October 2, 2008

Mary D. Nichols, Esq.
Chairwoman, California Air Resources Board
1001 I Street
Sacramento California 95812

Re: Reductions in Highway Maximum Speeds Deserve Consideration as a California Global Warming Solution

Dear Chairwoman Nichols:

Under the California Global Warming Solution Act, the California Air Resources Board (CARB) is charged with creating a scoping plan that identifies strategies to achieve the maximum feasible and cost-effective reductions of greenhouse gas emissions by 2020.[1] Based on substantial evidence, it appears that lowering the maximum speed on California highways could result both in substantial GHG reductions from on road sources as well as other co-benefits to public health and safety; however, there appears no mention or analysis of this strategy in the scoping plan or related public documentation.

Carbon dioxide emissions are directly proportional to fuel consumption, and the adverse impact on the relationship of speed on fuel efficiency is not disputed. Aerodynamic drag forces increase with the square of the vehicle speed. Newer vehicles generally achieve optimum gas mileage somewhere between 45 and 55 m.p.h. Testing of vehicles at Oak Ridge National Laboratory for US DOT suggest that an increase in speed from 55 to 65 mph may reduce fuel economy by over 11 percent and that increasing from 55 to 70 mph may reduce fuel economy by over 23 percent. Consumer Reports recently tested the effect of speeds on highway gas mileage of a 2006 Toyota Camry cut gasoline mileage dramatically. An increase in cruising speed from 55 mph to 65 reduced the car's fuel economy from 40 mpg to 35 mpg. Increasing the speed an additional 10 miles per hour, to 75 mph, reduced the fuel economy another 5 mpg.

Lowering speed limits have been shown to reduce both average speeds and the prevalence of speeding. For example, after the California legislature increased urban freeways speed limits from 55 to 65 mph, the percent of motorists traveling faster than 70 mph increased from 29 to 41 percent.[2] National studies of speed limits show similar effects.[3]

Lowering speed limits has been demonstrated to be an effective fuel consumption and carbon emissions reduction strategy. A 1984 study by the National Research Council (NRC) concluded that the national speed limit law, implemented in response to world oil price shocks, reduced highway fuel consumption by about 2.2 percent. According to a more recent report by the FHWA, a 55 mph limit would, despite imperfect compliance, reduce national fuel consumption on highways up to 3 percent.[4]

Modifying speed limits is essentially free; it requires an act of the State legislature, but does not rely on any new technology or regulation. Existing enforcement mechanisms to ensure compliance with the

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1 California Global Warming Solutions Act of 2006

2 Retting, R.A. and Greene, M.A. 1997. Traffic speeds following repeal of the national maximum speed limit. ITE Journal 67:42-46.

3 Retting, R.A. and Teoh, E.R. 2008. Traffic speeds on interstates and freeways 10 years after repeal of national maximum speed limit. Traffic Injury Prevention 9:119-24.

4 Transportation and Global Climate Change: a Review and Analysis of the Literature. Federal Highway Administration. Publication No. DOT-T-97-03. December 1998

maximum speed already exists. Lowering of speed limits could also be phased in to increase public acceptability.

Reducing highway speed limits is complementary with efforts to combat urban sprawl and would have important co-benefits for public health and safety. In collisions at higher speeds, passenger vehicle occupants are subjected to forces beyond the capacity of vehicle safety systems. In 2006, more than 13,500 people died in speed-related crashes resulting in both avoidable loss of life and a cost of $40 billion.[5] The National Research Council estimated that the national 55 mph limit reduced fatalities by 4,000 in its first year of implementation.[6] Reducing the maximum speed would also reduce criteria air pollutant emissions, environmental noise, and limit periods of traffic congestion.

According to the GHG inventory in the staff report, transportation activities are responsible for 38 percent of the Greenhouse gas (GHG) emissions in California with on road emissions from cars and trucks being responsible for a growing share. Climate action plans and policy recommendations in other states, including Vermont, Arizona, Minnesota, and Washington have included proposals for speed limit reductions or speed limit enforcement.

In 2008, Jackie Speier introduced HR 6458, the "Gasoline Savings and Speed Limit Reduction Act" which would set a national 60 miles per hour speed limit in urban areas and 65 mph elsewhere. HR 6458 has received backing from a wide array of organizations, including the American Trucking Associations, the Union of Concerned Scientists, and Friends of the Earth.

We ask that CARB include highway maximum speed reductions as a feasible and immediate potential climate protection strategy in its scoping plan. There exists ample justification for including a reduction of maximum speeds in the menu of California's global warming solutions. While reducing the maximum speed may not be popular with all constituencies, CARB has a responsibility for providing the public a full list of technically feasible and effective strategies. Alternatively, CARB could inform the state legislature about the potential of reducing the maximum speed as a complimentary potential legislative strategy for climate action.

Thank you for your consideration.

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5 National Highway Traffic Safety Administration. 2007. Traffic safety facts, 2006: speeding. Washington, DC: US Department of Transportation.

6 Transportation Research Board. 1984. 55: a decade of experience. Special Report 204. Washington, DC.