March 10, 2003

Lamar Smith
NEPA Team Leader
400 7th Street SW
Washington, DC 20590

Dear Lamar Smith,

FHWA administrators Eva LaDow and Ronald Speral, representing the Colorado Federal Aid Division in Denver, directed me to you regarding problems with the substance and process of the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) for the State Highway 82 Entrance to Aspen project (STA 082A-008, August, 1997 & 1998).

Your prior exposure to the details of this project is unknown to me, so I will opt for thoroughness over brevity in this initial contact, in the hope of saving time and effort in the longer term.

In 1987, an EIS process was begun for an eighteen mile highway expansion project between Basalt and Aspen, Colorado. Aspen had air quality conformity problems which led to a highway design incorporating two HOV designated lanes during peak periods, combined with a substantial increase in bus service. Air quality problems were later wholly resolved by alterations in the street sanding program.

The Aspen City Charter requires a public vote prior to the transfer of any city owned property, which in this case would be required for any of the highway expansion alternatives within city limits. The first in a string of questionable actions taken by the Colorado Department of Transportation (CDOT), and by extension the FHWA in their oversight capacity, was the acceptance of ballot language in 1990 which contained significant conditions and stipulations as part of the approval for the land transfer of city property to the state.

In other words, the ballot did not simply ask for approval of a land transfer for transportation purposes, but instead incorporated details of the design and operation of the proposed highway. One of the practical effects of this approach was to override or supplant the NEPA process for gathering public input, and to this day the public perception remains that the FEIS and ROD, as well as highway design and the ultimate decision to proceed with entrance construction, all rest in the hands of Aspen voters.

During the election held in 1990, Aspen voters did approve the transfer of city owned open space for a four lane highway on an alignment through land which is typically identified as the “Marolt property”; a decision which directly supported the preferred alternative for the Basalt to Aspen EIS.

In 1991, new Aspen City Council elections were held in a context in which it was assumed the highway issue had already been resolved. However inadvertent a byproduct it may have been, the election resulted in the seating of a majority opposed to the decision made by the voters the previous year, and committed to blocking any action which would expand the highway from two to four lanes. This new council would not cooperate with the State of Colorado in the proposed land transfer, and essentially demanded a new process.

I do not purport to be an expert in NEPA regulations or procedures, but I have been unable to find anything which suggests that the majority vote of a small town city council is

sufficient to unilaterally reject the outcome of an EIS process. However, in the second questionable action of CDOT/FHWA, the Basalt to Aspen EIS was split, and an entirely new EIS was ordered for the 1.9 mile Entrance to Aspen highway segment.

In the context of the refusal to accept the Basalt to Aspen EIS, it was implicit from the outset that any form of four lane highway, including the HOV lane configuration, was off the table for the Entrance to Aspen. Without the capacity increase provided by additional lanes, transit was the only alternative available which could potentially satisfy project need without enhancing the driving experience for motorists. Exclusive bus lanes provide advantages exclusively for transit, but still require additional lanes adding up to four. Consequently, the Entrance to Aspen EIS was manipulated to result in a predetermined recommendation for two lanes plus light rail, in direct violation of NEPA regulations. (1)

However, prior to the issuance of the ROD in 1998, the State of Colorado took the position that it cannot designate a preferred alternative for which no funding source exists. At that point, Aspen area officials reluctantly agreed to request environmental clearance for an exclusive bus lane option as an "interim" solution until such time as funding was available for rail. (No additional analysis or documentation was required to provide environmental clearance for bus lanes, creating significant questions as to how this alternative could so easily satisfy air quality concerns in contrast to the findings reported for the HOV option.)

In 2000, a group of local residents used the initiative process to determine whether support existed for the financing of rail. This process was undertaken in the belief that a negative outcome would automatically clear the way for construction of the interim bus lane option. However, after the negative rail vote, the State of Colorado took the position that specific voter approval for the bus lane configuration would be required.

A complete accounting of the entire voting history would require a separate letter, but with the exception of a preliminary conceptual approval obtained in 1996, neither configuration identified as the preferred alternative, bus lane or rail, has been able to garner a majority vote, despite numerous attempts.

On one hand, this project is dead in the water. The Aspen City Council of today, which differs slightly from the composition which directed the outcome of the ROD, has declared that no further action will be taken to move the project forward in the absence of voter approval, and Pitkin County, the Transportation Planning Region, and State of Colorado have indicated an intent to follow their lead.

On the other hand, the 68% of Aspen voters who approved the use of open space for construction of a four lane highway in 1990, and the 56% who simultaneously chose the "Marolt" alignment, have never again been granted the opportunity to support an option which comes closest to their expressed wishes. The two lanes plus HOV lanes configuration, much of which is already in place between Basalt and Buttermilk Ski Area (located 1.9 miles from the end of the original Basalt to Aspen EIS), was eliminated from consideration in the Entrance to Aspen EIS as part of the orchestration of rail as the preferred alternative.

In the course of an exchange of letters with Denver FHWA administrators, I demonstrated, in the form of questions which could also provide the basis for review, some of the techniques used in the attempt to influence public opinion in favor of Light Rail Transit (LRT). I also pointed out that traffic projections developed some years ago by the State of Colorado are clearly in error in light of actual traffic counts available today.

Regarding traffic projections:

Referring to the Tables and supporting material on Pages V-24 and V-25 of the FEIS for the Entrance to Aspen, dated August, 1997, (attached) the following questions regarding underlying assumptions are illustrated by examining the projected performance differences between the "HOV/Transit Lanes" and "LRT/Transit Lanes" categories.

1. Is it valid to use different criteria in evaluating different alternatives?

DISCUSSION - Footnote 1 for Table V-6 states that, "However, all estimates in this table include SIP control measures...", which are current Transportation Management (TM)* and other strategies already in place to control traffic volumes and/or PM10 generation. The table itself goes on to project future conditions under various scenarios, and under the section for the HOV/Transit Lanes alternative we find the note, "No TM Programs". In contrast, below the LRT/Transit Lanes alternatives, the note reads, "TM Programs (Average of DSEIS** Alternatives)".

What at first appears to be a contradiction between the footnote (SIP control measures) and the table information (No TM Programs) for the HOV alternative can be explained as the difference between existing conditions and future assumptions. However, there is no explanation for assuming additional future Transportation Management (TM) measures for the LRT option, but not for the HOV configuration.

* i.e. Paid parking, increased bus service, etc.
** Draft Supplemental Environmental Impact Statement

2. How can additional TM measures combined with Light Rail Transit be expected to provide such dramatic reductions in traffic volumes projected for year 2015?

DISCUSSION - Although the DSEIS, dated August, 1995, does not use the same phrase ("Average of DSEIS Alternatives", noted above for the TM element of the LRT option), it does provide a description of a "Moderate TM Program" at Page II-9. The significant elements of a moderate TM program are described as a 50 percent increase in bus transit service (which would link passengers to the LRT), a 50 percent decrease in bus fares, and a 60 percent increase in Aspen's paid parking fees.

According to Table V-6 in the FEIS, the figure of 162,400 daily Vehicle Miles Traveled (VMT) was established for the base year 1997.

VMT for the LRT alternative for 2015 is projected to be 166,300, an increase of 2.5 percent.

VMT for the year 2015 with the HOV alternative is predicted to rise to 248,000 miles per day, an increase of 53 percent from 1997.

Given that paid parking and substantial bus service were already in place when the 1997 base year VMT was established, how can the incremental increase in bus frequency, parking fees, etc. be expected to provide the degree of difference reported between LRT and HOV traffic volumes? Unless LRT is believed to be so undesirable as to keep people away in droves, the passengers in one out of every three vehicles would need to be diverted to Light Rail Transit to

achieve the projected 2.5 percent increase in VMT. There is no example in the industrialized world where a new transit mode has provided such dramatic impacts on traffic volumes.

3. How can buses on exclusive bus lanes provide the same improvements as LRT for year 2015 VMT projections unless the same is true for buses traveling on HOV lanes?

DISCUSSION - HOV lanes are intended to provide priority service for buses and multiple passenger private vehicles in order to allow faster travel times. If there are sufficient numbers of private vehicles to impede the travel times of buses, the minimum number of passengers necessary to qualify for access to HOV lanes can be increased. Phasing the severity of HOV restrictions in response to changing travel characteristics is directly analogous to the phasing of TM measures. However, no such recognition of the flexibility of HOV lanes was factored into VMT projections, providing another basis for a claim of biased results.

Regarding traffic counts:

At some point between 1993, and 1997, the decision was made to switch from Annual Average Daily Traffic (AADT), a count of individual vehicle trips, to Vehicle Miles Traveled (VMT) as the statistical key to track changes in traffic volume. However, since VMT is simply a multiplier of the distance traveled times the number of vehicle trips, comparisons of the two different protocols across different studies are directly proportional.

As part of the FEIS for Highway 82 between Basalt and Buttermilk Ski Area, dated October 6, 1993, traffic projections for the Entrance to Aspen indicated an expected increase in AADT of 45 percent by 2015, a period of 22 years. In contrast, the Entrance FEIS, as noted above, projects a 53 percent increase in VMT over 18 years, despite the fact that traffic volumes declined slightly between 1993 and 1997.

Using a simple 2 percent annual multiplier to represent expected traffic growth, 1993 AADT should have swelled to 27,700 vehicle trips by 2001. Actual traffic counts collected by the City of Aspen for the twelve month period prior to September 11, 2001, show AADT to be 22,764 vehicle trips, a full 5 percent below 1993 volumes, and 18 percent below projections.

ADDITIONAL NOTE: The study area is defined in the Entrance Draft EIS as a 1.92 mile section of highway, and although vehicle trips are assumed to be two-way, each inbound and outbound trip is counted separately. The VMT shown in Table V-6 (Footnote 3, Entrance To Aspen FEIS) for 1994, 166,300 miles, divided by the 1.92 miles of the study area, equals 86,615 vehicle trips. However, Annual Average Daily Traffic for 1993 was only 23,800 vehicles (Fig I-3, Page I-12, Entrance To Aspen FEIS), a discrepancy of 62,815 vehicle trips PER DAY. Alternatively, the study area would need to be expanded by 360% (to about 7 miles) to account for the huge VMT estimate. For the purposes of the Final EIS, the study area was expanded to 4.3 miles, not nearly enough to explain the discrepancy, particularly given that a significant number of vehicles do not travel the full 4.3 mile distance. Regardless of the explanation, should there be one, it should also be noted that any overestimation error in projected vehicle trips is compounded by the VMT multiplier, so that the longer the study area, the greater the exaggeration of VMT, and by extension, projected PM10 production.

The Denver FHWA chose to defer comment on any of the information provided to them, and instead responded that:

"According to the information provided in the Final Environmental Impact Statement (FEIS), on pages V-24 and 25 and II-13, the alternative with two HOV/Transit Lanes resulted in unacceptable air quality impacts and, therefore, was not selected. Since Aspen is a nonattainment area, any transportation project approved in that area must comply with the transportation conformity requirements, including compliance with the air quality plan's emissions budget. At the time of the FEIS, all of the examined alternatives complied with the air quality plan's budget. However, since then, the state Air Pollution Control Division (APCD) has adopted a new air quality plan for Aspen (with a new budget) and submitted it to the U.S. Environmental Protection Agency (EPA) for approval."

"The 2015 air quality maintenance plan was adopted after the FEIS, and the vehicle miles traveled (VMT) estimates for the plan were provided by the Colorado Department of Transportation (CDOT). Therefore, one would expect that the VMT estimates in the air quality plan are based on the assumption that the preferred alternative will be implemented, since to assume otherwise would be counterintuitive. The emissions budget in the plan, which serves as a cap on transportation-related emissions under the EPA transportation conformity rule, would have been based on these VMT levels. Since the other alternatives examined in the EIS resulted in higher VMT than the preferred alternative, we made the reasonable assumption that it would likely be difficult for other alternatives to meet the budget."

This entire explanation, besides being totally unresponsive, is completely erroneous, as is the relevant paragraph in the FEIS on which it apparently relies. (2) In a conference call on November 14, 2002, I demonstrated to CDOT/FHWA that under the "PM10 Redesignation Request and Maintenance Plan for the Aspen Area", January 11, 2001, the new emission budget for the Aspen area is entirely independent of any action regarding construction of any alternative at the Entrance to Aspen. (3)

More significantly, the recently approved emissions budget for pounds per day of PM10 from Highway 82 in 2015, allows a particulate level nearly two and one half times greater than the amount forecasted in the FEIS for the PM10 generated by the HOV lane option in 2015. Consequently, air quality concerns are moot even under an HOV lane analysis based on exaggerated traffic projections and a biased evaluation process. **The HOV lane option has never been in violation of air quality standards, and cannot be eliminated on that basis.**

Rather than acknowledge or act on this new information, FHWA Denver then told me that no response to my questions would be provided because the State of Colorado currently estimates that the entrance project will not be funded for at least ten years, and in any case the request to review the ROD would have to come from the state.

Strictly in terms of process, it seems incredible that a federally mandated procedure, if mishandled or falsified by any entity, can only be repaired upon the request of the same agency or jurisdiction which committed the original error. My response to what appeared to be evasions by FHWA Denver was to request contact information for someone with the authority to overrule the local decision to take no further action. If you do not have the ability to rectify the problem directly, I would respectfully request that you use whatever influence your position may allow to

encourage the leadership of CDOT to suspend the current ROD for the Entrance to Aspen, and take the necessary steps to amend and correct that document to reflect the suitability of the HOV option.

The funding schedule of Colorado or any other state is clearly irrelevant to the need to correct irrefutable and substantial errors made in the course of an EIS process, and the need to take timely action in the current situation is particularly significant. Regardless of the projected financial situation of Colorado, the more immediate problem is that no further request for funds is expected from local officials under any funding scenario. It should be further noted that of the 20+ miles of Highway 82 which has been expanded over the last dozen or so years, no section was completed according to its original funding schedule. Every phase has been expedited by virtue of having completed and approved plans in place, thereby providing the opportunity to take advantage of shifts in funding caused by changing circumstances or delays in projects in other areas. Repairing the ROD is the essential first step in ultimately resolving the funding problem, not the reverse.

The State of Colorado should provide new baseline traffic projections based on current traffic volume trends. That analysis should also consider recent research into the magnitude of "induced" traffic resulting solely from highway improvements generally, and more specifically, the relevance and applicability of this concept in the context of a 1.9 mile section of primary roadway serving a unique destination. (4) (5)

In addition, CDOT/FHWA should undertake a thorough review, not only of the set of assumptions which led to the huge disparity in the traffic projections for the various lane configuration alternatives, but also technical items as simple as the basic math, and as sophisticated as the computer modeling software employed in data analysis. This review should be conducted independently from the private sector consultants, and state and federal employees, who participated in the original process.

Community acceptability will undoubtedly still need to be demonstrated by yet another public vote. The voters of Aspen deserve accurate, truthful, and unbiased data prior to making that decision, and they should do so with the full awareness that the HOV lane alternative is completely free of any air quality conformity concerns.

Thank you for your consideration of this matter. I look forward to your response.

Jeffrey Evans

cc: State Representative Gregg Rippy, Congressman Scott McInnis, CDOT Executive Director Thomas E. Norton

FOOTNOTES

(1) Council on Environmental Quality, NEPA Implementation Procedures; Appendices I, II, and III (49 Fed. Reg. 49750, December 21, 1984)

http://ceq.eh.doe.gov/nepa/regs/ceq/toc_ceq.htm

Sec. 1502.2 Implementation.

(f) Agencies shall not commit resources prejudicing selection of alternatives before making a final decision (Sec. 1506.1).
(g) Environmental impact statements shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made.

Sec. 1506.1 Limitations on actions during NEPA process.

(a) Until an agency issues a record of decision as provided in Sec. 1505.2 (except as provided in paragraph (c) of this section), no action concerning the proposal shall be taken which would:
1.Have an adverse environmental impact; or
2.Limit the choice of reasonable alternatives.

(2) State Highway 82 Entrance to Aspen, Final Environmental Impact Statement, Volume 1, August 1997. Page V-24

"When the budget is calculated using the new EPA emission factor, the new emissions budget would be 1,680 kg/day (3,700 lb/day) as opposed to the 6,335 kg/day (13,970 lb/day) in the SIP. This new adjusted emissions budget is used in Table V-6."

(3) PM10 Redesignation Request and Maintenance Plan for the Aspen Area, (Adopted by the Colorado Air Quality Control Commission, January 11, 2001.) Pages 21, & 31-33

http://www.cdphe.state.co.us/ap/attainmaintain.asp

(4) Transportation Research Circular, Issue 481, February, 1998, pp 33-45.
"Highway Capacity And Induced Travel: Issues, Evidence, and Implications"

http://199.79.179.82/sundev/detail.cfm?STARTROW=501&ANNUMBER=00748098&Print=y

"It is concluded that the role of highway capacity expansion in increasing highway travel has been small relative to other factors. Highway capacity expansion interacts with far more important variables such as population, household and employment growth, personal income and auto ownership increases, regional economic growth and fuel price changes as determinants of total travel demand."

(5) Surface Transportation Efficiency Analysis Model (STEAM) White Paper, Session No. 9
"Accounting For Induced Travel In Evaluation Of Urban Highway Expansion"

http://www.fhwa.dot.gov/steam/doc.htm

"The analysis represents an 8 mile long corridor with a freeway facility which is proposed to be widened from 4 to 6 lanes, i.e., a 50% increase in capacity. There are several parallel arterial facilities."
"Under pre-existing conditions, corridor traffic is assumed to be distributed 40% on the freeway and 60% on the arterials."

Assumptions used are consistent with those used in the State Implementation Plan and the DEIS Air Quality Analysis, with the following exceptions:

- This analysis uses the more recent EPA emission factor equation and the most recent EPA data on unsanded roads.
- Four separate categories of emission factors are used instead of three categories.
- A different emission rate is assumed for out-of-town State Highway 82 roadways than for in-town State Highway 82 roadways.
- The new emission factor calculation uses average vehicle weight as a variable. An average vehicle weight of two tons was assumed for this analysis.
- The travel assumptions used in this analysis are based on more accurate modeling of the year 2015 traffic data.

Table V-6 shows the updated forecast of PM_{10} and vehicle miles traveled vehicle miles traveled (VMT) emissions by category of alternative. The DSEIS alternatives decrease the PM_{10} emissions by 11 percent, while all other alternative categories increase the emissions.

The SIP requires implementation of air quality measures to help reduce emissions. The City of Aspen and the Colorado Department of Transportation have implemented some beneficial air quality measures beyond what is required by the SIP. These include paid parking in Aspen's commercial core, a cross-town shuttle program, no sanding on State Highway 82 in Aspen, and the use of alternative deicers on State Highway 82 outside of Aspen.

A conformity decision must be made prior to, or as a part of, the issuance of the FEIS. All alternatives in this document conform with the requirements of the transportation conformity regulation. The emission budget in the current SIP is 6,335 kg/day (13,970 lb/day). The alternatives in the DSEIS and the Preferred Alternative have emissions in the year 2015 of 1,500 kg/day (3,300 lb/day). Therefore, the alternatives in the DSEIS and the Preferred Alternative meet the emission budget and allow a conformity finding. However, this comparison between the forecast emissions and the approved SIP emission budget is meaningless since different estimation methods were used in the situations being compared.

When the budget is calculated using the new EPA emission factor, the new emission budget would be 1,680 kg/day (3,700 lb/day) as opposed to the 6,335 kg/day (13,970 lb/day) in the SIP. This new adjusted emission budget is used in Table V-6.

The Preferred Alternative conforms with the adjusted emission budget as well as the original emission budget. CDOT and the City of Aspen intend to continue the air quality measures currently being implemented. With these commitments, the Preferred Alternative conforms with the intent of the Aspen SIP, the federal transportation conformity regulation, and the Clean Air Act.

Table V-6
Updated Forecast of PM_{10} and VMT Emissions
by Category of Alternative

	Year					
	1997 SIP (1)		*2015*		*Change from 1997 SIP Levels*	
Alternative	*VMT*	*PM_{10} kg/day (lb/day)*	*VMT*	*PM_{10} kg/day (lb/day)*	*VMT*	*PM_{10} kg/day (lb/day)*
NO-ACTION ALTERNATIVE -- Existing State Highway 82 -- 2 General Highway Lanes	162,400	1,680 (3,700) (2)	256,600	2,310 (5,100) (4)	---	+37%
4-LANE HIGHWAY -- 4 General Highway Lanes -- No TM Programs (Comparison Purposes Only)	---	---	270,900	2,590 (5,700) (4)	---	+45%
DEIS ALTERNATIVES -- 2 General Highway Lanes -- 2 HOV/Transit Lanes -- No TM Programs (Average of DEIS Alternatives)	---	---	248,000	2,220 (4,900) (4)	---	+33%
DSEIS Alternatives and Preferred Alternative -- 2 General Highway Lanes -- LRT/Transit Lanes -- TM Programs (Average of DSEIS Alternatives)	---	---	166,300 (3)	1,500 (3,300) (4)	---	-11%

Notes:

1. *The 1997 emission estimate varies from the SIP estimate due to different estimation techniques. However, all estimates in this table include SIP control measures, with the exception of the bus lane in town, which has been discontinued.*
2. *This level of PM_{10}, calculated using the most recent EPA emission factor equation, is equivalent to a new emissions budget for the Aspen PM_{10} nonattainment area.*
3. *This VMT is the estimated traffic for 1994. A primary goal of the DSEIS is to maintain existing traffic levels in year 2015. This estimate varies from the 1994 estimate due to different estimation techniques. The 1994 level is greater than 1997 because the SIP assumes full effectiveness of transportation control measures in 1997.*
4. *2015 PM_{10} emissions calculations assume that Aspen continues its current policy of applying only alternative deicers on State Highway 82 (Main Street) and local streets.*