Attachment 1: Description of Emissions Reduction Measure Form

Title: *Land Use and Smart Growth Policies*

Type of Measure (check all that apply):

☑ Direct regulation	☐ Market-based compliance:
☑ Monetary Incentive	☑ Non-monetary incentive
☑ Voluntary	☐ Alternative Compliance Mechanism
☐ Other Describe:	

Responsible Agency: California Air Resources Board and/or the state agency identified in the measure. Where no specific agency is listed, CARB is the responsible agency.

Sector:

☑ Transportation	☐ Electricity Generation
☐ Other Industrial	☐ Refineries
☐ Agriculture	☐ Cement
☐ Sequestration	☐ Other Describe:

2020 Baseline Emissions Assumed (MMT CO2E):

Percent Reduction in 2020: See below.

Cost effectiveness ($/metric ton CO2E) in 2020: See below.

Description:

A recent national report published by the Urban Land Institute (ULI), "Growing Cooler: The Evidence on Urban Development and Climate Change" concluded that residents of compact, walkable transit-oriented neighborhoods drive one third fewer miles than their neighbors in more sprawling auto-centered developments, due to their ability to walk or take transit for many trips, and the fact that when they drive, trips are shorter. Since transportation accounts for more than 40% of California's greenhouse gas emissions, and the ULI report estimates that two-thirds of the development that will be on the ground in 2050 has not yet been built, strategies to use land more efficiently to reduce vehicle miles traveled (VMT) present a prime opportunity to combat global warming and secure large emission reductions. In addition, other strategies to reduce global warming emissions from vehicles including the regulations required by AB 1493 (Pavley) and the Low-Carbon Fuel Standard will eventually be overwhelmed by projected growth in population and VMT without prompt action on land use. Improvements in location efficiency and reductions in VMT will be necessary to enable the state to meet the Governor's goal of reducing global warming pollution to 80% below 1990 levels by 2050.

A broad package of state policies is presented below. We have also attached a matrix of additional state and local policies to achieve smart growth objectives, for further background. NRDC supports the California Energy Commission's recent work exploring the connection

between land use and climate change, and we are pleased to see many of our recommendations re-inforced in the recent CEC report "The Role of Land Use in Meeting California's Energy and Climate Change Goals."

Statewide Vision

Reducing vehicle miles traveled will require a concerted effort to ensure that state spending and policies support California's greenhouse gas emission reduction targets. It is difficult for local governments and regional agencies when state government requires reductions in air pollution and greenhouse gas emissions, yet reduces funding for public transit. An integrated statewide vision of land use and urban design that accommodates population growth yet reduces VMT is an essential tool that will serve as a unifying document around which all state agencies can prioritize investments.

The Governor's Office of Planning and Research, working with local governments, the building community, the university system, and other stakeholders should craft and adopt a statewide growth plan that is built from required local and regional plans and all state agencies should align state planning, financing, infrastructure, and regulatory land use policies and programs to the plan.

Regional Transporation Plans Tied to GHG Reductions

Crafting regional transportation plans to achieve greenhouse gas targets is a strategy embodied in SB 375 (Steinberg) - a bill co-sponsored by NRDC and CLCV. SB 375 will provide significant reductions towards AB 32's goal. It directs CARB to set targets for regional greenhouse gas reduction levels, which will be necessary for regions to evalutate and prioritize potential investments. It requires regional transportation plans to include sustainable communities strategies and offers regulatory incentives to local governments that conform general plans to those developed at the regional level. At the same time, the bill leaves significant flexibility to the regions to determine the best mix of focused land use planning, transit investments, pricing policies and incentives and regulations to achieve their state-mandated target. SB 375 also requires the largest Metropolitan Planning Organizations (MPOs) to improve transportation modeling to more accurately predict the impact of various land use policies on transportation choices and traffic.

In addition, NRDC supports the recommendation in the CEC land use report that the California Transportation Commission require regional transportation planning and air quality agencies to adopt 25-year and 50-year regional growth plans that provide housing, transportation, and community services for expected population increases while reducing greenhouse gas emissions to climate change targets determined by CARB.

CARB should monitor and assist with the process already underway at the CTC to revise RTP guidelines and improve transportation modeling.

Adjust state and local financing to support VMT reduction and AB 32 goals

Many existing tax policies, specifically those developed in response to Proposition 13, promote inefficient land use and increase vehicle miles traveled. Since local governments get the bulk of

their tax revenue from sales tax and only a small amount from property tax, jurisdictions tend to encourage retail and commercial uses and discourage housing production. In addition, regions tend to compete against one another for large sales tax producing big box retailers, offering ever more incentives for the retailer to locate within their boundaries. These big box outlets are often located in outlying areas thereby encouraging residents to drive excessive distances, rather than walking to a local store, to purchase inexpensive goods.

The Governor's Office of Planning and Research, working with local governments, the building community, the university system, and other stakeholders should study the impacts of state and local tax policy on land use practices in the state.

In addition, revenue-neutral tax shifting and appropriate user fees present substantial opportunities for achieving desired reductions in vehicle miles traveled and greenhouse gas emissions. Shifting from current taxes on income and business activity to taxes or fees on vehicles, fuel and road use can stimulate economic development while encouraging energy efficiency and innovation. Policies can be designed so as to be progressive with respect to income, provided funds are used to benefit lower-income people.

Identify Barriers to Smart Growth; Provide Smart Growth Technical Assistance

In many parts of California, the higher densities, mixed-use zoning, diversity of housing choices and complete streets necessary to create smart growth neighborhoods are simply not permitted by current code. Many jurisdictions are interested and willing to adopt smart growth policies but lack either the staff, or technical capability to make needed changes.

The Business, Transportation and Housing Agency, in collaboration with the Office of Planning and Research, should conduct a review of local zoning and planning codes, identify these barriers to smart growth compact developments which can reduce GHGs, and develop model codes and promote their adoption through a coordinated technical assistance program. In addition to continuing to fund the Caltrans Planning Grants and the Blueprint planning process, OPR should sponsor an expanded effort to provide technical assistance to regional agencies and local governments to facilitate climate-friendly and energy efficient planning and development. These agencies should examine and implement the most appropriate combination of incentives and requirements to encourage local jurisdictions to undertake these needed reforms.

Smart Location Tax Credit/Location Efficient Mortgages/LEED – ND

The state should initiate a smart location/development tax credit for developers, modeled after the the Low-Income Housing Tax Credit. The Department of Housing and Community Development should craft a tax credit that would encourage compact development in target areas (downtown, near transit, etc.). Criteria could include both location and density of development. The tax credit could be for both developers and purchasers of smart location units. In addition, certain households who choose to live in location efficient neighborhoods may elect to live without a car, and in doing so are providing a societal benefit. A tax credit should be developed to reward car-free households.

The Location Efficient Mortgage (LEM) is a mortgage that helps people become homeowners in location efficient communities -- convenient neighborhoods in which residents can walk from

their homes to stores, schools, recreation and public transportation. People who live in location efficient communities have less need to drive, which allows them to save money afford higher mortgages for a given income. Location Efficeint Mortgages are a key component to incentivize individuals to live in places that reduce their vehicle miles traveled. The Business, Transportation and Housing Agency, in collaboration with CARB, should identify communities and regions in the state where LEMs could substantially impact homebuyers decisions to purchase homes in location efficient neighborhoods, and promote the mortgage to lenders and homebuyers.

In collaboration with the U.S. Green Building Council, NRDC has developed a green neighborhood certification standard called LEED – ND (Leadership in Energy and Environmental Design – for Neighborhood Development). LEED - ND is still in a pilot phase, but provides an excellent set of standards for communities seeking to encourage and facilitate more smart growth devlopment.

The Department of Housing and Community Development and the Office of Planning and Research should familiarize themselves with the LEED –ND guidelines, and consider these standards while drafting the criteria for the smart location tax credit, as well as promote the LEED-ND standards through the technical assistance program discussed in the previous section. CARB and the Dept. of Housing and Community Development should monitor the forty-two California developments currently enrolled as LEED-ND pilot projects and determine whether these provide models which could be replicated and promoted with the right mix of policies and incentives from the state. These two agencies should also consider the appropriateness of requiring LEED-ND certification for all large scale developments, including the university system and municipal developments.

Transfer of Development Rights (TDR) Program

Twenty states have found Transfer of Development Rights (TDR) Programs to be an integral tool to encourage compact development in infill, transit-oriented neighborhoods while simultaneously protecting open space, agriculture and significant resources areas. TDR programs permit those who own agricultural or other open space lands at the urban fringe to sell their development rights to a land trust or open space agency, and literally transfer these development rights to parcels in more urbanized areas, where they can build to greater densities.

The Business, Transportation and Housing Agency should identify rapidly growing areas at risk of sprawling development and craft a new TDR program to preserve open space and promote compact development in these areas.

Emissions Reduction Calculations and Assumptions:

NRDC is committed to working with CARB throughout the scoping plan process to develop further detail on these policy recommendations, to prioritize the policies, and to evaluate the emission reductions and economic costs and savings associated with these policies. In the interim, a number of resources provide estimates of the VMT and GHG reductions achieved with adoption of smart growth policies.

- Ewing et al (2007) find a 7 – 10% reduction in transport sector GHG emissions nationally assuming 60 – 90% of all new growth is compact development[i].
- Burer and Goldstein (2004) found that designing all new developments with smart growth principles would save 595 million metric tons of CO2 nationwide (10% of total US global warming pollution in 2002), and 60 million metric tons in California ten years after implementation.[ii]
- Littman (2007) finds that smart growth and planning reforms can reduce total vehicle miles traveled by 14 – 32%.[iii]

Cost Effectiveness Calculations and Assumptions:

Most of the recent case studies suggest that a concerted effort to focus development in infill areas should result in substantial savings for local agencies. SACOG, for example, estimates that they save approximately $20,000 per unit on road, sewer, water and other infrastructure costs for every smart growth unit built in lieu of a sprawl unit, for a total estimated savings of $16 billion in unnecessary infrastructure costs between now and 2050. A recent report published by the Urban Land Institute found that if 60% of all new units built between now and 2050 were compact development, we could save $250 billion by 2050 in national fuel expenditures alone. In a 2006 paper, Goldstein estimated that if all new developments in California were smart growth, we would save $200 billion in personal transportation costs in the next decade. Certain measures described above have cost estimates attached - for example, Caltrans estimates the Blueprint planning process will cost $15 million. Most policies have not had costs assigned. Based on our initial review of the costs and benefits of efficient land use, we believe it presents an incredibly cost-effective means to achieve reductions in VMT and greenhouse gas emissions.

Implementation Barriers and Ways to Overcome Them:

California's challenge is its diversity and number of local agencies with authority over land use planning. Thus far, the most effective approach has been to engage these local agencies in regional blueprint planning to identify common priorities and solutions, which can then inform the state's growth plan.

Some organizations are also working effectively at the regional level to influence land use and transportation planning. Local and regional processes and success stories should be evaluated to inform state efforts.

Potential Impact on Criteria and Toxic Pollutants:
The goal of the measures described above is to create more compact, mixed-use, walkable and transit friendly neighborhoods, all of which provide alternatives to driving and thus reduce peak period driving and decrease emissions of criteria pollutants.

Name: Amanda Eaken
Organization: Natural Resources Defense Council
Phone / email: (415) 875 – 6100 / aeaken@nrdc.org

[i] Ewing, R. et al. "Growing Cooler: The Evidence on Urban Development and Climate Change." www.smartgrowthamerica.org

[ii] Burer, Mary Jean, D.B. Goldstein, J. Holtzclaw "Location Efficiency as the Missing Piece of The Energy Puzzle: How Smart Growth Can Unlock Trillion Dollar Consumer Cost Savings.", Proceedings of the 2004 Summer Study on Energy Efficiency in Buildings, American Council for an Energy Efficient Economy, Washington, DC, August 2004.

[iii] Littman, T. "Win -Win Emission Reduction Strategies: Smart Transportation Strategies Can Achieve Emission Reduction Targets And Provide Other Important Economic, Social and Environmental Benefits." www.vtpi.org.