

TO: Transportation Policy Workshop (TPW)
FROM: George Dondero, Executive Director
RE: Addressing Greenhouse Gas Emissions

RECOMMENDATIONS

Staff recommends that the Regional Transportation Commission (RTC):

1. Direct staff to monitor and participate in local, state, and federal efforts to address global warming, including any required actions;
 2. Discuss options for addressing greenhouse gas emissions (GHG) within a local transportation sales tax measure;
 3. Direct staff to return at a future meeting with specific language related to GHG to incorporate into the transportation sales tax measure.
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BACKGROUND

Transportation funding levels in the region have not kept pace with costs to support the transportation needs of the community. In November, the Regional Transportation Commission's Transportation Funding Task Force (TFTF) forwarded to the RTC a 35-year ½-cent sales tax plan, with the stated objective of increasing mobility and reducing greenhouse gas emissions.

As discussed at prior meetings, the TFTF plan will need adjustments if it is to minimize opposition and achieve voter approval. Santa Cruz County voters are very concerned about global warming and the RTC may want to add language to the measure to assure voters that this issue will be addressed by the transportation funding plan.

DISCUSSION

Global warming is a critical environmental issue. Temperatures are rising due to concentrations of greenhouse pollutants resulting, in part, from human activities. It is necessary to address greenhouse gas (GHG) emissions from the transportation sector, which is the single largest source of GHG emissions in California (approximately 40% statewide according to the California Air Resources Board). Transportation makes up a greater percentage of greenhouse gas (GHG) emissions in California than in the rest of the nation due to the decreased reliance on coal for generation of electricity.

Efforts Underway to Address Climate Change

There are a great number of legislative, planning, and policy efforts underway at the local, state, and federal levels to address global warming. These include:

- The California Global Warming Solutions Act of 2006 (AB 32) requires the state to reduce carbon emissions to 1990 levels by the year 2020, a reduction of approximately 25%. The California Air Resources Board is working over the next three years with agencies statewide to establish regulations and compliance mechanisms. The California Transportation Commission is considering new guidelines for Regional Transportation Plans (RTP) aimed at addressing AB 32 mandates.
- SB 97 (2007) requires that California Environmental Quality Act (CEQA) guidelines be developed and adopted by January 1, 2010 for the feasible mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions.
- As discussed at prior meetings, SB375, introduced last year by Senator Steinberg, focuses on addressing GHG emissions through expanded land use-transportation coordination using preferred growth scenarios that link travel demand modeling with housing and transportation projections. This bill continues to undergo revisions and will be revisited by the legislature this session.
- Regional Blueprints are seen as one way to coordinate land use and transportation planning. The Association of Monterey Bay Area Governments (AMBAG) has been working with local jurisdictions on the first phase of Blueprint planning for our region, the regional population forecast. AMBAG intends to work cooperatively with local jurisdictions, RTC, and other parties to develop Blueprints by sub-regions, allowing Santa Cruz County entities to determine what is appropriate for our area. In general, changes to urban design are considered long-term solutions to global warming.
- Local efforts targeting global warming include an Ecology Action study, funded in part by a \$10,000 grant awarded by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) last year, on ways to reduce GHG emissions from vehicular travel in Santa Cruz County. As part of that study, the Air District is working on developing an inventory of mobile source emissions. The results of the study will be released later this year.
- The County's newly established Commission on the Environment and/or AMBAG may develop a Climate Action Plan for the county/region in the next year. The Air District-funded study could be included as the transportation section of that Plan. Climate Action Plans typically include an inventory of emissions from a variety of sources, emission reduction targets, local action plans, policies, and a monitoring program.
- A Climate Action Compact was signed in September 2007 by UCSC, the City of Santa Cruz, and the County of Santa Cruz. The compact calls for a greenhouse gas reduction goal to be set by early 2008, cooperative clean energy projects between the three institutions to be identified by March 2008, and a greenhouse reduction action plan to be developed by January 2009.

- The new federal energy bill approved in December 2007 creates a ‘Center for Climate Change and Environment’ within the Department of Transportation. The purpose of the center is to plan, coordinate, and implement department-wide research, strategies, and actions to reduce transportation-related energy use and mitigate the effects of climate change. The Center will also conduct a study to examine fuel efficiency savings and clean air impacts of major transportation projects and to identify low-cost solutions to reduce congestion and transportation-related energy use and mitigate the effects of climate change.

The Regional Transportation Commission and project sponsors will be required to comply with adopted regulations. **Staff recommends that the RTC direct staff to track and participate in these and other efforts, as is appropriate or required.**

What are the Most Effective Methods to Reduce Transportation-Related Emissions?

Transportation emissions are the result of three main factors of fuel consumption: vehicle technology, fuel characteristics and vehicle miles traveled (VMT). The most effective measures that would reduce transportation’s contributions to climate change, such as technological advancements that result in increased vehicle fuel efficiency, are beyond the control of the RTC and other local government agencies. However, state and local transportation planning directly affects transportation decisions, which in turn can influence travel patterns, land use, energy consumption, and, ultimately, GHG emissions. Additionally, strategies to reduce Greenhouse Gas Emissions could also help relieve other problems such as congestion, air pollution, and urban sprawl.

What Can Be Done Locally?

While the results of a variety of planning and legislative efforts will be forthcoming, they are not currently available. However, the attached chart ([Attachment 1](#)) provides a list from the Federal Highway Administration (FHWA) of some of the types of transportation projects that could be implemented locally to reduce GHG emissions. Some of the most effective actions within the purview of a transportation planning agency are those which target the reduction of total vehicle miles traveled (VMT), Vehicle Hours Traveled (VHT) and hours of delay. These include incentive programs aimed at encouraging smart growth, video conferencing, telecommuting, carpooling, increasing transit ridership, carsharing, and education. Reducing congestion through introduction of High Occupancy Vehicle (HOV) lanes, ramp metering, signal synchronization and Intelligent Transportation Systems (ITS) projects, as well as diesel engine conversion projects, also could reduce GHG emissions. The proposed Transportation Expenditure Plan and RTC’s *Regional Transportation Plan* include several of these types of projects.

Recommendations for a Local Transportation Sales Tax Measure

Though state mandates and methodologies for addressing GHG emissions may not be implemented until 2010 and there are currently no published thresholds of significance or approved methods for measuring the impact of global climate change from a specific project, the RTC may want to address GHG emissions in a transportation sales tax measure and other planning efforts to improve the potential for a successful sales tax measure. Santa Cruz County would be the first region in the state to focus on reducing GHG emissions within a sales tax ballot measure. The Metropolitan Transportation Commission (MTC), the Regional

Transportation Planning Agency for the San Francisco Bay Area, is however considering placing a gas fee on the ballot aimed at addressing GHG emissions. Additionally, Contra Costa County and San Joaquin County included smart growth programs in their measures.

The TFTF agreed to add language to the plan stating that one objective of the plan is to reduce greenhouse gas emissions; however, several members of the TFTF voted against the measure because they felt that it needed to go further to address global warming. Specifically, some members of the Task Force and the community at large are concerned about the impact that the individual projects or the plan as a whole will have on global warming.

Almost all of the types of transportation projects proposed for a local tax measure have been identified as strategies for reducing emissions from transportation (Attachment 1). However, given that new tools for reducing and measuring GHG emissions will emerge over time and given the variety of studies currently underway by the California Air Resources Board and a variety of local entities, **it will be important for the RTC to adopt general language that will be consistent with the many efforts currently moving toward completion and to avoid adding specific language to a local transportation sales tax measure that could limit the type of tools and projects that could be implemented.**

The RTC should work to ensure that the projects funded by the sales tax measure incorporate tools identified through these emerging documents, studies, and legislation, where feasible. This could be accomplished, in part, by the RTC adding to the ballot measure the following various statements, projects, and requirements regarding GHG emissions:

1. The Plan funded by this ballot measure shall be consistent with the California Global Warming Solutions Act of 2006 (AB 32).
2. Projects will comply with state and federal rules and regulations addressing GHG emission reduction as they are enacted or adopted by the responsible regulatory entity.
3. In order to reduce vehicle travel and/or GHG emissions, this measure targets a significant portion of funds towards projects that increase public transit, carpool, vanpool, rideshare, pedestrian and bicycle usage.
4. Require the RTC, local jurisdictions, and Santa Cruz Metro to participate in development and implementation of smart land use strategies that encourage jobs/housing proximity, promote transit oriented development, and encourage higher-density residential/commercial development along transit corridors as a condition of receipt of funds.
5. Require green construction practices in projects funded by the plan.
6. Focus sales tax measure funds to projects that reduce VMT and emissions – for instance target transit funds for transit service that increases ridership and/or replace vehicles with cleaner fuel vehicles.
7. Add additional specific projects that are focused on reducing GHG emissions.

Staff recommends that the RTC discuss and provide input on these and other options for addressing greenhouse gas emissions (GHG) within a local transportation sales tax measure and direct staff to return at a future meeting with specific language related to GHG to incorporate into the transportation sales tax measure.

SUMMARY

The Regional Transportation Commission authorized and funded a broad-based Transportation Funding Task Force which met for 26 months to develop a balanced Transportation Funding Plan. After extensive research, debate and collaboration, 72% of the Task Force that was present and voting approved a Mobility Plan to be considered by the RTC. However, the RTC may need to make some modifications to the TFFT plan and will need to address plan details in order to finalize a tax measure that will garner the support of all Commissioners and a two-thirds or better level of support from Santa Cruz County voters. Staff recommends that the RTC incorporate general measures aimed at reducing GHG emissions within the ballot measure that will be consistent with other state and federal efforts with which the agency will be required to comply.

Attachment 1: [FHWA's Transportation Strategies with Emissions Benefits](#)

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