

## MPO Follow-up Questions

Revised: 6/1/10

1. If you were to fully account for the impact of the recession in your region, how would the % reductions in GHG/capita numbers change for each scenario in 2020?
  - a. In what ways has the economy affected your region (e.g. population, jobs, unemployment, new development, foreclosures, vacancy rates, etc.)?

**Population:** Our recent update of population, housing, and jobs was provided by the UOP Business Forecasting Center. In the 2008 Regional Analyst publication provided by UOP, the impacts of the recession were evident in a much reduced rate of growth (average of 1.9% annually versus the 2.4% predicted in DOF forecasts); however, there was a question as to whether the slowdown of 2006 – 2007 was a longer-term trend for San Joaquin County or just a lull before another rapid growth period. By the time UOP released their August 2009 update to population forecasts, the growth rate was again reduced and population forecasts were revised downward. Recessionary forces were seen most notably in domestic migration (gains or losses due to migration to/from other counties and States). This is the largest driver of population increase in San Joaquin County; net domestic migration turned negative in 2006, due primarily to a sharp decline to persons moving into San Joaquin County. Net domestic migration reached a record low of -5,175 in 2008, 15,000 people less than the average net gain of 10,000 annually from 2001 to 2005. The largest driver of this trend is thought to be falling real estate prices affecting population mobility.

**Jobs:** Where population growth trends have shown a downward revision that is expected to persist over time, job growth in the county has represented a less volatile trend. This is due in part to the fact that in-migration to the county has not primarily been due to increasing employment opportunities in San Joaquin County, but the lack of affordable housing in other areas, primarily the San Francisco Bay Area. Thus, even as population growth trends decrease, job growth remains relatively stable. However, there is predicted negative job growth between the base year of 2006 and 2010. The forecast shows full recovery of the loss and additional positive job growth in 2015.

**Unemployment:** San Joaquin County unemployment generally tracks with changes in California's unemployment rate, just at a higher level (approximately 2% to 4.5% higher). Higher unemployment statewide tends to affect San Joaquin County to a greater extent, producing a

higher spread between the state and county rates in these years. The Business Forecasting Center at UOP, in their April 2010 California and Metro Forecast, predict that the California unemployment rate is peaking now at 12.3%; the current rate for San Joaquin County is shown at 17.3%. Both are the highest unemployment rates in a least the last two decades. Both rates are shown as slowly decreasing in 2011 and 2012. The forecast rate for California in 2012 is 9.7%, while San Joaquin County is projected at 13.5%.

**Foreclosures:** The Business Forecasting Center at UOP recently released an analysis of foreclosure trends in San Joaquin County (May 2010 Regional Analyst). Some highlights of the data include:

- Over the decade median home prices have increased approximately 15%, after reaching a high peak in early 2006 and a rapid decline through the end of 2009.
- Available data would indicated that foreclosures peaked in mid to late 2008; however, it is speculated that this may have more to do with SB1137 (requiring 30 days notice before filing a Notice of Default) and the foreclosure process taking generally longer to complete than with a decline in the distressed properties.
- For every Notice of Default, there are approximately 2.6 mortgages 90+ days delinquent that have not had an initial default filing.
- Approximately 17.7% of single-family homes in San Joaquin County have received one or more notices in the foreclosure process; this varies greatly by zip code, from 4.7% to 39.5%.
- It is estimated that approximately 65% of mortgages in San Joaquin County are “underwater” where the mortgages exceeds the value of the home. These mortgages are considered at very high risk of delinquency and foreclosure.
- There is concern that the lower Notice of Default filings now may be false stabilization in the market and that 2011 will see another increase in foreclosures as this “shadow inventory” of built-up delinquent mortgages makes its way through the formal foreclosure process.

Study conclusions indicate some uncertainty in the interpretation of the data, but also indicate over a five- to ten-year horizon that population growth will drive a modest recovery in prices and homebuilding. However, the shorter term outlook (one to three years) will be dominated by continuing financial problems in the housing market.

- b. If you have already included the impact of the recession, where is it reflected in your scenario data?

Recessionary impacts are reflected directly in population and, thus also reflected in household data within the scenarios. To the extent that jobs, unemployment, and foreclosure trends have affected population (seen mostly in the lack of population mobility), these trends are reflected in the data. The data utilized were developed in mid- to late 2009 and would reflect best estimates and forecasts based on that time period.

SJCOG has incorporated the impacts of the economic recession in its scenarios. The impact of the recession is captured in the revenue estimate for the scenarios as well as the population and employment projections. SJCOG is currently working to update its RTP and has updated both revenue forecasts and population and employment projections to reflect the current economic recession.

2. What factors cause the reductions in 2020 to be different from 2035, and where do they show up in your data?

Most planning assumptions were held constant between the 2020 and 2035 scenarios (only changes were population/jobs) with the exception that high speed rail was given greater weight as an attractor in the 2035 scenario than in 2020. Since redevelopment was not modeled in the scenarios and the transit oriented developed and potential existing infill locations did not change, part of the difference between 2020 and 2035 would be attributable to infill areas being exhausted resulted in increased green-field development by 2035 due to limitations of available land for infill development purposes.

Additional factors that cause the reductions to be different in 2020 than in 2035 include differences in the current plan per capita emissions per capita reductions in the 2020 and 2035 baseline emissions reductions from 2005. For example the RTP status quo scenario results in a 4% reduction from 2005 and the 2035 RTP status quo scenario results in a 1% reduction from 2005. With different starting points for the 2020 and 2035 years respectively, it is evident that this is one factor that results in differences between the 2020 and 2035 scenario results.

SJCOG, like many self-help regions (regions with sales tax measures), utilizes revenue from sales tax measures to deliver projects as part of the early action elements of their plans. This results in most RTP projects being delivered within the first 10 to fifteen years of the RTP. This is often done to fulfill the existing backlog of need within the region. This results in several large scale projects

being delivered within the first 15 years (by 2020 target year) of the plan and fewer large scale projects delivered in the latter portion of the plan (by 2035 target year) resulting in increased vehicle hours of delay and decreased speed. (see attached speed charts). Population growth and associated VMT also outpaces RTP improvements in the latter (2035 target year) years of the RTP due to lack of revenue to implement all needed improvements.

In addition the SJCOG region currently does not reflect a region with a jobs housing balance. San Joaquin County's geographic location as a turning point between both the Bay Area and the Sacramento region do not result in a current jobs housing balance. As demonstrated at the RTAC's May 2010 meeting, significant planning is necessary to develop and implement a scenario that rectifies the jobs housing imbalance within the SJCOG region. Factors such as housing affordability and jobs housing fit also play into the resulting jobs housing balance. As population growth continues to occur it is likely that housing affordability will continue to play a vital role in planning for a jobs housing balance into the future.

3. What model improvements, changes in planning assumptions, or additional policies are you considering that were not used in developing your scenarios?
  - a. How will they impact the direction and/or magnitude of change?
    - Several general plans and climate action plans are currently being updated or will be undertaken soon. These new plans are only marginally represented in the current scenarios
    - Additional data on the difference in magnitude of the foreclosure crisis in different areas of the County may influence the distribution of housing units at the TAZ level and influence future disaggregation at the TAZ level.
    - Continued improvement in use and application of the 4D processor.
    - Several additional land-use models are under consideration that will increase the level of detail and the number of factors that can be considered in development of future scenarios.
    - Impacts and/or magnitude of change are difficult to predict at this time.
    - The implementation/effectiveness of the Air District's ISR rule (Rule 9510) and Rule 9410 have not been incorporated into the scenario reductions results at this time.
    - Policies resulting from the reallocation of funding have not been considered at this time due to compressed timeframes to develop scenarios.
    - Utilization of TRIMMS software to quantify emissions reductions attributable to financial incentive programs such as van pool and transit subsidies have been utilized however, have not been utilized to their full capabilities. (software attached via email)

4. Have the sensitivities of your model changed since the 2009 Model Evaluation Survey conducted for RTAC? If yes, please explain why. (i.e., are you using any new models or postprocessors to develop your scenarios that were not evaluated during the RTAC Survey?)
  - Addition of 4D capability that is assumed to make the model reasonably sensitive to changes in density, mix, and pedestrian environment. However, it was used for the first time with these scenarios – further sensitivity testing is warranted.
  - HOV capability has been added but is untested and was not deployed with these scenarios.
  
5. Did you add, remove, or change the level of deployment of any transportation projects or programs in your scenarios? If so, what type of projects or programs?

Deployment of vanpooling and carpooling programs were increased in addition to transit subsidies. High Speed Rail was assumed in the 2035 scenario. Expansion of bus rapid transit routes throughout San Joaquin County were included in the scenarios above the level of deployment contained in the 2007 RTP. High Occupancy Vehicle lanes have been assumed for the 2011 RTP and scenarios. HOV lanes were not assumed in the 2007 RTP. No transportation projects were removed from the scenarios. It is important to recognize that greenhouse gas emissions reductions are attributable to a multi-modal strategy.

6. Please provide calculations of Vehicle Miles Traveled per capita as well as Greenhouse Gas Emissions per capita in reporting results of the evaluation of your adopted RTP and alternative scenarios.

VMТ Per Capita

<b>Year</b>	<b>Scenario</b>
<b>2005 Baseline</b>	20.4 VMТ Per Capita
<b>2020 Scenario</b>	20.2 VMТ Per Capita
<b>2035 Scenario</b>	20.6 VMТ Per Capita

GHG Emissions Per Capita (No Pavley)

<b>Year</b>	<b>Scenario</b>
<b>2005 Baseline</b>	17.2 lbs per capita
<b>2020 Scenario</b>	16.2 lbs per capita
<b>2035 Scenario</b>	17.1 lbs per capita