ENVIRONMENTAL DEFENSE FUND
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August 11, 2008

Mary D. Nichols, Chairman
California Air Resources Board
1001 I Street
Sacramento, CA 95812
(916) 445-5025 (Fax)

RE: Draft Scoping Plan Comments – Land Use

Dear Chairman Nichols,

Environmental Defense Fund (EDF) applauds the California Air Resources Board (CARB) on the release of the *Climate Change Draft Scoping Plan: A Framework for Change*. The draft Scoping Plan represents an important milestone in California's implementation of the landmark Global Warming Solutions Act of 2006 (AB 32), the first state-level cap on the greenhouse gas pollution that causes global warming.

EDF respectfully submits the following comments in response to the draft Scoping Plan, and looks forward to collaborating with CARB and other stakeholders in the coming months as further materials, including the evaluation supplements, are made available.

Sincerely,

Derek Walker
Director, California Climate Initiative
Environmental Defense Fund

Land Use/Transportation System

The Scoping Plan should go further to reduce greenhouse gas (GHG) emissions generated by the land use and transportation system. The Climate Action Team recognized that the land use/transportation system sector could contribute GHG reductions of about 18 million metric tons (MMT) of CO2 equivalent. The draft Scoping Plan proposes that this sector contribute only 3 MMT to helping reduce the state's GHG burden. In short, the draft Scoping Plan misses opportunities to implement known measures that have been proven to reduce emissions and that could quickly and effectively capture needed and long-lasting GHG reductions.

In California, the transportation sector accounts for about 38 percent of GHG emissions. Researchers, regulators and advocates have discovered that fuel and technology improvements alone will not achieve the transportation sector reductions needed to meet AB 32 goals. Vehicle miles traveled (VMT) must be substantially reduced to achieve GHG reduction goals. To reduce VMT, measures and strategies that discourage sprawl and encourage more compact development must be adopted in the final Scoping Plan.

Rationale for Requiring Land Use and Transportation System Reductions

Limits of Fuel and Technology Improvements

Even with fuel and technology improvements, California will fall short of reducing the transportation sector's share of GHG emissions to meet AB 32 goals. In addition, VMT reduction will be critical to meet Governor Schwarzenegger's executive order for an 80% reduction of GHG by 2050. Steve Winkelman of the Center for Clean Air Policy estimates that under the most optimistic scenario, emissions from the transportation sector will only begin to get to 1990 levels just before 2030 if VMT growth trends continue. Under a less optimistic scenario, carbon dioxide levels from the transportation sector will be 17 percent above 1990 levels in 2030.[1]

Reducing VMT by 30 percent overall, or by 8 percent per capita, would assure that the benefits of new technology and fuels, including an advanced form of the Pavley standards, would adequately reduce emissions.[2] California could then reach its GHG goals for 2020 in the transportation sector. By 2030, if the VMT reductions continued, California could bring its transportation sector GHGs to a level that is 24 percent below 1990 levels.

[1] See Winkelman's presentation to the Air Resources Board's Haagen-Smit conference in April 2008: http://www.arb.ca.gov/planning/hsmit2008/docs/winkelman.pdf.
[2] See Winkelman's presentation to the Air Resources Board's Haagen-Smit conference in April 2008: http://www.arb.ca.gov/planning/hsmit2008/docs/winkelman.pdf.

VMT Reduction as a Necessary Approach

The work by Winkelman, and similar or supporting work by state agencies and others, has forged an understanding among California leaders responsible for implementing AB 32 that VMT reductions will be essential to achieve the AB 32 GHG reduction goals.

For instance, the Land Use Subgroup of the California Climate Action Team (LUSCAT), composed of representatives of a range of state agencies including transportation agencies, recently concluded in a submission to CARB that:

> *"The State must significantly reduce the GHG emissions from the transportation sector. Reductions of GHG emissions from the transportation sector will come from a combination of vehicle efficiency improvements, low-carbon fuels, and implementing transportation demand management (TDM) policies and strategies. The effectiveness of efforts to provide transportation alternatives to the automobile and TDM can be measured in terms of reductions in vehicle miles traveled (VMT) or expected growth in VMT. VMT reductions correlate directly with reductions in GHG emissions."*

Additionally, in response to legislative leadership's request, the main funding agency for transportation in California, the California Transportation Commission, convened a stakeholder group to develop new guidelines for regional transportation plans that would take into account the need to be consistent with AB 32 goals.[3] That consensus document noted that as part of a regional transportation plan's GHG reduction strategy, among other things, emphasis should be placed on:

> *"…transportation investments in areas where desired land uses as indicated in a city or county general plan may result in vehicle miles traveled (VMT) reduction or other lower impact use."*

The California Air Resources Board organized the Haagen-Smit Symposium in April 2008, bringing together representatives from industry, local and state government, and environmental and health advocates, to consider transportation and land use strategies to reduce GHGs. Participants at the symposium came to a consensus decision that land use measures are necessary to meet AB 32 goals.[4]

These examples are significant in that they support a position long held by environmental, health, and community advocates: unplanned and uncontained development patterns that contribute to increased dependence on automobiles for longer commutes and more frequent vehicle trips to accomplish daily errands are bad for air quality, public health and the environment. We critically need to address ways to change this development pattern due to the urgency to reduce GHGs and maintain those reductions as our population grows.

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[3] For that document, see: http://www.catc.ca.gov/programs/rtp/Final_Letter_to_Perata_with_Attachments.pdf.
[4] See the Haagen-Smit Declaration and presentations at that symposium at: http://www.arb.ca.gov/planning/hsmit2008/hsmit2008.htm.

Measures to Improve Land Use Patterns and Reduce VMT

A number of organizations, including EDF and other environmental and health advocacy groups have submitted lists of recommended measures and actions for the scoping plan, all available on CARB's website.[5] The Haagen-Smit declaration[6] and the recommendations submitted by environmental and health advocates to the AB 32 scoping plan process address VMT reductions through seven key approaches:

1. Setting regional GHG reduction targets with local accountability for achieving regional goals.
2. Public investment in better tools and processes that will help local entities plan growth in a way that reduces GHGs, including scenario modeling and blueprint planning.
3. Regulatory measures, such as indirect source rules, that have been proven to reduce pollutants associated with VMT.
4. Pricing measures, including cordon pricing, parking pricing and insurance pricing, that assign to drivers the environmental costs of driving.
5. Transit improvements and innovations—dubbed tailored mass transit—that provide greater choice and reliable alternatives to auto transit.
6. Public spending parameters that give priority to transportation and other infrastructure projects that will help reduce GHGs rather than expand sprawl.
7. Incentives to encourage better local and regional actions, and better individual choices, including location-efficient mortgages.

We can see these measures in action in other parts of the country, like the Pacific Northwest, where experience in Portland has shown that it is possible to set goals and achieve VMT reductions.

Specific Needed Improvements to the draft Scoping Plan

The draft Scoping Plan offers two specific preliminary recommendations (items 13 and 14) addressing the land use/transportation sector that could affect VMT. It offers an additional list of other sector-based measures that are under evaluation. Here we address those measures and propose improvements for the final Scoping Plan.

Item 13, Local Government Actions and Regional Targets: CARB's draft Scoping Plan does a good job in Item 13 laying out the actions local and regional governments can take to achieve GHG reductions from land use decisions. The item is weakened by its lack of specific requirements, such as linking mandatory regional targets to infrastructure funding. The current measure's enforcement is limited to collaboratively developing targets and processes to meet those targets.

[5] For all scoping plan documents see: http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm.
[6] See the Haagen-Smit Declaration and presentations at that symposium at: http://www.arb.ca.gov/planning/hsmit2008/hsmit2008.htm.

CARB notes that the system it designs to meet targets should include at minimum scenario modeling, consideration of other state policy goals, performance indicators and monitoring, coordination of planning, and establishment of priorities for directing state resources. These are all important and should be developed to maximize both incentives for land use and transportation decisions that reduce GHG emissions and disincentives for decisions that would increase GHG emissions. For instance, state resources such as funding for infrastructure should be tied to a region's demonstrated effort to reduce GHGs associated with land use and transportation system decisions that affect VMT. To represent the public's interest in reducing the environmental impacts of land use in this system, CARB should include environmental public interest groups in the collaborative process.

We recognize that there is some debate about whether CARB has the authority to enforce mandatory regional targets. Before finalizing the Scoping Plan, CARB should have legal analysis done to determine whether this authority exists. If CARB lacks this authority, it should recommend in the Scoping Plan that the administration develop and promote legislation granting the authority to monitor and enforce the mandatory targets to CARB or an appropriate agency.

Item 14, High-Speed Rail: The draft Scoping Plan "supports implementation of plans to construct and operate a HSR system between Northern and Southern California." High speed rail's ability to reduce greenhouse gases depends on a number of factors, including where the rail line is routed and how that location affects land use. Certain pathways and designs will encourage sprawl development; others may discourage it. This measure provides unqualified support for HSR without regard for the rail line's routing and potential long-term impacts on land use. This is unfortunate, especially considering the high cost of this reduction measure and the plan's silence on transit funding generally despite evidence that lowering VMT will require improved public transit systems within California's metropolitan areas.

Other Measures under Evaluation

The draft Scoping Plan offers a handful of other measures that are under evaluation and may or may not be included in the final plan. We urge CARB to include all of these measures as required measures in the final Scoping Plan, with the conditions described below:

Indirect Source Rules for New Development: The San Joaquin Valley Air Pollution Control District adopted an advanced indirect source rule in December 2005. Through changes in on-site development practices and off-site emission reduction programs, the rule has been effective in reducing and preventing criteria pollutant pollution from vehicles and energy sources. Recently, Environmental Defense Fund commissioned Dr. Lawrence Frank to review and evaluate that rule's design and its appropriateness for reducing criteria pollutants based on what's known about land use and pollution linked to land use and transportation.[7] That peer-reviewed

[7] Dr. Frank is an Associate Professor and J. Armand Bombardier Chair in Sustainable Transport at the University of British Columbia in Vancouver BC, and a Senior Non-Resident Fellow at the Brookings

study was released on July 9, 2008. Frank concluded that the rule is appropriate for reducing criteria pollutants and, moreover, could be used effectively to reduce GHGs associated with new development. We have appended the study to this comment letter (Appendix B).

CARB's final Scoping Plan should include a requirement that each of the 35 air districts in the state adopt an indirect source rule by January 2012 that contains key elements identified in CARB guidelines for ISR rulemaking. The rulemaking requirement for air districts, supported by CARB guidance on the rule's contents and framework, is similar to approaches CARB has used in the past to advance air quality measures that have statewide application.

CARB should develop those guidelines using the best elements of the landmark San Joaquin Valley rule. This approach creates consistency around the state and limits the likelihood that regions will adopt weak rules to attract development. That is, the guidelines should require district rules that:

- Apply advanced modeling to estimate the indirect source pollution associated with a new development project;
- Require reductions through onsite measures;
- Require offsite mitigation that benefits the community, wherever reductions can't be attained through onsite measures; and
- Include, in the list of offsite mitigations measures, a fee to be paid to the air district to identify and fund offsite mitigation of at least the equivalent amount of GHGs.

Congestion Pricing: We agree with CARB's assessment in the Draft Scoping Plan that congestion pricing is one effective way to reduce GHG emissions. However, it is essential to note that congestion pricing's effectiveness in capturing environmental benefits, such as GHG reductions, depends on how the system is designed and how revenues collected are spent. For instance, congestion pricing that simply increases level of service by adding new lanes funded by tolling does not provide long-term emissions reductions. For example, congestion pricing on SR 91 supported sprawl development patterns and increased VMT. In the final plan, CARB should encourage development of legislation to establish congestion pricing that meets environmental standards and requires the provision of transit service.

Pay-As-You-Drive (PAYD) Insurance: The Department of Insurance and the legislature are pursuing pathways for the insurance industry to offer mileage-based insurance programs. The large VMT reduction potential of these programs has been explored by a variety of experts. An Environmental Defense Fund economist has found that in year 2020 alone in mid-range scenario, with 30% participation, California would lower its VMT by 22.3 billion miles. Between 2009 and 2020, yearly reductions would aggregate to 138 billion VMT avoided, for a total of 55 million tons of CO_2 avoided. This model can be made available to CARB staff for evaluation and use. CARB should reflect these emissions reduction forecasts in its reduction

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Institution. Dr. Frank has over 12 years of experience in developing environmental information systems designed to estimate the impacts of the physical environment on household activity patterns, including travel behavior, physical activity and obesity, and household vehicle emissions.

estimates and encourage the Department of Insurance to promulgate regulations that meet or exceed these goals. In recognition of the trajectory of the legal processes, CARB should move PAYD to the "Emission Reduction Measures" section of the Scoping Plan.

Other Measures that Merit Inclusion

The draft Scoping Plan does not mention a number of measures that will help California reduce its GHG emissions from land use and the transportation. A few of these include:

Incorporating Environmental Performance into Infrastructure Spending: The state spends about $20 billion a year on transportation infrastructure alone. If that funding was prioritized based on projects that reduce GHGs—not increase them—California's effort to meet AB 32's GHG reduction goals certainly would be accelerated. The secondary benefits of reduced air pollutants would also be great. The final Scoping Plan should take note of this potential and recommend that each state agency responsible for funding infrastructure projects review each funding account and identify and implement measures to ensure that that spending promotes AB 32 goals.

Tailored Mass Transit: Providing adequate transit service will accommodate Californians' fuel-price-induced willingness to shift travel modes and will reduce VMT and GHG emissions. Essentially, providing adequate transit will require a commitment to consistent and predictable public investment in transit infrastructure and operation. It will also require new thinking about mass transit and new ways to invest. To date, mass transit has been designed to address a fairly narrowly defined customer base with a few types of service. To be more effective, mass transit must be designed to more closely respond to broader needs through more diverse and expansive types of service. It must be better tailored to meet need.

Parking Management: In most California cities, the pricing and management of parking does not reflect parking's environmental or social costs. Under-pricing of street parking encourages greater automobile use, instigates more idling and fuel consumption as potential parkers circle streets searching for free or cheap parking, and reduces available short-term customer parking for nearby businesses.[8] With optimal parking pricing, traffic is reduced and revenues are available to support street improvements that attract shoppers. Similarly, offering free parking to employees discourages employees from considering mass transit or carpooling and inadvertently penalizes those employees who do use mass transit. These measures should be researched and included in the final Scoping Plan.

[8] Donald Shoup, *The High Cost of Free Parking*, APA Planners Press, Chicago, 2004.