



Strategic Planning Committee

January 4, 2016

Certify and Adopt Final Report for Strategic Growth Council Grant

Issue: Should the Board adopt and certify SACOG's SGC Round 2 grant final report?

Recommendation: That the Strategic Planning Committee recommend that the Board certify and adopt the final report for the SGC 2 grant to accompany the final grant invoice.

Discussion: In 2012, SACOG received a grant of \$897,821 from the Round 2 Sustainable Communities Planning Grant Program of the State of California Strategic Growth Council (SGC). The purpose of the SGC program was to provide "planning grants and planning incentives that reduce energy consumption, conserve water, improve air quality, and provide other community benefits."

SACOG's proposal for the grant was to help SACOG and its member cities and counties take full advantage of the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the planning foundation of the Regional Blueprint project, and Rural Urban Connections Strategy (RUCS). The grant activities are summarized in Attachment A.

Final grant work was completed in November 2015, and staff has been preparing the final documentation to submit to the SGC with the final invoice. The grant closure process requires that SACOG prepare a brief final report responding to four questions that is adopted and certified by SACOG's governing body. The draft final report and Board resolution are attached (Attachments B and C); the many final grant deliverables may be found on the SACOG website at <http://www.sacog.org/projects/sgc2>.

Over the past three years, staff has made presentations as part of updates on different topic areas at the committee level on most of the grant-supported work, including activities related to RUCS, health and infill, the SCS Information Center, Regional Climate Action Plan, transportation modeling and complete streets. If desired by the Board, staff could also make a final summary presentation on the grant activities and findings in early 2016 at the board or committee level.

Approved by:

Mike McKeever
Chief Executive Officer

MM:GC:le
Attachments

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Implementing the MTP/SCS: A Rural and Urban Approach

Executive Summary

The Sacramento Area Council of Governments is scheduled in April 2012 to adopt the region's first Metropolitan Transportation Plan (MTP) with a Sustainable Communities Strategy (SCS). The SCS builds on a decade of collecting data, building technical tools, engaging residents and elected officials, and creating a comprehensive vision for the Sacramento region. This grant would help SACOG and its cities and counties take full advantage of the SCS and the planning foundation in the Regional Blueprint Strategy, MTP, and Rural-Urban Connections Strategy. Other regions around the state will be able to either use or learn from all of the activities funded by this grant. This project will help implement the MTP/SCS through new work to:

- Support and promote rural economic development and address food deserts.
- Provide regional guidance to address health risks from residential infill near high-volume roadways.
- Create a regional Climate Action Plan with more specific GHG reduction strategies for land use and transportation.
- Provide local governments and SACOG with enhanced SCS information, technical tools and performance measures for better decision-making.
- Support continuously updated data on planning and development activity in the region for future MTP/SCS cycles.
- Expand analytical and planning tools for more complete streets in the region.

Project Components

A: Rural-Urban Connections Strategy Activities[†]

- (1) Develop case studies in three communities and toolkit for enhancing the viability of agriculture and supporting local agricultural infrastructure in rural communities
- (2) Create food access strategies for addressing food deserts identified in disadvantaged communities in the region.
- (3) Design a scope of work for developing a regional open space plan.

B: Infill and Health-Related Activities[†]

- (1) Develop regional guidance for residential infill development to maximize health benefits and minimize health risks, working with local jurisdictions, air quality, public health, equity, affordable housing and infill experts and stakeholders, and
- (2) Develop more health-related performance measures for use in MTP/SCS development and implementation.

C: Climate Action Plan[†]

Create a regional climate action plan for the land use and transportation sectors, including a base greenhouse gas (GHG) inventory, identification of climate risks, identification and quantification of GHG mitigation measures, potential impacts and adaptation strategies, and setting of regional GHG reduction targets.

D: PECAS Integrated Land Use/Transportation Economic Model[†]

- (1) Complete technical development of the Production-Exchange-Consumption-Allocation System (PECAS), a micro-economic land use model for use in developing and evaluating future growth scenarios, and expanding capacity to assess MTP/SCS impacts on regional economic metrics, including impacts on Economically Disadvantaged Communities.
- (2) Work with local agencies to determine an appropriate role for PECAS in the next regional growth allocation process

E: SCS Information Center[†]

Develop a web-based information system that will provide SACOG members with detailed information developed in SACOG's state-of-the-art travel forecasting system to help align local planning with the SCS and provide a means for local governments to provide SACOG with continuously updated information on regional planning and building for use in future MTP/SCS updates.

F: Complete Streets and Parking Standards[†]

Expand tools and local guidance for addressing parking standards and complete streets in different contexts in the region, including through road maintenance and rehabilitation projects and approaching streets as vital public spaces.

[†] regional benefit/applicability

[‡] statewide benefit/applicability

**SGC 2 Final Report – Sacramento Area Council of Governments
3014-622**

**SACOG Strategic Growth Council Sustainable Communities Planning Grant Round 2
Final Report: Responses to Four SGC Questions**

(a) What local plans within the region reflect the goals and sustainability objectives outlined in the regional planning documents Sustainable Communities Strategy (SCS) developed by the MPO?

These six principles adopted by the SACOG Board of Directors guide SACOG’s Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS):

Smart Land Use: Design a transportation system to support good growth patterns, including increased housing and transportation options, focusing more growth inward and improving the economic viability of rural areas.

Environmental Quality and Sustainability: Minimize direct and indirect transportation impacts on the environment for cleaner air and natural resource protection.

Financial Stewardship: Manage resources for a transportation system that delivers cost-effective results and is feasible to construct and maintain.

Economic Vitality: Efficiently connect people to jobs and get goods to market.

Access and Mobility: Improve opportunities for businesses and citizens to easily access goods, jobs, services and housing.

Equity and Choice: Provide real, viable travel choices for all people throughout our diverse region.

At any given time, SACOG’s 28 member cities and counties are developing or updating their local planning documents, including general plans, specific or neighborhood plans, plans related to infrastructure, transit, roadways, bicycle and pedestrian improvements, housing, infill development, economic development, climate adaptation, habitat conservation, etc. There is significant interplay between these local plans and the MTP/SCS. Throughout the development of the regional plan, SACOG meets with staff from each member jurisdiction on incorporating the most recent local plans and policies into SACOG’s regional land use and transportation assumptions. At the same time, because the housing and employment capacity in local general plans significantly exceeds growth projections for the region, SACOG assesses where/how growth is most likely to occur to develop the land use pattern and transportation project list included in the MTP/SCS.

All of the general plans adopted in the last 10 years are in alignment with the MTP/SCS. For example, Yuba County’s 2030 General Plan redesignated 10,000 acres from urban to agricultural use, bringing it into substantial alignment with the MTP/SCS. Similarly, the City of Sacramento’s 2035 General Plan is built on a foundation of the MTP/SCS housing and employment forecast. All jurisdictions were required to update the housing element of their general plans to reflect the most recent Regional Housing Needs Assessment (RHNA), which is aligned with the SCS; with one exception, all are in compliance with state requirements.

Other local plans are in varying states of reflecting the goals and objectives of the MTP/SCS. Many jurisdictions have or are seeking to align local planning documents with the MTP/SCS. For example, local plans in the grant case study area of Western Yolo County reflect well the sustainability objectives of the MTP/SCS and the SACOG Blueprint principles, particularly those concerning natural resource conservation. Conservation of agricultural land is a key local objective in the area, exemplified by Yolo County's General Plan, which expressly identifies agriculture to be "supported, sustained, reinvented, and diversified." Further local plans that support the agricultural conservation goals of the SCS include the County's Agricultural Conservation Easement Program, and the City of Davis' Measure J, which requires voter approval for certain changes to land use designations. Likewise, SACOG's case study found local plans and policies in support of other sustainability goals, such as the use of existing assets, quality design and mixed-use development. For example, the form-based code for the City of Winters' downtown encourages design and development that complements the existing built environment, with reduced parking requirements and minimal building setbacks.

(b) What local plans do not yet reflect the MPO's regional planning (e.g.: SCS) objectives?

Cities and counties across the region are working on local plan development or updates, and efforts to implement shared sustainability objectives. Several cities, including Elk Grove, West Sacramento and Woodland, are currently undertaking full updates of their General Plans. Elk Grove is also undertaking a comprehensive analysis of its public transit system to meet current and future needs, and has asked for SACOG technical and modeling help with these efforts.

In the Western Yolo case study area, the City of Winters' General Plan was last updated in 1992, but the area has experienced numerous changes, such as increased agritourism and bicycle tourism to name a few, that affect how people use the transportation system. While the local plan does in fact significantly align with principles of both plans, Winters' General Plan predates the sustainability objectives of the region's MTP/SCS and the regional Blueprint, as do a number of older local general plans, multi-phase transportation or infrastructure project plans, specific plans and entitlements that were approved years ago. More work can likely be done to support SACOG's member agencies in updating and aligning older local plans to Blueprint and SCS sustainability principles.

(c) What are the issues/barriers that may have arisen to make it difficult to implement the sustainability goals at the local level? Indicate a plan to overcome those barriers.

A key barrier for many local communities in updating plans and implementing sustainability goals was the recession and its aftermath in the SACOG region. The major downturn in the economy, housing market, and employment across the region made it extremely challenging for many local jurisdictions to continue or undertake robust planning and sustainability efforts. That is still the case for some localities, even with the recovering economy. Smaller rural and less affluent jurisdictions in particular often lack the staff and financial resources to update plans and policies as they would like. Other significant issues for localities have been the state's termination of redevelopment; the loss of most affordable housing subsidies; older infrastructure that requires significant maintenance, rehabilitation or upgrades; ongoing challenges in disadvantaged communities; and the uncertainty surrounding the focus and amounts of federal and state transportation and other funding.

In recognition of these challenges, SACOG has increasingly focused on support, technical assistance, and shared services for jurisdictions on planning and implementation of the MTP/SCS and sustainability goals. Examples include:

- SACOG’s RUCS program seeks to provide robust data and analysis on agriculture, natural resource conservation, rural community vitality and other rural planning issues to provide a complement to urban planning activities, and rural-urban connections related to food production and transportation access. The case study and food desert work conducted through this SGC grant includes detailed information to help inform the planning process. Already Yolo County and the City of Winters are convening around the case study as an impetus to bring further focus and direction in implementing important rural sustainability goals.

Outreach was an integral component of the success of the RUCS Case Study. During the course of the project work, SACOG, the Local Government Commission, and Civilis Consultants met with business leaders, elected officials, farmers and residents in a tour of downtown Esparto and Winters. The team held multiple small format group interviews with owners, businesses and residents, and held a presentation of findings in both Esparto and Winters. The appendices of the case study describe in more depth the extent of these outreach activities. Likewise, project staff engaged county and city staff and stakeholders in data collection and data review. The City of Winters and Yolo County are continuing the outreach component of the project past the end of grant-funded activities, with key organizing on how to leverage agricultural and small town viability as a form of rural sustainability. This grant-funded work leverages over a million dollars of SACOG Community Design funding in these communities, awarded to build the necessary public infrastructure to support the walkable downtown development enabled by Winter’s form-based code and Yolo County’s zoning for Esparto. This study developed a set of strategies, including for outreach, for these types of sustainable rural community and economic revitalization, and as such, serves as a case study of how to tailor such strategies to the unique strengths and opportunities of a place.

- SACOG is also exploring joint procurement of planning services for multiple jurisdictions. We are currently conducting a survey of our member cities and counties and their planning needs to help guide shared planning services procurement efforts.
- As part of the 2016 update of its MTP/SCS, SACOG has initiated several efforts to remove barriers to implementing sustainability goals. SACOG began a program of research on first tier or “mature suburbs” in the region, focused on areas where market economics may not yet be fully ripe for infill development and revitalization. As underscored in the 2016 MTP/SCS, a fix-it-first transportation investment strategy is also critical to sustainable growth in the region. SACOG is also pursuing opportunities to leverage complete streets, road rehabilitation and greenhouse gas reduction funding in support of the infill and redevelopment needed to achieve sustainability goals. SACOG is developing transportation project-level decision support tools to enable increases in the road and transit maintenance budget for future MTP/SCS updates. This work involves analyzing the effectiveness of transportation projects at achieving transportation and air quality benefits.
- SACOG is also implementing its recently adopted climate adaptation plan: this year begins a climate change vulnerability assessment and risk analysis on the region’s transportation network.
- SACOG’s collaboration with Portland State University’s Urban Sustainability Accelerator (USA) Program and Center for Public Interest Design (CPID), in part supported by our 3rd round SGC grant, has been providing technical assistance to local communities. This technical assistance has focused on a number of planning and implementation efforts for infill and revitalization of centers, corridors, older suburbs, and disadvantaged communities, and improved access and

mobility through transportation and complete street improvements. However, there is significantly more that could be done with more time and resources.

(d) Discuss the progress to date on the goals measured by the indicators outlined in the grant application. The indicators can include process goals, such as numbers of meetings or the extent of outreach efforts, as well as specific metrics such as reduced VMT or additional miles of bike lanes. Any indicators that cannot be measured at the time the annual report is due (because the project has not matured to the point that the indicator is meaningful). The report should include a statement as to why a particular indicator is not yet measurable, and indicate a plan to overcome those barriers.

The attached table compares the indicators outlined in the grant application with progress on these measures to be achieved through implementation of the 2016 updated MTP/SCS. Because of the region's slow recovery from the recession, regional growth estimates remained approximately the same for the 2036 end year of the 2016 MTP/SCS as for the 2035 end year of the MTP/SCS adopted in 2012, when the grant application was written. Many indicators are similar, showing progress remains on track concerning many land use, transportation, environmental, conservation, and other sustainability goals. Compared to the prior plan, non-auto mode share, VMT and congested VMT improve at a somewhat slower rate due to lower projected increases in fuel and auto operating costs, which discourage driving alone. There are also notable improvements, such as:

- greater anticipated growth in employment in infill areas, from a 29 and 33 percent increase to, respectively, an estimated 50 percent and 44 percent increase in Center/Corridor and Established Communities;
- more significant anticipated growth in bike infrastructure, from a 77 percent to a 123 percent increase in Class 1 and 2 lane miles; and
- 37 percent increase in regional accessibility, up from 31 percent.

Additionally, the climate analysis completed for the 2016 MTP/SCS (provided in Attachment A) shows greenhouse gas emission reductions for all sectors by 2036, with a continuing downward trend through 2050.

Certain indicators are not yet fully measurable. For example:

- While fuel price and vehicle fuel efficiency assumptions are used to develop the MTP/SCS, performance metrics for fuel consumption have not to date been assessed by SACOG. The expansion of electric vehicles in the market, periodic changes to fuel efficiency and CAFE standards, and changing consumer vehicle preferences can make it challenging to project fuel consumption over the 20-year period of the MTP/SCS. However, data on gasoline sales by county might be used to monitor changes in regional fuel consumption over time.
- SACOG has been seeking to create a meaningful measure of jobs-housing “fit,” namely whether, based on wages paid, workers are likely to find an affordable place to live within a short commute distance of their place of employment. However, as discussed starting on p. 31 of the public health measure summary provided as a grant deliverable, SACOG has tried numerous approaches but has not found a sound methodology due to data challenges. Staff continues to explore if there is another more promising methodology. The PECAS activity-based model, which SACOG has been moving ahead through SGC grant support, might potentially be used for this purpose, but additional funding support would be necessary for the technical work required.

- The RUCS project is continuing to develop regional crop maps and data to measure increases in local food production and land in food production. However, cropping patterns can be challenging to keep updated and to project over time, due both to data availability and changes in what farmers choose to grow due to production costs and market prices, water and labor availability, etc. Measuring and monitoring agricultural production and acreage continues to be a focus for SACOG through the RUCS program.
- Concern for communities without access to fresh, healthy, and affordable food, and associated public health problems, led to the recent focus on “food deserts.” The USDA generally considers a food desert a low-income community where one-third of its population or 500 residents live at least one mile from the nearest supermarket, supercenter, or large grocery store for urban tracts or 10 miles for rural tracts. In the Food Desert Phase II analysis provided as a deliverable for this grant, SACOG began to revise this definition to include smaller and ethnic stores that are also local sources of fresh foods, as well as to expand its work on assessing transportation options to the resulting larger set of fresh food outlets. SACOG plans to continue this work on refining our food desert assessment tools in order to develop more tailored approaches for addressing and measuring progress on food deserts in the region.

Table 1 - Progress on Grant Indicators and Outcomes

Program Objectives	Indicators (Data Point)	Application: Indicators and Outcomes	Progress to date: Changes with 2016 MTP/SCS implementation
Improve Air Quality and Water Quality	<ul style="list-style-type: none"> ✓ Vehicle miles traveled (VMT) per capita ✓ Drive alone mode share ✓ Trips by transit, walk and bike modes ✓ Housing in Center and Corridor Communities ✓ Housing in Established Communities ✓ Residential density ✓ Air quality conformity tests ✓ SB 375 greenhouse gas emissions per capita by 2035 	<ul style="list-style-type: none"> ✓ Decrease by 7% ✓ Decrease by 8% ✓ Increase by 33% ✓ Increase by 89% ✓ Increase by 11% ✓ Increase by 27% ✓ Pass all tests ✓ Decrease by 16% 	<ul style="list-style-type: none"> ✓ Decrease by 4% ✓ Decrease by 4% ✓ Increase by 28% ✓ Increase by 80% ✓ Increase by 11% ✓ Increase by 27% ✓ Pass all tests ✓ Decrease by 16%
Promote Public Health	<ul style="list-style-type: none"> ✓ Change in food deserts ✓ Farmland acres lost per capita ✓ % population within 500 feet of high-volume roadway ✓ SB 375 greenhouse gas emissions per capita by 2035 ✓ Class 1 and 2 bike route miles ✓ Trips made by biking and walking 	<ul style="list-style-type: none"> ✓ Metric TBD thru RUCS ✓ Decrease by 88% ✓ 2% of population ✓ Decrease by 16% ✓ Increase by 77% ✓ Increase by 25% 	<ul style="list-style-type: none"> ✓ See report narrative ✓ Decrease by 84% ✓ 3% of population ✓ Decrease by 16% ✓ Increase by 123% ✓ Increase by 14%
Promote Equity	<ul style="list-style-type: none"> ✓ Regional accessibility ✓ Dwelling units within ½-mile of quality transit service ✓ Employment within ½-mile of quality transit service ✓ Transit access from Environmental Justice areas to jobs ✓ Dollars per capita on bike/pedestrian projects vs. 2008 MTP ✓ Dollars per capita on road capital/operations vs. 2008 MTP ✓ Complete street projects 	<ul style="list-style-type: none"> ✓ Increase by 31% ✓ Increase by 214% ✓ Increase by 145% ✓ Increase by 89% ✓ Increase by 7% ✓ Decrease by 14% ✓ 33% of road rehab/maintenance 	<ul style="list-style-type: none"> ✓ Increase by 37% ✓ Increase by 212% ✓ Increase by 160% ✓ Increase by 71% ✓ Increase by 5% ✓ Decrease by 15% ✓ At least 33% of road rehab/maintenance

Table 1 - Progress on Grant Indicators and Outcomes

Increase Affordable Housing	<ul style="list-style-type: none"> ✓ Residential density ✓ Single-family small-lot and attached housing ✓ Trips by transit, walk and bike modes ✓ Jobs-housing “fit” and Housing plus transportation cost 	<ul style="list-style-type: none"> ✓ Increase by 27% ✓ Increase by 71% ✓ Increase by 33% ✓ TBD through PECAS development 	<ul style="list-style-type: none"> ✓ Increase by 27% ✓ Increase by 71% ✓ Increase by 28% ✓ See report narrative
Promote Infill and Compact Development	<ul style="list-style-type: none"> ✓ Dwelling units within ½-mile of quality transit service ✓ Employment within ½-mile of quality transit service ✓ Housing in Center and Corridor Communities ✓ Housing in Established Communities ✓ Employment in Center and Corridor Communities ✓ Employment in Established Communities ✓ Residential density 	<ul style="list-style-type: none"> ✓ Increase by 214% ✓ Increase by 145% ✓ Increase by 89% ✓ Increase by 11% ✓ Increase by 29% ✓ Increase by 33% ✓ Increase by 27% 	<ul style="list-style-type: none"> ✓ Increase by 212% ✓ Increase by 160% ✓ Increase by 80% ✓ Increase by 11% ✓ Increase by 50% ✓ Increase by 41% ✓ Increase by 27%
Revitalize Urban and Community Centers	<ul style="list-style-type: none"> ✓ Housing in Centers, Corridors & Established Communities ✓ Jobs in Centers, Corridors & Established Communities ✓ Housing thru reinvestment in existing non-residential lots ✓ Jobs through reinvestment in existing non-residential lots ✓ Change in food deserts ✓ Complete street projects 	<ul style="list-style-type: none"> ✓ 56% of all new homes ✓ 71% of all new jobs ✓ 7% of new homes ✓ 6% of new jobs ✓ TBD thru RUCS work ✓ 33% of road rehab/maintenance 	<ul style="list-style-type: none"> ✓ 58% of all new homes ✓ 83% of all new jobs ✓ 6% of new homes ✓ 5% of new jobs ✓ See report narrative ✓ At least 33% of road rehab/maintenance
Protect Natural Resources and Agricultural Lands	<ul style="list-style-type: none"> ✓ Local food production ✓ Land in local food production ✓ Share of region’s housing in rural residential communities ✓ Housing growth in rural residential communities ✓ Farmland acres lost per capita ✓ Acres of land use/transportation impact 	<ul style="list-style-type: none"> ✓ Increase by 200% ✓ Increase by 200% ✓ Decrease by 13% ✓ 5,300 total new units ✓ Decrease by 88% ✓ 1% of region’s total habit and land cover 	<ul style="list-style-type: none"> ✓ See report narrative ✓ See report narrative ✓ Decrease by 23% ✓ 5,143 total new units ✓ Decrease by 84% ✓ <1% of region’s total habit and land cover
Reduce Automobile Usage and Fuel Consumption	<ul style="list-style-type: none"> ✓ Drive alone mode share ✓ Total VMT per capita ✓ Household-generated VMT per capita ✓ Fuel consumption 	<ul style="list-style-type: none"> ✓ Decrease by 8% ✓ Decrease by 7% ✓ Decrease by 9% ✓ Subject to further analysis 	<ul style="list-style-type: none"> ✓ Decrease by 4% ✓ Decrease by 4% ✓ Decrease by 10% ✓ See report narrative

Table 1 - Progress on Grant Indicators and Outcomes

<p>Improve Infrastructure Systems</p>	<ul style="list-style-type: none"> ✓ Dollars per capita on road maintenance/rehab vs. 2008 MTP ✓ Congested Travel in Region (CVMT per capita) ✓ Congested VMT for household-generated travel ✓ Share of VMT on optimally utilized roadways ✓ Class 1 and 2 bike route miles ✓ Transit productivity 	<ul style="list-style-type: none"> ✓ Increase by 4% ✓ Decrease by 7% ✓ Decrease by 10% ✓ Increase by 39% ✓ Increase by 77% ✓ Increase by 121% 	<ul style="list-style-type: none"> ✓ Increase by 14% ✓ Decrease by 4% ✓ Decrease by 16% ✓ Increase by 32% ✓ Increase by 123% ✓ Increase by 71%
<p>Promote Water Conservation</p>	<ul style="list-style-type: none"> ✓ Residential density ✓ Single-family small-lot and attached housing ✓ Overall development footprint 	<ul style="list-style-type: none"> ✓ Increase by 27% ✓ Increase by 71% ✓ Increase by 7% vs. 40% pop. increase 	<ul style="list-style-type: none"> ✓ Increase by 27% ✓ Increase by 71% ✓ Increase by 7% vs. 36% pop. increase
<p>Promote Energy Efficiency and Conservation</p>	<ul style="list-style-type: none"> ✓ Drive alone mode share ✓ Trips by transit, walk and bike modes ✓ Single-family small-lot and attached housing ✓ Residential density ✓ Dwelling units within ½-mile of quality transit service ✓ Employment within ½-mile of quality transit service ✓ Transit boardings per service hour ✓ SB 375 greenhouse gas emissions per capita by 2035 ✓ Fuel consumption 	<ul style="list-style-type: none"> ✓ Decrease by 7% ✓ Increase by 33% ✓ Increase by 71% ✓ Increase by 27% ✓ Increase by 214% ✓ Increase by 145% ✓ Increase by 121% ✓ Decrease by 16% ✓ Subject to further analysis 	<ul style="list-style-type: none"> ✓ Decrease by 4% ✓ Increase by 28% ✓ Increase by 71% ✓ Increase by 27% ✓ Increase by 212% ✓ Increase by 160% ✓ Increase by 71% ✓ Decrease by 16% ✓ See report narrative
<p>Strengthen the Economy</p>	<ul style="list-style-type: none"> ✓ Local food production ✓ Land in local food production ✓ Housing in Center and Corridor Communities ✓ Housing in Established Communities ✓ Employment in Center and Corridor Communities ✓ Employment in Established Communities ✓ Dollars per capita on bike/pedestrian projects vs. 2008 MTP ✓ Housing plus transportation cost, regional economic metrics ✓ Complete street projects 	<ul style="list-style-type: none"> ✓ Increase by 200% ✓ Increase by 200% ✓ Increase by 89% ✓ Increase by 11% ✓ Increase by 29% ✓ Increase by 33% ✓ Increase by 7% ✓ TBD through PECAS ✓ 33% of road rehab/maintenance 	<ul style="list-style-type: none"> ✓ See report narrative ✓ See report narrative ✓ Increase by 80% ✓ Increase by 11% ✓ Increase by 50% ✓ Increase by 44% ✓ Increase by 5% ✓ See report narrative ✓ At least 33% of road rehab/maintenance

Outcomes of Climate Analysis for the Update of the MTP/SCS

The overall objective of the project was to show how implementation of the Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS) changed outcomes related to GHG emissions. Three metrics were chosen:

1. A downward trend in GHG emissions from all sectors in the SACOG region,
2. Based on the land use and transportation projects in the MTP/SCS, a forecasted decline in GHG emissions to achieve statewide emission reduction goals.
3. The MTP/SCS will examine climate adaptation in the transportation sector.

This memo outlines the work to date to show how these objectives are being met.

Decline in GHG Emissions from all Sectors in the SACOG Region from 2008 to 2012

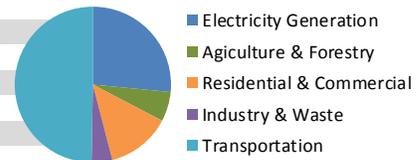
The first step in any GHG emission related climate analysis is to look at existing trends in GHG emissions for all sectors. This estimation allows for gaps in climate related policies to be identified if emissions are not being reduced. The figure below outlines GHG emission for the region between 2008 and 2012.

DRAFT 2012 Greenhouse Gas Emissions for the SACOG Six-County Region

Comparison to 2008, by Emission Sector

Emissions

Sector	California	2012		California	2008	
	mmt Co2e	SACOG		mmt Co2e	SACOG	
Electricity Generation	95.33	5.51	27%	117.32	5.70	25%
Agriculture & Forestry	34.14	1.28	6%	24.27	1.05	5%
Residential & Commercial	53.61	2.76	13%	43.13	2.81	12%
Industry & Waste	42.86	0.89	4%	100.03	2.21	10%
Transportation	166.56	10.33	50%	174.99	10.99	48%
TOTAL		20.78			22.77	



Notes:

Overall GHG emissions in the Sacramento region dropped between 2008 and 2012 by 5.4%.

The transportation sector dropped by less and 1%, but continues to be the biggest contributor of GHG emission in the Sacramento region, representing approximately 50% of the emissions in 2012. Transportation emissions for the state were 36% in 2012.

Industrial processing and electricity generation each had fewer overall GHG emissions as compared to 2008. For the industrial sector, the GDP for mining operations in the region dropped by 56% over the same period, perhaps contributing to the decline in emissions in this sector.

The Sacramento region was 6.2% of the state's population, 4.8% of the state's GDP, and 4.5% of the state's GHG emissions in 2012.

The state of California emitted 215.78 metric tons of GHG per million dollars of GDP in 2012. The Sacramento region emitted 203.3 metric tons of GHG per million dollars of GDP in the same year.

On average, Californians emitted 11.94 metric tons of GHG per person in 2012. People in the Sacramento region emitted just 8.72 metric tons of GHG per person in 2012. Much of this could come for the regions lack of heavy manufacturing and refining.

Executive Order B-30-15: 40% Reduction below 1990 Levels by 2030

Executive Order (EO) B-30-15 aims to reduce statewide Greenhouse Gas (GHG) emissions to 40% below 1990 levels by 2030. The Air Resources Board (ARB) methodology for calculating 1990 levels is 85% of 2008. The 2030 target is 40% below that number. The target for the Sacramento region is 11.6 million metric tons.

In order to determine if the MTP/SCS meets the EO goals, a baseline emission's inventory from five different sectors was calculated for 2030 (a baseline inventory is one without additional measures to reduce emissions. In this case, additional measures were taken from the update of the Scoping Plan). The sectors used in the analysis are:

- Electricity generation
- Agriculture and forestry
- Residential and commercial land uses
- Industry
- Transportation

To calculate baseline emissions, land use and transportation forecasts for the region are needed. Since 2030 was not a forecast year for the plan, data were extrapolated between two other years: 2020 and 2036. The baseline GHG emissions for 2030 are 14.47 million metric tons, with a downward trajectory through the planning horizon year of the MTP/SCS. Figure 1 below outlines the baseline emissions for 2030, and Figure 2 shows the trajectory of baseline GHG emissions over the planning period of the MTP/SCS.

	2030
Source	mmtCo2e
Electricity Generation	2.98
Agriculture and Forestry	0.90
Residential/Commercial	2.08
Industrial	0.60
Transportation	7.91
TOTAL	14.47

Figure 1 - 2030 Baseline GHG Emissions

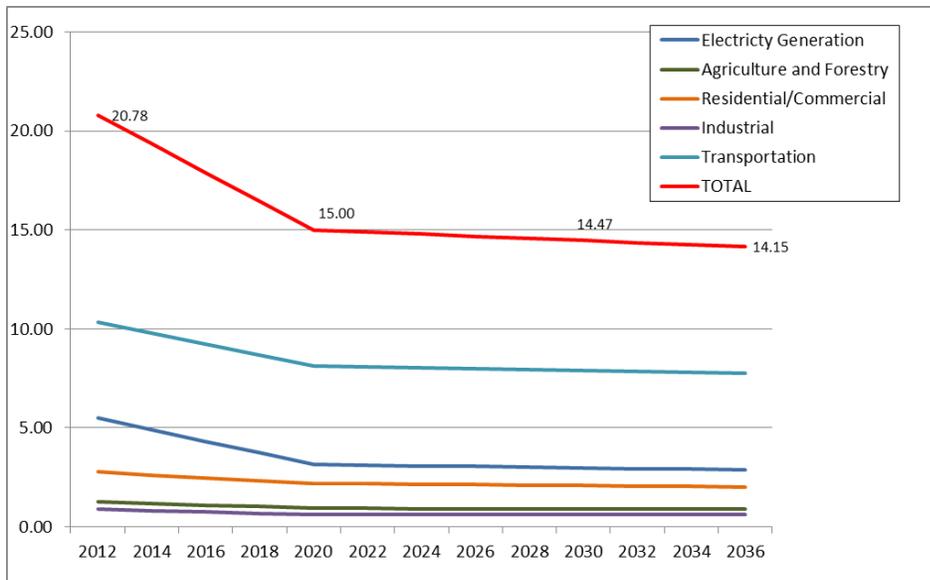


Figure 2 – Baseline GHG Emissions for MTP/SCS Planning Years

The baseline inventory does not take into account additional measures from the update of the Scoping Plan aimed at reducing GHG emissions beyond 2020 – the target year for AB 32 and the year for most GHG reduction measures in the initial Scoping Plan. While the 2030 baseline is close to achieving the EO, additional reductions are required to meet the target. The measures used in this analysis include:

Electricity Generation

State agencies will develop comprehensive and enforceable GHG emission reduction requirements for the State’s electric and energy utilities to achieve near-zero GHG emissions by 2050.

Residential/Commercial

Through the AB 758 process, CEC will develop a plan to encourage energy assessments—particularly when done at the time a building or unit is sold or by a predetermined date—as well as energy use disclosure requirements.

Enhance energy efficiency and demand response programs, including development of education/outreach programs, and develop robust methodologies to monitor and evaluate the effectiveness of these programs. Methodologies developed by end of 2015 with the enhanced program proceedings completed by end of 2016

Transportation

In 2014, ARB will propose enhancements to strengthen the LCFS. ARB will also consider extending the LCFS beyond 2020 with more aggressive long-term targets, such as a 15 to 20 percent reduction in average carbon intensity, below 2010 levels, by 2030.

The 2017 mid-term review for Advanced Clean Cars, where ARB, U.S. EPA, and NHTSA will conduct a technical assessment of vehicle technology trends, will inform future light-duty vehicle standards targeted at continuing to achieve GHG emission reductions of about five percent per year through at least 2030.

With the scoping Plan measures included in the analysis, the GHG emissions drop to 11.42 million metric tons in 2030. Figure 3 below shows 2030 GHG emissions from the MTP/SCS adjusted with Scoping Plan measures. Figure 3 shows the trajectory of emissions through the MTP/SCS planning horizon year.

	2030
Source	mmtCo2e
Electricity Generation	2.10
Agriculture and Forestry	0.90
Residential/Commercial	1.87
Industrial	0.60
Transportation	5.94
TOTAL	11.42

Figure 3 – Adjusted 2030 GHG Emissions

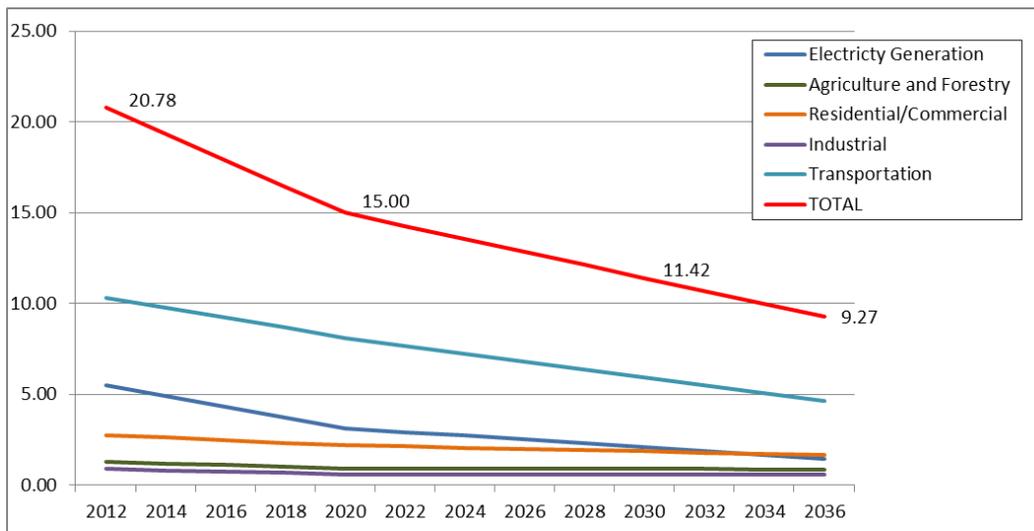


Figure 4 – Adjusted GHG Emissions for MTP/SCS Planning Years

Executive Orders S-3-05: 80% Below 1990 Levels by 2050

For the SACOG region, EO S-3-05 would constitute achieving an emissions limit of 3.87 MMtCO₂e by 2050. However, the EO does not include any specific measures to achieve these reductions, and instead merely places oversight for reporting from all state agencies with CalEPA.

In order to estimate if targets are going to be achieved, first, a BAU GHG scenario was estimated for 2050 by deriving an average annual reduction in GHGs from the proposed MTP/SCS between 2008 and 2036, and applying it for each year out to 2050. The result is a BAU GHG 2050 estimate of 6.50 MMtCO₂e.

In order to complete the 2050 estimates, and in the absence of any guidance, some assumptions must be made regarding the GHG reduction measures that will be implemented for the period after 2020. Appendix C to the 2014 Scoping Plan Update is a starting point. If new GHG reduction measures, as described above, were implemented for the Executive Order, additional reductions could be realized. The Scoping Plan suggests that strategies for achieving the Executive Order's goal likely come from the decarbonization of electricity supplies and fuels, and major improvements in energy efficiency.

The 2050 scenario with additional emissions reduction measures could be as low as 3.66 MMtCO₂e for the plan area. This includes the following reductions, most of which already are included in the 2014 Scoping Plan Update, Appendix C, and which are just examples of reductions that could be implemented by the state:

- Electricity Generation: Increase renewable energy standards to 66 percent. Estimated reduction of 0.71 MMtCO₂e based on SACOG's share of 11.4 MMtCO₂e from Scoping Plan reduction to 33 percent renewable energy standard.
- Agriculture & Forestry: 20 percent further market penetration of hybrid heavy-duty and above trucks. Estimated reduction of 0.06 MMtCO₂e based on SACOG's share of 1.0 MMtCO₂e from Scoping Plan reduction for heavy-duty hybrids.
- Residential/Commercial: Additional 50 percent increase in building and energy efficiency from Scoping Plan. Estimated reduction of 0.41 MMtCO₂e based on one half of SACOG's share of Scoping Plan reductions.
- Industrial: Additional 50 percent increase in industrial process efficiency from non-capped portions of the Scoping Plan. Estimated reduction of 0.2 MMtCO₂e based on one half of SACOG's share of Scoping Plan reductions. This can include carbon capture and storage.
- Transportation: Improved CAFE standards to a fleet average of 54.5 MPG from federal estimates of 250 MMtCO₂e reductions nationally (EPA, 2011), of which the plan area is 0.41 percent. Estimated reduction of 1.04 MMtCO₂e for the plan area in 2050.
- Additional rounds of regional targets results in a 0.31 MMtCO₂e reduction based on region's share of reductions from the Scoping Plan.
- A 3.5 MMtCO₂e reduction from implementation of additional transportation-related technologies. This includes, but is not limited to: high speed rail in the plan area, truck stop electrification, catalytic improvements for gasoline and diesel engines, reduction of cold starts, and enhanced fuel combustion through improved engine design.

As noted, it is currently unknown whether these, or other, measures will be implemented by the state to achieve the goals of the two Executive Orders, or some other state mandate, beyond 2020. These measures are merely illustrative of how the region could meet, and exceed, the Executive Orders' goals for 2030 and 2050 with the support of other statewide emissions reduction measures. The downward projection in GHG emissions in the plan area between 2012 and 2050 is shown in Figure 8.2 below.

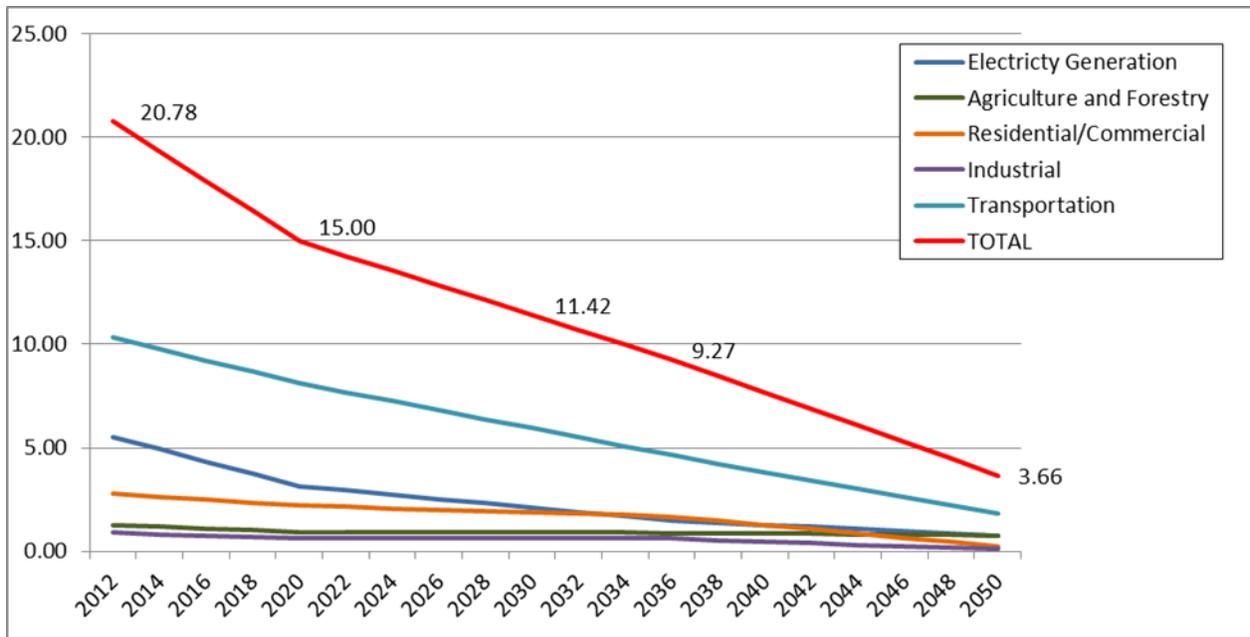


Figure 5 -Plan Area MMtCO₂e Emission by Sector Through 2050

In any event, even if no additional reduction measures beyond 2036 come from the Executive Orders or other state mandates, total GHG emissions for the plan area would decrease from 20.78 in 2012 to 14.15 MMtCO₂e in 2036, and would be on a declining trajectory beyond, with the implementation of the proposed MTP/SCS.



SACRAMENTO AREA COUNCIL OF GOVERNMENTS

RESOLUTION NO. xx – 2016

**ADOPTING THE FINAL REPORT FOR
SACOG’S STRATEGIC GROWTH COUNCIL GRANT (Grant #3014-622)**

WHEREAS, in 2012, SACOG was awarded a grant of \$897,821 from the Round 2 Sustainable Communities Planning Grant Program of the State of California Strategic Growth Council (SGC); and

WHEREAS, in November 2012, SACOG signed a three-year contract to undertake six major activities during the grant period; and

WHEREAS, SACOG provided quarterly invoices, progress reports, interim and completed deliverables to the SGC over the course of the project, and in November 2015, completed all final grant work; and

WHEREAS, per a requirement of the SGC, to close out the grant SACOG must submit along with its final invoice and deliverables a specified final report that is adopted and certified by SACOG’s governing body;

NOW, THEREFORE BE IT RESOLVED, that the SACOG Board of Directors hereby adopts and certifies SACOG’s final report on the SGC grant.

PASSED AND ADOPTED this 21st day of January 2016, by the following vote of the Board of Directors:

AYES:

NOES:

ABSTAIN:

ABSENT:

Susan Rohan
Chair

Mike McKeever
Chief Executive Officer