I-66 Tier 1 Draft EIS
Comments by the Sierra Club, Virginia Chapter

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April 8, 2013

Dear Mr Walter,

Please accept the following as the comments as the official submission from the Virginia Chapter of the Sierra Club. We appreciate the opportunity to participate in this process.

Your opening summary states that this Tier 1 study is based on a systems level analysis that focuses on broad issues such as purpose and need, travel modes, technology choices, and general location of improvements. The analysis examines potential impacts at a conceptual level. The subsequent Tier 2 NEPA documents will include site-specific quantitative analyses of effects and provide avoidance, minimization, and mitigation measures. While more refined analysis is promised in a Tier 2 phase, that phase is not represented in your timeline.

A principle concern is that the information presented in this document is indicative of a preconceived inclination for a solution that cannot be influenced by fine-tuning in the Tier 2 analysis. Examples of this are evident in the tables in Chapter 3 showing the performance and cost ranking of various modes with little detail and no sources. Also the growth projections in Chapter 4 seemed biased to pointing to what is happening in Prince William County. And finally, the criteria for evaluating concepts is narrow and limited to only a few simplistic measures. We will discuss these points in further detail, but hope we are wrong in this initial perception.

Purpose and Need. The bulk of the case for needing more capacity in the corridor is an assessment of Level of Service (LOS), a measure of auto mobility. The function of public investment should be to improve accessibility of the general public, or how can we help people access their needs at a reasonable cost to the economy and the environment? No doubt LOS is a part of that, but not the only part. LOS tells you that there are too many vehicles for the allotted space, nothing more. The solution is not necessarily more space. Better and more variety of metrics will help select the best solution. Suggested parameters to measure can be found in documents for VTrans 2035. Their examples and others include:

- Population within a set distance of activity centers
- Percentage of peak hour traffic operating at 50% of speed limit or below
- Average vehicle occupancy
- Travel time index (ratio of peak travel time to uncongested travel time).
- Planning time index (a measure of day to day variation in travel time)

This type of analysis may offer insight about whether there are steps other than more road capacity to address the observed conditions. By the way, is the title of Table 3-4 a Freudian slip?

As one step for the above approach, place Transportation Demand Management (TDM) at the top of your concept development process. That is, before considering how much road, or rail capacity to scope out, consider whether some amount of the demand can be avoided by a set of behavioral changes. Then calculate the needed capacities.

The process of determining environmental consequences seems to set aside operational detail until the Tier 2 process. Energy use should be one such operational consequence, but that is not a mentioned as a factor to be analyzed, even though energy and climate impacts are a critical concern of the public.

Figure 3-1 is another example of inappropriate treatment of TDM in that it should show up in the non-capacity section of the column "Partially meets needs" (in spite of the footnote). Used as shown, TDM will not be a part of the non-capacity analysis process, when it should be the first consideration of every Improvement Concept Scenario (ICS).

Table 3-1 presents ridership values for the different modes and technologies but doesn't provide any information on the method of derivation or sources of data. These are very sensitive parameters, ones which could have a significant influence on the chosen ICS. Citizens have been given a "black box" to review – again.

Table 3-2 includes 47 Improvement Concept Scenarios, and while it is only to be analyzed, some of them are so ludicrous we don't know why you would even look at them. In particular, any option with multiple highway lanes should be considered a non-starter. Even if the roads could be built at a lower cost, such highways generate more traffic which then creates capacity needs elsewhere – outside your study area. Examples of nonsense ICSs are #s 18, 19, 29, 34, 35, and 42-47. Dropping them would still leave 35 to analyze.

On Pgs 3-9/10 in the discussion of intermodal connectivity, there is insufficient attention to park and ride lots, and while pedestrian improvements within the half mile is reasonable, the bicycle infrastructure should be provided for up to a 3 mile radius.

On pg 3-12 the section on communication and technology is focused on highway signage, etc, but should include support and publicity for passenger communication such as Nextbus and instant carpooling.

The no-build option includes the Tri-County Parkway and Battlefield Bypass, two roads that remain under challenge for their environmental impact and weak demand justification. We object to their inclusion.

Pg 3-13, Analysis of Concepts. Just as the General Purpose lanes are added last in the analysis, so should the non-capacity improvements including TDM be included first, so that less needs to be built. This section seems to dismiss the non-capacity improvements as incidental.

Table 3-3 is so poorly designed it is misleading as to its likely intent. The red dots say a concept does not meet the purpose and need, when in fact many are not applicable. Also, it limits the ranking criteria to five elements, clearly insufficient.

The bulleted list of metrics on Pg. 3-14 are given as those shown in Table 3-4 for evaluating the ICS options, but one, "Ability to Reduce SOV Share and Support TDM" was not included. Table 3-4 is said to illustrate the result of combining concepts, using only 7 criteria, but there is no information on how the final analysis would differ. Would it use many more criteria? If yes. what are they?. How would such results be translated into a preferred option in the Tier 2 study? Some of the values and coloring do not appear to be logical. If preferred values are yellow, and not preferred are blue, then the values for width seem reversed. What is the relationship between the last two columns, both about costs? If the transition uses the values on ridership from Table 3-1, then the weakness of that data will be propagated.

On page 3-17, the fifth bullet discussion of descending order of carrying capacity contradicts your own table 3-1 on relative carrying capacities, even using your flawed ridership values. Similarly in comparing toTable 3-4, ICS#5 vs ICS#6 (first criteria).

Tables 4-3 thru 4-5 show growth from 2010 to 2030, although in the front of the study, the horizon for projections was 2040. The values in these tables are suspect, but if they are for the study area only for each jurisdiction, they cannot be matched to other projections. If the study area includes Tysons, as it seems, a lot of new developments have been approved since this study began. It also seems that Fairfax City has more development being planned than is noted in this chapter. On pg 2-13, the figure showing population change indicates a value of 32,000 in Tysons in 2040. The Oct 2012 report to the Fairfax County Board of Supervisors shows an expected population of about 69,000 based on current development applications. There is a sense that the growth in Prince William is getting inordinate attention. Presuming this analysis is updated for the Tier 2 EIS, more detailed information should be provided on how that is done. Don't just name the projection, but provide tables of population and employment numbers for each subsection of the study area and detailed traffic data under a variety of conditions.

Natural Environment – Water Resources. This information reminds us of one more reason to minimize paving in the option chosen. Mitigation of destroyed wetlands and disturbed streams is a false concept. Does this become a factor in the selection? We have not seen it.

Air Quality, pg 5-15/16. The paragraphs on General Purpose lanes and managed lanes each make the outlandish claim that these additional lanes result in lower emissions. Let's be clear: More lanes=more cars=more emissions. No other possible conclusion.

Further, there is no discussion of the impact of concentrations of emissions near a roadway, especially a multi lane roadway, and that impact on the occupants of nearby schools.

Historic Properties, Pg 5-35. The finding of a De Minimus impact may not be appropriate if a highway option is selected, one designed to serve more auto trips. This not only affects air quality, but energy and climate effects in the corridor.

In the discussion of Water Quality on pg 5-38, there is a stated assumption that the various regulations and laws are sufficient to protect the water. That assumes the laws are adhered to or enforced. In a recent example, VDOT's HOT lane contractor's construction practices resulted in severe impairment of a steam and lake in Fairfax. In spite of a lawsuit, the problem was never adequately resolved.

We are concerned that there could be a rush to approve an approach partly based on what can be built most quickly because there is political pressure for a correction of the congestion that already exists. We urge that the agencies look for the best long term solution that addresses as many of the criteria as possible by the 2030-2040 time frame. The pressure to act sooner could be relieved if a short-term interim program of modest improvements and operational changes were implemented or allowed to be implemented by regional or local government. This could include measures to increase vehicle capacity, including buses, vans and cars, and auxiliary support measures such as parking lots and incentive programs.

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