GCCOG SCS
Strategies to Reduce GHGs

Presented by:
David Jackson (CS)
Michael Snively (CS)
Christopher Wornum (CS)
Al Warot (Willdan)

Ken Farfsing (Signal Hill)
Wendy Tao (CS)
Sonia Southwell (Lakewood)
Meredith Reynolds (Long Beach)

October 7, 2010

Presentation Agenda

1. Official project kickoff and introduction
   Ray Dunton (Bellflower) 2:30-2:35 5 minutes

2. Official project kickoff workshop introductory comments
   Ken Farfsing, Chair
   SCS Steering Committee 2:35-2:40 5 minutes

3. Goal and outline of kickoff workshop, including SCS development process
   Chris Wornum (CS) 2:40-2:55 15 minutes

4. Organization and performance of GHG reduction strategies
   David Jackson (CS) 2:55-3:30 35 minutes
   Michael Snively (CS)
   Wendy Tao (CS)
   Sonia Southwell (Lakewood)
   Meredith Reynolds (Long Beach)
   Al Warot (Willdan) 3:30-3:40 10 minutes

5. Break

6. Case study examples
   • Lakewood
   • Long Beach
   Michael Snively (CS)
   Wendy Tao (CS)
   Sonia Southwell (Lakewood)
   Meredith Reynolds (Long Beach) 3:40-4:05 25 minutes

7. Prior and ongoing COG studies and city programs targeting GHG reduction
   Al Warot (Willdan) 4:05-4:25 20 minutes
   Ken Farfsing (Signal Hill)
   Chris Wornum (CS)
   Chris Wornum (CS) 4:25-4:45 20 minutes

8. Critical risks and challenges

9. Next steps and homework
3. Work Flow for SCS Development

Goals and outline of kickoff workshop

- Review of Prior COG Studies
- Kickoff Workshop
- Economic Impact Analysis
- Three Technical Workshops
- Two Policy Workshops
- Four Public Outreach Workshops
- Additional City Level Public Outreach
- Market Feasibility of Land Use Strategies
- Analysis of GHG strategies
- 1st Draft Subregional SCS
- 2nd Draft Subregional SCS
- Final Subregional SCS
- Subregional APS
- Optional Task
- Final Subregional SCS
- Kickoff Workshop
- Initial Portfolio of Municipal GHG Reduction Strategies
- Nonmotorized Infrastructure
  - Public Transportation Improvement
  - Traffic Operations/Management/ITS
  - System Capacity/Bottleneck Relief
- Land Use and Smart Growth
  - Transportation Demand Management
  - Facility Pricing Strategies
- Estimate of GHG Reduction
- State
  - SCAG LA County Gateway
  - Municipal Strategies
  - Federal

3. SCS Development Process

- Prior and Ongoing GHG Reduction Efforts
- Critical Local Conditions
- Linkage and bundling between cities
4. Strategy Definition

**Land Use and Smart Growth**

- Federal
  - Planning guidelines and incentives
- State
  - Regional visioning/planning
  - Urban growth boundaries
- SCAG Region
  - Growth management incentives
- LA County
  - Redevelopment
  - Zoning ordinances, reviews
  - Impact fees
  - Planning Standards, development approval
  - 4 D’s: Density, Diversity, Design, & Destination
- Gateway Subregion
  - Supportive transportation infrastructure
- Local
  - Density bonuses
4. **Strategy Definition**

**Nonmotorized Transportation**

- **Federal**: Safe Routes to School, CMAQ, TIGER I/II Guidelines (ADA), performance requirements
- **State**: Investment / incentive programs Guidelines, performance requirements
- **SCAG Region**: Corridor bikeways
- **LA County**: Bike lanes
- **Gateway Subregion**: Bike/walk to transit amenities/bike station
- **Local**: Bike share programs
- **Bike to work programs and incentives**
- **Bike parking subsidy**
- **Complete Streets/traffic calming policies**
- **Pedestrian amenities**

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3. **Strategy Definition**

**Public Transportation Improvement**

- **Federal**: FTA New Starts/Small Starts, TIGER I/II Performance requirements
- **State**: Investment / incentives, high-speed rail Performance requirements
- **SCAG Region**: Performance requirements
- **LA County**: Rapid bus, Metro rail / high-speed rail, Metrolink, BRT/light rail service expansion Reduced transfer times, transit centers, traveler information, marketing
- **Gateway Subregion**: Fare subsidy programs Increased level of service, bus transit priority Bus stop amenity improvements New connector/circulator services
3. Strategy Definition

**Traffic Ops / Management / ITS**

- **Federal**: Reauthorization, TIGER I/II, Performance requirements
- **State**: Vehicle infrastructure integration (VII)
- **SCAG Region**: Eco-driving training, Vehicle infrastructure integration (VII), Variable message signage
- **LA County**: Traveler information (511), Information Exchange Network/TMCs, Variable message signage/illumination
- **Gateway Subregion**: Ramp metering, Smart Street operation standards, Freeway Service Patrol expansion
- **Local**: Adaptive Traffic Control System, Arterial management / signal synchronization

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3. Strategy Definition

**System Capacity / Bottleneck Relief**

- **Federal**: Reauthorization, TIGER I/II
- **State**: Design guidelines, CEQA
- **SCAG Region**: Bottleneck relief projects, Capacity expansion projects
- **LA County**: LRTP – corridor congestion relief strategy, Transportation Improvement Program
- **Gateway Subregion**: Corridor Improvement Plans (I-710, I-605)
- **Local**: CMF-Funded Projects
  - Capital Improvement Plans – Interchange upgrades, grade separations, arterial intersection improvements, new arterials
3. Strategy Definition

**Commute Trip Reduction Programs**

- Federal
  - Employee-employer tax codes
- State
  - HOV/Managed Lanes
- SCAG Region
  - Park-and-ride
  - Transportation Management Associations
  - Rideshare, guaranteed-ride-home programs
  - Parking cash out / transportation benefit
  - Parking pricing/management
  - Telework and compressed work week
  - TDM programs, outreach and support
  - Car sharing
- LA County
- Gateway Subregion
- Local

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3. Strategy Definition

**Facility Pricing**

- Federal
  - VMT fees
  - Motor fuel tax or carbon price
- State
  - PAYD insurance
  - Registration fees
  - Intercity tolls
- SCAG Region
- LA County
- Gateway Subregion
- Local
  - Congestion pricing/HOT lanes
  - Cordon pricing
  - Parking pricing
3. Strategy Assessment Approaches

<table>
<thead>
<tr>
<th>IMPACT Toolset</th>
<th>SCAG Sustainability Tool</th>
<th>Off-Model Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonmotorized Infrastructure</td>
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<tr>
<td>Public Transportation Improvement</td>
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<td>Traffic Operations / Management / ITS</td>
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<td>Land Use and Smart Growth</td>
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<td>Facility Pricing Strategies</td>
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<td>Freight Sector</td>
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<tr>
<td>Vehicle Technology and Fuels</td>
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3. Strategy Effectiveness

**Transportation’s Contribution to SCAG GHGs**

- SCAG GHG Emissions by End Use Economic Sector 2008
  - Transportation: 35%
  - Industry: 17%
  - Commercial And Residential: 8%
  - Other: 8%
  - Agriculture: 2%

- SCAG GHG Emissions Breakdown by Mode 2005
  - On-road Gasoline: 80.5%
  - On-road Diesel: 12.6%
  - Aircraft: 3.6%
  - Rail: 1.2%
  - Marine: 1.4%
  - Other: 0.5%

### 3. Strategy Effectiveness

#### Local Factors Driving Strategy Effectiveness

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Factors</th>
</tr>
</thead>
</table>
| **Land Use / Smart Growth**     |  - Underutilized parcels with redevelopment opportunity  
  - Local developer incentives  
  - Comprehensive plan and zoning codes with density bonuses, mixed use, tax increment financing and parking restrictions |
| **Bike / Pedestrian**           |  - Population density, employment density and mix of uses  
  - Street network density and speeds  
  - Special trip generators (university/college)  
  - Multimodal transit stations |
| **Public Transportation**       |  - Population and employment density  
  - Quality of bike and pedestrian access  
  - Household car ownership  
  - Commuter parking costs  
  - Size/intensity of employment centers  
  - Park-and-ride lots/commuter programs |

#### Local Factors Driving Strategy Effectiveness (cont.)

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Factors</th>
</tr>
</thead>
</table>
| **Traffic Ops / Management / ITS** |  - Arterial network recurring and non-recurring delay  
  - High incidence of signalized intersections  
  - Directional arterial commuting routes  
  - Recurring event traffic  
  - Multi-jurisdiction traffic management needs |
| **System Capacity / Bottleneck Relief** |  - High levels of peak period congestion  
  - Network lacks parallel alternative routes  
  - Dense trip generators  
  - Queuing at major intersections |
| **Commute Trip Reduction Programs** |  - High parking costs or constrained supply  
  - HOV and transit systems in place  
  - Office/professional employment clusters  
  - Single large employers (corporate campuses) |
| **Facility Pricing**            |  - Extensive on-street/off-street parking  
  - Free on-street parking  
  - Significant share of on-street residential parking |
3. Strategy Effectiveness

**SCS Strategy Options – GHG Reduction Ranges**

<table>
<thead>
<tr>
<th>Strategy Option</th>
<th>2020 GHG Reduction from Base</th>
<th>2035 GHG Reduction from Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use / Smart Growth</td>
<td>0.5%</td>
<td>2.0%</td>
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<tr>
<td>Bike / Pedestrian</td>
<td>1.0%</td>
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</tr>
<tr>
<td>Public Transportation</td>
<td>1.5%</td>
<td></td>
</tr>
<tr>
<td>Traffic Ops / Mgmt. / ITS</td>
<td>2.0%</td>
<td></td>
</tr>
<tr>
<td>System Capacity / Bottleneck Relief</td>
<td>2.5%</td>
<td></td>
</tr>
<tr>
<td>Commute Trip Reduction Programs</td>
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<tr>
<td>Facility Pricing</td>
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3. Strategy Effectiveness

**SCS Strategy Options – Cost Effectiveness Ranges**

<table>
<thead>
<tr>
<th>Strategy Option</th>
<th>2020 Cost per Metric Ton GHG</th>
<th>2035 Cost per Metric Ton GHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use / Smart Growth</td>
<td>$1,000</td>
<td>$2,000</td>
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<tr>
<td>Bike / Pedestrian</td>
<td>$1,500</td>
<td>$2,500</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>$500</td>
<td>$2,000</td>
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<tr>
<td>Traffic Ops / Mgmt. / ITS</td>
<td>$1,000</td>
<td></td>
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<tr>
<td>Commute Trip Reduction Programs</td>
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<td>Facility Pricing</td>
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</tbody>
</table>
3. Strategy Effectiveness
Example bundle: System and Driver Efficiency

- Combination of strategies to enhance the efficiency of transportation networks
  - Congestion pricing, transit LOS, HOV lanes, car sharing, speed limits, system operations and management, multimodal freight strategies
  - Improve travel speeds, reduce congestion and idling, create viable alternatives to driving alone

3. Strategy Effectiveness
Example bundle: Land Use / Transit / Nonmotorized

- Urban transit
  - Fare subsidies
  - Increased transit service
  - Urban transit expansion
- Land use – increased density
- Pedestrian/bicycle
- Parking pricing/parking restrictions
- Congestion pricing
- High-speed rail/intercity passenger rail expansion

- HOV expansion
- Car sharing
- Signal enhancement
- Traveler information
3. Strategy Effectiveness

*Example bundle results*

- Combinations of transportation strategies can achieve GHG reductions from transportation (synergies)
  - 4% to 5% GHG reduction from base in 2020 (aggressive deployment, without economy-wide pricing)
  - Up to 8% GHG reduction from base** in 2020 (maximum deployment, without economy-wide pricing)
- These strategies complement the important (and more significant) reductions anticipated from fuel and technology advancements

* Estimates from Moving Cooler (2009)
** Base year on-road GHG emissions

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Relative Growth of SCAG, LA County & Gateway
2008 RTP Forecasts (Population)

<table>
<thead>
<tr>
<th></th>
<th>2010 - 2020</th>
<th>2010 - 2035</th>
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</thead>
<tbody>
<tr>
<td>SCAG</td>
<td>10.6%</td>
<td>23.9%</td>
</tr>
<tr>
<td>LA County</td>
<td>6.7%</td>
<td>16.2%</td>
</tr>
<tr>
<td>Gateway Cities</td>
<td>4.3%</td>
<td>10.3%</td>
</tr>
</tbody>
</table>
Relative Growth of SCAG, LA County & Gateway Cities, 2008 RTP Forecasts (Employment)

<table>
<thead>
<tr>
<th>Year</th>
<th>SCAG</th>
<th>LA County</th>
<th>Gateway Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2020</td>
<td>10.0%</td>
<td>4.4%</td>
<td>3.0%</td>
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<tr>
<td>2010-2035</td>
<td>23.2%</td>
<td>10.7%</td>
<td>7.2%</td>
</tr>
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</table>

Median Household Income (2000)
SCAG, LA County & Gateway Cities, U.S. Census

<table>
<thead>
<tr>
<th>Income Level</th>
<th>SCAG</th>
<th>LA County</th>
<th>Gateway Cities</th>
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</thead>
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<tr>
<td>$30,000</td>
<td>$45,844</td>
<td>$42,189</td>
<td>$38,354</td>
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<td>$45,000</td>
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<tr>
<td>$50,000</td>
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</table>
Population (2000)

<table>
<thead>
<tr>
<th>Region</th>
<th>Population</th>
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<tbody>
<tr>
<td>Imperial</td>
<td>3,127</td>
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<tr>
<td>Los Angeles</td>
<td>107,323</td>
</tr>
<tr>
<td>Orange</td>
<td>461,922</td>
</tr>
<tr>
<td>Riverside</td>
<td>72,878</td>
</tr>
<tr>
<td>San Bernardino</td>
<td>36,664</td>
</tr>
<tr>
<td>Ventura</td>
<td>5,712</td>
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<tr>
<td>SCAG Region</td>
<td>1,000</td>
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</table>

Population Density by Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Persons Per Square Mile</th>
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<tbody>
<tr>
<td>Gateway Cities</td>
<td>6,507</td>
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<tr>
<td>Imperial</td>
<td>42</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>2,549</td>
</tr>
<tr>
<td>Orange</td>
<td>3,955</td>
</tr>
<tr>
<td>Riverside</td>
<td>290</td>
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<tr>
<td>San Bernardino</td>
<td>102</td>
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<tr>
<td>Ventura</td>
<td>451</td>
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<tr>
<td>SCAG Region</td>
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</table>

Source: SCAG RTP 2008 Model
Household Density by Region

Source: SCAG RTP 2008 Model

Employment Density by Region

Source: SCAG RTP 2008 Model
“Drive Alone” Percentage by Region

<table>
<thead>
<tr>
<th>Gateway Cities</th>
<th>SCAG Region</th>
<th>Ventura</th>
<th>San Bernardino</th>
<th>Riverside</th>
<th>Orange</th>
<th>Los Angeles</th>
<th>Imperial</th>
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<tbody>
<tr>
<td></td>
<td>71.6%</td>
<td>78.3%</td>
<td>74.5%</td>
<td>75.3%</td>
<td>77.2%</td>
<td>68.2%</td>
<td>73.6%</td>
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</table>

Source: U.S. Census 2000

Developing a Baseline GHG Emissions Number

- The unit of measurement defined by AB32 and SB375 is an emissions reduction based on a 2005 per capita CO2e.
- SCAG’s GHG reduction targets are 8% in 2020 and 13% in 2035, which we will be using as a benchmark figure.
- The SCS will provide discussion on Gateway Cities demographic comparisons to LA County and the SCAG region to determine an appropriate baseline figure.
- Assistance will be provided by CSULB in determining socio-economic characteristics of the Gateway Cities region.
5. Case Studies Presentation

- Overview of Analysis Methods
  - Transportation Measures (“Impact” Tool)
  - Land Use (Sustainability Tool)
  - TDM and Pricing Strategies (Off-Model)

- Case Study 1: Lakewood
- Case Study 2: Long Beach
- Summary of City Requests for the Next Workshop: November 17

5. Strategy Categories – Assessment Approaches

<table>
<thead>
<tr>
<th>Strategy Category</th>
<th>IMPACT Toolset</th>
<th>SCAG Sustainability Tool</th>
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</table>
5. The “IMPACT” Tool Screenshots
5. The “Impact” Tool Screenshots

[Image of a screenshot showing the Impact tool interface with data input fields and a map.]
5. Land Use Analysis: Sustainability Tool

- SCAG has developed a “Sustainability Tool” at the 5.5 acre grid-cell level to allow cities to develop land use scenarios. We will be using the ST for the land use component of our analysis. For technical issue, SCAG should be the main point of contact.

Primary Data Needs
- An understanding of existing and future land use plans (using “development types”)
- Ensure that the background data is up-to-date
- Housing and employment control totals
- Develop GHG calculations in the “monitoring tool.”

5. Land Use Has Lower Potential for GHG Reduction in Gateway Cities
2008 RTP Forecasts
5. Land Use Analysis: Sustainability Tool

STEP 1 DEVELOPMENT TYPES
A Variety of Buildings, Streets and Amenities Create a “Place”

- City Employment High Mix
- Town Residential Low Mix
- Suburban Residential No Mix

STEP 2 PAINT A SCENARIO
Design Scenarios by Painting Development Types on to the Landscape

- Base Year
- Compact Design
- Transit Oriented
5. Land Use Analysis: Sustainability Tool

STEP 3 MONITOR INDICATORS ON-THE-FLY

Compare the Scenarios and Monitor the Impact of Land Use Decisions in Real Time

5. Transportation Demand Management (TDM): Off-Model Analysis

- TDM strategies include measures for mode shift among commuters, students and event goers
- Role of city in TDM as:
  - Employer
  - Development reviewer
  - Facilitator of TDM programs
- Impact of strategies measured as VMT reduction, converted to GHG
- Analysis will use TDM models (COMMUTER or TRIMMS) or sketch planning (point estimates)
- Potential VMT and GHG emission reductions can be significant (10-20%), but are highly localized and site-specific
5. TDM Data Request of Gateway Cities

- Description and utilization of commuter TDM strategies for city employees
- Documentation and experience with Trip Reduction Ordinances (and TDM elements therein)
- Other developer TDM agreements and experience
- TDM services offered to residents and visitors
- School Pool or Safe Routes to School programs

5. Pricing: Off-Model Analysis

- Parking programs including on- and off-street parking provisions
- CBD/employment center/retail center street parking
- Residential parking permits for on-street parking in residential areas
- Cordon Pricing
Case Study 1: Lakewood

- Population: 79,345
- Average Household Size: 2.95
- Homeownership Rate: 72.0%
- Vehicle Ownership: 94.0%
- Commuting to Work
  - Single-Occupancy Vehicle: 81.7%
  - Carpool: 12.0%
  - Public Transportation: 1.3%
  - Walking: 1.0%
- Median Household Income: $58,214
- Percent Below Poverty Level: 7.4%
- Jobs/Household Ratio: 0.65

Strategy Categories – Assessment Approaches

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<td>Facility Pricing Strategies</td>
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</table>
Case Study 1: Lakewood

Municipal Transportation Project Types

<table>
<thead>
<tr>
<th>Nonmotorized Infrastructure</th>
<th>Submitted Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Operations / Management / ITS</td>
<td>Bike Lane (1)</td>
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<tr>
<td></td>
<td>ATCS Corridors (6)</td>
</tr>
<tr>
<td></td>
<td>Intersection Improvements (6)</td>
</tr>
</tbody>
</table>
### Case Study 2: Long Beach

**Data from U.S. Census, 2000**

- Population: 461,522
- Average Household Size: 2.83
- Homeownership Rate: 41.0%
- Vehicle Ownership Rate: 84.3%

#### Commuting to Work

- Single-Occupancy Vehicle: 72.6%
- Carpool: 13.7%
- Public Transportation: 6.6%
- Walking: 2.5%

- Median Household Income: $37,270
- Percent Below Poverty Level: 22.8%
- Jobs/Household Ratio: 1.14

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### Case Study 2: Long Beach

#### Municipal Transportation Project Types

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Submitted Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonmotorized Infrastructure</td>
<td>Bike &amp; Pedestrian (29)</td>
</tr>
<tr>
<td>Public Transportation Improvement</td>
<td>Bike/Ped Transit Connections (17)</td>
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<tr>
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<td>Park-and-Ride Lots (1)</td>
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<tr>
<td>Traffic Operations / Management / ITS</td>
<td>ATCS/Signal Synchronization (11)</td>
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<tr>
<td></td>
<td>Intersection Improvements (29)</td>
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<tr>
<td>System Capacity / Bottleneck Relief</td>
<td>Roadway Capacity Expansion (7)</td>
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<tr>
<td></td>
<td>Interchange Capacity (2)</td>
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</tbody>
</table>
Case Study 2: Long Beach

Municipal Project Data Needs

- Project Lists for November 17th Workshop

- Project details required:
  - Project extent
  - Estimated cost
  - Date of implementation
  - Other project-specific information

- We will be contacting Planning Directors and Community Development Directors in the next weeks to obtain this information
PRIOR AND ONGOING COG STUDIES AND CITY PROGRAMS TARGETING VMT/GHG EMISSION REDUCTIONS

OCTOBER 7, 2010

TASK – Review prior/ongoing studies to identify:
- VMT/GHG reduction measures to be included Draft SCS Strategy portfolios for each city
- Findings/recommendations pertinent to the preparation of the RHNA component of the SCS

PRIOR AND ONGOING STUDIES
- 37 studies conducted since 1996 (exclusive of addendums/supplements)
- 25 studies germane to SB 375 and SCS and RHNA formulation
MOST RELEVANT RECENT STUDIES

- Addressing the Requirements of SB 375 at the Subregional Level – December 2009
- SR 91/I-605/I-405 Initial Corridor Studies – April 2008
- Compendium of Existing and Proposed Near-Term Air Quality Improvement Strategies for the I-710 Corridor – March 2006
- The Gateway Cities & Surrounding Areas Intelligent Transportation System (ITS) Research and Strategies for Transportation and Goods Movement Study – December 2005
- SR 91/I-605 Needs Assessment – September 2005

MOST RELEVANT RECENT STUDIES (cont.)

- Summary of the Proceedings of the Joint Housing Summit “Strategies and Tactics for Infill Development Success” – November 2004
- I-710 Oversight Policy Committee Adopted Locally Preferred Strategy – November 2004
- I-710 Tier 2 Community Advisory Final Report – August 2004
- OrangeLine Feasibility Study – 2002
- Livable Communities Case Studies - 2001
- Community Link 21: SCAG’s Regional Transportation Plan – February 1998
MOST SALIENT POINTS OF STUDIES

Transportation Measures

• Relieve congestion and reduce traffic by adding needed capacity and deploying TSM/TDM to make full use of freeway, roadway, rail and transit systems.
• Undertake improvements to freeway interchanges and arterial highways that are feeders to or parallel freeways.
• Consider HOV direct connectors (carpool-to-carpool lanes) at major freeway interchanges.
• A Goods Movement Network, consisting of a system of intersections and connecting arterials in the Gateway Cities subregion, should be given planning and funding priority by SCAG.

MOST SALIENT POINTS OF STUDIES (cont.)

• Participate in bus restructuring and smart shuttles studies to support a more efficient and integrated public transit system.
• Reconfigure the RTP to prioritize infrastructure improvements in the industrial core as opposed to spread out development.
• Provide a comprehensive bicycle & pedestrian network with subregional connectivity.
• Implement additional Intelligent Transportation Systems (ITS) improvements, such as provision of “real time” traffic information and traffic signal synchronization, in a coordinated fashion (ITS Master Plan) throughout the subregion.
MOST SALIENT POINTS OF STUDIES (cont.)

- Support a separate freight movement corridor along non-freeway alignments using minimally or non-polluting transportation technologies.
- Numerous GHG reduction measures contained in I-710 Corridor studies (within purview of AB 32 but not SB 375)
- Re-establish Port Ride Share Program.
- Development of the OrangeLine high-speed transportation system could accommodate population and employment growth within the corridor while reducing traffic and air quality impacts.

MOST SALIENT POINTS OF STUDIES (cont.)

Land Use and Housing Measures

- Preserve existing parks, open spaces and natural areas.
- Regulatory barriers limit the supply of affordable housing and increase the cost of housing (up to 35% of new housing cost can be attributed to regulation)
- Provide rewards/incentives for communities that produce housing through regulatory reform.
- Housing is the lynchpin of smart growth and smart investment.
- Anticipated State initiatives include:
  - Changes to General Plan law
  - Elimination of RHNA as we know it today.
MOST SALIENT POINTS OF STUDIES (cont.)

- Eliminate, to extent possible, the back and forth on Housing Element approval.
- Provide tools, including inventory of 8-million parcels.
- Identify a reliable permanent funding source for low and very low income housing.
- Establish a new definition of local housing obligation:
  - “Take care of our own”
  - Use a 20-year planning horizon.
  - Plan for housing of “natural increase.”
  - Plan for housing of the local workforce.
- Projected congestion cannot be reduced unless we alter land use patterns.

MOST SALIENT POINTS OF STUDIES (cont.)

- Intensified land use is part of the State’s mobility strategy and future investment will revolve around such land use.
- Strategies for promoting economic development and affordable housing in the Gateway Cities subregion include:
  - Transit-oriented development to relieve transportation pressures
  - Brownfield development as a source of land for economic development and new housing.
  - Programs to encourage employers to locate/expand in the subregion to address jobs/housing balance and reduce VMT.
  - Promote infill development for housing.
- As large-scale manufacturing becomes less relevant to local economies, the conversion of post-industrial land becomes a key opportunity for the built-out cities of the subregion.
Addressing the Requirements of SB 375 at the Subregional Level – December 2009

- Web-based survey of sustainability (GHG reduction) measures already initiated by COG member cities
- Demonstrated a strong institutional capacity in the gateway cities for strategies that are the foundation for complying with SB 375 and SCS requirements
- Current and planned policies and improvements could achieve ±15% of hypothetical subregional target of 4% GHG reduction by 2020
- In order to meet hypothetical target, 80% of COG members would need to adopt various land use and transportation policies
- Recommended that COG assume responsibility for developing subregional SCS and RHNA as allowed by SB 375

GATEWAY CITIES COUNCIL OF GOVERNMENTS
SUMMARY OF VMT/GHG REDUCTION MEASURES INITIATED BY MEMBER CITIES

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<tr>
<th>MEASURE INITIATED</th>
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<td>Implementation of SCAG Measures/Concepts</td>
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### SB 375

**GATEWAY CITIES COUNCIL OF GOVERNMENTS**

**VMT/GHG EMISSION REDUCTION MEASURES INITIATED BY MEMBER CITIES**

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7. Critical Risks and Challenges

Critical Local Conditions

Prior and Ongoing GHG Reduction Efforts

Initial Portfolio of Municipal GHG Reduction Strategies
- Nonmotorized Infrastructure
- Public Transportation Improvement
- Traffic Operations/Management/ITS
- System Capacity/Bottleneck Relief
- Land Use and Smart Growth
- Transportation Demand Management
- Facility Strategies

Linkage and bundling between cities

How to pay for local strategies

8. Next Steps
Activities through June 2011

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<th>Date</th>
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<td>Nov 17, 2010</td>
<td>Planning Directors/Public Works Officers Workshop #1 (BMPs)</td>
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<td>Jan 5, 2011</td>
<td>City Managers/COG Board briefing/workshop #2 (First Draft SCS)</td>
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<td>Jan – March 2011</td>
<td>Public outreach workshop</td>
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<td>Planning Directors/Public Works Officers Workshop and City Managers/COG Board briefing #4 &amp; #5</td>
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<td>City Managers/COG Board briefing/workshop and Board Presentation #6 (Final SCS)</td>
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