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**COMMENTS RECEIVED FOR THE RTAC**  
**8-14-09 to 8-30-09**

COMMENT LOG DISPLAY

BELOW IS THE COMMENT YOU SELECTED TO DISPLAY.

COMMENT 37 FOR COMMENTS ON THE RTAC (SB375-RTAC-WS) - 1ST WORKSHOP.

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First Name: Julia  
Last Name: Gardiner  
Email Address: jgardiner@tnc.org  
Phone Number: 4152810437  
Affiliation: The Nature Conservancy

Subject: THE Nature Conservancy recommendations for RTAC report  
Comment:

The Nature Conservancy respectfully submits the attached recommendations for the RTAC report. Thank you for your consideration.

Attachment: [www.arb.ca.gov/lists/sb375-rtac-ws/89-the\\_nature\\_conservancy\\_rtac\\_letter\\_8.25.09.doc](http://www.arb.ca.gov/lists/sb375-rtac-ws/89-the_nature_conservancy_rtac_letter_8.25.09.doc)

Original File Name: The Nature Conservancy RTAC letter 8.25.09.doc

Date and Time Comment Was Submitted: 2009-08-25 13:58:13

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25 August, 2009

Dear Chair McKeever and members of the Regional Targets Advisory Committee,

On behalf of our 130,000 members in California, The Nature Conservancy (TNC) commends the Regional Targets Advisory Committee (RTAC) members for its commitment to develop a clear, credible approach to identify factors and methodologies that will enable the CA Air Resources Board (CARB) to set regional GHG emissions reduction targets required by Senate Bill 375, the Sustainable Communities and Climate Protection Act, 2008. We appreciate the opportunity to provide input to this important process and **request that your report to CARB include criteria that lead to strong GHG targets, as well as the recommendation to consider impacts to natural systems as a factor in the establishment of these targets.** Strong GHG targets that incorporate considerations of our natural systems will help the state meet the GHG reductions goals of the Global Warming Solutions Act (GWSA) by reducing emissions in the transportation sector. It also provides the opportunity to integrate at a regional scale additional biological GHG benefits associated with land conservation and provide continued protection to the suite of environmental and public benefits that our natural systems provide, including water and air quality, recreation and fish and wildlife habitat.

Strong regional targets are critical to attain GHG reductions from California's largest source of emissions and foster the climate benefits of our natural landscapes. Vehicle emissions comprise approximately 40% of California's GHG footprint. California cannot meet the GHG emissions reductions targets identified by the GWSA without significant emissions reductions from this sector. Therefore, **TNC urges RTAC to recommend a framework that enables CARB to establish ambitious regional emissions reductions targets.** Ambitious targets will provide regions with the incentives necessary to develop and implement the innovative strategies required to reduce emissions and counter the impacts of climate change on our economy, environment and quality of life. The RTAC may wish to consider a structure of tiered targets that establish minimum targets with additional incentives for regions that exceed the minimum target and achieve more ambitious reduction goals.

Ambitious targets will not only reduce transportation related GHG emissions, but will also foster the protection of the critical climate, environmental and public health co-benefits that are provided by our natural landscapes. The effect of strong targets will reduce or avoid development pressure on our remaining natural landscapes in the MPO regions. As a consequence, the reduction or avoidance of this development pressure will reduce biological GHG emissions that are associated with the conversion and disturbance of forests and other natural lands to alternative land uses and help maintain their vital climate regulation function, which is an objective identified in the GWSA Scoping Plan. In addition to climate benefits, the relief or avoidance of development pressure of strong targets will also foster the protection of the many other essential environmental and public benefits that our remaining natural landscapes

and systems provide, including water and air quality benefits, recreation, and fish and wildlife habitat. Thus, to optimize GHG emissions reductions and benefits across regions and sectors, **TNC requests that RTAC provide recommendations in its report that facilitate strong regional GHG targets and include as a factor for CARB's target setting process, an assessment of the indirect biological GHG and environmental co-benefits associated with such targets.** In the future, the state may wish to provide additional incentives to regions that integrate the protection of biological GHG benefits with regional land use and transportation plans.

Lastly, it is important for the committee to promote the use of the Sustainable Community Strategy (SCS) over the Alternative Planning Strategy (APS) as the best tool for regions to implement and monitor policies and actions to meet their emissions reductions targets. **TNC requests that the RTAC report to CARB includes a high level recommendation promoting the development of a SCS over an APS by the large majority of the regions. We also ask that RTAC recommend the inclusion of spatial analyses in each SCS to help monitor progress towards stated goals, provide more accurate forecasting methods and give a clear assessment of the trade offs and impacts of different planning decisions on the ground.**

Once again, TNC commends the RTAC for its important work which is central to helping the state meet its GHG emissions reductions goals and protecting California's environment, economy and quality of life. TNC would be happy to provide additional input to the RTAC in support of its recommendations.

Contacts:

Julia Gardiner, [JGardiner@tnc.org](mailto:JGardiner@tnc.org)  
Michelle Passero, [MPassero@tnc.org](mailto:MPassero@tnc.org)

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COMMENT 39 FOR COMMENTS ON THE RTAC (SB375-RTAC-WS) - 1ST WORKSHOP.

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First Name: Doran  
Last Name: Barnes  
Email Address: dbarnes@foothilltransit.org  
Phone Number:  
Affiliation: Foothill Transit

Subject: Comments to RTAC  
Comment:

Attached please find Foothill Transit's key factors for your consideration.

Attachment: [www.arb.ca.gov/lists/sb375-rtac-ws/91-foothill\\_transit\\_comments\\_to\\_rtac\\_final.docx](http://www.arb.ca.gov/lists/sb375-rtac-ws/91-foothill_transit_comments_to_rtac_final.docx)

Original File Name: Foothill Transit Comments to RTAC\_FINAL.docx

Date and Time Comment Was Submitted: 2009-08-27 07:32:25

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August 27, 2009

Chairman Mike McKeever and Members  
Regional Targets Advisory Committee  
California Air Resources Board  
1001 I Street  
P.O. Box 2815  
Sacramento, CA 95812

Dear Chairman McKeever and Regional Targets Advisory Committee Members:

As the primary transit operator in the San Gabriel and Pomona Valleys of Los Angeles County, Foothill Transit understands the significance of regional greenhouse gas (GHG) emissions reduction targets not just to our community, but to the nation as a whole. Foothill Transit is pleased to provide contextual considerations to policy makers who continue to keep California on the forefront of the environmental protection movement. We sincerely appreciate your tireless efforts on this front.

The Foothill Transit Joint Powers Authority is comprised of 22 member cities and Los Angeles County. We support the passage of SB 375 and the subsequent GHG reduction targets. Our primary goal related to SB 375 is to ensure that adequate transit funding becomes not only a sustainably-backed allocation of state resources, but a step which effectively positions transit organizations to be the principal means of meeting reduction targets. With sufficient resources, public transportation can create measurable, lasting reductions in GHG emissions throughout California.

The American Public Transportation Association stated that nationally, 86% of transit agencies reported a growth in ridership in 2008, with Foothill Transit contributing to that figure. Unfortunately, state funding to transit agencies does not coincide with these trends. With over five billion dollars in state transit funds cut since 2000, public transportation providers struggle to provide more service with fewer resources, consequently forcing the public to continue single-occupancy vehicle usage. This is highly counterproductive to reducing GHG emissions from passenger vehicles. State population growth continues to mount and state funding cuts limit public transportation's long-term policies to provide services to accommodate this growth. Additionally, this funding decrease not only encourages environmentally detrimental modes of transportation in the short-term, but directly impacts agencies' ability to invest in innovative, clean technology.

An overall reduction in GHG emissions from passenger vehicles simply must require an increase in funding for transit projects and important factors should be considered with this venture. As such, we recommend the following key factors for your consideration in the development of state-wide reduction targets:

- 1. Public transit funding is forward thinking in its capacity to accommodate increased ridership levels as a result of population growth and promotes less personal vehicle usage.** According to the California Department of Finance, California's population is expected to increase to 48 million by the year 2020. The California High Speed Rail Authority reported that congestion costs California \$20 billion annually in wasted fuel and time. Current expenditures are not efficient nor are they environmentally friendly. Population growth means more cars on the road and most notably- more GHG emissions. Considering savings of time, money, and negative externalities, Californians are projected to embrace new transportation projects in a positive and heightened manner. As such, public transit funding can provide real solutions to both population growth and its consequent effect on GHG emissions by taking cars off of the road. **State funding for public transportation projects offers a plausible alternative to current, environmentally destructive modes of transportation and is a sustainable, long-term policy, capable of enduring increased ridership and meeting regional reduction targets.**

2. **Public transit funding allows transit agencies to expand current service provision by allowing for investments in research and the purchase of clean technologies.** To meet regional reduction targets, the public must get on the bus and rail lines and out of their cars. This must require sufficient funding for public transportation projects. The Foothill Transit Electric Bus Demonstration Project (scheduled to launch in 2010) will be the first of its kind in the world and provides a prime model for examination. This zero emissions prototype utilizes innovative, quick-charge battery technology and light-weight composite body construction making it both a new reality and the wave of the future. We have committed over five million ARRA dollars to develop this model – an investment that will have impact well beyond our region. The air quality challenges that we face demand that we do not hesitate to expand beyond what's available into what is possible, and state funding makes this achievable. **With appropriate funding, transit agencies can aid in meeting regional reduction targets by providing advanced modes of public transportation.**
  
3. **Public transit funding must mean an initial increase in GHG emissions by transit agencies, but positions agencies to reduce overall regional GHG emissions from passenger vehicles and therefore meet reduction targets.** Assuming that transit agencies use portions of state funding to provide more services (with current technology) in correlation with increased demand, this would inevitably mean a temporary rise in transit agency emissions. However, this short-term increase would be offset by the GHG emissions reduction realized from those opting to take public transit over personal vehicle use. So, in the short-term, even though agency emissions would temporarily increase, overall regional emissions reductions would transpire. In the long-term, with appropriate funding allowing for investments in new electric and hybrid bus technologies, agencies would be able to provide even higher service levels while emitting even fewer GHGs than in the short-term. **Increased public transit funding thus provides overall GHG emissions reductions scenarios in both the short and long- term.**
  
4. **In order to meet regional reduction targets, local governments should be encouraged to work in a collaborative partnership with transit agencies.** The fundamental link between a region meeting reduction targets and that region's local government support of transit agencies cannot be understated. Transit agencies need the support of their local governments to expand service provision and to ultimately create sustainable transportation plans by reducing passenger miles. When local government becomes a barrier to service expansion, regional pollution is adversely affected. **Cross-sectoral partnerships between local government and transit entities position entire regions to meet reduction targets.**

Funding for public transportation is an integral step in regional GHG emissions reductions and in moving California toward an environmentally sustainable future.

Thank you for your time and consideration.

Sincerely,

Doran Barnes  
Executive Director

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COMMENT 40 FOR COMMENTS ON THE RTAC (SB375-RTAC-WS) - 1ST WORKSHOP.

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First Name: Bob  
Last Name: Johnston  
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Phone Number: 530 582-0700  
Affiliation: UC Davis

Subject: Recommendations for Planning Methods for Target Setting and for SCS/APS Planning  
Comment:

Please see the attached Word document.

Attachment: [www.arb.ca.gov/lists/sb375-rtac-ws/92-comments\\_to\\_the\\_rtac\\_for\\_its\\_meeting\\_on\\_sept-2.doc](http://www.arb.ca.gov/lists/sb375-rtac-ws/92-comments_to_the_rtac_for_its_meeting_on_sept-2.doc)

Original File Name: Comments to the RTAC for Its Meeting on Sept-2.doc

Date and Time Comment Was Submitted: 2009-08-28 17:15:41

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## Comments to the RTAC for Its Meeting on Sept. 1, 2009

Bob Johnston, Emeritus Professor  
Dept. of Environmental Science & Policy  
University of California, Davis  
August 28, 2009

### **Suggested RTAC Recommendations on Modeling Methods and Planning Procedures for the ARB/MPO Target Setting Process and for the MPO SCS/APC Planning Process**

#### **Summary**

Except for the smallest two or three SB375 MPOs that have no models and almost no projected growth, all MPOs should:

1. Use a spreadsheet model or, if available and feasible, a travel model with a land use model in the ARB/MPO Target Setting process in 2009 and 2010. Spreadsheet models and GIS-based sketch planning models may be used by MPOs for early scenario identification in the subsequent SCS/APS Planning process, but the MPO should use its most-accurate and policy-sensitive travel model and urban model for final scenario evaluation.
2. Check their travel model's policy sensitivities with respect to VMT against performance standards based on the research literature and, to the extent that the models do not perform adequately, improve sensitivities through post-processing methods such as the 4Ds.
3. Work on further model improvements for their subsequent RTPs, following the CTC modeling guidelines.
4. Establish performance measures for their SCS/APS planning process and evaluate at least a minimum set of strong policy scenarios established by the ARB.

#### **Qualifications**

I have read all of the comments on the RTAC web site, for this upcoming meeting and for all the others.

I am familiar with the iPlaces model, the UPlan model, and related GIS-based scenario tools. I am the author of the first few UPlan versions and consult on its updating at UC Davis. It has been, or is being, used by over a dozen counties for Blueprint planning and several intend to use it for SCS/APS planning. I am on the team that is developing the

Statewide PECAS model for Caltrans and was a lead investigator in the work that has led to the four large MPOs adopting PECAS models. I am familiar with the 4Ds methods and have read the original papers and also the recent study published by Caltrans.

I was on the committee that wrote the CTC modeling guidelines last year, along with Jerry Walters, Gordon Garry, and others. I am on the new CTC committee now, as we revise those guidelines to account for SB375. I have read and critiqued RTPs from all over the U.S. for environmental and other citizens groups for many years and have been an expert commentor in several lawsuits on travel modeling and land use modeling methods. I was a member of a recent National Academy of Sciences panel that reviewed travel modeling and land use modeling practice in the U.S. and recommended improvements in a book produced in 2007.

I have published about 15 research papers where I ran various travel models and land use models on the Sacramento region, to evaluate policies to reduce VMT. I have also reviewed such studies done all over the world (google VTPI Johnston). So, I have quite a bit of experience with scenario planning and modeling that pertains to the Target Setting process and to the subsequent SCS/APS planning processes.

### **Proposals for the RTAC Recommendations Re. Modeling**

Most large and many medium-sized California MPOs improve their models almost continuously, so this process should be viewed as ongoing. There are usually no "natural breaks" in this process, as even an entirely new model type is improved in steps. One model set may only be used for a few RTPs, with an improved model coming online for the next RTP. The adopted CTC modeling guidelines recommend that this ongoing process be continued, so agencies keep abreast of current theory and methods in travel modeling and in land use modeling. MPOs, even within size categories, are usually at somewhat different stages in model development, and so it is not possible to require one type of model at any point in time. The CTC guidelines were written in terms of short-term and medium-term model improvements, with no dates specified, to allow for these natural differences in funding, staffing, and ability.

The ARB/MPO Target Setting process will take about a year (9/30/09 - 9/30/10), perhaps a bit longer, with MPOs and the ARB staff and Board probably going through two or more rounds of negotiation with most of the 18 MPOs. Then, the MPOs will attempt to meet these reduction targets, employing the best models that they have, in their first SB375 RTP process, starting in 2011. The MPOs, however, actually start their SB375 RTPs over the period from 2011 to 2014. So, from this recitation, one can see that this is not a lock-step process and MPOs have different dates on which they need to have their models ready for the SCS/APS exercises.

I view the simplified spreadsheet method suggested by Dr. Wallerstein (comments for 8/18/09 RTAC meeting), also suggested in various forms by Jerry Walters and by me as just a very simple model, based on experience elsewhere, but applied to regional data,

where possible. It may be useful for the preliminary screening of GHG-reduction policies. Calthorpe and Associates is developing a similar spreadsheet model. The UPlan and iPlaces models and the 4Ds post processing for a travel model are better models, as they are calibrated or run on regional data and can use the regional MPO travel model. Good 4-step and 5-step travel models are better yet, as is adding a location choice land use model such as the existing ones at SANDAG and ABAG/MTC. Tour and activity-based travel models are the best in practice now and PECAS is the best land use model in practice now. There will be better models in a few years, though. Model development is a continuous process. It is not useful to specify in detail certain model types for the MPOs to use in SB375 planning, due to the great variation in MPO capacity and due to the varied dates for starting their RTPs.

I recommend that the RTAC adopt a strong and flexible policy such as this:

"MPOs should use the best travel model and land use model that they have available in the Target Setting stage and in the subsequent SCS (and APS) Planning process. It is expected that each MPO will adopt and fund a multi-year model improvement program and continuously update and improve their models and underlying datasets. Models become "better" for our purposes when they are more accurate and more policy-sensitive. Accuracy improves as models become more completely specified (include more relevant variables) and as they become more disaggregate spatially, categorically, and temporally. Accuracy is also improved by more-complete calibration and validation, along with sensitivity testing, to ensure that the model elasticities for changes in VMT with respect to each policy is consistent with those in the empirical literature. For models to be policy sensitive, they must include the relevant policy variables, such as parking charges and land use density in a travel model and zoning and floorspace per parcel in a land use model. When negotiating with an MPO over a GHG reduction target in 2009 and 2010 and in determining whether the MPO's GHG projections in their subsequent SCS (APS) are valid, the ARB will give greater weight to MPO projections that rely on better models, as defined here. While it is expected that agencies may use simplified, rapid turnaround methods in their initial scenario workshops, it is expected that they will use detailed models, as described here, in their final RTP analyses."

Such a policy will be useful for the life of SB375, as MPOs and the ARB will all improve their modeling capabilities continuously over time. We would not have a requirement for a certain kind of model for a certain type of MPO for any specific year, just this statement urging that they improve their models forever. This conforms best to good practice elsewhere and to basic norms of science.

I disagree with Dr. Wallerstein's proposal where he identifies two separate approaches, 1. Modeling and 2. the Point System. I see the Point System as just a simple kind of model. However, for SCS/APS final analyses it won't gain much credence with the ARB, interest groups, experts, or the public. The Points system and other spreadsheet models may be used in the Target Setting negotiations and may be accurate enough for use in early SCS planning workshops. They are not accurate enough, however, for the final evaluation of scenarios in SCS/APS planning. The needed model improvements to get to adequate travel models can be made by all MPOs in a year or two. The costs for improving 3-step

travel models to become adequate 5-step models are literally about the same as installing traffic signals for an intersection or two. Many types of Federal funds can be flexed and so funding is generally not an issue.

Dr. Wallerstein's table on Transportation and Land Use Models is misleading because it says that 4-step travel models are generally insensitive to nonmotorized trips and to urban form, but it doesn't say that a good mid-level travel model, appropriate for medium-sized MPOs, is quite easy to develop. A 5-step travel model with an Auto Ownership step was developed by the Portland, Oregon region in 1992 and then by SACOG in 1994, using local consultants. This model includes nonmotorized modes and is sensitive to urban form. While they develop these models, the MPOs can use the 4Ds post processor on their current travel model outputs.

Wallerstein's table also says that the 4Ds method lacks geographic context (infill vs. edge land uses). This is not true, because the location of land uses is accounted for by even the lowliest travel model and so edge land use developments generate more VMT per capita, in the model. The bottom row in the table also is misleading in stating that most regions lack survey data. This type of model (in this row) is only applicable to the four large MPOs, as it is so resource-intensive and demanding on staff skills. The four large MPOs all have most of the necessary data and are implementing PECAS models. Last, it is not true that the next generation models are not transparent, as PECAS at least is quite easy to explain, as it mimics the whole economy. The statistics and algorithms are difficult to explain, but this is true of a conventional 4-step travel model. I am not trying to denigrate his efforts, because this slide show presents a lot of useful information and thinking. I think it overstates the limitations of some of the model types, though.

I am sorry that the Points concept in my earlier comments was poorly stated. I did not mean that an MPO could just adopt enough policies to get over a minimum number of points. I meant that such an analysis could be submitted, in addition to the modeled GHG results, as additional evidence based on experience with those policies elsewhere. Argument by analogous case studies is often used in the cost/benefit analysis of large transport projects.

### **Proposals for the RTAC Recommendations Re. the SCS/APS Planning Process**

In addition to the modeling issues, dealt with above, I believe that you should recommend rules regarding other aspects of the planning process used by the MPOs for their SCS's and APS's. The SB375 process is a true planning process, whereas RTPs up to now have usually not been real planning. Generally, they have been project-based, with member cities and counties arguing for locally favored projects. There have been no binding performance standards (decision criteria) and no broad range of alternatives that seek to achieve the standards. SCS's and APS's will be politically very difficult, as they will often need to concentrate funding into the central counties and cities in a region, due to the need for centralizing growth and transit system improvements to reduce per capita VMT. So, clear decision criteria are essential to gain acceptance.

So, I hope you will specify that the SCS/APS planning process must start with the adoption of performance standards that must include on-road GHGs, and that the plan selection process should favor the alternative that produces the lowest GHGs, unless it is found to be infeasible, or fails with respect to other environmental or equity criteria. Second, the planning process must identify several alternatives that reevaluate all projects in the past RTP that are not funded. This list of alternatives must include: 1. A strong transit alternative where most capital expenditure goes to transit and most operational funding goes to transit, 2. That alternative plus strong land use densification and mix that supports the transit improvements, and 3. Alternative 2. plus strong pricing of parking or fuels or other pricing actions. These alternatives will be good tests of the models and will generate substantially more citizen participation than bland alternatives will. Also, having all MPOs evaluate this minimum set of three alternatives will make it much easier for the ARB to evaluate the adequacy of the modeling by each MPO.

Thank you for your public service and for considering these comments.