TRB - 5th International Transportation Systems Performance Measurement and Data Conference

Denver, Colorado, June 1, 2015

Drivers of Performance Based Activities

REGION LEVEL

- Regional Transportation Plans
- Sustainable Communities Strategies (SB 375)

STATE LEVEL

- California Blueprint (SB 391)
- California Transportation Plan 2040
- Regional Transportation Plan (RTP) Guidelines
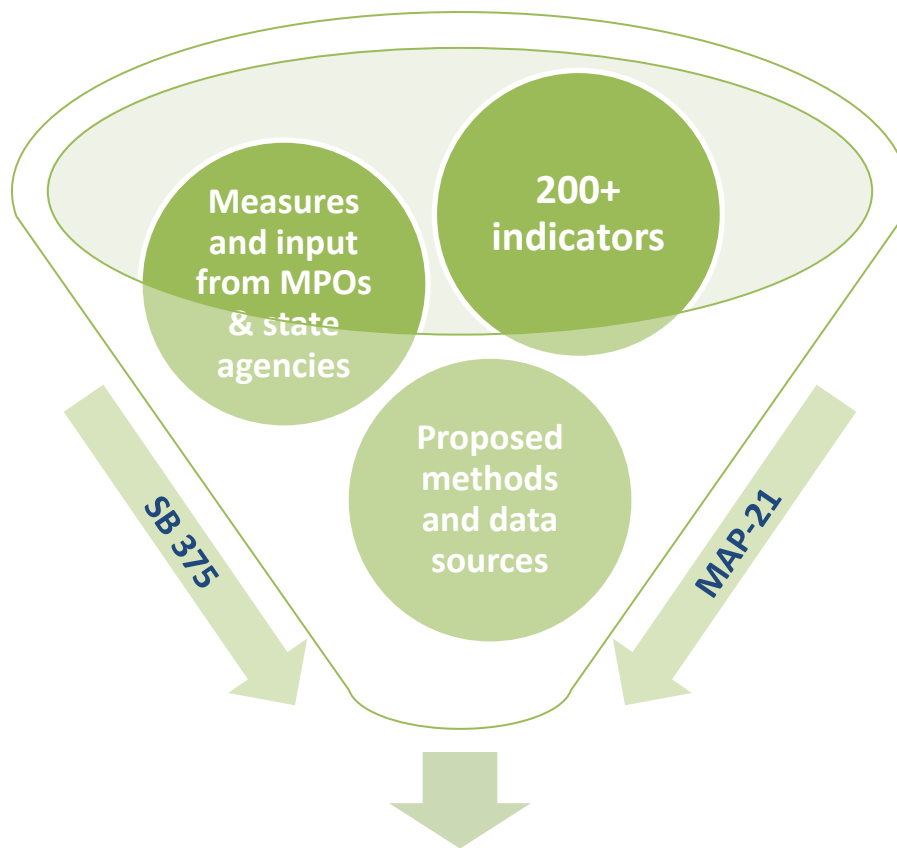
FEDERAL LEVEL

- MAP-21 performance measures rulemaking process
- Initial steps toward target-setting coordination

State-Level Indicators: Purpose and Framework

- Purpose: **to identify a common set of standardized transportation indicators** for California MPOs and state agencies (effort led by SANDAG and funded by California Strategic Growth Council)

- **Address issues of importance across the state**, going beyond the requirements in MAP-21 and dealing with key sustainability issues

- **Focus on observed indicators** (rather than modeled measures)

- **Rely upon consistent statewide data sources** (when available) and identify clear methodologies for each indicator

- Potential use of recommended measures to inform guidelines for STIP, California Regional Progress Report, etc.

- **Total and congested VMT per capita**
- **Commute mode share**
- **State of good repair**
- **Highway buffer index**
- **Fatalities/serious injuries per capita and per VMT**

Measures and input from MPOs & state agencies

200+ indicators

Proposed methods and data sources
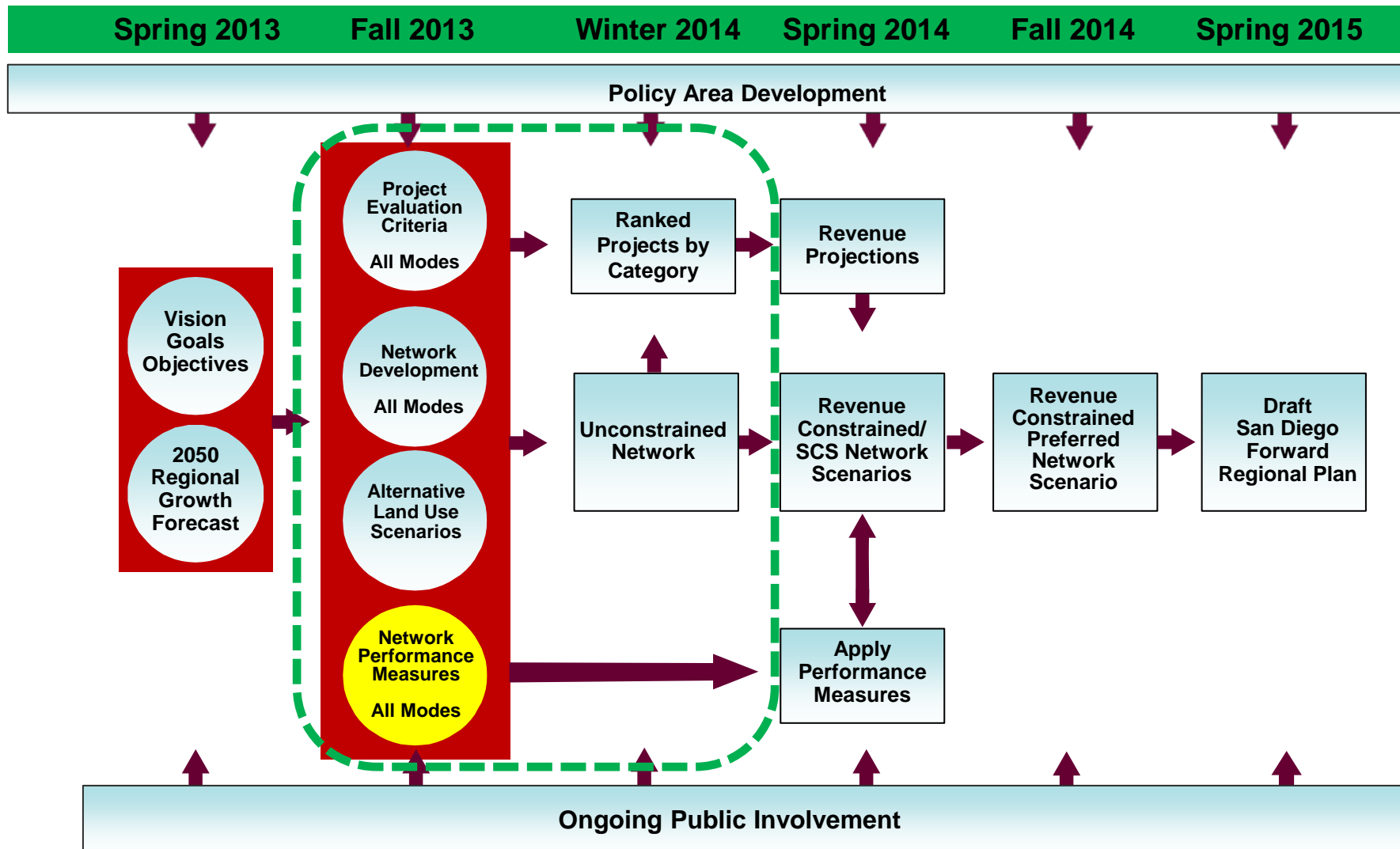
SB 375

MAP-21

- **Transit accessibility**
- **Travel time to jobs**
- **Change in agricultural land**
- **CO_2 emissions per capita**

Set of up to 10 statewide indicators

SANDAG – RTP Process and Timeline

Spring 2013	Fall 2013	Winter 2014	Spring 2014	Fall 2014	Spring 2015

Policy Area Development

Vision Goals Objectives

2050 Regional Growth Forecast

Project Evaluation Criteria — All Modes

Network Development — All Modes

Alternative Land Use Scenarios

Network Performance Measures — All Modes

Ranked Projects by Category

Revenue Projections

Unconstrained Network

Revenue Constrained/ SCS Network Scenarios

Apply Performance Measures

Revenue Constrained Preferred Network Scenario

Draft San Diego Forward Regional Plan

Ongoing Public Involvement

Network Performance Measures

- Used in past regional transportation plans
  - Evaluate multimodal transportation networks
  - Assist the Board in selecting the transportation network for the draft RTP

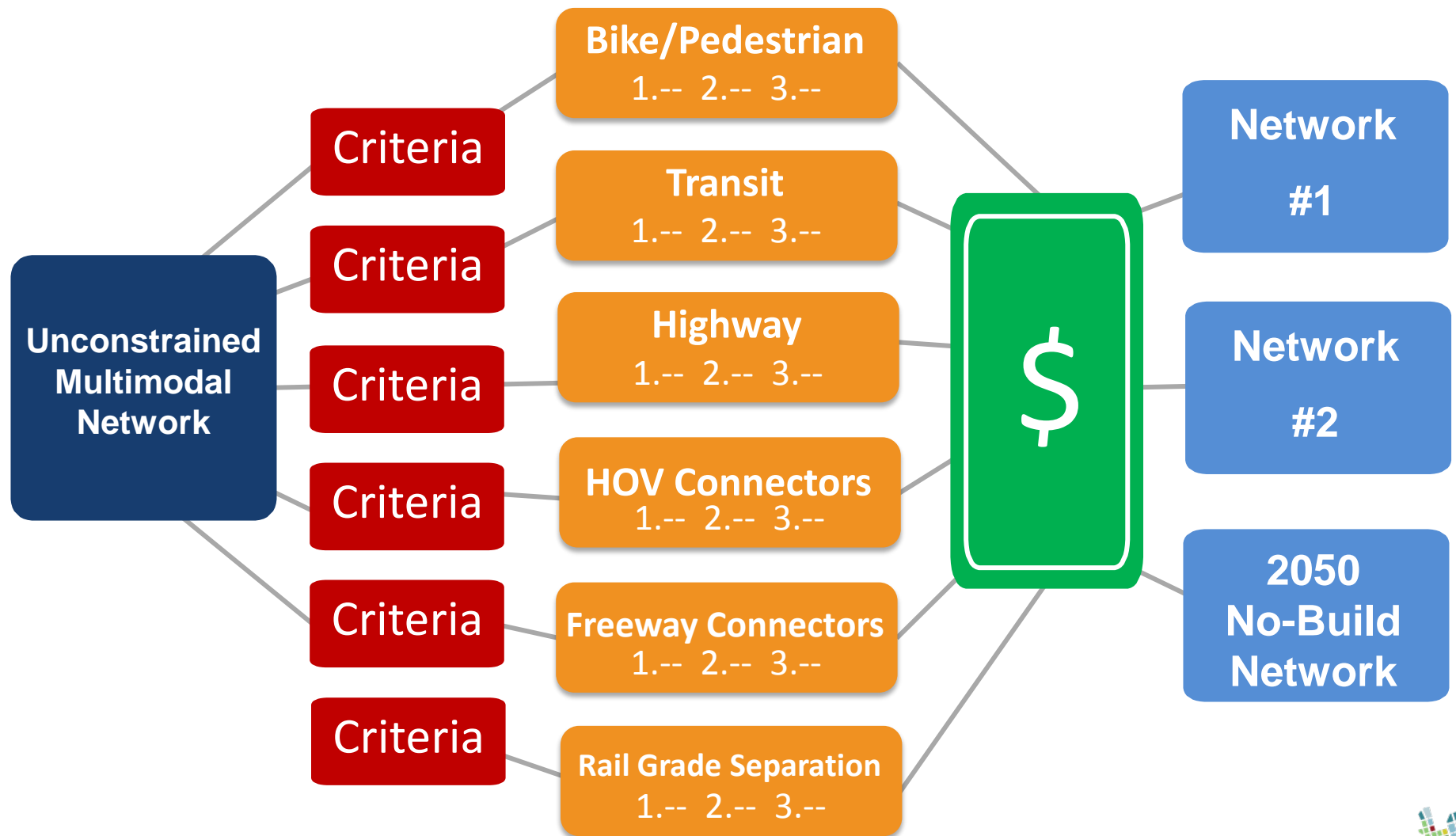- Coordinating with USDOT on MAP-21 performance measures

Regional Plan Vision and Goals

Healthy Environment & Communities

Vision

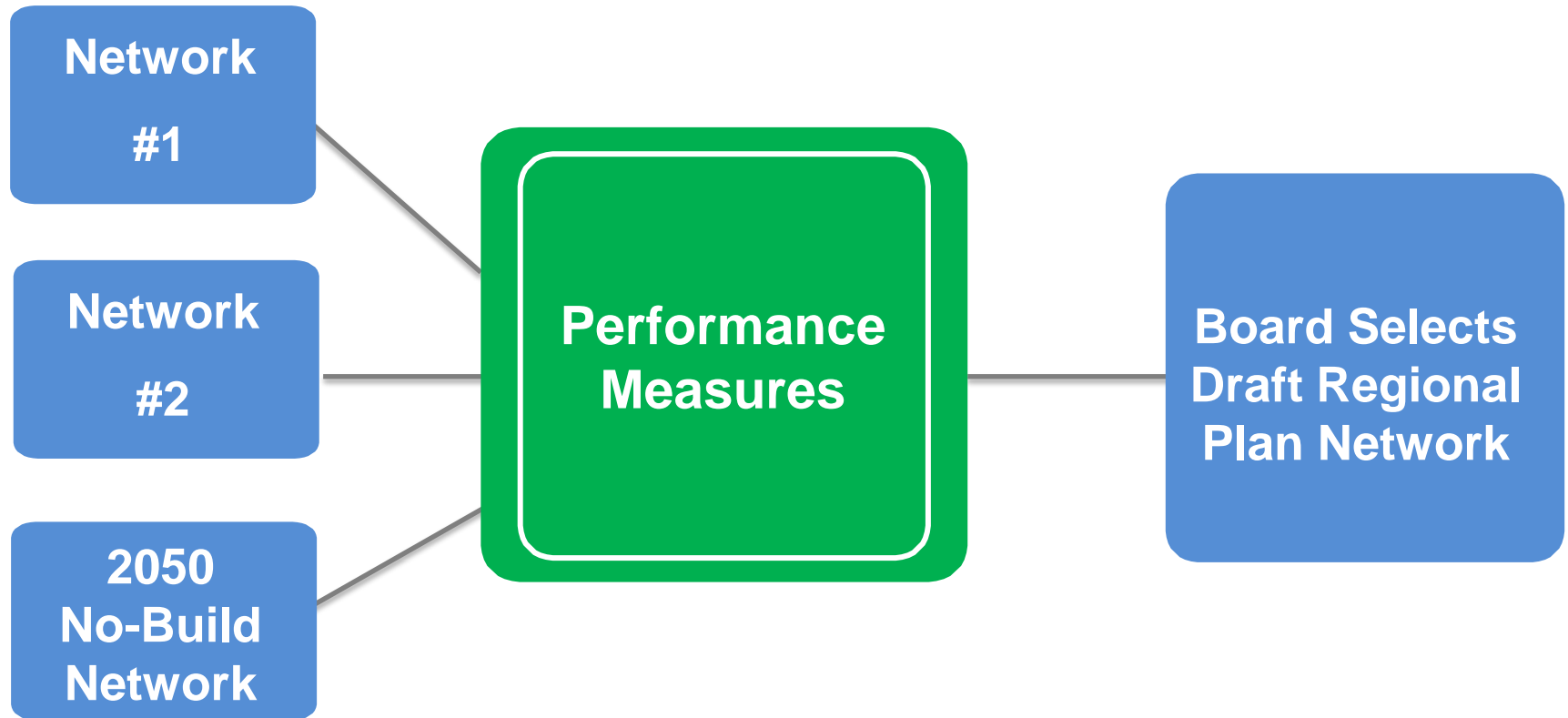Innovative Mobility & Planning

Vibrant Economy

To provide innovative mobility choices and planning to support a sustainable and healthy region, a vibrant economy, and an outstanding quality of life for all.

Scenario Development Based on Revenue Constraints

Unconstrained Multimodal Network

- Criteria
- Criteria
- Criteria
- Criteria
- Criteria
- Criteria

Bike/Pedestrian
1.-- 2.-- 3.--

Transit
1.-- 2.-- 3.--

Highway
1.-- 2.-- 3.--

HOV Connectors
1.-- 2.-- 3.--

Freeway Connectors
1.-- 2.-- 3.--

Rail Grade Separation
1.-- 2.-- 3.--

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Network #1

Network #2

2050 No-Build Network

Network Selection Based on Performance Measures

Network #1

Network #2

2050 No-Build Network

Performance Measures

Board Selects Draft Regional Plan Network

Draft Performance Measures

- Support Regional Plan goals and policy objectives
- Fewer performance measures
- Key questions
- Simplified format

Innovative Mobility and Planning

1. **Are travel times reduced?**
   – Average peak-period travel time to work
   – Daily vehicle delay per capita

2. **Are more people walking, biking, using transit, and sharing rides?**
   – Change in walk, bike, transit, and carpool mode share

3. **Is the transportation system safer?**
   – Annual projected number of vehicle injury/fatal collisions per vehicle mile traveled
   – Annual projected number of bicycle/pedestrian injury/fatal collisions per mile traveled

Vibrant Economy

4. **Do the transportation investments help to improve the regional economy?**
   – Benefit/cost ratio of transportation investments
   – Average truck/commercial vehicle travel times to and around regional gateways and distribution hubs

5. **Are the relative costs of transportation changing similarly for all communities?**
   – Change in percent of income consumed by transportation costs

6. **Are connections to neighboring counties, tribal lands, Mexico, and military bases/installations improved?**
   – Average travel times to/from tribal lands
   – Average travel times to/from Mexico
   – Average travel times to/from neighboring counties
   – Average travel times to/from military bases/installations

Healthy Environment and Communities

7. **Does the transportation network support smart growth?**

    – Percentage of population/employment within 0.5 mile of high frequency transit stop

    – Percentage of population/employment within 0.5 mile of a transit stop

    – Percentage of population/employment within 0.25 mile of a bike facility

    – Average travel distance to work

    – **Total time engaged in transportation-related physical activity per capita**

    – **Percent of population engaging in more than 20 minutes of daily transportation-related physical activity**

Healthy Environment and Communities

8. **Is access to jobs and key destinations improving for all communities?**
   - Percent of population within 30 minutes of jobs and higher education
   - Percent of population within 15 minutes of goods and services

9. **Is the air getting cleaner?**
   - On-road smog-forming pollutants (pounds/day) per capita

10. **Are GHG emissions reduced?**
    - On-road CO_2 emissions (pounds/day) per capita and regionwide

Our CBO Partner Network

- The Community-Based Organization (CBO) Partner Network was created to help ensure that all communities were meaningfully involved in the development of San Diego Forward
  - Consisted of CBO's in vulnerable areas around the region
  - Each CBO Partner developed an outreach strategy catered to their community
  - Provided an ongoing forum for discussion

Disadvantaged Populations

- Minorities
  - Any community of non-white minorities

- Low-income
  - Income level 200% of the Federal Poverty Rate

- Seniors
  - Age 75 or older

Social Equity Analysis: No Disparate Impact/No Disproportionate Effect

Performance Measure	Low Income	Minority	Seniors
Average Peak Period Travel to Work – all modes	✓	✓	✓
Change in percent of income consumed by out-of-pocket transportation costs	✓	✓	✓
Percentage of population within 0.5 miles of HIGH FREQUENCY transit stops	✓	✓	✓
Percentage of population within 0.5 miles of transit stops	✓	✓	✓
Percentage of population within 0.25 miles of a bike facility	✓	✓	✓
Percentage of population within 30 minutes of jobs/higher education (auto/transit)	✓	✓	✓
Percentage of population within 15 minutes of goods/services (auto/transit):			
Access to Retail	✓	✓	✓
Access to Healthcare	✓	✓	✓
Access to Active Parks	✓	✓	✓
Access to Beaches	✓	✓	✓
Exposure to PM_{10}	✓	✓	✓

✓ = No Disparate Impact or Disproportionate Effect

Results of Social Equity Analysis

- High Frequency Transit:
  - For low-income populations, their access goes up from 47% to 61 in 2020 and from 49 % to 70 % in 2050 as compared to the No-Build Scenario
  - For minority populations, their access goes up from 44 % to 58 % in 2020 and from 44 % to 67 % in 2050 comparing the 2050 Preferred Revenue Constrained Scenario to the No-Build Scenario

- Access to Bike Facilities:
  - 58 % of low-income populations will have access to a bike facility within a quarter of a mile in 2020, increasing to 62 % in 2035 and 64 % in 2050

- Access to Healthcare:
  - The Preferred Revenue Constrained Scenario projects improved access for seniors from 68 % in 2020 to 71 % in 2050

Performance Measure Scorecard

Plan goals and policy objectives

+ Key questions

+ Graphics

+ Key statistics

= **Informed Decisions**

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