

Transportation Solutions Defense and Education Fund

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December 14, 2007
By U.S. Mail & E-Mail

Melanie Brent, Office Chief
Division of Environmental Planning & Engineering
California Department of Transportation
111 Grand Street, Mail Station 8B
Oakland, CA 94612

Re: Comments on Marin-Sonoma Narrows HOV Widening Project DEIR/S

Dear Ms. Brent:

The Transportation Solutions Defense and Education Fund (TRANSDEF) is pleased to be able to comment on the Draft Environmental Impact Report/Draft Environmental Impact Statement (DEIR/S) for the Marin-Sonoma Narrows HOV Widening Project (Project). Our organization is an environmental non-profit advocating for the comprehensive regional planning of transportation, land use and air quality in the San Francisco Bay Area.

This project offers an opportunity to fundamentally change how California accommodates growth. The challenges of climate change, coupled with sharply rising oil prices, have brought attention to the unsustainability of the conventional pattern of auto-dependent suburban sprawl. It is now recognized that to move towards a sustainable future for the Bay Area, residents will need to drive less and use alternative modes more.¹ However, the Project, as currently constituted, would cause more driving, more greenhouse gas emissions, more sprawl and more auto-dependency.

In the interest of changing that pattern, TRANSDEF has actively participated in the scoping of this project, as well as sending follow-up letters to the Director of the Department. (see Attachments 3, 4 and 5.) In those letters, TRANSDEF requested the evaluation of multimodal alternatives, asserting that the Project Purpose and Need was illegally constrained to limit the Project to only highway solutions.

¹ See Strategy Element 4, Bay Area Regional Agency Climate Protection Program, page 7, <http://www.abag.ca.gov/jointpolicy/JPC%20Action%20on%20Climate%20Protection.pdf>

TRANSDEF believes that the Project's focus on congestion relief is misplaced, and opposes the Project Purpose "Reduce congestion along US 101" (1-17:367)² as overly simplistic. The Project's tremendous expenditure of public resources would result in, at best, short-term congestion relief, but would result in long-term environmental harm. While the goal of congestion relief is understandable on a human level, it is outmoded in the professional practice of transportation and land use planning. See Attachment 7, "Why Are the Roads So Congested," which makes the case that congestion is the result of the spatial pattern of development, not the increase in population, so it cannot be remedied long-term by highway widening.

A lack of understanding of the issue of induced demand leads to the flawed modeling of travel demand, which then underestimates future demand. This results in building very expensive facilities that provide congestion relief for a limited number of years, only to clog up again. Worse yet, these facilities then encourage the continued development of dispersed suburban land uses, whose residents then become locked in, forever dependent on the personal auto for mobility. This would be inconsistent with current trends in Bay Area regional planning.³

TRANSDEF supports two of the four Project Purposes as stated in the DEIR/S: 2). to correct operational deficiencies, including the upgrade from expressway to freeway status, and 4). to correct existing drainage and flood hazards. We believe an Alternative needs to be considered that contains these features, but funds the development of the 70+ mile SMART passenger rail system instead of 16 miles of HOV lanes, consistent with the recommendations of the Calthorpe Study (see Attachment 6). This would expand capacity in the corridor without encouraging more driving. The SMART project is currently unfunded, while the Project is currently funded for hundreds of millions of dollars. Project funding could make a SMART sales tax unnecessary. SMART would qualify as a candidate for Interregional Transportation Improvement Program funding, as it would provide an inter-county link.

TRANSDEF finds the DEIR/S wholly inadequate as a resource for 21st century decision-making. It fails to consider feasible alternatives; it fails to characterize impacts as to their significance, using proper CEQA terminology, except in Chapter 4; it fails to use state-of-the-practice travel demand modelling methodology, resulting in fallacious conclusions; it fails to analyze ozone precursor and greenhouse gas emissions; it fails to quantitatively analyze energy consumption and it fails to provide any traffic volume and V/C information from the travel demand model. Under both NEPA and CEQA, this draft needs to be rewritten and recirculated.

Project Merits

It is very revealing that, after years of promotion of this Project as the means for providing continuous HOV lanes for express buses, there is no mention of transit what-

² Parenthetical numbers here and below are page and line references to the DEIR/S text.

³ See footnote 1.

soever in the Project Purpose. (1-17:365-373). Clearly, despite all the rhetoric, this project, and dozens like it, are about increasing highway capacity, period. The mention of multimodalism is still only window dressing.

It is also revealing that the Purpose and Need statement unquestioningly assumes the existence of a duty to facilitate any and all driving trips. This fundamental supply-side philosophy is so embedded in the practice of Caltrans project development that the question never arose as to whether it makes any sense for our society to spend \$600 - 800 million for a claimed travel time savings of 12 minutes a day for the HOV user. (3.1-78:1843). The non-obvious fact that the Project claims to save a solo driver 17 minutes a day (3.1-77:1833-1834) over 2030 No Build conditions hints that the real purpose of the Project is to serve solo drivers.

To TRANSDEF, this Project appears to be the very height of self-destructive folly, given that the Human Race is on notice that it needs to dramatically decrease its emissions of greenhouse gases. This Project is out of touch with its regional and global context. Instead of promoting features to discourage driving, it does the opposite: it facilitates longer-distance trips and increased greenhouse gas emissions. The subject of transportation demand management (TDM) is left entirely unexplored. No programs are proposed to encourage a shift to HOV modes. TRANSDEF urges the funds set aside for this Project be spent in implementing the Multimodal Alternative, described below.

Project Description

The description of the northern terminus of the Project leaves unanswered the question of how the Project will integrate with Sonoma County's overall HOV lane program. (1-4 (footnote 3) & 2-3). As described, the Project would simply end near Corona Road. It would appear from the description of the 2030 No Build roadway network that the nearest HOV lane would start at Old Redwood Highway and go north. (3.1-71:1753) This doesn't answer the question of what is planned for the gap between the northern terminus of the Project, and the southern terminus of the other project. Text is needed to explain exactly what is being planned for that gap, especially because it shows up as a bottleneck in 2010 in Figure 3.1-14 (3.1-76).

The Reversible Lane Alternative, with its four full-size shoulders, is a tremendously inefficient use of cross-sectional space. Analyzing it makes a mockery of the alternatives analysis process.

The Project Description in Sections 2.1, 2.2, and 2.3 make no mention of auxiliary lanes. Figure A6 of the Traffic Operational Analysis Report, the Year 2030 Build Northbound & Southbound HOV Lane Alternative Configuration, did not include auxiliary lanes either. So clearly, auxiliary lanes were not modeled in the Operations Report. However, new auxiliary lanes are proposed on pages 3.1-125 & 126. Because the Project Description does not contain auxiliary lanes, this DEIR/S cannot be used to clear a project that contains auxiliary lanes. These latter descriptions of new auxiliary lanes must be deleted.

Major Investment Study

The DEIR/S states that “The Fixed HOV Lane Alternative would not interfere with proposed commuter rail service on the SMART line.” (3.1-56:1354-1355). “Interference” is much too limited a criterion for an environmental evaluation. What’s needed instead is a comparison of the costs, benefits and overall environmental impacts of the two projects (see below for a full description of TRANSDEF’s proposal for a Multimodal Alternative), since they are competing for funds.⁴

No such Major Investment Study has ever been done for this corridor. While Caltrans claims to have performed one (S-10:229-230), this was only an internal draft process—one that never received public review or comment. The Caltrans Office Chief of the Division of Environmental Planning & Engineering stated that “the MIS existed only in draft, and that it had not been cleared for release to the public.” (Melanie Brent, personal communication, December 13, 2007). The fact that no MIS is referenced in the listing of Key Transportation Plans (3.1-4 - 6) or in the Technical Studies and References (9-1 & 2) is very telling. As a study of “alternatives to relieve congestion” (S-10:231) it seems near-certain that the full environmental impacts were not studied. (see below).

Implementation of the HOV Lane Alternatives would harm SMART by encouraging the expansion of the practice of solo long-distance driving. While the Fixed Lane HOV Lane Alternative may not expressly interfere with SMART,

it may still have that effect. Typically the level of ridership on public transportation systems depends on a number of factors, including the levels of service provided by highways. When highways are congested, rail ridership increases. Increasing the capacity of Highway 101 may adversely affect the success of the competing SMART system. This impact must be evaluated in the EIR. (Attachment 5, 2006 letter from TRANSDEF’s attorney to Will Kempton, page 1.)

TRANSDEF has repeatedly made good faith requests for analysis to Caltrans, yet the DEIR/S offers no response. (see Attachments 3, 4, & 5).

The closest thing the North Bay has had to a Major Investment Study was the 1997 Calthorpe Study. (see Attachment 6). It evaluated the costs and benefits of rail and highway investments, using a very public process and nationally respected planners. (The MIS supposedly prepared by Caltrans had neither of these qualities.) The Calthorpe Study determined that public funds were better spent on commuter rail

⁴ While the Project has secured hundreds of millions of dollars in funding, the SMART project has been left waiting at the altar. It is sophistry to assert that two projects that serve the same function are proceeding, when only one has significant committed funding.

than on building HOV lanes between Highway 37 and SR 116. (Attachment 6, pages 159-161).

The DEIR/S completely misrepresented the findings of the Calthorpe Study. It claimed "the Fixed HOV Land (sic) Alternative would be consistent with: ... The Calthorpe Study." (3.1-12:289-300). Nothing could be farther from the truth:

The Preferred Scenario does not include the improvement of Highway 101 to freeway status between Petaluma and Novato. [It had excluded HOV widening earlier.] This was not included because the analysis of the various scenarios did not indicate significant level of service improvements for commuters during the peak period. It was also determined that improvements in this area would be prohibitively expensive; costing about \$125 million. Therefore, because of relatively little benefit and high costs, it was determined that this project should not be included in the Preferred Scenario, and that funding instead be directed to higher priority projects. (Attachment 6, page 161: Calthorpe Study, "Preferred Scenario Final Report").

Nothing has changed since that was written, other than the full funding of all the other HOV projects in the corridor. At a minimum, a DEIR/S for this HOV Project needs to document why a different conclusion should be reached, especially when many hundreds of millions of dollars are at stake. Rather than undertaking the intellectual challenge of demonstrating how the Project has somehow become worthwhile, the DEIR/S instead took the easy way out and dissembled:

The Calthorpe Study advocated the creation of a balanced transportation network throughout Marin and Sonoma Counties. The Final Preferred Scenario included transit improvements as well as improvements to US 101 and local roads. It did not, however, call for the improvement of US 101 to freeway status between Novato and Petaluma. The Calthorpe Study failed to demonstrate that such an improvement would significantly improve levels of service for commuters within the segment. The relatively high cost of the upgrading (\$125 million) was another reason for its exclusion from the Final Preferred Scenario. (3.1-4:110-118).

One would never know from reading that description that the Preferred Scenario found that HOV lanes from Novato to Petaluma weren't worth the cost. The DEIR/S never even hinted that the Preferred Scenario recommended the development of a commuter rail system instead of those HOV projects. The DEIR/S hid that fact be-

hind the bland description “The Final Preferred Scenario included transit improvements” (3.1-4:111-112). Could these just be oversights, or are there forces within the Transportation Agencies that are unwilling to let the merits of the Marin-Sonoma Narrows HOV Widening Project be compared again to a commuter rail alternative?

“Caltrans believes commuter rail service would be a valuable adjunct to the corridor, joining the list of other available modes (e.g., ferry service, transit, and highway).” (2-36:535-537) However, Caltrans, in conjunction with the Metropolitan Transportation Commission and the Federal Highway Administration, actively intervened to prevent the Project Purpose and Need Statement from being made mode-neutral. As described in Attachment 3, page 2, the Policy Advisory Group adopted a Purpose statement “to increase the capacity of the corridor.” Caltrans staff came back at the next meeting and demanded that statement be dropped, in favor of one directed at reducing congestion on the highway. It is clear that Caltrans (and fellow agencies) have acted to prevent commuter rail from becoming anything more than an “adjunct.”

In a separate comment letter, TRANSDEF’s attorney Marc Chytilo asserts that Caltrans has the legal duty to evaluate a Multimodal Alternative. TRANSDEF proposes the following Alternative definition:

Multimodal Alternative

During the scoping process for the Project, TRANSDEF submitted the following request for the study of a multimodal alternative:

The 1997 Sonoma/Marin Multimodal Transportation and Land Use Study, funded by Caltrans, determined that a rail system was more cost-effective than the project proposed in the NOP/NOI. For the same cost as the highway segment capacity expansion, a sub regional rail system can be built, with broad and long-term benefits. TRANSDEF requests that an alternative be studied using the Calthorpe land use assumptions with the smart rail plan in a manner similar to Portland, Oregon’s LUTRAQ (land use, transportation and air quality) study. A rail program alternative must be allowed to compete for funds on equal (or preferential, see 23 C.F.R. Part 450.320) footing with the highway project. (Attachment 3, page 4).

Since the DEIR/S did not respond to this request, TRANSDEF repeats its request for the evaluation of the impacts of a Multimodal Alternative upon the entire two county sub-region. We suggest it should be composed of the following elements:

- Caltrans would provide the shortfall in construction funding to enable SMART to build a commuter rail and bicycle/pedestrian path system from Cloverdale to Larkspur Landing.

- Caltrans would fund the annual operations subsidy of SMART, making whatever funds swaps are necessary to obtain the proper “color of money.”
- SMART would operate with the schedule on page ES-4 of the SMART DEIR.
- For the modeling’s land use base assumptions, use the pattern of densification of land use opportunity sites created by the Calthorpe Study, scaled appropriately for Year 2030.
- Caltrans would conduct further design studies on the potential to convert the existing auxiliary lane from Highway 37 to Rowland into a mixed flow lane, and convert a mixed flow lane there into an HOV lane, without generating more backup. Caltrans would design queue jump access for HOVs passing from the northernmost HOV point on NB 101 in Sonoma to the 2 lane section of the Narrows.
- Caltrans would construct HOV lanes in Segment C consistent with the Calthorpe study recommendations: From the northern Project limits to the Highway 116 East IC. Caltrans would design queue jump access for HOVs passing from the southernmost HOV point on SB 101 in Sonoma to the 2 lane section of the Narrows.
- Caltrans would upgrade Segment B to freeway status, correcting operational deficiencies, as well as drainage and flooding problems. No HOV lanes would be built.
- Caltrans would look for feasible mitigations to preserve substantial numbers of Redwood trees when constructing the new North Petaluma Overhead.
- Caltrans would construct Access Option 12b, after optimally locating access roads to reduce tree removal and minimizing their cross-section, consistent with context-sensitive design for rural roads.
- In fulfilling its obligation to provide pedestrian and bicycle facilities in the Project Study Area, Caltrans would fund SMART to build the Bicycle and Pedestrian Pathway wherever it is feasible adjacent to the tracks.

This Alternative has not been rejected as infeasible. (2-36). Because the SMART project is not yet fully funded, it must be considered in this Project review as an alternative use of the massive funding proposed for HOV lanes. “Any construction would also require a substantial one-time expenditure of both state and federal funds, which are not retrievable.” (3.4-1:16-17). That irretrievable commitment of resources must not be made before a potentially more beneficial alternative is evaluated, especially given the funding shortages faced by the State, and the multiple challenges posed by climate change.

Please note that the SMART FEIR travel demand modeling was based on *ABAG Projections 2002*, which was a trends-based projection done at a time when the trend was for sprawl. Later *Projections* have moved to a Smart Growth policy orientation. As a result, SMART’s ridership projections were anemic, compared to what would result from the higher density land use pattern that SMART could support. In

addition, the model itself was unacceptably insensitive to congestion. Ridership predictions changed only slightly when the number of lanes in the network assumptions changed the highway conditions in the Narrows from LOS A to F. (see SMART DEIR, 2005, 3-102; SMART FEIR, 2006, 3.3-102.) TRANSDEF believes the rail ridership will be much stronger than the EIR predicted, if the highway is seriously congested.

This Alternative should also be tested against the Build Alternatives under a scenario where 2030 gas prices are the equivalent of \$6.00 per gallon gas in 2007. This scenario will evaluate the resilience of the transport system in a climate of radically higher gas prices.

Potential Benefits of Multimodal Alternative

The biggest benefit of funding this Alternative would be the creation of a long-term reliable alternative to longer-distance driving. For less than the cost of 16 miles of HOV lanes, the region could have a 70+ commuter rail system. Benefits of the HOV Lane Alternatives will be short-term, while benefits of the Multimodal Alternative would be long-term. By selecting the HOV Lane Alternatives over the Multimodal Alternative, the Project would have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals. This would prevent the adoption of a Mandatory CEQA Finding of Significance. (4.3:68-69)

The DEIR/S predicts congestion in 2030 in several locations, even with the Project. (3.1-73 & 76). TRANSDEF is sure that induced demand will bring this congestion earlier than that, as well as cause it to appear in other locations, such as at the NB lane-drop north of the Atherton IC. Growth beyond 2030 will certainly bring more highway congestion to Marin and Sonoma counties. However, once the medians are paved, there is no feasible way to continue to add more highway capacity, due to the massive cost of right-of-way acquisition. Passenger rail is the only reasonable long-term expansion strategy for this corridor.

The Multimodal Alternative would not cause new congestion in Central Marin (3.1-71:1777- 1781), as it would not bring more cars south from Sonoma County, unlike the HOV Lane Alternatives.

Given that it will inevitably be needed, it makes far more sense to build this Alternative now, especially given the considerations of climate change. The creation of convenient, comfortable commuter rail service would encourage drivers to switch their trips to transit, thereby reducing greenhouse gas emissions. The Alternative would not provide any additional highway capacity, and therefore could not lead to an increase in single-occupant driving. As a result, the rate of increase in VMT and greenhouse gas emissions in the two counties would be lower, and VMT could possibly even decrease.

The DEIR/S's discussion of growth inducement (Section 3.1.3.3, starting on 3.1-17) misses half the story by concentrating on the amount of growth. More important to

the long-term environmental health of the region is the spatial distribution of that growth.

Besides its immediate utility as a transportation facility, commuter rail would provide the additional benefit of being the infrastructure needed to enable a shift in development practices, leading to transit-oriented developments in station areas, built with higher densities than are currently planned. This shift to Smart Growth would implement current regional planning initiatives, including those directed at climate protection. (see footnote 1, above).

A proliferation of mixed-use pedestrian-friendly communities, in which many daily trips can be conveniently made by walking or biking, will result in a reduction in the environmental impacts of future land use development in the North Bay counties. With transit conveniently available, the resulting lower auto ownership rates will lead to lower vehicle trip generation, which in turn will lead to less highway congestion and lower overall emissions of ozone precursors and greenhouse gases. In addition, higher density living leads to lower per-capita water consumption, lower energy consumption for domestic heating, less water pollution caused by urban run-off and better personal health, resulting from regular walking.

Given that “Nearly half of the households that will be added from 2000 to 2030 will be in Santa Rosa, north of the MSN Project area” (3.1-8:219-220), implementing the Multimodal Alternative would enable many of those households to live with lower environmental impacts, thus providing benefits to a far greater number of North Bay residents than the HOV Lane Alternatives. In the absence of a vibrant SMART system, development would instead continue in its conventional suburban pattern, resulting in ever-increasing per capita VMT, regional VMT and regional greenhouse gas emissions, and--of particular relevance to this Project--congestion. See Attachment 7, “Why Are the Roads So Congested.”

This Alternative would implement State Clean Air Plan TCM 4, Upgrade and Expand Local and Regional Rail Service. The SMART commuter rail project is listed in the Bay Area 2005 Ozone Strategy as part of Phase 2, for implementation after 2006. The air quality benefits of rail transit exceed those of HOV lanes where the occupancy requirement is only 2+, because fewer cars are being driven.

The Alternative would implement State Clean Air Plan TCM 8 by building HOV lanes and/or converting mixed flow lanes to HOV use, for the purpose of providing direct HOV access to the two lane section, which would not be widened. These HOV lanes function as a queue-jump, enabling HOVs to ‘get ahead’ of the SOVs waiting to get. The decision to build or convert to HOV-function is a delicate one, and needs to be made on the basis of the location of the resulting queue.

The Alternative would implement State Clean Air Plan TCM 9: Improve Bicycle Access and Facilities.

The Alternative would implement State Clean Air Plan TCM 19: Improve Pedestrian Access and Facilities.

The Alternative would provide the highway safety benefits of upgrading an expressway into a freeway, and fix long-standing drainage and flooding problems.

Modeling Assumptions

The travel demand modeling was based on obsolete land use assumptions, especially as to the spatial distribution of growth. It is simply unacceptable for a 2007 document to use 9 year old data (3.1-70:1726-1728) when newer projections are readily available. *ABAG Projections* changed in 2003 from a trends-based series to a policy-based series. The *Projections 2000* data is known to reflect substantially more sprawl growth than more recent *Projections*, which are more consistent with regional land use policies resulting from the Smart Growth process. This would be especially relevant in making multimodal comparisons between HOV lanes and passenger rail. (Please note that SMART's EIR modeling was based on *Projections 2002* data, and therefore also failed to reflect Smart Growth land use policies.)

The description of travel demand modeling needs to clarify whether or not it includes ramp metering. Constraining on-ramp volumes should have significant implications for the mainline queue analysis.

The HOV volume forecasting in the Traffic Operational Analysis Report is flawed. The Report states "Assume the existing HOV percentages on the segment between Atherton Ave and Petaluma Blvd apply to the future years. ("Traffic Operational Analysis Report," 2005, pp. 10 - 11). HOV percentages should be the output of a calibrated mode choice model step, not an assumption based on existing conditions. The decision to use this methodology implies that Caltrans does not expect the completion of a multi-billion dollar continuous HOV lane system to increase HOV utilization.

Modeling and Induced Demand--Expert Analysis

Either the numbers in Table 3.1-15, Projected Vehicle Miles Traveled (3.1-78) are grossly erroneous, or the column labels are. While it should be clear that the Project Area VMT is a subset of Marin-Sonoma VMT, the former contains numbers that are three times the size of the latter. On top of that, TRANSDEF's expert on modeling asserts that the model used by Caltrans fails to properly account for induced demand, making the VMT numbers in this table substantially lower than they should be. As a result of an additional 100 million annual VMT, the DEIR/S underestimates traffic impacts, energy consumption, ozone precursor emissions and greenhouse gas emissions, while overestimating congestion relief. See Attachment 1, "Review of Marin Sonoma Narrows (MSN) HOV Widening Project DEIR/DEIS" by Smart Mobility, Inc.

Other Modeling Anomalies

Some of the results of the modeling seem entirely unreasonable and contrary to common sense. Evaluating the validity of the modeling is made impossible by the decision to not publish any travel volumes or V/C ratios in the DEIR/S. This is the first time TRANSDEF has ever seen a transportation project environmental document without travel volumes. A \$600+ million dollar project should warrant something more than an EIR Lite.

Reverse commute queuing is the most immediate surprise to come out of this EIR's modeling. (1-10). No traffic study TRANSDEF is aware of has ever shown congestion in the reverse commute direction. Please identify any other study that shows future queues in the off-peak direction. Where are these reverse commuters coming from? Where are they now? Please identify origin-destination pairs that make up significant components of this reverse commute.

The operations studies that produced the delay tables 3.1-12 and 3.1-13 are methodologically flawed. They failed to appropriately limit the operating conditions of the HOV lanes. An HOV lane, by definition, needs to be free-flowing. If it has delay, it stops working as a proper HOV lane, and won't succeed in attracting single-occupant drivers into carpooling or transit. Non-zero delays in HOV lanes in these tables indicates failure to compute delays properly.

Perhaps even more troubling is the question of where all those HOVs are coming from. Again, the absence of any volume numbers makes it impossible to critique the validity of this work. After reviewing the Draft Project Report, these delay numbers are even more certainly in error. Forecasted Traffic Volume, Table 4-2, indicates that no HOV lane is projected to have more than 1152 peak hour trips.

Closely related to the point raised immediately above is the question of why there is no queue indicated at the NB mixed flow lane-drop north of the Atherton IC in the Build Alternatives in Figure 3.1-14. (3.1-76). Without any planned increase in mixed flow capacity other than the space made available by the shift of HOVs into the new HOV lane, future growth will eventually result in queues.

This lane-drop is a current bottleneck that causes significant queues now. Its location should be called out with a screenline or legend of its own, to help readers less familiar with the terrain to understand the source of the bottleneck.

Because of the failure to properly treat induced demand (see discussion, above), higher traffic levels than those predicted by the model will cause the return of the queue at this lane-drop bottleneck. This must be identified as a significant impact. Clearly this would eliminate one of the major benefits asserted for the Project. After reviewing the Draft Project Report, it is clear that the failure to predict a queue there is an error. Forecasted Traffic Volume, Table 4-2, indicates 3945 PM NB peak hour

mixed flow trips⁵ in Year 2030, a volume which would ensure a queue, after correction for latent demand.

Project Impacts

The queueing identified as Southbound Bottlenecks (3.1-71:1777-1781) in Central Marin will be a substantial increase in traffic congestion over the free-flow conditions (see Build vs. No Build diagrams in Figure 3.1-11, page 3.1-73) that will prevail following the completion of the San Rafael Gap Closure Project. No mitigation was proposed. (3.1-85:2030-2033), due to the failure to recognize this as an impact. Therefore, this must be identified as a Significant Unavoidable Impact of the Project.

Unanswered Scoping Questions

A series of impact issues were raised in our 2001 scoping letter (Attachment 3, page 5) that were not addressed in the DEIR/S. We restate them here:

Induced VMT: "A growing body of research has shown that widening highways is only a temporary solution at best to the complex problem of traffic congestion. Indeed, research has pointed to a phenomenon known as "induced traffic" that suggests new and wider highways actually create additional traffic, above and beyond what can be attributed to rapid population increases and economic growth."

see Sierra Club v. DOT, 962 F.Supp. 1037 (N.D. Ill., 1997)

see <http://www.transact.org/Ca/congestion2.htm>

Construction Delays: Studies show that gains in congestion relief from highway expansion may not always exceed the additional congestion associated with construction delays. see <http://www.transact.org/report.asp?id=177>

Cumulative Impacts: The environmental review document must comprehensively address the cumulative effect of this project, including the impacts associated with expanding the region where sprawl is induced as a result of additional long-distance SOV commuting.

Term of Benefits: Studies show that the benefits gained from highway capacity expansion are often short in duration, and necessitate further future expansion to meet additional demand. The environmental review document must identify how long this project will benefit the congestion issue and when diminishing returns are expected to be encountered.

Access Options

Access Option 12b has lower overall impacts than the other access options, due to it not including a San Antonio Road Interchange. Option 12b has lower visual impacts (3.1-105:2387-2389; 3.1-119:2563-2565), lower archaeological impacts (3.1-149:3277-3279), less land acquisition (S-45), less farmland conversion (S-46), and would cost considerably less.

⁵ This volume was computed by subtracting 843 HOV trips from 4788 total trips.

All of the Access Options propose the construction of new interchanges(s) and access roads. These features are usually considered to be growth inducing.
(3.1-19:494-496)

By building less infrastructure for direct freeway access, Option 12b is by definition less growth-inducing than the other access options.

Given the proximity of the Redwood Landfill Interchange (approximately 1.5 miles), it is unreasonable to characterize Option 12b as "poor for local access to the uses around San Antonio Creek." (3.1-79:1872-1876). At worst, the Option is somewhat less convenient for those users. No hardship would be imposed if this Option were implemented.

The DEIR/S did not predict the travel demand for a San Antonio Creek interchange. Given the rural land uses in the immediate vicinity and the lack of people there, it is obvious that the very expensive interchange would receive a tiny amount of use. No good reason has been advanced for why future local users should receive the benefit of such a monumental cost per trip. At what price point does providing convenience become unreasonable to the taxpayers of the State of California? Doesn't Caltrans have a systematic decision-making process similar to traffic signal warrants for determining whether to provide an interchange? What were the results?

Because Option 12b would result in the greatest amount of tree removal (3.1-118:2498-2500), feasible mitigations should be studied to see if the new access roadway could be relocated, so as to reduce or eliminate tree removal. It would be useful to provide a photo-montage and map in the Response to Comments to evaluate the possibility of alternative routes.

Consideration should be given to State acquisition of parcels adjacent to the highway, in lieu of building access roads. Not only could it prove less expensive, it would entirely eliminate the issue of growth-inducement for those parcels.

Air Quality

The Air Quality section of this DEIR/S was especially shoddily done. It is apparent from the Existing Air Quality section's reference to only Sonoma County (3.2-74:1550) that Sections 3.2.6.1 and 3.2.6.2 were lifted wholesale out of an earlier environmental document for a Sonoma HOV project. Further analysis and presentation of data will be required to demonstrate that these sections are pertinent to the Marin County portion of the Study Area. Numerous textual errors were left uncorrected in this section (see below).

But worst of all was the complete failure to analyze ozone precursors, despite the Study Area being designated nonattainment for ozone. At a recent Open House, a Caltrans staff member told TRANSDEF personnel that because the Study Area was

evaluated as part of Bay Area regional ozone plans, that it was not necessary to do so at the project level. This assertion has no validity in CEQA or NEPA.

Every assertion in the following sentence is incorrect, for reasons already stated above:

Moreover, the Fixed HOV Lane Alternative would alleviate the vehicle hours of delay and the congestion that is particularly acute in the Novato Narrows without substantially increasing vehicle miles travelled. (3.2-80:1710-1712).

For the same reasons, the following sentence must also be revised:

The FHWA's MSAT guidance considers projects like MSN to have low potential MSAT effects because it is intended to improve highway operations without adding substantial new capacity and without creating a facility that is likely to increase emissions. (3.2-81:1745-1748).

This is not a minor highway operations improvement project. It is fraudulent to claim that a project that increases capacity by 50% can be considered to not add "substantial new capacity." As demonstrated by our expert in Attachment 1, the HOV lanes would add 100,000 VMT per weekday, even before correcting for the failure to consider induced demand. That volume of travel is certain to increase emissions. The HOV lanes cannot possibly have low potential MSAT effects.

Consistent with recent Caltrans practice in Sacramento, construction air quality mitigation measures should include the requirement to use only construction equipment that meets the latest CARB off-road diesel standards. This is a feasible method of reducing PM emissions.

The cumulative impact analysis for air quality is flawed:

Although air quality has improved over the years, the area continues to be in non-attainment of the state ozone and PM₁₀ ambient air quality standards and in non-attainment of the federal ozone standard. The approved and pending land development projects, in combination with large transportation improvements that increase capacity, would continue to emit air pollutants that would contribute to cumulative air quality impacts without the MSN Project. (5-21:399-405)

This analysis is backwards and must be revised. It assumes the region will remain in non-attainment status, instead of determining whether the Project will help or hinder

attainment. Since the DEIR/S has no analysis of ozone precursor emissions, either those from the Project or cumulatively, the air quality analysis is incomplete. It is clear to TRANSDEF, however, that the Project will increase VMT, thereby leading to an increase in ozone precursors.

Greenhouse Gas Emissions

Instead of providing a competent greenhouse gas (GHG) analysis based on VMT projections, the DEIR/S instead offers a conclusory paragraph with false premises and faulty conclusions. The following statements are both unsupported and unportable:

The MSN Project would relieve congestion by enhancing operations and improving travel times in a high congestion travel corridor and, thus, lead to an overall reduction in GHG emissions. Accordingly, the contribution of the Build Alternatives and the Access Options would be less than cumulatively considerable so that the overall cumulative impact would be **less than significant**. (4-13 & 14:415-420, emphasis in original).

This is far too simplistic to qualify as an analysis for an environmental document. The primary determinant of vehicular GHG emissions is VMT. Those emissions are affected by speed and the prevalence of acceleration/deceleration cycles (which is experienced as congestion). After reviewing the science in Attachment 2, it should be clear that vehicles at steady state speeds from 35 to 50 mph emit roughly the same amount of CO₂. (Barth & Boriboonsomsin, "Real-World CO₂ Impacts of Traffic Congestion," page 10, (Attachment 2)). Enabling vehicles to go faster than 50 mph **increases** their GHG emissions. (*Id.*, page 9). Stop and go driving **increases** GHG emissions. (*Id.*) Increasing the capacity of the facility increases VMT and **increases** GHG emissions. (Attachment 1)

Three factors need to be considered in the evaluation of the cumulative impact of GHG emissions: the proportion of annual Project VMT that occurs in each 5 mph speed bucket (*Id.*, page 14), so as to more accurately calculate emissions; the degree that the Project has induced growth in the region, leading to higher regional VMT; and the correction of the Project VMT numbers for induced demand, as discussed above. It is clear that the higher levels of VMT will produce both increased congestion and increased GHG emissions. The DEIR/S statement cited above must be revised, after due quantitative consideration of the factors described here, which then will lead to the identification of a Significant Impact.

The cumulative impacts analysis also needs to be revised, for the same reasons:

Accordingly, the contribution of the MSN Project would contribute to cumulative air quality impacts with past, present, and future foreseeable projects. However, while

AADT and VMT increase over the No Build conditions, the Build Alternatives would alleviate the vehicle hours of delay and the congestion that is particularly acute in the Novato Narrows without substantially increasing vehicle miles traveled. As a result, it is reasonable to expect that emissions of carbon and ozone precursors would be reduced compared to No Build conditions. (5-21:412-418).

The first sentence, above, is entirely meaningless. The second asserts conclusions about congestion relief that are unwarranted, given the failure to consider induced demand. The conclusion about not substantially increasing VMT is unwarranted for the same reason. Without quantitative analysis of congestion vs. emissions, there is no basis upon which to assert the final conclusions. Being "reasonable" isn't enough. These conclusions too need to be revised.

Energy

For the reasons stated above in the greenhouse gas section, the premises of the following sentence are incorrect:

This reduction in delays would result in more efficient energy consumption. Due to all the above-mentioned advantages, the long-term impacts of the Fixed HOV Lane Alternative on transportation, and vehicular traffic energy use would generally be beneficial. (3.2-108:2425-2428).

Higher VMT and higher speeds (especially those above the speed limit) will consume more energy. This conclusion is incorrect and must be revised. Lower speeds will result in lower energy consumption, especially if the speeds are steady, without much acceleration.

Such congested traffic conditions contribute to inefficient energy consumption as vehicles use extra fuel while idling in stop-and-go traffic or moving at slow speeds on a congested roadway. (3.2-109:2462-2464).

Conclusory statements like the one above, completely lacking in data and analysis, are inadequate in the evaluation of energy use. It must be revised, for the same reasons as must this overall conclusion for the energy section:

Since the Build Alternatives would have generally beneficial energy effects, avoidance, minimization, and mitigation measures would be unnecessary. (3.2-111:2522-2524).

Conclusion

TRANSDEF firmly believes that the choice between building HOV lanes between Marin and Sonoma counties and building passenger rail service will significantly affect the spatial distribution of future land uses in the two counties. This in turn will affect how well or how poorly residents are able to adapt to the challenges of climate change and escalating oil prices. These are issues that must be addressed in the environmental review documents to inform the public and decisionmakers. We are pleased to offer these comments, in the hope that they assist in describing the significant impacts from the proposed project and ensuring the lead agencies fully disclose the environmental consequences from highway building and consider the benefits from considering a far-more sustainable future. We look forward to the recirculation of the environmental review documents and the ability to examine the policy choices once the environmental review process is properly completed. Please feel free to contact us.

Sincerely,

/s/ David Schonbrunn

David Schonbrunn,
President

Attachments

1. "Review of Marin Sonoma Narrows (MSN) HOV Widening Project DEIR/DEIS", Smart Mobility, Inc., December 2007
2. "Real-World CO₂ Impacts of Traffic Congestion", Barth & Boriboonsomsin, November 2007
3. Letter from TRANSDEF's Attorney to Caltrans' Susan Simpson, June 15, 2001
4. Letter from TRANSDEF's Attorney to Caltrans' Will Kempton, October 19, 2006
5. Letter from TRANSDEF's Attorney to Caltrans' Will Kempton, December 18, 2006
6. Calthorpe Study "Preferred Scenario Final Report", June 1997
7. "Why Are the Roads So Congested", Surface Transportation Policy Project, November 1999
8. List of Suggested Text Corrections

Attachment 8

Suggested Text Corrections (with page number references)

1-10: In Figure 1-5, the two little tables are titled "Delay (in Minutes for mixed flow traffic) in Peak Period." According to the text on page 1-9, it should say "Peak Hour."

2-19: In Figure 2-4, the access road from San Antonio Creek to Redwood Landfill OC in Access Option 12b is the wrong color. It should have been represented as a Feature Unique to Option.

2-36: Delete "of" on line 561.

3.1-12: Should be "Lane" on line 290.

3.1-71: Is the Rohnert Park Expressway really in Santa Rosa?

3.1-71: All the references to Figure 3.1-10 need to be changed to 3.1-11.

3.1-73 - 76: The depiction of the queue locations is unnecessarily opaque. Where the bottleneck is caused by an on-ramp such as South Petaluma Blvd. adding traffic to an already full freeway, the queue should be depicted as starting right at the interchange screenline. Otherwise, the source of the bottleneck is obscured.

3.1-77: Why do Tables 3.1-12 & 13 have a row for "HOV Traffic" in the No Build sections? Obviously the delay for these rows should be zero, as there are no HOV lanes in that Alternative. Yet the delay in these rows is different from the Mixed Flow rows. At a minimum, this needs to be explained. Eliminating the rows would be better.

3.1-80: Should be "along" on line 1915.

3.1-94: The North Petaluma bridge over the railroad is an Overhead, not an Overcrossing. (line 2202)

3.1-100: The photos need to be swapped. The top one has less sunlight below it, so it must be the "After" picture, not the "Before."

3.2-68: Footnote 4 should only pertain to ozone, not other pollutants.

3.2-69: Footnote 4 is incorrect. The Bay Area is designated as being in marginal nonattainment of the national 8-hour ozone standard.

3.2-69: In Footnote 10, the second sentence fails to describe what "39" refers to.

3.2-74: Three typos: "... buildup of air pollution ...", "... when temperature increases", "...even among healthy people."

3.2-108: What does the percent refer to in this sentence on line 2417: "The Fixed HOV Lane Alternative would improve average travel speeds to a 62 to 80 percent on northbound lanes and 80 to 82 percent on south bound lanes and thereby reduce average travel times during both peak hours."