Assessment of Greenhouse Gas Analysis Tools

. . . . Helping Washington State Jurisdictions Meet the Climate Change Challenge

Thursday, December 10, 2009
Presentation Outline

- Relevant State Legislation
- Project Description
- Analysis Methodology
- Greenhouse Gas Analysis Tool Shortlist
- Selecting the Appropriate Tool
- Case Study Example
Focus of GHG Emissions
Focus of GHG Emissions

Non-Mobile Sources
- Stationary Point Sources
  - Factories
  - Power Plants
  - Industrial Boilers
- Area Sources
  - Lawn Mowers
  - Water Heaters
  - Small Boilers

Mobile Sources
- On-Road
  - Cars
  - Trucks
  - Buses
- Off-Road
  - Trains
  - Airplanes
  - Ships

FOCUS
Factors Affecting On-Road GHG Emissions

On-Road

- Vehicle Technology
- Land Use
- Transportation Systems
State Legislation Greenhouse Gas Reduction Targets

2020: Same as 1990 emissions level
2035: 25% below 1990 emissions level
2050: 50% below 1990 emissions levels
ESSB 6580 acknowledges...

- Transportation as the largest GHG source
- Land use patterns directly influence travel patterns, fuel consumption, transportation-related emissions
- Washington State must decrease GHG transportation-related emissions to meet State GHG targets
ESSB 6580 acknowledges...

✓ Transportation as the largest GHG source
✓ Land use patterns directly influence travel patterns, fuel consumption, transportation-related emissions
✓ Washington State must decrease GHG transportation-related emissions to meet State GHG targets
Department of Commerce Responsibilities for ESSB 6580

✔ Provide advisory climate change response methodologies
✔ Analyze computer modeling programs of greenhouse gas emissions
✔ Provide estimates for implementing certain programs

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Meeting the Requirements of ESSB 6580

- Summarize the current GHG emissions evaluation efforts in the state
- Develop a broad list of GHG emissions analysis tools
- Narrow the list of tools to the most promising candidates
- Assess the “short-listed” tools across a range of criteria
- Develop a framework to assist jurisdictions in selecting the appropriate tool
What is California Up To?

2009/2010: Develop guidelines/Adopt regulations

2010: Reduce to 2000 levels

2012: Statewide cap phased in

2020: Reduce to 1990 levels

2050: Reduce 80% below 1990 levels

Various: SB 375
Role of State and Local Agencies

- Attorney General
- California Air Pollution Control Officers Association (CAPCOA)
- Office of Planning and Research (OPR)
- California Air Resources Board (ARB)
- Bay Area Air Quality Management District (BAAQMD)
ARB’s Draft Thresholds of Significance

✓ Recommended Approaches for Setting Interim Significance Thresholds for GHGs under CEQA (October 2008)
✓ Overall Approach
  - Stringent non-zero thresholds
  - Apply sector-by-sector approach
  - ARB recommendation is interim
  - Lead agencies retain authority
ATTACHMENT B
Preliminary Draft Proposal for Residential and Commercial Projects

1. The project is exempt under existing statutory or categorical exemptions.  
   No

   Yes

   2. The project complies with a previously approved plan that addresses GHG emissions, satisfies (15064(h)(3)), and has all of the following attributes:
      - Meets a community level GHG target consistent with the statewide emissions limit in AB 32 and, where the plan will apply beyond 2020, Executive Order S-3-05;
      - Is consistent with a transportation-related GHG reduction target adopted by ARB pursuant to SB 375;
      - Includes a GHG inventory and mechanisms to regularly monitor and evaluate emissions;
      - Includes specific, enforceable GHG requirements;
      - Incorporates mechanisms that allow the plan to be revised in order to meet targets; and
      - Has a certified final CEQA document (see 15152(f)).

3. (a) The project meets all of the below minimum performance standards, or includes equivalent mitigation measures.

   Construction
   - Meets an interim ARB performance standard for construction-related emissions;

   Operations
   - Meets an energy use performance standard defined as CEC’s Tier II Energy Efficiency goal;
   - Meets an interim ARB performance standard for water use;
   - Meets an interim ARB performance standard for waste;
   - Meets an interim ARB performance standard for transportation;

   AND

(b) The project, with performance standards or equivalent mitigation, will emit no more than X metric tons CO2e/yr (criteria to be developed).

No

4. Project will have significant GHG impacts. An EIR must be prepared and all feasible GHG mitigation measures implemented.

Yes

Presumption of significant impacts related to climate change

Yes

Presumption of less than significant impacts related to climate change

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# BAAQMD’s Draft Thresholds of Significance

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Proposed Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use Projects</td>
<td>Compliance with Qualified Climate Action Plan</td>
</tr>
<tr>
<td></td>
<td><strong>OR</strong></td>
</tr>
<tr>
<td></td>
<td>1,100 MT of CO$_2$e/yr</td>
</tr>
<tr>
<td></td>
<td><strong>OR</strong></td>
</tr>
<tr>
<td></td>
<td>4.6 MT CO$_2$e/SP/yr* (residents + employees)</td>
</tr>
<tr>
<td>General Plans</td>
<td>Compliance with Qualified Climate Action Plan</td>
</tr>
<tr>
<td></td>
<td><strong>(or similar criteria included in a General Plan)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>OR</strong></td>
</tr>
<tr>
<td></td>
<td>6.6 MT CO$_2$e/SP/yr (residents + employees)</td>
</tr>
</tbody>
</table>
Gap Based Threshold

BAAQMD Single Family Residential Development Projections:

CEDA Projects Database

Operational Year 2020 Projections

BAAQMD Projected Projects

BAAQMD Projected Land Use Development Emissions Inventory (Single Family Residential Projects) Based on CAIO:

Year 2020: 120,200 Tonnes of VOCs

Perform Sensitivity Analysis

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How Do Agencies Currently Evaluate GHG Emissions?

The Project team interviewed RTPO agencies and jurisdictions in urban and rural areas across the state.
What Did We Hear?

- Most jurisdictions monitoring air pollution but not greenhouse gas emissions.
- Wide range of analysis tools being used.
- Not all cities had transportation models.
- RTPOs said they would need more staff to perform adequate greenhouse gas analyses.
### Evaluation Methodology

Over 60 tools were evaluated including . . .

<table>
<thead>
<tr>
<th>Tool</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITE Trip Generation, 8th Edition</td>
<td>CTG Energetic Sustainable Communities</td>
</tr>
<tr>
<td>VMT Spreadsheet</td>
<td>EDAW Sustainable Systems Integrated Model (SSIM)</td>
</tr>
<tr>
<td>King County GHG Emissions Worksheet</td>
<td>EPA COMMUTER Model</td>
</tr>
<tr>
<td>CCAP Guidebook/CCAP Calculator</td>
<td>CCAP Guidebook/CCAP Modeling Software</td>
</tr>
<tr>
<td>The Environment Agency Carbon Calculator</td>
<td>URBEMIS 2007</td>
</tr>
<tr>
<td>The Edinburgh Centre for Carbon Management Calculator</td>
<td>California Climate Action Registry General Protocol</td>
</tr>
<tr>
<td>ICLEI Density VMT Calculator</td>
<td>The Climate Registry General Reporting Protocol</td>
</tr>
<tr>
<td>EPA LandGEM Model</td>
<td>IPCC Emission Calculation Guidelines</td>
</tr>
<tr>
<td>Athena Eco-Calculator</td>
<td>INDEX</td>
</tr>
<tr>
<td>4Ds Spreadsheets</td>
<td>EPA Motor Vehicle Emissions Simulator (MOVES)</td>
</tr>
<tr>
<td>HPMS</td>
<td>California ARB’s EMFAC2007 Model</td>
</tr>
<tr>
<td>CommunityVIZ</td>
<td>Greenhouse gases, Regulated Emissions, and Energy use in Transportation (GREET)</td>
</tr>
<tr>
<td>GreenSTEP</td>
<td>PLACE³S</td>
</tr>
</tbody>
</table>
Factors Affecting On-Road GHG Emissions
Relationships between Land Use, Transportation, and Mobile-Source
Relationships between Land Use, Transportation, and Mobile-Source

- Land uses
- Demand for Travel
- Community land use characteristics
- Transportation system
- Vehicle-miles of travel (VMT) by speed

Transportation and Land Use Tools

Air Quality Tools
Relationships between Land Use, Transportation, and Mobile-Source
Relationships between Land Use, Transportation, and Mobile-Source
GHG Evaluation Tools can be Applied to . . . .

- Regional Plans
- City or Countywide Plans
- Subarea Plans
- Site-Level Plans
- Corridor Plan
1st Level Criteria

- Applicable for community plans and project analyses
- Available to Public Agencies
- Sensitive to land use changes
- Sensitive to transportation system changes
- Adaptable to Washington State conditions Uses available data
- Uses available hardware
- Accuracy

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Short List of Tools

- VMT Spreadsheet with emissions factors
- VMT Spreadsheet with 4D Smart Growth adjustments with emissions factors
- Travel Demand Forecasting (TDF) Models with emissions factors
- Enhanced TDF Models with emissions factors
- ICLEI CACP Software
- URBEMIS
- PLACE3S
- INDEX

... each tool was further investigated
2nd Level Criteria

Tools on the short-list were screened against their ability to evaluate a range of land use, travel reduction, and transportation system operations strategies.

<table>
<thead>
<tr>
<th>Evaluation Criterion</th>
<th>Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VMT Spreadsheet</td>
</tr>
<tr>
<td></td>
<td>VMT Spreadsheet with Smart Growth</td>
</tr>
<tr>
<td></td>
<td>Adjustments</td>
</tr>
<tr>
<td></td>
<td>Travel Demand Forecasting Models</td>
</tr>
<tr>
<td></td>
<td>Enhanced Travel Demand Forecasting Models</td>
</tr>
<tr>
<td></td>
<td>URBEMIS</td>
</tr>
<tr>
<td></td>
<td>ICLEI CACP</td>
</tr>
<tr>
<td></td>
<td>PLACE'S</td>
</tr>
<tr>
<td></td>
<td>INDEX</td>
</tr>
<tr>
<td>Sensitivity to land use changes</td>
<td>□</td>
</tr>
<tr>
<td>Sensitivity to transportation changes</td>
<td>□</td>
</tr>
<tr>
<td>Sensitivity to policy changes</td>
<td>□</td>
</tr>
<tr>
<td>Adaptability to different conditions</td>
<td>□</td>
</tr>
<tr>
<td>Support availability and maintenance requirements</td>
<td>□</td>
</tr>
<tr>
<td>Cost</td>
<td>□</td>
</tr>
<tr>
<td>Ease of use</td>
<td>□</td>
</tr>
<tr>
<td>Accuracy</td>
<td>□</td>
</tr>
</tbody>
</table>
Choosing the Right Tool

- Each tool on the short-list has benefits and limitations
- No “one size fits all” tool
- Select a tool based on:
  - The level of detail needed
  - The expected level of scrutiny
  - Community interest
  - Resources available --In terms of staff time;
    In terms of funding
- Case Study Example
Case Study

- Northgate Sub-Area Rezone Project in Seattle
Case Study

• Northgate Sub-Area Rezone Project in Seattle
## Case Study

### Northgate Sub-Area Rezone Project in Seattle

<table>
<thead>
<tr>
<th>New Use</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-Family Residential</td>
<td>1,604 Units</td>
</tr>
<tr>
<td>Retail</td>
<td>108,900 sq. ft.</td>
</tr>
<tr>
<td>Office</td>
<td>551,600 sq. ft.</td>
</tr>
</tbody>
</table>
How to Choose the Right Tool?

- What is the Purpose of the Analysis?
  - Detailed Assessment of Controversial or Complex Plan or Project
    - How Much Staff Time/Expertise or Consultant Budget is Available?
      - Low
        - Does the Project Involve Significant Transportation Network Changes?
          - Yes: Travel Demand Model with Standard Emissions Factors
          - No: VMT Spreadsheet with 4D Smart Growth Adjustments with Standard Emissions Factors
        - Med
          - Travel Demand Model with MOVES Emissions Factors
        - High
          - Is a GIS Model Available?
            - Yes: VMT Spreadsheet with 4D Enhancements and MOVES Emissions Factors
            - No: Travel Demand Forecasting Model with 4D Enhancements and MOVES Emissions Factors
  - Limited Assessment of Small or Straightforward Project
    - Is the Travel Demand Forecasting Model Accurate for Project Area?
      - Yes: Travel Demand Model with Standard Emissions Factors
      - No
        - Is the Project a Mixed-Use Development?
          - Yes: ILEI CACP Software
          - No: VMT Spreadsheet with Standard Emissions Factors

- UBREVIS

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    - INDEX
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- UBREMIS
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No

UBREMIS

ICLEI CACP Software

VMT Spreadsheet with Standard Emissions Factors

Yes

Travel Demand Forecasting Model with 4D Enhancements and MOVES Emissions Factors

PLACE3S

INDEX
How to Choose the Right Tool?

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  - PLACE³S
  - INDEX

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Yes
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No
- VMT Spreadsheet with Standard Emissions Factors

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**Case Study**

**Greenhouse Gas Emissions Planning Tools**

Many local governments are taking action to address climate change—either through mitigation, adaptation, or both—in their operational or comprehensive plans. While addressing climate change in comprehensive plans is not a specific requirement of the Growth Management Act, many counties and cities are addressing climate change through land use and transportation planning, or by adding optional elements to their plans.

In April of 2008, the Growth Management Act was amended to require the Washington State Department of Commerce (formerly the Department of Community, Trade and Economic Development) to "...develop and provide to counties and cities a range of advisory climate change response methodologies, a computer modeling program, and estimates of greenhouse gas emissions resulting from specific measures." These tools are to reflect regional and local variations and the diversity of counties and cities planning under the GMA.

Commerce's Growth Management Services staff has been working with a consulting team and a technical advisory team to review existing modeling tools and programs, identify those most appropriate for use in Washington State, and to identify the strengths and weaknesses of the tools. A draft report is now available for review and comment.

**Comments will be accepted on the draft through October 15, 2009.** Please provide public comments on the draft report to Joyce Philips at Joyce.Philips@commerce.wa.gov. The final report will be available by December 1, 2009.
Case Study

VMT SPREADSHEET WITH 4D SMART GROWTH ADJUSTMENTS

The Vehicle Miles Traveled (VMT) Spreadsheet with 4D Smart Growth Adjustments takes land use data and calculates trip generation using data from the Institute of Transportation Engineers Trip Generation report (total trip generation can also be entered manually). The trip generation is then adjusted to account for smart growth development characteristics (density, diversity, design, and destination accessibility). Detailed data about land use (e.g., density, diversity) and transportation (e.g., pedestrian design) characteristics are required to estimate the trip generation reduction. Mobile-source GHG emissions are estimated using average trip length data and an aggregate emissions factor from local or national sources.

The smart growth adjustments can also be applied as a preprocessing step to other tools like travel demand forecasting models, URBEMIS, and the ICLEI CACPS Software. Additional information about the VMT Spreadsheet with 4D Smart Growth Adjustments is provided at www.coolconnections.org/4ds.

<table>
<thead>
<tr>
<th>D Variable</th>
<th>Project Value</th>
<th>Benchmark Value (Typical ITE Site)</th>
<th>Percent Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density - Single Family Residential</td>
<td>4.3</td>
<td>5</td>
<td>-14.30%</td>
</tr>
<tr>
<td>Density - Multi-Family Residential</td>
<td>14.1</td>
<td>15</td>
<td>-6.07%</td>
</tr>
<tr>
<td>Density - Employment</td>
<td>23.3</td>
<td>16.58</td>
<td>40.54%</td>
</tr>
<tr>
<td>Diversity - Jobs / Housing</td>
<td>0.80</td>
<td>0.1</td>
<td>500.00%</td>
</tr>
<tr>
<td>Design - Sidewalk Coverage</td>
<td>79%</td>
<td>0.75</td>
<td>0.00%</td>
</tr>
<tr>
<td>Design - Route Directness</td>
<td>50%</td>
<td>0.5</td>
<td>0.00%</td>
</tr>
<tr>
<td>Design - Average Blockface (miles)</td>
<td>0.22</td>
<td>0.22</td>
<td>0.00%</td>
</tr>
<tr>
<td>Design - Street Density</td>
<td>9.09</td>
<td>9.09</td>
<td>0.00%</td>
</tr>
<tr>
<td>Design - Final Parameter</td>
<td>2.88</td>
<td>2.88</td>
<td>0.00%</td>
</tr>
<tr>
<td>Destinations - Commute Length (mins)</td>
<td>22.00</td>
<td>28.00</td>
<td>21.43%</td>
</tr>
<tr>
<td><strong>OVERALL EXTERNAL VMT REDUCTION</strong></td>
<td></td>
<td></td>
<td>25.00%</td>
</tr>
</tbody>
</table>

Quick Evaluation

- Sensitivity to land use changes
- Sensitivity to transportation system changes
- Sensitivity to policy changes
- Adaptability to different conditions

Strengths

- Sensitive to smart growth development characteristics
- Freely available
- Does not require geographic information systems (GIS) or travel demand modeling software

Weaknesses

- Not applicable for large-scale plans or projects less than 200 acres.
- Not sensitive to traffic congestion or transit service
- May require an expert for complex or nonstandard projects
- Less accurate than other tools
**Case Study**

The VMT Spreadsheet with Smart Growth Adjustments is a tool that allows users to estimate the greenhouse gas (GHG) emissions of mixed-use/smart growth projects or plans. The tool is limited to analyzing projects and plans that are larger than 200 acres in size as the 4D data is not valid for smaller projects. The trip generation rates, average 4D variables, trip lengths, and greenhouse gas emissions factors are based on national and regional data, which can be replaced with local data for increased accuracy.

Click here to download the VMT Spreadsheet with 4D Smart Growth Adjustments Tool.

<table>
<thead>
<tr>
<th>DISCUSSION TOPICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The Value of Walkability</td>
</tr>
<tr>
<td>- Practicing Planner Features “A New Transportation Planning Paradigm”</td>
</tr>
<tr>
<td>- Fehr &amp; Peers Participates in California RTP Guidelines Update for SB 375</td>
</tr>
<tr>
<td>- Industry Accepting VMT Threshold Approach</td>
</tr>
<tr>
<td>- New Smart Growth and GHG Emissions Study</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RECENT COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Avrett on A New Transportation Planning Paradigm: Constraints-Based Planning in Response to the Continuing Decline in Transportation Funds</td>
</tr>
<tr>
<td>- Anonymous on A New Transportation Planning Paradigm: Constraints-Based Planning in Response to the</td>
</tr>
</tbody>
</table>
**Case Study**

The worksheet uses Institute of Transportation Engineers Trip Generation, 8th Edition data to calculate trip generation for given residential, retail, office, industrial, school, and other land uses. Users can also separately enter land use data (units of residential development and daily trip generation) for land uses that are not included in this sheet. If the ITE data are used, specify the average, linear, or logarithmic trip generation rate. If one of the trip generation rates is not available for a given land use, then this sheet will return a "Method Not Valid" error (the average rate is always valid). A separate calculation estimates the number of jobs related to non-residential uses. The job information is used in calculating the 40 adjustment. The jobs are calculated using floor area to employment information that can be updated in the "Step 2 - D Variables" worksheet. If more accurate job information is available, enter it in the Jobs column.

### Land Use Type

<table>
<thead>
<tr>
<th>Number of Dwelling Units</th>
<th>Trip Equation</th>
<th>Daily Trips</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family (ITE 210)</td>
<td>657</td>
<td>8,201</td>
<td></td>
</tr>
<tr>
<td>Multi-Family (ITE 220)</td>
<td>4227</td>
<td>28,405</td>
<td></td>
</tr>
<tr>
<td>High Rise Condo (ITE 232)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Multi-Family Residential (enter number of units and daily trips)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail Floor Space (kSF)</td>
<td>289.222</td>
<td>12,204</td>
<td>568.444</td>
</tr>
<tr>
<td>General Retail other than those listed below (ITE 820)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supermarket (ITE 850)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank (ITE 912)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Club (ITE 492)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Restaurant (non-fast food - ITE 932)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Fast-Food Restaurant (ITE 934)</td>
<td></td>
<td></td>
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<tr>
<td>Gas Station (ITE 945)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Auto Repair (ITE 942)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Retail (enter number of kSF and daily trips)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Floor Space (kSF)</td>
<td>Non-Medical (ITE 710)</td>
<td>Average Rate</td>
<td></td>
</tr>
<tr>
<td>Medical (ITE 720)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Office (enter number of kSF and daily trips)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial Floor Space (kSF)</td>
<td>Light Industrial (ITE 110)</td>
<td>Average Rate</td>
<td>17,226</td>
</tr>
<tr>
<td></td>
<td>Manufacturing (ITE 140)</td>
<td>Average Rate</td>
<td>5,901</td>
</tr>
<tr>
<td></td>
<td>Warehousing (ITE 150)</td>
<td>Average Rate</td>
<td>5,406</td>
</tr>
</tbody>
</table>
Case Study

Project VMT

Suburban Style Development

Proposed Project No 4Ds

Proposed Project with 4Ds

0 65,000 130,000 195,000 260,000

-19%  -36%

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Case Study

Project Greenhouse Gas Emissions (tonnes/day)

- Suburban Style Development
- Proposed Project No 4Ds
- Proposed Project with 4Ds

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Case Study

✓ Conclusions
- Recognizing the mixed-use nature of the area and choosing the appropriate tool is important
- Without the 4D analysis, VMT and Greenhouse Gas Emissions overstated by 33 percent
- Tool shows benefit over comparable scale development in single-use, suburban setting
Next Steps

✓ Department of Commerce will seek funding for case study applications of the tools

✓ Develop approach for non-mobile source analysis

✓ Promote development of standard emissions factors
Questions?
## URBEMIS

The image shows a screenshot of URBEMIS software interface. The interface includes a table titled 'Enter Land Uses for your project.' The table contains columns for 'Unit Amt,' 'Land Use Type,' 'Trip Rate (per day),' 'Unit Type,' 'Acres,' 'Trip % Primary,' 'Trip % Diverted,' and 'Trip % Pass-By.'

### Table Data

<table>
<thead>
<tr>
<th>Unit Amt</th>
<th>Land Use Type</th>
<th>Trip Rate (per day)</th>
<th>Unit Type</th>
<th>Acres</th>
<th>Trip % Primary</th>
<th>Trip % Diverted</th>
<th>Trip % Pass-By</th>
</tr>
</thead>
<tbody>
<tr>
<td>250.00</td>
<td>Single family housing</td>
<td>9.57</td>
<td>dwelling units</td>
<td>83.33</td>
<td>85.0</td>
<td>10.0</td>
<td>5.0</td>
</tr>
<tr>
<td>0.00</td>
<td>Apartments low rise</td>
<td>0.00</td>
<td>dwelling units</td>
<td>0.00</td>
<td>85.0</td>
<td>10.0</td>
<td>5.0</td>
</tr>
<tr>
<td>0.00</td>
<td>Apartments mid rise</td>
<td>0.00</td>
<td>dwelling units</td>
<td>0.00</td>
<td>85.0</td>
<td>10.0</td>
<td>5.0</td>
</tr>
<tr>
<td>0.00</td>
<td>Apartments high rise</td>
<td>0.00</td>
<td>dwelling units</td>
<td>0.00</td>
<td>85.0</td>
<td>10.0</td>
<td>5.0</td>
</tr>
<tr>
<td>0.00</td>
<td>Condo/townhouse general</td>
<td>0.00</td>
<td>dwelling units</td>
<td>0.00</td>
<td>85.0</td>
<td>10.0</td>
<td>5.0</td>
</tr>
<tr>
<td>0.00</td>
<td>Condo/townhouse high rise</td>
<td>0.00</td>
<td>dwelling units</td>
<td>0.00</td>
<td>85.0</td>
<td>10.0</td>
<td>5.0</td>
</tr>
<tr>
<td>0.00</td>
<td>Mobile home park</td>
<td>0.00</td>
<td>dwelling units</td>
<td>0.00</td>
<td>85.0</td>
<td>10.0</td>
<td>5.0</td>
</tr>
<tr>
<td>0.00</td>
<td>Retirement community</td>
<td>0.00</td>
<td>dwelling units</td>
<td>0.00</td>
<td>85.0</td>
<td>10.0</td>
<td>5.0</td>
</tr>
<tr>
<td>0.00</td>
<td>Congregate care (Assisted Living) Facility</td>
<td>0.00</td>
<td>dwelling units</td>
<td>0.00</td>
<td>85.0</td>
<td>10.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>