TRANSIT OPERATING AND CAPITAL NEEDS AND REVENUE ASSESSMENT

Plan BayArea 2040

FINAL SUPPLEMENTAL REPORT

Metropolitan Transportation Commission

Association of Bay Area Governments

JULY 2017

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Plan Bay Area 2040: Final Transit Operating and Capital Needs and Revenue Assessment

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Executive Summary

For Plan Bay Area 2040 (PBA2040), MTC estimated the funding needed to operate and maintain existing transit services over the 24-year plan period from FY2016-17 to FY2039-40. On the cost side, the analysis has two components: (a) operating and maintenance costs, and (b) capital replacement and rehabilitation costs. The estimate of needs includes the cost to maintain transit assets in a state of good repair— meaning assets are replaced at the end of their useful lives— and the cost to maintain transit capital assets at their condition levels as well as maintain existing service levels for public transit. On the revenue side, the analysis includes revenues that are committed to transit operating or capital costs by law or MTC or transit agency policy, and discretionary funds that are allocated to transit operating or capital needs by MTC or Congestion Management Agencies (CMAs).

As shown in Table 1 below, to reach a state of good repair in addition to being able to maintain existing service levels for public transit, the region will need to spend an estimated total of $167 billion over the next 24 years. PBA2040 revenue estimated to be available for the operation and maintenance of the existing system total $151 billion, leaving a remaining need of approximately $15 billion.

Table 1. Transit Operating and Capital Needs and Revenue Summary

Mode	PBA2040 Revenue	Need (State of Good Repair)	Need (Maintain Conditions)	Remaining Need (State of Good Repair)
Transit Operating1	$119,830	$119,830	$119,830	$0
Transit Capital	$32,435	$47,050	$28,856	$14,615
Total	$151,470	$166,880	$148,686	$14,615

Transit Operating

In the spring of 2015, MTC distributed a Transit Operating Needs Assessment Survey to each of the Bay Area's 25 transit operators. The Transit Operating Needs Assessment Survey gathered information from transit operators on current and planned service levels; existing and projected operating costs; and existing and projected local operating revenues over the PBA2040 period. Staff received survey data for each of the 25 surveys distributed to transit operators.

The cost to operate and maintain existing service levels was projected by the transit operators. MTC requested a cost breakdown of expenses by mode (bus, paratransit, rail, etc.) and system-wide non-operating expenses including debt service by year-of-expenditure. Transit operators also provided planned service changes associated with committed capital projects and/or fully funded future increases in service hours over the PBA2040 period.

Inflation assumptions were checked for reasonableness across similar expense categories. The cost impact of projected changes in service levels during the plan period was accounted for only in instances where those changes are a result of the transit operators' policy directives. The operating cost projections include existing service levels and cost projections for committed expansion projects. Where

there were questions on the assumptions, MTC worked with the transit operator to get clarification and used information deemed most accurate by the transit operator.

Transit operating revenues are categorized as coming from either "committed" or "discretionary" sources. Committed revenue consisted of dedicated local funds that are controlled by the operators including transit fares, non-fare revenue (such as general fund contributions or revenue from advertising), other revenue (such as that from charter service), and county sales tax for operating and maintenance needs. Discretionary revenues consist of fund sources for which MTC has some role or discretion in distributing, including State Transit Assistance (STA), AB 1107 sales tax, Transportation Development Act (TDA) sales tax funds, bridge tolls, and Federal Transit Administration Funds.

Committed revenues were projected by the transit operators, and were checked for consistency with revenue projections provided in the operators' most recently submitted Short Range Transit Plans. Discretionary revenues were projected by MTC and incorporated into the needs assessment. Staff assumed sales tax growth rates for county sales tax measures, transit sales taxes, and TDA are consistent with the sales tax growth rates provided by the sales tax authorities. Where necessary sales tax growth rates provided by operators were adjusted. This is consistent with the PBA2040 financial assumptions and revenue forecast. Some fund sources are restricted by either statute or policy to either operations or capital uses, while some fund sources are flexible. MTC staff generally assumed that all flexible transit revenues would first cover operating expenses; and then additional revenue, if any, was assigned to capital replacement if there was an identified need.

The PBA2040 Transit Operating Needs Assessment projections resulted in a 24-year total operating expense for all operators combined of $119.8 billion, for the provision of approximately 303.2 million hours of revenue vehicle service. The needs assessment results indicated a significant increase in annualized service levels of approximately 8% over Plan Bay Area 2013 (PBA2013), and an even more significant increase of approximately 25% in projected costs.

Projected operating service levels, expenses, and revenues are summarized in Table 2.

Table 2: PBA2040 Projected Transit Operating Service Levels, Expense, and Revenue
Dollars in Millions

Transit Operator	24 Year Total Service Levels (Revenue Vehicle Hours)	24 Year Total Costs (all modes)	24 Year Total Revenue from Committed Sources	24 Year Total Revenue from Discretionary Sources	24 Year Total Revenue
ACE	1,117,485	$1,300	$1,221	$79	$1,300
AC Transit	40,513,851	$13,416	$10,046	$3,370	$13,416
BART	49,139,746	$30,691	$30,677	$14	$30,691
Caltrain	5,286,000	$5,484	$5,484	$0	$5,484
CCCTA	7,125,552	$1,332	$582	$750	$1,332
City of Dixon	186,291	$39	$3	$35	$38
ECCTA	5,307,150	$786	$203	$583	$786

City of Fairfield	2,287,392	$355	$125	$230	$355
GGBHTD	6,908,679	$3,915	$3,549	$366	$3,915
LAVTA	3,366,264	$522	$176	$346	$522
Marin Transit	6,059,722	$972	$677	$295	$972
NVTA	2,647,608	$310	$56	$254	$310
City of Petaluma	710,836	$82	$23	$59	$82
City of Rio Vista	96,000	$15	$2	$13	$15
SFMTA	91,585,085	$35,199	$32,074	$3,125	$35,199
SamTrans	16,272,000	$5,377	$3,957	$1,420	$5,377
SMART	245,316	$713	$713	$0	$713
City of Santa Rosa	2,481,912	$536	$141	$395	$536
Solano County Transit	2,623,440	$455	$185	$270	$455
Sonoma County Transit	3,069,116	$496	$77	$419	$496
Union City Transit	2,211,407	$211	$68	$144	$211
City of Vacaville	1,120,654	$166	$13	$153	$166
VTA	49,893,621	$15,734	$12,251	$3,483	$15,734
WCCTA	2,578,325	$312	$161	$151	$312
WETA	404,701	$1,413	$1,315	$98	$1,413
TOTAL	303,238,153	$119,831	$103,779	$16,051	$119,830

Transit Capital

The cost to maintain the Bay Area's existing transit infrastructure in a state of good repair is estimated by running operator submitted information on existing transit assets through an analysis tool designed to estimate the level of investment needed to attain a specified state of good repair.

The Regional Transit Capital Inventory (RTCI) is a comprehensive regional database of the transit assets owned by Bay Area transit agencies. The objective of the RTCI is to collect consistent and comparable data on the region's transit capital assets, and on replacement and rehabilitation costs for each transit operator. The asset information contained in the database is provided by Bay Area operators and represents a significant effort to ensure that assets in the region are maintained in a state of good repair. The RTCI was significantly revised in 2014 using RTCI data from 2011 as a basis. The database was last updated in 2015.

The RTCI data collected from operators contains information on transit asset types (vehicles, track, stations, systems, etc.), quantities, age, useful lives and replacement costs, among other details. MTC

staff screens the inventory data that is submitted for errors and anomalies through a rigorous, multi-layered process prior to importing it into the analysis tool. The results of the analysis model are then further screened and prepared for review by transit operators. MTC works closely with the transit operators to ensure the accuracy of the final assessments.

Transit capital needs were defined as the cost of replacing all assets at the end of their useful lives, and performing all capital rehabilitation work in accordance with the rehabilitation cycle for the asset type. This includes eliminating the existing $10 billion backlog of deferred replacement and rehabilitation projects over the first 10 years of the planning period. In some cases, particularly for long-lived assets such as stations or tunnels, major components were assumed to be replaced or maintained on an annualized basis, rather than replaced entirely.

Transit revenues currently committed to capital replacement and rehabilitation by statute or policy were assumed to remain dedicated to capital over the 24-year planning period. These sources include FTA Urbanized Area Formula (Section 5307), Bus & Bus Facilities (Section 5339), FTA State of Good Repair (Section 5337), AB 664, 2 percent bridge tolls, programmed One Bay Area Grant (OBAG) funds, certain county transportation sales taxes, local and state bond proceeds for seismic work, and, as noted above, projected operating surpluses, if any. The funding levels assumed in the revenue projections for federal funds incorporate the changes brought on by passage of the Fixing America's Surface Transportation (FAST) Act.

FTA revenue projections were based on actual apportionments with an assumed 2 percent annual growth rate until FY2022, followed by a 3 percent growth rate for the duration of the projection period. The FTA and bridge toll revenues for each operator were projected by using the current programming policies for these sources applied to the projected needs. The projected FTA formula funds were assigned to operators using the Transit Capital Priorities Project Apportionment Model used for annual programming of the FTA funds. The FTA funds come into the region through 12 urbanized areas, and each operator is eligible for funding from one or more urbanized area. The Project Apportionment Model assigns funds to projects based on urbanized area eligibility and project score. Refer to the Financial Assumptions supplemental report for information on projections of other revenue sources.

Projected capital revenues totaled $32.4 billion, including $11 billion in committed funding and $21.4 billion in discretionary revenue. The projected capital needs totaled $47 billion, resulting in $14.6 billion of remaining needs. For projects that are high-scoring (generally, Score 16) under the region's Transit Capital Priorities policy – revenue vehicle replacement, fixed guideway rehabilitation, and major systems – projected needs totaled $32.9 billion, with $500 million of the Score 16 needs remaining unfunded after applying the eligible committed funds.

The $32.4 billion total project revenues for transit capital rehabilitation – committed and discretionary– are sufficient to cover 100 percent of projected vehicle and total fixed guideway needs, 99 percent of other Score 16 needs, and 69 percent of all capital needs.

It is important to note that these Plan Bay Area 2040 funding assignments are based on projections of aggregate need over 24 years. Actual programming will vary year to year and will take into account actual project eligibility and readiness. Projected transit capital rehabilitation and replacement needs and revenues for all projects are summarized in Table 3.

Table 3: PBA2040 Projected Transit Capital Expense and Revenue

Dollars in Millions

Transit Operator	24 Year Total Costs (000s)?	24 Year Total Revenue from Committed Sources	24-Year Revenue from Discretionary Sources	Total Revenue	*Remaining Need*
AC Transit	$2,934	$906	$968	$1,874	($1,059)
ACE	$291	$1	$178	$179	($111)
BART	$18,121	$4,714	$8,466	$13,180	($4,940)
CalTrain	$3,634	$1,472	$1,470	$2,942	($693)
CCCTA	$263	$25	$238	$263	$0
Delta Breeze	$9	$0	$4	$4	($5)
City of Dixon	$8	$2	$5	$7	($1)
ECCTA	$134	$51	$83	$134	$0
City of Fairfield	$95	$57	$7	$64	($30)
GGBHTD	$990	$84	$382	$466	($525)
LAVTA	$183	$10	$109	$119	($64)
Marin Transit	$147	$0	$66	$66	($81)
NVTA	$82	$0	$61	$61	($21)
City of Petaluma	$32	$18	$14	$32	$0
SamTrans	$1,208	$1	$451	$452	($756)
City of Santa Rosa	$72	$2	$22	$24	($48)
Sonoma County	$197	$24	$104	$128	($69)
SFMTA	$12,664	$1,536	$5,736	$7,272	($5,392)
SMART	$629	$569	$60	$629	$0
Solano County Transit	$240	$1	$139	$140	($99)
Union City Transit	$32	$0	$19	$19	($13)
City of Vacaville	$54	$0	$22	$22	($32)
VTA	$3,495	$1,455	$1,907	$3,362	($133)
WestCAT	$92	$1	$34	$35	($57)
WETA	$1,442	$73	$823	$896	($546)
Total	**$47,050**	**$11,002**	**$21,368**	**$32,370**	**($14,676)**