CHAPTER 9 FINANCIAL CONSIDERATIONS

9.1 INTRODUCTION

This chapter presents anticipated costs, revenues, and funding for the Berryessa Extension Project (BEP) Alternative and the Silicon Valley Rapid Transit Project (SVRTP) Alternative. A summary evaluation of VTA's financial plan for the proposed improvements is also included for informational purposes.

At this phase in the project development process, costs and revenues for a BART extension project continue to be refined. Capital and operating costs have been updated from the March 2009 Draft Environmental Impact Statement (Draft EIS) to reflect the latest engineering designs and operating assumptions for a BART extension. The BEP Alternative capital and operating cost estimates have been revised to meet Federal Transit Administration (FTA) New Starts criteria as a New Starts Candidate Project. However, the SVRTP Alternative capital and operating cost estimates do not provide the same level of detail as those for the BEP Alternative. SVRTP Alternative capital cost estimates are based on the Draft EIS. SVRTP Alternative O&M costs were based on factored operating statistics that reflect the relationship of the BEP Alternative to the SVRTP Alternative from the Draft EIS, and applied to current BEP data. Further refinements would need to be made to the SVRTP Alternative cost estimates before making direct comparisons to the BEP Alternative capital cost, operating cost, and funding sources.

In the Draft EIS, and elsewhere in this Final EIS, the SVRTP Alternative is based on a estimated construction schedule and revenue service date of 2018, however due to the recent economic downturn and sales tax revenue projections, a 2018 opening day for the SVRTP Alternative is unlikely. The SVRTP Alternative will be built in phases, with the BEP Alternative constituting the first phase. Subsequent phases, supporting the SVRTP Alternative, will be developed as capital funding is identified.

For the BEP Alternative, the capital cost estimates reflect approximately the 65 percent level of design with the exception of BART station campuses (facilities surrounding the actual station structures), which are still at a conceptual stage. The operating cost estimates for the No Build and BEP alternatives are based on travel demand forecasts of BART, light rail, and bus ridership completed in September 2009 and current VTA and BART system productivity and material usage rates.

Capital and operating/maintenance costs for the SVRTP Alternative are provided for order-of-magnitude reference only. As noted above, capital cost estimates are not the result of a current capital expenditure plan, and O&M costs are based on factored operating statistics.

Although engineers' cost estimates will continue to be updated as project design approaches completion and revenue estimates will be re-evaluated to reflect future changes in economic conditions, the information provided in the Final EIS is the best available at the time of its preparation. Similarly, the financial plan that incorporates this information and is summarized in this chapter will continue to be updated. The financial plan includes assumptions and estimates of project revenues— that incorporate some element of uncertainty. The plan is also based on governmental actions that have not been finalized. To minimize the risks that such uncertainty poses, planning assumptions for a BART extension project have attempted to be conservative and not underestimate costs or overestimate sources of funding.

VTA continues to develop a long-term capital improvements program that provides for construction of a BART extension and other voter-approved projects (see the Valley Transportation Plan 2035 and the voter-approved Measure A program). Alternative ways to phase and fund these joint programs are being considered.

9.1.1 VOTER-APPROVED INITIATIVES SUPPORTING THE FINANCIAL PLAN

In November 2000, over 70 percent of the voters of Santa Clara County approved Measure A, a ½-cent sales tax for transit that included a proposed extension of BART service into Santa Clara County.[1] More recently, the VTA Board of Directors voted to place on the November 4, 2008, general election ballot a ⅛-sales tax increment, Measure B, dedicated to operation of a BART extension project. Measure B was approved by approximately 67 percent of the voters of Santa Clara County, meeting the stringent two-thirds approval threshold for general tax measures in California. The measure is to go into effect when (1) VTA executes a Full Funding Grant Agreement (FFGA) or its equivalent with the Federal Transit Administration (FTA) for at least $750 million and (2) the State of California contributes at least $240 million in Traffic Congestion Relief Program (TCRP) and/or other funds to the project. The request for FTA Section 5309 New Starts funding was submitted September 2009. It was for $900 million, or $150 million over the threshold specified in Measure B. Assuming funding of at least the Measure B threshold is approved, VTA will begin collecting the ⅛-sales tax increment for a period of 30 years. The State of California has reconfirmed its commitment to provide a total of $648 million in TCRP funds, inclusive of the $240 million Measure B threshold. Approximately $352.3 million of TCRP funds will be allocated to the capital cost of a BART extension project.

Funds from Measures A and B supplemented by $900 million in FTA New Starts program and $352.3 million in State of California funds, form the foundation for the

[1] The tax is assessed at the rate of ½ of one percent of the (1) gross receipts of retailers from the sale of goods and services subject to tax and (2) sales price of property whose storage, use or other consumption is subject to the tax.

capital and operating financial plan for the BEP Alternative, and when augmented by additional revenue sources, support phased implementation of the full SVRTP Alternative.

9.2 CAPITAL COSTS

This section presents the summary of capital costs estimated for the Build Alternatives. Detailed descriptions of the BEP and SVRTP alternatives, which provide a basis for the cost estimates, are found in Chapter 2, Alternatives. The estimates are based on 2008 unit cost information available for local construction and procurement items. These values have been adjusted to reflect subsequent trends in unit prices, cost escalation, and actual expenditures through 2009 where applicable, to establish price levels for 2009. All capital and operating and maintenance costs are stated in 2009 dollars unless, as indicated, inflated to the estimated year of expenditure (YOE). Capital costs are inclusive of preliminary and final engineering, contingencies, and reserves, and shown in FTA New Starts standard cost categories.

9.2.1 CAPITAL COSTS FOR BEP AND SVRTP ALTERNATIVES

Base year capital costs for the two alternatives in 2009 dollars are presented in Table 9-1. Total capital costs escalated to YOE dollars, which represent project costs at completion, are shown in Table 9-2.

Table 9-1: Capital Costs for BEP and SVRTP Alternatives ($2009, in millions)

Principal Components Category	Principal Components Description	BEP Alternative[a,b]	SVRTP Alternative[c,d]
10	Guideway & Track	$374	$1,135
20	Stations[e]	$207	$940
30	Support Facilities	$47	$288
40	Sitework & Special Conditions	$189	$294
50	Systems	$194	$426
60	Right-of-Way	$213	$415
70	Revenue Vehicles[f]	$142	$445
80	Professional Services	$369	$732
90	Unallocated Contingency	$79	$538
100	Finance Charges[g]	$294	N/A
	TOTAL :	**$2,108**[h]	**$5,211**[i]

Notes:

[a] BEP Alternative costs have been updated since the Draft EIS to reflect costs submitted to FTA in September 2009 for New Starts Annual Reporting.

[b] BEP Alternative assumes Retained Cut Long Option at Montague Expressway, Hayward Yard improvements, and Berryessa tail track as the line terminus.

[c] SVRTP Alternative capital costs reflect those in the March 2009 Draft EIS, but have been revised to year 2009 dollars and to reflect other minor revisions. They are not based on the September 2009 FTA New Starts Reporting Criteria submittal.

[d] SVRTP Alternative makes the same design assumptions as the BEP Alternative except that the SVRTP Alternative does not include a tail track south of Berryessa .

[e] BEP Alternative assumes 2030 parking supply of 1,840 parking spaces at the Milpitas Station and 3,110 parking spaces at the Berryessa Station. SVRTP Alternative assumes Draft EIS 2030 parking supply.

[f] For the BEP Alternative, 40 new BART cars, 8 additional articulated VTA buses, 2 additional standard buses, and no change in the VTA light rail fleet are assumed by 2030 for the capital cost estimate.

The SVRTP Alternative assumes 127 new BART cars and no change in the VTA bus and VTA light rail transit (LRT) fleet. The estimate of new BART cars is based on year 2030 expected demand. Although BART feeder bus service would be operated under the SVRTP Alternative, overall bus service would be reduced with the addition of BART service to Santa Clara as BART would replace some VTA high-capacity bus lines. Little to no change in the total bus fleet between 2009 and 2030 is VTA's current target under No Build conditions. This will be achieved through (1) implementation of operating efficiencies, including improvements recommended by ongoing comprehensive operations analyses of the bus system, and (2) substitution of high capacity articulated buses for standard 40-foot buses where demand warrants. Build alternatives are projected to maintain existing levels of revenue hours. VTA's existing LRT fleet should be adequate to meet increased demand.

[g] Finance charges will likely be incurred as a result of local borrowing (bonding of sales tax revenues and other borrowing). They have not been determined for the SVRTP Alternative at this time; and the figure in the table is an approximation for the BEP Alternative.

[h] Measure A and TCRP funds also support past, current, and planned commitments for the following non-federal projects and activities in the SVRT corridor. The following non-project activities are not included in the BEP Alternative capital cost estimate and are consistent with September 2009 FTA New Starts capital cost estimate and Financial Plan assumptions:

Pre-NEPA Engineering and Environmental Analysis for BEP Alternative	$ 276 million
Freight Railroad Relocation Activities	$ 233 million
Newhall Yard Acquisition and Maintenance	$ 42 million
Mitchell Block Acquisition and Maintenance	$ 39 million
Kato Road Grade Separation	$ 36 million
Warm Springs Supporting Improvements	$ 3 million
BART Core System Improvements	$ 155 million
BART Automated Fare Collection System Upgrade	$ 30 million
Station Architecture Betterments	$ 39 million
UPRR Industrial Lead Bridge	$ 61 million

BART Core System improvements include BART operations and control center modifications, and stations and systems modifications. These costs have been excluded from the BEP Alternative as non-project activities.

[i] Measure A and TCRP funds also support past, current, and planned commitments for the following non-federal projects and activities in the SVRT corridor. The following non-project activities are not included in the SVRTP Alternative capital cost estimate and are consistent with March 2009 Draft EIS capital cost assumptions:

Pre-NEPA Engineering and Environmental Analysis for SVRTP Alternative	$ 462 million
Freight Railroad Relocation Activities	$ 184 million
Newhall Yard Acquisition and Maintenance	$ 68 million
Mitchell Block Temporary Construction Easement	$ 15 million

BART Core System improvements are included in Stations and Systems cost categories for the SVRTP Alternative, as assumed in the March 2009 Draft EIS. These improvements include BART operations and control center modifications, stations and systems modifications, and core system parking.

Source: VTA, 2009.

Table 9-2: Capital Costs for BEP and SVRTP Alternatives in Year of Expenditure ($YOE millions)

Principal Components Category	Principal Components Description	BEP Alternative[a,b]	SVRTP Alternative[c]
10	Guideway & Track	$463	$1,404
20	Stations	$269	$1,224
30	Support Facilities	$60	$369
40	Sitework & Special Conditions	$233	$362
50	Systems	$245	$538
60	Right-of-Way	$234	$455
70	Revenue Vehicles[d]	$172	$539
80	Professional Services	$430	$854
90	Unallocated Contingency	$97	$661
100	Finance Charges[e]	$373	N/A
	TOTAL[f]:	**$ 2,576**	**$ 6,406**

Notes:

[a] BEP Alternative costs have been updated since the Draft EIS to reflect costs submitted in September 2009 for New Starts Annual Reporting.

[b] BEP Alternative assumes Retained Cut Long Option at Montague Expressway, Hayward Yard improvements, and Berryessa tail track as the line terminus.

[c] Due to project phasing, beginning with the BEP Alternative, the SVRTP Alternative does not yet have an updated capital expenditure plan, and therefore capital costs in YOE have been escalated from Draft EIS values. Procurement of SVRTP Alternative materials and services will occur when funding is identified. Summary-level probable cost information in YOE is provided in the text of this section as a reference.

[d] For the BEP Alternative, 40 new BART cars, 8 additional articulated VTA buses, 2 additional standard buses, and no change in the VTA light rail fleet are assumed by 2030. The estimate of new BART cars is based on year 2030 demand.

The SVRTP Alternative assumes 127 new BART cars and no change in the VTA bus and VTA LRT fleet. The estimate of new BART cars is based on year 2030 expected demand. Although BART feeder bus service would be operated under the SVRTP Alternative, overall bus service would be reduced with the addition of BART service to Santa Clara as BART would replace some VTA high-capacity bus lines. Little to no change in the total bus fleet between 2009 and 2030 is VTA's current target under No Build conditions. This will be achieved through (1) implementation of operating efficiencies, including improvements recommended by ongoing comprehensive operations analyses of the bus system, and (2) substitution of high capacity articulated buses for standard 40-foot buses where demand warrants. Build alternatives are projected to maintain existing levels of revenue hours. VTA's existing LRT fleet should be adequate to meet increased demand.

[e] Finance charges will likely be incurred as a result of local borrowing (bonding of sales tax revenues and other borrowing). They have not been determined for the SVRTP Alternative at this time; and the figure in the table is an approximation for the BEP Alternative.

[f] Measure A and TCRP funds also support past, current, and planned commitments to non-federal projects and activities in the SVRTC that are not included in the totals. See Table 9-1, notes for more detail.

Source: VTA, 2009.

In current 2009 dollars, the BEP Alternative, inclusive of vehicles, right-of-way (ROW) and design/administrative costs from July 2006 forward, is estimated to cost $2.108 billion; in YOE, it would cost $2.576 billion. For the BEP Alternative, construction is assumed to begin in 2010 with the acquisition of ROW and utility relocation activities. Vehicles will be procured beginning in 2011 along with other systems equipment, and major civil track and utilities relocation work will commence in 2012. Construction will be essentially completed in early 2018.

The SVRTP Alternative improvements extending beyond the Berryessa Station and terminus of the BEP Alternative will be phased when funding is identified. The SVRTP Alternative is estimated to cost $5.211 billion in current 2009 dollars and $6.406 billion in YOE. See footnotes in Table 9-1 for SVRTP Alternative capital cost assumptions.

With respect to financing costs, VTA will apply debt financing when constructing a BART extension (e.g., to provide for adequate cash flow during the construction period), supported by annual sales tax revenues received from Measure A through 2036. Measure A also supports a number of other VTA capital projects, some of which also could be built with debt financing. The capital costs and timing of these other projects have yet to be finalized. This affects both the funds available annually for BART construction and for debt financing, or bonding. Therefore, financing charges in Tables 9-1 and 9-2 are less certain than most of the other costs. While the estimates provided at this time are based on reasonable assumptions and representative strategies for debt financing as outlined in the financial plan, they could change.

Early project development costs for environmental studies and engineering completed prior to July 2006 are excluded from the BEP Alternative cost component categories listed in Tables 9-1 and 9-2. This is consistent with FTA policy that defines project costs proposed for federal funding participation under the Section 5309 New Starts program as those costs incurred from New Starts preliminary engineering (PE) forward.[2] The

[2] In September 2009 VTA submitted a request to FTA for New Starts funding for a BART extension project in the SVRTC. It identified the BEP Alternative (Silicon Valley Berryessa Extension, or SVBX) as the initial phase of the SVRT program that would include federal funding participation. FTA has not yet approved the request as the project must first be evaluated and rated based on various New Starts criteria (see Chapter 10, Evaluation of Alternatives, Section 10.3) The proposed federal project would also be approved to enter preliminary engineering (PE). The September 2009 submittal to FTA was combined with a request to advance the BEP Alternative into PE, and this request is also under review. A determination by FTA on both requests is anticipated late 2009. The BEP Alternative would formally enter the PE phase at that time, assuming FTA approval. Design of the BEP Alternative as well as of the full SVRTP Alternative has, however, effectively already advanced to a New Starts PE level based on FTA's guidelines. VTA has therefore made a determination of what costs would be considered pre-PE and what costs would normally be part of PE and any subsequent project phases. Excluded costs include conceptual design and environmental review costs incurred in preparing draft, final, and supplemental Environmental Impact Reports. Included costs are those shown in Tables 9-1 and 9-2. Project improvements proposed for federal funding participation are referred to as the federal project. Assumptions for pre-PE costs differ for the SVRTP Alternative, as indicated in footnote number three.

SVRTP Alternative excludes pre-NEPA engineering and environmental analysis costs completed prior to December 2008, as assumed in the March 2009 Draft EIS, and are not included in the base year and YOE capital cost estimate. See the notes portion of Table 9-1 for a listing of non-federal activities and their approximate costs by alternative.

9.3 OPERATING AND MAINTENANCE COSTS

This section presents operating and maintenance costs for all planned VTA-operated and any planned VTA-supported transit services in 2030, including Measure A expenditure program local and express bus, bus rapid transit (BRT), and light rail transit (LRT) services discussed in Chapter 10, Evaluation of Alternatives, Section 10.3.1 New Starts Changes to Project Definition Costs cover the continuation and, as appropriate, expansion of these services to meet future demand. Costs for new bus, BRT, and LRT lines are also part of the totals. Operating and maintenance costs for VTA-supported services include contract costs for paratransit service in Santa Clara County and operating assistance VTA will provide for Caltrain, Altamont Commuter Express (ACE), and Highway 17 Express Bus Service with the Santa Cruz County Transit District, among other VTA-subsidized transit services. These costs also include VTA's estimated annual operating subsidy for BART extension service into Santa Clara County assuming implementation of either the BEP or SVRTP alternatives.

Measure A transit program cost estimates, both capital and operating, are regularly updated by VTA. Projects programmed for implementation are constrained to what is fundable from Measure A and other sources of operating funds and what is required to meet demand on future transit services. Measure A funds will fluctuate with economic conditions, thus possibly requiring changes in the levels of VTA bus, LRT and other services over the life of the measure. The estimated 2030 operating and maintenance costs in the SVRT program financial plan are based on assumptions about future transit operations, including levels of service, that have been assumed as part of the New Starts program. See Section 9.4.3 for a discussion of operating and maintenance costs funding sources.

Operating and maintenance costs are expressed in terms of (1) total annual costs and (2) costs net of fare and related operating revenues for each of the three alternatives considered in this document. Total operating cost less fare and related revenues equals the net operating cost that VTA will incur to provide the proposed transit services under an alternative. This net cost is sometimes referred to as the operating subsidy that VTA will need to cover from non-operating revenues, such as local sales taxes. By comparing operating and maintenance costs to the No Build Alternative, it is possible to identify the change in annual costs attributable to either the BEP or SVRTP alternatives.

Operating and maintenance costs are presented first for the non-BART services that VTA would either operate or assist other agencies in operating, followed by VTA's estimated share of costs for a BART service extension into Santa Clara County. A summary table indicates the net operating and maintenance costs VTA is expected to incur in 2030 for all planned services, with and without BART.

VTA non-BART operating and maintenance assumptions for the No Build, BEP, and SVRTP alternatives that have been updated as part of New Starts are included in this chapter and summarized in Chapter 10, Evaluation of Alternatives, Section 10.3.

Operating and maintenance costs for the SVRTP Alternative do not provide the same level of detail as the No Build and BEP alternatives. Further refinements would need to be made to the SVRTP operating and maintenance cost estimates before making direct comparisons to the No Build and BEP alternatives, which have been updated based on the September 2009 New Starts submittal to FTA. In the Draft EIS, the SVRTP Alternative was based on a prior construction schedule and revenue service date of 2018, however due to the recent economic downturn and sales tax revenue projections, a 2018 opening day for the SVRTP Alternative is unlikely. The SVRTP Alternative will be built in phases, with the BEP Alternative constituting the first phase. As subsequent phases are defined in support of the SVRTP Alternative, updated operating and maintenance plans will be developed.

9.3.1 VTA OPERATED AND ASSISTED TRANSIT SERVICES (NON-BART)

Table 9-3 shows the operating and maintenance costs in real 2009 dollars for VTA's bus, BRT and LRT services in 2030. The figures also include the costs of VTA's operating assistance for paratransit, Caltrain, ACE and other proposed service commitments in 2030. Table 9-4 shows these costs in YOE dollars (i.e., including price level inflation to 2030). The transit service and fleet assumptions are described in Chapter 2, Alternatives.

Table 9-3: Annual O&M Costs and Operating Revenues for VTA Operated and Assisted Services (Non-BART): 2030 Operating Plans ($2009 in millions)[a]

Item	No Build Alternative[b]	BEP Alternative[c]	SVRTP Alternative[d]
VTA Bus, BRT, Light Rail and Other Operating Costs[e]	$376.7	$379.4	$367.7
Fare and Related Operating Revenues (Credit)[f]	($92.8)	($100.9)	($96.6)
NET COST:	**$283.9**	**$278.5**	**$271.1**

Notes:

[a] Includes implementation and/or expansion of services included in Measure A that the VTA Board of Directors has identified as a priority by 2030, Also included is limited growth in existing services necessary to meet projected travel demand.

[b] VTA non-BART O&M costs and operating revenues for the No Build Alternative have been updated since the Draft EIS to reflect cost estimates and revenue projections submitted in September 2009 for New Starts Annual Reporting.

[c] VTA non-BART O&M costs and operating revenues for the BEP Alternative have been updated since the Draft EIS to reflect cost estimates and revenue projections submitted in September 2009 for New Starts Annual Reporting.
[d] Operating and maintenance costs for the SVRTP Alternative do not provide the same level of detail as the No Build and BEP alternatives. Further refinements would need to be made to the SVRTP cost estimates before making direct comparisons to the No Build and BEP alternatives, which have been updated based on the September 2009 New Starts submittal to FTA. For the SVRTP Alternative, a factor-based value of 97 new BART cars and a reduction of 23 articulated and 3 standard VTA buses are assumed.
[e] Inclusive of operating assistance for Santa Clara County paratransit services, ACE, Caltrain, and Highway 17 Express Bus Services funded from the 1976 permanent and 2000 Measure A sales taxes.
[d] Farebox revenues and advertising income to VTA.

Source: AECOM and Connetics Transportation Group, October 2009.

Table 9-4: Annual O&M Costs and Operating Revenues for VTA Operated and Assisted Services (Non-BART): 2030 Operating Plans ($YOE in millions)[a]

Item	No Build Alternative[b]	BEP Alternative[c]	SVRTP Alternative[d]
VTA Bus, BRT, Light Rail and Other Operating Costs[e]	$605.9	$609.7	$587.8
Fare and Related Operating Revenues (Credit)[f]	($173.7)	($188.8)	($180.8)
NET COST:	**$432.2**	**$420.9**	**$407.0**

Notes:
[a] Includes implementation and/or expansion of services included in Measure A that the VTA Board of Directors has identified as a priority by 2030, Also included is limited growth in existing services necessary to meet projected travel demand.
[b] VTA non-BART O&M costs and operating revenues for the No Build Alternative have been updated since the Draft EIS to reflect cost estimates and revenue projections submitted in September 2009 for New Starts Annual Reporting.
[c] VTA non-BART O&M costs and operating revenues for the BEP Alternative have been updated since the Draft EIS to reflect cost estimates and revenue projections submitted in September 2009 for New Starts Annual Reporting.
[d] Operating and maintenance costs for the SVRTP Alternative do not provide the same level of detail as the No Build and BEP alternatives. Further refinements would need to be made to the SVRTP cost estimates before making direct comparisons to the No Build and BEP alternatives, which have been updated based on the September 2009 New Starts submittal to FTA. For the SVRTP Alternative, a factor-based value of 97 new BART cars and a reduction of 23 articulated and 3 standard VTA buses are assumed.
[e] Inclusive of operating assistance for Santa Clara County paratransit services, ACE, Caltrain, and Highway 17 express bus services funded from the 1976 permanent and 2000 Measure A sales taxes.
[f] Farebox revenues and advertising income to VTA.

Source: AECOM, October 2009.

Total operating and maintenance costs for the No Build Alternative are estimated to be approximately $377 million expressed in 2009 real dollars and $606 million when including forecast cost inflation to 2030. Operating costs for non-BART services under the BEP Alternative are estimated to be approximately $379 million in 2009 dollars and $610 million in YOE (an approximate increase of 0.5 percent over the No Build in both dollar amounts). An order-of-magnitude VTA non-BART operating and maintenance cost for the SVRTP Alternative is projected to be $368 million in 2009 dollars and $588 million in YOE.[3]

Passenger fare revenue is generated by each boarding of the VTA system. Future revenues for the 2030 No Build Alternative and for the BEP Alternative have been estimated based on forecast ridership in that year and an average fare per boarding. Fare revenues assumed for the SVRTP Alternative differ from those assumed for the BEP Alternative. The average fare per boarding of VTA bus and LRT services is assumed to increase to keep pace with inflation. Fare and related revenues generated from operations will amount to, and offset, about 29 percent of total operating and maintenance costs for the No Build Alternative and 31 percent for the BEP Alternative.

Tables 9-4 and 9-5 indicate estimated 2030 fare revenue under the No Build, BEP, and SVRTP alternatives in constant 2009 and YOE dollars, respectively. The resulting net costs for VTA non-BART operations are also shown. In 2030, the net cost of service under the BEP Alternative will be approximately $421 million, or approximately 3 percent lower than the net cost of service under the No Build Alternative. In 2030, the net cost of VTA non-BART service under the SVRTP Alternative would be less than under the BEP Alternative, due to the proposed lower level of express and feeder service associated with a full extension. This reduction relative to the BEP Alternative is possible because of the increased amount of BART service in the SVRT corridor under the SVRTP Alternative.

9.3.2 VTA COSTS FOR BART EXTENSION SERVICE UNDER BEP AND SVRTP ALTERNATIVES

A BART extension into Santa Clara County will generate additional operating and maintenance costs for the BART rail system. Under the 2001 Comprehensive Agreement between VTA and the BART District, VTA is obligated to reimburse BART, the system operator, for these added costs, adjusted for the operating revenues generated by BART extension service. VTA's payment will cover two types of operating costs:

1. Net direct operating and maintenance (O&M) costs, which are calculated as the difference in BART systemwide operating costs with either the BEP or SVRTP extension and BART systemwide costs without either extension.

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[3] Year of expenditure operating and maintenance cost estimate is provided for reference only. The SVRTP Alternative has a dedicated operating funding source, however no capital financing plan at this time. Because the project will be built in phases, with the BEP Alternative constituting the first phase, an operating plan for the remaining phase(s) supporting the SVRTP Alternative has not been developed. Operating and maintenance cost estimates presented in the narrative of this section do not provide the same level of detail as the No Build and BEP alternatives.

2. A fixed overhead operating and maintenance cost calculated based on the change in net direct operating and maintenance costs.

Besides O&M expenses, VTA is obligated under the comprehensive agreement between VTA and BART to make a capital reserve contribution to BART that is equal to a percentage of the annual operating and maintenance costs for extension service. This payment will go towards repair or replacement of equipment and facilities that would occur over time. For convenience, this third contribution is included in this cost summary as it will occur annually and be part of VTA's overall reimbursement to BART. The annual maximum capital reserve contribution of 30 percent of O&M costs, assumed in the Draft EIS is applied below to the SVRTP Alternative, which is a conservative estimate of VTA's capital reserve contribution to BART. The rate of capital reserve contribution assumed for the BEP Alternative varies, up to 20 percent of O&M costs, based on the year of expenditure.

The total annual operating and maintenance cost obligation will be adjusted by the net additional fare revenue generated by ridership on a BART extension service. Other revenues BART will receive in response to operation of a BART extension, including advertising and parking fees, are also credited against VTA's obligation. Revenue credits are included in the tables showing VTA's estimated total and net operating and maintenance costs for a BART extension service.

BART Extension Annual O&M Costs, Capital Reserve Contribution, and Operating Revenues

Tables 9-5 and 9-6 show that the net incremental cost of BART service under the BEP Alternative, when compared to the No Build Alternative, will be approximately $32 million in constant 2009 dollars and $79 million in YOE dollars for assumed operations in 2030. Under the SVRTP Alternative the net incremental cost, based on factored operating statistics, will be approximately $63 million in 2009 dollars and $129 million in YOE dollars. These costs include a capital reserve contribution.

Fare and related operating revenues will offset a portion of operating costs. Passenger fare revenue generated on BART extension service is also based on the linked transit trips (i.e., riders) generated on the BEP Alternative, multiplied by the average BART system fare per linked trip. Average fares account for all discounts provided for youth, elderly, and disabled riders. BART fares are escalated to YOE by applying a forecast change in the consumer price index. Tables 9-5 and 9-6 list estimated fare and related revenues for the assumed 2030 operating plans of the BEP Alternative.

Table 9-5: Annual O&M Costs, Capital Reserve Contribution, and Operating Revenues for BART Extension Service: 2030 Operating Plans ($2009 in millions)

Item	No Build Alternative	BEP Alternative	SVRTP Alternative[a]
BART Incremental O&M (Generated by Santa Clara County Extension)			
Direct O&M Costs	$0	$38.6	$84.9
Allocation of Fixed Overhead O&M Costs	$0	$5.0	$12.7
Capital Reserve Contribution[b]	$0	$7.4	$29.3
Fare and Related Operating Revenues (Credit)[c]	$0	($18.6)	($63.6)
NET COST:	**$0**	**$32.4**	**$63.4**

Notes:
[a] Operating and maintenance costs for the SVRTP Alternative do not provide the same level of detail as the No Build and BEP alternatives. Further refinements would need to be made to the SVRTP cost estimates before making direct comparisons to the No Build and BEP alternatives, which have been updated based on the September 2009 New Starts submittal to FTA.
[b] Capital reserve contribution for the BEP Alternative based on New Starts Financial Plan. Capital reserve contribution for SVRTP Alternative based on March 2009 Draft EIS (30 percent maximum).
[c] Farebox, advertising and parking revenues generated by increase in BART ridership and expanded BART operations in 2030.

Source: AECOM, October 2009

Table 9-6:Annual O&M Costs, Capital Reserve Contribution, and Operating Revenues for BART Extension Service: 2030 Operating Plans ($YOE in millions)

Item	No Build Alternative	BEP Alternative	SVRTP Alternative[a]
BART Incremental O&M (Generated by Santa Clara County Extension)			
SVRT Direct O&M Costs	$0	$85.9	$165.8
SVRT Allocation of Fixed Overhead O&M Costs	$0	$11.0	$24.9
Capital Reserve Contribution[b]	$0	$16.5	$57.2
Fare and Related Operating Revenues (Credit)[c]	$0	($34.8)	($118.9)
NET COST:	**$0**	**$78.6**	**$128.9**

Notes:
[a] Operating and maintenance costs for the SVRTP Alternative do not provide the same level of detail as the No Build and BEP alternatives. Further refinements would need to be made to the SVRTP cost estimates before making direct comparisons to the No Build and BEP Alternative, which have been updated based on the September 2009 New Starts submittal to FTA.
[b] Capital reserve contribution for the BEP Alternative based on New Starts Financial Plan. Capital reserve contribution for SVRTP Alternative based on March 2009 Draft EIS (30 percent maximum).
[c] Farebox, advertising and parking revenues generated by increase in BART ridership and expanded BART operations in 2030.

Source: AECOM, October 2009 and May 2009

Fare and related revenues are projected to equal, and thereby offset, approximately 36 percent of BEP Alternative and 62 percent of SVRTP Alternative incremental operating and maintenance costs for BART extension service. The net total annual cost for the BEP Alternative is approximately $78.6 million and for the SVRTP Alternative, approximately $128.9 million, both figures in YOE. Net costs for the SVRTP Alternative would be higher despite better fare recovery due to the higher total costs of operating an approximately 16-mile BART extension versus approximately 10 miles for the BEP Alternative.

Revenue from Federal Formula Funds

The San Jose Urbanized Area will receive formula grant funds from FTA based on the BART service operated in Santa Clara County on the extension, and these revenues could be applied towards VTA's annual capital funding obligation to the BART District. Federal transit formula grants are funds distributed to urbanized areas according to the revenue vehicle miles and route miles of fixed guideway transit in a region and other formulas. The San Francisco Bay Area Metropolitan Transportation Commission (MTC) is the designated recipient of federal transit formula grants from FTA and manages the re-distribution of these funds to transit operators within the San Jose Urbanized Area. MTC prioritizes the allocation of funds based on capital rehabilitation and ongoing maintenance needs.

Potential formula funds are not included in revenues estimates and therefore not assumed to offset a further portion of BART extension operating and maintenance costs. This is because formula funds are subject to congressional renewal of transportation program authorization legislation, and the financial analysis has attempted to be conservative by recognizing the uncertainty of federal actions in 2030. However, formula funds could be significant as they could be approximately $19.6 million in Section 5309 Fixed Guideway Modernization Program grants and $13.6 in Section 5307 Large Urban Cities grants annually in 2030 under the BEP Alternative. The SVRTP Alternative could receive approximately $33.2 million in Section 5309 Fixed Guideway Modernization Program grants and $23.0 in Section 5307 Large Urban Cities grants annually in 2030. All figures are in YOE and assume that the current transit formula funding programs are continued in their present forms through 2030.

9.3.3 NET ANNUAL O&M COSTS IN 2030: ALL VTA SERVICES

Net operating and maintenance costs to VTA in 2030 for all VTA operated and assisted services combined with BART extension service under the BEP Alternative are shown in Table 9-7. The costs are compared to the 2030 No Build Alternative to indicate the net change. The net change corresponds to the increase in VTA's operating subsidy for all planned transit services that would serve Santa Clara County residents. The analysis is in YOE.

The BEP Alternative generates higher operating costs and higher ridership compared to the No Build Alternative. Higher ridership will lead to increased operating revenues. The net increase in operating and maintenance costs that are either directly or indirectly subsidized by VTA is approximately $67 million in 2030 under the BEP Alternative (a 16 percent increase over No Build net operating and maintenance costs).

Table 9-7: Net Annual Operating and Maintenance Costs in 2030 ($YOE in millions)

Mode	No Build Alternative Net O&M	BEP Alternative		SVRTP Alternative[a]	
		Net O&M	**Change Relative to No Build**	**Net O&M**	**Change Relative to No Build**
VTA Bus and Light Rail	$432.2	$420.9	($11.3)	$407.0	($25.2)
BART (Generated by Santa Clara County Extension)	$0	$78.6	$78.6	$128.9	$128.9
TOTAL:	**$432.2**	**$499.5**	**$67.3**	**$536.0**	**$103.8**
% of No Build			**16%**		**24%**

[a] Operating and maintenance costs for the SVRTP Alternative do not provide the same level of detail as the No Build and BEP alternatives. Further refinements would need to be made to the SVRTP cost estimates before making direct comparisons to the No Build and BEP alternatives, which have been updated based on the September 2009 New Starts submittal to FTA.

Source: VTA, September 2009

The BEP Alternative will include an increase in VTA bus service to complement the shorter BART extension, providing express bus service to closely replicate the remaining SVRTP Alternative stations. The expanded BEP Alternative bus services will connect BART to downtown San Jose, San Jose Diridon Station, and Santa Clara. Feeder and express bus services serving the Milpitas and Berryessa stations will be expanded from the level of service provided in the No Build Alternative, in part through a redesign of No Build bus service in the corridor. The extension of BART, for instance, will allow VTA to eliminate and/or modify bus routes along the BEP Alternative alignment.

While BART service under the BEP Alternative tends to generate high passenger revenues (estimated 36 percent operating ratio, defined as the share of operating costs recovered from passenger fares, and related advertising and parking revenues), bus and light rail services do not (estimated 31 percent farebox recovery in 2030).[4] As a

[4] Advertising revenue is calculated on the basis of incremental BART system riders, multiplied by BART's FY08 budgeted advertising revenue per passenger (per BART's FY08 Short-Range Transit Plan).

consequence, the net operating costs of expanded bus and light rail services under the BEP Alternative tend to be high due to low to moderate fare revenue and farebox recovery.

The SVRTP Alternative will include a substantially higher level of BART service than the BEP Alternative, serving additional stations in San Jose and Santa Clara. Bus and light rail will not need to be expanded in the SVRTC due to the broader coverage and access offered by BART under the SVRTP Alternative. Fare revenue on the longer BART extension is projected to be substantially greater than on the shorter BEP Alternative; farebox recovery will also improve when including fares, advertising, and parking revenues. The full BART extension SVRTP Alternative offers a combination of transit services with a potentially higher overall farebox recovery to the interim phase BART extension. It will generate more fare revenue and offset a greater share of its higher operating costs.

9.4 FINANCIAL EVALUATION OF BEP AND SVRTP ALTERNATIVES

This section provides a financial evaluation of VTA's ability to build and operate the BEP and SVRTP alternatives, including a discussion of revenue sources and current funding.

9.4.1 CAPITAL COST FUNDING

VTA has developed a funding strategy that relies on three key funding categories: (1) local sales tax and other local funds, (2) state funds, and (3) federal Section 5309 New Starts funds. Table 9-8 shows the funding sources for each build alternative in YOE.

Local Sales Taxes and Other Funding

Santa Clara County directs sales tax revenues to transit from basically three sources. The Transportation Development Act of 1971, a statewide law, returns a ¼-cent sales tax to California counties. A permanent ½-cent local sales tax for transit was approved by Santa Clara County voters in 1976. Both of these sources are primarily allocated to funding transit operations, although the county ½-cent sales tax is also available for capital projects.

On November 7, 2000, voters in Santa Clara County approved by a 72 percent to 28 percent margin a second ½-cent sales tax for transit. The 2000 Measure A tax took effect April 1, 2006 and continues to 2036. Measure A specifies transit capital projects to which sales tax revenues will be directed, including an extension of BART service into Santa Clara County.

Table 9-8: Sources of Capital Funding for BEP and SVRTP Alternatives ($YOE in millions)

Funding Source	BEP Alternative		SVRTP Alternative	
	Funding	Percent of Total	Funding	Percent of Total
VTA Local Sales Tax Measure A and Other[a]	$1,373.6	53.3%	$5,251.8	82.0%
State Traffic Congestion Relief Program	$302.9[b]	11.8%	$254.5[c]	4.0%
Federal Section 5309 New Starts	$900.0	34.9%	$900.0	14.0%
TOTAL:	**$2,576.5[d]**	**100%**	**$6,406.3[e]**	**100%**

Notes:
[a] "Other" includes possible state and local funds and potential joint development revenues.
[b] For the BEP Alternative, approximately $15.5 million of expended TCRP funds were used for pre-NEPA conceptual engineering and non-federal activities, and are not included in the total BEP Alternative capital cost estimates presented in tables 9-1, 9-2, and 9-8.
[c] For the SVRTP Alternative, a total of approximately $394.1 million of TCRP funds have been expended on Pre-NEPA and non-federal activities. Non-federal participation assumptions differ for the SVRTP Alternative; all engineering costs expended prior to the New Starts submittal in September 2009 are assumed as pre-NEPA project costs and excluded from the SVRTP Alternative capital cost estimates presented in tables 9-1, 9-2, and 9-8.
[d] BEP Alternative costs have been updated since the Draft EIS to reflect costs submitted in September 2009 for New Starts Annual Reporting.
[e] SVRTP Alternative capital costs reflect those in the March 2009 Draft EIS, have been escalated to year 2009 dollars, and revised to reflect other minor revisions; they are not based on FTA New Starts Reporting Criteria.

Source: VTA, September 2009

If necessary, additional local funding for a BART extension could come from the other county sales taxes for transit, discretionary local and state sources, potential joint development and related revenues, regional toll lane revenues, and possibly other federal sources, such as economic recovery grants to local/regional public agencies.[5] With respect to joint development, areas surrounding proposed BART stations on both the BEP and SVRTP alternatives have significant development opportunities that can generate revenue for the project.

The VTA Board of Directors has approved issuing debt against future sales tax proceeds as necessary to fund project implementation. This includes debt to guarantee the project cash flow during the construction period when the annual costs of construction could exceed the annual stream of project revenues.

[5] VTA has the authority to pursue joint development per Assembly Bill No. 1937, which was signed by the Governor of California in August 2002.

State Traffic Congestion Relief Program (TCRP)

In 2000, the governor of California signed legislation authorizing the TCRP, which dedicated a portion of the sales tax on gasoline to transportation programs and projects for a period of five years. That provision was subsequently extended for another two years. Among the projects named in the legislation was the SVRT project. The total amount of TCRP funding committed to the project is $648.6 million. As of July 2009, the California Transportation Commission (CTC) has approved $449.6 million of this total by allocation vote. The total amount of TCRP funds that have been expended to date is $394.1 million. A total of approximately $45 million have supported the conceptual engineering and environmental clearance phase of the project. (Measure A funds supplement the TCRP allocation when the latter's category funding limits are reached.) A total of approximately $137 million of expended TCRP funds have supported the 35 percent design phase and $212 million have supported the 65 percent design phase, further advancing the level of engineering detail for project alternatives. The State of California's remaining commitment of $199 million will be used to complete project engineering.

As shown in Table 9-8, $302.9 million of TCRP funds are included in the state's portion of funding for the BEP Alternative capital cost estimate that is subject to federal participation[6]. TCRP funds will amount to 11.8 percent of the $2.576 billion capital cost of the BEP Alternative subject to federal participation (YOE dollars). Total TCRP funding participation for the BEP Alternative, including pre-NEPA costs and federal participation costs combined, is estimated at $352.3 million. A total of $254.5 million of TCRP funds are included in the state's portion of funding for the SVRTP Alternative capital cost estimate that is subject to federal participation[7]. TCRP funds will amount to 4.0 percent of the $6.406 billion capital cost of the SVRTP Alternative subject to federal participation (YOE dollars).Total TCRP funding participation for the SVRTP Alternative, including pre-NEPA costs and federal participation costs combined, is estimated at $648.6 million. TCRP funds are not assumed to escalate above the current commitment.

Federal Section 5309 New Starts

Federal Section 5309 New Starts funds are discretionary funds appropriated annually by the U.S. Congress for fixed guideway transit projects. Under Section 5309, projects are evaluated and rated by the FTA and submitted to Congress for appropriations.

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[6] As part of the September 2009 New Starts submittal, federal participation engineering costs for the BEP Alternative have been defined by FTA to include the completed 35 percent and 65 percent design phases. The conceptual engineering design phase costs for the BEP Alternative have been excluded from the capital cost estimate as a pre-NEPA activity.

[7] Federal participation assumptions differ for the SVRTP Alternative. All engineering costs expended prior to the New Starts submittal in September 2009 were assumed as pre-NEPA project costs. The SVRTP Alternative does not reflect the same FTA-based definitions for estimating project capital costs assumed for the New Starts Candidate Project.

Although New Starts funding can be requested for up to 80 percent of the total federal project cost, generally it does not exceed 50 percent. FTA issues a more favorable project local financial commitment rating, and therefore often a higher project rating, to projects that have a higher percentage of non-New Starts funds required for their implementation, from preliminary engineering through construction and start-up.

The BEP Alternative's financial plan includes New Starts funding in the amount of $900 million in YOE. This would represent approximately 35 percent of costs for the BEP Alternative. A FFGA between the FTA and VTA would be required to secure these funds, with grant funds allocated annually at the discretion of Congress. An FFGA could be requested of FTA in 2010 (for award in federal fiscal year 2012) for the BEP Alternative.

9.4.2 VTA BUS, BRT AND LRT O&M COSTS FUNDING

The primary sources of funding for VTA's current bus, BRT and LRT operations, and for other transit operating assistance commitments of the Authority include:

- Local Transportation Fund component of the State Transportation Development Act (TDA ¼ cent sales tax, of which approximately 94 percent is returned to source)
- Permanent (1976) Santa Clara County ½ cent sales tax
- 2000 Santa Clara County Measure A ½ cent sales tax, effective 2006-2036. Approximately 18.5 percent of these revenues are made available annually for VTA operations.
- State Transit Assistance (STA) program funds from gasoline sales tax revenues
- Passenger fare revenues
- Other sources (e.g., advertising, rentals, interest earnings, etc.).

Local tax measures have provided VTA reliable and somewhat stable funding for transportation improvements over the past 26 years. Local sales taxes have voter approval to continue into the future. Together with passenger fares and state operating assistance, VTA has developed a revenue stream that has supported the growth of transit service in the county. The sources have provided VTA substantial funds to provide a high level of bus and LRT service for county residents and to help support other regional services (e.g., Caltrain and ACE commuter rail). They are projected to generate sufficient funds to cover future operating subsidies required for these services, with the provision there could be periodic adjustments of services to ensure a balance between operating costs and operating revenues, both of which can fluctuate with local economic conditions. (See Section 9.5, Funding Issues and Risk Analysis, for a discussion of variability in Santa Clara County sales tax revenues for transit.)

9.4.3 BART EXTENSION O&M COST FUNDING

In November 2001, VTA and BART executed a comprehensive agreement in connection with a proposed BART extension into Santa Clara County. Pursuant to the agreement, VTA and BART agreed that the ongoing operating and maintenance costs caused by operating the extension, both within and outside Santa Clara County, are the financial responsibility of VTA (capital costs of an extension are also a VTA responsibility).

The estimated annual amount of the subsidy required by VTA to meet this responsibility would vary depending upon service levels and passenger fare revenues. Based on the proposed 2030 operating plans, the total net annual costs to VTA for BART extension service would be approximately $79 million under the BEP Alternative and $129 million under the SVRTP Alternative (both figures are 2030 YOE). In the first years of operation, service levels are expected to be somewhat lower, therefore the subsidy would be less than in 2030.

The VTA-BART agreement calls for the annual subsidy to be funded from a VTA dedicated revenue source. During initial project planning, it was determined that existing sources of operating funds would likely not be sufficient to cover all of the additional net operating costs associated with the BEP or SVRTP alternatives. An analysis of VTA's financial capacity to build a BART extension into Santa Clara County and reimburse BART for the net costs of its operation, while continuing to operate and maintain the existing bus, light rail, and paratransit service over the next 20 years, indicated that existing operating resources would need to be augmented to improve long-term financial results.[8]

Therefore, the VTA Board of Directors decided to place another local sales tax on the ballot. On November 4, 2008, county voters were given the opportunity to approve Measure B, adding a ⅛-cent increment to the local sales tax and dedicated solely to operate the BART extension to Santa Clara County. The tax would go into effect contingent upon VTA executing an FFGA with FTA for at least $750 million in federal participation towards a project and the state committing at least $216 million in additional TCRP or other funds, the tax would be in effect for 30 years. Measure B was approved by the required two-thirds margin (66.7 percent of voters in favor, 33.3 percent in opposition). Thus, Santa Clara County will have a combined local/state sales tax rate of 1.375 percent for transit when Measure B takes effect.[9]

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[8] Funding sources to operate and maintain all existing VTA transit services (operated and assisted) would not be used as a funding source for BART extension operations and maintenance costs.

[9] Local sales taxes for transit would include the ¼-cent TDA, ½-cent 1976 permanent sales tax, ½- cent Measure A, and ⅛-cent Measure B.

Potential revenue projections for the Measure B sales tax, to support operating and maintenance costs for a BART extension to Santa Clara County, is estimated at $1.20 billion from 2013 through 2038. VTA has determined that the Measure B sales tax would generate sufficient revenues to fully fund the estimated BART subsidy or net operating and maintenance cost for either the BEP or SVRTP alternatives.

9.4.4 POTENTIAL NEW FUNDING SOURCES

By approving the latest sales tax increment for transit, Santa Clara County voters and VTA have bolstered the financial plan for bringing BART service into the county and supporting its long-term operation once construction is complete. However, there is continual pressure to expand and/or improve transit services besides completing a BART extension. Therefore, VTA has determined it would be prudent to consider other potential sources of funding that could further support VTA's overall transit programs.

Several potential sources have been identified to augment funding for bus, LRT, and BART extension services. However, before pursing some of them, certain legislative actions may be needed to help make them a reality. Potential new revenues, which could be considered by the VTA Board of Directors, include the following:

- **Extending the Local Sales Tax.** VTA's Measure A sales tax for transit capital expansion projects is currently scheduled to sunset on April 1, 2036. With voter approval, this tax could be extended beyond the 2036 sunset date to provide additional funds for transit expansion programs, including SVRT. Funds enabled beyond April 1, 2036 could be borrowed against to provide accelerated funding for capital programs.
- **HOT Lanes Revenues.** Currently, Santa Clara County is in the process of implementing High Occupancy Toll (HOT) lanes on SR-85 and US 101 in the county. This new revenue source for VTA being developed as part of a regional initiative led by the MTC to construct and operate toll facilities throughout the San Francisco Bay Area. Any proceeds not applied to cover the operations and maintenance and debt service costs for the HOT facilities may be applied to provide transit services in adjacent corridors. VTA anticipates the application of a portion of these revenues to provide eligible transit services in the County.
- **Broadening the Sales Tax Base.** The California state legislature has explored a number of options for increasing revenues, one of which is broadening the sales tax base to include certain professional services. The prospects for legislative action in the near-term do not appear promising, given the controversial nature of this approach. However, given the long-term structural problem with the sales tax resulting from an increasingly higher percentage of personal income being spent on non-taxable transactions, the concept of broadening the sales tax base will continue to be a part of political discussions. Broadening the sales tax base would require a 2/3-vote of both houses of the legislature.

- **Joint Development.** VTA has statutory authority to pursue joint development in conjunction with transportation projects under Assembly Bill No. 1937. There are excellent opportunities for joint development at all of the proposed BART stations in the SVRTC, which could yield both capital funding and ongoing operational support.
- **Benefit Assessment Districts.** On October 11, 2003, the Governor signed legislation (Assembly Bill No. 935) that gives VTA the authority to assess fees on property owners within a half-mile of any existing or proposed rail transit station. With the concurrence of a majority of the affected property owners and the appropriate local jurisdiction, the proceeds generated from such assessments could be used to build, maintain, operate, and improve a rail transit station or stations located within a particular benefit assessment district.
- **Proposition 42.** This proposition provided a new state source of transportation funding, including supplemental State Transportation Improvement Program funds beginning in 2009. Since these funds are not currently committed, it is assumed that a portion could be used to supplement the Measure A sales tax.
- **Regional Gas Tax.** The MTC is empowered to place a regional gas tax on the ballot of up to $0.10 per gallon. Such a tax measure, as the law currently stands, requires a 2/3-vote to pass.

9.5 FUNDING ISSUES AND RISK ANALYSIS

The financial plan for construction and operation of a BART extension into Santa Clara County is based on a number of assumptions about future conditions, in particular costs and revenues in the period 2009 through 2038—and thereafter in the event long-term debt is a financing mechanism. Although the best efforts are made to forecast the future and to be conservative in key assumptions (not being overly optimistic on revenues or costs), under certain circumstances actual conditions could differ from forecasts. The following describes several risks to the BEP and SVRTP alternatives, including the financing plan, that could increase costs and/or decrease funding and thereby require corrective actions by VTA or other project participants in order to ensure construction and operation of a BART extension.

Variability in Sales Tax Revenues. VTA is heavily reliant on local sales tax revenues for both the implementation of capital projects and the operation of its transit services. Historically, sales tax-based revenues accounted for approximately 80 percent of VTA's annual operating revenues, making it the single most important determinant of VTA's financial strength. Historically, sales tax revenues have enjoyed healthy and steady growth, even through the recession of the early 1990s. Growth, however, was substantially reduced during the economic downturn in Santa Clara County during the early 2000s when many high technology and internet related businesses experienced declining revenues. Even accounting for that recession, the average annual growth rate in the county's permanent ½ -cent sales tax was strong over the period from 1978 through 2007—approximately 5.9 percent. The current recession has again depressed local economic activity and reduced sales tax receipts. The full effects of the recession have not yet been ascertained.

Future sales tax revenue forecasts do not anticipate that pre 2008 high annual rates of growth will continue. For the permanent ½ -cent tax and Measure A ½ -cent sales tax, the projected average annual growth rate from 2009 to 2038 is just over 1.9 percent. Despite the more conservative projections compared to historic growth, it is possible sales tax revenue growth will not reach these levels. The current economic downturn has reduced sales tax revenue in 2008 and 2009 to below expected levels, and 2010 could be another low or no-growth year. An extended recession—and unexpected future downturns—could leave VTA with shortfalls in funding for capital and operations, and require either further cutbacks in programmed levels of expenditures or replacement of sales tax revenues by another source of funding.

Lower Ridership/Lower Fare Revenues. Lower operating revenues from passenger fares could result from either VTA not escalating fares to keep pace with inflation or slower than anticipated ridership growth. Fare revenue is projected to provide a large offset to the total operations and maintenance costs for BART service into the county. It is also projected to offset about 30 percent of VTA's future operating costs for bus and rail service (2030 conditions). The risk is to VTA operations that might need to be curtailed in order to bring operating revenues more in line with operating costs.

Higher than Anticipated Capital Program Costs. Higher than estimated costs, not just for a BART extension but also for other VTA transit capital programs, could place the agency's financial plan at risk. Market conditions could change from those assumed in cost estimates and programming documents and result in construction costs escalating faster than revenues. VTA will need to either reduce costs, possibly by cutting back programs, or augment revenues through new sources of funding for transit.

Excessive Schedule Delays. Construction costs for a project could escalate over time and therefore be higher for a project completed beyond the current schedule (opening of a BART extension project is proposed in 2018). The resulting increase in the capital costs of a project will need to be offset by additional revenues, or a reduction in the project scope could be required to reduce cost.

Loss or Shortfalls in Other Funding Sources. In the event a BART extension project is not awarded an FFGA or if VTA does not receive programmed state/other funds in the amounts and timeframes assumed, the financial plan for the project will be adversely affected. Alternate sources of funding, possibly from local, regional, or state initiatives, will need to be secured to carry out a BART extension and/or other VTA projects.