



**AGENDA**  
**KERN REGIONAL**  
**TRANSPORTATION MODELING COMMITTEE (TMC)**

A sub-committee of Transportation Technical Advisory Committee (TTAC)  
(merged with the Kern Climate Change Task Force in May 2010)

KERN COG BOARD ROOM  
1401 19TH STREET, THIRD FLOOR  
BAKERSFIELD, CALIFORNIA

WEDNESDAY  
June 27, 2012  
9:00 A.M.

WEB SITE: <http://www.kerncog.org/cms/agendas-minutes/transportation-modeling>

PARKING: All-day free parking in the unmarked spaces of the garage located at 19th and L Streets. This is an open meeting; local government planning, public works staffs are encouraged to attend.

DISCLAIMER: This agenda includes the proposed actions and activities, with respect to each agenda item, as of the date of posting. As such, it does not preclude the Committee from taking other actions on items on the agenda which are different or in addition to those recommended.

- I. Introductions/Sign-in Sheet
- II. Meeting Notes from May 23, 2012 – See *Attachment* – **Approve**
- III. Regional Planning Advisory Committee – Meeting notes from the June 6, 2012 RPAC See *Attachment*. – Information
- IV. Land Use Model Scenarios Discussion (Hightower)
- V. Revised 2014 RTP/SCS Development Timeline (Ball) – Information
- VI. Model Improvement Program Overview (Hightower) – Information
- VII. Kern COG Modeling Activity Report (Liu/Flickinger) – Information
- VIII. Regional Traffic Count Program (Heimer/Flickinger) – Discuss adding locations on Olive Drive East and West of SR 99 - Information
- IX. Other Business/Schedule Next Meeting – **Wed., July 25, 2012 9:00AM** at Kern COG
- X. Adjourn



**Kern Regional Transportation Modeling Committee (TMC)  
A Subcommittee of the Kern COG TTAC**

Meeting Notes  
May 23, 2012

**I. Members Present:**

Brian Blacklock	County of Kern Roads
Steve Young	County of Kern Roads
Scott Spear	
Laura Baker	CCRPE
Doug Bowen	Pacific Traffic Data
Mike McCabe	City of Delano
Wayne Clausen	City of Shafter
Sue George	City of Taft
David Berggren	Caltrans
John Ussery	City of Bakersfield
Ed Murphy	City of Bakersfield
Karl Davisson	City of Bakersfield

**Staff Present:**

Vincent Liu	Kern Council of Governments
Troy Hightower	Kern Council of Governments
Ed Flickinger	Kern Council of Governments
Ben Raymond	Kern Council of Governments

- II. Meeting Notes from April 25, 2012 – Approved.**
- III. Regional Planning Advisory Committee – Information.** Minutes from the May 2, 2012 meeting were available for committee review.
- IV. Land Use Model Scenarios Discussion –** Reviewed updated SCS development Worksheet. Presented new Scenario Summary Graph (Bar Chart) that is generated from the SCS Development Worksheet and reviewed the different scenario results on the graph. There is little difference between most scenarios and the Base (2035). The Land Use Density Redistribution Scenario had some improvement and the Long Range Transit Scenario had the most improvement. Reviewed the Scenario Detail sheet for the Density scenario to explain the assumptions, inputs and results for that scenario. Requested committee feedback about the forms. The committee commented that we have a lot of work to do to reach the ARB target. Informed committee that other COG's have found the MIP model to be more sensitive to the scenarios than the existing models. Kern COG Staff plans to begin converting scenario datasets to run using the MIP model. Information.
- V. Model Improvement Program (MIP) Update –** Reported that the updated Kern MIP model is now working. Staff is working with the consultant to incorporate Kern specific adjustments and reviewing input datasets. Awaiting report on the recalibration of the updated model and EMFAC emissions reports. Requested Conformity model runs have been completed and reports submitted to the consultant. Staff suggested presenting an overview report on the MIP at the committee at the next meeting. – Information.
- VI. Kern COG Modeling Activity Report –** Develop methods for various scenario tests. Proposals for model support RFP due May 24. City of Bakersfield staff offering to review proposals with Kern COG staff. - Information.

- VII. Regional Traffic Count Program** – Pacific Traffic Data had addressed the concerns of last committee meeting and was available to answer questions on the current contract and for contract extension. - Information.
- VIII. Other Business/Schedule Next Meeting** – Wed., June 27, 2012 9:00 AM at Kern COG.
- IX. Adjournment**

KERN COUNCIL OF GOVERNMENTS  
REGIONAL PLANNING ADVISORY COMMITTEE

KERN COG CONFERENCE ROOM  
1401 19<sup>TH</sup> STREET, THIRD FLOOR  
BAKERSFIELD, CALIFORNIA

WEDNESDAY  
June 6, 2012  
1:30 P.M.

Chairman Clausen called the meeting to order at 1:32 p.m.

**I. ROLL CALL**

MEMBERS PRESENT:	Wayne Clausen	City of Shafter
	Mike McCabe	City of Delano
	Paul Hellman	City of Bakersfield
	Karen King	GET
	Richard Rowe	Community Member
	Mike Bevins	City of California City
	Paul Gorte	City of Taft (Phone)
STAFF:	Rob Ball	Kern COG
	Linda Urata	Kern COG
	Rochelle Invina	Kern COG
	Troy Hightower	Kern COG
OTHER:	Laura Baker	CRPE
	Beatriz Basulto	GWG
	Gjema Perez	GWG
	Jeff Caton	ESA (Phone)
	Ruby Renteria	CA Rural Legal Assistance
	Wendy Alfsen	California Walks

- II. PUBLIC COMMENTS:** This portion of the meeting is reserved for persons to address the Committee on any matter not on this agenda but under the jurisdiction of the Committee. Committee members may respond briefly to statements made or questions posed. They may ask a question for clarification; make a referral to staff for information or request staff to report to the Committee at a later meeting. **SPEAKERS ARE LIMITED TO TWO MINUTES. PLEASE STATE YOUR NAME AND ADDRESS FOR THE RECORD PRIOR TO MAKING A PRESENTATION.**

None

- III. APPROVAL OF DISCUSSION SUMMARIES:** Meeting of Wednesday May 2 , 2012.

There was no quorum, therefore the meeting minutes were unable to be approved. They were tabled until the meeting of July 3, 2012.

- IV. REGION ENERGY ACTION PLANS UPDATE** (Project Team)

Mr. Canton provided a brief update on the Region Energy Action Plan status.

- V. 2012 COMMUNITY SURVEY EXECUTIVE SUMMARY** (Napier)

Mr. Ball stated that Kern COG performs an annual survey. He noted that the current survey was focused on similar questions to the questions they are asking in the Direction to 2050 outreach meetings.

Mr. Ball advised that there had been a delay in the completion of the survey and the results were not available yet.

The 2012 Community Survey Executive Summary was tabled until the July 3, 2012 meeting.

**VI. BLUEPRINT INTEGRATION PROJECT (Napier)**

Mr. Ball stated that The Blueprint Integration Project is a program to provide support to the smaller cities (population under 50,000) to integrate Blueprint growth principles into General Plans.

Mr. Ball advised that during the RPAC meeting held on May 2, 2012, Chairman Clausen suggested that the RPAC members pool their resources of the circuit planners to focus on sustainable transportation planning measures that did not change land use.

Chairman Clausen stated that he had spoken with Mr. Collins from Collins and Schoetler and Mr. Collins advised that it should not be an issue but would like to gather a consensus from all of the cities.

A discussion ensued amongst the committee.

The action on this item was to provide direction to staff/consultant. The Committee made the decision to table this item until the next meeting of July 3, 2012 when there would be more Committee members present to discuss.

**VII. SUSTAINABLE COMMUNITY STRATEGY SUCCESS STORIES (Invina)**

Ms. Invina stated that staff has compiled the SCS stories that have been submitted by member agencies and CMAQ projects for the committee's review and comment by June 20, 2012.

Mr. McCabe asked if the success stories will be published. Ms. Invina advised that they will be provided to the Air Resources Board.

A brief discussion ensued amongst the Committee.

The action requested is to review success stories and provide comments by June 20, 2012.

**VIII. SUSTAINABLE COMMUNITIES STRATEGY SCENARIO DEVELOPMENT UPDATE (Hightower)**

Mr. Hightower stated SB 375 requires regions to analyze scenarios to reduce per capita greenhouse gas emissions (GHG) from passenger vehicle travel for use in development of the Sustainable Communities Strategy (SCS).

Mr. Hightower provided the monthly update of the Sustainable Communities Strategy Scenario Development Update.

Wendy Alfsen from California Walks and Beatriz Basulto from the Greenfield walking group addressed the Committee with their comments on the Sustainable Communities Strategy. Laura Baker from the Center on Race Poverty and Environment of Delano addressed the Committee.

Mr. Hightower stated that they would welcome all input in reviewing the scenarios.

Mr. Phipps stated that on behalf of Kern COG he would like to work directly with representatives from any group to discuss potential scenarios.

An in-depth discussion ensued amongst the Committee.

**IX. DISCUSSION SUMMARIES/MEETING UPDATES:**

The Transportation Technical Advisory Committee Meeting Discussion Summary of May 2, 2012 was distributed to the Committee.

**X. INFORMATION/ANNOUNCEMENTS**

Mr. Ball provided copies of the AB1532, California Global Warming Solutions Act of 2006. He informed the Committee that the bill is related to the California cap and trade program. He explained that in the cap and trade program, they are seeking to create a market based method to incentivize the reduction of climate change emissions within the State of California. It has been approved by legislature.

Mr. Phipps gave a brief presentation on AB1532.

Mr. Ball announced that Ahron Hakimi has been appointed as the new Executive Director and will begin on June 18, 2012.

**XI. MEMBER ITEMS**

Mr. Bevins made the suggestion to develop a series of training PowerPoints to educate the Community regarding Sustainable Communities Strategy.

Chairman Clausen requested that this be put on a future agenda for further discussion.

Chairman Clausen asked Mr. Hightower if modeling can capture the reduction of vehicle trips for GET.

Mr. Hightower responded that the models are capable if they have the data.

**XII. ADJOURNMENT**

With no further business the meeting was adjourned at 3:38 p.m.

The next meeting will be Tuesday July 3, 2012 at 1:30 p.m.



June 27, 2012

TO: Kern Regional Transportation Modeling Committee (TMC)

FROM: Ahron Hakimi  
Executive Director

BY: Troy Hightower, Planner II

SUBJECT: TMC AGENDA ITEM: IV  
Sustainable Communities Strategy Scenario Development Update

DESCRIPTION:

SB 375 requires regions to analyze scenarios to reduce per capita greenhouse gas emissions (GHG) from passenger vehicle travel for use in development of the Sustainable Communities Strategy (SCS).

DISCUSSION:

An initial list of scenarios, based on guidance from California Air Resources Board (ARB) was first reviewed by the Kern Regional Planning Advisory Committee at its meeting on January 4, 2011 and again at the TMC February 22, 2012 meeting. The table is a guide that will be updated and presented at future meetings.

The following table contains core policy variables that ARB associated with key land use and transportation-related components associated with GHG reductions. These variables and factors are consistent with those qualitatively assessed in the 18 Metropolitan Planning Organizations (MPOs) model sensitivity analysis during the target setting process. While ARB staff believes this list includes the most important variables for analysis, ARB staff realizes it may not be appropriate for an MPO to do a sensitivity test on each one, given the MPO's unique SCS, complexity, and resources.

**Table 1 – Potential Kern SCS Modeling Scenarios to Evaluate Core Policy Variables**

Tool Used		ARB Modeling Variable	Scenario Status
Travel Model	Land Use Model		
		<b>1. Land Use:</b>	
x	x	a. Modify distribution of households, population, jobs or other variables (infill along major transit corridor consistent with GP)	Updated
x	x	b. Rebalance the mix of land uses (housing/employment ratios)	Draft
x	x	c. Increase the level of density (housing demand shift)	Updated
x	x	d. Improve the pedestrian environment (walk distance to transit)	MIP(future)
		<b>2. Road Projects:</b>	
x		a. Add HOV lanes	HOV Study
x		b. Implement Intelligent Transportation Systems (ITS)/Traffic management (e.g., change auto travel times, change highway free-flow speed)	Off Model
x		c. Add general purpose roadway lanes (e.g., change highway capacities)	Testing
		<b>3. Transit:</b>	
x		a. Construct new transit lines	GET Plan
x		b. Increase service (e.g., change transit headways, increase network connectivity)	Draft
x		c. Upgrade transit service (e.g., change from bus to light rail)	GET Plan
x	x	d. Improve accessibility (e.g., change bike/walk access distance to transit stations, change auto access distance to transit stations)	Draft
		<b>4. Pricing:</b>	
x		a. Develop tolls and toll roads	HOV Study
x		b. Implement HOT lanes	HOV Study
x		c. Increase the cost of parking	Draft
x		d. Change in transit fares	MIP(future)
X		e. Change in auto operation cost	MIP(future)
		<b>5. Transportation Demand Management:</b>	
X		a. Promote carpooling, vanpooling, telecommuting and teleconferencing	Off Model
X	x	b. Promote walking and biking	Draft
X		c. Implement employer-based trip reduction strategies and Indirect Source Rule	Off Model

Source: Adapted from ARB SCS Review Methodology 7/21 ([www.arb.ca.gov/cc/sb375/scs\\_review\\_methodology.pdf](http://www.arb.ca.gov/cc/sb375/scs_review_methodology.pdf))

Table 1 indicates the scenarios Kern COG currently can model with the existing Land Use and Travel models. Current Kern COG modeling capabilities include: 1) the new Model Improvement Program (MIP) model currently undergoing initial testing; 2) the Travel model updates related to the GET Long-range Transit Plan; 3) the High Occupancy

Vehicle (HOV) study modeling scenarios; 4) the current travel model and improvements to the travel model as part of the MIP; and 5) an off-model process to adjust modeling results to reflect ITS and other traffic management strategies.

The last column was renamed to “Scenario Status” to indicate current status for each of the scenarios under development.

### **Scenario Development**

Kern COG staff has developed a Scenario Detail Sheet as an attachment to the SCS Development Worksheet. The Scenario Detail Sheet contains more detailed information on the inputs and assumptions used for a specific scenario listed on the worksheet. A sample is attached. As scenarios are more fully development the scenario detail sheets will be updated.

All the scenarios have been run and in some cases additions runs where made with updated inputs or parameters. The summary bar chart illustrates that there is little reduction in emission for most scenarios. The Long Term Transit scenario had the best improvement of 4.9% lower than the base, but still remains 12.8% above the target, followed by the Improve Walk and Bike (off model) and Infill scenarios.

Both the table above and the SCS development worksheet were developed from templates provided by ARB for SCS development. You may find out more information by downloading ARB report “Sustainable Communities Strategy Review Methodology” from July 2011at: [http://www.arb.ca.gov/cc/sb375/scs\\_review\\_methodology.pdf](http://www.arb.ca.gov/cc/sb375/scs_review_methodology.pdf)

### **Collaboration with the Regional Planning Advisory Committee**

The modeling methodology and SCS development process is an ongoing effort done in collaboration with the TMC and the RPAC. The TMC is now holding monthly meetings to review, provide data and direction to Kern COG staff. They also provide suggestions and recommendations to the RPAC.

At the April 24, 2012 meeting the TMC recommended Kern COG staff develop an additional worksheet or matrix that presented an analysis of the modeling results when multiple scenarios are combined. This new worksheet would be a used to supplement the SCS Scenario Development Worksheet and the Scenario Detail Sheets. Staff has developed a summary bar graph that can be used in side by side analysis of the scenarios. See attachment 3. The summary bar graph was presented to the RPAC at their June 6<sup>th</sup>. The RPAC after reviewing the SCS Development worksheet, Scenario Detail sheet and the new summary bar chart commented that we have a long way to go to reach the target.

### **Off Model Strategies from the Big 4-MPOs**

In addition to these variables or scenarios, the 4 biggest MPOs prepared a memo about “off-model” strategies that would be used adjust their GHG emissions forecast. The following is a list of those strategies from last year. SACOG took credit for an additional 1-2% points in per capita reduction using their off model methodology. See Table 6 from the following memo online at: <http://www.arb.ca.gov/cc/sb375/mpo/prelimreport.mtc.sacog.sandag.scaq.pdf>

The California Air Resources Board (ARB) has released their technical evaluation of the SCAG Sustainable Community Strategy that they recently approved. ARB explained that this document can be used as a guide for the information they would like to see in the SCS's submitted to them by MPO's for their approval. You can review the document online at: [http://www.arb.ca.gov/cc/sb375/sacog\\_scs\\_tech\\_eval0512.pdf](http://www.arb.ca.gov/cc/sb375/sacog_scs_tech_eval0512.pdf)

### **Kern SB 375 Framework: Compliance With Core Values**

In February 2012 the Kern COG Board adopted 4 core values and 13 core actions to help govern Kern COG's activity related to SB 375 target setting and SCS development. Staff is using these values and actions to guide its activity for the effort. The following is a brief summary of Kern COG's activities related to the 4 core values:

- 1) The Sustainable Community Strategy relies on the existing and planned circulation networks and land use designations for Kern County and its eleven (11) incorporated cities.

**Related COG Activities:** Updated circulation networks and land use designations using latest general plans as of Summer/Fall 2011.

- 2) The Sustainable Communities Strategy shall not hinder the local land use authority of Kern County and its eleven (11) incorporated cities.

**Related COG Activities:** Added disclaimer to maps to refer users to local general plans for latest local planning information.

- 3) The Sustainable Community Strategy shall allow Kern County and its eleven (11) incorporated cities to continue the pursuit and promotion of a diversified economic base.

**Related COG Activities:** Development of modeling that supports an ambitious and achievable target for Kern that avoids the need for creation of an Alternative Planning Strategy (APS). Some consider the APS a source of potential challenges to future economic projects in the region.

- 4) Kern County shall continue to discuss cooperation and coordination with the seven (7) other counties located in the Central San Joaquin Valley to develop a regional Sustainable Community Strategy that recognizes the both shared and unique characteristics of each of the eight (8) counties.

**Related COG Activities:** COG Staff and Kern COG's representatives on the Regional Planning Advisory Committee are participating in the 8 county SCS coordination efforts. COG staff is developing a set of modeling tools that differ from the other 7 counties to better reflect our unique characteristics.

### **Attachments**

1. SCS Scenario Development Worksheet June 2012

2. Scenario Detail Sheets
3. SCS Scenario Graph

ACTION: Information/Discussion

## **Attachment 1**

SCS Development Worksheet – May 2012

**Kern COG Draft SCS Scenario Development - Indicator Comparison Table As of June 19, 2012**

**DRAFT Worksheet**

Category	Scenario Title	Spreadsheet Based Data			Land Use Model Data (Uplan Runs)				Travel Model				Off Model	Land Use + Travel Model			
		Target Setting Process 2010		Updated 2035 Base	Adjusted Base Model	Redistribution	Rebalance	Increased Density	Road Projects		Short Term Transit	Long Term Transit	Pricing	Combined MIP/Off Model	1a. Infill R05 Transit Areas		
		2005 Backcast from 2006 model base year	Proposed Kern 2035 Target						2a. Add HOV Lanes	2c. Roadway Lanes Hageman Flyover					3b. Increase Service + 3d. Accessibility	3b. Increase Service + 3d. Accessibility	4c. Downtown Parking Cost
DEMOGRAPHIC DATA	Household Population	765,750	1,264,100	1,264,100	1,264,100	1,264,100	1,264,100	1,264,100	1,264,100	1,264,100	1,264,100	1,264,100	1,264,100	1,264,100	1,264,100	1,264,100	
	Households	260,700	417,200	417,102	417,115	417,105	417,115	416,963	417,115	417,115	417,115	417,115	417,115	417,115			
	Jobs	286,432	460,730	460,882	460,483	460,681	460,483	460,236	460,483	460,483	460,483	460,483	460,483	460,483			
LAND USE DATA (Growth Only)	Households 2010 - 2035		156,750	156,652	156,665	156,655	156,665	154,004	156,665	156,665	156,665	156,665	156,665	156,665			
	Residential Acreage Developed	--	--	--	46,579	46,579		37,396		46,579	46,579	46,579	46,579	46,579			
	Households per Acreage Developed	--	--	--	3.36	3.36		4.12		3.36	3.36	3.36	3.36	3.36			
				0.14													
	Population within a 1/4 mile of a Transit Stop	142183*	173,661	176,008	159,890				159,890								
	Residential High (acres)				804	804		1,687	804	804	804	804	804	804	804		
	Residential Medium				1,956	1,956		3,272	1,956	1,956	1,956	1,956	1,956	1,956	1,956		
	Residential Low				32,019	32,019		26,101	32,019	32,019	32,019	32,019	32,019	32,019	32,019		
Residential Very Low				11,800	11,800		6,336	11,800	11,800	11,800	11,800	11,800	11,800	11,800			
MODEL OUTPUT DATA - Passenger Travel Mode Shares - All Trips (%VMT)	SOV																
	HOV																
	Public Transit (Boarding)	22028*		29,919	26,861	27,189				26,861	55,021	28,522		25,546			
	Bike+Walk (Non-Motorized)																
MODEL OUTPUT DATA - CO2 and Vehicle Miles Traveled	Per Capita SB 375 CO2 Emissions by Passenger Vehicles per Weekday (lbs)	14.79	16.17	16.32	16.05	16.00	15.93	15.99	16.05	16.05	16.05	16.46	16.05	15.70			
	Per Capita SB 375 CO2 Emissions by Passenger Vehicles per Weekday (lbs) - Pavley																
	Difference between Scenarios and 2005 Base Per Capita CO2 14.79 lbs (0% reduction below 2005 Base. Increases in red)	0.0%	9.3%	10.3%	8.5%	8.2%	7.7%	8.1%	8.5%	8.5%	8.5%	11.3%	8.5%	6.2%			
	Difference between Scenarios and Per Capita CO2 target of 13.31 lbs (10% reduction below 2005 Base. Increases in red)	10.0%	17.7%	18.4%	17.1%	16.8%	16.4%	16.7%	17.1%	17.1%	17.1%	19.1%	17.1%	15.2%			
	Total VMT per Weekday (Miles, in Thousands)	22,619	41,750	41,751	40,770	40,634	40,504	40,600	40,681	40,770	40,768	40,424	40,762	39,949		0	
	Total SB 375 VMT by Passenger Vehicles per Weekday (-XX,-50% IXXI, Miles, in Thousands)			27,760	26,883	26,669	26,639	26,744	26,906	26,883	26,881	26,646	26,876	26,302			

**Kern SB 375 Scenario Development - Notes and Assumptions (See Scenario Detail Sheets for more information)**

This is a modified version of the spreadsheet compiled by ARB staff after the MPO baseline information gathering effort. The purpose of this spreadsheet is to facilitate scenario data review and development.

Backcast from Kern 2006 base model to 2005 model required by ARB.

Population projections are based on Kern COG Growth Forecast adopted in Oct 2009 without Group Quarters. Updated 2035 Base with 2010 Census data.

Travel model is used for all scenarios unless noted otherwise.

Land Use Scenarios do not change General Plan densities or areas.

\* 2006 Boardings

Adjusted 2035 M24 Base using network with Hageman minus two lanes

**DRAFT**

## **Attachment 2**

### Scenario Detail Sheets

# Scenario Detail Sheet

*For Discussion Purposes Only*

**Scenario Title:** Redistribution – 1a Infill in Transit Areas (Run R26)

**Status as of May 1, 2012:** Initial test run

**Scenario Description and Assumptions:**

The existing Urban Area for Metro Bakersfield was modified to allow growth core areas and in the Bus Rapid Transit Corridor identified in the GET Long Range Transit plan. Distribution among higher residential densities were increased to those used in the Blueprint Alternative scenario. This scenario was run on current travel model with the Short Term GET Transit network. Single Family (Low and Very Low) represents 84.1% in the Base case. This Combined scenario single family represents 68.6 % of the total.

See Urban Area map below.

**Summary of Inputs:**

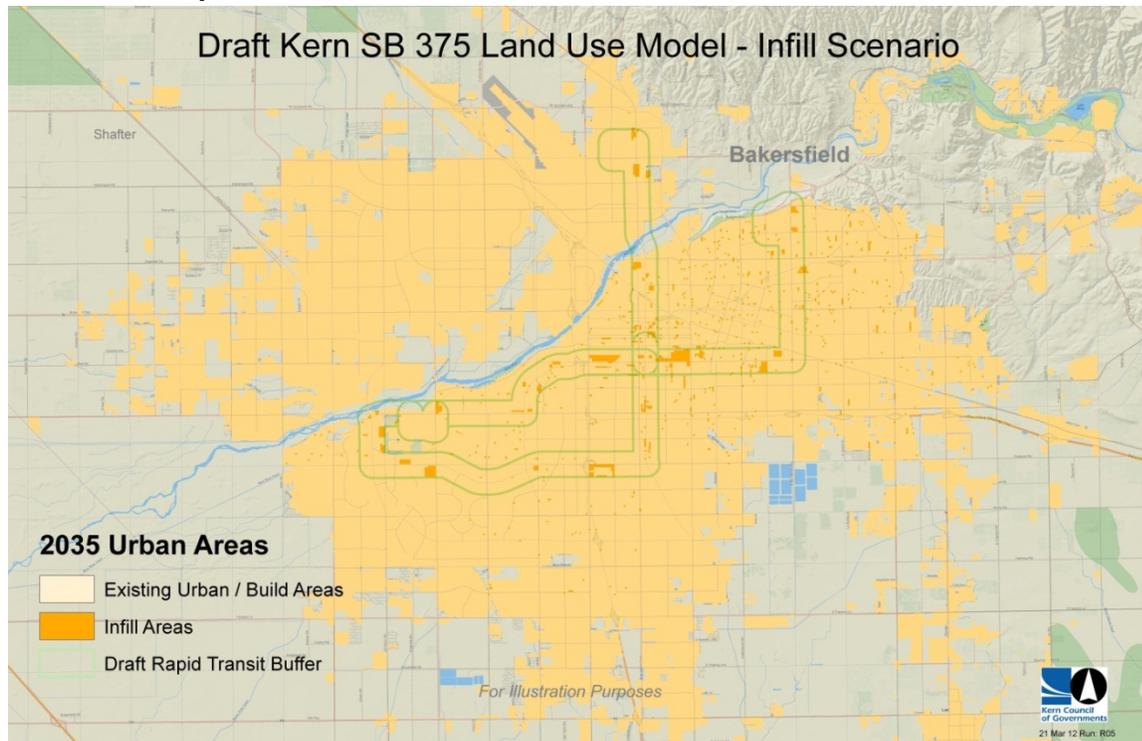
Based on M18v4 land use, Urban11b layer, and the current travel model.

**Summary of Results: Scenario is 16.2% above the Kern target of 13.31 lbs/capita**

Indicator or Measure	Scenario	vs 2035 Adjusted Base*
Households per Acre (Growth Only)	4.08	- 56.2 %
Public Transit Boarding's	27,189	12.2 %
SB 375 CO2/Capita	15.88	- 0.4 %
Total VMT/Weekday (miles, in thousands)	40,464	- 0.4 %
Total SB 375 VMT (-xx,-50% ixxi,-50% military)	26,591	- 6.7 %

\* Based on M24 land use

**Reference Map/Table:**



# Scenario Detail Sheet

*For Discussion Purposes Only*

**Scenario Title:** Rebalance – 1b. Housing/Employment/Enrollment Ratios

**Status as of June 19, 2012:** Initial test run

**Scenario Description and Assumptions:**

The rebalance scenario is a post model adjustment to the land use model run M24 ratio of employees, households, and enrollment data at the Transportation Analysis Zone level. .

**Summary of Inputs:**

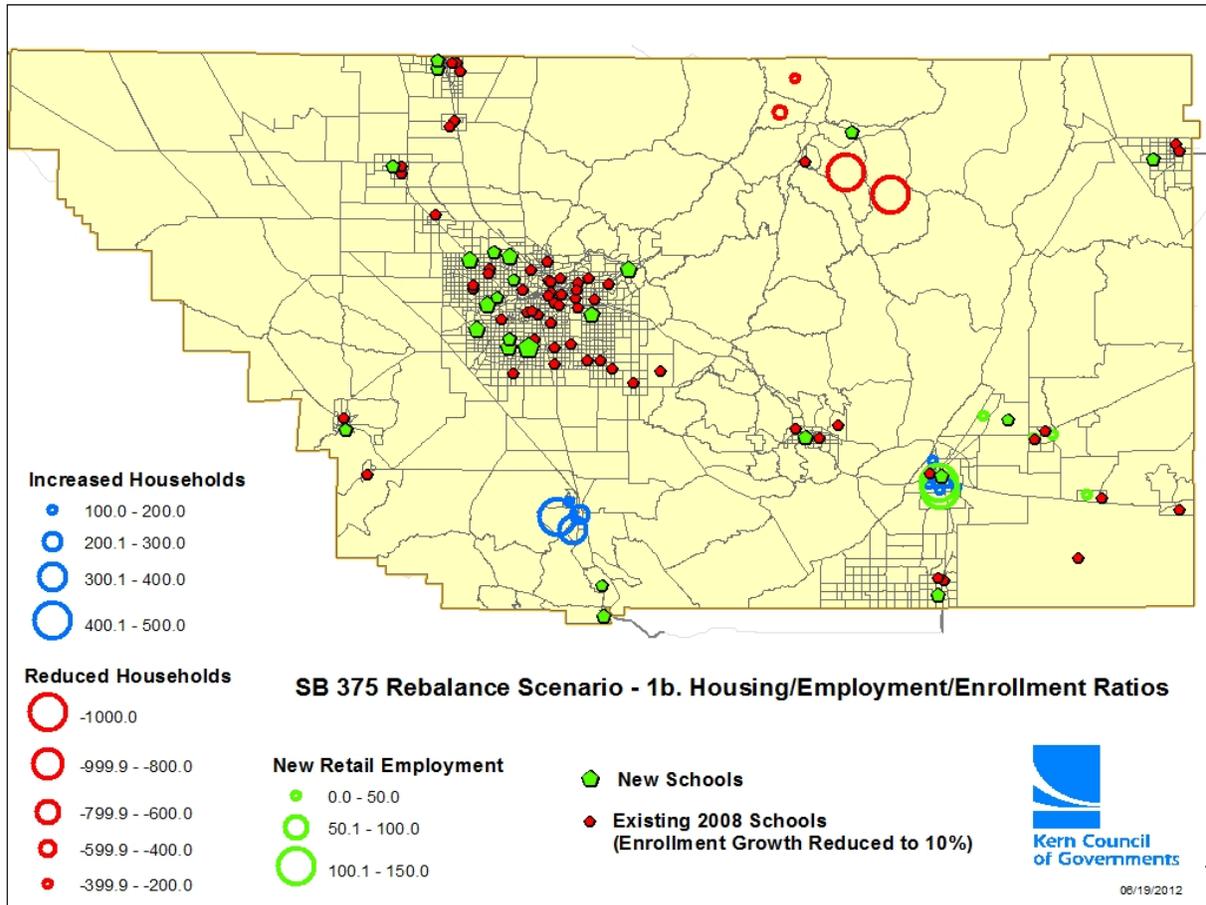
Based on the M24 land use model. Summary of post model adjustments: increased retail employment to balance employment types in Mojave area; assigned housing growth in residential uses around Mojave and San Emido to balance jobs/housing ratio; decreased housing growth in Isabella; rebalanced enrollment growth to match household growth distribution.

**Summary of Results: Scenario is 16.1% above the Kern target of 13.31 lbs/capita**

Indicator or Measure	Scenario	vs 2035 Adjusted Base*
SB 375 CO2/Capita	15.86	- 1.17 %
Total PV VMT/Weekday (miles, in thousands)	40,385	- 0.94 %
Total SB 375 VMT (-xx,-50% ixxi,-50%military)	26,518	- 1.36 %

\* Based on M24 land use

**Reference Map/Table:**



# Scenario Detail Sheet

*For Discussion Purposes Only*

**Scenario Title:** Increased Density 1c. Housing Demand Shift (Run N26)

**Status as of June 20, 2012:** Draft Model

**Scenario Description and Assumptions:**

Modified distribution of residential demand between High, Medium, Low and Very Low from the Base Case to ratios used for the Kern Regional Blueprint Alternative Scenario. This shifted approximately 10-15% from residential low to medium and high. Some growth was limited to remain constrained by General Plans.

**Summary of Inputs:**

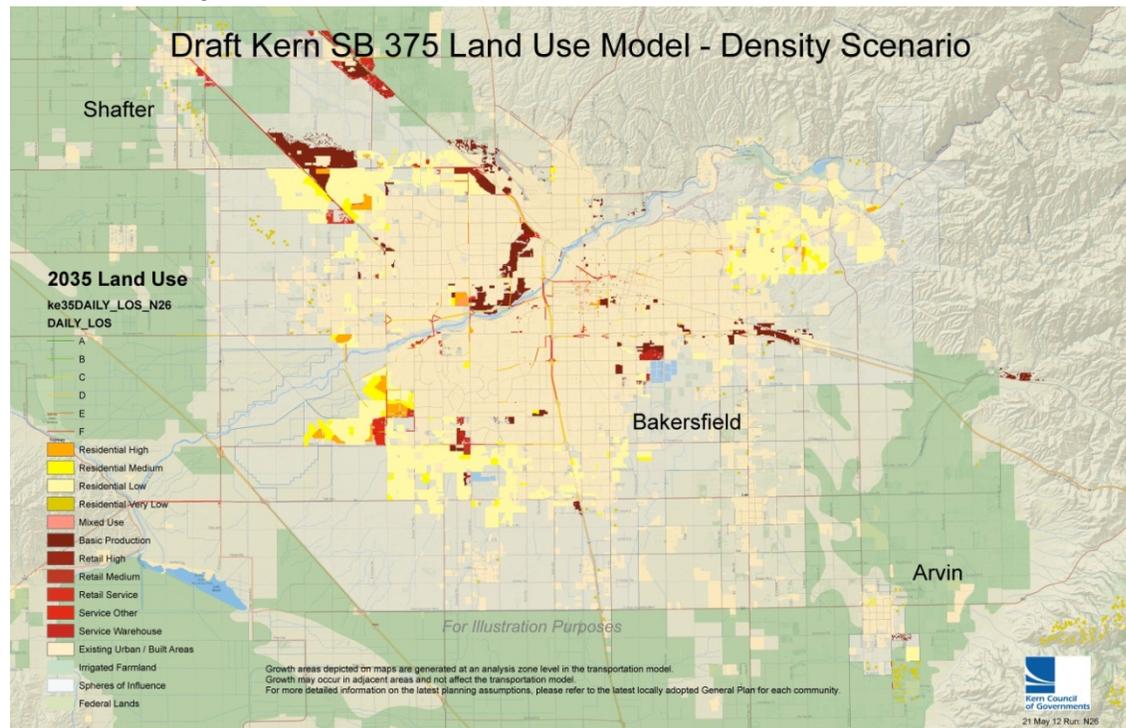
This scenario uses the urban built area developed for the Infill Scenario that allowed growth in the Rapid Bus Corridor. The scenario was run using the current transportation model.

**Summary of Results: Scenario is 16.7% above the Kern target of 13.31 lbs/capita**

Indicator or Measure	Scenario	vs 2035 Adjusted Base*
Households per Acre (Growth Only)	4.12	+ 22.4%
Public Transit Boarding's		
SB 375 CO2/Capita	15.99	- 0.39 %
Total VMT/Weekday (miles, in thousands)	40,600	- 0.42 %
Total SB 375 VMT (-xx,-50% ixxi,-50% military)	26,744	- 0.52 %

\* Based on M24 land use

**Reference Map/Table:**



# Scenario Detail Sheet

For Discussion Purposes Only

**Scenario Title:** Road Projects - 2a. Add HOV Lanes

**Status as of June 7, 2012:** Initial test run

## Scenario Description and Assumptions:

The HOV/BRT scenario applies recommended changes to the transportation model based on the HOV/BRT study. The larger scale recommendations can be seen in the map.

## Summary of Inputs:

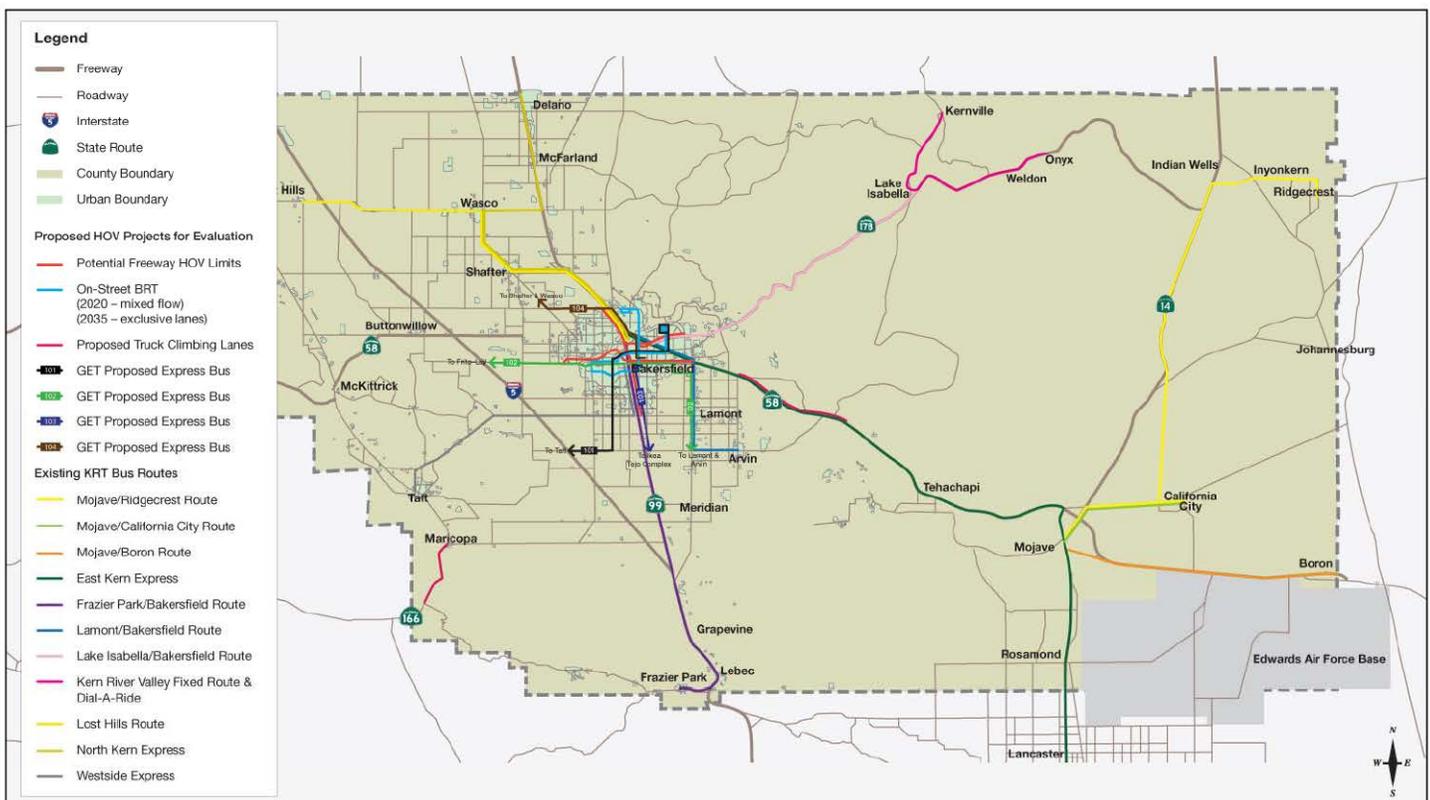
Adjustments to the transportation model network. Based on the M24 land use model outputs and the Long Range Transit Plan.

## Summary of Results: Scenario is 17.1% above the Kern target of 13.31 lbs/capita

Indicator or Measure	Scenario	vs 2035 Adjusted Base*
Households per Acre (Growth)		-
Public Transit Boarding's	38,599	-
SB 375 CO2/Capita	16.05	-
Total PV VMT/Weekday (miles, in thousands)	40,681	-
Total SB 375 VMT (-xx,-50% ixxi,-50%military)	26,906	-

\* Based on M24 land use

## Reference Map/Table:



# Scenario Detail Sheet

*For Discussion Purposes Only*

**Scenario Title:** Road Projects - 2c.Add/Reduce Roadway Lanes (Hageman Flyover)

**Status as of June 20, 2012:** Initial test run

**Scenario Description and Assumptions:**

This scenario reduces 1 lane each direction on Hageman Flyover from Knudsen to SR 204.

**Summary of Inputs:**

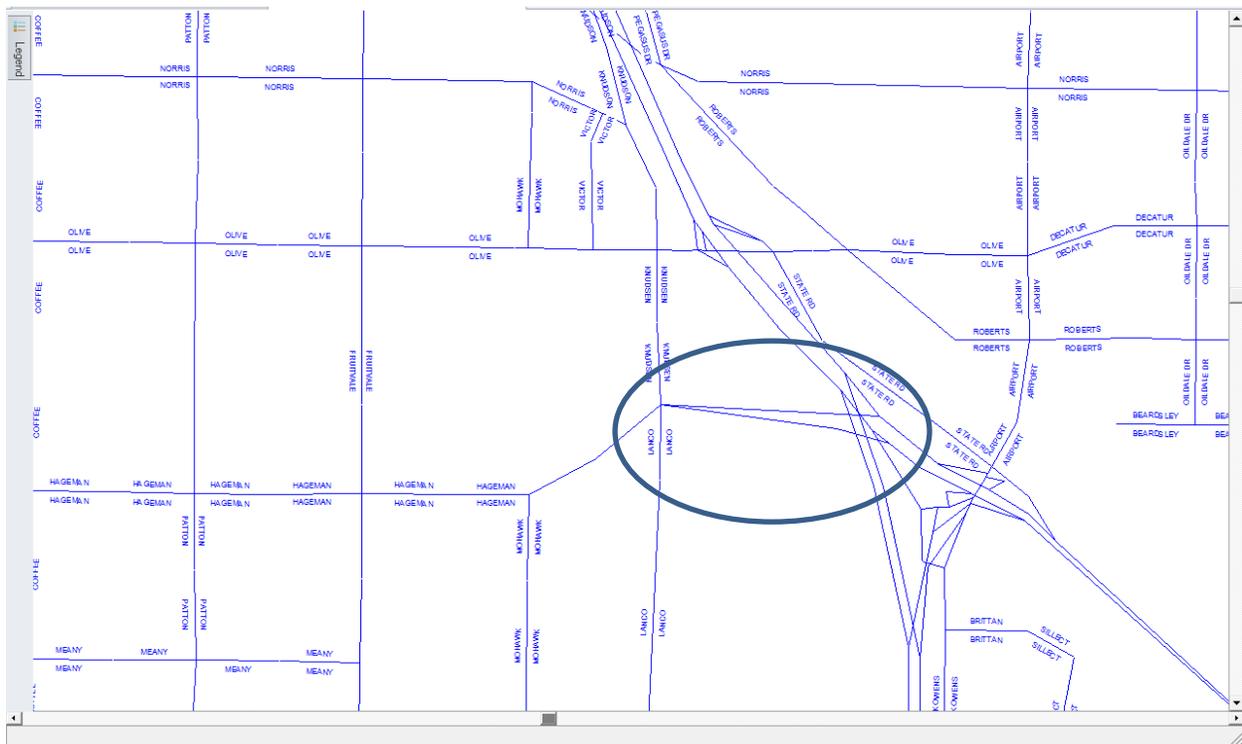
Based on the M24 land use and adding lanes to the Hageman Flyover to the current travel.

**Summary of Results: Scenario is 17.1 % above the Kern target of 13.31 lbs/capita**

Indicator or Measure	Scenario	vs 2035 Adjusted Base*
Households per Acre (Growth)	3.36	-
Public Transit Boarding's	-	-
SB 375 CO2/Capita	16.05	- 0.0 %
Total VMT/Weekday (miles, in thousands)	40,770	- 0.0 %
Total SB 375 VMT (-xx,-50% ixxi,-50%military)	26,883	- 0.0 %

\* Based on M24 land use

**Reference Map/Table:**



# Scenario Detail Sheet

For Discussion Purposes Only

**Scenario Title:** Short Term Transit – 3b. Increase Service + 3c. Accessibility

**Status as of June 20, 2012:** Initial test run

**Scenario Description and Assumptions:**

This scenario is based on the Metro Bakersfield Short Range Transit Plan.

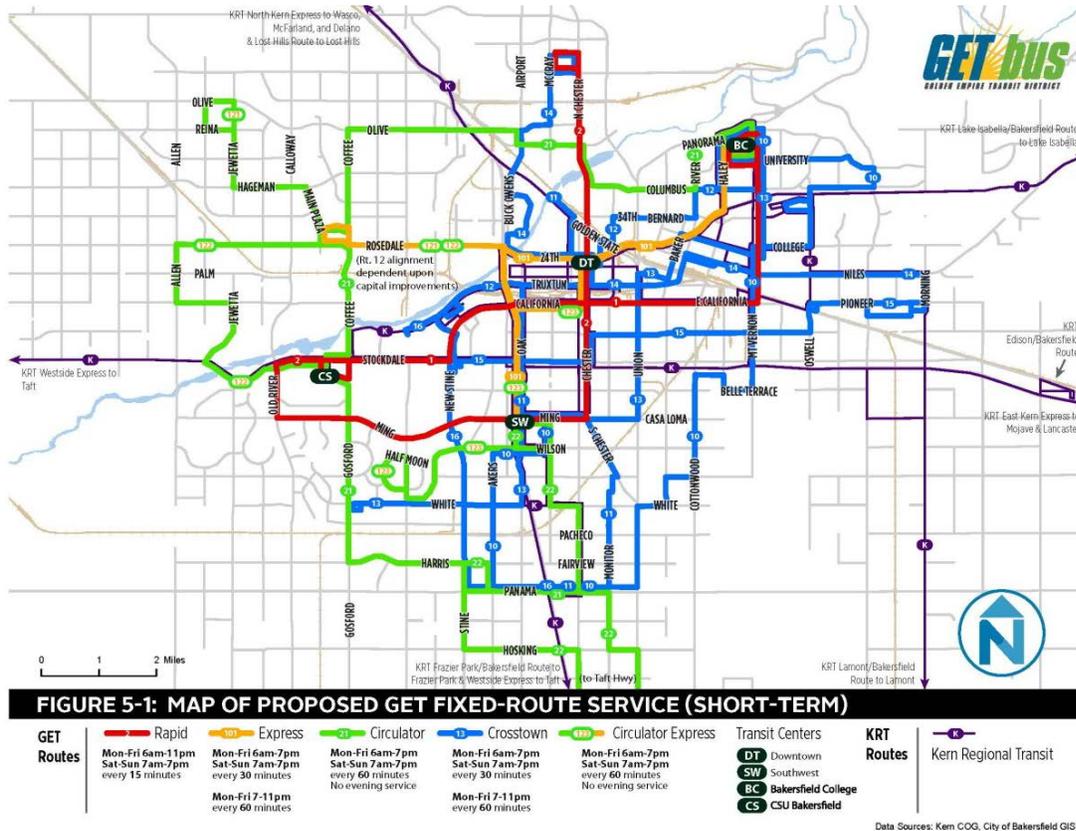
**Summary of Inputs:**

Based on the M24 land use and the 2035 transportation network with Short Range Transit Plan.

**Summary of Results:** Scenario is --.% above the Kern target of 13.31 lbs/capita

Indicator or Measure	Scenario	vs 2035 Adjusted Base*
Households per Acre (Growth)		-
Public Transit Boardings	23,986	-
SB 375 CO2/Capita	16.05	-
Total PV VMT/Weekday (miles, in thousands)	40,768	-
Total SB 375 VMT (-xx,-50% ixxi,-50% military)	26,881	-

**Reference Map/Table:**



# Scenario Detail Sheet

For Discussion Purposes Only

**Scenario Title:** Combined Transit – 3b. Increase Service and 3d. Accessibility

**Status as of May 17, 2012:** Initial test run

**Scenario Description and Assumptions:**

..

## Summary of Inputs:

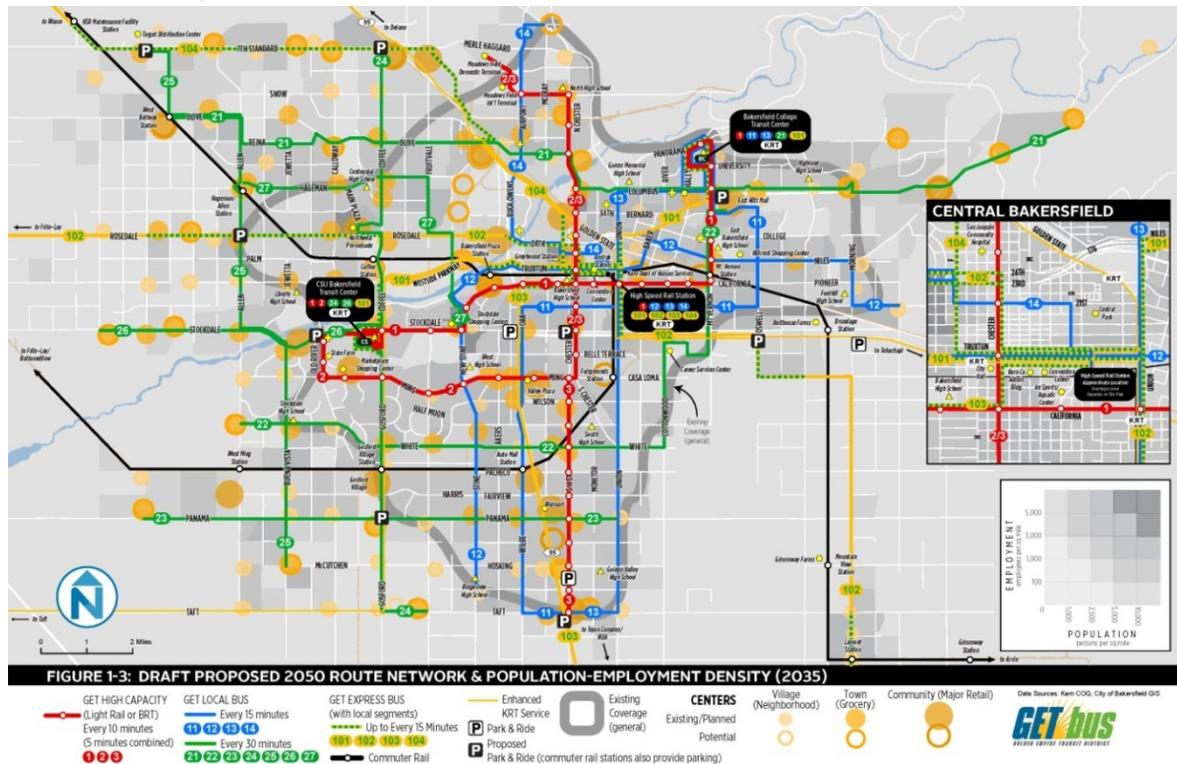
Improved transit network includes increase service to outlying areas and greater frequency. Based on Base M24 land use, Long Range Transit network and the current travel model.

## Summary of Results:

Indicator or Measure	Scenario	vs 2035 Adjusted Base*
Households per Acre (Growth)	2.61	0.0%
Public Transit Boarding's	55,021	104.8%
SB 375 CO2/Capita	15.22	- 4.6%
Total VMT/Weekday (miles, in thousands)	40,456	- 0.1%
Total SB 375 VMT (-xx,-50% icxi,-50%military)	26,573	- 0.6%

\* Based on M24 land use

## Reference Map/Table:



# Scenario Detail Sheet

*For Discussion Purposes Only*

**Scenario Title:** Pricing – 4c. Downtown Parking Cost

**Status as of June 20, 2012:** Initial test run

**Scenario Description and Assumptions:**

The downtown parking cost scenario applies a \$3 parking cost to 33 TAZ's in Downtown Bakersfield. The \$3 parking cost was determined to be the most aggressive and possibly achievable pricing scenario through discussions at the Kern Transportation Modeling Committee, and discussions with the City of Bakersfield.

**Summary of Inputs:**

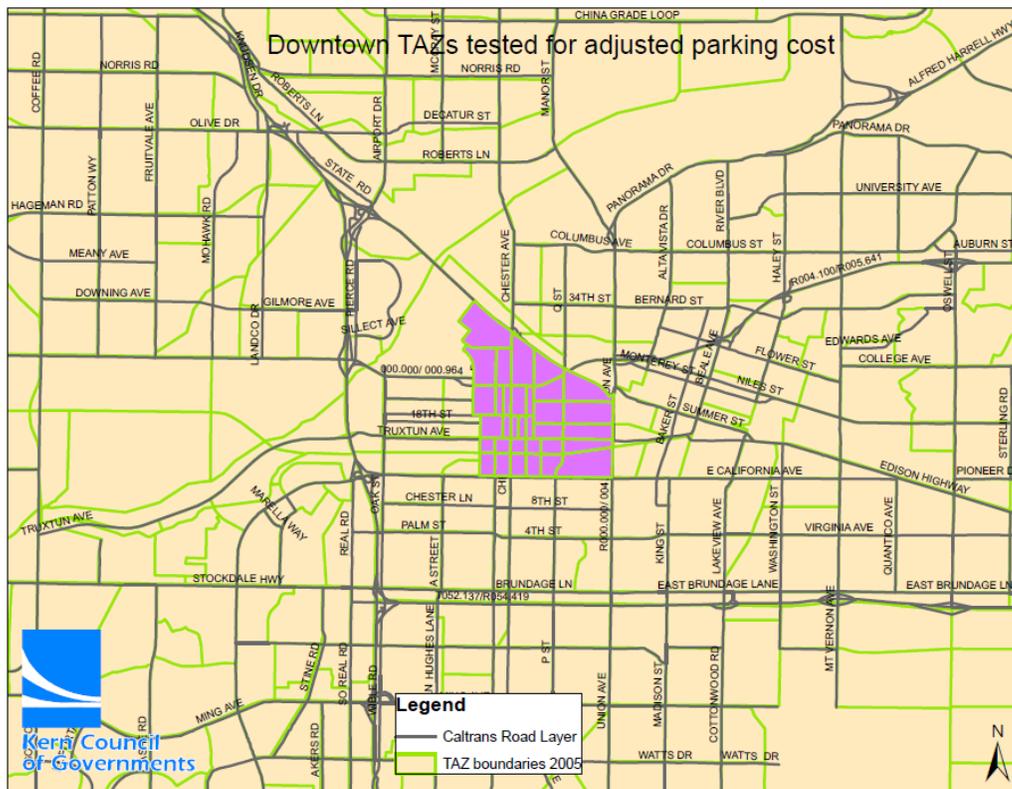
Parking Cost: increased from \$0 to \$3 in downtown Bakersfield, see map.  
Based on the M24 land use and the Long Range Transit travel model.

**Summary of Results: Scenario is 17.1% above the Kern target of 13.31 lbs/capita**

Indicator or Measure	Scenario	vs 2035 Adjusted Base*
Households per Acre (Growth)		-
Public Transit Boarding's	27,142	- 0 %
SB 375 CO2/Capita	16.05	- 0 %
Total PV VMT/Weekday (miles, in thousands)	40,762	- 0.1 %
Total SB 375 VMT (-xx,-50% ixxi,-50%military)	26,875	- 0.02%

\* Based on M24 land use

**Reference Map/Table:**



# Scenario Detail Sheet

*For Discussion Purposes Only*

**Scenario Title:** Combined - 1d Improve Walkability + 5b Improve Biking

**Status as of June 7, 2012:** Draft

**Scenario Description and Assumptions:**

The Bike Plan scenario reduces traffic based on recommendations from consultants Kittelson Associates/Dowling. Auto trips were reduced by 5% for AM Peak and PM Peak for Drive Alone and Shared Ride trips

**Summary of Inputs:**

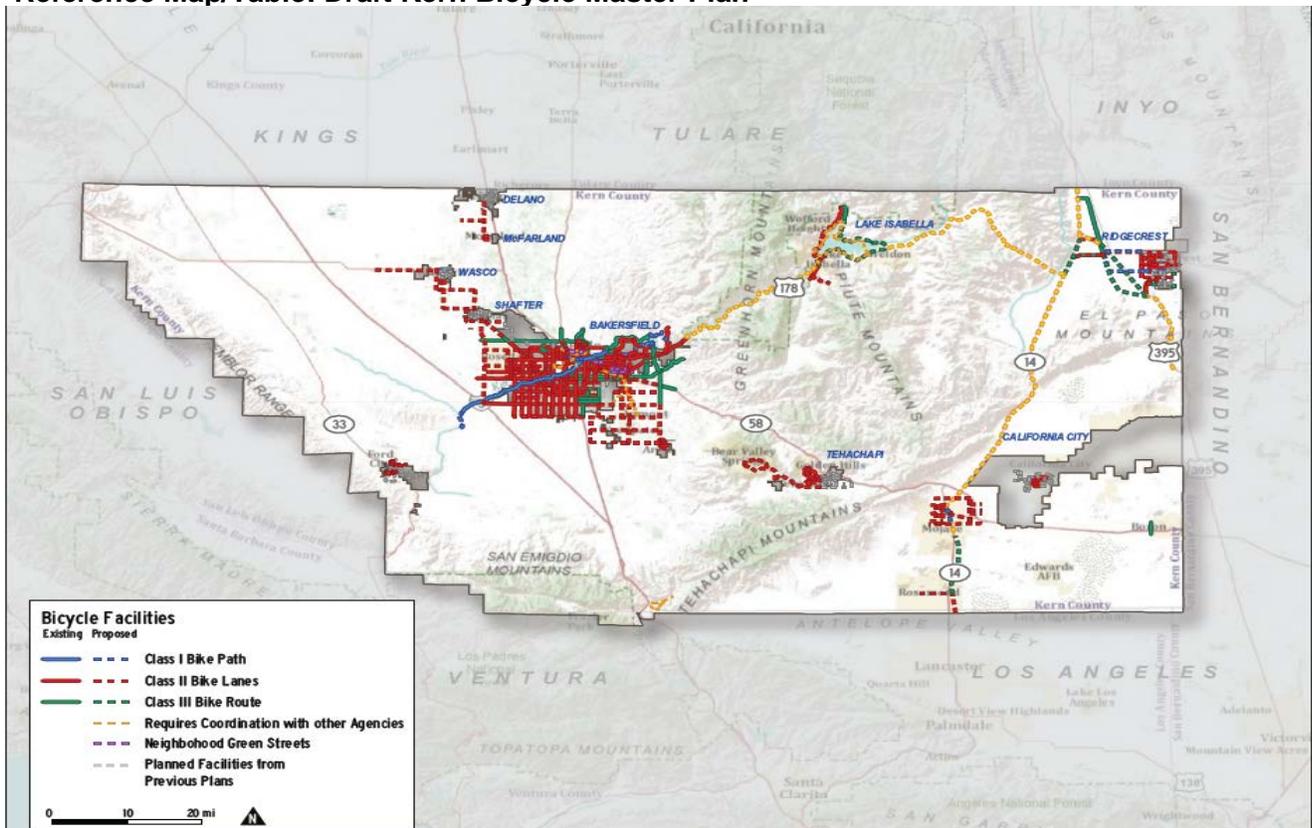
Based on the M24 land use and current travel model with adjusted auto trips.

**Summary of Results: Scenario is 15.2% above the Kern target of 13.31 lbs/capita**

Indicator or Measure	Scenario	vs 2035 Adjusted Base*
Households per Acre (Growth)		-
Public Transit Boarding's	-	-
SB 375 CO2/Capita	15.7	- 2.18 %
Total PV VMT/Weekday (miles, in thousands)	39,949	- 4.3 %
Total SB 375 VMT (-xx,-50% ixxi,-50%military)	26,302	- 5.3 %

\* Based on M24 land use

**Reference Map/Table: Draft Kern Bicycle Master Plan**



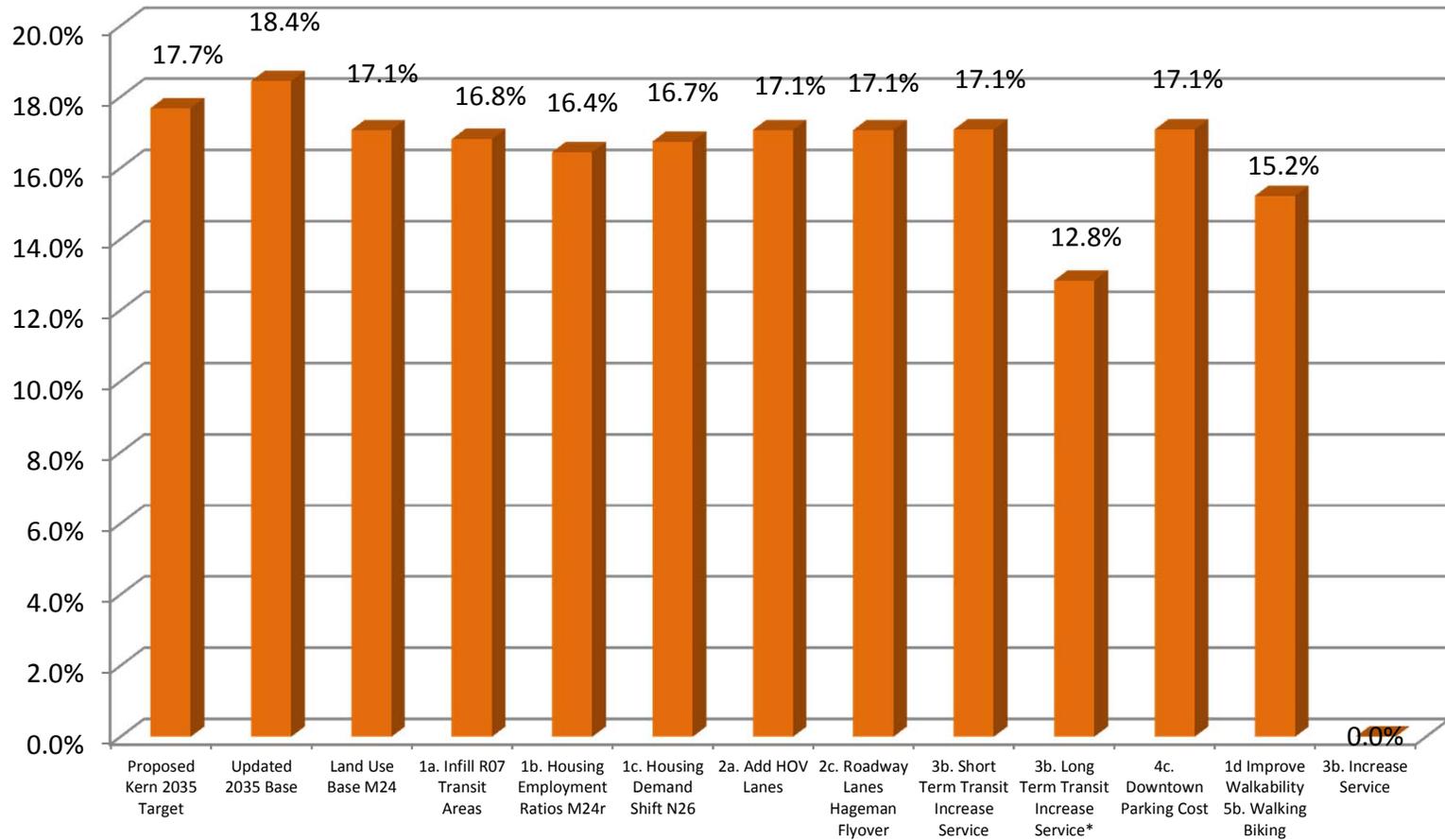
## **Attachment 3**

SCS Scenario Graph – June 2012

# Kern Draft Scenarios vs ARB Target

Percentage Above the Target (13.31 lbs/Cap.)

■ CO2 lbs/Cap





June 27, 2012

TO: Kern Regional Transportation Modeling Committee (TMC)

FROM: Ahron Hakimi  
Executive Director

BY: Rob Ball, Director of Planning

SUBJECT: TMC AGENDA ITEM: V  
Revised 2014 RTP/SCS Development Timeline

DESCRIPTION:

In August 2011 Kern COG staff provided a revised timeline for implementing new climate change regulations including the development of the Sustainable Communities Strategy (SCS). This update must comply with AB 32 and SB 375 climate change regulations and affects local general plan housing element adoption timelines. 2014 RTP adoption is scheduled for October 2013.

DISCUSSION:

The RTP is the long range, 20 year plan of transportation projects in the region. The new climate change regulation, SB 375, requires the RTP to contain a Sustainable Communities Strategy for reducing climate change emissions from vehicle travel. Regulations also require that the same forecast assumptions are used for the RTP, Regional Housing Needs Allocation, and local Housing Elements.

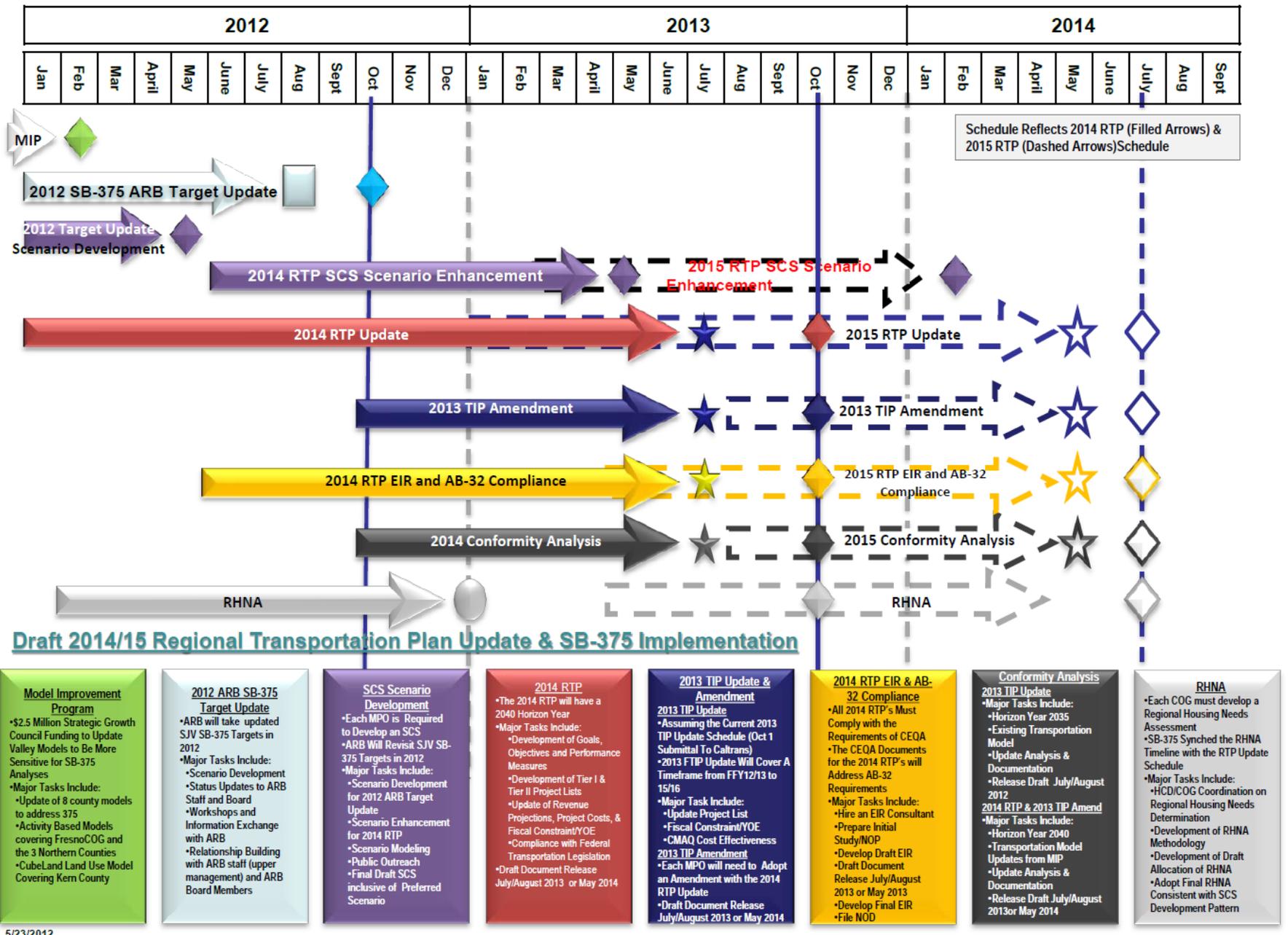
Key updates include status as of August 1, 2011, addition of the newly formed Regional Planning Advisory Committee, and Incorporation of Work Element numbers from the Kern COG Overall Work Program (OWP). Some of the tasks have slipped, however the critical paths has not been affected.

In addition, SB 375 requires that local government general plan housing elements be adopted 18 months after the adoption of the Regional Transportation Plan and the Regional Housing Needs Allocation (RHNA). This timeline requires local governments to update their housing elements by April 2015. The draft timeline is attached. The RHNA document, a required component of local housing elements, is Task 3.6.

ACTION: Information

Attachments:

- A. Draft 2014/15 RTP Update and SB 375 Implementation
- B. RHNA Timeline from HCD



5/23/2012

Enter COG/MPO Name		COG/MPO on 4 year RTP	
	Key Tasks Outline	Government Code	Date
A	<b>Enter Planned RTP Adoption Date: MM/DD/YYYY</b>	<b>10/17/2013</b>	
B	COG Notifies HCD & Caltrans of RTP Adoption Date	65588(e)(5)	10/16/2012
C	Housing Element Due Date (within 18 mos. of RTP adoption)	65588(e)(2)	<b>4/19/2015</b>
D	HCD issues RHNA Determination	65584 (b) & (c) 65584.02(a)(1)	4/17/2013
E	COG issues proposed RHNA methodology	65584.04(a)	4/17/2013
F	COG adopts RHNA Methodology	65584.04 (h)	6/17/2013
G	COG issues DRAFT Allocation of RHNA	65584.05 (a)	9/17/2013
H	COG/MPO releases DRAFT RTP w/SCS accommodating RHNA	65080(b)(2)(F)(iv)	8/22/2013
I	Local jurisdictions may request revision of Draft RHNA Allocations	65584.05 (b)	11/16/2013
J	COG accepts, modifies or rejects the local jurisdiction's revision request	65584.05 (c)	1/15/2014
K	Jurisdictions may APPEAL (revised)	65584.05 (d) & (e)	3/15/2014
L	COG responds TO APPEALS of Draft RHNA and holds concurrent hearings	65584.05 (e)	3/15/2014
M	COG issues proposed FINAL RHNA Plan concurrent with Response	65584.05 (f) & (h)	5/14/2014
N	COG adopts Final RHNA (consistent w/SCS development pattern ), either: (a) upon completion of request for revisions if none received, OR	65584.05 (h)	11/19/2013
	(b) within 45 days after "T" AND		6/28/2014
	at least one year prior to H.E. due date (Row 'E')	65584 (b)	4/18/2014
O	HCD review/approval of Final RHNA Plan within 60 days of adoption	65584.05(h) (a)	1/18/2014
	(a) is the date if adopted without revisions & appeals, and (b) is the date if adopted after revisions/appeals	(b)	8/27/2014