Transportation + Land Use
CEAP Stakeholder Workshop #2
February 24, 2021
Agenda + Objectives

1. Welcome + Logistics

2. Background + Current Conditions
   • Regulatory framework
   • TO transportation emissions
   • TO transportation overview

3. GHG Mitigation Strategies + Discussion
   • Clean VMT
   • Reduced VMT

4. Group Mapping Discussion

5. Public Comment

6. Next Meeting
Zoom Features for Participants

- **Join Audio + Mute**
- **Start Video + Disable Video**
- **Raise hand to ask a question or make a comment**
Icebreaker
Background + Current Conditions
Regulatory Framework

- **SB 32**: Reduce GHG emissions 40% below 1990 levels by 2030 and 80% by 2050
- **AB 1358**: Modify circulation element to plan for a balanced, multimodal transportation network that meets the needs of all for safe and convenient travel (Complete Streets policy)
- **SB 375**: Regional RTP Sustainable Communities Strategy designed to reduce vehicle emissions
- **SB 743**: Replaces LOS with VMT to measure transportation impacts of development
- **Pavley Clean Car Standards**: Vehicle efficiency standards
- **CalGREEN**: Design requirements for EV Ready and EV Capable parking for new construction
- **EO N-79-20**: 100% of in-state vehicle sales are ZEVs by 2035

**Statewide Emissions Trends**

Figure 3. Trends in California GHG Emissions. This figure shows changes in emissions by Scoping Plan sector between 2000 and 2018. Emissions are organized by the categories in the AB 32 Scoping Plan.
Transportation emissions in T.O. (BAU + Legislative)
Annual VMT by Vehicle Type

- Approx. 3 million miles driven daily into the City and another 3 million miles out.
- In addition, about 830,000 miles are driven daily within the City.
- 65 miles per day per household.
- 55% of miles driven in passenger cars; 45% in trucks.
Annual VMT per area population

Vehicle Miles Traveled Per Area Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Thousand Oaks Area</th>
<th>Simi Valley Area</th>
<th>Ventura Area</th>
<th>Oxnard Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>11,121</td>
<td>8,193</td>
<td>10,225</td>
<td>5,913</td>
</tr>
<tr>
<td>2011</td>
<td>11,028</td>
<td>8,154</td>
<td>10,154</td>
<td>5,902</td>
</tr>
<tr>
<td>2012</td>
<td>10,972</td>
<td>8,140</td>
<td>10,103</td>
<td>5,912</td>
</tr>
<tr>
<td>2013</td>
<td>10,937</td>
<td>8,046</td>
<td>10,033</td>
<td>5,912</td>
</tr>
<tr>
<td>2014</td>
<td>10,919</td>
<td>8,025</td>
<td>10,008</td>
<td>5,902</td>
</tr>
<tr>
<td>2015</td>
<td>10,932</td>
<td>8,023</td>
<td>10,013</td>
<td>5,890</td>
</tr>
<tr>
<td>2016</td>
<td>10,917</td>
<td>8,041</td>
<td>10,033</td>
<td>5,908</td>
</tr>
<tr>
<td>2017</td>
<td>10,018</td>
<td>8,049</td>
<td>10,032</td>
<td>5,946</td>
</tr>
<tr>
<td>2018</td>
<td>10,018</td>
<td>8,065</td>
<td>10,018</td>
<td>5,988</td>
</tr>
</tbody>
</table>
Transportation – Vehicles registered in T.O.

<table>
<thead>
<tr>
<th>ZEV POPULATION</th>
<th>NON-ZEV POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Light-Duty Vehicles end of 2019</strong></td>
<td><strong>Total Light-Duty Vehicles end of 2019</strong></td>
</tr>
<tr>
<td>3,778</td>
<td>119,618</td>
</tr>
<tr>
<td>Battery Electric (BEV)</td>
<td>Bio Diesel</td>
</tr>
<tr>
<td>Plug-In Hybrid (PHEV)</td>
<td>Diesel</td>
</tr>
<tr>
<td>Fuel Cell (FCEV)</td>
<td>Flex Fuel</td>
</tr>
<tr>
<td>1.692%</td>
<td>Gasoline</td>
</tr>
<tr>
<td>2,088</td>
<td>Gasoline Hybrid</td>
</tr>
<tr>
<td>1.337%</td>
<td>Natural Gas</td>
</tr>
<tr>
<td>1,650</td>
<td>Propane</td>
</tr>
<tr>
<td>0.032%</td>
<td>40</td>
</tr>
</tbody>
</table>

3% ZEVs in TO
Thousand Oaks Transit

Service
5 Routes
Operates 6 days/wk
Hourly service
50% of city has a bus stop within a 5 block

Shelters
50% have seating
25% are full shelter
Poll
TO’s Transportation Needs Analysis

Attractors:
• Shopping
• Parks
• School
• Work

Generators:
• Housing
• Income
• Vehicle Ownership

Barriers:
• Speeds
• Bike/Ped Facilities
• Collisions
• Slope
Propensity for Bicycle Activity
Propensity for Pedestrian Activity
# Pedestrian Sidewalk Recommendations

<table>
<thead>
<tr>
<th>Street Name</th>
<th>Status</th>
<th>Miles</th>
<th>Cost Total Cost &amp; Grant Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Janss Road w/o El Monte</td>
<td>Complete</td>
<td>.10</td>
<td>150K</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No grants</td>
</tr>
<tr>
<td>Conejo School Rd/Willow Lane</td>
<td>Construction January 2021 (10 months)</td>
<td>1.05</td>
<td>$5.3 Million</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$2.8 Grant funded</td>
</tr>
<tr>
<td>South Rancho Road</td>
<td>Construction January 2021 (12 months)</td>
<td>.34</td>
<td>$2.56 Million</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$1.75 Grant Funded</td>
</tr>
<tr>
<td>Los Feliz Drive/Duesenberg Drive</td>
<td>Design Construction Fall 2021</td>
<td>.64</td>
<td>$2.4 Million</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>900K Grant Funded</td>
</tr>
</tbody>
</table>
Facilities for New Mobility
Questions?
GHG Mitigation Strategies
Transportation Outcomes

What we heard at the last meeting...

• The plan should be a strong commitment by the City to enhance transit

• Make the case for higher density multifamily housing

• Focus on transportation and address the jobs/housing imbalance

• Post-Covid work will look different – distributed working, reduced commutes, ways to reduce VMT
Transportation Outcomes

**Clean VMT**
- **Vehicle electrification** – reach code for new construction
- Installation of public chargers

**Reduced VMT**
- **Mode shift** from SOVs through transit improvements
- Mode shift from SOVs active transportation
- Ped and bike network improvements
- Bikeshare
- TDM policies and programs
- Partnerships with employers
- E-mobility options
Clean VMT: Co-Benefits of Electrification

• Shorter implementation timeline (1-5 years)
• Improved air quality and public health
• Reduces GHGs – takes advantage of carbon-free electricity from CPA
• Synergies with solar + storage systems – cost benefits

Berkeley, CA
Public EV Chargers
## EVCS Reach Codes for New Construction

### EVSE Installed

<table>
<thead>
<tr>
<th></th>
<th>Multifamily &lt;20 parking spaces</th>
<th>Multifamily &gt;20 parking spaces</th>
<th>Office Building</th>
<th>Other Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVSE Installed</td>
<td>10% of spaces</td>
<td>6% of spaces</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### EV Ready (Level 2)

<table>
<thead>
<tr>
<th></th>
<th>1 space</th>
<th>25% of spaces</th>
<th>5% of spaces</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EV Ready</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Level 2)</td>
<td>75% of spaces</td>
<td>10% of spaces</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### EV Capable

<table>
<thead>
<tr>
<th></th>
<th>30% of spaces</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

### New Multi-family Buildings with 3-9 Units

- Ten percent (10%) of the total number of on-site parking spaces provided for all types of parking facilities shall be “EV Capable” and have an accessible conduit installed that is capable of supporting future EV Service Equipment (EVSE). Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

### New Multi-family Buildings with 10 or More Units and New Nonresidential Buildings

Refer to Table 1, below, for detailed requirements. All EV Charging infrastructure and EVSE (when installed) shall be in accordance with the California Electrical Code.

### Table 1. EV Charging Requirements for New Multifamily (10+ Units) and New Nonresidential

<table>
<thead>
<tr>
<th></th>
<th>1 Parking Space</th>
<th>2-10 Parking Spaces</th>
<th>11-15 Parking Spaces</th>
<th>16-20 Parking Spaces</th>
<th>20+ Parking Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Circuit “EV READY”</td>
<td>1 parking space</td>
<td>2 parking spaces</td>
<td>2 parking spaces</td>
<td>2 parking spaces</td>
<td>10% of parking spaces (rounded up)</td>
</tr>
<tr>
<td>Inaccessible Conduit “EV CAPABLE”</td>
<td>—</td>
<td>—</td>
<td>1 Parking Space</td>
<td>2 Parking Spaces</td>
<td>Multi-Family: Remaining 90% of spaces</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Nonresidential: Additional 10%</td>
</tr>
<tr>
<td>Electric Panel Capacity</td>
<td>Sufficient to supply 1 space</td>
<td>Sufficient to supply 2 spaces</td>
<td>Sufficient to supply 3 spaces</td>
<td>Sufficient to supply 4 spaces</td>
<td>Sufficient to supply 20% of spaces</td>
</tr>
</tbody>
</table>

*Full circuits are counted towards the panel capacity requirement. Panel capacity may be dispersed among up to 100% of spaces at lower amperage (See Definitions below) with a voluntary load management system.

**NOTE:** Mixed-use developments will comply as required for each residential and nonresidential use. Where there are both common use and assigned parking spaces, “EV Ready” spaces shall be located in common use spaces and “EV Capable” spaces shall be located in assigned spaces.
EVCS in Existing Buildings

• Streamlined permitting
• Ventura County Regional Energy Alliance EV coach/advocate

• Incentives/triggers:
  • SCE – Charge Ready, Transportation Electrification Advisory Services
  • City – parking requirements, panel upgrades
Poll
Co-benefits of Reduced VMT

• Reduced GHG emissions from transportation
• Improved air quality
• Improved public health
• Decreased traffic congestion
• Safer conditions for active transportation
Land Use Conditions that Promote Mode Shift

5 D's to Reduce VMT

1. **Density** – Increase density in key locations (downtown, corridors, etc.)
2. **Diversity** – Create a diversity of uses
3. **Design** – Design for walkable places
4. **Destination accessibility** – Ensure uses are close together
5. **Distance to transit** – Provide alternatives to driving

The combination of multiple “D’s” results in reduced VMT and reduced GHG emissions. One “D” alone is not sufficient

*According to NRDC, compact development could reduce transportation emissions 7-10%*
Active Transportation - Walking, Biking, Transit

Strategies

• Implement Active Transportation Plan - connect bike and pedestrian network
  • Focus on youth - how to get kids biking and walking to school?

• Complete streets policy

• Transit rider amenity improvements

• No vehicle idling (at schools in particular)
E-Mobility Opportunities

• Dockless bikeshare
• Scooters
• Public right of way management to promote shared mobility programs
• Zero emission delivery zones
Mobility Ideas Map
Recap + Discussion
Public Comment
To share your thoughts on transportation strategies, comment on the map at: www.toaks.org/climateaction

Mapping exercise will be available now until March 10th
Upcoming GP/CEAP Workshops

March 24th  
Energy

April 28th  
Solid Waste/Recycling, Water + Environmental Quality of Life

For more information about Sustainability in Thousand Oaks and updates about the CEAP visit toaks.org/climateaction
Thank you!