



May 5, 2014

Harold Hanson
Chair, Board of Directors
Ahron Hakimi
Executive Director
Kern Council of Governments
1401 19th Street, Suite 300
Bakersfield, California 93301

RE: Draft Environmental Impact Report for 2014 Regional Transportation Plan / Sustainable Communities Strategy

Dear Messrs. Hanson and Hakimi,

I am writing on behalf of the Southern Sierra Partnership (SSP), a coalition of business and conservation groups working to protect land, livelihoods and communities in our region, to comment on the Draft Environmental Impact Report (EIR) for the 2014 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS). SSP's member organizations—Audubon California, Sequoia Riverlands Trust, the Sierra Business Council, Tejon Ranch Conservancy, and The Nature Conservancy—are grateful for the opportunity to comment, as are American Farmland Trust, the Council of Infill Builders, Natural Resources Defense Council and David Ausherman, who support the policy changes proposed below.

SSP serves a 7 million acre region stretching from the Southern San Joaquin Valley to the peaks of the Sierra and Tehachapi Ranges, and including much of Kern County. This area contains

habitat crucial to preserving biodiversity in a changing climate,¹ as well as farmland that contributes nearly \$38 billion to the economy every year.² It is also home to a diverse and rapidly growing human population, many of whom are attracted to Kern County for its rural character and quality of life.³ But a pattern of low density growth and disinvestment in existing communities is converting essential habitat and farmland into subdivisions,⁴ worsening widespread poverty⁵ and exacerbating some of the worst air quality in the nation.⁶ The SCS process, which was intended to reduce per capita greenhouse gas (GHG) emissions through “changed land use patterns and improved transportation,”⁷ provides a number of opportunities to move toward greater economic and environmental resilience.

The Draft RTP/SCS does not meet this test or take advantage of these opportunities. While it represents progress compared to the 2011 RTP, it falls short of the feasible and environmentally superior 33% Housing Mix Alternative described in the Draft EIR. It does not fully reflect documented public demand for conservation, infill development, and expanded housing and transportation choices. Moreover, the Draft RTP/SCS does not do enough to reduce energy and water costs associated with new development, and does not legitimately meet state-mandated GHG reduction targets.

Adoption of the Draft RTP/SCS without significant changes would therefore lead to a number of avoidable harms. These include, but are not limited to, the following: 1) the permanent loss of more than 91 square miles of open space, farmland and ranchland, 2) a housing mix that does not reflect market demand, 3) a lack of transportation options for much of the County, coupled with continued disinvestment in our existing communities, 4) higher energy, fuel and water costs, and 5) continuing public health costs from some of the worst air quality in the country. In order to

¹ Southern Sierra Partnership. 2010. Framework for Cooperative Conservation and Climate Adaptation for the Southern Sierra Nevada and Tehachapi Mountains. Retrieved from <http://www.southernsierrapartnership.org/ssp-framework.html>.

² Livingston, A. 2013. Paths to Prosperity for the Southern Sierra and Southern San Joaquin Valley: Capitalizing on the Economic Benefits of Land Conservation and Compact Growth. Retrieved from <http://www.southernsierrapartnership.org/ssp-economic-study.html>.

³ Draft RTP/SCS, pp. 3-1 and 3-2.

⁴ American Farmland Trust. 2013. Saving Farmland, Growing Cities: A Framework for Implementing Effective Farmland Conservation Policies in the San Joaquin Valley. Retrieved from <http://www.farmland.org/documents/FINALSJVREPORTPDF1-14-13.pdf>. For more on impacts to habitat, see SSP (2010).

⁵ Between 2007 and 2011, individuals below poverty in Kern County averaged 21.4% of the population, compared to 14.3% of the population nationwide. Headwaters Economics. 2012. Economic Profile System—Human Dimensions Toolkit: Socioeconomic Profiles. Downloaded from <http://headwaterseconomics.org/tools/eps-hdt> and run in Microsoft Excel.

⁶ American Lung Association. 2013. State of the Air. Retrieved from <http://www.lung.org/associations/states/california/advocacy/fight-for-air-quality/sota-2013/state-of-the-air-2013.html>.

⁷ SB 375, § 1(c). California Statutes, 2008.

address these issues, we respectfully request that the Board adopt the 33% Housing Mix Alternative, and make the additional changes proposed in Sections II, IV, VI, VII and VIII below.

I. The Public Supports a Stronger and More Equitable SCS.

The Kern Council of Governments (Kern COG) has sought public input throughout the SCS process, but has not adequately incorporated that input in the Draft RTP/SCS. In August 2013, for example, Kern COG held two workshops in Bakersfield, where members of the public were introduced to four possible scenarios for the RTP/SCS. In both workshops, substantial majorities of concerned residents chose the scenario that went furthest toward conservation, infill development and expanded housing and transportation options.⁸ Even larger majorities stated that the business as usual scenario “least meets the needs of the Kern region.”⁹

Public comments at the April 17, 2014 Kern COG Board meeting demonstrate that these views have only grown stronger. Members of the public from a wide range of backgrounds, communities and professions advocated for stronger conservation measures, more infill growth, and expanded transportation options. All but a few sought significant changes to the Draft RTP/SCS and, of those who supported an Alternative, all but two spoke in favor of the 33% Housing Mix Alternative. We believe that the Board should take this input into account and adopt the 33% Housing Mix Alternative, along with the additional changes proposed in Sections II, IV, VI and VII below.

II. The SCS Should Conserve the Natural Resources that Drive Our Economy.

A. LAND CONVERSION

As a reflection of how far out of step it is with the public’s priorities, the Draft RTP/SCS would consume **over 91 square miles of open space, farms and ranches**—an area more than half the size of Bakersfield. This includes over 27 square miles of highly productive farmland, with more than one square mile disappearing every year from 2010 to 2035—a significant impact that is neither minimized nor adequately mitigated.¹⁰

As the Draft RTP/SCS rightly notes, Kern County’s economy depends on its natural resources, including farmland and rangeland that bring in more than \$5 billion a year in crop receipts alone.¹¹ A single acre of farmland, whether inside or outside a city’s sphere of influence (SOI),

⁸ Kern COG. 2013. Summary—Metro Bakersfield Community Workshops.

⁹ Kern COG. 2013. Summary—Metro Bakersfield Community Workshops.

¹⁰ Draft RTP/SCS, p. 4-37; Draft EIR, pp. 4.2-25, 4.2-26.

¹¹ Draft RTP/SCS, p. 4-19 – 4-21.

puts thousands of dollars into Kern County's economy every year. Counting crop receipts, jobs and other economic activity, for example, an average acre of pistachios puts \$12,600 a year into the local economy.¹² If this productivity is typical of the more than 17,500 acres of farmland that will be consumed by the RTP, **Kern County stands to lose over \$221 million a year** in economic activity, a loss that includes not only crop receipts, but also livelihoods.

Beyond the loss of jobs and revenue associated with some of the most productive farmland on the planet, greenfield development on this scale would have adverse fiscal impacts, including higher infrastructure costs and lower property tax revenue per developed acre. A RapidFire analysis comparing the Draft RTP/SCS to the 33% Housing Mix Alternative (attached hereto as Exhibit A) found that per-unit infrastructure costs would be \$800 higher under the Draft RTP/SCS than under the 33% Housing Mix Alternative.¹³ Cumulative infrastructure costs under the Draft RTP/SCS would be \$123 million higher by 2035.¹⁴ Low density greenfield development also generates less tax revenue per acre for local governments than dense, multiuse development in existing communities.¹⁵ In short, the Draft RTP/SCS would increase the long-term cost of new infrastructure, while reducing the revenue needed to pay for it.

¹² For value of crop receipts, see Kern County Department of Agriculture and Measurement Standards. 2012. Kern County Agricultural Crop Report. Retrieved from http://www.kernag.com/caap/crop-reports/crop10_19/crop2012.pdf. For multiplier of 1.89 to account for agricultural value chain in San Joaquin Valley, see University of California Agricultural Issues Center. 2009. The Measure of Agriculture. Retrieved from <http://aic.ucdavis.edu/publications/moca/moca09/%20moca09.pdf>.

¹³ Calthorpe Associates, 2014 (Exhibit A).

¹⁴ It is generally less expensive per capita to provide roads, sewer service and similar infrastructure for infill than for low density greenfield development. See, e.g., Burchell, R.W., Downs, A., McCann, B., and Mukherji, S. 2005. *Sprawl Costs*. Washington, D.C.: Island Press. See also Ewing, R., Pendall, R., and Chen, D. 2002. *Measuring Sprawl and Its Impact*. Retrieved from <http://www.smartgrowthamerica.org/research/measuring-sprawl-and-its-impact/>. Kern County is no exception. A 2001 study that compared home construction costs, as well as one-time capital costs and annual operating costs, for a development in central Bakersfield with the costs of development in two "far distant" suburban communities found that costs were significantly lower in the centrally-located development. Khé, S. and Grammy, A. 2001. *Cost of Residential Development: A Case Study of Bakersfield, California*. California State University, Bakersfield.

¹⁵ Studies of six San Joaquin Valley communities—Clovis, Fresno, Merced, Modesto, Turlock and Visalia—found that major low density developments generate significantly lower property tax revenue per acre than the average downtown property. See Infill Builders Association, Local Government Commission and Urban Three, LLC. 2013. *Valuing Downtowns: Upward Not Outward is a Smart Revenue Strategy for Local Governments*. Retrieved from http://www.lgc.org/wordpress/docs/events/growing_your_local_economy/ssjvc2013_Report_Valuing_Downtowns_V8-September.pdf.

Minimizing unnecessary greenfield development inside as well as outside SOIs would help avoid this result. By directing more growth into existing communities, we could minimize the conflict between development and agriculture and maximize the long-term contribution that both make to Kern County’s economy. Adopting the 33% Housing Mix Alternative—which would accommodate the same population and employment levels, while consuming 11 fewer square miles—would be a step in the right direction.¹⁶

B. MITIGATION FOR OPEN SPACE, AGRICULTURAL LAND AND HABITAT

Conservation of the natural resources that drive Kern County’s economy will not be possible without a meaningful commitment to mitigation. Transportation projects funded by Kern COG, as well as projects that benefit from streamlined permitting requirements due to consistency with the SCS, must be required to provide full mitigation.¹⁷ We recognize that Kern COG does not have land use planning authority,¹⁸ but it has both the authority and responsibility to determine the regional transportation projects it will include in the RTP/SCS, the projects it will fund, and (by virtue of preparing an SCS) the projects that will be eligible for CEQA exemptions and other streamlined permitting requirements.¹⁹ The Board can and should exercise this authority by explicitly stating in the SCS that projects consistent with the SCS will adhere to the mitigation hierarchy (avoid, minimize, mitigate on-site, then compensate), and that where impacts cannot be minimized, compensatory offsets will address the specific conservation functions and values that will be lost.

C. CONSERVATION FRAMEWORK

In addition to reducing unnecessary land conversion and adding explicit language on mitigation, we urge the creation of a County-wide Conservation Framework for preservation of open space, agricultural land and habitat. The Draft RTP/SCS describes a “Framework for Coordinating Strategic Investments in Land Conservation,” but appears to mean an investment that was already made in harmonizing two Habitat Conservation Plans.²⁰ While we agree that this is a worthwhile investment, we believe that a County-wide Framework would better serve the stated

¹⁶ Calthorpe Associates, 2014; Draft EIR p. 5.0-58.

¹⁷ This includes but is not limited to mitigation mandated by CEQA (and, for projects that involve action by federal agencies, NEPA).

¹⁸ Cal. Government Code § 65080.

¹⁹ See, e.g., Cal. Public Resources Code §§ 21155 and 21155.1 (requirements for designation as a “sustainable communities project” exempt from CEQA, including consistency with an SCS that ARB has accepted would meet GHG reduction targets); 21155.2 (process for “sustainable communities environmental assessment” and streamlined CEQA review for certain transit priority projects); and 21159.28 (circumstances under which projects consistent with SCS can avoid CEQA review of GHG emissions and regional transportation network impacts).

²⁰ Draft RTP/SCS, p. 4-40.

goal of “integrat[ing] conservation data into project level alternative selection and development, and coordinat[ing] strategic investments in mitigation,”²¹ and respectfully request that the Final RTP/SCS include a commitment to develop and implement such a Framework. SSP, which has done nationally-recognized, science-based conservation planning in Kern County,²² can contribute to this task.

One tool that may be useful for applying the Framework to transportation projects is a process called “Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects,” which is strongly supported by the Federal Highway Administration due to the many benefits it provides to the transportation sector.²³ Integrating conservation data early in infrastructure and land use decision-making processes can provide benefits such as decreased costs, reduced risk, and more efficient project delivery, while protecting and investing in important natural and working lands. Understanding where the important resources (such as watersheds, sensitive species, wildlife migration corridors and rangelands that support biodiversity) exist and committing to avoid impacting those areas can save money, reduce risk and accelerate project delivery.

III. The SCS Should Reflect Public Demand for a More Balanced Housing Mix, and Promote Infill to Revitalize Main Streets Across the County.

As indicated by Kern COG’s August 2013 workshops, housing demand studies,²⁴ and the voices of the public on April 17th, Kern County residents want real housing options that reflect market demand. The Draft RTP/SCS would leave the County with a housing mix of more than 65% large-lot single-family homes by 2040.²⁵ This is progress compared to the previous RTP,²⁶ but the 33% Housing Mix Alternative (which would still leave the County with 62.1% of its housing in large-lot, single-family homes) better reflects market reality, and would allow your constituents to choose from a more balanced housing mix.²⁷

²¹ Draft RTP/SCS, p. 4-40.

²² SSP’s Framework for Cooperative Conservation and Climate Adaptation for the Southern Sierra Nevada and Tehachapi Mountains is available at <http://www.southernsierrapartnership.org/ssp-framework.html>.

²³ For more information on Eco-Logical, see http://www.environment.fhwa.dot.gov/ecological/eco_index.asp.

²⁴ See, e.g., The Concord Group. 2012. Market Demand Analyses for Higher Density Housing in the San Joaquin Valley. Retrieved from <http://valleyblueprint.org/files/11245.00%20FCOG-SJV%20Demand%20Final%20Draft%206.22.12.pdf>.

²⁵ Calthorpe Associates, 2014.

²⁶ The 2011 RTP would have left Kern County with 76.3% of its housing stock in large-lot, single-family homes, and would have put only 1% of new residential growth in infill areas. Draft EIR, pp. 4.11-16, 5.0-6.

²⁷ Draft EIR, pp. 4.11-16, 5.0-6; Calthorpe Associates, 2014. The “33 Percent” division between large-lot single-family, small-lot / townhome, and multifamily would only apply to new residential development in Metro Bakersfield. While we would be happy to see such a division

Similarly, the Draft RTP/SCS puts 21% of new residential development into infill—progress over the 2011 RTP that only allocated 1%, but still an underinvestment in Kern County’s existing communities and a small fraction of the total housing stock in 2040. Our Main Streets and communities deserve better. The 33% Housing Mix Alternative, which puts 28% of new residential development into infill, would be a significant step forward.²⁸

IV. The SCS Should Further Expand Access to Transit, Invest Real (Not Speculative) Dollars in Bike and Pedestrian Projects, and Develop the Route 58 Connector into a True 21st Century Corridor.

A. TRANSIT-ORIENTED DEVELOPMENT

If Kern COG expects a 2/3 increase in fuel prices by 2035,²⁹ the RTP/SCS must put a greater emphasis on lowering household transportation costs by decreasing dependence on cars and expanding access to transit. The Draft RTP/SCS takes small steps in this direction. But even on the most optimistic reading, fewer than 350,000 people out of a projected population of more than a million will be within half a mile of SB 375-defined high quality transit service by 2035.³⁰ The vast majority of these are likely to be confined to Metro Bakersfield. By expanding transit priority areas and transit-ready areas, directing more new development into those areas, emphasizing transit over new roads, and planning more complete communities where people can walk or ride their bicycles to nearby destinations, the SCS could give real transportation choices to more Kern residents while cutting household transportation costs and pollution across the County.

B. TRANSPORTATION FUNDING

To give Kern residents real transportation options, transit and complete streets improvements should be funded with real dollars. Of the \$11.6 billion pool of funding for transportation projects in the Draft RTP/SCS, \$1.3 billion comes from speculative sources, such as future tax increases and bonds.³¹ This \$1.3 billion is disproportionately weighted toward bike and pedestrian projects, making those projects less available in the early years and less likely to happen.³² Funding transit, bike and pedestrian projects with real, not speculative, dollars can improve mobility choices while also cutting air pollution and reducing chronic illnesses.

in the County as a whole, the 33% Housing Mix Alternative will still provide a slightly more balanced housing mix than the Draft RTP/SCS.

²⁸ Draft EIR, p. 5.0-6.

²⁹ Draft RTP/SCS, p. 4-48.

³⁰ Draft RTP/SCS, p. 4-31.

³¹ Draft RTP/SCS, pp. 6-1 to 6-6.

³² Draft RTP/SCS, p. 6-6.

Moreover, because bike and pedestrian projects are significantly less costly than new roads, investing in them is often a more cost-effective way to increase mobility.³³

C. THE ROUTE 58 CONNECTOR

Instead of channeling traffic into unnecessary freeway lanes and building interchanges that will support continued driving and congestion, Kern COG and Caltrans can make scarce transportation dollars go further by building a corridor that incorporates a variety of transportation options. To do this, we respectfully recommend that the Route 58 connector be built with a narrower footprint, and that the resulting savings (including any funds not committed by federal or state law to freeway construction) be used to fund complete streets improvements on parallel roads.

V. **The SCS Should Support a Pattern of Development that Lowers Water, Fuel and Energy Costs for Households and Businesses.**

The Draft RTP/SCS would have significant unmitigated impacts on water, fuel and energy consumption, potentially exacerbating existing shortages or creating new ones. The 33% Housing Mix Alternative, which directs more new development into infill,³⁴ performs better on all three metrics:

- By 2035, the 33% Housing Mix Alternative would save enough water annually to supply more than 10,800 new households.³⁵ This is not only helpful for individual households, but essential if our already-strained water supply is going to meet the dual needs of agriculture and a rapidly increasing population.³⁶ If our farms and communities are going to have the clean and available water they need, our development pattern must support water conservation.

³³ Flusche, D. 2009. The Economic Benefits of Bicycle Infrastructure Investments. Retrieved from <http://bikewalkalliance.org/resources/reports/advocacy-advance-reports/66-popular-campaigns-and-resources>.

³⁴ Directing new development into existing communities instead of farmland and habitat can have significant impacts on water and energy consumption. For example, statewide RapidFire modeling for the Vision California process found that a scenario emphasizing compact growth would lead to annual savings of 55,000 gallons of water and 19 million Btus in energy consumption for the average household by 2050. Calthorpe Associates. 2011. Vision California | Charting Our Future. Statewide Scenarios Report. Retrieved from <http://www.visioncalifornia.org/Vision%20California%20-%20Charting%20Our%20Future%20-%20Report%20-%20June%202011.pdf>.

³⁵ Calthorpe Associates, 2014.

³⁶ Kern County's population is expected to increase 67% by 2040. Draft RTP/SCS, p. 3-2.

- The 33% Housing Mix Alternative would save more than 140 million gallons in passenger vehicle fuel consumption by 2035—the equivalent of taking all cars off of Kern County’s roads for over six months.³⁷ This means lower transportation costs for Kern residents, less air pollution to threaten lung health and less vulnerability to changes in fuel prices.
- The 33% Housing Mix Alternative would save over 20 trillion Btus in residential and commercial energy use by 2035, with annual energy savings high enough to power more than 9,600 homes.³⁸ This means lower energy bills for Kern County homes and businesses.

In short, the 33% Housing Mix Alternative would accommodate the same number of people and jobs as the Draft RTP/SCS while helping us save on water, fuel and energy costs.

VI. To Move Forward on Healthy Air, Kern Residents Deserve an SCS that Provides Real Alternatives to Driving and Sprawl.

Due in large part to transportation sources, Kern County has some of the most polluted air in the United States. The American Lung Association’s 2014 *State of the Air* report, for example, finds that Kern contains the third most polluted metropolitan area for both particulate and ozone pollution.³⁹ As noted in the Draft RTP/SCS, “[r]ecent polls show that air quality has been ranked one of the primary concerns for Kern’s residents, especially those in the San Joaquin Valley.”⁴⁰

The RTP/SCS needs to focus more on strategies that reduce driving and traffic pollutants, and less on large-lot homes far from job centers and other daily needs that require more vehicle trips. In fact, the American Lung Association in California’s recent Public Health Crossroads report found that Kern residents could avoid nearly \$140 million in respiratory health impacts annually by 2035, including over 4,800 asthma attacks and 760 lost work days each year, if our communities grow more in line with the infill-focused Alternatives.⁴¹ Infill opportunities and investments in bike lanes, sidewalks and transit service in the immediate stages of the plan could also help to reverse higher-than-average chronic disease burdens. Right now, Kern County has the state’s second highest death rate due to diabetes, fifth highest death rate due to heart disease and sixth highest for respiratory ailments such as Chronic Obstructive Pulmonary Disease

³⁷ Calthorpe Associates, 2014.

³⁸ Calthorpe Associates, 2014.

³⁹ American Lung Association. 2014. Retrieved from <http://www.stateoftheair.org>.

⁴⁰ Draft RTP/SCS p. 5-47.

⁴¹ American Lung Association. 2014. Retrieved from <http://www.lung.org/associations/states/california/assets/pdfs/advocacy/sjv-public-health-crossroads/kern-public-health-crossroads.pdf>.

(COPD).⁴² Providing more opportunities for healthy, active transportation would help residents to build moderate levels of physical activity into their daily errands.

Moreover, these improvements should not be limited to Metro Bakersfield. With an SCS that expands transportation choices and allows residents to choose to live in complete communities throughout the County, all of Kern can grow healthier.

VII. The SCS Should Invest in Existing Communities beyond Metro Bakersfield.

Through implementation of targeted policies, Kern COG can further its efforts to meet its mandated GHG emission reduction targets and extend the benefits of good planning principles to residents in existing communities. These policies include: prioritize investment in existing communities; identify and address housing, transportation and infrastructure needs in existing communities; create a new classification of transit ready areas in neighborhoods beyond Metro Bakersfield to allow more neighborhoods the opportunity to attract investment, improve transit options and promote compact development; direct development into transit priority areas and transit ready areas; establish an anti-displacement policy in transit priority areas; conserve farmland and open space by focusing growth in existing communities; and advance investment for walking, biking and transit projects with secured funding.

VIII. The SCS Should Meet GHG Reduction Targets through Land Use and Transportation Changes, Not Speculative Economic Assumptions.

The Draft RTP/SCS does not legitimately meet state-mandated GHG reduction targets. It claims to reduce per capita GHG emissions 14.1% by 2020 and 16.6% by 2035, but the two biggest factors in these reductions are 1) speculated natural increases in fuel prices and 2) decreasing economic activity due to an unspecified future recession.⁴³ “Land use” ranks a distant third, reducing emissions by only 2.53%, and no transportation-related factor has an effect of more than 1%.⁴⁴

Whether or not other MPOs have assumed higher fuel prices for the planning horizon year, no approved RTP/SCS has identified a natural increase in fuel prices as a method to attain GHG reduction targets. Far from being “action-oriented and pragmatic,”⁴⁵ as required by SB 375, reliance on such an assumption is both speculative and regressive. Fuel prices might not increase by the amounts predicted, or they may rise initially and lower demand at first, but then fall due to

⁴² California Department of Public Health. 2014. County Health Status Profiles. Retrieved from <http://www.cdph.ca.gov/programs/ohir/Documents/OHIRProfiles2014.pdf>.

⁴³ Draft RTP/SCS, p. 4-48.

⁴⁴ Draft RTP/SCS, p. 4-48.

⁴⁵ California Government Code § 65080(a).

reduced demand. Moreover, even if fuel prices rise as predicted, fuel efficiency standards will require new vehicles to get a corporate fleetwide average of 54.5 mpg by 2025.⁴⁶ This will 1) lessen the impact of fuel prices on per capita VMT among high-income Kern residents (i.e., those who can afford newer cars), and 2) place the burden of meeting the targets on low-income Kern residents (i.e., those who cannot afford newer cars).

The one change that assures reduction in per capita GHG emissions, whether or not fuel prices rise, is significant reduction in per capita vehicle miles traveled (VMT), and the best way to reduce VMT is to provide compact, transit-oriented, mixed-use communities that shorten commutes and foster walk, bicycle, and transit use for local trips. Beyond compliance with the law, this approach would provide significant benefits for the people of Kern County, including the following: 1) conserving a larger portion of the open space, farmland and ranchland that underlies our economy and way of life, 2) providing a housing mix that better reflects market demand, 3) extending transportation options to more Kern residents while reinvesting in existing communities, 4) lower energy, fuel and water costs, and 5) cleaner air and healthier communities. For these reasons, we respectfully request that the Board adopt an RTP/SCS that legitimately meets the targets through changes in land use and transportation patterns.

Thank you for your consideration.

Sincerely,



Adam Livingston

Coordinator

Southern Sierra Partnership



Daniel O'Connell, PhD

San Joaquin Valley Program Manager

American Farmland Trust

/s/ Curt Johansen

Curt Johansen

Board President

Council of Infill Builders

⁴⁶ 77 Fed. Reg. 62624 (2012).

/s/ Amanda Eaken

Amanda Eaken

Deputy Director of Sustainable Communities, Energy & Transportation Program

Natural Resources Defense Council

/s/ David Ausherman

David Ausherman

Land Use Consultant

Natural Resources Defense Council

KERN COUNTY ALTERNATIVE SCENARIO RESULTS

2014 RTP/SCS DRAFT PLAN: Most future growth occurs in a generally outward and low density pattern, with large-lot single family homes in suburban/greenfield areas not well served by transit. A modest proportion of growth includes other housing unit types within existing cities and near transit.

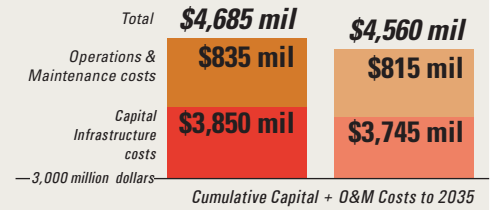
33 PERCENT HOUSING MIX: While a significant portion of growth occurs as lower density single family development, a larger share is within walkable, compact communities that place a greater emphasis on coordinated jobs, housing, and transportation centers. New growth contains a greater mix of housing types, with less large-lot and more small-lot single family homes, town homes and apartments.

2035 SCENARIO RESULTS*
 Scenarios analyzed using
 Calthorpe Associates' RapidFire Model
 (See reverse for assumptions.)

LOCAL INFRASTRUCTURE COSTS

Infrastructure costs rise in line with land consumption, as dispersed development calls for longer extensions of sewers, water pipes, local roadways, and utility lines. With its increased focus on growth near existing infrastructure, the 33 Percent alternative saves **over \$123 million** in cumulative local infrastructure capital and operations & maintenance costs to 2035, about **\$800 per new housing unit**.

Saves over **\$5.6 million in annual local infrastructure costs.**



RESPIRATORY DISEASES AND COSTS

Auto-related air pollution results in a spectrum of respiratory and cardiovascular health issues, leading to hospital visits, work loss days, and premature mortality. Respiratory-related health incidences, and their related costs, are reduced along with automobile Vehicle Miles Traveled (VMT). With lower VMT, the 33 Percent alternative avoids **over 500 health incidences and at least \$9 million in health costs** in 2035.

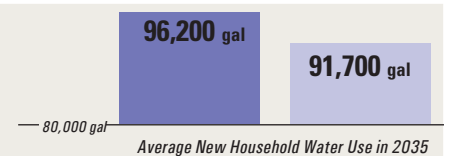
Less pollution avoids at least **\$9 million in annual health costs.**



RESIDENTIAL WATER USE

More compact development patterns, with more smaller lot single family homes, townhomes, and multifamily housing, save water. By 2035, the average new household in the 33 Percent alternative **saves over 4,500 gallons per year**.

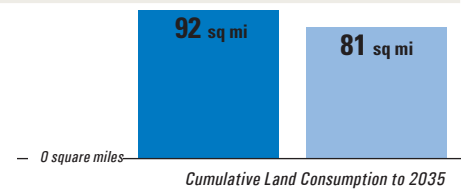
Saves enough water annually to supply over **10,800 additional households.**



LAND CONSUMPTION

Development under the draft Plan would consume 92 square miles of Kern County, including some of the most productive farmland in the world. The 33 Percent alternative **preserves 11 square miles** of this land, instead focusing more development in and around existing cities.

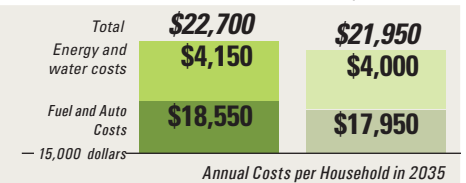
Saves 11 square miles — **larger than the city of Delano, CA.**



HOUSEHOLD COSTS

More compact growth patterns and a greater mix of uses in new development can dramatically reduce household driving and utility costs. Households in the 33 Percent alternative spend **\$700 less per year** on auto-related costs and home utility bills.

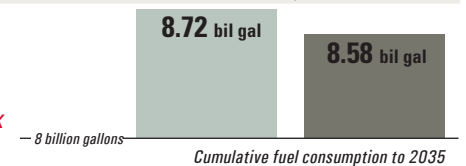
Saves **\$700 per household on annual auto costs and utility bills.**



FUEL CONSUMPTION

Automobile emissions account for about 40% of carbon emissions in California. The 33 Percent alternative, with its more walkable, transit-oriented development, reduces passenger vehicle fuel consumption by **over 140 million gallons** to 2035.

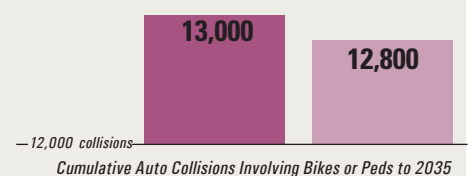
Equivalent to taking all cars off Kern County's roads for over **six months.**



AUTO-PEDESTRIAN/BIKE COLLISIONS

The 33 Percent alternative, with its more walkable, transit-oriented development, significantly reduces vehicle miles traveled (VMT), which in turn prevents **over 200 vehicle collisions involving pedestrians or bicyclists, thus saving over \$780 million in costs** to 2035.

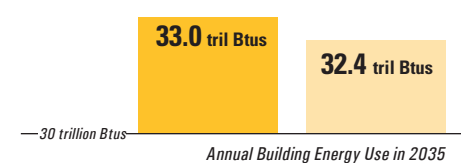
Over **\$3.5 million in collision-related costs avoided per year.**



BUILDING ENERGY USE

Due to its greater proportion of more compact building types, the 33 Percent alternative **cuts annual energy use in homes and businesses by 620 billion Btus** (British thermal units). This leads to lower household utility bills, and lower carbon emissions.

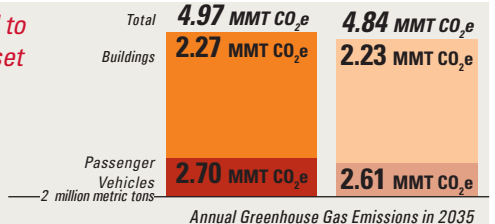
Saves enough energy annually to power over **9,600 homes.**



GREENHOUSE GAS EMISSIONS (GHG)

More compact development patterns, along with more efficient cars and buildings, cleaner fuels, and a cleaner energy portfolio are all essential in reducing GHG emissions. The more efficient land use pattern of the 33 Percent alternative prevents the release of **over 130 thousand metric tons** of carbon dioxide equivalent in 2035, in comparison to the GHG emissions related to the development patterns of the draft Plan.

Savings equal to emissions offset by nearly **62 square miles of trees in a year.**



Scenarios compare the performance of 374,400 new dwelling units and 132,400 new jobs from 2013 to 2035, if built in a pattern of development that is largely auto-oriented, where the majority of residential growth occurs as large lot single family homes (as described in the KernCOG 2014 RTP/SCS Plan alternative), to the same amount of housing and jobs constructed with a greater emphasis on building in infill locations and compact walkable greenfield developments (as described in the 33 Percent Housing Mix alternative).

ALTERNATIVE ASSUMPTIONS:

Preliminary scenario results are calculated using policy-based assumptions for automobile and fuel technology, building energy and water efficiency, and energy generation and emissions. The assumptions used for these scenarios were developed in coordination with relevant state agencies to reflect the direction of adopted policy into the future. Assumptions for the year 2035 is as follows:

Transportation

- On-road passenger fleet average fuel economy: 38.7 mpge (32.3 mpg for fuel-consuming vehicles) by 2035. (This reflects a passenger vehicle fleet mix (including sales rates and vehicle efficiency) that meets the Governor's Executive Order for 1.5 million Zero Emission Vehicles (ZEVs) on the road by 2025. On-road new vehicle fleet average performance aligns with the US Environmental Protection Agency (EPA) standard of 54.5 mpg by 2025, with the assumption that real-world fuel economy is typically a certain percentage lower.)
- Fuel emissions: 17.7 lbs per gallon.
- Fuel cost: \$10 per gallon in 2035. (2012\$)
- Auto ownership and maintenance: \$0.40 per mile. (2012\$)

Buildings and Energy Generation

- Energy and water efficiency of new buildings: 30% reduction from baseline usage rates for residential buildings by 2035, 60% reduction for commercial buildings.
- Energy and water use efficiency of existing buildings: 0.5% reduction, year-upon-year.
- Electricity emissions: 0.61 lbs CO₂e per kWh.
- Natural gas emissions: 11.7 lbs CO₂e per therm.
- Residential electricity cost: \$0.35 per kWh. (2012\$)
- Residential natural gas cost: \$2.84 per therm by 2035. (2012\$)
- Water cost: \$1,387 per acre-foot by 2035. (2012\$)

Public Health Impacts: Automobile Vehicle Collisions involving pedestrians or bicycles

- Cumulative vehicle collision totals, 2010 through 2035, are based on the average rate of such collisions per 100,000 residents of Kern County (from the California State Wide Integrated Records System (SWITRS) 2005 to 2010; this rate is modified based on changes in VMT. Costs are those associated with medical, emergency services, property damage, lost productivity, and Quality-Adjusted Life-Years (QUALYs).

Public Health Impacts: Respiratory

- Estimated based on tons of criteria pollutants emitted, which in turn are estimated based on per-mile emission rates from the California Air Resources Board Emissions Factors (EMFAC 2011) model. Health incidence and valuation assumptions developed by TIAX, LLC for the American Lung Association (Oct 2011).

All cost metrics are expressed in 2013 dollars.