Plan BayArea 2040

REGIONAL EQUITY WORKING GROUP
Wednesday, June 8, 2016 – 11:15 AM to 1:15 PM – Golden Gate Conference Room
Metropolitan Transportation Commission
375 Beale Street, Suite 800, San Francisco, CA 94105

Conference Call Number
Dial 1-888-273-3658
Password 9427202

NOTE: Please plan to be at the front desk 10 minutes before the start time to get your guest pass. Also note the conference room – Golden Gate Conference Room (8th Floor)

AGENDA

11:15 a.m.	**1.**	**Introductions and Agenda Overview**
11:25	**2.**	**Scenario Evaluation Results for Performance Targets** *Dave Vautin, MTC* *http://mtc.legistar.com/gateway.aspx?M=F&ID=a78d1547-7db3-4dd2-afdb-2d14fe3aec71.pdf*
12:25 p.m.	**3.**	**Scenario Evaluation Results for Equity Measures** *Vikrant Sood, MTC*
1:15		**Close**

- Next REWG meeting is scheduled for **Wednesday, July 6, 2016**

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Schedule of Upcoming Meetings:

2016

Summer/Fall	Plan Bay Area Funding Strategy (July 2016)
Summer/Fall	Draft Preferred Alternative Analysis Results for Equity Measures
Winter	Title VI and Environmental Justice Analysis Results

2017

Winter/Spring	Draft and Final Equity Report for PBA 2040

TO: Regional Equity Working Group   DATE: June 8, 2016

FR: Staff

RE: Scenario Analysis Results for Equity Measures – Plan Bay Area 2040

Overview

MTC will conduct an equity analysis for Plan Bay Area (PBA) 2040 in compliance with federal civil rights and environmental justice laws. This analysis will include the following three components:

1. A *benefits and burdens analysis* of proposed transportation projects, scenario alternatives and the preferred scenario on communities of concern or low-income households relative to the rest of the region or high-income households, respectively;

2. A *Title VI analysis* for investments that use federal or state funds, to determine whether the preferred scenario would result in disparate impacts on populations by race, color or national origin; and

3. An *environmental justice analysis* to determine whether the preferred scenario would result in disproportionately high and adverse impacts on low-income and minority populations.

This memo presents preliminary results from the benefits and burdens analysis conducted by staff for three scenario alternatives: Main Streets; Connected Neighborhoods; and Big Cities and the No Project Scenario. The benefits and burdens analysis will:

- Identify *equity measures* that reflect key issues faced by communities of concern – the measures are a sub-set of PBA 2040 Performance Targets;

- Define *communities of concern* (CoCs) based on eight disadvantage factors including, income, race, disability, age (seniors), car ownership (0-vehicle households), family composition (single-parent families); rent burden; and level of English proficiency; and

- Assess the impacts of *transportation projects, scenario alternatives and the preferred scenario* on CoCs and low-income households, based on the equity measures.

Recommendations for equity measures and the CoCs were developed by the Regional Equity Working Group (REWG) in fall 2015. The MTC Commission adopted the six equity measures listed below and a definition for CoCs in January 2016 (MTC Resolution No. 4217, see Attachment A). Corresponding PBA 2040 Performance Targets are noted in parenthesis.

1. *Healthy and Safe Communities* (Performance Target #3) – which will measure health benefits and burdens associated with air quality, road safety and physical inactivity, and compare these results for low- and high-income households;

2. *Housing and Transportation Cost* (Performance Target #5) – which will measure the share of lower-income households' income consumed by housing and transportation (H+T) costs, and compare these results with H+T costs for high-income households;

3. *Affordable Housing* (Performance Target #6) – which will measure the share of affordable housing in Priority Development Areas (PDAs), Transit-Priority Areas (TPAs), and high-opportunity areas (HOAs), and compare these results for CoC and non-CoC areas;

4. *Risk of Displacement* (Performance Target #7) – which will measure the share of low- and moderate-income households in PDAs, TPAs and HOAs that are at risk of displacement, and compare these results for CoC and non-CoC areas;

5. *Job Access* (Performance Target # 8) – which will measure the share of jobs that are accessible by auto and transit in congested conditions, and compare these results for CoC and non-CoC areas; and

6. *Jobs in Middle-Wage Industries* (Performance Target #9) – which will measure growth of jobs in middle-wage industries.

Communities of Concern Update

An updated map of CoCs is included in Attachment B. This map replaces the version that was shared at the January 2016 Commission meeting, which used the 2009-2013 American Community Survey (ACS) data. The updated map uses the 2010-2014 ACS data, which became available in February 2016. Attachment C shows that census tracts, one each in San Francisco and Oakland, were deleted as a result of using the 2010-2014 ACS data.

Scenario Alternatives

MTC and ABAG have developed and evaluated three alternative land use and transportation scenarios illustrating the effects that different housing, land use and transportation strategies would have on the adopted PBA 2040 goals and performance targets. This evaluation will inform the development of the region's "preferred scenario," which will incorporate some of the best aspects of the three scenarios and form the framework for PBA 2040. The scenarios are described in more detail in Attachment D.

Scenario Analysis Results for Equity Measures

Table 1 on the next page summarizes scenario analysis results for the six adopted equity measures. For each measure, the results are compared between CoCs and the rest of the region, or low-income and high-income households. Attachment E provides additional background and detail on the performance of scenario alternatives for each equity measure. See Attachment F for scenario analysis results for all 13 PBA 2040 Performance Targets.

Color guide for Table 1:

🟥 (red)	Performance in COCs or for lower-income households is *worse* than outside COCs or for higher-income households.
🟧 (orange)	Performance is *no worse or better* in COCs or for lower-income households compared to outside COCs or for higher-income households.
🟩 (green)	Performance is *better* in COCs or for lower-income households compared to outside COCs or for higher-income households.

Table 1: Scenario Analysis Results for Equity Measures

Equity Measures		No Project	Scenario 1	Scenario 2	Scenario 3
3. Reduce Adverse Health Impacts (-10%)	All households	-0%	-0%	-1%	-1%
	Household income more than $100k[1]	-1%	-1%	-1%	-1%
	Household income less than $30k[1]	**+0%**	**-0%**	**-1%**	**-1%**
5. Decrease H+T Share for Lower-Income HHs (-10%)	Household income more than $60k[1]	+4%	+4%	+4%	+4%
	Household income less than $60k[1]	**+15%**	**+13%**	**+13%**	**+13%**
6. Increase Share of Affordable Housing (+15%)	PDAs/TPAs/HOAs	-0%	-0%	+1%	+0%
	Outside COCs but in PDAs/TPAs/HOAs	-0%	+1%	+1%	+1%
	COCs in PDAs/TPAs/HOAs	**+0%**	**-2%**	**-0%**	**-2%**
7. Do Not Increase the Share of HHs At Risk of Displacement (0%)	PDAs/TPAs/HOAs	+20%	+9%	+8%	+15%
	Outside COCs but in PDAs/TPAs/HOAs	+22%	+14%	+13%	+15%
	COCs in PDAs/TPAs/HOAs	**+19%**	**+2%**	**0%**	**+19%**
8. Increase Share of Jobs Accessible in Congested Conditions (+20%)	Region	-3%	-1%	-1%	-1%
	Outside COCs	-3%	-1%	-1%	-1%
	Within COCs	**-1%**	**0%**	**0%**	**-2%**
9. Increase Jobs in Middle-Wage Industries (+38%)	Region	**+43%**	**+43%**	**+43%**	**+43%**

Source: MTC and ABAG

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[1] In the baseline year

Key take-aways from the assessment include:

- Health benefits for low-income residents are almost insignificant across all three scenarios.

  - But health benefits are no better for high-income residents.

  - All scenarios result in only a small increase in physical activity, which is essential to improving health outcomes given current health conditions.

  - Reducing road traffic injuries may provide significant health benefits even if physical activity remains unchanged.

  - Reducing exposure to PM2.5 provides relatively minor benefits at the regional level, though variations exist by neighborhoods.

- High housing cost remains the biggest challenge for low- and moderate-income households in the Bay Area, with or without PBA 2040.

  - All scenarios results in higher H+T costs. Increase in housing costs explains most of this rise.

  - H+T costs for higher-income households increases at a much lower rate compared to lower-income households in all three scenarios.

  - The region lacks adequate housing at all income levels. Unless supply catches up with demand, and more of this housing is built close to jobs, this increase in housing (and therefore H+T) cost is almost inevitable.

- Lack of adequate affordable housing in PDAs/TPAs/HOAs will continue to be a major challenge in all three scenarios, especially within COCs.

  - Both deed-restricted and market-rate affordable units are needed in PDAs/TPAs/HOAs to improve affordability. Funding and land availability remain key impediments.

  - While lower-income households are at a higher risk of displacement in PDAs/TPAs/HOAs, the risk outside COCs is much higher in scenarios 1 and 2. Only Scenario 3 has a higher risk of displacement inside COCs.

- Job growth in industries that have a high share of middle-wage jobs today would not necessarily result in more middle-wage jobs by 2040.

  - While middle-wage jobs are expected to remain scarce in the region, wage growth also remains subdued. Housing affordability is unlikely to improve if wages remain stagnant.

  - Compared to baseline conditions, the share of jobs accessible from COCs in congested conditions remains unchanged for scenarios 1 and 2, but declined more than outside COCs in Scenario 3.

Next Steps

Staff will complete an assessment of baseline conditions for low-income and minority communities by fall 2016. This assessment will address the following topics:

- *Growing Poverty in the Suburbs* – to measure the share of lower-income households that reside in suburban jurisdictions;

- *Concentration of Poverty* – to measure the share of low-income households that reside in neighborhoods that have a high concentration of poverty;

- *Access to Services and Amenities* – to measure the share of lower-income households that live in neighborhoods with a high walk score;

- *Access to Opportunity* – to measure the share of lower-income households that live in high-opportunity areas; and

- *Exposure to Contamination and Pollutants* – to measure the share of lower-income households that are exposed to air contaminants such as diesel particulate matter, fine particulates (PM2.5) and brownfield sites.

As part of the PBA 2040 update process, MTC and ABAG are hosting a series of public workshops (late-May to mid-June) to discuss tradeoffs and gauge support for land use scenarios and related transportation programs and projects. Input received from these workshops will inform the development of the region's draft preferred scenario (land use distribution and transportation investment strategy) for adoption by MTC and ABAG in September 2016. The draft preferred scenario will be subject to environmental review and other analyses throughout the remainder of 2016. PBA 2040 adoption is scheduled for summer 2017.

J:\PROJECT\2040 PBA Equity Analysis MTC Files\REWG\June 2016 Materials\Memo Equity Measures Scenarios June 2016.docx

Attachments:
- Attachment A: MTC Resolution No. 4217 – Equity Framework for Plan Bay Area 2040
- Attachment B: Plan Bay Area 2040 Communities of Concern (map)
- Attachment C: Comparison 2009-2013 and 2010-2014 American Community Survey Data (map)
- Attachment D: Scenario Descriptions and Strategies
- Attachment E: Goals and Performance Targets and Draft Targets Evaluation Scorecard
- Attachment F: Draft Performance Target Results for Plan Bay Area 2040 Scenarios
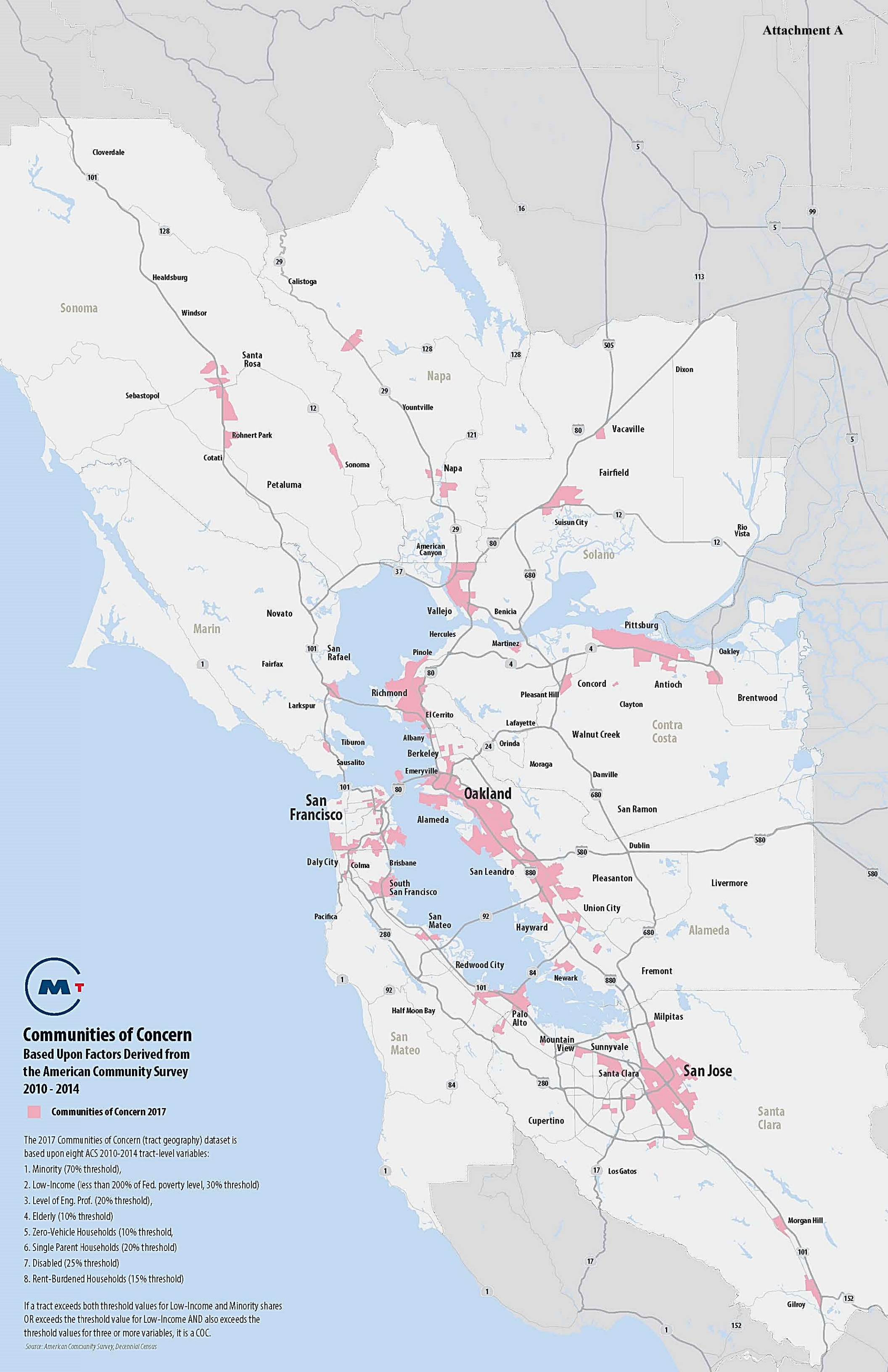
Communities of Concern
Based Upon Factors Derived from the American Community Survey
2010 - 2014

Communities of Concern 2017

The 2017 Communities of Concern (tract geography) dataset is
based upon eight ACS 2010-2014 tract-level variables:

1. Minority (70% threshold),

2. Low-Income (less than 200% of Fed. poverty level, 30% threshold)

3. Level of Eng. Prof. (20% threshold),

4. Elderly (10% threshold)

5. Zero-Vehicle Households (10% threshold,

6. Single Parent Households (20% threshold)

7. Disabled (25% threshold)

8. Rent-Burdened Households (15% threshold)

If a tract exceeds both threshold values for Low-Income and Minority shares
OR exceeds the threshold value for Low-Income AND also exceeds the
threshold values for three or more variables, it is a COC.

Source: American Community Survey, Decennial Census

Communities of Concern

Tract Comparison Between
2009-2013 ACS and 2010-2014 ACS
Where Did We Lose Tracts?

Communities of Concern (Loss)
2009 - 2013 ACS

Communities of Concern
2010 - 2014 ACS

The 2017 Communities of Concern (tract geography) dataset is
based upon eight ACS 2010-2014 tract-level variables:

1. Minority (70% threshold),
2. Low-Income (less than 200% of Fed. poverty level, 30% threshold)
3. Level of Eng. Prof. (20% threshold),
4. Elderly (10% threshold)
5. Zero-Vehicle Households (10% threshold,
6. Single Parent Households (20% threshold)
7. Disabled (25% threshold)
8. Rent-Burdened Households (15% threshold)

If a tract exceeds both threshold values for Low-Income and Minority shares
OR exceeds the threshold value for Low-Income AND also exceeds the
threshold values for three or more variables, it is a COC.

Source: American Community Survey, Decennial Census

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Memorandum

TO: Planning Committee   DATE: December 31, 2015

FR: Deputy Executive Director, Policy   W.I.   1121

RE: MTC Resolution No. 4217: Equity Framework for Plan Bay Area 2040

Summary

This memorandum presents staff recommendations for communities of concern (CoCs) and the equity measures to be used as part of the Plan Bay Area 2040 Equity Analysis. To develop these recommendations, staff has been meeting on a monthly basis since June with stakeholders and local jurisdictions through the Regional Equity Working Group (REWG). This memo provides context on the Plan's overall equity framework, discusses the Bay Area's current demographic trends, and proposes a new set of equity measures as well as an updated definition of CoCs for your consideration.

Context and Overall Equity Framework

MTC has conducted an equity analysis for the last four Regional Transportation Plans (RTPs) in compliance with federal civil rights and environmental justice laws. For each RTP, MTC used the following steps to conduct the equity analysis:

1. Identify equity measures that reflect key issues faced by vulnerable and disadvantaged communities in the region (typically a subset of the Performance Targets);
2. Define these potential disadvantaged communities based on a CoCs framework that takes into account factors such as race, income, and disability, among others;
3. Conduct an assessment during the project performance analysis phase, using the equity measures, to identify potential benefits and burdens of proposed projects on CoCs;
4. Conduct an assessment during the scenario analysis phase, using the equity measures, to identify potential benefits and burdens of scenario alternatives on CoCs, and to inform the selection of a preferred alternative; and
5. Include an assessment of benefits and burdens for the preferred alternative in the final report, and conduct a supplemental analysis of minority status to comply with federal civil rights law.

For each RTP update, the equity measures are developed with input from key stakeholders. For Plan Bay Area (PBA) 2013, the combined Sustainable Communities Strategy (SCS) and RTP, MTC and ABAG formed a Regional Equity Working Group (REWG) to provide this input. MTC and ABAG created a REWG for Plan Bay Area 2040 as well which began meeting in June and will continue to meet until fall 2016.

Overall Equity Framework

The 2013 PBA equity analysis included three components, listed below. Staff is proposing to retain this overall framework for the Plan Bay Area 2040 equity analysis. The three components include:

A. A *Title VI* analysis of PBA investments that use federal and state funds to determine whether there are any disparate impacts of distribution of these funds on populations of different race, color or national origin;

B. An *environmental justice* analysis of PBA investments to determine whether there are any disproportionately high and adverse impacts on low-income and minority populations or CoCs; and

C. An *equity analysis* that assesses the distribution of benefits and burdens of PBA 2040 on CoCs in comparison to the rest of the region.

Equity Measures

To support the project performance and scenario analysis processes, staff recommends using the six Performance Targets listed below as equity measures (see Attachment B for the most recent list of adopted/proposed Performance Targets). The equity report will include a region-wide population-based analysis of benefits and burdens of the preferred alternative on CoCs based on these equity measures.

Staff recommends using the following Performance Targets as equity measures for PBA 2040 project performance and scenario analysis:

1. *Healthy and Safe Communities* Target #3 – will measure health benefits and burdens associated with air quality, road safety and physical inactivity (will also include a sub-analysis for low-income neighborhoods[1]);

2. *Equitable Access* Target #5 – will measure the share of lower-income residents' household income consumed by transportation and housing;

3. *Equitable Access* Target #6 – will measure the share of affordable housing in Priority Development Areas (PDAs), Transit-Priority Areas (TPAs), or high-opportunity areas[2];

4. *Equitable Access* Target #7 – will measure the share of low- and moderate-income renters in PDAs that are at an increased risk of displacement;

5. *Economic Vitality* Target # 8 – will measure the share of jobs that are accessible by auto and transit in congested conditions (will also include a sub-analysis for lower-income communities); and

6. *Economic Vitality* Target #9 – will measure the current share of middle-wage jobs in the region and project the share of jobs in predominantly middle-wage industries in 2040.

In addition to an analysis based on the equity measures listed above, the equity report will summarize key demographic and socio-economic trends, including the following topics:

- *Poverty in the Suburbs* – will measure trends in the share of lower-income households that reside in suburban or inland jurisdictions, as defined by Plan Bay Area 2040, and offer a discussion of its implications for the region;

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[1] Census tracts with a concentration of households that earn less than 200% of federal poverty line
[2] See the Fair Housing and Equity Assessment report, ABAG, 2015, for a definition of high-opportunity areas

- *Concentration of Poverty* – will measure trends in the share of low-income households that reside in neighborhoods that have a high concentration[3] of poverty;

- *Proximity to Services and Amenities* – will measure trends in the share of lower-income households that live in neighborhoods with a high walk score[4];

- *Proximity to Opportunity Areas* – will measure trends in the share of lower-income households that live in high-opportunity areas; and

- *Exposure to Contamination and Pollutants* – will measure trends in the share of lower-income households exposed to air contaminants (diesel particulate matter and fine particulates (PM2.5)[5].

Communities of Concern and Plan Bay Area 2013

MTC defined "communities of concern" for the RTPs adopted in 1999, 2003 and 2007 as areas with a concentration of *either* 70% minority *or* 30% low-income households. For PBA 2013, CoCs were defined either as census tracts with a concentration of 70% minority population AND 30% low-income households OR as census tracts that have a concentration of 4 or more of the disadvantage factors listed in Table 1 below. The concentration threshold for each disadvantage factor was based on its current share of the region's population plus half a standard deviation above the regional mean.
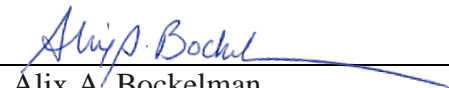
Table 1: Communities of Concern Framework for Plan Bay Area 2013

Disadvantage Factor	*% Regional Population*[6]	*Concentration Threshold*
1. Minority	54%	70%
2. Low Income (<200% Federal Poverty Level - FPL)	23%	30%
3. Limited English Proficiency	9%	20%
4. Zero-Vehicle Household	9%	10%
5. Seniors 75 Years and Over	6%	10%
6. People with Disability	18%	25%
7. Single-Parent Family	14%	20%
8. Cost-Burdened Renter	10%	15%
Definition – census tracts that have a concentration of BOTH minority AND low-income households, OR that have a concentration of 4 or more factors listed above.		

Using the eight factors, concentration thresholds and definition in Table 1, PBA 2013 identified 305 out of a total of 1,405 census tracts in the region as CoCs. See Attachment C for a map of PBA 2013 CoCs. PBA 2013 used additional factors and a revised definition of COCs to respond to the changing demographics in the Bay Area. The region is far more racially diverse than in

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[3] Census tracts with more than 40% low-income households; see Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment, Chetty, Hendren, and Katz, Harvard University and NBER, May 2015

[4] Walk score is calculated by MTC and is based on access to a range of amenities and services including parks, schools, grocery stores, primary care facilities, transit stations, jobs and libraries, among other, subject to data availability

[5] See Communities Air Risk Evaluation Program, Bay Area Air Quality Management District at: http://www.baaqmd.gov/plans-and-climate/community-air-risk-evaluation-care-program, and the California Environmental Protection Agency (CalEPA), California Communities Environmental Health Screening Tool: CalEnviroScreen at: http://oehha.ca.gov/ej/ces2.html

[6] 2005-2009 American Community Survey and 2000 Census

previous decades. This trend has continued since the plan was adopted in 2013[7] (see updated data Table 2). Between 2000 and 2013, while the total population in the region increased by 7%, both the Asian and Latino populations increased by more than 30%, while the White and African-American populations decreased by 10% and 8%, respectively.

Table 2: Racial Composition of Bay Area Population 2000-2013[8]

Race	2000		2013		Change	
	#	%	#	%	#	%
White	3,392,204	50%	3,047,321	42%	(344,883)	(10%)
Black or African American	497,205	7%	456,896	6%	(40,039)	(8%)
Asian	1,278,515	19%	1,704,791	23%	426,276	33%
Hispanic (any race)	1,315,175	19%	1,711,158	24%	395,983	30%
Total Population	6,783,760	-	7,257,501	-	473,741	7%

While the region became racially more diverse, it also became poorer. Between 2000 and 2013, the share of census tracts with a concentration of minority households (defined by PBA 2013 as 70% or more minority households per tract) increased from 23% to 32% and the share of tracts with a concentration of low-income households (defined as 30% or more low-income household per tract) increased from 23% to 35%[9].

Table 3: Census Tracts with Concentration of Low-Income and Minority Households

Criteria	2000		2013	
	#	%	#	%
70% or more Minority Households	324	23%	498	32%
30% or more Low-Income Households	323	23%	547	35%
Both Minority and Low-Income	186	13%	311	20%
Total Census Tracts	1,405	-	1,581	-

Since the Bay Area is experiencing a rise in the share and number of both minority and low-income households, both race and income are important measures of disadvantage. Staff recommends the inclusion of all census tracts that have concentrations of both low-income and minority households as the starting point for defining CoCs for PBA 2040 Equity Analysis. Based on REWG feedback, staff also recommends retaining the remaining six disadvantage factors (#3 to #8 in Table 1) in the CoC framework, and keeping the thresholds of significance the same as in 2013. In addition to updating the data to 2009-2013 American Community Survey (Plan Bay Area 2013 used data from the 2005-2009 ACS), the REWG is proposing one change to the definition of CoCs. See Table 4 below for the proposed new definition of CoCs.

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[7] PBA 2013 used the 2005-2009 American Community Survey
[8] Bay Area Census: http://www.bayareacensus.ca.gov/ and 2009-2013 American Community Survey[9] 2009-2013 American Community Survey and 2000 Census
[9] 2009-2013 American Community Survey and 2000 Census

Table 4: Proposed Communities of Concern Framework for Plan Bay Area 2040

Disadvantage Factor	% Regional Population	Concentration Threshold
1. Minority	58%	70%
2. Low Income (<200% Federal Poverty Level - FPL)	25%	30%
3. Limited English Proficiency	9%	20%
4. Zero-Vehicle Household	10%	10%
5. Seniors 75 Years and Over	6%	10%
6. People with Disability	9%	25%
7. Single-Parent Family	14%	20%
8. Severely Rent-Burdened Household	11%	15%
Definition – census tracts that have a concentration of BOTH minority AND low-income households, OR that have a concentration of 3 or more of the remaining 6 factors (#3 to #8) but only IF they also have a concentration of low-income households.		

Recommendation

Staff recommends the Committee refer MTC Resolution No. 4217, which sets forth the equity measures and CoCs framework for Plan Bay Area 2040, to the Commission for approval.

Alix A. Bockelman

AB: pg / dj / vs

Attachments: MTC Resolution No. 4217
1. Plan Bay Area 2040 Goals and Performance Targets, excerpt from MTC Resolution 4204, Revised
2. Plan Bay Area 2013 Communities of Concern Map
3. Plan Bay Area 2040 Proposed Communities of Concern Map
4. Comparison Map of Plan Bay Area 2013 and 2040 Proposed Communities of Concern Boundaries
5. Presentation

ABSTRACT

Resolution No. 4217

This resolution adopts the equity measures and communities of concern framework for Plan Bay Area 2040.

Further discussion of this action is contained in the MTC Deputy Executive Director's Memoranda to the Planning Committee dated December 31, 2015.

Re: <u>Adoption of Equity Measures and Communities of Concern Framework for Plan Bay Area 2040</u>

METROPOLITAN TRANSPORTATION COMMISSION
RESOLUTION NO. 4217

WHEREAS, the Metropolitan Transportation Commission (MTC) is the regional transportation planning agency for the San Francisco Bay Area pursuant to Government Code Sections 66500 <u>et</u> <u>seq.</u>; and

WHEREAS, SB 375, Chapter 728, Statutes of 2008, amended Sections 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, and 65588 of, and added Sections 14522.1, 14522.2, and 65080.01 to, the Government Code, and amended Section 21061.3 of, to add Section 21159.28 to, and to add Chapter 4.2 (commencing with Section 21155) to Division 13 of, the Public Resources Code, relating to environmental quality; and

WHEREAS, SB 375 requires MTC to adopt a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan (RTP), referred to as Plan Bay Area 2040 ("the Plan"); and

WHEREAS, MTC may elect to set performance targets for the purpose of evaluating land use and transportation scenarios to help inform selection of a draft and final Plan; and

WHEREAS, MTC and ABAG have solicited extensive input from local governments, partner transportation agencies, the MTC Policy Advisory Council, the Regional Equity Working Group, and other regional stakeholders on goals and performance targets; and

WHEREAS, Attachment A to this resolution, attached hereto and incorporated herein as though set forth at length, lists the equity measures to be used for the Plan Bay Area 2040 project performance assessment and scenario analysis; and

WHEREAS, MTC has defined 'communities of concern" for the RTPs adopted in 1999, 2003, 2007 and 2013 to identify communities with concentrations of poverty, minority households and other factors suggesting disadvantaged communities; and

WHEREAS, Attachment B to this resolution, attached hereto and incorporated herein as though set forth at length, sets forth the Plan Bay Area 2040 Communities of Concern framework, now, therefore be it

RESOLVED, MTC adopts the equity measures set forth in Attachment A and the proposed communities of concern framework for Plan Bay Area 2040 outlined in Attachment B.

METROPOLITAN TRANSPORTATION COMMISSION

_____
David Cortese, Chair

The above resolution was entered into by the
Metropolitan Transportation Commission
at a regular meeting of the Commission held in
Oakland, California, on January 27, 2016.

Date: January 27, 2016
W.I.: 1212
Referred by: Planning Committee

Attachment A
Resolution No. 4217
Page 1 of 2

Equity Measures for Plan Bay Area 2040

Goal	Performance Target #	Equity Measures
Healthy and Safe Communities	3	Measure the health benefits and burdens associated with air quality, road safety and physical inactivity (will also include a sub-analysis for low-income neighborhoods)
Equitable Access	5	Measure the share of lower-income residents' household income consumed by transportation and housing
	6	Measure the share of affordable housing in Priority Development Areas (PDAs), Transit-Priority Areas (TPAs), or high-opportunity areas
	7	Measure the share of low- and moderate-income renters in PDAs that are at an increased risk of displacement
Economic Vitality	8	Measure the share of jobs that are accessible by auto and transit in congested conditions (will also include a sub-analysis for lower-income communities)
	9	Measure the current share of middle-wage jobs in the region and project the share of jobs in predominantly middle-wage industries in 2040

Date: January 27, 2016
W.I.: 1212
Referred by: Planning Committee

Attachment B
Resolution No. 4217
Page 2 of 2

Proposed Communities of Concern Framework for Plan Bay Area 2040

Disadvantage Factor	*% Regional Population*	*Concentration Threshold*
1. Minority	58%	70%
2. Low Income (<200% Federal Poverty Level - FPL)	25%	30%
3. Limited English Proficiency	9%	20%
4. Zero-Vehicle Household	10%	10%
5. Seniors 75 Years and Over	6%	10%
6. People with Disability	9%	25%
7. Single-Parent Family	14%	20%
8. Severely Rent-Burdened Household	11%	15%
Definition – census tracts that have a concentration of BOTH minority AND low-income households, OR that have a concentration of 3 or more of the remaining 6 factors (#3 to #8) but only IF they also have a concentration of low-income households.		

Scenario #1: Main Streets

Description

Scenario 1 targets future population and employment growth to the downtowns of every city in the Bay Area to foster a region of moderately-sized, integrated town centers. This scenario emphasizes a dispersed distribution of households and jobs and limited growth in San Jose, San Francisco, and Oakland. As a result, a number of the region's cities would experience significant growth and different types of development compared to existing patterns. As in the other scenarios, most growth will be in locally-identified PDAs, but this scenario offers the most dispersed growth pattern, meaning that cities outside the region's core are likely to see higher levels of growth. Within cities, more growth will be accommodated outside of PDAs than in other scenarios, with an emphasis on high opportunity areas that have higher levels of educational opportunities, economic mobility, and neighborhood services.

To accommodate this growth, investments, including resources for affordable housing, will be dispersed across PDAs, Transit Priority Areas (TPAs), other transit-proximate locations outside PDAs, and underutilized transportation corridors across the region. This scenario comes closest to resembling a traditional suburban pattern, with an increase in greenfield development to accommodate the dispersed growth pattern. While an emphasis on multi-family and mixed-use development in downtowns will provide opportunities for households of all incomes to live near a mix of jobs, shopping, services, and other amenities, this scenario also assumes that many people will drive significant distances by automobile to get to work.

To support this scenario's dispersed growth pattern, transportation investment priorities will emphasize highway strategies, including the expansion of high-occupancy toll lanes on all regional highways, the institution of variable pricing, and highway widening at key bottlenecks. The scenario will also emphasize expansion of suburban bus service. Bicycle and pedestrian infrastructure will create a network of regional trails and bike lanes, including a robust regional network of bike sharing. To support industry and goods movement, the scenario will focus largely on "smart operations and deliveries"— technology and operations to reduce congestion and increase safety on urban and rural roads.

To reach our climate goals, this scenario sees heavy investments in technology advancements, clean vehicles, and incentives and pursues near-zero and zero emissions strategies wherever feasible. The mobility needs of seniors, persons with disabilities, and low-income communities will be addressed most centrally by "mobility management" solutions to link individuals to travel options that meet their specific needs, as well as the provision of demand-responsive strategies by the public, non-profit, and private sectors.

Land Use Strategies

In this scenario, land use strategies emphasize a more dispersed growth pattern. Compared to the other scenarios, cities outside the region's core are likely to see higher levels of growth and, within cities, more growth will be accommodated outside PDAs, with an emphasis on high opportunity areas. Specific strategies include:

- Zoning: upzoning of select suburban areas to increase residential and commercial development capacity.
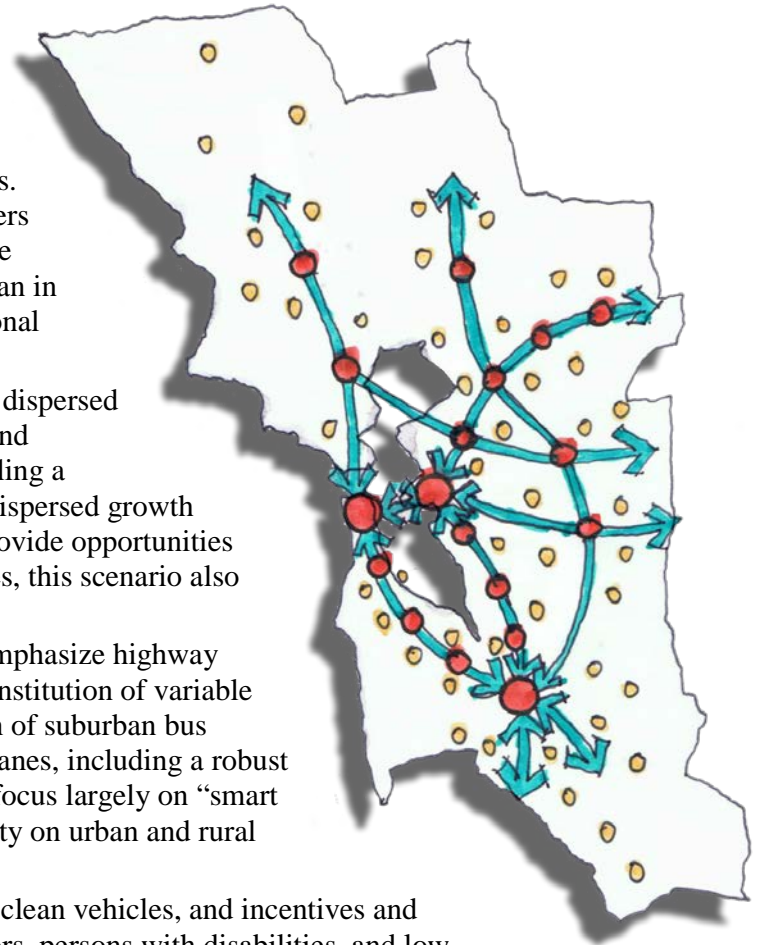
- Open space: allows urban growth boundaries to expand faster than expected (by 565 square miles) compared to past trends to accommodate more dispersed growth.
- Reduce parking minimums: in PDAs along regional rail transit (such as BART, Caltrain, Amtrak, Altamont Corridor Express, and SMART).
- Affordable housing: encourages more affordable housing choices through the following strategies:
    - Inclusionary zoning- assumes a low level of inclusionary units (deed-restricted) with a proportion of 5% in high-opportunity jurisdictions.
    - Assesses fees on commercial development in high VMT areas to subsidize deed-restricted housing.
    - Assumes imposition of other tax policies to subsidize over $500 million annually of affordable units in PDAs.

Transportation Strategies
Investments to increase the frequency of suburban bus operations, manage travel demand, and expand the capacity of our highway network will be critical to enable this pattern of growth. Since job growth is more dispersed throughout the region, major public transit expansions or extensions such as fixed-guideway extensions and core capacity enhancements will be a lower priority. Strategies include the following (see **Attachment 2** for specific major investments):

- Transit service expansion: Pursue strategic transit investments, especially bus improvements, to provide access to increasingly dispersed job centers.
- Express lanes: Leverage technological advances to use roadway capacity more efficiently, while emphasizing freeway-focused pricing like Express Lanes / Managed Lanes as complementary strategies.
- Highway capacity: Invest in strategic highway capacity increases to accommodate this scenario's growth pattern.
- State of good repair: Emphasize investment into both state of good repair (particularly for highways and local streets across all nine counties).
- Climate Strategies: includes technological advancements (e.g. clean vehicles) and incentive programs to encourage travel options that help meet GHG emissions reduction targets.

Scenario #2: Connected Neighborhoods

Plan BayArea 2040

Description

Scenario 2 targets future population and employment growth to locally-identified PDAs along major corridors, with an emphasis on growth in medium-sized cities with access to the region's major rail services, such as BART and Caltrain. Outside the PDAs, this scenario sees modest infill development, especially in high opportunity areas. As these communities grow over the next 25 years, compact development and strategic transportation investments will provide residents and workers access to a mix of housing, jobs, shopping, services, and amenities in proximity to transit traditionally offered by more urban environments. Resources for affordable housing will be dispersed across the Bay Area, with some concentration in PDAs to support the development of affordable housing where the most population and employment growth is targeted.

To support this scenario's growth pattern, transportation investments will prioritize maintenance of existing infrastructure. The region's transit system will be modernized and expanded along key corridors to improve commutes and add capacity. Investments in bicycle and pedestrian infrastructure, including the regional bike sharing network, will support the creation of more walkable and bikeable downtowns. To support industry and goods movement, particularly the industrial lands clustered along the major corridors, this scenario will support environmentally sustainable investments at our key global gateways to create local jobs, protect the community, and attract international commerce.

To protect the climate, this scenario prioritizes a number of innovative transportation initiatives, including car sharing and near-zero and zero emission goods movement technologies. The mobility and accessibility needs of seniors, persons with disabilities, and low-income communities will be addressed through continued investments in transit operations, transit capital, and a continued focus on "mobility management" solutions to link individuals to travel options that meet their specific needs.

Land Use Strategies

In this scenario, land use strategies target capacity increases for population and employment growth to PDAs along major corridors, with an emphasis on growth in medium-sized cities with access to the region's major rail services.

- Zoning: Encourage new housing development by increasing residential development capacity in PDAs based on locally identified PDA place type.

- Development cap: Raises SF office cap to 1.5 million.

- Open space: Protect the region's natural resources by avoiding development on adopted PCAs and accommodating all new growth within existing urban growth boundaries or urban limit lines, using city boundaries as a limit when a jurisdiction has no expansion limit.

- Reduce parking minimums: in PDAs with high levels of transit access along El Camino Real and East Bay corridors.

- Affordable housing: Encourage more affordable housing choices through inclusionary zoning- Assumes a moderate level of inclusionary units (deed-restricted) with a proportion of 10% for jurisdictions with PDAs.
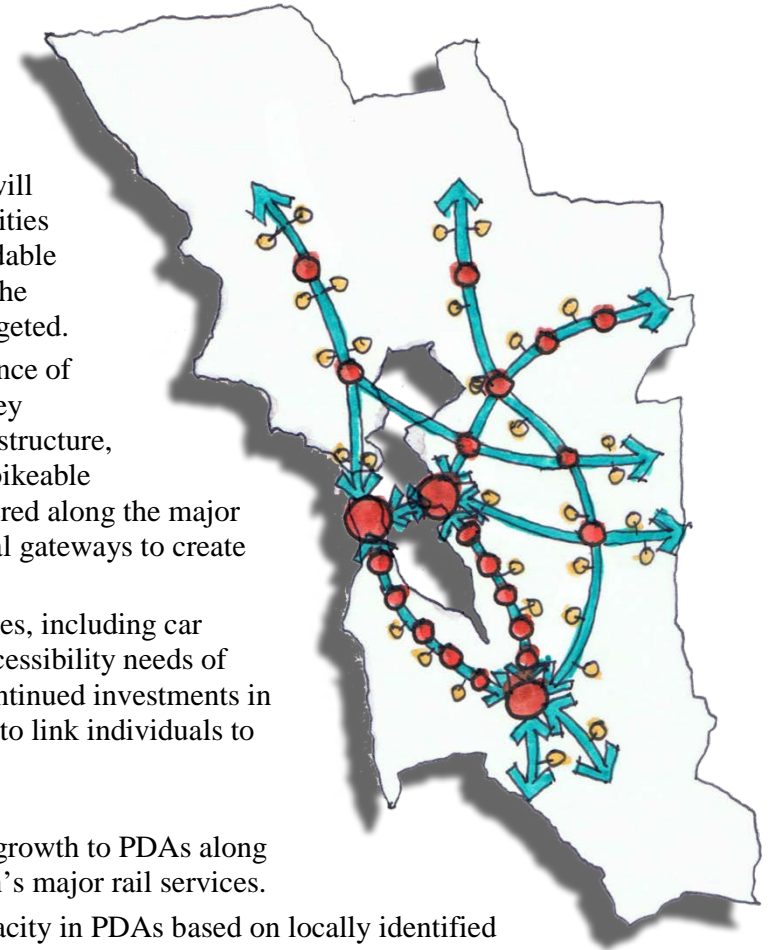
Transportation Investments

Urban growth patterns will require increased investment in our regional rail systems like BART and Caltrain, as well as the expansion of express bus services, including bus rapid transit (BRT) to connect inner-ring suburban communities to major job centers. At the same time, a smaller share of suburban and exurban residents will continue to drive, necessitating sustained investment in freeways and arterials. Strategies include the following (see **Attachment 2** for specific major investments):

- Transit efficiency: Prioritize transit efficiency investments to improve frequencies and reduce travel times on core transit lines across the region.

- Highway efficiency: Focus on a limited set of high performing highway efficiency investments, including strategic highway capacity improvements to address bottlenecks and provide reliever routes to freeways within the urban core.

- Transit expansion: Fund the most cost-effective transit expansion projects that support the region's highest-growth PDAs.

- State of good repair: Balance state of good repair needs with expansion and efficiency priorities for all modes; identify opportunities to align state of good repair to support PDA growth by repaving streets and upgrading buses that serve these communities.

- Climate Strategies: includes technological advancements (e.g. clean vehicles) and incentive programs to encourage travel options that help meet GHG emissions reduction targets.

Plan BayArea 2040 Scenario #3: Big Cities

Description

Scenario 3 concentrates future population and employment growth in the locally-identified PDAs and TPAs within the Bay Area's three largest cities: San Jose, San Francisco, and Oakland. Neighboring cities that are already well-connected to these three cities by transit will see moderate to substandard increases in population and employment growth, particularly in their locally-identified PDAs and high opportunity areas. The amount of growth outside these areas is minimal, with limited infill development in PDAs and no greenfield development. Growth in the three biggest cities will require substantial investment to support transformational changes to accommodate households of all incomes. This scenario will prioritize strategies to make these existing urban neighborhoods even more compact and vibrant, and enable residents and workers to easily take transit, bike or walk to clusters of jobs, stores, services, and other amenities. Resources for affordable housing will likewise be directed to the cities taking on the most growth.

To support this scenario's big city-focused growth pattern, the transportation infrastructure within and directly serving the region's core will be maintained to a state of good repair, modernized to boost service and improve commutes and capacity, and expanded to meet increased demand. While these transit investments will take priority, the roadway network will also require significant investments, such as a regional express lane network to prioritize direct access to the three biggest cities and regional express bus service to increase connections to the region's core. Bicycle and pedestrian infrastructure will be dramatically expanded in these cities, including a robust network of bike sharing. To support industry and goods movement, investments at the Port of Oakland will be ramped up quickly to enable more efficiency and to mitigate the impacts of Port activities on nearby communities.

To reach our climate goals, this scenario will focus technological and financial incentive strategies in and around the three biggest cities, which will accommodate a significant increase in population and travel demand. The mobility and accessibility needs of seniors, persons with disabilities, and low-income communities will be addressed by directing resources for a robust increase in transit operations and capital within the region's core.

Land Use Strategies

In this scenario, it is assumed that most of the region's population and employment growth will be located in San Francisco, San Jose, and Oakland—with the remainder primarily in cities directly proximate to the three biggest cities and areas well served by transit. Capacity for growth in these cities is emphasized in PDAs, TPAs, and other areas that are well served by transit.

- Zoning: Increases development capacity in areas with high transit access (with an emphasis on San Jose, San Francisco, Oakland, and their neighbors) by increasing residential densities in key PDAs, TPAs, and select opportunity sites.

- Development caps: Assumes elimination of caps on office development in San Francisco.

- Open space: Protect the region's natural resources by avoiding development on adopted PCAs and accommodating all new growth within existing urban
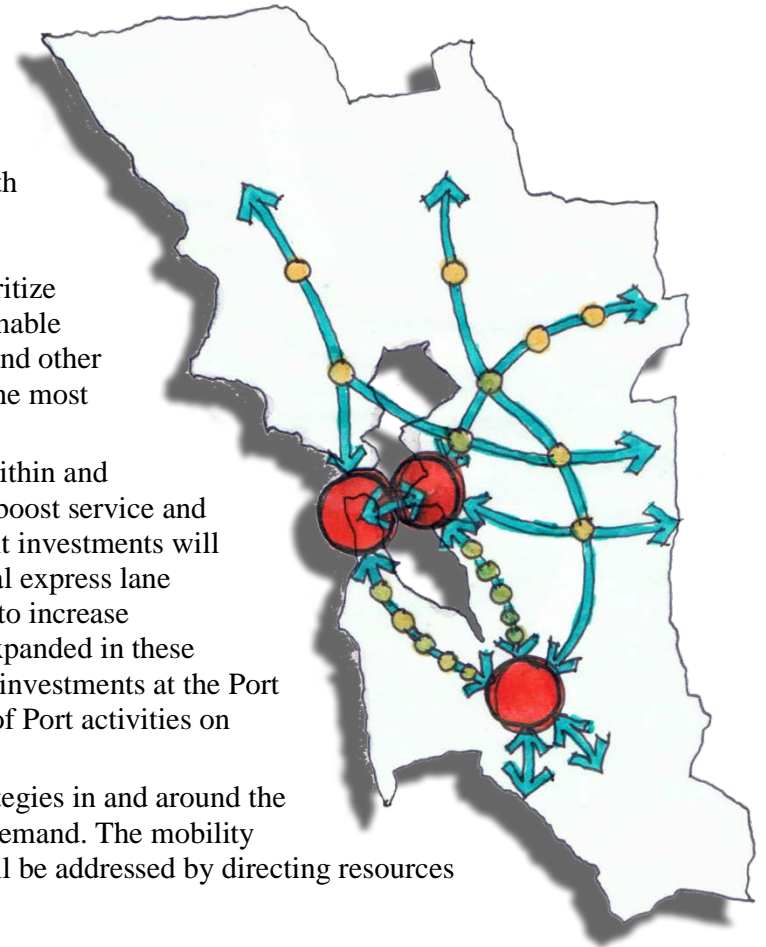
growth boundaries or urban limit lines, using city boundaries as a limit when a jurisdiction has no expansion limit.

- Reduce parking minimums: in three big cities and neighboring communities.
- Affordable housing: Encourage more affordable housing choices through the following strategies:
    - Inclusionary zoning: Assumes a moderate level of inclusionary units (deed-restricted) with a proportion of 10% for jurisdictions with PDAs.
    - Assesses fees on residential development in high VMT areas to subsidize deed-restricted housing in low VMT areas.
- Other tax policy: encourages compact development through modifications to property tax assessment in three biggest cities.

Transportation Strategies

In order to make this high-density growth pattern feasible without significantly worsening traffic congestion or overloading existing transit systems, transit capacity improvements and demand management strategies will be prioritized to accommodate travel to, from, and within the core cities. Strategies include the following (see **Attachment 2** for specific major investments):

- Core capacity and connectivity: Pursue expansion of the South Bay transit system to support high-density development across Silicon Valley, while at the same time prioritizing investment in core capacity projects in San Francisco and Oakland to enable high-density development.
- Transit enhancements and expansion: Link regional rail systems into the heart of the Bay Area's two largest cities – San Francisco and San Jose – while boosting service frequencies to support increasingly-urban commute patterns.
- Congestion pricing: Support urban development in San Francisco by implementing cordon pricing and leveraging motorists' tolls to pay for robust and time-competitive transit services.
- State of good repair: Align operating and maintenance funds to prioritize investments into high-growth cities and high-ridership systems;
- Climate Strategies: includes technological advancements (e.g. clean vehicles) and incentive programs to encourage travel options that help meet GHG emissions reduction targets.

Additional Details on Scenario Analysis Results for Equity Measures

See Table 1 in the memo for a summary of scenario analysis results for the six adopted equity measures. See Attachment F for scenario analysis results for all 13 PBA 2040 Performance Targets.

Healthy and Safe Communities (Performance Target #3)

This target measures the extent to which each scenario will improve health outcomes for Bay Area residents by reducing exposure to PM2.5, increasing physical activity (walking and bicycling), and reducing road traffic injuries.

Of the three factors, PM2.5 concentrations would decline in scenarios that reduce per capita vehicle-miles travelled and invest in clean vehicle technology; physical activity would rise in scenarios that achieve a greater shift in travel mode from driving to walking and biking (and to some extent transit); and collisions would rise for scenarios that result in more pedestrian and bicycle trips on major roads (even when accounting for "safety in numbers").

The net reduction or increase in morbidity and mortality caused by the combined effect of all three factors based on land use and transportation policies and projects included in the three scenarios is calculated as a single metric, the Disability Adjusted Life Years or DALYs, using the Integrated Transportation and Health Impact Model or ITHIM[1].

Table 2 lists DALYs for the baseline year (2010) and the % change for the three scenarios (PBA 2040). Each scenario decreases adverse health impacts for the region's residents, including households that earn less than $30,000. But the magnitude of change, at less than 1%, is insignificant when compared to the Performance Target for PBA 2040 (-10%).

The largest health benefits could be derived from investments that increase physical activity and reduce road traffic injuries. No scenario currently includes the level of active transportation investments that could lead to a significant shift in the travel mode for most Bay Area residents to walking and bicycling. Regardless, all scenarios move the region in the right direction and no scenario has a significant adverse impact on the health outcomes.

Housing and Transportation Cost (Performance Target #5)

This target measures the increase or decrease in the share of household income spent on housing and transportation (H+T) costs. Results are compared for households earning less than and more than $60,000 per year.

All scenarios increase rather than decrease the share of household income spent on H+T, for both lower-income and higher-income households. But the impact on households earning less than $60,000 is greater, especially since these households already spend more than half their income on H+T (2005). Between 2005 and 2040, the share of income spent on H+T by households earning more than $60,000 would increase from 19% to 23% (a 4%-point increase), while that share for households earning less than $60,000 would increase from 53% to 66% (or a 13%-point increase).

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[1] Woodcock J, Givoni M, Morgan AS. Health Impact Modelling of Active Travel Visions for England and Wales Using an Integrated Transport and Health Impact Modelling Tool (ITHIM). PLoS One. 2013;8(1):e51462. Maizlish NA, Woodcock JD, Co S, Ostro B, Fairley D, Fanai A. Health cobenefits and transportation-related reductions in greenhouse gas emissions in the San Francisco Bay Area. Am J Public Health 2013; 103:703-709.

It is important to note that housing costs account for a much larger share of the total H+T cost for all households in the region, irrespective of income. The significant increase in total H+T costs in 2040 is also largely due to an increase in housing costs. During that same period, household incomes, especially for lower-income households, are expected to grow at a much slower pace, further constraining affordability.

Share of Affordable Housing (Performance Target #6)

This target measures the share of housing units (both deed-restricted and non-deed-restricted units) in PDAs, TPAs and HOAs (performance area) that are affordable to low-income households that earn less than $60,000 per year. Since a majority of the region's housing and job growth is planned for PDAs, increasing the share of affordable housing in this geography is essential to creating mixed-income neighborhoods that provide equal access to improvements for all residents irrespective of their income, and an opportunity for upward social mobility to lower-income households.

Similarly, a higher share of affordable units in TPAs will result in better access for lower-income households to transit, and in HOAs, to safe neighborhoods and good schools. This measure has a direct correlation to the next target on displacement risk. As more affordable units become available in neighborhoods that will experience the greatest change, more lower-income households will be able to afford to live there.

All scenarios make a minimal impact on the share of affordable units in the performance area. In CoCs (within the performance area), all three scenarios reduce the share of available affordable units. Outside the CoCs (but still within the performance area), all three scenarios increase the share of affordable units by about 1%. Overall, scenarios 2 and 3 move the region in the right direction (by increasing the share of affordable units by 1% and a little less than 1%, respectively).

Risk of Displacement (Performance Target #7)

This target measures the relative risk of displacement for households that earn less than $60,000 per year and reside in PDAs, TPAs and HOAs (performance area). The results are compared for households that reside inside and outside CoCs. This measure relies on UrbanSim, the land use model, to estimate where lower-income households will reside in 2040. Zones where the absolute number of lower-income households decline in 2040 even as the total number of these households rises in the region, are considered to be at a relative risk of displacement.

All three scenarios focus growth, to varying degrees, in areas that have a higher share of lower-income households. Therefore, not surprisingly, all scenarios increase the risk of displacement. Only Scenario 2 meets the Performance Target of 0% increase in the risk in CoCs within the performance area. The increase in the risk of displacement in Scenario 3 (between +15% and +19%) is higher than in scenarios 1 and 2, but still lower than the risk in the No Project Scenario (between +19% and +22%).

It is important to note that the target measures the "risk" of displacement. Displacement is not inevitable. Local jurisdictions can adopt a wide range of housing programs and policies to mitigate the risk of displacement.

It is also important to note that, in the Bay Area, housing production at all income levels has lagged demand for over four decades, raising housing costs for renters as well as owners; living costs are much higher than in comparable metropolitan areas, and continue to rise faster than in these areas; wages of lower-income workers have stagnated over multiple decades, limiting their ability to afford market-rate rents; state and federal resources for housing programs have declined significantly since the Great Recession; redevelopment agencies, which could raise revenue for both infrastructure

investments and affordable housing, have been eliminated by the state; and federal funding for housing programs has plummeted over the last couple of decades.

All these trends decrease affordability and restrict the ability of public agencies to respond to Bay Area's housing crisis. Lower-income households may be displaced within the region, from a transit-accessible and walkable neighborhood to an area that does not provide these amenities, or outside the region, to neighboring counties or another state. Both forms of displacement impact the economy, the environment and community stability and cohesion.

Job Access (Performance Target # 8)

This target measures the share of jobs that are accessible within 30 minutes of travel by auto or 45 minutes by transit, in congested conditions. This target is a proxy to estimating the economic impact of congestion on the region's economy. Each scenario distributes future growth in different parts of the region at varying levels of density and intensity. Corridors that serve a higher share of future jobs and residents are expected to be more congested, for both auto and transit trips. Higher levels of roadway and transit congestion in 2040 along key growth corridors are expected to decrease the overall share of accessible jobs in each scenario. But the results vary slightly across scenarios and geographies.

Within CoCs, scenarios 1 and 2 result in no change in job accessibility compared to baseline conditions. Whereas Scenario 3 results in the largest relative decrease, of -2%, on job access in CoCs. Major capacity-increasing investments in high-growth corridors could mitigate these negative impacts.

Jobs in Middle-Wage Industries (Performance Target #9)

This target measures the increase in jobs in predominantly "middle-wage industries" between 2010 and 2040. Middle-wage industries are defined as sectors where the share of workers earning $18 to $30 per hour is higher than the regional average. The Association of Bay Area Governments (ABAG) estimates that these sectors will grow by 43%, which is higher than the rate at which all jobs in the region will grow by 2040 (38%). Estimating the growth of jobs in these sectors within and outside CoCs is not feasible at this time due to data limitations.

Draft Performance Target Results

Goal		Target*	%	No Project	Main Streets	Connected Neighbor-hoods	Big Cities
Climate Protection	1	Reduce per-capita CO_2 emissions	-15%	-3%	-15%	-18%	-20%
Adequate Housing	2	House the region's population	100%	100%	100%	100%	100%
Healthy and Safe Communities	3	Reduce adverse health impacts	-10%	-0%	-0%	-1%	-1%
Open Space and Agricultural Preservation	4	Direct development within urban footprint	100%	71%	71%	100%	100%
Equitable Access	5	Decrease H+T share for lower-income households	-10%	+15%	+13%	+13%	+13%
	6	Increase share of affordable housing	+15%	-0%	-0%	+1%	+0%
	7	Do not increase share of households at risk of displacement	+0%	+20%	+9%	+8%	+15%
Economic Vitality	8	Increase share of jobs accessible in congested conditions	+20%	-3%	-1%	-1%	-1%
	9	Increase jobs in middle-wage industries	+38%	+43%	+43%	+43%	+43%
	10	Reduce per-capita delay on freight network	-20%	+27%	-24%	-21%	-38%
Transportation System Effectiveness	11	Increase non-auto mode share	+10%	+1%	+2%	+3%	+3%
	12	Reduce vehicle O&M costs due to pavement conditions	-100%	+57%	-65%	-7%	+20%
	13	Reduce per-rider transit delay due to aged infrastructure	-100%	-56%	-76%	-77%	-83%

Notes: *Complete target language as adopted by the Commission and ABAG Executive Board can be found at http://planbayarea.org/the-plan/plan-details/goals-and-targets.html; target language shown above is summarized for brevity. Please note that scenario performance results remain in draft form until all scenarios are run for analysis year 2040 later this year.

Symbols used in summary tables:

● Performance moving in wrong direction from target

● Performance moving in right direction, but falls well short of target

● Target achieved