program are shown in Table 8.2.1. Project details are presented in Section 8.2.3. The estimated uncommitted balance through 2040 is \$13 million for this Program. The estimated uncommitted balance of State and Federal funds through 2040 is \$67 million for this Program. More information about projects completed since the inception of Measure I 2010-2040 can be found in Section 11.

8.2.2 CURRENT STATUS

The stakeholders in the Morongo Basin Subarea completed the Morongo Basin Area Transportation Study (MBATS) in 2015. This study identified deficiencies in the current system and developed potential solutions to these problems. An implementation schedule was identified that recommends segment prioritization and recommended implementation dates in order to provide sufficient capacity for the future traffic demand. Further discussions will occur on these recommendations and some of these projects could ultimately be included in the 10-Year Delivery Plan and/or Caltrans, SBCTA, and local programming documents for implementation.

TABLE 8.2.1

**MORONGO BASIN MAJOR LOCAL HIGHWAY PROJECTS PROGRAM
(COST AND REVENUE REQUIREMENTS) (1,000s)**

PROJECT	COST	FUNDING SOURCE	REVENUE
1 SR 62, Encelia to Larrea, Phase 1 - AEA	\$1,462	Measure I	\$8,220
2 Split Rock Avenue Flood Channel Crossing	\$2,996	State/Federal Funds	\$21,883
3 SR 62, Encelia to Larrea, Phase 2	\$4,760	Local/Private Funds	\$24,607
4 Indio Avenue Realignment, Yucca Trail to Business Center	\$1,074	TOTAL:	\$54,709
5 Onaga Trail Extension, Camino Del Cielo to Kickapoo Trail	\$1,252		
6 Santa Fe Trail Extension, Apache Trail to Acoma Trail	\$1,132		
7 SR 62 Widening, Sage Avenue to Airway Avenue	\$38,485		
8 Park Boulevard Resurfacing, SR 62 to Alta Loma	\$1,949		
9 Amboy Road Resurfacing, Seg 1 - Bullion Mtn to Ironage	\$1,600		
TOTAL:	\$54,709		

The project locations are depicted in Figure 8.2.1. The Project schedules are included as Figure 8.2.2.

FIGURE 8.2.1

MORONGO BASIN MAJOR LOCAL HIGHWAY PROJECTS PROGRAM MAP

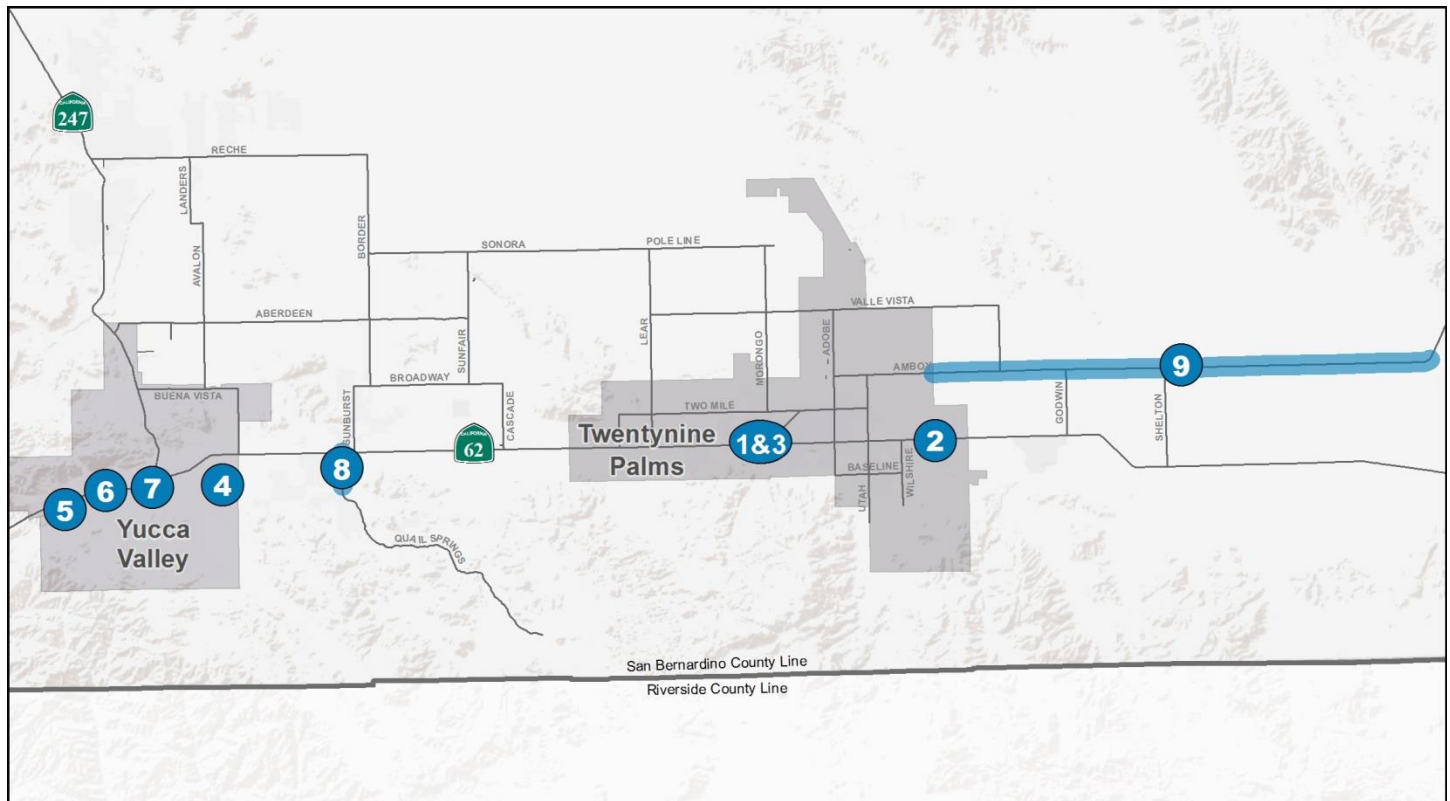


FIGURE 8.2.2

MORONGO BASIN MAJOR LOCAL HIGHWAY PROJECTS PROGRAM SCHEDULE

		Fiscal Year									
Project/Phases		2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
CITY OF TWENTYNINE PALMS											
1	SR 62, Encelia to Larrea, Phase 1 - AEA										
	AEA										
2	Split Rock Avenue Flood Channel Crossing										
	CONST										
3	SR 62, Encelia to Larrea, Phase 2										
	PS&E										
	ROW										
	CONST										
TOWN OF YUCCA VALLEY											
4	Indio Avenue Realignment, Yucca Trail to Business Center										
	PS&E										
	ROW										
	CONST										
5	Onaga Trail Extension, Camino Del Cielo to Kickapoo Trail										
	PS&E										
	ROW										
	CONST										
6	Santa Fe Trail Extension, Apache Trail to Acoma Trail										
	PS&E										
	ROW										
	CONST										
7	SR 62 Widening, Sage Avenue to Airway Avenue										
	PS&E										
	ROW										
	CONST										
	LANDSCAPE										
COUNTY OF SAN BERNARDINO											
8	Park Boulevard Resurfacing, SR 62 to Alta Loma										
	CONST										
9	Amboy Road Resurfacing, Seg 1 - Bullion Mtn to Ironage										
	PA/ED										
	PS&E										
	CONST										

8.2.3 PROJECT DETAILS

CITY OF TWENTYNINE PALMS PROJECTS

① SR 62 STREET IMPROVEMENTS FROM ENCELIA AVENUE TO LARREA STREET, PHASE 1 – ADVANCE EXPENDITURE AGREEMENT

Project Description: This is for repayment of an AEA between SBCTA and City of Twentynine Palms for project expenditures advanced by the City. The AEA amount for repayment is \$400,000 in Morongo Basin Major Local Highway Projects Program funds. The project installed sidewalk infrastructure on the south side of the highway and across a culvert where no sidewalk existed. Pedestrian crossing signage and high-visibility crosswalk pavement markings were installed at Encelia and Larrea Avenues.

Project Lead Agency: City of Twentynine Palms

Current Development Phase: Construction

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in the table below.

TABLE 8.2.2

SR 62 IMPROVEMENTS, ENCELIA AVENUE TO LARREA STREET, PH 1 - AEA (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I					\$400
LOCAL		\$378		\$77	\$455
HSIP				\$607	\$607
TOTAL		\$378		\$684	\$400

② SPLIT ROCK AVENUE AT TWENTYNINE PALMS FLOOD CONTROL CHANNEL

Project Description: The project is to design and construct replacement of existing two-lane low-water crossing with a new two-lane bridge on Split Rock Avenue across the Twentynine Palms flood control channel north of SR 62 from Buena Vista Drive to Bagley Avenue.

Project Lead Agency: City of Twentynine Palms

Current Development Phase: PS&E

Complete for Beneficial Use: 2020

Funding Plan: The project is funded as shown the in table below.

TABLE 8.2.3

SPLIT ROCK AVE AT TWENTYNINE PALMS FLOOD CONTROL CHANNEL (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I				\$286	\$286
HBP		\$422	\$27	\$2,204	\$2,653
CITY LOCAL		\$55	\$3		\$58
TOTAL		\$477	\$30	\$2,490	\$2,996

3 SR 62 STREET IMPROVEMENTS FROM ENCELIA AVENUE TO LARREA STREET, PHASE 2

Project Description: The project will construct curbs, gutters, sidewalks, and raised medians on SR 62 from Encelia Avenue to Larrea Avenue. Project includes minor widening on the north side of SR 62 and widening of the box culvert over the San Bernardino County Flood Control District Twentynine Palms wash.

- Full reimbursement of the Measure I share of construction could be delayed pending availability of sufficient Morongo Basin Subarea Major Local Highway Projects Program funds.

Project Lead Agency: City of Twentynine Palms

Current Development Phase: PS&E

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in the table below.

TABLE 8.2.4

SR 62 IMPROVEMENTS, ENCELIA AVENUE TO LARREA STREET, PH 2 (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I				\$1,638	\$1,638
LOCAL	\$375	\$324	\$112	\$2,310	\$3,122
TOTAL	\$375	\$324	\$112	\$3,948	\$4,760

TOWN OF YUCCA VALLEY PROJECTS

4 INDIO AVENUE REALIGNMENT

Project Description: The project will realign Indio Avenue north of Yucca Trail to align with Indio Avenue south of Yucca Trail. The realignment will be from Yucca Trail to north of Business Center Drive.

Project Lead Agency: Town of Yucca Valley

Current Development Phase: Planning

Complete for Beneficial Use: 2021

Funding Plan: The project is funded as shown in the table below.

TABLE 8.2.5

INDIO AVENUE REALIGNMENT (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I		\$26	\$170	\$341	\$537
LOCAL		\$26	\$170	\$341	\$537
TOTAL		\$52	\$340	\$682	\$1,074

5 ONAGA TRAIL EXTENSION BETWEEN CAMINO DEL CIELO AND KICKAPOO TRAIL

Project Description: The project will connect Onaga Trail between Camino Del Cielo and Kickapoo Trail.

Project Lead Agency: Town of Yucca Valley

Current Development Phase: Planning

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in the table below.

TABLE 8.2.6

ONAGA TRAIL EXTENSION (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I		\$62	\$104	\$460	\$626
LOCAL		\$62	\$104	\$460	\$626
TOTAL		\$124	\$208	\$919	\$1,252

6 SANTA FE TRAIL EXTENSION FROM APACHE TRAIL TO ACOMA TRAIL

Project Description: The project will extend Santa Fe Trail from Apache Trail to Acoma Trail.

Project Lead Agency: Town of Yucca Valley

Current Development Phase: Planning

Complete for Beneficial Use: 2023

Funding Plan: The project is funded as shown in the table below.

TABLE 8.2.7

SANTA FE TRAIL EXTENSION (1000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I		\$22	\$270	\$273	\$566
LOCAL		\$22	\$270	\$273	\$566
TOTAL		\$45	\$541	\$546	\$1,132

7 SR 62 WIDENING, SAGE AVENUE TO AIRWAY AVENUE

Project Description: The project will widen SR 62 from Sage Avenue to Airway Avenue from four to six lanes, install new traffic signals, and relocate SCE utility poles.

Project Lead Agency: Town of Yucca Valley

Current Development Phase: Planning

Complete for Beneficial Use: 2029

Funding Plan: The project is funded as shown in the table below.

TABLE 8.2.8

STATE ROUTE 62 WIDENING (1,000s)

FUNDING	PHASE			TOTAL
	PA/ED	PS&E	ROW	
MEASURE I		\$356	\$263	\$619
LOCAL		\$356	\$263	\$18,623
STP				\$18,623
TOTAL		\$712	\$526	\$37,247

COUNTY OF SAN BERNARDINO PROJECTS

8 PARK BOULEVARD RESURFACING

Project Description: The project includes a full depth reconstruction of the travel ways and overlay of shoulder areas between SR 62 and Alta Loma Drive North. The project is located in the community of Joshua Tree.

Project Lead Agency: County of San Bernardino

Current Development Phase: Construction

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in the table below.

TABLE 8.2.9

PARK BOULEVARD RESURFACING (1,000s)

FUNDING	PHASE			TOTAL
	PA/ED	PS&E	ROW	
MEASURE I	\$4	\$230		\$1,715
TOTAL	\$4	\$230		\$1,949

9 AMBOY ROAD RESURFACING, SEGMENT 1

Project Description: The project is resurfacing approximately 15 miles of Amboy Road from Bullion Mountain Road to 0.12 mile west of Ironage Road, with surface seal, proper preparation work, and shoulder backing where needed.

- Measure I is a contribution to a larger project cost to be determined and funded by the County of San Bernardino.
- Full reimbursement of the Measure I share of construction could be delayed pending availability of sufficient Morongo Basin Subarea Major Local Highway Projects Program funds.

Project Lead Agency: County of San Bernardino

Current Development Phase: Planning

Complete for Beneficial Use: 2025

Funding Plan: The project is funded as shown in the table below.

TABLE 8.2.10

AMBOY ROAD RESURFACING, SEGMENT 1 (1,000s)

FUNDING	PHASE				TOTAL
	PA/ED	PS&E	ROW	CON	
MEASURE I		\$50		\$1,550	\$1,600
TOTAL		\$50		\$1,550	\$1,600

8.3 MORONGO BASIN SENIOR AND DISABLED TRANSIT SERVICE PROGRAM

8.3.1 BACKGROUND

The Measure I Expenditure Plan included \$6 million estimated revenue for the Morongo Basin Senior and Disabled Transit Service Program. The amount of Measure I revenue apportioned to this Program will be 5% initially. Jurisdictions in the Rural Mountain/Desert Subareas have the option to increase the revenue to the Senior and Disabled Transit Service Program, although that has not been done to date. All increases above the initial 5% shall come from the Morongo Basin Local Street Projects Program.

Detailed implementation policies can be found in the Rural Mountain/Desert Strategic Plan Policy 40018.

8.3.2 CURRENT STATUS

In September 2017, the SBCTA Board approved a Strategic Plan update including a revision to Policy 40018 to allow funds approved for allocation to be passed through monthly to the transit operator and/or Consolidated Transportation Services Agency (CTSA) within each of the Rural Mountain/Desert Subareas. Program funds in the Morongo

Basin Subarea are passed through to Morongo Basin Transit Authority (MBTA) to be used on services and projects identified as eligible expenditures for senior citizens and persons with disabilities, consistent with the operator's Short Range Transit Plans (SRTP). Unlike the San Bernardino Valley Subarea, there is no set-aside for a CTSA required in the Morongo Basin Subarea. The current revenue estimate for the next ten years is \$1 million.

In addition to these pass through Program funds, SBCTA passes through and/or allocates shares of Senate Bill 1 State of Good Repair funds, Low Carbon Transit Operations Program funds, State Transit Assistance funds, Local Transportation Funds, and Congestion Mitigation and Air Quality (CMAQ) funds to MBTA for additional needs identified in its SRTP as part of annual capital and operating subsidies. Historically a portion of the Local Transportation Fund allocated to MBTA is returned to the local jurisdictions for local streets and roads purposes; however as the need for fare subsidy increases at a rate higher than the revenue increases, this will likely not be the case in the coming years.

8.4 MORONGO BASIN PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT SYSTEMS PROGRAM

8.4.1 BACKGROUND

The Morongo Basin Project Development and Traffic Management Systems Program is funded by 2% of the revenue collected within the Morongo Basin Subarea, which was estimated to be \$3 million, and reserved in this special account. Allocation to projects within this Program is at the full discretion of Morongo Basin Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board. The Program funds may be used for costs associated with corridor studies and project study reports, projects to improve traffic flow and maximize use of transportation facilities, congestion management, commuter assistance programs, and projects that contribute to environmental enhancement associated with highway facilities.

Detailed policies such as project eligibility can be found in the Rural Mountain/Desert Strategic Plan Policy 40019.

8.4.2 CURRENT STATUS

The total cost of the Program is to be covered by the anticipated revenue allowing for the Program to be run on a pay-as-you-go basis. This Program supported the development of the Morongo Basin Area Transportation Study discussed in Section 8.2.2 and also annually supports SBCTA staff subregional planning and project development efforts. The current revenue estimate for the next ten years is \$548,000.



COLORADO RIVER SUBAREA PROGRAMS

**COLORADO RIVER
LOCAL STREET PROJECTS PROGRAM**

**COLORADO RIVER
MAJOR LOCAL HIGHWAY PROJECTS
PROGRAM**

**COLORADO RIVER
SENIOR AND DISABLED TRANSIT
SERVICE PROGRAM**

**COLORADO RIVER
PROJECT DEVELOPMENT AND
TRAFFIC MANAGEMENT SYSTEMS
PROGRAM**

9.1 COLORADO RIVER LOCAL STREET PROJECTS PROGRAM

9.1.1 BACKGROUND

The Measure I Expenditure Plan estimated \$40 million of Measure I revenue would be available for local street projects. Seventy percent (less 2% retained by SBCTA for the Project Development and Traffic Management Systems Program) of the funds collected in the Subarea would be distributed on a monthly basis to the jurisdiction based on population (50%) and tax generation (50%).

The Strategic Plan established policies for eligible expenditures, funding allocations, and adoption and development of the local jurisdiction's Five-Year Capital

Improvement Plans. Detailed information can be found in the Rural Mountain/Desert Strategic Plan Policy 40016.

9.1.2 CURRENT STATUS

In accordance with the Expenditure Plan and the Strategic Plan, the Measure I funds apportioned to the Local Street Projects Program are included in the 10-Year Delivery Plan with the funds passed through monthly to the local jurisdictions. No individual projects are included in this Plan. The current estimate for the Program over the next ten years is \$2 million.

9.2 COLORADO RIVER MAJOR LOCAL HIGHWAY PROJECTS PROGRAM

9.2.1 BACKGROUND

The Measure I Expenditure Plan included contributions to projects along major streets and highways serving as current or future primary routes of travel within the Subarea, which may include but are not limited to contributions to Needles Highway widening and realignment from I-40 to the Nevada State Line and reconstruction of J Street and construction of a new bridge in Needles connecting I-40 to Arizona. The total Measure I contribution was estimated at \$15 million, which would need to be supplemented with a combination of development fees and State and Federal funds.

Through the development of the Strategic Plan, candidate project lists were developed with the assistance of the Colorado River Subarea jurisdiction representatives that included the projects above. Measure I allocation to projects within this Program is at the full discretion of Colorado River Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board.

estimated uncommitted balance through 2040 is \$2 million for this Program. The estimated uncommitted balance of State and Federal funds through 2040 is \$28 million for this Program. More information about projects completed since the inception of Measure I 2010-2040 can be found in Section 11.

9.2.2 CURRENT STATUS

The current revenue estimate for the next ten years is \$705,000. The reconstruction of J Street in the City of Needles has been completed and improvements to Needles Highway in both the City and the County portions of the Subarea are being considered. During the development of the 2019 Delivery Plan, the Colorado River Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board approved resurfacing a segment of Needles Highway for inclusion in the 10-Year Delivery Plan. The overall cost and revenue requirements for the Major Local Highway Projects Program are shown in Table 9.2.1. Project details are presented in Section 9.2.3. The

TABLE 9.2.1

**COLORADO RIVER MAJOR LOCAL HIGHWAY PROJECTS PROGRAM
(COST AND REVENUE REQUIREMENTS) (1,000s)**

PROJECT	COST	FUNDING SOURCE	REVENUE
① Needles Highway Resurfacing, Segment N - AEA	\$450	Measure I	\$440
TOTAL:	\$450	Local	\$10
		TOTAL:	\$450

The project location is depicted in Figure 9.2.1. The project schedule is included as Figure 9.2.2.

FIGURE 9.2.1

COLORADO RIVER MAJOR LOCAL HIGHWAY PROJECTS PROGRAM MAP



FIGURE 9.2.2

COLORADO RIVER MAJOR LOCAL HIGHWAY PROJECTS PROGRAM SCHEDULE

Project/Phases	Fiscal Year									
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
COUNTY OF SAN BERNARDINO										
① Needles Highway Resurfacing, Segment N - AEA										
AEA										

9.2.3 PROJECT DETAILS

COUNTY OF SAN BERNARDINO

1 NEEDLES HIGHWAY RESURFACING, SEGMENT N – ADVANCE EXPENDITURE AGREEMENT

Project Description: The project will resurface Needles Highway, Segment N, approximately 1.15 miles in length from “N” Street to just north of Balboa Place. An AEA will be executed between SBCTA and the County of San Bernardino in which the County will advance the funds necessary to complete the project with the understanding that SBCTA will repay its contribution when sufficient Colorado River Subarea Major Local Highway Projects Program funds become available. The estimated year of AEA reimbursement is Fiscal Year 2023/2024.

Project Lead Agency: County of San Bernardino

Current Development Phase: Construction

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in the table below.

TABLE 9.2.2

NEEDLES HIGHWAY RESURFACING, SEGMENT N - AEA (1,000s)

FUNDING	PHASE				AEA	TOTAL
	PA/ED	PS&E	ROW	CON		
MEASURE I					\$440	\$440
LOCAL		\$10				\$10
TOTAL		\$10			\$440	\$450

9.3 COLORADO RIVER SENIOR AND DISABLED TRANSIT SERVICE PROGRAM

9.3.1 BACKGROUND

The Measure I Expenditure Plan included \$3 million estimated revenue for the Colorado River Senior and Disabled Transit Service Program. The amount of Measure I revenue apportioned to this Program will be 5% initially. Jurisdictions in the Rural Mountain/Desert Subareas have the option to increase the revenue to the Senior and Disabled Transit Service Program, although that has not been done to date. All increases above the initial 5% shall come from the Colorado River Local Street Projects Program.

Detailed implementation policies can be found in the Rural Mountain/Desert Strategic Plan Policy 40018.

9.3.2 CURRENT STATUS

In September 2017, the SBCTA Board approved a Strategic Plan update including a revision to Policy 40018 to allow funds approved for allocation to be passed through monthly

to the transit operator and/or Consolidated Transportation Services Agency (CTSA) within each of the Rural Mountain/Desert Subareas. Program funds are passed through to the City of Needles to be used for transit services and projects identified as eligible expenditures for senior citizens and persons with disabilities, consistent with its Short Range Transit Plan (SRTP). Unlike the San Bernardino Valley Subarea, there is no set-aside for a CTSA required in the Colorado River Subarea. The current revenue estimate for the next ten years is \$141,000.

In addition to these pass through Program funds, SBCTA also passes through and/or allocates shares of Senate Bill 1 State of Good Repair funds, Local Transportation Funds, and State Transit Assistance funds to the City of Needles for additional needs identified in its SRTP as part of annual capital and operating subsidies.

9.4 COLORADO RIVER PROJECT DEVELOPMENT AND TRAFFIC MANAGEMENT SYSTEMS PROGRAM

9.4.1 BACKGROUND

The Colorado River Project Development and Traffic Management Systems Program is funded by 2% of the revenue collected within the Colorado River Subarea, which was estimated to be \$1 million and reserved in this special account. Allocation to projects within this Program is at the full discretion of Colorado River Subarea representatives, the Mountain/Desert Policy Committee, and the SBCTA Board. The Program funds may be used for costs associated with corridor studies and project study reports, projects to improve traffic flow and maximize use of transportation facilities, congestion management, commuter assistance programs, and projects that contribute to

environmental enhancement associated with highway facilities.

Detailed policies such as project eligibility can be found in the Rural Mountain/Desert Strategic Plan Policy 40019.

9.4.2 CURRENT STATUS

The total cost of the Program is to be covered by the anticipated revenue allowing for the Program to be run on a pay-as-you-go basis. This program also annually supports SBCTA staff subregional planning and project development efforts. The current revenue estimate for the next ten years is \$56,000.



BONDING SUMMARY

BONDING SUMMARY

10. BONDING SUMMARY

A total of 61 projects have been identified for inclusion in the 2019 Update of the 10-Year Delivery Plan at a total estimated cost of \$4.4 billion. The funding includes an estimated \$1.7 billion in Measure I revenue, of which \$632 million is raised by borrowing against future Measure I revenue. Table 10.1 provides a summary of bonds already issued and the estimated bonding required to deliver the 2019 10-Year Delivery Plan program of projects.

TABLE 10.1
BONDING SUMMARY SCHEDULE (1,000s)

PROGRAM	FISCAL YEAR OF BOND ISSUE										Estimated 10 YDP Bond Issues	TOTAL BOND ISSUES
	2012	2014	Previous Bonds Issued	2022	2023	2024	2025	2026	2027	2028		
Cajon Pass	\$35,000	\$20,000	\$55,000									\$55,000
Victor Valley Major Local Highway	\$20,000	\$6,000	\$26,000									\$26,000
North Desert Mountains												
Morongo Basin Colorado River												
San Bernardino Valley Programs:												
Freeway Projects						\$29,060		\$187,414		\$229,049	\$445,524	\$445,524
Freeway Interchange		\$24,000	\$24,000	\$88,892		\$31,446					\$120,338	\$144,338
Major Street	\$39,000	\$43,000	\$82,000									\$82,000
Local Street												
Metroink/Rail		\$27,000	\$27,000	\$12,492							\$12,492	\$39,492
Express Bus/Bus Rapid Transit				\$53,753							\$53,753	\$53,753
Senior & Disabled Transit												
Traffic Management Systems												
Total Per Issue	\$94,000	\$120,000	\$214,000	\$155,137		\$60,506		\$187,414		\$229,049	\$632,106	\$846,106



COMPLETED PROJECTS

COMPLETED PROJECTS

11.1 BACKGROUND

In the first nine years of Measure I 2010-2040, from Fiscal Year 2010/2011 to 2018/2019, Measure I has participated in the delivery of projects in a wide range of its programs, totaling \$2.1 billion, with Measure I contributing \$350 million. Below are listed completed projects by Program.

11.2 PROJECT DETAILS BY MEASURE I PROGRAM

TABLE 11.2.1

FREEWAY PROJECTS PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
I-215 Seg 1 & 2	San Bernardino	\$368,907	\$31,472	2014	EEP work continues; Final reconciliation
I-215 Bi County	San Bernardino	\$203,266	\$57,977	2015	Landscaping to begin in FY 19/20; Final reconciliation
TOTAL		\$572,173	\$89,449		

TABLE 11.2.2

FREEWAY INTERCHANGE PROJECTS PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
I-10/Live Oak Canyon	Yucaipa	\$17,941	\$4,903	2009	
I-10/Riverside Avenue, Phase 1	Rialto	\$40,024	\$3,425	2011	Final Closeout
I-10/Citrus Avenue	Fontana	\$57,734	\$5,663	2014	EEP Work continues until August 2019
I-10/Cherry Avenue	Fontana	\$80,665	\$16,897	2015	EEP Work continues until May 2020
I-10/Tippecanoe Avenue	San Bernardino/Loma Linda	\$79,136	\$19,762	2016	EEP Work continues until August 2021
I-10/Pepper Avenue	City of Colton	\$9,513	\$719	2019	Final Closeout
TOTAL		\$285,013	\$51,369		

TABLE 11.2.3

MAJOR STREET PROJECTS PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
North Milliken Avenue (UP)	Ontario	\$39,544	\$25,906	2013	
Hunts Lane (UP)	San Bernardino/Colton	\$32,430	\$1,126	2014	\$216 Old MSI and \$910 New MSI
Palm Avenue (BNSF)	San Bernardino	\$23,770	\$2,455	2014	
Glen Helen Parkway (UP&BNSF)	Devore	\$25,685	\$8,930	2015	
Laurel Street (BNSF)	Colton	\$59,854	\$8,897	2016	\$384 Old MSI and \$8,513 New MSI
North Vineyard (UP)	Ontario	\$47,353	\$20,790	2016	
South Milliken (UP)	Ontario	\$72,963	\$7,324	2016	
TOTAL		\$301,599	\$75,429		

TABLE 11.2.4

METROLINK/RAIL SERVICE PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Downtown San Bernardino Passenger Rail	San Bernardino	\$125,400	\$27,056	2017	
TOTAL		\$125,400	\$27,056		

TABLE 11.2.5

EXPRESS BUS/BUS RAPID TRANSIT SERVICE PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
E Street Bus Rapid Transit	San Bernardino	\$188,647	\$5,484	2014	
TOTAL		\$188,647	\$5,484		

TABLE 11.2.6

TRAFFIC MANAGEMENT SYSTEMS PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Valley Signal Synchronization		\$15,550	\$184	2015	TMS funds continue to be used for maintenance of the system
TOTAL		\$15,550	\$184		

TABLE 11.2.7

VICTOR VALLEY MAJOR LOCAL HIGHWAY PROJECTS PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
I-15/LaMesa/Nisqualli Interchange	Victorville	\$69,242	\$4,806	2013	
Ranchero Rd / Escondido Ave Traffic Signal	SB County	\$2,652	\$1,006	2014	
I-15/Ranchero Interchange	Hesperia	\$58,913	\$4,016	2015	
SR138, widen 2 to 4 lanes, Phase 1	Caltrans	\$87,181	\$0	2016	SBCTA contributed \$16,245,000 of federal/state funds to project.
Yucca Loma Rd Bridge construction/ Yates Rd widening	Apple Valley/SB County	\$46,477	\$12,839	2016	EEP Work continues until August 2021
Yucca Loma Rd widening, Yucca Loma Bridge to Apple Valley Rd	Apple Valley	\$9,740	\$2,023	2018	
TOTAL		\$274,205	\$24,690		

TABLE 11.2.8

VICTOR VALLEY PDTMS PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
SANBAG Alternative Financing Study	SBCTA	\$120	\$120	2015	
High Desert Corridor	LA Metro	\$500	\$500	2015	
High Desert Corridor Rail Study	HDC JPA	\$200	\$200	2016	
Mountain Area Transportation Study	SBCTA	\$135	\$14	2017	
TOTAL		\$955	\$834		

TABLE 11.2.9

NORTH DESERT MAJOR LOCAL HIGHWAY PROJECTS PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Lenwood Road Grade Separation	Barstow	\$28,386	\$1,382	2015	Project closeout
TOTAL		\$28,386	\$1,382		

TABLE 11.2.10

MOUNTAINS MAJOR LOCAL HIGHWAY PROJECTS PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Village L Project	Big Bear Lake	\$6,110	\$2,400	2013	
TOTAL		\$6,110	\$2,400		

TABLE 11.2.11

MOUNTAINS PDTMS PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Mountain Area Transportation Study	SBCTA	\$135	\$121	2016	
TOTAL		\$135	\$121		

TABLE 11.2.12

MORONGO BASIN MAJOR LOCAL HIGHWAY PROJECTS PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
SR62/Rotary Way Traffic Signal	SBCTA	\$552	\$552	2013	
SR62/Canyon Road to Easy Street	Twentynine Palms	\$2,054	\$300	2013	
National Park Road	Twentynine Palms	\$1,700	\$200	2013	
Lear Ave/Montezume to Pole Line Stud	SBCTA	\$26	\$26	2014	
SR62/Apache Trail to Palm Ave.	Yucca Valley	\$2,886	\$135	2014	
SR62/LaHonda to Dumosa	Yucca Valley	\$2,594	\$90	2014	
SR62/Dumosa Traffic Signal	Yucca Valley	\$736	\$686	2015	
SR62/Encelia Traffic Signal	Twentynine Palms	\$400	\$200	2016	
SR62/Lear Traffic Signal	Twentynine Palms	\$540	\$280	2018	
TOTAL		\$11,489	\$2,469		

TABLE 11.2.13

MORONGO BASIN PDTMS COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Morongo Basin Area Traffic Study	SBCTA	\$65	\$65	2015	
TOTAL		\$65	\$65		

TABLE 11.2.14

COLORADO RIVER MAJOR LOCAL HIGHWAY PROJECTS PROGRAM - COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
Needles I-40 Connector	Needles	\$5,900	\$408	2018	
TOTAL		\$5,900	\$408		

TABLE 11.2.15

CAJON PASS PROGRAM COMPLETED PROJECTS (1,000s)

PROJECT NAME	JURISDICTION	ESTIMATED TOTAL COST	MEASURE I TOTAL COST	COMPLETE FOR BENEFICIAL USE	COMMENTS
I-15/I-215 Devore Interchange	SBCTA/CT	\$325,005	\$64,186	2016	
TOTAL		\$325,005	\$64,186		



***MEASURE I 1990-2010
VALLEY MAJOR PROJECTS
PROGRAM***

**MEASURE I 1990-2010
VALLEY MAJOR PROJECTS
PROGRAM**

12.1 BACKGROUND

While some Measure I 1990-2010 Valley Major Projects Program projects were anticipated to require funding from Measure I 2010-2040, there are certain projects that have carried over past the term of the Measure that were not included in the Measure I 2010-2040 Expenditure Plan, herein referred to as legacy projects. As a result, funds from the prior Measure must be reserved for completion of these projects as there are no other local sources of funds available to complete the projects.

12.2 CURRENT STATUS

The balance of Measure I 1990-2010 Valley Major Projects Program funds available for the legacy projects as of June 30, 2018, is \$10.1 million. These funds are required to complete project obligations that were not included in the Measure I 2010-2040 Expenditure Plan. The overall cost and revenue requirements for the Measure I 1990-2010 legacy projects that have not been completed are shown in Table 12.2.1. Project details are presented in Section 12.3. Additionally, the extended landscape maintenance period is on-going on Segment 11 of the SR 210 extension, Segments 1 and 3 of the I-215 North Widening project, and the SR 210/Pepper Avenue Interchange.

TABLE 12.2.1

MEASURE I LEGACY PROJECTS - VALLEY MAJOR PROJECTS PROGRAM (COST AND REVENUE REQUIREMENTS) (1,000s)

PROJECT	COST	FUNDING SOURCE	REVENUE
① I-215 Landscaping Segment 2	\$5,626	Measure I	\$3,105
② I-215 Landscaping Segment 5	\$2,889	State/Federal Funds	\$5,409
TOTAL:	\$8,515	TOTAL:	\$8,515

The project locations are depicted in Figure 12.2.1. The project schedules are included as Figure 12.2.2.

FIGURE 12.2.1

MEASURE I LEGACY PROJECTS - VALLEY MAJOR PROJECTS PROGRAM MAP

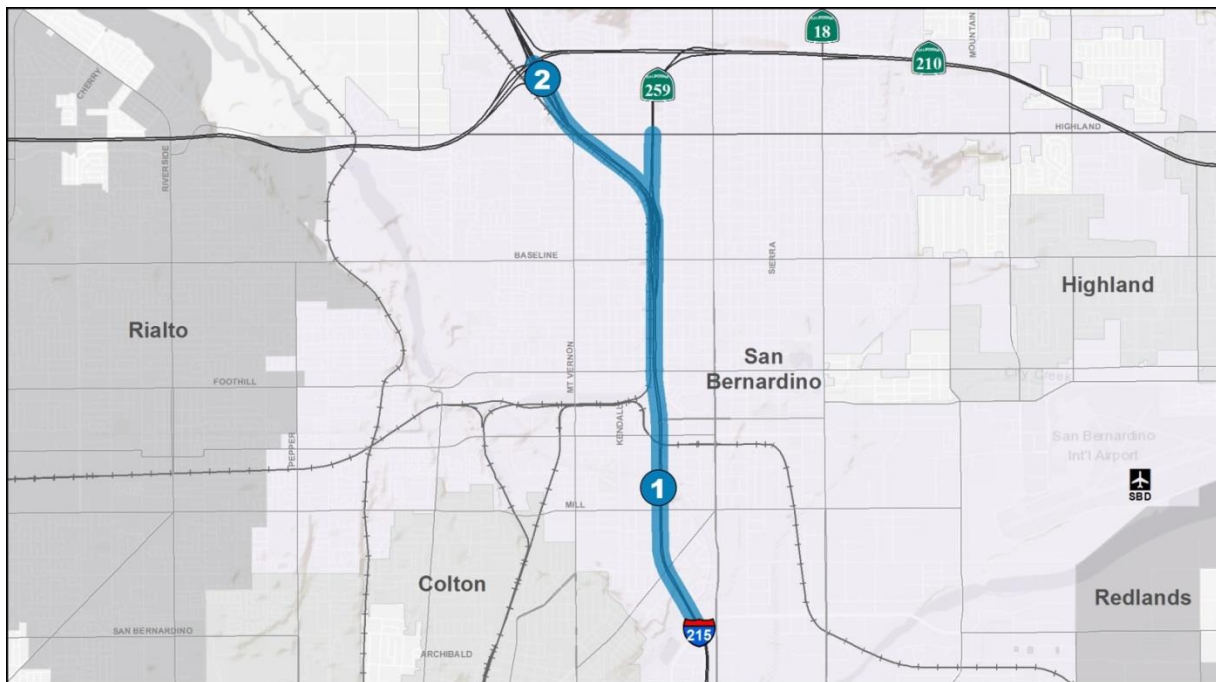
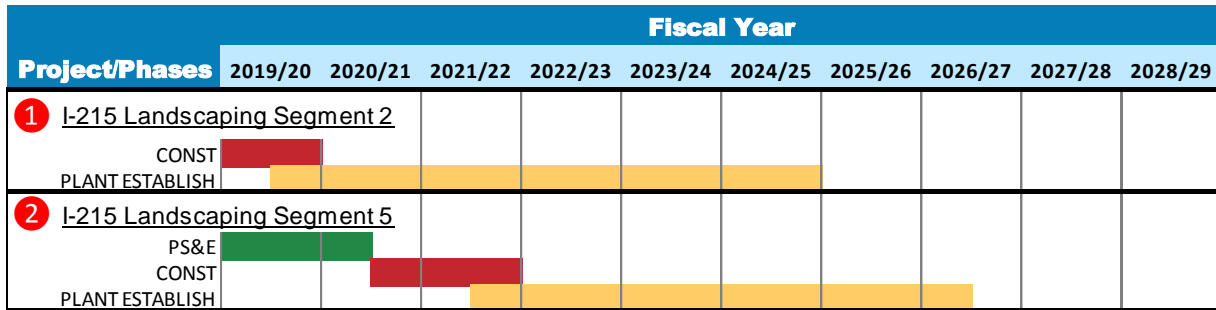


FIGURE 12.2.2

MEASURE I LEGACY PROJECTS - VALLEY MAJOR PROJECTS PROGRAM SCHEDULE



12.3 PROJECT DETAILS

1 I-215 LANDSCAPING SEGMENT 2

Project Description: This project will construct landscaping along I-215 from the 5th Street overcrossing north to just south of the Muscupiabe Drive overcrossing and also includes a portion along SR 259 from Baseline Street to Highland Avenue overcrossing. The concept utilizes drought tolerant/low maintenance planting including palm trees, mandated by the corridor environmental document, and succulents requiring little water. Drip irrigation for plants and bubblers for the trees are proposed along with smart controllers which optimize water usage. In addition, the landscape concept has extensive inert ground covering including rock blanket, various sizes of colored gravel, and large boulders.

- The construction contract was awarded in December 2018.
- The project includes landscape construction and a one-year plant establishment period, which will be followed by a four-year extended plant establishment period.

Project Lead Agency: SBCTA

Current Development Phase: Construction

Complete for Beneficial Use: 2019

Funding Plan: The project is funded as shown in the table below.

TABLE 12.3.1

I-215 LANDSCAPING SEGMENT 2 (1,000s)

FUNDING	PHASE					Plant Establishment	TOTAL
	PM	PA/ED	PS&E	ROW	CON		
MEASURE I	\$155	\$35	\$657		\$870	\$300	\$2,017
PNRS					\$3,609		\$3,609
TOTAL	\$155	\$35	\$657		\$4,479	\$300	\$5,626

2 I-215 LANDSCAPING SEGMENT 5

Project Description: This project will construct landscaping along I-215 from just south of the Muscupiabe Drive overcrossing north to just south of the I-215/SR 210 Junction. The concept utilizes drought tolerant/low maintenance planting including palm trees, mandated by the corridor environmental document, and succulents requiring little water. Drip irrigation for plants and bubblers for the trees are proposed along with smart controllers which optimize water usage. In addition, the landscape concept has extensive inert ground covering including rock blanket, various sizes of colored gravel, and large boulders.

- The project cost estimate is based on the anticipated funding to be available for the project. The project will be scoped based on the funding available.
- The project includes landscape construction and a one-year plant establishment period, which will be followed by a four-year extended plant establishment period.

Project Lead Agency: SBCTA

Current Development Phase: PS&E

Complete for Beneficial Use: 2022

Funding Plan: The project is funded as shown in the table below.

TABLE 12.3.2

I-215 LANDSCAPING SEGMENT 5 (1,000s)

FUNDING	PHASE						TOTAL
	PM	PA/ED	PS&E	ROW	CON	Plant Establishment	
MEASURE I	\$156	\$35	\$295		\$253	\$350	\$1,089
PNRS					\$1,800		\$1,800
TOTAL	\$156	\$35	\$295		\$2,053	\$350	\$2,889

Appendix – Acronym List

ACE	Advanced Conceptual Engineering
ADA	Americans with Disabilities Act
AEA	Advance Expenditure Agreement
ATP	Active Transportation Program
BNSF	Burlington Northern Santa Fe
BOE	Board of Equalization
BRT	Bus Rapid Transit
CEQA	California Environmental Quality Act
CIG	Capital Investments Grant
CMAQ	Congestion Mitigation and Air Quality
CM/GC	Construction Manager/General Contractor
Const/CON	Construction
CP	Control Point
CPUC	California Public Utilities Commission
CT	Caltrans
CTC	California Transportation Commission
CTSA	Consolidated Transportation Services Agency
Design-Build	Design and construction services provided under a single contract
DDI	Diverging Diamond Interchange
DEMO	Federal Demonstration (Earmark) Funds
DIF	Development Impact Fees
DMU	Diesel Multiple Unit
DTFA	Department of Fee Administration
EEP	Establish Existing Planting
Express Lanes	Express lanes are HOV lanes that also allow vehicles not meeting minimum occupancy requirements to use the lane by paying a toll
FAST	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FY	Fiscal Year
GLA	Foothill Gold Line Construction Authority
HBP	Federal Highway Bridge Program
HDC	High Desert Corridor
HOV	High Occupancy Vehicle (Carpool)
HIP	Highway Infrastructure Projects
HSIP	Highway Safety Improvement Program
IC	Interchange
IIP	Interregional Improvement Program
IMD	Federal Interstate Maintenance Discretionary Funds
LCTOP	Low Carbon Transit Operations Program
LLP	Local Partnership Program

Appendix – Acronym List

MATS	Mountain Area Transportation Study
MBATS	Morongo Basin Area Transportation Study
MBTA	Morongo Basin Transit Authority
MDA	Montague DeRose and Associates
Metro/LACMTA	Los Angeles County Metropolitan Transportation Authority
Metrolink	Regional passenger rail system for Southern California
MOE	Maintenance of Effort
MSI	Measure I
NCPD/CBIF	National Corridor Planning & Development Border Infrastructure
O&M	Operations and Maintenance
PAA	Project Advancement Agreement
PA/ED	Project Approval and Environmental Document
PCM	Project and Construction Manager
PDTMS	Project Development and Traffic Management Systems
PFS	Project Funding Summary
PM	Program Management
PNRS	Projects of National and Regional Significance
PPR	Program Project Report
PR	Project Report
PS&E	Plans, Specifications, and Estimate
PSR/PDS	Project Study Report/Project Development Support
PTMISEA	Public Transportation Modernization, Improvement & Service Enhancement Account
RCTC	Riverside County Transportation Commission
RIP	Regional Improvement Program
ROW	Right of Way
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
S&D	Measure I Senior and Disabled Transit Program
SB1	Senate Bill 1
SBCTA	San Bernardino County Transportation Authority
SCAG	Southern California Association of Governments
SCCP	Solutions for Congested Corridors Program
SCE	Southern California Edison
SCORE	Metrolink Southern California Optimized Rail Expansion Program
SGR	State of Good Repair Program
SHOPP	State Highway Operations and Protection Program
SLPP	State-Local Partnership Program
SR2S	Safe Routes to School
SRTP	Short Range Transit Plan
STA	State Transit Assistance Fund
STP	Surface Transportation Program
STIP	State Transportation Improvement Program
TCEP	Trade Corridor Enhancement Program
TCRP	Traffic Congestion Relief Program
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGER	Transportation Investment Generating Economic Recovery
TIRCP	Transit and Intercity Rail Capital Program
TMS	Traffic Management Systems
UCR	University of California
UP/UPRR	Union Pacific/Union Pacific Railroad
VVTA	Victor Valley Transit Authority

Appendix – Acronym List

WVC
WVWD
ZEMU

West Valley Connector
West Valley Water District
Zero Emission Multiple Unit

Plan. Build. Move



cta

San Bernardino County
Transportation Authority

