

| Category | Factor or Variable | 2005(2006)* | 2020 | | | | 2035 | | | | | |
|---|---|-------------------------------|------------------------|----------------|---------------------|-------------|-------------------------|--------------------------------|----------------|---------------------|-------------|-----------------------------|
| | | | RTP | Scenario #1 | Scenario #2 | Scenario #3 | RTP | RTP | Scenario #1 | Scenario #2 | Scenario #3 | Scenario #4 |
| | Scenario Title | Backcast 2005 model base year | Baseline Current Trend | Alternative 4D | Alternative NoBuild | RTP NoBuild | Current Trends Baseline | Land Use Model Base-line Run Z | Alternative 4D | Alternative NoBuild | RTP NoBuild | Alternative LU Model Run Y4 |
| 3a. MODEL OUTPUT DATA - Trip Data | Number of Home-based Work Trips/household/week | 3,621,706 | 4,355,947 | 4,344,089 | 4,379,539 | 4,380,140 | 5,748,578 | | 5,719,825 | 5,774,077 | 5,776,290 | |
| | Number of Home-based School Trips/household/week | 683,145 | 881,321 | 881,363 | 885,659 | 885,679 | 1,212,524 | | 1,212,120 | 1,215,360 | 1,217,364 | |
| | Number of Home-based Shopping Trips/household/week | 1,925,341 | 2,341,819 | 2,336,215 | 2,341,629 | 2,341,747 | 3,060,450 | | 3,046,199 | 3,059,607 | 3,060,475 | |
| | Number of Home-based Other Trips/household/week | 5,908,019 | 7,267,803 | 7,268,175 | 7,265,303 | 7,265,433 | 9,534,839 | | 9,533,111 | 9,522,769 | 9,524,990 | |
| | Number of Work-based Other Trips/household/week | 2,333,023 | 2,845,090 | 2,839,301 | 2,847,156 | 2,847,796 | 3,724,667 | | 3,712,819 | 3,725,136 | 3,722,971 | |
| | Number of Other-based Other Trips/household/week | 2,946,836 | 3,509,417 | 3,506,392 | 3,509,394 | 3,509,421 | 4,589,102 | | 4,657,746 | 4,586,648 | 4,587,375 | |
| | Average Trip Length - Home-based Work Trip (miles) | 12.9 | 13.0 | 12.9 | 12.8 | 12.8 | 13.1 | | 13.0 | 12.9 | 12.9 | |
| | Average Trip Length - Home-based School Trip (miles) | 5.2 | 6.7 | 6.8 | 6.7 | 6.7 | 8.7 | | 8.7 | 8.7 | 8.7 | |
| | Average Trip Length - Home-based Shopping Trip (miles) | 8.0 | 8.1 | 8.0 | 8.0 | 8.0 | 9.0 | | 8.9 | 8.9 | 9.0 | |
| | Average Trip Length - Home-based Other Trip (miles) | 8.5 | 9.7 | 9.7 | 9.5 | 9.5 | 10.7 | | 10.7 | 10.4 | 10.4 | |
| | Average Trip Length - Work-based Other Trip (miles) | 9.3 | 9.9 | 9.9 | 9.8 | 9.8 | 10.9 | | 10.9 | 10.7 | 10.7 | |
| Average Trip Length - Other-based Other Trip (miles) | 7.4 | 6.6 | 6.6 | 6.5 | 6.5 | 6.9 | | 6.9 | 6.6 | 6.6 | | |
| 3b. MODEL OUTPUT DATA - Passenger Travel Mode Shares - All Trips (%VMT) | SOV | | | | | | | | | | | |
| | HOV | | | | | | | | | | | |
| | Public Transit (Boardings) | 21,899 | 24,075 | 24,124 | | 21,284 | 24,616 | | 24,748 | | 21,937 | |
| | Bike+Walk (Non-Motorized) | | | | | | | | | | | |
| 3c. MODEL OUTPUT DATA - CO2 and Vehicle Miles Traveled | Total CO2 Emissions by Passenger Vehicles per Weekday - EMFAC2007 LDA, LDT1, LDT2, and MDV (tons) | 8,410 | 11,140 | 11,110 | | 22,220 | 15,660 | 15,810 | 15,590 | 17,580 | 31,620 | 13,990 |
| | Total Internal CO2 Emissions by Passenger Vehicles per Weekday (tons) | 5,430 | 7,080 | 7,050 | | 14,120 | 10,320 | | 10,270 | 10,460 | 20,940 | |
| | Total IX / XI CO2 Emissions per Weekday - Passenger Vehicles (tons) | 450 | 560 | 560 | | 1,120 | 710 | | 720 | 700 | 1,440 | |
| | Total External (XX) CO2 Emissions per Weekday - Passenger Vehicles (tons) | 2,530 | 3,500 | 3,500 | | 6,980 | 4,630 | | 4,600 | 6,420 | 9,240 | |
| | Total VMT by Passenger Vehicles per Weekday - EMFAC 2007 LDA, LDT1, LDT2 and MDV (Miles, in Thousands) | 16,107 | 21,821 | 30,163 | | 21,722 | 30,916 | 41,503 | 41,627 | 41,428 | 30,718 | 37,257 |
| | Total Internal VMT by Passenger Vehicles per Weekday (Miles, in Thousands) | 10,309 | 13,792 | 19,046 | | 13,684 | 20,321 | | 27,327 | 27,108 | 20,113 | |
| | Total IX/XI VMT per Weekday - Passenger Vehicles (Miles, in Thousands) | 938 | 1,174 | 1,620 | | 1,173 | 1,502 | | 2,016 | 2,039 | 1,512 | |
| | Total External (XX) VMT per Weekday - Passenger Vehicles (Miles, in Thousands) | 4,860 | 6,855 | 9,497 | | 6,865 | 9,093 | | 12,283 | 12,281 | 9,093 | |
| 3d. MODEL OUTPUT DATA - Congested Travel | Congested Weekday VMT on Freeways (Miles, in Thousands)--Note: "Congested" on Roadways w/ V/C ratios >1.0 | 185,960 | 348,775 | 362,149 | 546,370 | 546,381 | 496,728 | | 500,221 | 1,526,974 | 495,275 | |
| | Congested VMT on All Other Roadways (Miles, in Thousands)--Note: "Congested" on Roadways w/ V/C ratios >1.0 | 390,915 | 464,786 | 481,440 | 749,795 | 750,625 | 1,843,014 | | 1,625,997 | 3,552,669 | 1,855,327 | |

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|----------|--------------------|-------------------------------------|------------------------------|-------------------|------------------------|-------------|-------------------------------|---------------------------------------|-------------------|------------------------|-------------|-----------------------------------|
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Kern SB 375 MPO Data Request - Notes and Assumptions

*The base validation year of the transportation model is 2006. Not all variables in the model were able to be backcast to 2005. **Variables from the 2006 model are highlighted in bold red text.**

- Population projections are based on recently (Oct 09) adopted Kern COG Growth Forecast. Recent economic conditions were evaluated and reflected in the Growth Forecast. The same forecasted population data was used in all scenarios.
- The Land Use model (Scenario 4) input variables varied slightly from the adopted total. In addition, the Land Use model has yet to be refined enough to accurately reflect the anticipated distribution of future growth to the satisfaction of the region.
- The Land Use model results have been provided for comparison purposes but are not considered by Kern COG to be either reasonable nor achievable.
- For Target setting purposes scenarios 1-3 for 2020 and 2035 are based on the existing adopted spreadsheet based methodology of the distribution of future growth. However, Kern COG plans to implement a non-spreadsheet based, more accurate Land Use model future Land Use scenarios in development of the SCS for future RTP's.
- In April 2010 Kern COG recommended the baseline be used for target setting for several reasons: 1) Kern has one of the lowest percentages of interregional commuters in the state resulting in one of the lower VMT per person rates statewide.
- 2) The RTAC recommends consideration for interregional travel (30% of all travel in Kern, one of the highest in the state), and exemption of military bases, both of which local governments have no land use authority over, in addition Kern COG has recommended wind energy areas and prisons because they are vital to state climate change goals (wind energy areas) or state public safety goals (prisons).
- The Transportation model was recently enhanced for the 4 D's. The same transportation network was used for all scenarios except the "No Build" scenarios. No Build scenarios reflected no improvements to the transportation network beyond 2015.

MPO_Alternative_Scenario_Data_Request-Kern_15Jun10.xls

Data copied from the various spreadsheets previously submitted as described below. Transit data validated at system level is for Metro Bakersfield only. Kern COG has not generated other scenarios or data other than what has been previously submitted.

MPO_GHG Base_Estimates.xls (SANDAG – C. Daniels – "Green" spreadsheet)

Considered to include recommended SB 375 target by MPO that provided at a minimum CO2 per Capita in lbs for SB 375 projected target years 2020 and 2035. Data copied or derived from spreadsheets previously submitted to ARB.

Kern_SB375_RTAC_format_031610-CO2_Pavely-v2 (Kern COG Submitted to ARB)

Worksheet that includes RTAC recommended exempt trips and Kern COG recommended exempt trips. Namely, exempting all XX, 50% of IX, 100% Military, 50% Prisons, and 50% Wind Energy Sites) This spreadsheet is derived from the spreadsheet developed. This was also used in the local stakeholder and public review process. **The alternatives listed above do NOT include the exemptions recommended by the RTAC and Kern COG Board.**