

# Plan BayArea

To: MTC Planning Committee, ABAG Administrative Committee

Date: February 10, 2012

Fr: ABAG and MTC Executive Directors

Re: Guidance for Applying Project Performance Assessment to Plan Bay Area Investments

This memorandum proposes guidelines for applying the results of the Project Performance Assessment to help inform the selection of projects for inclusion in the transportation investment element of the preferred Sustainable Communities Strategy (SCS) slated for your approval in May 2012. Staff will ask the MTC Planning Committee and ABAG Administrative Committee to approve the proposed Project Performance Assessment guidelines at your joint meeting on February 17, 2012.

## Background

All uncommitted projects, as defined by the Commission in its Committed Funds and Projects Policy for Plan Bay Area (Resolution No. 4006) adopted in April 2011, are subject to the performance assessment. "Committed" projects are projects that have received environmental clearance and have full funding plans, or are 100% locally funded; all other projects are uncommitted. Our intent is to assess the degree to which potential transportation projects and programs:

- (1) Advance the ten performance targets adopted by MTC and ABAG in January 2011 (MTC Resolution No. 3987); and
- (2) Are cost-effective, based on best practices for benefit-cost analysis in which the aim is to quantify and monetize as many reasonably related benefits as possible.

Staff released draft project performance assessment results at the November 4, 2011 Planning Committee meeting. In January of this year, staff released revised results, which include updated assessment results for a number of projects in response to comments received from Commissioners, project sponsors, congestion management agencies (CMAs) and other stakeholders. Attachment A and the attached slides provide an overview of the project performance assessment methodology and revised results. The complete results and more detailed description of the analysis methodology are posted at: [http://www.onebayarea.org/plan\\_bay\\_area/transportation.htm](http://www.onebayarea.org/plan_bay_area/transportation.htm).

In April 2012, MTC and ABAG staff will recommend a draft preferred SCS that will include a preferred land use and transportation investment strategy. The Commission will use its policy discretion along with the performance assessment results to decide which transportation projects and programs to include in the preferred transportation investment strategy.

### **Proposed Guidelines for Applying Results**

Plan Bay Area must be financially constrained – meaning that the cost of the total planned investments must fit within the estimated financial envelope. Given these financial constraints, we should aim to identify “high-performing” projects that both advance our adopted performance targets and are cost-effective. Working with the CMAs, we will need to confirm funding plans for each of these projects to include them in the financially constrained preferred transportation investment strategy. On the other end of the spectrum, projects with weak performance on targets and/or cost-effectiveness should be subject to further review if CMAs choose to include them in their local project priorities. As we’ve discussed with these committees previously, the real value of this performance assessment process is to identify “outliers” at the either end of the spectrum. Accordingly, MTC staff proposes the following guidelines:

1. The highest and lowest performing projects are defined below and shown in Attachment B. Projects that fall into the Mid-performing range are not subject to these guidelines; their inclusion in the draft preferred transportation investment strategy will be based on county priorities, subject to financial feasibility.
2. “High-performing” projects: Should be included in the preferred investment strategy subject to analysis of financial feasibility. High-performing projects include those with:
  - High benefit-cost ratio ( $\geq 10$ ) and at least a moderate target score ( $\geq 2$ ); or
  - High target score ( $\geq 6$ ) and at least a moderate benefit-cost ratio ( $\geq 5$ )
3. “Low-performing” projects: Should be included only if the sponsor or CMA can make a compelling case. Low-performing projects include those with:
  - Low benefit-cost ratio ( $< 1$ ), regardless of target score; or
  - Low target score ( $< -1$ ), regardless of benefit-cost ratio

#### Compelling Case for Low Performing Projects

Staff proposes that a CMA or project sponsor must **make a compelling case in writing by February 29, 2012** why a low-performing project should be considered for inclusion in the financially constrained preferred transportation investment strategy. Depending on the volume of such requests, a project sponsor may be asked to present the case at the March 9 Joint Planning Committee meeting.

Staff will evaluate each compelling case for consistency with the guidelines approved at your February 17 meeting. At the March 9 meeting, the Committees will decide which, if any, low-performing projects should be included in the draft preferred alternative, again subject to financial constraint.

A case may be made to include a low-performing project in the preferred SCS’s transportation investment plan if the project is financially feasible and falls under one of the categories listed in the table on page 3. The first category, which applies to projects with a low benefit-cost ratio only, acknowledges that some benefits are not fully captured in the regional travel forecast model. The second category, which applies to all projects, acknowledges that federal requirements give special preference to certain kinds of investments, such as those that improve air quality or benefit low-income or minority communities.

Category 1: Benefits not Captured by the Travel Model	Category 2: Federal Requirements
1. Serves an interregional or recreational corridor 2. Provides access to international airports 3. Project benefits accrue from reductions in weaving, transit vehicle crowding or other travel behaviors not well represented in the travel model	1. Cost-effective means of reducing CO <sub>2</sub> , PM, or ozone precursor emission (on cost per ton basis) 2. Provides transportation mobility for communities of concern

Attachment C summarizes comments received earlier this month from members of the Partnership and MTC's Policy Advisory Council.

**Next Steps**

Staff seeks your approval of these guidelines at your February 17 joint meeting. Once approved, MTC staff will notify CMAs and sponsors of these guidelines and of the opportunity to submit a compelling case if project sponsors seek to include the "low performing" projects in the preferred transportation investment strategy. At the same time MTC staff will continue to work with CMAs and transit operators to develop funding plans for the "high performing" projects for inclusion in the draft preferred investment strategy. Key, near-term milestones for Plan Bay Area include:

February 2012	<ul style="list-style-type: none"> <li>▪ MTC Planning and ABAG Administration committees approve guidelines</li> <li>▪ CMAs/sponsors submit compelling cases in writing by February 29</li> <li>▪ MTC staff will review compelling cases relative to the approved guidelines</li> </ul>
March / April 2012	<ul style="list-style-type: none"> <li>▪ CMAs/sponsors present their cases at the March 9 joint MTC Planning Committee/ABAG Administrative Committee meeting</li> <li>▪ Release preliminary preferred scenario for Plan Bay Area (includes investment strategy)</li> </ul>
May 2012	<ul style="list-style-type: none"> <li>▪ <i>Commission Approves Cycle 2 One Bay Area Grant</i></li> <li>▪ MTC / ABAG approves preferred scenario for Plan Bay Area</li> </ul>




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Steve Heminger

**Attachments**

Attachment A: Overview of Project Performance Assessment Approach and Results

Attachment B: Project Performance Assessment: High-Performers and Low-Performers

Attachment C: Comments Received on Proposed Guidelines

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Row #	Project ID*	Project Name	County	Project Type	Project Capital Costs (in millions of 2013 dollars)	Total Annualized 2035 Benefits (in millions of 2013 dollars)	Total Annualized 2035 Costs (in millions of 2013 dollars)	Plan Bay Area B/C Ratio	T-2035 B/C Ratio	Overall Targets Score	Targets Supported	Targets Adversely Affected	
High B/C	1	240182	BART Metro Program (including Bay Fair Connection & Civic Center Turnback)	Multi-County	Transit Efficiency	650	161	-10	>60	n/a	8.5	8.5	0
	2	240694	Treasure Island Congestion Pricing	San Francisco	Pricing	59	69	1	59	n/a	4.0	4.0	0
	3	240522	Congestion Pricing Pilot	San Francisco	Pricing	102	227	5	45	n/a	6.0	6.0	0
	4	22780	AC Transit Grand-MacArthur BRT	Alameda/3434	Transit Efficiency	36	32	2	18	n/a	5.5	5.5	0
	5	230419	Freeway Performance Initiative	Regional	FPI	2,991	3,175	202	16	28	4.0	4.0	0
	6	22274	ITS Improvements in San Mateo County	San Mateo	Road Efficiency	66	56	4	16	n/a	4.0	4.0	0
	7	240494	ITS Improvements in Santa Clara County	Santa Clara	Road Efficiency	320	752	48	16	n/a	4.0	4.0	0
	8	22062	Irvington BART Station	Alameda	Transit Efficiency	123	19	2	12	n/a	5.5	5.5	0
	9	240171	SFMTA Transit Effectiveness Project	San Francisco	Transit Efficiency	157	90	8	11	n/a	7.5	7.5	0
Medium-High B/C	10	240582	Truck & Motorcycle Retirement (BAAQMD program)	Regional	Climate	29	55	6	9	n/a	0.5	1.5	1.0
	11	22400	SR-239 Expressway Construction (Brentwood to Tracy)	Contra Costa	Highway Expansion	373	144	21	7	1	-3.5	1.0	4.5
	12	240431	SR-85 Auxiliary Lanes (El Camino Real to Winchester Boulevard)	Santa Clara	Road Efficiency	198	81	12	7	n/a	0.5	0.5	0
	13	94506	Fremont/Union City East-West Connector	Alameda	Arterial Expansion	190	65	10	7	1	0.5	2.0	1.5
	14	98207T	Alameda-Oakland BRT + Transit Access Improvements	Alameda	Transit Efficiency	16	14	2	6	n/a	5.0	5.0	0
	15	240523, 240060	US-101 HOV Lanes (Whipple Avenue to Cesar Chavez Street)	Multi-County	Road Efficiency	331	123	19	6	n/a	2.5	2.5	0
	16	230161	Van Ness Avenue BRT	San Francisco/3434	Transit Efficiency	140	44	7	6	n/a	6.5	6.5	0
	17	HOTd	Silicon Valley Express Lanes Network	Santa Clara	Express Lanes Network	1,398	408	70	6	n/a	-0.5	2.0	2.5
	18	240155	Better Market Street	San Francisco	Transit Efficiency	200	56	10	6	n/a	6.0	6.0	0
	19	22455	AC Transit East Bay BRT	Alameda/3434	Transit Efficiency	211	62	12	5	n/a	5.5	5.5	0
	20	HOTe	CTC Application + Alameda County Authorized Lanes Express Lanes Network	Multi-County	Express Lanes Network	2,364	602	118	5	n/a	-0.5	2.0	2.5
	21	230468	I-80 Auxiliary Lanes (Airbase Parkway to I-680)	Solano	Road Efficiency	50	18	4	5	2†	1.0	1.0	0
	22	n/a	Local Streets and Roads Capital Maintenance Needs	Regional	Maintenance	n/a	1,369	280	5	5	5.0	5.0	0
	23	240375	BART to San Jose/Santa Clara (Phase 2: Berryessa to Santa Clara)	Santa Clara/3434	Transit Expansion	4,094	324	70	5	n/a	7.0	7.0	0
	24	240134, 21627	Caltrain Service Frequency Improvements (6-Train Service during Peak Hours) + Electrification (SF to Tamien)	Multi-County	Transit Efficiency	848	153	34	5	n/a	7.5	7.5	0
	25	240557	Oakdale Caltrain Station	San Francisco	Transit Efficiency	51	3	1	4	n/a	4.5	4.5	0
	26	240062, 22776	SR-84/I-680 Interchange Improvements + SR-84 Widening (Jack London to I-680)	Alameda	Highway Expansion	381	87	21	4	n/a	-2.5	0.5	3.0
27	230294	New SR-152 Alignment	Santa Clara	Highway Expansion	776	148	41	4	n/a	-2.0	2.0	4.0	
28	230290	Transbay Transit Center - Phase 2B (Caltrain Downtown Extension)	San Francisco/3434	Transit Expansion	2,348	108	31	4	n/a	7.5	7.5	0	
29	240410	Transportation for Livable Communities	Regional	TLC	7,131	875	255	3	2	7.0	7.0	0	
30	21205, 22350	I-680/SR-4 Interchange Improvements + SR-4 Widening (Morello Avenue to SR-242)	Contra Costa	Highway Expansion	396	65	21	3	1	0.5	1.0	0.5	
31	21341	Fairfield/Vacaville Capitol Corridor Station (Phases 1, 2, and 3)	Solano	Transit Efficiency	54	2	1	3	n/a	3.5	3.5	0	

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32	240617	SR-29 HOV Lanes and BRT (Napa Junction to Vallejo)	Napa	Road Efficiency	60	11	4	3	n/a	1.5	1.5	0
33	22227, 240328, 240334	Geneva Avenue Corridor Improvements (Roadway Extension, BRT, and Southern Intermodal Terminal)	Multi-County	Transit Efficiency	216	36	15	2	n/a	4.5	4.5	0
34	240147	Southeast Waterfront Transportation Improvements	San Francisco	Transit Efficiency	397	88	36	2	n/a	3.5	3.5	0
35	240026	SamTrans El Camino BRT	San Mateo	Transit Efficiency	120	59	25	2	n/a	5.5	5.5	0
36	240119	VTA El Camino BRT	Santa Clara	Transit Efficiency	239	28	12	2	n/a	7.0	7.0	0
37	00BART	BART Service Frequency Improvements	Multi-County	Transit Efficiency	1,275	126	56	2	n/a	8.5	8.5	0
38	230604	Bay Bridge Contraflow Lane	Multi-County	Pricing	611	67	31	2	n/a	4.5	4.5	0
39	580_BUS	I-580 Express Bus (Dublin to Livermore)	Alameda	Transit Efficiency	150	32	16	2	n/a	4.5	4.5	0
40	240018	Dumbarton Corridor Express Bus	Multi-County	Transit Efficiency	101	23	12	2	n/a	6.5	6.5	0
41	22511, 22512, 22122, 230613, 22120, 230581	WETA Service Expansion (Treasure Island, Berkeley/Albany, Richmond, Hercules, and Redwood City)	Multi-County/ 3434	Transit Expansion	320	41	22	2	n/a	4.5	4.5	0
42	22605	SR-4 Bypass Completion (SR-160 to Walnut Avenue)	Contra Costa	Highway Expansion	150	15	9	2	1†	-2.5	2.0	4.5
43	00MUNI	Muni Service Frequency Improvements	San Francisco	Transit Efficiency	0	25	14	2	n/a	5.5	5.5	0
44	230164	Geary Boulevard BRT	San Francisco	Transit Efficiency	172	15	9	2	7	6.5	6.5	0
45	240526	SFCTA Transit Performance Initiative	San Francisco	Transit Efficiency	490	28	16	2	n/a	7.5	7.5	0
46	22247	Regional Bikeway Network	Regional	Bike/Ped	1,464	124	73	2	0.5	7.0	7.0	0
47	240699	AC Transit Service Frequency Improvements (Restoration of 2009 Funding Levels)	Multi-County	Transit Efficiency	0	108	65	2	n/a	5.5	5.5	0
48	n/a	New Freedom Program	Regional	Lifeline/New Freedom	n/a	3	2	2	n/a	5.5	5.5	0
49	22268	San Mateo Countywide Shuttle Service Frequency Improvements	San Mateo	Transit Efficiency	0	10	6	2	n/a	2.5	2.5	0
50	230550	Climate Initiatives (5-year program)	Regional	Climate	560	158	112	1	0.4	3.5	3.5	0
51	n/a	Transit Capital Maintenance Needs	Regional	Maintenance	n/a	1,787	1,286	1	1	5.0	5.0	0
52	240545	Parkmerced Light Rail Corridor	San Francisco	Transit Efficiency	76	6	5	1	n/a	5.0	5.0	0
53	230055	Golden Gate Ferry Service Frequency Improvements	Multi-County	Transit Efficiency	34	6	4	1	n/a	4.5	4.5	0
54	LBART	BART to Livermore (Phase 1: 1-Station DMU Extension with Bus Enhancements)	Alameda	Transit Expansion	555	37	29	1	n/a	5.0	5.0	0
55	240521, 240134, 21627	Caltrain Vision (10-Train Service during Peak Hours) + Electrification (SF to Tamien)	Multi-County/ 3434	Transit Efficiency	5,599	272	220	1	n/a	7.5	7.5	0
56	00ACT1	AC Transit Frequent Transit Network	Multi-County	Transit Efficiency	654	606	510	1	n/a	5.5	5.5	0
57	22343	I-680 Express Bus Service Frequency Improvements (Phase 2)	Contra Costa	Transit Efficiency	60	12	11	1	1	4.5	4.5	0
58	98147, 240691	Marin-Sonoma Narrows (Phase 2: HOV Lanes)	Multi-County	Road Efficiency	300	20	18	1	8†	0.5	2.5	2.0
59	240577	Heavy-Duty Truck Replacement (BAAQMD program)	Regional	Climate	211	42	44	1	n/a	0.5	1.5	1.0
60	240196	BART to Livermore (Phase 1: 1-Station Rail Extension with Bus Enhancements)	Alameda	Transit Expansion	1,135	50	52	1	4†	5.0	5.0	0

Page 2 of 3 - \* = projects with updated B/C ratios since draft release marked in blue  
 \*\* = high-performers marked with green stars; low-performers marked with red stars

† = project definition has changed somewhat since T-2035

Row #	Project ID*	Project Name	County	Project Type	Project Capital Costs (in millions of 2013 dollars)	Total Annualized 2035 Benefits (in millions of 2013 dollars)	Total Annualized 2035 Costs (in millions of 2013 dollars)	Plan Bay Area B/C Ratio	T-2035 B/C Ratio	Overall Targets Score	Targets Supported	Targets Adversely Affected
61	22415	Historic Streetcar Expansion Program	San Francisco	Transit Efficiency	66	9	9	0.9	2	5.0	5.0	0
62	240216	Dumbarton Rail	Multi-County/ 3434	Transit Expansion	755	31	36	0.8	n/a	6.0	6.0	0
63	240589	EV Solar Installation (BAAQMD program)	Regional	Climate	25	1	2	0.8	n/a	1.0	1.5	0.5
64	240650	Sonoma Countywide Bus Service Frequency Improvements	Sonoma	Transit Efficiency	428	32	41	0.8	n/a	5.0	5.0	0
65	240676, 240675, 240677	SMART (Phase 2: Extensions to Cloverdale & Larkspur + IOS Cost Deferrals)	Multi-County/ 3434	Transit Expansion	283	10	13	0.7	n/a	5.0	5.0	0
66	230252	Marin Countywide Bus Service Frequency Improvements	Marin	Transit Efficiency	0	9	12	0.7	1	4.5	4.5	0
67	230219, 230314	Golden Gate Bus Service Frequency Improvements	Multi-County	Transit Efficiency	143	16	29	0.5	n/a	4.5	4.5	0
68	22956	Capitol Expressway Light Rail Extension (Phase 2: to Eastridge Transit Center)	Santa Clara	Transit Expansion	276	4	8	0.5	n/a	6.0	6.0	0
69	230547	Monterey Highway BRT	Santa Clara	Transit Efficiency	140	15	37	0.4	n/a	5.5	5.5	0
70	22667	BART to Livermore (Phases 1 & 2: Rail Extension)	Alameda	Transit Expansion	4,177	57	153	0.4	n/a	5.0	5.0	0
71	22019	Downtown East Valley (Phase 2: LRT)	Santa Clara/ 3434	Transit Expansion	307	5	16	0.3	n/a	6.0	6.0	0
72	98139	ACE Service Expansion	Multi-County/ 3434	Transit Efficiency	600	19	67	0.3	n/a	4.0	4.0	0
73	230554	Sunnyvale-Cupertino BRT	Santa Clara	Transit Efficiency	100	5	26	0.2	n/a	5.0	5.0	0
74	22978	Capitol Expressway Light Rail Extension (Phases 2 & 3: to Nieman)	Santa Clara	Transit Expansion	435	3	19	0.2	n/a	6.0	6.0	0
75	240690	Lifeline Transportation Program	Regional	Lifeline/New Freedom	n/a	10	119	0.1	0	5.5	5.5	0
76	22009	Capitol Corridor Service Frequency Improvements (Oakland to San Jose)	Multi-County/ 3434	Transit Efficiency	509	1	18	0.1	n/a	6.0	6.0	0
77	98119	Vasona Light Rail Extension (Phase 2)	Santa Clara	Transit Expansion	176	0	6	0.0	n/a	5.5	5.5	0
78	230101	Union City Commuter Rail Station + Dumbarton Rail Segment G Improvements	Alameda/ 3434	Transit Efficiency	180	0	2	0.0	n/a	5.0	5.0	0

Low B/C

B/C RATIO - COLOR KEY	
High B/C (B/C ratio greater than 10)	Green
Medium-High B/C (B/C ratio between 5 and 9)	Light Green
Medium-Low B/C (B/C ratio between 1 and 4)	Yellow
Low B/C (B/C ratio less than 1)	Red

TARGETS SCORE - COLOR KEY	
Strong Support (score of 6.0 or higher)	Green
Moderate Support (score between 1.5 and 5.5)	Light Green
Minimal Impact (score between -1.0 and 1.0)	Yellow
Moderate Adverse Impact (score between -1.5 and -5.5)	Red
Strong Adverse Impact (score of -6.0 or lower)	Dark Red

Row #	Project ID	Project Name	County	B/C Ratio	Overall Targets Score	Project Capital Costs*	Project Description	
HIGH-PERFORMING PROJECTS **: HIGH B/C (>=10) and MODERATE Targets Score (>=2) OR HIGH Targets Score (>=6) and MODERATE B/C (between 5 and 10)								
1	240182	BART Metro Program (including Bay Fair Connection & Civic Center Turnback)	Multi-County	>60	8.5	650	Increases the efficiency of BART in the urban core by constructing new turnbacks and providing new express train service.	HIGH B/C (>=10)
2	240694	Treasure Island Congestion Pricing	San Francisco	59	4.0	59	Charges a \$5 toll for residents to enter/exit Treasure Island during peak hours; net revenues designated for transit service.	
3	240522	Congestion Pricing Pilot	San Francisco	45	6.0	102	Charges a \$3 toll to enter/exit the northeast quadrant of San Francisco during peak hours; net revenues designated for transit service.	
4	22780	AC Transit Grand-MacArthur BRT	Alameda/3434	18	5.5	36	Constructs a bus rapid transit line along the Grand & MacArthur corridors in Oakland, providing faster service for AC Transit Line NR.	
5	230419	Freeway Performance Initiative	Regional	16	4.0	2,991	Maximizes the efficiency of the roadway network through arterial signal coordination and freeway ramp metering.	
6	22274	ITS Improvements in San Mateo County	San Mateo	16	4.0	66	Maximizes the efficiency of the roadway network through arterial signal coordination and freeway ramp metering.	
7	240494	ITS Improvements in Santa Clara County	Santa Clara	16	4.0	320	Maximizes the efficiency of the roadway network through arterial signal coordination and freeway ramp metering.	
8	22062	Irvington BART Station	Alameda	12	5.5	123	Constructs a new infill BART station in the Irvington district of Fremont.	
9	240171	SFMTA Transit Effectiveness Project	San Francisco	11	7.5	157	Improves reliability and reduces travel times on key Muni bus corridors through signal prioritization and bus lanes.	
10	240134, 21627	Caltrain Service Frequency Improvements (6-Train Service during Peak Hours) + Electrification (SF to Tamien)	Multi-County	5	7.5	848	Electrifies the Caltrain line and purchases additional train vehicles to provide faster, more frequent service during peak hours.	HIGH Targets (>=6) and MEDIUM-HIGH B/C (>=5)
11	240375	BART to San Jose/Santa Clara (Phase 2: Berryessa to Santa Clara)	Santa Clara/3434	5	7.0	4,094	Extends BART from the Phase 1 terminus in Berryessa (North San Jose) through a new BART subway to Alum Rock, Downtown San Jose, Diridon Station, and Santa Clara.	
12	230161	Van Ness Avenue BRT	San Francisco/3434	6	6.5	140	Constructs a bus rapid transit line with dedicated lanes along the Van Ness corridor in San Francisco (from Lombard to Mission).	
13	240155	Better Market Street	San Francisco	6	6.0	200	Increases transit speeds along San Francisco's Market Street between the Embarcadero & Octavia by restricting auto traffic on the corridor.	

\* = shown in millions of 2013 dollars

\*\* = thresholds for high- and low-performers reflect staff proposals for February 2012 Planning Committee; refer to cover memo for more details.

Row #	Project ID	Project Name	County	B/C Ratio	Overall Targets Score	Project Capital Costs*	Project Description
<b>LOW-PERFORMING PROJECTS**: LOW B/C (&lt;1) OR LOW Targets Score (&lt;-1)</b>							
1	22415	Historic Streetcar Expansion Program	San Francisco	0.9	5.0	66	Expands streetcar service with the new Muni E-line, connecting Fort Mason to Caltrain.
2	240216	Dumbarton Rail	Multi-County/ 3434	0.8	6.0	755	Offers new rail service on the Dumbarton corridor between Union City & Redwood City.
3	240650	Sonoma Countywide Bus Service Frequency Improvements	Sonoma	0.8	5.0	428	Increases bus service frequencies in Sonoma County by 50%.
4	240589	EV Solar Installation [BAAQMD program]	Regional	0.8	1.0	25	Installs solar panels at electric vehicle charging stations to offset emissions.
5	240676, 240675, 240677	SMART (Phase 2: Extensions to Cloverdale & Larkspur + IOS Cost Deferrals)	Multi-County/ 3434	0.7	5.0	283	Constructs extensions to SMART's Initial Operating Segment, connecting Cloverdale to Larkspur and building deferred stations.
6	230252	Marin Countywide Bus Service Frequency Improvements	Marin	0.7	4.5	0	Increases bus service frequencies on higher-demand Marin Transit routes.
7	230219, 230314	Golden Gate Bus Service Frequency Improvements	Multi-County	0.5	4.5	143	Increases bus service frequencies on higher-demand Golden Gate bus routes.
8	22956	Capitol Expressway Light Rail Extension (Phase 2: to Eastridge Transit Center)	Santa Clara	0.5	6.0	276	Extends VTA light rail in East San Jose from Alum Rock to Eastridge Transit Center.
9	230547	Monterey Highway BRT	Santa Clara	0.4	5.5	140	Constructs a bus rapid transit line along Monterey Highway, connecting downtown San Jose to points south.
10	22667	BART to Livermore (Phases 1 & 2: Rail Extension)	Alameda	0.4	5.0	4,177	Extends BART from Dublin/Pleasanton to Vasco Road via downtown Livermore.
11	22019	Downtown East Valley (Phase 2: LRT)	Santa Clara/ 3434	0.3	6.0	307	Constructs a new light rail line along Santa Clara Avenue in San Jose, from downtown to Alum Rock.
12	98139	ACE Service Expansion	Multi-County/ 3434	0.3	4.0	600	Provides hourly bidirectional train service between Stockton and San Jose, along with significantly reduced travel times.
13	230554	Sunnyvale-Cupertino BRT	Santa Clara	0.2	5.0	100	Constructs a bus rapid transit line between Sunnyvale and Cupertino.
14	22978	Capitol Expressway Light Rail Extension (Phases 2 & 3: to Nieman)	Santa Clara	0.2	6.0	435	Extends VTA light rail in East San Jose from Alum Rock to Nieman Boulevard.
15	240690	Lifeline Transportation Program	Regional	0.1	6.0	n/a	Funds programs to address transportation gaps for low-income communities.
16	22009	Capitol Corridor Service Frequency Improvements (Oakland to San Jose)	Multi-County/ 3434	0.1	5.5	509	Doubles the frequency of Capitol Corridor service between Oakland and San Jose, leading to approximately hourly service.
17	98119	Vasona Light Rail Extension (Phase 2)	Santa Clara	0.0	5.5	176	Extends VTA light rail from Campbell to Vasona Junction in Los Gatos.
18	230101	Union City Commuter Rail Station + Dumbarton Rail Segment G Improvements	Alameda/ 3434	0.0	5.0	180	Constructs an infill commuter rail station in Union City to serve Capitol Corridor & Dumbarton Rail.

LOW B/C (<1)

\* = shown in millions of 2013 dollars

\*\* = thresholds for high- and low-performers reflect staff proposals for February 2012 Planning Committee; refer to cover memo for more details.

Row #	Project ID	Project Name	County	B/C Ratio	Overall Targets Score	Project Capital Costs*	Project Description	
LOW-PERFORMING PROJECTS**: LOW B/C (<1) OR LOW Targets Score (<-1)								
19	21998	SR-116 Widening & Rehabilitation (Elphick Road to Redwood Drive)	Sonoma	N/A	-1.5	90	Widens SR-116 in Sebastopol and Cotati to add turn lanes and shoulders.	LOW Target Score (<-1)
20	230294	New SR-152 Alignment	Santa Clara	4	-2.0	776	Realigns SR-152 on a new, wider corridor east of Gilroy to accommodate greater traffic volumes.	
21	21884	Petaluma Cross-Town Connector/Interchange	Sonoma	N/A	-2.0	62	Constructs a new interchange on US-101 in Petaluma and provides a new east-west arterial.	
22	240062, 22776	SR-84/I-680 Interchange Improvements + SR-84 Widening (Jack London to I-680)	Alameda	4	-2.5	381	Builds aux lanes on I-680 near the SR-84 interchange and widens SR-84 from the I-680 interchange to Livermore.	
23	22981	SR-4 Widening (Marsh Creek Road to San Joaquin County line)	Contra Costa	N/A	-2.5	110	Widens SR-4 to four lanes from Brentwood to the San Joaquin County line.	
24	22605	SR-4 Bypass Completion (SR-160 to Walnut Avenue)	Contra Costa	2	-2.5	150	Constructs the remaining phases of the SR-4 Bypass freeway in Brentwood.	
25	22207	Farmers Lane Extension (Bellevue Avenue to SR-12)	Sonoma	N/A	-2.5	54	Builds a new arterial roadway in southeastern Santa Rosa.	
26	230477	SR-12 Widening (SR-29 to Sacramento County line)	Solano	N/A	-3.0	50	Widens SR-12 throughout Solano County to increase safety and provide additional capacity.	
27	22400	SR-239 Expressway Construction (Brentwood to Tracy)	Contra Costa	7	-3.5	373	Constructs a new 4-lane expressway from SR-4 Bypass in Brentwood to I-205 in Tracy.	
28	21714	US-101 Widening (Monterey Street to SR-129)	Santa Clara	N/A	-4.0	246	Improves safety by converting US-101 south of Gilroy from expressway to freeway and widens roadway to 6 lanes.	
29	94050	SR-4 Upgrade to Full Freeway (Phase 2: Cummings Skyway to I-80)	Contra Costa	N/A	-4.5	78	Improves SR-4 between Hercules & Martinez by upgrading an expressway to freeway design standards.	
30	240053	Whipple Road Widening (Mission Boulevard to I-880)	Alameda	N/A	-5.0	100	Widens Whipple Road to 4 lanes between Union City and Hayward.	

N/A = B/C ratio not available -- project was not subject to benefit-cost assessment (due to a lack of significant regional impacts)

\* = shown in millions of 2013 dollars

\*\* = thresholds for high- and low-performers reflect staff proposals for February 2012 Planning Committee; refer to cover memo for more details.

**Attachment C: Summary of Comments Received on Proposed Guidelines**

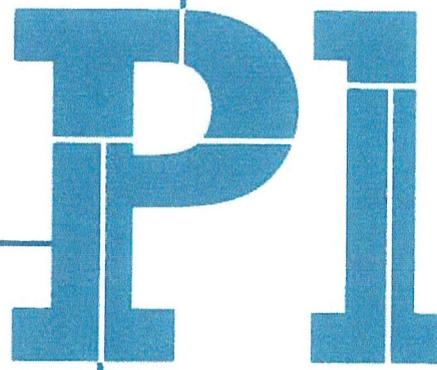
**ORAL COMMENTS**

Comment	Source	MTC Staff Response
<b>General Comments</b>		
1. The compelling case process should remain grounded in solid technical analysis. It should not be so broad that poor performing, politically sensitive projects make the cut.	CMA Association meeting 1/27/12	The proposed guidelines remain grounded in technical analysis. In addition, sponsors should provide supporting information to make their cases.
2. The regional process is unnecessary because the CMAs already evaluate and prioritize projects.	CMA Association meeting 1/27/12	The regional process is appropriate for decisions that involve regional discretionary funds, for which federal, state or regional policies assign MTC a policy role. Projects that are fully funded with local monies are not subject to this policy.
3. Are projects that are 100% locally funded, e.g., with sales tax, subject to the compelling case guidelines?	PTAC 2/6/12	No. Such projects are considered Committed
4. The highest-performing transit projects are all in areas already well-served by transit. Many projects in area that are not well-served by transit show as low-performers. These results seem to make it difficult to develop more transit-rich areas.	MTC Policy Advisory Council 2/8/12	Nearly all transit projects score well on the targets, but some transit projects have low benefit-cost ratios. These tend to be projects in areas with less dense land uses and less existing transit service. This trade-off between coverage and efficiency is common in transit planning.
5. It is difficult to correlate the performance assessment results with the impact of projects on a community of concern. A given project may have a low benefit-cost ratio but be a critical improvement for a given community.	MTC Policy Advisory Council 2/8/12	The staff recommendation includes a criterion for projects to make a compelling case if they provide mobility or reduce emissions in Communities of Concern.

Comment	Source	MTC Staff Response
6. The compelling cases should specify how a project serves a Community of Concern. MTC should consider providing guidance or providing opportunity for review of such claims.	MTC Policy Advisory Council 2/8/12	MTC will ask sponsors to describe how a project serves a Community of Concern. MTC will also review all compelling case letters and report to verify projects meet the specified criteria.
<b><i>Additional Suggested Criteria</i></b>		
7. Consistency with current regional policies such as MTC Resolution No. 3434 Transit Expansion Policy or the Transit Oriented Development (TOD) policy	CMA Association meeting 1/27/12	Staff has not included these factors in the proposed guidelines because they do not merit blanket approval. However, the Committees may wish to use its policy discretion to consider such factors, on a case-by-case basis in conjunction with the project's benefit-cost ratio and targets score result.
8. Inclusion in local sales tax measures or projects that are local priorities, particularly if they are priorities for the business community	CMA Association meeting 1/27/12	
9. Support or catalyze planned growth, particularly in a priority development area (PDA). This would include both transit and roadway projects.	CMA Planning Directors 1/20/12	
10. Address one target particularly well, especially if economic development or safety	CMA Planning Directors 1/20/12	
11. Increases connectivity of transit services or modes	Policy Advisory Council 2/8/12	

**Abbreviations**

CMA            Congestion Management Agency  
 PTAC         Partnership Technical Advisory Committee

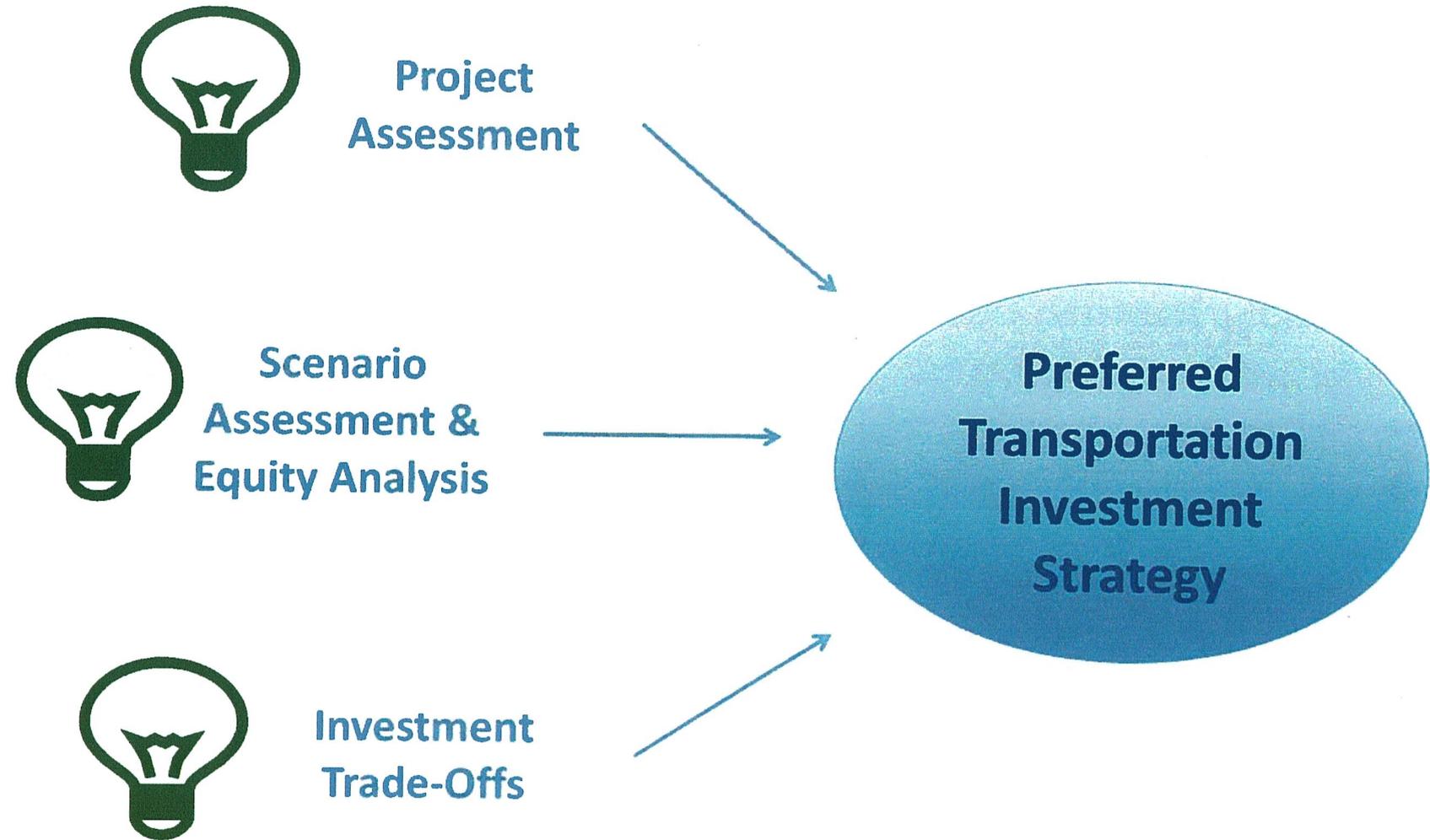
The letter 'P' is rendered in a large, bold, blue, sans-serif font. It is composed of several rectangular segments, with some segments being slightly offset from each other, creating a layered or 3D effect. A vertical blue line passes through the center of the 'P'.

# **BayArea Plan**

**Revised Project Performance Assessment Results  
- and -  
Proposed Guidance for Applying Assessment  
Results to the Transportation Investment Strategy**

**MTC Planning Committee & ABAG Administrative Committee  
February 17, 2012 - Revised**

# The Big Picture

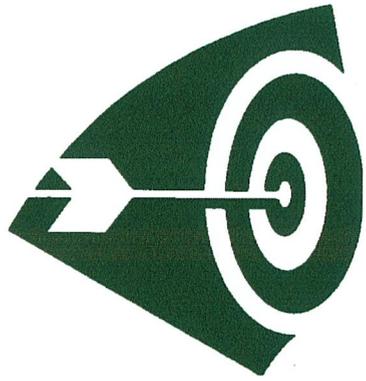


# Project Performance Assessment

- Evaluate all non-committed projects
- Identify outlier projects with respect to levels of target support and cost-effectiveness
- Establish a level playing field for project comparisons
- Build on approach from Transportation 2035 Plan

November 2011 – Draft Results  
January 2012 – Revised Results

# Two Types of Assessment



## TARGETS ASSESSMENT

*Determine impact on  
targets adopted by  
MTC and ABAG*



## BENEFIT-COST (B/C) ASSESSMENT

*Compare benefits & costs*



## TARGETS

- **Targets adopted by MTC & ABAG**
- **Larger projects (cost >\$50 million) subject to individual assessment**
- **Smaller projects assessed by type**

### Adopted Targets

1. CO<sub>2</sub> emissions reduction
2. Adequate housing
3. a. PM<sub>2.5</sub> emissions reduction  
b. PM<sub>10</sub> emissions reduction  
c. PM-emissions reduction in CARE communities
4. Injury and fatality collision reduction
5. Increase in minutes of active transportation (walking/biking)
6. Open space and agricultural preservation
7. Decrease in low-income expenditures on transportation
8. Economic vitality
9. a. Decrease in per-trip non-auto travel time or increase in non-auto mode share  
b. VMT reduction
10. State of good repair



## BENEFIT-COST

- Evaluate projects with cost > \$50 million or regional impacts
- Benefits based on MTC regional travel model
- Cost submitted by project sponsors
- Builds on T-2035 project evaluation approach

### Benefits include:

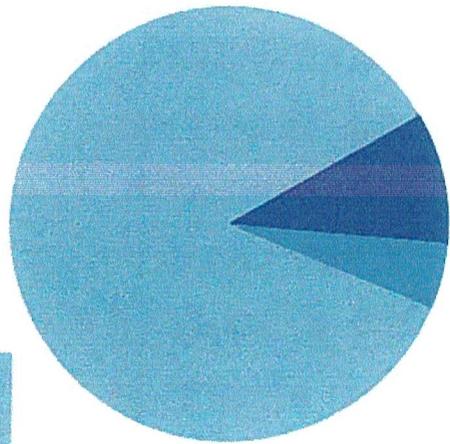
- Travel time
- Emissions (CO<sub>2</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, ROG, NO<sub>x</sub>)
- Health costs due to level of physical activity
- Collisions causing injuries, fatalities, or property damage
- Direct-user costs<sup>2</sup> (vehicle operating/ownership)
- Noise

### Costs include:

- Capital expenditures
- Net operating & maintenance expenditures

# Projects Analyzed

**900 Projects Total  
(\$180 billion)**



**100 Large Projects (\$150 billion)  
B/C & Targets Assessment**

- Transit Efficiency (40)
- Transit Expansion (20)
- Roadway Efficiency & Express Lanes (20)
- Roadway Expansion (10)
- Regional programs (10)

**80 Other Large Projects  
(\$20 billion)**

**Targets Assessment Only**

- Transit Efficiency, Station & Access (10)
- Roadway Efficiency - Interchanges & Other (35)
- Roadway Expansion (20)
- Maintenance, safety, other (10)
- Goods movement (5)

**700 Small Projects (\$10 billion)  
Targets Only, by type**

- Local roadway (230)
- Freeways (120)
- Transit (80)
- Bike/Pedestrian (110)
- Other (40)

Costs in 2013\$, approximate

Some projects were eventually bundled for analysis

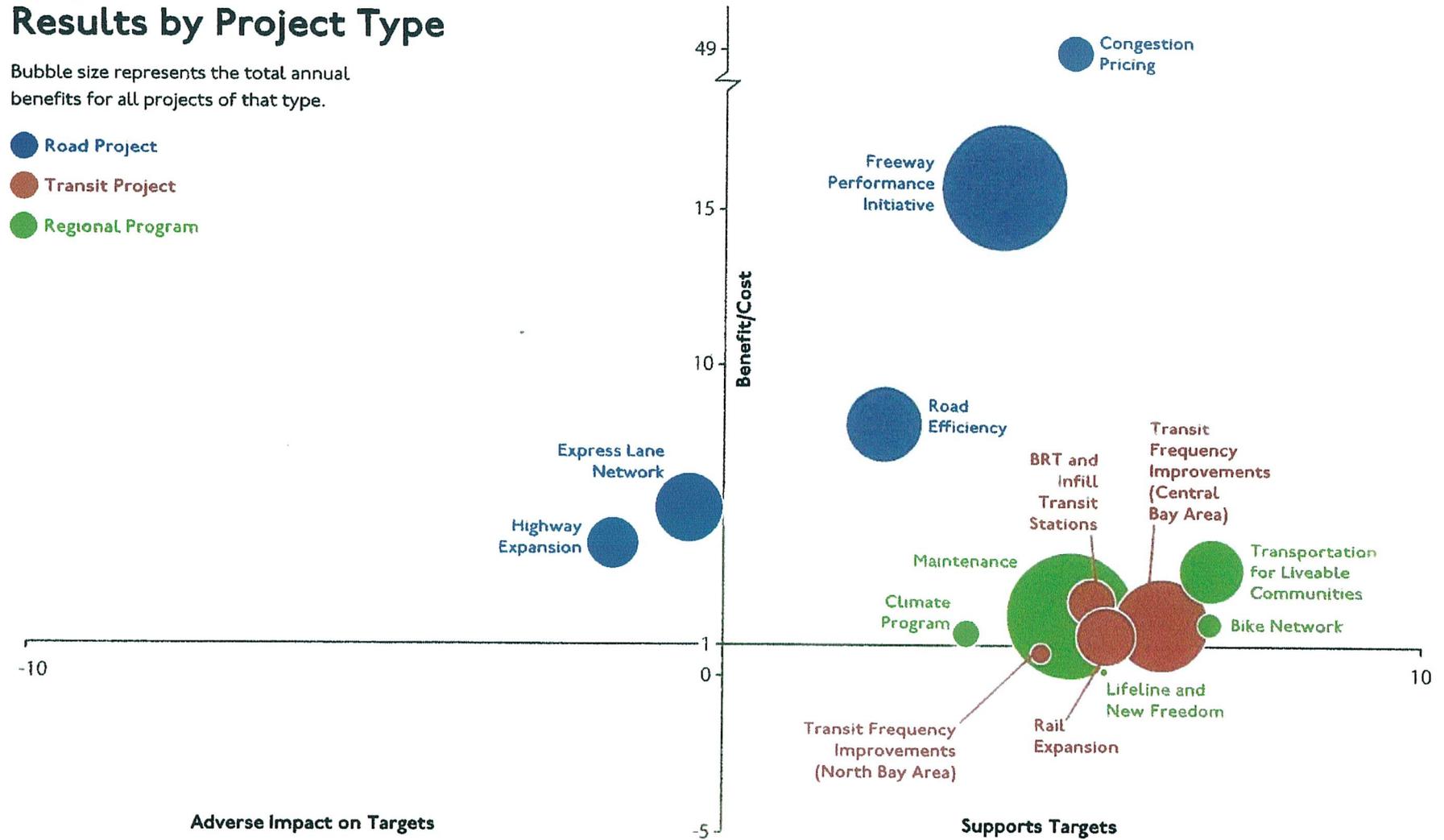
# Revisions to Project Performance Assessment (since November draft release)

- Modest effect on outlier projects (high/low performers) overall
- Changes
  - **B/C RATIOS:** revised with updated costs or corrected estimate of benefits (9 projects)
  - **TARGETS SCORES:** revised based on better project definition or consistency with similar projects (12 projects)
  - **ADEQUATE HOUSING TARGET:** revised to address support for total housing growth potential and for affordable housing
  - **LOW-INCOME EXPENDITURES ON HOUSING & TRANSPORTATION TARGET:** revised to reflect the number of low-income transit riders served

# Project Performance Assessment: Results by Project Type

Bubble size represents the total annual benefits for all projects of that type.

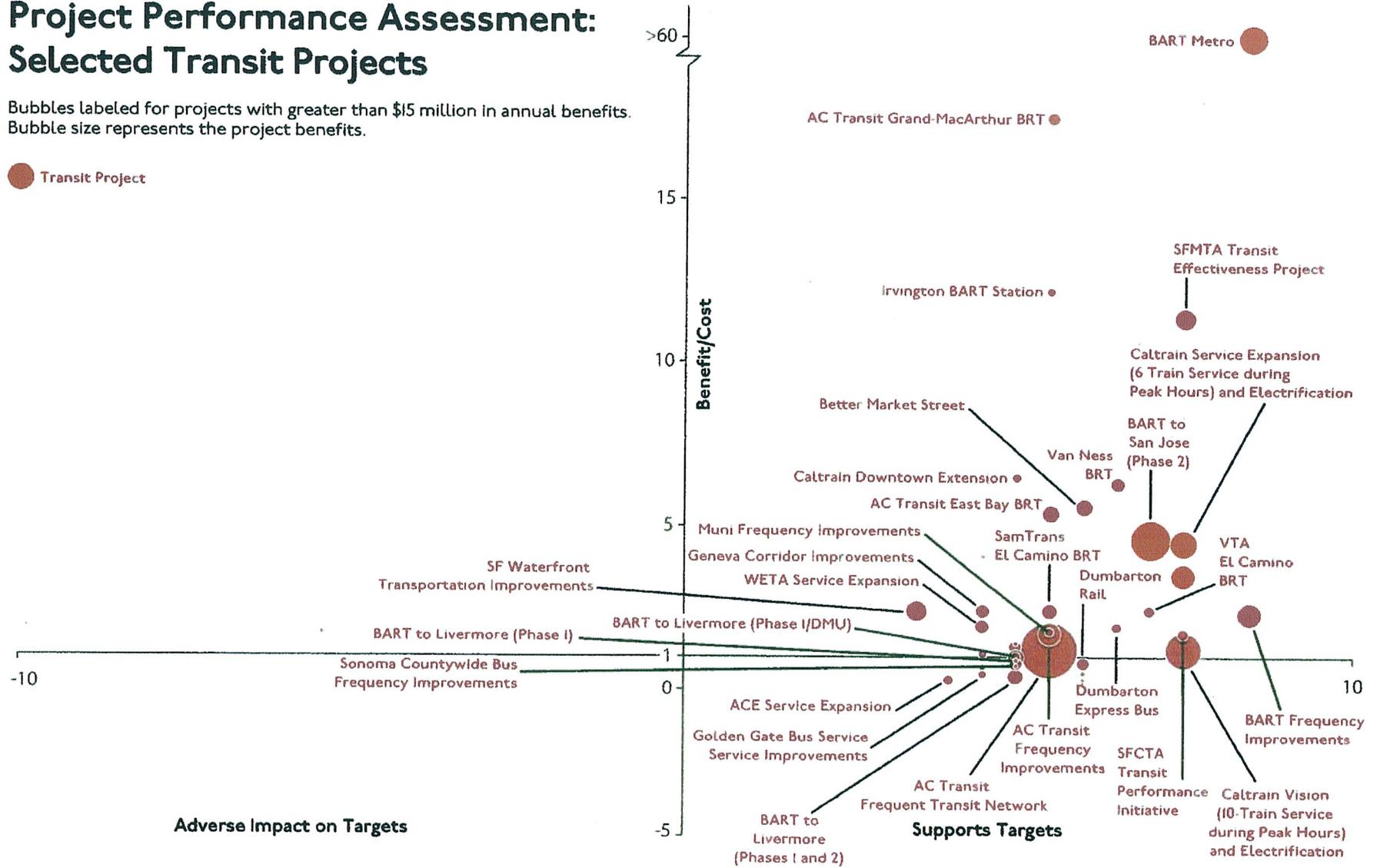
- Road Project
- Transit Project
- Regional Program



# Project Performance Assessment: Selected Transit Projects

Bubbles labeled for projects with greater than \$15 million in annual benefits. Bubble size represents the project benefits.

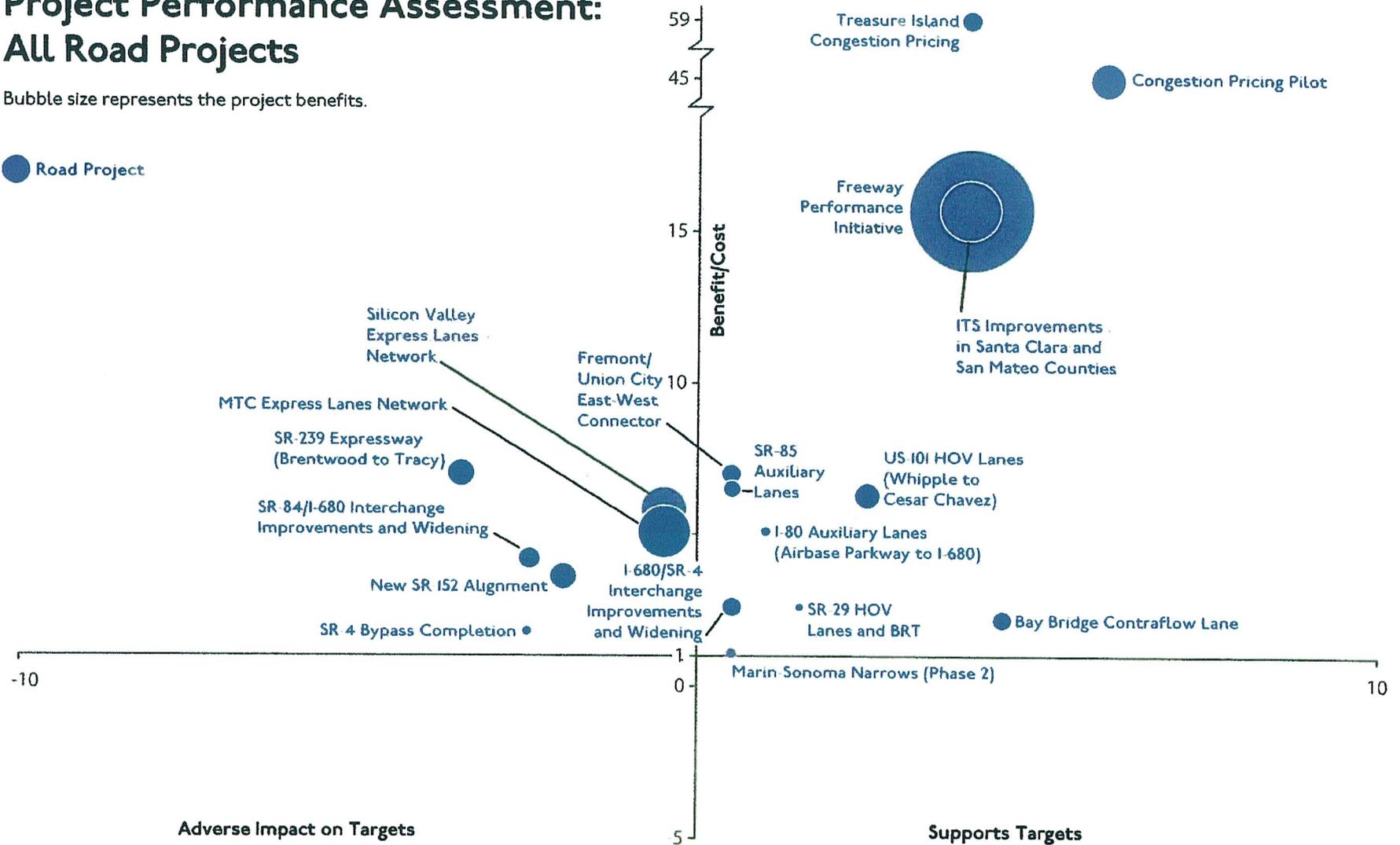
● Transit Project



# Project Performance Assessment: All Road Projects

Bubble size represents the project benefits.

● Road Project



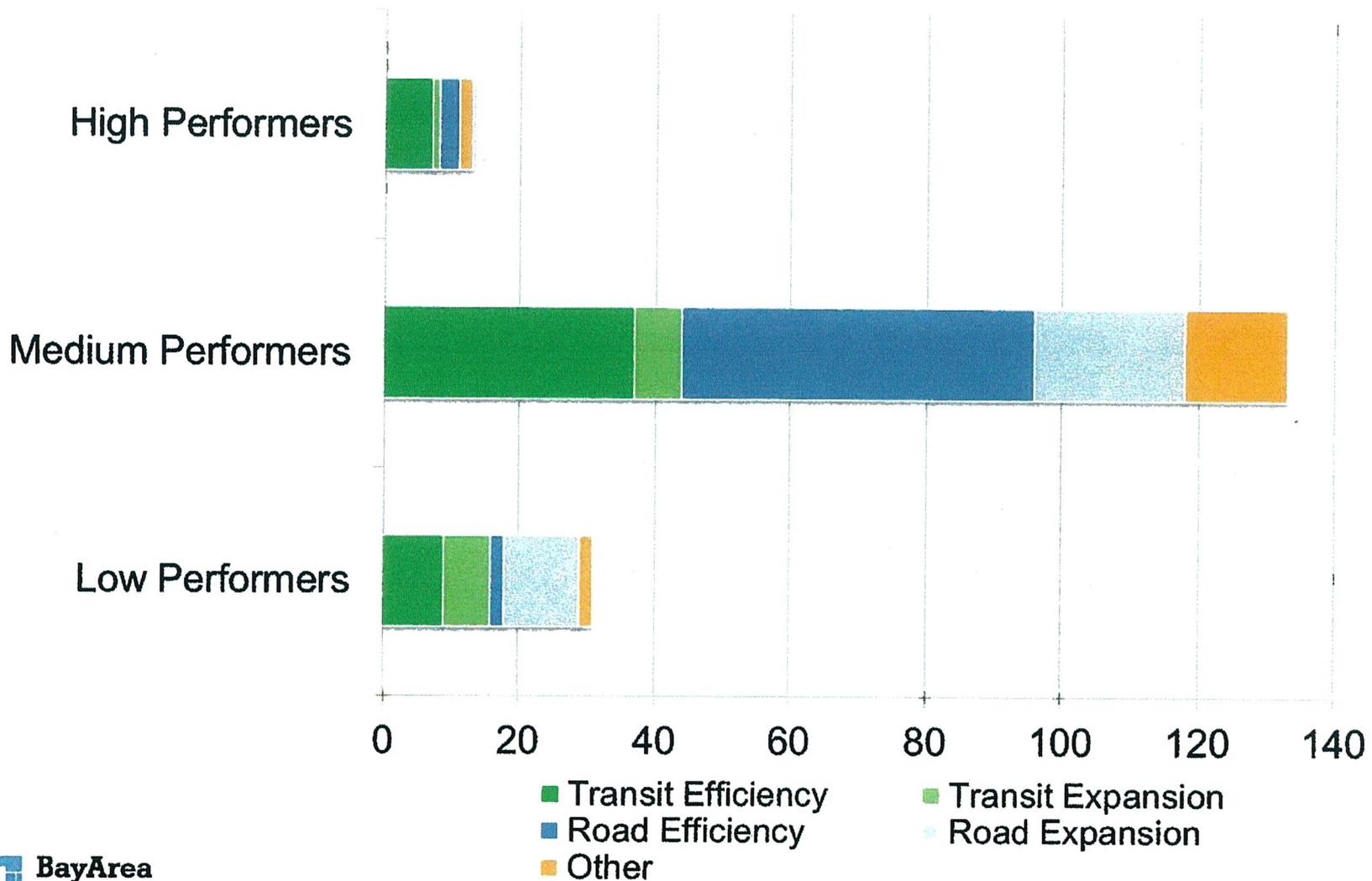
# Top Observations - Summary

- 1. The best performers are pricing projects and transit and road efficiency projects in the central Bay Area.**
- 2. Transit expansion projects achieve the highest target ratings but many have benefit-cost less than 1.**
  - Results are mixed for projects included in Resolution No. 3434.
  - Many projects have high operating costs.
  - Many have significant benefits but also have very large costs.
- 3. Roadway expansion projects are rated medium for benefit-cost but rate lowest for targets.**

# Proposed Guidelines for Applying the Analysis Results

1. Project performance assessment results should be used to identify the highest and lowest performing projects.
2. The highest performing projects should be included in the preferred SCS investment strategy, subject to financial feasibility.
  - High B/C ( $\geq 10$ ) and moderate target score ( $\geq 2$ ); or
  - High target score ( $\geq 6$ ) and moderate B/C ( $\geq 5$ )
3. The lowest performing projects may be considered if the sponsor or CMA can make a compelling case and the project has a realistic funding plan.
  - Low B/C ( $< 1$ ), regardless of target score; or
  - Low target score ( $< -1$ ), regardless of B/C

# Project Performance by Type



# Making a Compelling Case

A compelling case may be made if the project falls into one of two categories:

Category 1: Benefits not Captured by the Travel Model	Category 2: Federal Requirements
<ul style="list-style-type: none"><li>a) interregional or recreational corridor</li><li>b) provides access to international airports</li><li>c) project benefits accrue from reductions in weaving, transit vehicle crowding or other travel behaviors not well represented in the travel model</li></ul>	<ul style="list-style-type: none"><li>a) cost-effective means of reducing CO<sub>2</sub>, PM, or ozone precursor emissions</li><li>b) improves transportation mobility/reduces air toxics and PM emissions in communities of concern</li></ul>

# Responses to Other Suggested Criteria

Suggestion	Responses
1. Add criteria for projects included in Resolution 3434 or voter-approved measures (e.g., RM2, local sales tax).	This criterion conflicts with the Commission's adopted policy defining "committed" projects, by which the Commission agreed these projects should be subject to evaluation.
2. For projects with low benefit-cost ratios, give greater emphasis to high targets scores.	Targets score should not override benefit-cost ratios, given the limited budget for transportation investments.
3. Add criteria to consider projects that provide access to jobs.	The benefit-cost ratio captures from improved access to jobs.

# Responses to Other Suggested Criteria, cont.

Suggestion	Responses
4. Under Category 1, Benefits not Captured by Model, acknowledge that model does not capture the cumulative impacts of a package of new projects to be implemented together.	Staff recommend this criteria be added to Category 1 to give consideration to projects that can demonstrate enhanced performance based on complementary new investments.
5. Under Category 1, Benefits not Captured by Model, the model does not reflect changes in demand due to improvements to existing transit centers.	The model captures changes in ridership due to improvements to transfers at existing transit centers.
6. Add criteria to consider projects that are in or seek to advance to the project development stage.	The compelling case criteria apply to construction and operation phases only. Project development and environmental stages may be included without a compelling case.

# Timeline

February 2012

**MTC Planning Committee / ABAG Administrative Committee approval of guidelines for applying project assessment results**

**CMAs/sponsors submit compelling cases for low-performing projects by February 29**

March/April 2012

**CMAs/sponsors present compelling cases at March 9 MTC Planning Committee / ABAG Administrative Committee**

**MTC/ABAG release preliminary preferred scenario for Plan Bay Area, including investment strategy**

May 2012

**MTC/ABAG approve preferred scenario for Plan Bay Area**