

To: Performance Working Group  
 From: Kristen Carnarius, Dave Vautin, and Anne Spevack  
 Re: Plan Bay Area 2040 – Project-level Equity Assessment

This memo summarizes the proposal for the project-level equity assessment for Plan Bay Area 2040. The equity assessment is conducted in tandem with the benefit-cost and targets assessment to present a complete picture of project performance. The project performance evaluation will lead to the development of Plan scenarios, at which time a separate scenario-level equity analysis will quantitatively and qualitatively evaluate the equity benefits and impacts of the scenarios (packages of projects).

### Equity Assessment in Plan Bay Area

In Plan Bay Area, the project equity assessment had two main components: a Communities of Concern geographic analysis and an equity targets score.

1. For the geographic analysis, projects were overlaid with the Plan Bay Area Communities of Concern to determine the potential to affect low-income and minority communities. Each project located in these communities was further evaluated to determine whether it served these communities by providing an access point for the residents of the neighborhood (e.g. bus stop, rail station, on-ramp, intersection). Through this mapping analysis, each project was classified as benefitting a Community of Concern or not.
2. The equity targets score was the summation of the three Plan Bay Area performance target scores most focused on equity issues: adequate housing, particulate emissions in CARE communities, and low-income housing + transportation affordability. The equity targets were scored with the same criteria as in the general targets assessment, and resulted in scores between +3 and -3.

This equity assessment revealed that few projects had adverse equity impacts, and all of the high-performing projects had positive or neutral impacts for each of the equity targets. Further, all of the high performing projects served a Community of Concern (see details in the table below).

High-Performing Transportation Projects from Plan Bay Area	Equity Targets Score (Out of 3)	Any Adverse Impacts?	Serves Community of Concern?*
AC Transit Grand-MacArthur BRT	2.0	No	Yes
BART Metro Program	2.5	No	Yes
BART to San Jose/Santa Clara (Phase 2: Berryessa to Santa Clara)	2.0	No	Yes
Better Market Street	2.0	No	Yes
Caltrain Service Frequency Improvements (6-Train Service during Peak Hours) + Electrification (SF to Tamien)	2.0	No	Yes
Congestion Pricing Pilot	1.5	No	Yes
Freeway Performance Initiative	1.0	No	Yes
Irvington BART Station	1.0	No	Yes
ITS Improvements in San Mateo County	1.0	No	Yes
ITS Improvements in Santa Clara County	1.0	No	Yes
SFMTA Transit Effectiveness Project	2.0	No	Yes
Treasure Island Congestion Pricing	1.0	No	Yes
Van Ness Avenue BRT	2.0	No	Yes

The equity results from Plan Bay Area reinforced that the project performance assessment recommended projects that were not in conflict with equity goals. In fact, the overall targets scores were correlated with the equity targets scores, showing an existing emphasis towards equitable projects in the targets assessment.

### **Proposed Project Equity Analysis in Plan Bay Area 2040**

For Plan Bay Area 2040, staff is proposing to use the same methodological framework as in Plan Bay Area, with adjustments to match the updated targets. The current proposal for the Plan Bay Area 2040 performance targets also includes at least three targets that directly reflect equity goals. Equity is well represented in the targets assessment and will therefore be integrated into the project performance evaluation. The equity assessment will continue to supplement the benefit-cost and targets assessments with equity-specific analyses for each project, allowing staff, policymakers and project sponsors to continue to check that the project performance assessment is providing results in line with the equity goals of the region.

#### Geographic Analysis

Projects will be overlaid with Communities of Concern boundaries and analyzed in relationship to those communities using the same methodology as in Plan Bay Area. As an example, the maps on the following pages show the Plan Bay Area equity assessment maps for Contra Costa County and Santa Clara County. The Communities of Concern are shaded in purple, with roads and transit lines that serve those communities colored blue. Projects (listed by map ID below the maps) are symbolized by project type and colored by both equity target score and whether or not they serve the community.

#### Equity Targets Assessment

A combined equity targets score will be calculated using at least three of the Plan Bay Area 2040 performance targets that directly reflect equity goals: adequate housing, housing and transportation costs, and affordable housing. Performance targets are currently being considered for adoption by September 2015, therefore the total number of targets that reflect equity goals may change.

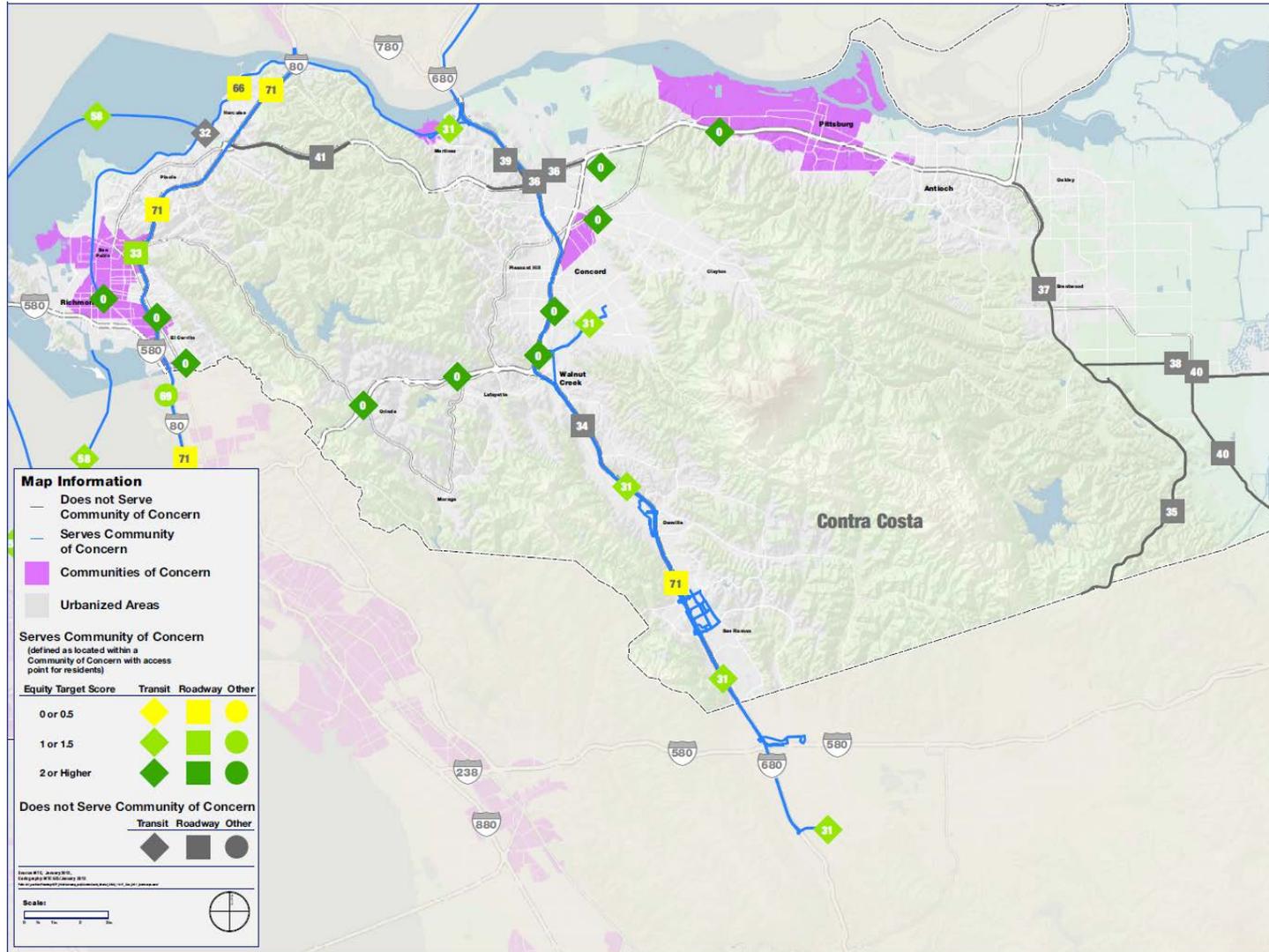
For the equity targets score, the same rating system from the targets assessment will be used to evaluate the scores:

- Strong support (1)
- Moderate support (0.5)
- Minimal impact (0)
- Moderate adverse impact (-0.5)
- Strong adverse impact (-1)

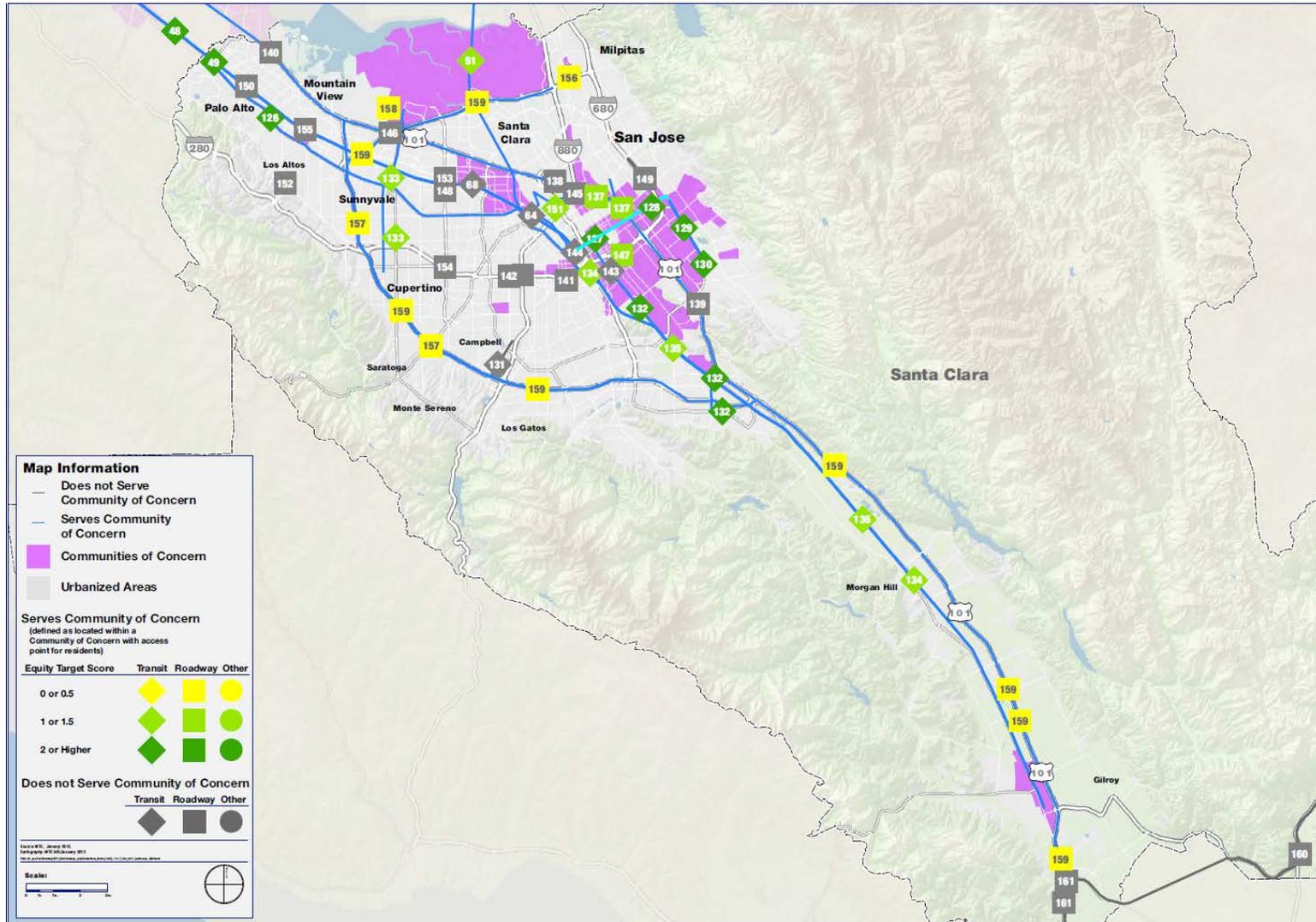
All targets will be evaluated using the same criteria used in the overall targets methodology, which will consider the following issues:

- Planned housing growth
- Past production of housing
- Reducing transportation costs for low-income residents
- Reducing risk of displacement
- Production of affordable housing

### Plan Bay Area Geographic Analysis: Contra Costa County



Plan Bay Area Geographic Analysis: Santa Clara County



Plan Bay Area Geographic Analysis: Contra Costa and Santa Clara Counties Project Legend

Map ID	Project ID	Project Name	Map ID	Project ID	Project Name	Map ID	Project ID	Project Name
31	22343	I-680 Express Bus Service Frequency Improvements (Phase 2)	48	240134, 21627	Caltrain Service Frequency Improvements (6-Train Service during Peak Hours) + Electrification (SF to Tamien)	136	240494	ITS Improvements in Santa Clara County
32	230321	Hercules Intermodal Station (Phases 2, 3, and 4)	49	240134, 240521, 21627	Caltrain Vision (10-Train Service during Peak Hours) + Electrification (San Francisco to Tamien)	137	22965	New US-101 Mabury/Taylor Interchange
33	22360	I-80 San Pablo Dam Road Interchange Improvements	51	22009	Capitol Corridor Service Frequency Improvements (Oakland to San Jose)	138	22979	New US-101 Zanker/Skyport/Fourth Street
34	21223, 22353	I-680 HOV Gap Closure (North Main Street to Livoma Road)	64	240036	Caltrain Communications-Based Overlay Signal System (CBOSS) and Positive Train Control System (PTC)	139	240437	US-101 Braided Ramps (Capitol Expressway to Yerba Buena Road)
35	22604	Vasco Road Safety & Operational Improvements (Brentwood to San Joaquin County line)	68	240140	Caltrain At-Grade Crossing Improvements	140	240441	US-101/Oregon Expressway/Embarcadero Road Interchange Improvements
36	21205, 22350	I-680/SR-4 Interchange Improvements + SR-4 Widening (Morello Avenue to SR-242)	75	22247	Bicycle/Pedestrian Expansion	141	21719	I-880/I-280/Stevens Creek Boulevard Interchange Improvements
37	22605	SR-4 Bypass Completion (SR-160 to Walnut Avenue)	76	240410	Transportation for Livable Communities (TLC)	142	230537	I-280 Winchester Boulevard Interchange Improvements
38	22981	SR-4 Widening (Marsh Creek Road to San Joaquin County line)	77	240690	Lifeline Transportation Program	143	240048	Caltrain Diridon Station Track Capacity Expansion (Phases 2 & 3)
39	98133	Pacheco Boulevard Widening (Blum Road to Arthur Road)	78	NewFree	New Freedom	144	240063	Caltrain Terminal Station Improvements
40	22400	SR-239 Expressway Construction (Brentwood to Tracy)	79	LS&R	Local Streets and Roads Capital Maintenance Needs	145	240429	I-880/US-101 Interchange Improvements
41	94050	SR-4 Upgrade to Full Freeway (Phase 2: Cummings Skyway to I-80)	80	Transitshort	Transit Capital Maintenance Needs	146	240444	US-101/SR-237 Interchange Improvements
0	240182 00BART	45 - BART Metro Program 46 - BART Service Frequency Improvements 56 - BART Station Capacity Improvements 57 - BART Station Access Improvements	81	230419	Freeway Performance Initiative	147	240671	New I-280 Senter Road Interchange
58	22120, 22122, 22511, 22512, 230613, 230581	WETA Service Expansion (Treasure Island, Berkeley/Albany, Richmond, Hercules, and Redwood City)	82	230550	Climate Initiatives Program	148	230337	New Lawrence Expressway Interchange (Monroe Street)
66	22003	Capitol Corridor Reliability Improvements (Phase 2)	83	240589	Solar Installations to Offset Electric Vehicle Use	149	240479	I-680 Auxiliary Lanes (McKee Road to Berryessa Road)
69	240571	I-80/I-880 Congestion Pricing and Clean Vehicle Incentive Program	84	240577	Heavy Duty Truck Replacement Program	150	240586	Oregon Expressway Alma Bridge Interchange Improvements
71	HOTe	CTC Application + Alameda County Authorized Lanes Express Lanes Network	85	240582	Heavy-Duty Diesel Truck and Motorcycle Early Retirement Program	151	21922	Mineta San Jose International Airport APM Connector
75	22247	Bicycle/Pedestrian Expansion	126	240119	VTA El Camino BRT	152	22814	Foothill Expressway Deceleration Lane Extension
76	240410	Transportation for Livable Communities (TLC)	127	240375	BART to San Jose/Santa Clara (Phase 2: Berryessa to Santa Clara)	153	230340	New Lawrence Expressway Interchange (Kifer Road)
77	240690	Lifeline Transportation Program	128	22019	Downtown East Valley (Phase 2: LRT)	154	240580	I-280/Lawrence Expressway/Stevens Creek Interchange Improvements
78	NewFree	New Freedom	129	22956	Capitol Expressway Light Rail Extension (Phase 2: to Eastridge Transit Center)	155	230332	Rengstorff Avenue Grade Separation
79	LS&R	Local Streets and Roads Capital Maintenance Needs	130	22978	Capitol Expressway Light Rail Extension (Phases 2 & 3: to Nieman)	156	240404	Calaveras Boulevard Overpass Widening (Abel Street to Milpitas Boulevard)
80	Transitshort	Transit Capital Maintenance Needs	131	98119	Vasona Light Rail Extension (Phase 2)	157	240431	SR-85 Auxiliary Lanes (El Camino Real to Winchester Boulevard)
81	230419	Freeway Performance Initiative	132	230547	Monterey Highway BRT	158	240443	Mary Avenue Extension
82	230550	Climate Initiatives Program	133	230554	Sunnyvale-Cupertino BRT	159	HOTd	Silicon Valley Express Lanes Network
83	240589	Solar Installations to Offset Electric Vehicle Use	134	21760	Caltrain Double-Track Improvements (San Jose to Gilroy)	160	230294	New SR-152 Alignment
84	240577	Heavy Duty Truck Replacement Program	135	230534	Caltrain Electrification (Tamien to Gilroy)	161	21714	US-101 Widening (Monterey Street to SR-129)
85	240582	Heavy-Duty Diesel Truck and Motorcycle Early Retirement Program						

NOTE: Project names appearing in grey are not shown on the map.

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