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April 18, 2007

By Telecopy and E-mail

Marjorie Kirn, Deputy Executive Director
Transportation Program Manager
Merced County Association of Governments
369 W. 18th Street
Merced, CA 95340

RE: Merced County Regional Transportation Plan - Expanded Initial Study and Proposed CEQA Determination for the 2007 Regional Transportation Plan for Merced County (State Clearinghouse No. 2007031076)

Dear Ms. Kirn:

The Attorney General submits these comments to the Merced County Association of Governments ("the Association") on its proposed CEQA Determination of "no significant effect" for the 2007 Regional Transportation Plan for Merced County ("2007 Regional Plan"). The proposed determination relies on the Merced County Regional Transportation Plan - Expanded Initial Study and the Final Environmental Impact Report for Merced County's 2004 Regional Transportation Plan ("2004 EIR"). The Attorney General provides these comments pursuant to his independent power and duty to protect the natural resources of the State from pollution, impairment, or destruction in furtherance of the public interest. (See Cal. Const., art. V, § 13; Cal. Gov. Code, §§ 12511, 12600-12; *D'Amico v. Board of Medical Examiners*, 11 Cal.3d 1, 14-15 (1974)). These comments are made on behalf of the Attorney General and not on behalf of any other California agency or office.

Under the California Environmental Quality Act, Public Resources Code § 21000, et seq. ("CEQA"), the Association has an obligation to consider global warming impacts of the Regional Plan in an environmental impact report ("EIR"). The projects and priorities identified in the Regional Plan could result in significant increases in emissions of greenhouse gases that cause global warming, and any increase in such emissions will make it more difficult for the state to achieve the greenhouse gas reductions required by Assembly Bill 32. An EIR (or possibly, a tiered or supplemental EIR) must evaluate the global warming impacts of the projects and the Regional Plan must include feasible alternatives and mitigation measures to avoid or reduce those impacts.

Global Warming in California

The Intergovernmental Panel on Climate Change of the United Nations recently published its finding that overwhelming evidence establishes that global warming is occurring and is caused by human activity.^{1/} With respect to impacts in the state, the California Climate Change Center reports that temperatures are expected to rise 4.7 to 10.5°F by the end of the century.^{2/} These increases would have serious consequences, including substantial loss of snow-pack, an increase of as much as 55% in the risk of large wildfires, and reductions in the quality and quantity of agricultural products.^{3/} Additionally, the report predicts increased stress on the state's vital resources and natural landscapes.^{4/} Global warming will also slow the progress toward attainment of the ozone air quality standard by increasing the number of days that are meteorologically conducive to the formation of ozone.^{5/}

In June 2005, the California Energy Commission reported that California produced 493 million metric tons of carbon dioxide-equivalent greenhouse gas ("GHG") emissions in 2002.^{6/} Of those emissions, 82% were emissions of carbon dioxide from fossil fuel combustion.^{7/} Fossil fuel consumption in the transportation sector was the single largest source of California's GHG emissions in 2002. According to the report, transportation, which includes emissions from vehicles and planes, accounted for 41.2% of GHG emissions in the state.^{8/}

1. "Climate Change 2007: The Physical Science Basis, Summary For Policymakers" (Fourth Assessment Report of the IPCC, February 2007).

2. Amy Lynd Luers, Daniel R. Cayan et. al, *Our Changing Climate: Assessing the Risks to California* (July 2006) at p. 2. The report was prepared by the Climate Change Center at the direction of CalEPA pursuant to its authority under Executive Order S-3-5.

3. *Id.* at pp.2, 10.

4. *Ibid.*

5. Climate Action Team Report, Executive Summary, p.xii (CalEPA March 2006).

6. "Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2002 Update."

7. Gerry Bemis and Jennifer Allen, *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2002 Update* (June 2005) at p.5.

8. *Id.* at pp. 6-7.

California's Actions to Address Global Warming

On June 1, 2005, Governor Schwarzenegger issued Executive Order S-3-05. The Order recognized California's vulnerability to global warming and the need for implementation of mitigation measures to limit the impacts to the state. The Order specifically found that global warming results in increased temperatures that threaten to greatly reduce the Sierra snow-pack, one of the State's primary sources of water, threaten to further exacerbate California's air quality problems, and adversely impact human health by increasing heat stress and heat related deaths, and the risk of asthma, respiratory and other health problems.

To counteract the warming trend, the Governor set GHG emission reduction targets for California: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce emissions to 1990 levels; by 2050, reduce emissions to 80 percent below 1990 levels.

Assembly Bill 32, the California Global Warming Solutions Act of 2006, codified at Health and Safety Code Section 38500, et seq. ("AB 32"), was signed into law by the Governor on September 27, 2006. The bill demonstrates that the Legislature recognizes the serious threats that global warming poses to California.^{9/}

To combat these threats, AB 32 requires reduction of the state's GHG emissions to 1990 levels by 2020,^{10/} a time well within the 2030 planning horizon of the Regional Plan. This emissions cap is equal to a 25% reduction from current levels.^{11/} The bill directs that by June 30, 2007, the California Air Resources Board ("CARB") shall publish a list of discrete early action GHG emission reduction measures that will be implemented by 2010.^{12/} CARB must then adopt comprehensive regulations that will go into effect in 2012 to require the actions necessary to achieve the GHG emissions cap by 2020.^{13/} The legislation also encourages entities to voluntarily reduce GHG emissions prior to 2012 by offering credits for early voluntary reductions.^{14/}

9. Health & Safety Code § 38501.

10. Health & Safety Code § 38550.

11. 9/27/2006 Press Release from the Office of the Governor, available at <http://gov.ca.gov/index.php?/print-version/press-release/4111>.

12. Health & Safety Code § 38560.5.

13. Health & Safety Code § 38562.

14. Health & Safety Code §§ 38562(b)(3), 38563.

California Environmental Quality Act

CEQA and its implementing Guidelines provide that in any of the following situations, a finding must be made that the project may have a significant effect on the environment:

(1) A proposed project has the potential to degrade the quality of the environment, curtail the range of the environment, or to achieve short-term, to the disadvantage of long-term, environmental goals.

(2) The possible effects of a project are individually limited but cumulatively considerable. As used in this paragraph, "cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

(3) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.^{15/}

In such cases, the agency must prepare an EIR. As part of the analysis carried out in an EIR, the agency must formulate mitigation measures and examine alternatives to the proposed project. CEQA mandates that public agencies refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid those effects.^{16/}

As the Court of Appeal concluded in *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720 [internal quotation omitted]:

"[o]ne of the most important environmental lessons evident from past experience is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant, assuming threatening dimensions only when considered in light of the other sources with which they interact. Perhaps the best example is air pollution, where thousands of relatively small sources of pollution cause a serious environmental health problem. CEQA has responded to this problem of incremental environmental degradation by requiring analysis of cumulative impacts."

When an agency seeks to rely on a EIR for an earlier project, as in this case, it must prepare an initial study to "analyze whether the later project may cause significant effects on the environment that were not examined in the prior environmental impact

15. Public Resources Code § 21083(b); see also Cal.Code Regs., tit. 14 § 15065.

16. Public Resources Code § 21081; see also, *Mountain Lion Foundation v. Fish and Game Commission*, 16 Cal.4th 105, 134 (1997).

report."^{17/} The agency must prepare a tiered EIR to examine significant effects of the later project that were not mitigated or avoided as a result of the prior EIR.^{18/} CEQA also directs that, where a prior EIR was prepared for a project, a subsequent or supplemental EIR is required when:

"(b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report. [or]

(c) New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available."^{19/}

The Regional Transportation Plan

The Regional Plan is a long-range regional transportation plan that includes policies and goals to guide transportation decisions and a list of proposed transportation projects needed through 2030. Transportation projects must be contained in, or consistent with, the Regional Plan to qualify for federal or state funding.

Federal law directs that the Regional Plan shall include projects and strategies that will, among other things: "protect and enhance the environment"; "promote energy conservation"; and "improve the quality of life." (23 U.S.C.A. § 134(h)). The Regional Plan also "shall include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan." (23 U.S.C.A. § 134(i)(2)(B)(i)).

The County's population is expected to increase 50% by 2030, the time-frame covered by the Regional Plan. Accordingly, large increases in vehicle miles traveled are also expected. The Regional Plan indicates that 25% of workers who live in the County commute to jobs outside the county, and the number of residents who commute more than 50 miles to work is increasing. The Regional Plan authorizes expenditure of \$1.44 billion on roadway improvements that will accommodate these new drivers. Neither the 2004 EIR nor the recent initial study contain any discussion of the impact of these roadway improvements on GHG emissions or the state's ability to achieve the 25% reduction in GHG emissions required by AB 32.

17. Public Resources Code § 20094(c).

18. Public Resources Code § 21094(a).

19. Public Resources Code § 21166.

The EIR Must Consider Global Warming Impacts

The Governor's Executive Order and AB 32 inform agencies' obligations under CEQA. The existence of global warming is indisputable; it is causing significant environmental impacts in California and will cause future catastrophic impacts if emissions levels are not substantially reduced; and many incrementally small but cumulatively significant sources of emissions are being approved and permitted every day.

Construction of the \$1.44 billion worth of roadway improvements authorized in the Regional Plan will result in a significant cumulative contribution to the GHG load. Once permitted, these projects will continue to have environmental implications for decades. To ensure that these projects do not conflict with or prevent compliance with AB 32's requirement to reduce GHG emissions to 1990 levels, the Association must include feasible measures to avoid or reduce GHG emissions associated with the projects. If the proposed transportation improvements are carried out without implementing such measures, it will be more difficult for the state to achieve the required statewide GHG reductions and will place a greater burden on other sources of emissions (and may result in greater cost to achieve the required reductions).

In light of the serious threat to the environment from existing GHG emissions, and the emission reduction requirements of AB 32, the Association has a current obligation under CEQA to address the potential environmental impacts from increased GHG emissions from the projects in the Regional Plan and adopt feasible mitigation measures. AB 32 includes a provision to give credit for measures that are taken to reduce GHG emissions before the regulations implementing the statute are adopted (the first implementing regulations will be adopted in June 2007).

Neither the Governor's Executive Order nor AB 32, which require statewide reductions of GHG emissions, existed when the 2004 EIR was prepared. The 2004 EIR does not discuss the impacts on GHG emissions of the projects included at that time in the Regional Plan. Therefore, pursuant to Public Resources Code §§ 21166 and 21094(b)(3), the Association cannot rely on the 2004 EIR with respect to global warming impacts. Under CEQA, the Association is required to prepare an EIR (or supplemental EIR) that describes the existing level of GHG emissions in the County, and the expected increased GHG emissions associated with the transportation projects included in the Regional Plan. CEQA then requires that the Association evaluate the feasible alternatives and mitigation measures that would avoid or reduce GHG emissions associated with such actions.^{20/} In addition to meeting CEQA's requirements,

20. There are several models or calculators that local governments can use to evaluate GHG reductions from various actions. See, Center for Clean Air Policy, Transportation Emissions Guidebook, Emissions Calculator (www.ccap.org/safe/guidebook.php); California Energy Commission, The Energy Yardstick: Using PLACE3S to Create More Sustainable Communities

these measures will help California meet its statutory requirements for GHG reductions.

The Climate Action Team Report to Governor Schwarzenegger and the Legislature (CalEPA March 2006) identifies some possible strategies for regional transportation planning that could achieve significant GHG emission reductions. (Report at p.57.) The first strategy - Measures to Improve Transportation Energy Efficiency and Smart Land Use and Intelligent Transportation - includes: "[i]ncorporating energy efficiency and climate change emissions reduction measures into the policy framework governing land use and transportation, including framework for developing energy element in state transportation and regional planning documents." (*Id.* at p.58.) It also includes: "[d]iversifying transportation energy infrastructure and advancing measures to slow the rate of vehicle miles traveled growth and excessive reliance on petroleum." *Id.*^{21/}

The second strategy identified by the Climate Action Team is "Smart Land Use and Intelligent Transportation." (*Id.* at 57.)^{22/} Smart land use strategies "encourage jobs/housing proximity, promote transit oriented development, and encourage high-density residential/commercial development along transit corridors." (*Id.*) Intelligent Transportation Systems is "the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services." (*Id.*)

While the Regional Plan addresses some of these strategies, the EIR should address the potential to reduce GHG emissions by increasing reliance on these and other strategies and, where appropriate, they should be added to the Regional Plan.

The Association, of course, has the opportunity and responsibility to identify the specific alternatives and mitigation to reduce GHG emissions in the EIR and the Regional Plan, and adapt them to the local conditions. We have identified some possibilities below for the Association's consideration.

The Association, for example, should consider in the EIR whether including additional public transit projects and projects that encourage transit-oriented development in the Regional Plan would reduce GHG emissions. The proposed Regional Plan includes expenditures of \$1.44 billion for road improvements, but only \$158 million for transit, control measures, bicycle and pedestrian projects. Although the Plan identifies

(www.energy.ca.gov/places/); and Clean Air and Climate Protection Software - A Joint Project of STAPPA/ALAPCO, ICLEI and the EPA (www.cacpsoftware.org/).

21. The Report predicts GHG reductions from these strategies of 1.8 million metric tons of CO₂ by 2010 and 9 million metric tons by 2020. (*Id.*)

22. The Report predicts GHG reductions from these strategies of 5.5 million metric tons of CO₂ by 2010 and 18 million metric tons by 2020. (*Id.*)

"Scenario D, Alternative Modes" that shifts emphasis from road improvements to alternative transit modes, this scenario is not adopted as the preferred action in the Plan. The Association should evaluate in the EIR the GHG emission reductions that could be achieved under Scenario D.

The EIR should discuss, and the Plan should include, a policy to require mitigation of GHG emissions that result during both project construction and over the life of the project. These mitigation measures could include a requirement to use the most energy-efficient building materials and lighting technology. For example, alternative formulations of cement^{23/} and asphalt,^{24/} that have substantially lower GHG emissions, should be used if they are available. The U.S. Green Building Association publishes LEED standards that may be used to evaluate building materials. The Governor's Executive Order No. S-20-04 (issued July 27, 2004) requires state construction and renovation projects to obtain LEED Silver or higher certification.^{25/}

The EIR should consider the impact on GHG levels from loss of carbon sequestration capacity when trees (including those not part of a sensitive, threatened or endangered habitat) are destroyed during construction of the new road and road widening projects in the Plan. This seems like a strong candidate to be the subject of mitigation, such as a replanting program designed to replace the lost carbon sequestration capacity.

The EIR should consider, as further examples, potential GHG reductions from other mitigation measures, such as increased public transit routes and hours or frequency of operation; high-occupancy vehicle lanes; transit vouchers; incentives for van pooling and ride sharing; other transportation demand management measures; retrofitting traffic

23. Cement manufacture ranks ninth among the sources of U.S. GHG emissions. EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2000 (Washington, D.C., April 2002, ES-4, 1-13 and 1-14). Alternative formulations may be available to reduce GHG emissions. Climate Action Report, p.54.

24. "Warm-mix" asphalt technology that significantly reduces GHG emissions is currently being evaluated and may prove to be a feasible alternative road paving material. See, "Warm-Mix Asphalt (WMA) Potentially Can Provide Important Benefits for Paving Contractors, Reduce Fuel Costs and Diminish Green-House Gases" in Construction Equipment, March 1, 2007 (www.constructionequipment.com/article/CA6421459.html).

25. For unavoidable GHG emissions, contribution to a GHG mitigation fund should be considered.

lights to use LED technology; purchase of hybrid electric or hydrogen fuel cell buses;^{26/} planting trees; and adoption of additional funding priorities that target spending toward population and employment centers and withhold infrastructure funding from greenfield development at the urban edge. The website of the organization ICLEI/Local Governments for Sustainability (www.iclei.org) describes many actions taken by state and local governments to reduce GHG emissions that could also be appropriate mitigation measures for this project.^{27/} The EIR should also evaluate how the Regional Plan can incorporate the flexibility necessary to fund and promote new transportation alternatives, such as infrastructure for the California Hydrogen Highway Network, electric vehicle charging facilities, or solar energy applications, that are developed during the planning period.

Global warming presents California with one of its greatest challenges. The Association has the opportunity to begin addressing global warming in a constructive manner while educating the public and decision-makers. We urge the Association to begin meeting the challenge with this Regional Plan.

Thank you for considering these comments.

Sincerely,



SANDRA GOLDBERG
Deputy Attorney General

For EDMUND G. BROWN JR.
Attorney General

26. These are currently in use in California by AC Transit and SunLine Transit Agency. See, www.actransit.org/environment/hyroad_main.wu and www.sunline.org/home/index.asp?page=120

27. This website includes information about actions to address climate change underway in 30 California cities or counties. Several of these jurisdictions have adopted comprehensive plans to reduce GHG emissions, such as the Marin County Greenhouse Gas Reduction Plan (October 2006) and the Climate Action Plan for San Francisco (September 2004).