



U.S. Department
of Transportation

**Federal Highway
Administration**

Virginia Division
(804)775-3320

P.O. Box 10249
400 N. 8th Street Rm. 750
Richmond, Virginia 23240

IN REPLY REFER TO:

March 30, 2007

Interstate 73 Location Study;
Final Environmental Impact Statement;
Botetourt, Bedford, Roanoke,
Franklin, and Henry Counties and the
Cities/Towns of Roanoke, Salem,
Rocky Mount, Boones Mill and
Martinsville, Virginia
RECORD OF DECISION

Mr. Malcolm T. Kerley
Chief Engineer
Virginia Department of Transportation
1401 East Broad Street
Richmond, Virginia 23219

Attention: Mr. Rick Walton

Dear Mr. Kerley:

Attached for your use and files is the Record of Decision issued by the Federal Highway Administration for the Interstate 73 Location Study Final Environmental Impact Statement. Please take appropriate action in accordance with 40 CFR Part 1506.6(b) to notify the public that the Record of Decision has been issued. If you have any questions, please contact me at (804) 775-3338.

Sincerely,

Roberto Fonseca-Martinez
Division Administrator

By: 
Edward S. Sundra
Environmental Specialist, Sr.

CC: Earl Robb, VDOT
Richard Caywood, VDOT
Bruce McAuliffe, VDOT
Jeff Rodgers, VDOT
Paul Johnson, VDOT
Marlys Osterhues, FHWA

RECORD OF DECISION

Federal Highway Administration

Virginia Division

Interstate 73 Location Study

Botetourt, Bedford, Roanoke, Franklin, and Henry Counties and the Cities/Towns of Roanoke, Salem, Rocky Mount, Boones Mill and Martinsville

A. Project History

The proposed project is part of the Interstate 73 high priority corridor designated by the U.S. Congress in Section 1105 of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. In establishing these Section 1105 high priority corridors, Congress found that construction of the Interstate System connected the major population centers of the nation and greatly enhanced economic development. Congress also found that many areas of the country are not now adequately served by the Interstate System or comparable type highways and require further highway development in order to serve the travel and economic development needs of the region. The original location of Interstate 73 was identified in ISTEA as “Charleston, South Carolina through Winston-Salem, North Carolina, to Portsmouth, Ohio, to Cincinnati, Ohio, and Detroit, Michigan.” Once it became apparent that the Congressional routing of Interstate 73 established in ISTEA would pass through Virginia, VDOT initiated a feasibility study to define the general location of Interstate 73 through the state. In conducting the feasibility study, VDOT looked at thirteen broad corridors or study areas throughout southwestern Virginia for Interstate 73, and evaluated the different corridors by using five different criteria: environmental impacts, economic impacts, traffic service, capital support, and public support. In March of 1994, based on the results of this study and public involvement efforts, the Commonwealth Transportation Board selected a general location for the Interstate 73 corridor that entered Virginia from West Virginia on Route 460 west of Narrows and generally followed Routes 460 and 220 to the North Carolina State line. In late 1994, the cities of Roanoke and Salem and the County of Roanoke expressed a desire that the location of Interstate 73 be improved by routing it along I-581 and I-81. In December of 1994, VDOT prepared a supplemental report for Interstate 73 that determined it feasible to refine the location of the route using Interstates 581 and 81. The CTB approved the revised general location and with the passage of the NHS Designation Act of 1995, Congress included the CTB-approved corridor for Interstate 73 in legislation. In the National Highway System Designation Act of 1995, the location of Interstate 73 in Virginia was described as follows: “In the Commonwealth of Virginia, the corridor shall generally follow United States Route 220 from the Virginia-North Carolina border to I-581 south of Roanoke; I-581 to I-81 in the vicinity of Roanoke; I-81 to the proposed highway to demonstrate intelligent transportation systems...in the vicinity of Christiansburg to United States Route 460 in the vicinity of Blacksburg; and United States Route 460 to the West Virginia State line.” This Interstate 73 Location Study addresses Interstate 73 in Virginia from the Virginia-North Carolina state line to Interstate 81 in the vicinity of Roanoke, a distance of approximately 72 miles. It is the intent of VDOT to study the remaining portion of Interstate 73 between Roanoke and the Virginia-West Virginia state line at a future date when funding becomes available.

The draft EIS was approved for public availability on October 25, 2000. In May of 2001, the Commonwealth Transportation Board (CTB) adopted a location alternative that consisted of

segments 374, 376, 287A, 399, 400, 153, 326B, 326, 387, 388, 389, 349, 393, and 398. Segments 118 and 118B were also included in that decision to provide a connector between Interstate 73 and existing U.S. Route 220. The CTB's approved location alternative (ALC) was not a single build alternative from the draft EIS but represented a combination of segments from the build alternatives that were included in the draft EIS for detailed analysis. A month later on June 21, 2001 the CTB rescinded its May location decision for Interstate 73 because of economic development concerns raised by Henry and Pittsylvania Counties. After reconsideration, the CTB approved a revised location consisting of segments 374, 376, 287A, 399, 400, 153, 202A, 385, 369, 373, 333 and 398, changing the location of Interstate 73 by selecting the eastern alignment for the route from just north of the Henry County border to the Virginia-North Carolina state line. As was the case with their original decision, Segments 118 and 118B were included as part of the ALC. This change reduced impacts to wetlands, water supply facilities, special habitats, residential relocations and commercial relocations. On July 15, 2004, the CTB rescinded and amended their June 21, 2001, resolution by eliminating Segments 376, 287A and 399, as segments of the ALC and by eliminating Segments 118 and 118B as a *connector* between the ALC and U.S. Route 220. Segments 375, 118, 118B and 118C, were then added as segments of the ALC. This most recent change was brought about by 1) the determination by the Keeper of the National Register that the Southeast Roanoke Neighborhood Historic District was eligible for the National Register of Historic Places, 2) a determination by VDOT that there appeared to be a prudent and feasible avoidance alternative to impacting this historic district, and 3) a determination by FHWA that the legal standards established by Section 4(f) would not likely allow the agency to support the CTB's June 21, 2001, ALC or more specifically, Segment 376 of the ALC which impacted the Southeast Roanoke Neighborhood Historic District. Consequently, VDOT elected to advance segments of an alternative which had already been studied in the draft EIS (i.e. Segments 375, 118, 118B and 118C) in revising the ALC. Although the ALC selected by the CTB was not specifically identified as a build alternative in the draft EIS, carrying it forward into the final EIS as the preferred alternative did not warrant the preparation of a supplemental draft EIS because the ALC selected by the CTB consisted of segments which were already evaluated in the draft EIS, the ALC did not introduce any new segments or represent any changes to the proposed project as it was presented in the draft EIS, and the ALC did not involve significant environmental impacts that were not previously considered.

A written re-evaluation was prepared in accordance with 23 CFR § 771.12(a) and signed on June 24, 2005. Based on the written re-evaluation, it was concluded that a supplemental EIS was not warranted. A copy of the re-evaluation is included in Appendix H of the final EIS. The final EIS was signed on December 1, 2006. On December 29, 2006, the Environmental Protection Agency published a Notice of Availability for the final EIS in the *Federal Register*. The 30-day review period, which marks the earliest date that FHWA could issue a Record of Decision, ended on January 29, 2007.

B. Purpose and Need

The purpose and need for the project identified in the EIS includes several components:

- a) Improve the safe movement of goods and people in the Route 220 corridor;
- b) Provide for the economic growth, economic vitality, and maintenance of existing economic competitiveness in the study area;
- c) Improve operations, access and capacity for vehicular and freight movement in the study area and to other locations between Michigan and South Carolina;
- d) Enhance general mobility and transportation linkage in the study area and through the broader Michigan to South Carolina travel shed; and
- e) Address Congressional intent for the high priority corridor.

Regarding the last component, FHWA believes that despite the flexibility provided by Congress regarding the design of Interstate 73, it is the intent of Congress that portions of Interstate 73 be constructed to Interstate design standards. This position is based, in part, upon a response from Mr. Fred Skaer, Director of FHWA's Office of National Environmental Policy Act Facilitation in Washington, D.C. in an electronic message to Ms. Rebecca Bier dated January 22, 1999, wherein he cited the "Interstate 73" designation by Congress and several laws enacted since ISTEA by Congress which strengthened the identification of the 73 high priority corridor as an Interstate highway. For example, Congress has amended existing legislation and passed additional legislation designating the section of Interstate 73 from Charleston, South Carolina to Portsmouth, Ohio as a future part of the Interstate system subject to the conditions that the section to be added meets Interstate design criteria and connects to an existing Interstate segment.

C. Selected Alternative Decision

The alternative selected by FHWA for the Interstate 73 Location Study is the alternative identified in the final EIS as the ALC (adopted location corridor) and depicted in Figure 2.6-6. The ALC consists of segments 374, 375, 118C, 118, 118B, 400, 153, 202A, 385, 369, 373, 333 and 398. The alternative would be a limited access facility constructed to principal arterial design standards for a freeway. It would consist of a 5.7 mile segment on existing Interstate 581 along with a 66.01 mile section on new location.

The ultimate lane configuration of the ALC, also known as the Preferred Alternative, will depend upon design year traffic and location. Between Interstate 81 and Route 419, it is anticipated that the ALC will be a 6-8 lane divided facility with a median barrier and auxiliary lanes at select locations. From Route 419 to Buck Mountain Road, the ALC will be a 4-6 lane divided facility with a median barrier and frontage roads at select locations. From Buck Mountain Road to the Virginia-North Carolina state line, the ALC will be a 4 lane divided facility.

Interchanges are proposed at the following locations of the ALC and the assessment of impacts was based on these preliminary locations:

Interstate 581 at Route 101 (Hershberger Road), Valley View Road, U.S. Route 460 (Orange Avenue), Williamson Road, and Elm Avenue;

U.S. Route 220 at Franklin Road, Wonju Street, Route 419, Route 679 (Buck Mountain Road), and Route 668 (Yellow Mountain Road);

Route 657 at Red Valley, Route 697 southwest of Burnt Chimney, Route 40 at Hodgesville, Route 619 northwest of Sontag, U.S. Route 220/Route 618, Route 890/Route 108 north of Figsboro, Route 57 southwest of Dyers Store Road, U.S. Route 58 east of the Route 648/Route 620 intersection, Route 650 near the Tanyard Creek Crossing, Route 87 north of the Route 750 Intersection, U.S. Route 220 south of intersection with Route 689.

The ALC includes major river crossings at the Roanoke River, the Blackwater River, the Pigg River, and the Smith River.

Finally, the construction of the ALC at its crossing of the Blue Ridge Parkway will be confined to the existing Route 220 right-of-way; at this location, VDOT owns 160 feet of right-of-way. The National Park Service owns the bridge carrying the Blue Ridge Parkway over existing Route 220 and has an easement to occupy VDOT's right-of-way and maintain the bridge. In order to ensure that the footprint of the ALC at this location will remain within the existing right-of-way, it will consist of 12 foot exterior shoulders, 12 foot interior shoulders, three-12 foot travel lanes in each direction and a 6 foot median barrier.

As part of this project, the existing access to the Blue Ridge Parkway at existing Route 220 will be eliminated and replaced at one of two locations presently under consideration in the immediate vicinity via secondary roads. Both of these alternatives for new access were developed by the National Park Service in coordination with Roanoke County and are depicted in attachments to the Section 106 Programmatic Agreement. A final decision on which new access alternative will be selected and developed will be made by the National Park Service in accordance with its own procedures when project funding becomes available.

This Record of Decision, as it relates to segment 153, is conditioned upon compliance with the Endangered Species Act (ESA). The reason for this is that based on surveys that have been conducted and coordination that has taken place with the USFWS, the USFWS has found that the construction of Interstate 73 will likely affect the federally endangered Roanoke logperch and that formal consultation will be required. However, in a letter dated November 25, 2002, the USFWS recommended that a request for formal consultation not be made until the final EIS was completed and final design initiated; this recommendation has been further confirmed in subsequent communications. Notwithstanding, a draft biological assessment for the Roanoke logperch (see Appendix E of the final EIS) was completed and provided to the USFWS in December of 2003. At that time, FHWA requested that the USFWS initiate formal consultation in accordance with Section 7. The USFWS was unable to initiate formal consultation at that time because of insufficient information and requested additional information related to the design, construction and scheduling of the Pigg River crossing. Because this information was not yet available and could not be developed until final design, FHWA withdrew its request to

initiate formal consultation in February of 2004, citing the USFWS' position that it was premature to complete formal consultation prior to completion of the EIS. Under the ESA, the FHWA is prohibited from making any irreversible or irretrievable commitments that would foreclose the consideration of reasonable and prudent alternative measures that may aid in not jeopardizing the continued existence of a listed species or the destruction of critical habitat. Given this, FHWA and VDOT will not commit any resources to the development of Segment 153, other than the necessary resources needed to carry out final design activities and develop information needed by the USFWS to carry out formal consultation and issue a biological opinion. Should information developed in conjunction with final design activities carried out on Segment 153 lead the USFWS to issue a jeopardy opinion, then FHWA and VDOT would have the ability to pursue other segments that would avoid crossing the Pigg River at the proposed crossing of the ALC while committing only a limited amount of irreversible and irretrievable resources to the development of segment 153.

The ALC has been selected because of the following advantages identified in the final EIS:

The existing Interstate 581 corridor would be modified to accommodate the Interstate 73 corridor with little disruption or impact to adjacent land uses and development;

Use of the Interstate 581 corridor would bring through traffic to the Central Business District of the City of Roanoke and would coincide with the City's desires to construct Interstate 73 without bypassing the City to the east or west;

The Interstate 73 corridor would improve safety on existing U.S. Route 220 by removing through traffic from local traffic;

The ALC is consistent with the economic development goals of the Town of Martinsville and Henry County with its location in proximity to enterprise zones and economic growth centers; additionally, just to the east of the study area, Pittsylvania County and the City of Danville strongly support the ALC due to its proximity to their communities and the perceived economic benefits associated with locating an interstate facility within 30 to 45 minutes of their population base;

The ALC would provide enhanced access to northeastern Franklin County and an expanding commercial zone located along Route 40 to the east of Rocky Mount, thereby contributing to economic growth within the corridor;

The ALC would result in the lowest wetland impacts compared to the other build alternatives considered in the draft EIS;

The ALC minimizes impacts to historic resources by using the NPS' preferred crossing of the Blue Ridge Parkway and avoids impacts to public parks and recreation areas; and

The ALC would have fewer relocation impacts than the alternative and its variations (Options 3, 3a, 3b, and 3c) that would improve existing U.S. Route 220, impact fewer historic resources,

avoid visual impacts to the Appalachian Trail, and cross the Blue Ridge Parkway at the National Park Service's preferred crossing.

D. Alternatives Considered

VDOT used a four-step alternatives identification and screening process to develop the alternatives in the project study area. First, VDOT began by identifying a broad range of options. VDOT did this by obtaining input from several sources that included local jurisdictions, stakeholder interviews, the Interstate 73 Study Team (which consisted of VDOT and consultant staff), and the public. For public input on alternatives, VDOT held three open forum citizen information meetings, which were attended by more than 1,200 individuals. At the information meetings, VDOT asked the citizens to suggest alternatives. Those that preferred a build alternative were asked to draw alternative routes on a map, and this approach resulted in over 750 suggested build alternatives. These alternatives were then broken down into usable segments. In the second step of the alternatives identification and screening process, VDOT eliminated those initial options and segments that had unsuitable or unreasonable elements based on fatal flaw criteria or were unable to meet the project purpose and need. In the third step of the alternatives identification and screening process, VDOT subjected the remaining options and segments to a more detailed set of screening criteria in order to narrow down the options and segments so that a range of reasonable alternatives could be developed. This detailed screening was conducted at two levels. At the first level, the detailed screening included impacts to known resources that did not require research such as archeological and historic resources, wetlands, threatened and endangered species, topographical features, etc. At the second level, the detailed screening included criteria that required some additional research and information to determine more fully the impacts of a particular option or segment. Once these three steps were completed, the remaining segments were combined into four general full-length build alternatives or options, each containing several sub-option variations, for a total of eleven build alternatives.

In addition to the build alternatives, a Transportation Systems Management (TSM) alternative was developed that is consistent with the limited guidance provided by FHWA on TSM alternatives. Although this alternative didn't sufficiently address the purpose and need of the project, it was carried forward for detailed analysis in the draft EIS because it was standard practice at the time to carry TSM alternatives forward for detailed analysis regardless of how well they address the purpose and need of the project. Other "low-build" alternatives to improve the existing Route 220 corridor by reducing the design speed were considered in concept in the Alternatives section of the draft EIS (and further elaborated upon in the final EIS), but they were not carried forward for detailed analysis for the reasons cited in the document. In addition, FHWA would not develop a project of this length by establishing in advance and confining the agency to a single design speed for the entire corridor as represented by the "low build" alternatives given the many factors that affect that decision. For example, the design speed of a facility is not arbitrarily set; instead, it is determined based on anticipated traffic and the functional classification of the roadway with an eye to topography, driver expectancy and environmental constraints. Finally, in response to public comments on the draft EIS, freight and passenger rail alternatives were addressed in the Alternatives section of the final EIS, but they were not given further consideration because they would not be effective in addressing the purpose and need of the project. In addition, Congress has written into law that high priority

corridors be incorporated into the National Highway System upon completion. The components listed in legislation that comprise the National Highway System do not include rail or other stand alone non-highway alternatives.

Some citizens have proposed an upgrade of existing Route 220 with partially controlled access as an alternative to a limited access freeway design. Under this alternative, at-grade intersections remain an option in addition to interchanges, and direct access to existing Route 220 would be eliminated, reduced or consolidated through the use of a variety of access control measures. When it comes to the control of access issue, the CTB has the authority under the Virginia State Code to apply limited access controls to a corridor, which is what you see on sections of Route 220 that bypass the towns of Rocky Mount and Martinsville. In these examples, VDOT is able to maintain the limited access control because they have the legal backing to do so. If VDOT were to try and change the limited access control placed on a facility by the CTB, they would need CTB approval to do so. All other access control is left up to VDOT in conjunction and in cooperation with the localities who control land use decisions. In reality, there is no other type of access control recognized by the Virginia State Code. While VDOT may attempt to control access in a corridor to maintain a desired level of mobility, they have no existing legal authority to control that access which is why efforts to control access on routes in Virginia often lead to the circumstances where changes in land use and the desires of the localities for new access often negate the benefits of efforts to control access over time. For this reason, FHWA does not consider access control alternatives to be reasonable because they are outside the control of FHWA and can't be implemented with any degree of certainty or control by VDOT for the life of the project and are wholly dependent upon the localities for their success.

In accordance with 40 CFR §1505.2(b), the environmentally preferable alternative is the No-Build Alternative because it is the alternative that will cause the least damage to the biological and physical environment and is the alternative that would best protect, preserve, and enhance the historic, cultural and natural resources. This is followed by the TSM Alternative which would confine improvements to the existing right-of-way of existing U.S. Route 220 and involve limited environmental disturbance. These alternatives were not selected due to their inability/inadequacy in addressing the purpose and need for the project.

E. Section 106 and Section 4(f)

Very few significant historic architectural and archeological resources have been identified in the study area. On different occasions since the draft EIS was approved for public availability, Virginians for Appropriate Roads (VAR) submitted documentation contending that additional resources in the project study area were eligible for the National Register of Historic Places. In January of 2002, VAR submitted documentation contending that the Southeast Roanoke Neighborhood and the Coopers Cove Community were eligible for the National Register as historic districts. After coordinating with the Virginia Department of Historic Resources (VDHR), which concurred with VDOT's recommendation that the two resources were not eligible for the National Register, FHWA elected to elevate the eligibility determinations to the Keeper of the National Register of Historic Places (Keeper). In November of 2002, the Keeper determined that the Southeast Roanoke Neighborhood was eligible for the National Register as a historic district but that the Coopers Cove Community was not. The

CTB's approved location corridor at that time ran through and severed the Southeast Roanoke Neighborhood Historic District, so the FHWA and VDOT spent the remainder of 2002 and much of 2003 appealing the decision of the Keeper and simultaneously evaluating alternatives to avoid the historic district. An appeal to the Keeper to reconsider the Southeast Roanoke Neighborhood Historic District was unsuccessful, and VDOT's evaluation of avoidance alternatives did not identify any practicable and feasible alternatives in the immediate vicinity of the historic district. As a direct consequence of these developments, the FHWA informed VDOT that it did not appear that the legal standards established by Section 4(f) would allow them to support the CTB's approved location corridor and more specifically, the segment of the corridor that impacted the Southeast Roanoke Neighborhood Historic District. Accordingly, as documented above, VDOT elected to advance segments which had previously been studied in the draft EIS but did not have Section 4(f) impacts associated with them.

In November of 2002, FHWA and VDOT were presented with additional documentation by VAR asserting that the Oak Hill Old German Baptist Brethren Community in Franklin County was eligible for the National Register of Historic Places as a rural historic landscape and traditional cultural property. The proposed rural historic landscape and traditional cultural property, if eligible, would also have been severed by the CTB's ALC. VDOT and their consultant spent the remainder of 2002 and 2003 evaluating the German Baptist community to determine its eligibility as a rural historic landscape and traditional cultural property. This evaluation was accomplished, in part, through a series of interviews with the Elders of the Oak Hill Old German Baptist Brethren. A draft of the resulting report was reviewed by the Elders that had been interviewed. By letter dated October 18, 2003, Mr. Odell K. Bauman, on behalf of the Elders, stated, "We have reviewed the report and do not find any major inaccuracies that would alter the summary of this study." In late 2003, VDOT presented their findings to the VDHR. In December of 2003 the VDHR concurred with VDOT's findings that the Oak Hill Old German Baptist Brethren Community was not eligible for the National Register of Historic Places as a rural historic landscape or traditional cultural property. In June of 2004, after being asked by VAR to intervene and recommend to FHWA that they elevate the eligibility of the Oak Hill Old German Baptist Brethren Community to the Keeper, the Advisory Council on Historic Preservation (Council) found no cause to refer the eligibility of the Oak Hill German Baptist Brethren Community to the Keeper of the National Register.

Based on coordination with the VDHR, the ALC will only have an adverse effect on the Blue Ridge Parkway even though it utilizes an existing crossing of the Parkway and construction will be limited to the existing U.S. Route 220 right-of-way. A Section 106 Programmatic Agreement (PA) has been developed to document how the adverse effect will be taken into account, and it has been circulated several times to all of the consulting parties for comment, which consists of the VDHR, the Council, the National Park Service (NPS), the City of Roanoke, Roanoke County and VAR. Relevant comments have been incorporated into the PA, and the PA has been signed by all of the consulting parties (the Council was the last party to sign the PA on October 4, 2006). An executed copy of the PA is included in Appendix F of the final EIS. No other historic resources or archeological resources have been identified that will be adversely affected by the Preferred Alternative.

It is important to point out one development that occurred just before the PA was executed regarding the Oak Hill Old German Baptist Brethren Community. In August of 2006, while the language in the Section 106 PA was being finalized, VAR submitted additional information on

the Oak Hill Old German Baptist Brethren Community that in their opinion, had a bearing on the eligibility of the district for the National Register of Historic Places. In addition, VAR took issue with the conclusions of the VDOT evaluation report that had been completed and circulated among all of the Section 106 consulting parties for comment, including VAR, almost three years earlier. Finally, VAR made reference to a rural historic district encompassing Piedmont Mill that had been designated in 2006, requesting that it be included among the historic properties under consideration in the Section 106 process as potentially adversely affected by Interstate 73. The information that VAR submitted and the actions that they requested in response to that information was addressed directly to both the FHWA and the Advisory Council on Historic Preservation. On September 6, 2006, FHWA transmitted the PA to the Council and the other consulting parties for signature. In that letter, FHWA addressed the eligibility of the Oak Hill Old German Baptist Brethren Community district in light of the additional information submitted by VAR as well as the rural historic district encompassing Piedmont Mill. As evidenced by their signature on the PA, the Council and the VDHR found FHWA's response to the information submitted by VAR adequate. On September 22, 2006, VAR sent a letter and documentation to the Keeper of the National Register requesting a decision from the Keeper on the eligibility of the Oak Hill Old German Baptist Brethren Community. Mr. Patrick Andrus of the National Register of Historic Places responded that they did not have the authority to review such a request unless it came from a federal agency or the Council. Accordingly, the Keeper returned VARs documentation.

The draft EIS depicted an access connection to the Blue Ridge Parkway (BRP/Parkway) from Interstate 73 in the Clearbrook area, but NPS policy does not allow direct access to the BRP from the Interstate system. Therefore, four alternatives for access to the BRP via secondary roads were developed for the final EIS. After subsequent consideration by the NPS, however, they requested that VDOT not replace access to the BRP as part of the Interstate 73 project and the alternatives were not developed further. It was VDOT's understanding at that time that the basis of the NPS' request was to comply with the general principles of their draft General Management Plan to reduce access points along the Parkway and reduce commuter traffic near urbanized areas. It was also VDOT's understanding that the NPS' policy to not allow direct access to the Interstate system was based on the differences in speed that exist on the Parkway and on the Interstate system making it difficult for motorists to safely transition from one to the other. However, Roanoke County expressed concern over the NPS's desire to eliminate access without replacing it elsewhere in the area. After coordination between the NPS and Roanoke County, two alternatives were developed to replace access to the Blue Ridge Parkway in the vicinity of existing Route 220 via access off a secondary road, Buck Mountain Road. Both of these alternatives were considered in the PA and depicted in attachments to that agreement. VDOT has evaluated the environmental impacts associated with both of these access alternatives, and FHWA has re-evaluated them in accordance with NEPA as changes to the project, concluding that a supplemental EIS is not needed. The NPS will select the access alternative to be implemented in accordance with their own requirements when it comes time for the Parkway crossing to be developed further. The NPS has the option of accepting FHWA's NEPA work for these alternatives to support their action in the matter or undertaking their own NEPA process at such time that the segment of the project that includes the new access is ready to move forward in the project development process. For purposes of complying with Section 106, the NPS has designated the FHWA as the lead federal agency.

Section 4(f):

No direct or constructive Section 4(f) uses have been identified and none are expected for this project. The ALC crosses the Blue Ridge Parkway at the existing U.S. Route 220 crossing of the Parkway, and will utilize the existing right-of-way owned by the Virginia Department of Transportation. As such, no land from the Parkway will be acquired for the crossing. When the draft EIS was prepared, a Section 4(f) Evaluation was prepared for each of the Interstate 73 crossings of the Blue Ridge Parkway. With the identification of the ALC and the determination that it could be constructed without using land from the Blue Ridge Parkway, it represents a prudent and feasible avoidance alternative to all of the other build alternatives, which use property from the Blue Ridge Parkway by crossing it on new location. Accordingly, the Section 4(f) Evaluation hasn't been updated and included in the final EIS; instead, Section 4(f) as it relates to the CTB ALC has been addressed in a separate discussion in the final EIS.

As indicated in the previous discussion, the existing access to the Blue Ridge Parkway at Route 220 will be eliminated and the existing ramps obliterated per the National Park Service's policy not to have direct access to the Parkway from the Interstate and in keeping with their desires to reduce commuter traffic along the Blue Ridge Parkway. In its place, access will be replaced at one of two locations being considered by the National Park Service for new access. FHWA has reviewed the two alternatives proposed for the change in access to determine the applicability of Section 4(f). Section 4(f) would apply when there is a use of land from the Blue Ridge Parkway by permanent incorporation, temporary occupancy, or constructive use.

Permanent Incorporation: The change in access would result in property within the boundaries of the Blue Ridge Parkway being converted from a natural state to a paved road. However, VDOT would not acquire any interest in the property within the boundaries of the Blue Ridge Parkway; instead, the NPS would retain ownership of the property within its boundaries and be responsible for maintenance of the new access road. Therefore, the new access alternatives under consideration do not represent a Section 4(f) use in the form of a permanent incorporation of property because no property from within the boundaries of the Blue Ridge Parkway will be incorporated into the Interstate 73 project.

Temporary Occupancy: It is not anticipated that temporary occupancy of the Blue Ridge Parkway will be required to construct the Interstate 73 facility. Further, temporary occupancy of the Parkway as it relates to the construction of a new access connection is not a Section 4(f) use. In this case, construction of a new access connection within the boundaries of the Blue Ridge Parkway to replace the one that will be eliminated at existing Route 220 is the "project" that would impact the Blue Ridge Parkway, not the construction of Interstate 73 itself. Given this as the project, occupancy is required to construct the new access and is therefore, not considered a Section 4(f) temporary occupancy.

Constructive Use: While the NPS will retain ownership of the land within the Blue Ridge Parkway affected by the new access, FHWA also reviewed the change in access to determine if its proximity to the Blue Ridge Parkway results in a Section 4(f) constructive use of the Blue Ridge Parkway. In accordance with 23 CFR §771.135(p)(5)(viii), FHWA has determined that the change in access would not constitute a Section 4(f) constructive use since the change in

access will not substantially diminish the utilization of the Section 4(f) resource. New access in the vicinity of the existing U.S. Route 220 access would allow Parkway users to continue to utilize the Parkway in a manner similar to the way it is currently being utilized. In fact, new access to the Blue Ridge Parkway is intended to enhance the utilization of the Blue Ridge Parkway by that sector of the public that uses it for its intended purpose by making it less convenient for commuters. Further, the old or existing access at U.S. Route 220 would be eliminated and the existing pavement on Blue Ridge Parkway property would be obliterated and returned to a natural state.

F. Miscellaneous Issues

The following discussion addresses issues that have arisen during the National Environmental Policy Act for the proposed project and documents how they have been addressed.

Planning

A portion of the project lies within the boundaries of the Roanoke Valley Area Metropolitan Planning Organization (MPO), the study area's only MPO. The MPO has adopted a fiscally constrained transportation improvement program (TIP) and long-range transportation plan (CLRP). Interstate 73 appears in the TIP as a study, and it appears in the 2025 CLRP as an illustrative or vision list project. During the development of the 2025 CLRP, Interstate 73 was programmed in the CLRP with \$33 million for preliminary engineering which presumably included money for preliminary engineering as well as corridor improvements to Interstate 581 that would overlap with the Interstate 73 improvements. However, the adopted version of the 2025 CLRP broke down this \$33 million into two projects: \$12 million for preliminary engineering for Interstate 73 and \$21 million for corridor improvements for Interstate 581. Discussions with the FHWA Planner representing the MPO at that time revealed that this was done so that improvements to Interstate 581 could go forward in the event that Interstate 73 got tied up for one reason or another.

The 'Interstate 73 Corridor/Franklin County Airport Access' is also identified as an illustrative multimodal investment in VDOT's *Vtrans 2025* multimodal long-range transportation plan along with ten other illustrative multimodal investments. At this time, VDOT's *Vtrans 2025* is neither fiscally constrained nor prioritized.

No counties or localities in the study area have been designated non-attainment by EPA for any mobile source pollutants (see discussion on Air Quality below), therefore, our issuance of this ROD isn't bound by recent FHWA policy decisions related to conformity in non-attainment and maintenance areas, which states that FHWA cannot make any approvals to advance a project, including issue a ROD, if the project does not come from a conforming CLRP. Conversely, there are no regulations, policies, or statutes that would restrict FHWA from issuing a ROD for a project in an attainment area even though all phases of the project may not be included in a CLRP. The Planning and Environment Team has looked at this issue in depth and consulted with the FHWA Resource Center and Headquarter Office, which affirmed that there are no regulations, statutes or court decisions that explicitly govern our actions on this matter.

Cost-Estimate and Funding

The draft EIS included cost estimates for all of the alternatives calculated in year 2000 costs. VDOT has updated the cost estimate for the Preferred Alternative by applying multipliers to the year 2000 costs to bring them up to year 2007 costs. The primary multiplier related to highway construction was developed from U.S. Department of Labor, Bureau of Labor Statistics, Producer Price Index Industry Data for Highway and Street Construction from 1999 through August 2006 and was validated by a random sampling of unit prices from VDOT's data base. Based on historical data, different multipliers were used for other cost items such as right-of-way, excavation, noise barriers, wetland mitigation, and stream relocation. The year 2007 costs were then escalated to year 2020 costs based on VDOT construction inflation factors, assuming a construction beginning date of 2012 and a construction completion date of 2020. Year 2017 was then used as the year of expenditure ('using the midpoint plus one year' approach, assuming that the bulk of expenditures would occur in the later half of the construction period). Based on this approach, the cost estimate for the Preferred Alternative has increased from \$1.4 billion in year 2000 costs to approximately \$3.992 billion in the year of expenditure. This update of the cost estimate is not considered "new information" in the context of 23 CFR §771.130(a) that would trigger the need to prepare a supplemental draft EIS.

At this time, there is no designated source of funding to implement Interstate 73. Because no source of overall funding has been identified for the implementation of Interstate 73 and there are no plans for its overall implementation, it is anticipated that the project will be constructed in operationally independent phases as funding becomes available or allows. However, a very limited amount of funding has been earmarked for the implementation of different phases of the project at select locations along the alignment by Congress in various highway bills (for example, \$6 million was provided by Congress for the construction of Interstate 73 in TEA-21 and with the passage of SAFETEA-LU, Congress provided approximately \$10 million for construction of Interstate 73 in the vicinity of Martinsville and the design and right-of-way acquisition for Interstate 73 in Roanoke County.) Finally, Interstate 73 is not currently identified by VDOT for advancing as a public-private partnership.

Traffic Data

The draft EIS was developed using 2020 traffic data. The travel demand forecast year and subsequent traffic volumes were updated from 2020 to 2025. Level of service was subsequently re-calculated. While it is recognized that there is no requirement for design years for purposes of NEPA analyses, FHWA tries to develop NEPA documents using a design year that will satisfy VDOT and when applicable, FHWA design standards so as to minimize the need to update traffic during the design process and consequently, increase the need to potentially re-evaluate the NEPA document. It is further recognized that during the course of corridor studies that span multiple years, socioeconomic forecasts for the region can be updated several times at the local level. These forecasts are usually reviewed to ensure that modifications to the forecasts do not represent a change that would alter the comparative evaluation of the alternatives and their relative ranking in terms of operational performance.

Notwithstanding the above discussion, when final design is conducted on the Preferred Alternative, the traffic forecasts will be updated to reflect a 20-year design horizon, minimally. When this update is done, the environmental document will need to be re-evaluated to determine

if the change in traffic forecasts will result in significant impacts not already addressed in the EIS (most notably in the area of air and noise). When the noise analysis is updated to reflect a 20-year design year, the noise barriers that have been found to be feasible will be reviewed to determine if they are still reasonable and feasible or whether they need to be expanded.

Air Quality:

On April 30, 2004, EPA determined that monitoring data representing several localities in the study area, namely the Cities of Roanoke and Salem and the Counties of Roanoke and Botetourt, exceeded the new 8-hour ozone standard. Instead of designating these localities as nonattainment, EPA deferred the designation until September 30, 2005, because the region had voluntarily entered into an early action compact with EPA. The compact is an agreement among the localities and EPA to voluntarily implement control measures to reduce ozone ahead of the schedules established in the Clean Air Act. If the localities continue to implement the control measures, meet required milestones, and have three years of clean monitoring data leading up to the December 31, 2007, attainment demonstration, then EPA will designate the area attainment for the 8-hour ozone standard. On May 17, 2005, EPA published a proposal in the *Federal Register* to defer the effective date of the nonattainment designation for early action compact areas until December 31, 2006. EPA also published a proposal to approve the attainment demonstration and the early action plan for the Roanoke Area that was submitted by the Virginia Department of Environmental Quality. In making the proposal, EPA added that the modeling of ozone and ozone precursor emissions from sources in the Roanoke Area demonstrates that the specified control strategies included in the Early Action Compact provide for attainment of the 8-hour ozone standard by December 31, 2007, and maintenance of that standard through 2012. The proposed rule was finalized in the August 29, 2005, *Federal Register*. On August 4, 2006, EPA proposed to defer the effective date of the nonattainment designation for early action compact areas until April 15, 2008. Each time EPA defers the effective date of the nonattainment designation, they conduct a review to make sure that each early action compact area is meeting its milestones and making progress toward their attainment demonstration.

The early action compact protocol developed by EPA specifically excuses early action compact areas from meeting the transportation conformity requirements of nonattainment areas since the conformity requirements only kick in one year after areas are officially designated nonattainment. Consistent with 40 CFR §93.102(d) and Section 176(c)(6) of the Clean Air Act, conformity for the 8-hour ozone standard, including a regional ozone analysis, does not apply in early action compact areas provided the area meets all of the terms and milestones of its early action compact. Failure to meet these terms or milestones will invoke the nonattainment designation requiring conformity for the 8-hour ozone standard within one year of the nonattainment designation by EPA. Consequently, the project has not been subjected to the conformity requirements for the 8-hour ozone standard, and a regional ozone analysis has not been prepared. All localities in the study area are in attainment for the particulate matter standards (PM10 and PM2.5), and the carbon monoxide standard.

Finally, mobile source air toxics have been addressed in the final EIS in accordance with FHWA's February 3, 2006, guidance on addressing mobile source air toxics in NEPA documents.

Endangered Species:

Based on coordination with federal and state agencies, threatened and endangered species surveys were conducted on the Preferred Alternative for the Roanoke logperch (a federally listed endangered fish), the smooth coneflower and its suitable habitat (a federally listed endangered plant) and the James spiny mussel (a federally listed endangered mussel). The results of the surveys were presented to the U.S. Fish and Wildlife Service (USFWS) in the summer of 2002. Specifically, no populations of the smooth coneflower or James spiny mussel were found; a single population of the Roanoke logperch was located in proximity to the Pigg River crossing of the Preferred Alternative. By letter dated November 25, 2002, the USFWS concurred that sufficient surveys for federally listed species had been performed. They further found that the construction of Interstate 73 would likely affect the Roanoke logperch and that formal consultation would be required. Finally, the USFWS recommended that a request for formal consultation not be made until the final EIS was completed and final design initiated. Notwithstanding, a draft biological assessment was completed for the Roanoke logperch (see Appendix E of the pre-final EIS), it was provided to the USFWS in December of 2003, and FHWA requested that the USFWS initiate formal consultation in accordance with Section 7 of the ESA. The USFWS responded that they were unable to initiate formal consultation because of insufficient information; specifically, they requested additional information related to the design, construction and scheduling of the Pigg River crossing. Because this information was not readily available and could not be developed until final design, FHWA withdrew its request to initiate formal consultation in February of 2004, citing the USFWS' position that it was premature to complete formal consultation prior to completion of the EIS.

After the draft EIS was circulated for comment, the applicability of 23 CFR §771.113(a) and §771.133 as well as 40 CFR §1502.22 to this project, especially as it relates to compliance with the ESA, was discussed with FHWA's legal counsel. The concept of a conditional ROD was also discussed with them. To summarize the advice of legal counsel, a final EIS and ROD should be complete, but NEPA does grant flexibility. NEPA is a "full disclosure" law and as long as one acknowledges that there are gaps in the information or issues that have not been fully covered, documents how those issues will be addressed, and admits that the agency's decision may change once those issues are addressed, then we have satisfied the intent of NEPA and its implementing regulations. As for the ESA, it was pointed out that the ESA is a substantive law that can derail or halt a project based on feedback from the USFWS. If the USFWS is satisfied with delaying formal consultation, then FHWA should be on solid legal ground. Finally, they concurred with the concept of a conditional ROD when information is incomplete and cited an example where a conditional ROD had been prepared.

It should be noted that compliance with 40 CFR §1502.22 revolves around the evaluation of significant adverse effects on the human environment. However, references to 40 CFR §1502.22 should not be interpreted to mean that FHWA has made a determination that impacts to the Roanoke logperch represent a significant adverse effect on the human environment. On the contrary; even though the biological assessment was prepared assuming a worst-case scenario (i.e. in-stream construction of the bridge structure), it is FHWA's preliminary conclusion based on the draft Biological Assessment that the proposed crossing of the Pigg River by Interstate 73 will not jeopardize the continued existence of the Roanoke logperch in the Pigg River. It should be pointed out that separate from this project, VDOT funded a range-wide assessment of habitat

suitability for the Roanoke logperch in the VDOT Salem District, which was completed in 2006. As part of this survey effort, 40 sites were sampled in four different watersheds. Two of the watersheds represented watersheds where the Roanoke logperch was known to exist while the other two watersheds represented watersheds where no populations of the Roanoke logperch had been found based on previous identification efforts. As a result of the range-wide assessment, populations of the Roanoke logperch were discovered at three new sites in the watersheds where they were known to already exist, and populations were discovered at three sites within two watersheds where they were not known to exist. This range-wide assessment effort represents the first discovery of the Roanoke logperch in a new watershed in 28 years. The report concluded that the species is more widely distributed than previously thought and suitable habitat is more widespread than previously believed. Of the six sites where the Roanoke logperch was discovered as part of the range-wide assessment, one site is considered to have exceptional density and three are dense enough for the populations to be considered “core populations”. None of the sites were near the proposed route of Interstate 73. The results of the range-wide assessment will be used in any future consultation with the USFWS to further refine knowledge concerning the status of the species and its distribution and should strengthen the preliminary conclusions of the existing draft Biological Assessment.

Based on the foregoing, FHWA has informed VDOT that under the ESA, the FHWA is prohibited from making any irreversible and irretrievable commitments that would foreclose the consideration of reasonable and prudent alternative measures that may aid in preventing a project from jeopardizing a listed species or destroying critical habitat. Consequently, FHWA and VDOT will not commit any resources to the development of Segment 153 (the segment that crosses the Pigg River), other than the resources necessary to carry out final design activities and develop information needed by the USFWS to carry out formal consultation and issue a biological opinion. Should information developed in conjunction with final design activities carried out on Segment 153 lead the USFWS to issue a jeopardy opinion, then FHWA and VDOT would have the ability to pursue other segments that were considered in the EIS that would avoid crossing the Pigg River at the proposed crossing of the Preferred Alternative while committing only a limited amount of irreversible and irretrievable resources to the development of Segment 153. We have further informed VDOT that the ROD will be conditioned on the completion of formal consultation. VDOT is fully aware that delaying formal consultation until final design could result in significant delays to the project should issues arise with the USFWS during formal consultation about the long-term viability of the Roanoke logperch in the Pigg River.

G. Mitigation and Minimization Measures

The selected alternative includes practicable measures to minimize environmental harm to the degree that those measures could be developed at this stage of project development without the benefit of final design. Coordination throughout the project development process has resulted in agreement on some of the measures to mitigate and minimize adverse impacts to environmental resources with additional coordination to take place during final design. The more substantive measures are described in greater detail in the attached table.

H. Other Federal and State Actions Required

Federal and state laws and regulations require that various environmental permits or approvals be acquired prior to the start of project-related construction activities. Some of the permits or approvals that would likely be required from other federal or state agencies include but are not limited to the following:

- Section 404 permit (Clean Water Act) from the U.S. Army Corps of Engineers;
- Section 10 permit (Rivers and Harbors Act) from the U.S. Army Corps of Engineers;
- Virginia Water Protection Permit and Section 401 Water Quality Certification from the Virginia Department of Environmental Quality;
- Subaqueous Bed Permit (Virginia Water Law) from the Virginia Marine Resources Commission;
- U.S. Coast Guard Bridge Permit
- Approval from the NPS to relocate access to the Blue Ridge Parkway;
- Approval from the Virginia Department of Conservation and Recreation of erosion and sediment control plans;

I. Monitoring or Enforcement Program

Decision on a formal monitoring program has not been made at this time and will depend upon whether funding becomes available to implement the project in its entirety or in large sections. Should a source or sources of funding not be readily forthcoming to implement the project and it must be implemented in stages by constructing smaller segments, a formal monitoring plan will likely not be developed. Notwithstanding, permit conditions and coordination with permitting agencies during design development, right-of-way acquisition, and construction will ensure consistency with applicable environmental laws and regulations.

J. Document Availability

The draft EIS was signed on October 25, 2000, and made available to the public at several locations including libraries, government offices, and VDOT offices. Further, VDOT has conducted an extensive public involvement process for Interstate 73. Project information was exchanged and public feedback received via citizen information meetings, newsletters, flyers, brochures, a project website, a telephone “hotline,” e-mail, stakeholder interviews, and community meetings. Prior to the release of the draft EIS, a total of nine citizen information meetings (six meetings to scope the project and three meetings to discuss alternatives) were held at two different periods of time (January 1998 and May/June 1998) with a total attendance of over 3,400 individuals. Meetings were advertised in newspapers and on the radio and television and notices were sent out via the newsletters and post cards. In addition, three location public hearings were held in 2000 once the draft EIS was released to the public. Finally, two additional citizen information meetings were held in June of 2004 to inform the public of proposed changes to the CTB–selected alignment brought about by the determination that the Southeast Roanoke Neighborhood Historic District was eligible for the National Register of Historic Places.

The preliminary-final EIS was reviewed by FHWA's legal counsel in the Resource Center. On May 12, 2005, legal counsel in the FHWA Resource Center found the pre-final EIS for Interstate 73 to be legally sufficient. Since that time, the only developments that have occurred are developments related to Section 106 and execution of the Programmatic Agreement. The Washington Office of FHWA has not invoked their right to prior concurrence on the final EIS.

The final EIS was signed on December 1, 2006. Copies of the final EIS were mailed to everyone that received a copy of the draft EIS and those that submitted substantive comments on the draft EIS. On December 29, 2006, the Environmental Protection Agency published a Notice of Availability for the final EIS in the *Federal Register*. The 30-day review period, which marks the earliest date that FHWA may issue a Record of Decision, ended on January 29, 2007.

K. Comments on the Final EIS

Comments on the final EIS were received from the following agencies and groups and are addressed below as appropriate. The comments appear as they were received unless otherwise noted (i.e. "[paraphrase/summary]").

Army Corps of Engineers (January 26, 2007):

Comment: While the project impacts to wetlands of the ALC are relatively minor, the estimated impacts to streams are substantial, with 31 streams crossed and 44,429 linear feet of intermittent and 18,012 linear feet of perennial stream impacts. Considering the extensive impacts to streams, substantial impacts to riparian corridor are also very likely, although not specifically quantified in the final EIS. These projected impacts to aquatic resources are our primary concern in evaluating the I-73 study, including our consideration of alternatives.

Response: Comment noted. It should be pointed out that the assessment of stream impacts for this project is based on broad level evaluation corridors. Specifically, the linear feet of stream impacts shown in the final EIS are based on a 600 foot location corridor, and they do not give consideration to whether or not the streams in question will be bridged. In contrast, the amount of right-of-way that may be needed in rural areas, not including cut and fill slopes may be as low as 160 feet and even less in urban areas. During final design, more accurate information regarding stream impacts will be available when the project's right-of-way limits are established.

Comment: As we noted in our 2001 comments, it is not clear that only an interstate-level facility can address the purpose and need. While information has been included in the final EIS to clarify the reasons that FHWA has determined that only an interstate-level facility will suffice, the documentation falls short of demonstrating that only a freeway/interstate can address the problems that facility is planned to address. The Virginia portion of I-73 is seen as one segment of an interstate highway to extend from Michigan to South Carolina. However, West Virginia's portion of I-73 according to the final EIS is not being constructed to freeway standards. If the envisioned corridor from Michigan to South Carolina is ever constructed in its entirety, it appears that portions of it, perhaps large segments, will not be constructed to interstate standards. It appears untenable to maintain that the Purpose and Need for I-73 can only be addressed by an interstate.

Response: FHWA has not determined that only an interstate-level facility will suffice; the final EIS (as well as the draft EIS), acknowledged that the high priority corridor legislation for I-73

gave states some flexibility in determining the design standards that would be used for I-73 in their areas. Instead, FHWA has documented why they believe that the congressional intent for Interstate 73 is that it be built to Interstate standards. Congressional intent is one of the components of the purpose and need for Interstate 73 in Virginia, and it was added as a component at the recommendation of the U.S. Army Corps of Engineers (Corps). So while we acknowledge that an interstate/freeway isn't the only type of facility that can address the traffic-related problems that the facility is planned to address, congressional intent is another aspect of the purpose and need that has influenced the decision to develop Interstate 73 in Virginia to interstate/freeway standards. It should be noted that based on discussions with West Virginia, we have learned that "congressional intent" was not a primary component of their purpose and need, which may have influenced their decision not to develop Interstate 73 in West Virginia to interstate/freeway standards. The other two states that have made the most progress in developing Interstate 73, North and South Carolina, are developing Interstate 73 in their states to interstate standards, which is something commentors often overlook.

Comment: We can only authorize the least environmental damaging practicable alternative (LEDPA). Improving Route 220, including access management, was not evaluated as a stand-alone alternative, even though we asked for it in our 2001 comments. Therefore, we are unable to identify the LEDPA for this project at this time. We will need a fuller evaluation of an improved Route 220 as an alternative, as well as the design of any proposed project (including avoidance and minimization measures) in order to evaluate a permit application for this project.

Response: Comment regarding the LEDPA is noted; it is also noted that a decision on the LEDPA is not needed at the time that FHWA issues a ROD. Improving Route 220 was considered in the draft EIS. It is represented by Option 3 and its variations, 3a, 3b, and 3c. As for access management, FHWA does not consider it a viable alternative. The Commonwealth Transportation Board has the authority under the Virginia State Code to apply limited access controls to a corridor, which is what you see on sections of Route 220 that bypass the towns of Rocky Mount and Martinsville. In these cases, VDOT is able to maintain the limited access control because they have the legal backing to do so. If VDOT were to try and change the limited access controls placed on a facility by the CTB, they would first need CTB approval to do so. All other access control is left up to VDOT in conjunction and in cooperation with the localities who control land use decisions. In reality, there is no other type of access control recognized by the Virginia State Code. While VDOT may attempt to control access in a corridor to maintain a desired level of mobility, they have no existing legal authority to control that access which is why efforts to control access on routes in Virginia often lead to the circumstances recorded in the draft EIS where changes in land use and the desires of the localities for new access often negate the benefits of efforts to control access over time. For this reason, access control alternatives are not reasonable because they are outside the control of FHWA and can't be implemented with any degree of certainty or control by VDOT for the life of the project and are wholly dependent upon the localities for their success.

Comment: Please note that no delineation of wetlands has been submitted to the Corps of Engineers for verification for any of the alternatives considered for Interstate 73.

Response: Comment noted. References to "field work" on page 3.7-9 should not be interpreted to mean delineation. Delineation of wetlands will occur during final design and be submitted to

the Corps for verification at that time. The presence of wetlands and determination of wetland impacts was based on NWI mapping and some verification work in the field.

Comment: It is noted under Table 4.1-11 that the build alternatives, including the ALC will have higher travel speed than either the No Build or TSM Alternatives. The data in the table do show that, but considering that in both 2020 and 2025 the difference in congested flow speed between the No Build and the ALC is less than one mile per hour, that difference appears to be minimal.

Response: The table has been misinterpreted. The congested flow speeds shown are the congested flow speeds on existing Route 220 given the different build scenarios. For example, 49.9 mph is the speed on existing Route 220 if the No Build Alternative is adopted. 50.8 mph is the speed on existing Route 220 if the ALC is adopted. The speeds on the ALC or the other alternatives under consideration were not developed. The discussion in Section 4.1.10 explains that the reason the difference is minimal is because level of service is not an issue on the segments of Route 220 that were included in the table. Note that congestion of Route 220 has not been identified as a component of the purpose and need of the project.

Comment: Measures that should be considered for minimizing the effects of highway runoff, in addition to those listed, are Low Impact Development, such as biofilters and raingardens.

Response: Comment noted.

Comment: The EIS identifies the direct impacts to various types of terrestrial habitat, addresses the important issue of fragmentation in a cursory way, noting that a number of existing wildlife corridors would be bisected, and naming several larger contiguous forest tracts. Fragmentation of habitat has effects other than interrupting wildlife corridors, although that is an important one, such as effect to interior forest dependent wildlife. The final EIS discusses the issue of noise effects to birds, but there is no discussion in this section of the potential impacts of the proposed build alternatives to interior forest dependent bird species. Given the very substantial forest impacts projected, consideration should be given to whether interior forests will be disturbed, the extent to which fragmentation of habitats will occur, and whether further avoidance and minimization of those impacts can be implemented. The final EIS discussed mitigation of impacts to terrestrial habitats, but apparently commits only to using plantings and fencing to minimize wildlife getting on the road. It does state that VDOT is committed to considering design measures to minimize impacts to wildlife corridors, but not to implementing any. We are particularly concerned about fragmentation of riparian corridors and will need an analysis of mitigation for any such fragmentation, including wildlife crossings, in any permit application.

Response: The following discussion is from the Virginia Transportation Research Council's research report titled, *Use of GIS-Based Model of Habitat Cores and Landscape Corridors for the Virginia Department of Transportation's Project Planning and Environmental Scoping*, where it is appropriately excerpted. According to the Virginia Department of Game and Inland Fisheries, habitat destruction and fragmentation are the greatest threats to biodiversity in Virginia. Conversion of natural land covers to suburban and urban land uses is the primary mechanism by which habitat is lost permanently. Large, unfragmented patches of habitat have become less numerous as land development and road construction have increased. Fragmentation of large patches of natural cover disproportionately removes high-quality interior habitat and increases the amount of edge habitat, a type of habitat that occurs at the boundary of two habitats, in this case, the edge of the road and the edge of the adjacent forested area. Interior

species, including black bears and various songbird species, are susceptible to edge effects and will further to the interior if possible. Those edge effects include human disturbance from humans, predation from more common wildlife species, and differences in conditions such as wind velocity, temperature, light, etc. Large patches of natural cover have benefits that exceed the benefits of the same total area of natural cover distributed among smaller patches. Large patches are important not only in terms of wildlife and plant habitat, but also in terms of open space, recreation, groundwater recharge, maintenance of water quality, carbon sequestration, climate regulation, crop pollution, erosion control, sediment retention, and protection from storm and flood damage.

Species in fragmented landscapes are affected by the degree to which they are isolated in the fragments. The degree of isolation is dependent not only on the distance to other patches, but also on the land cover surrounding the isolated patch. If the surroundings of a patch are harsh to a species, that species will be unlikely to travel to another patch. Isolation because of habitat fragmentation affects the natal dispersal movement of many species, movement associated with migration and breeding activity, and long term movement in response to environmental changes. This has led to serious declines in the populations of many species. Isolated populations face an increased probability of inbreeding as genetic exchange between them decreases, thereby increasing the risk of eventual extirpation, or local extinction. Extirpation of local populations can also result for seemingly healthy populations because of catastrophic weather events, sudden disease outbreaks, excessive predation, nest failure, and other causes. Once there is extirpation, isolated patches are less likely to be recolonized naturally.

If the surrounding land cover is at least marginally suitable and the distance is not too great, then species might cross it to reach other patches. This often entails crossing roads. Some animals, such as spotted salamanders and semi-aquatic turtle species, travel in mass migrations to ponds and wetlands each year. Crossing roads to reach aquatic habitat can result in critical impacts to their populations. Landscape corridors can be valuable conservation tools that can attenuate the negative consequences of fragmentation such as patch isolation, and help conserve wildlife populations that are subdivided among different patches. Landscape corridors have been shown to increase the exchange of animals among patches and can be used to connect large patches of natural land in fragmented landscapes to form a network of natural lands. Because corridors are used as means of regular travel by wildlife, reviewing the location of identified landscape corridors relative to a proposed road project or to the transportation network as a whole can be particularly useful for transportation agencies. To this end, the Virginia Department of Conservation and Recreation's Division of Natural Heritage has been conducting a statewide analysis known as the Virginia Natural Landscape Assessment (VANLA). The VANLA uses a geographic information system (GIS) to identify large patches of natural land cover (habitat cores) and the natural linkages connecting these areas (landscape corridors). VDOT is looking at incorporating the VALAN GIS into their GIS applications so that planners and project managers can assess potential habitat fragmentation issues or impacts on landscape corridors during the project scoping stage. The statewide analysis is scheduled to be completed in the summer of 2007 and wasn't available when the final EIS was prepared. Therefore, FHWA has made a commitment in the final EIS to use the VANLA to identify impacts to landscape corridors that can be mitigated with appropriate wildlife passage measures. Until that analysis is completed and specific landscape corridors and any associated impacts identified, it is premature to identify

and commit to specific mitigation for habitat fragmentation. Notwithstanding, FHWA is committed to implementing habitat fragmentation mitigation as part of this project in the form of passages for accommodating wildlife.

Comment: Please be advised that perennial and intermittent streams are waters of the U.S.

Response: Comment noted.

Comment: Intermittent and perennial streams play an array of complex roles in the life cycles of various aquatic organisms, and to suggest that one is more critical than the other greatly oversimplifies their ecology and ignores such factors as the water quality of individual streams.

Response: Comment noted. The intent was not to oversimplify the ecology of intermittent streams and ignore such factors as the water quality of individual streams. Instead, the comment was simply an attempt to point out that when it comes to aquatic organisms and aquatic habitats, ecosystems that maintain aquatic conditions year round accommodate more aquatic species and their needs than do streams that do not maintain year round aquatic conditions. FHWA is aware of the importance that the Corps places on both perennial and intermittent streams alike as evidenced by the fact that both are considered waters of the U.S. under the prevue of the Corps.

Comment: The discussion of mitigation measures for impacts to aquatic habitats does not include any discussion of relocated streams. Any unavoidable stream relocations should be performed using natural stream design, meaning that the relocated channel should mimic the dimension, pattern, and profile of a representative reference stream. Mitigation for stream crossings should also include countersinking of pipe/culverts to allow for a low flow channel in both perennial and intermittent streams.

Response: Comment noted. Mitigation for unavoidable stream relocations will be performed using natural stream design where feasible. A commitment to countersink pipes and culverts is made in the first paragraph on page 4.7-29.

Comment: The Corps will make a determination whether ponds that were formed through impoundment of ephemeral streams or excavation of uplands are under the Corps jurisdiction. The Virginia Department of Environmental Quality does regulate isolated wetlands, and they may or may not regulate the ponds in question.

Response: Comment noted. The language in question was not meant to usurp the Corps' responsibility for determining whether the ponds in question were under their jurisdiction. Instead, the comment was simply a reflection on past practice.

Comment: [Paraphrase/Summary] The Corps provided clarification on the differences between prior-converted wetlands and farmed wetlands, wetland enhancement versus restoration, and compensation versus construction. In addition, the Corps stated that the wetland banking information included in the final EIS was outdated and that there was one wetland bank that covers some of the watersheds that would be impacted by Interstate 73 that has become operational since 2002. The Corps website should be checked regularly for the availability of banks should Interstate 73 move forward. Finally, the Corps states that substrate for a created wetland is a critical consideration in planning a successful wetland creation; soils should be analyzed and a water budget completed.

Response: The comments clarifying the wetland-related issues addressed in the final EIS have been noted. The Corps' website will be checked regularly for updated wetland bank information should the project go forward. Any wetlands that are created to mitigate project impacts will be developed in accordance with the Corps' policy and requirements for wetland creation. If those requirements include a soils analysis and development of a water budget, then these will be completed at the appropriate time.

Comment: [Paraphrase/Summary] The Corps acknowledged the indirect effects methodology that was used for I-73, which focuses on the potential for development within a one-mile radius of anticipated interchanges. The Corps adds that there will likely be other effects that cannot be estimated or quantified in a similar manner. There is no acknowledgement that development will almost certainly be hastened or occur in different locations with I-73 than without it, and that includes areas that are not within one mile of the interchanges. Specific quantitative data is given concerning the acreage and type of land uses that will be affected in the interchanges, but it appears that this is more uncertain since the interchange locations are subject to change. Finally, the Corps cites the statement that the ALC interchange locations are surrounded by areas that contain significantly less land that is slated for conversion to a different use. This raises a concern that the ALC may have the greatest potential of all the alternatives to encourage development where it is not already planned. It is unknown what effects such development may have on aquatic resources.

Response: The indirect effects methodology used for I-73 is based on the recommendations of the EPA, recognizing that if development were to occur as a result of the project, it is most likely going to occur around the interchanges where access is provided to surrounding undeveloped lands. The further one moves away from the project and its interchanges, the more the influence of the project on development will decrease and be influenced by other factors. FHWA does acknowledge that development could occur in areas located outside of the one-mile radius of interchanges. However, where this development could occur is highly speculative and dependent upon many factors discussed in the EIS, including the timing of construction of individual segments; the mere presence of a road doesn't guarantee that development will occur. At present, there is no identified source of funding sufficient to implement the project and no plan has been developed and no decisions have been made that identify how the project would be sequenced if it were funded. Consequently, it is not possible to determine where and when development may occur outside of interchange areas or where that development may be hastened because of the project with any degree of confidence since that development would be driven by the sequencing of construction and other factors referenced above that are unknown at this time. Therefore, while FHWA does acknowledge that development could occur in areas outside of the interchanges, we chose to focus on those areas where that development was likely to occur as a result of the project instead of engaging in speculation. Regarding interchange locations and in particular, the proposed 13 new interchanges, those locations have been established using the best available information and engineering judgment and represent likely locations. A final decision on the location of interchanges will be made during final design and in that regard, are subject to change. Therefore, FHWA agrees with the Corps that there is a certain level of uncertainty regarding indirect effects around interchanges because a final decision has not been made on the interchange locations. Consequently, the indirect effects that have been identified around each interchange do represent a worst-case scenario based on the assumption that all undeveloped land within a one-mile radius of the interchanges will develop by the design year.

The likelihood of all of this development occurring by the design year is unlikely. Accordingly, the low probability of all of the land around interchanges developing by the design year further adds to the uncertainty of the indirect effects.

Comment: [Paraphrase/Summary] The Corps acknowledged that the discussion of cumulative socioeconomic impacts is entirely about the City of Roanoke and states that cumulative socioeconomic impacts along the full 71 mile length should be evaluated. Under wildlife habitat, the only effect the project discussed is the conversion of land. There is no mention of fragmentation of habitat including the disruption of riparian corridors. Fragmentation impacts should be considered as part of the cumulative effects to wildlife. The Corps goes on to question FHWA's conclusions on cumulative wetland impacts and whether they are appropriate for a discussion of cumulative impacts. The Corps proceeds to offer their own interpretation of how cumulative impacts should be understood (i.e. if wetland impacts in a geographic area are of high magnitude, then the cumulative impacts from the project on wetlands should be of high magnitude no matter how minor the project's contribution). Finally, the Corps acknowledges that it is likely that wetlands in the study area are and have been a relatively minor component of the landscape and restricted in large part to stream corridors, given the topography of the region. They suggest that a better way to present the cumulative effects of I-73 to wetlands would be to note that, and suggest that cumulative effects in the study area to wetlands are not extensive, since most development has occurred outside of wetlands.

Response: The discussion of cumulative socioeconomic impacts focuses on the City of Roanoke because that is the geographic area that has been most affected by past, present and reasonably foreseeable future actions. Socioeconomic impacts from past, present and reasonably foreseeable future actions isn't an issue along the remainder of the ALC because it is on new location in areas that do not have a history of cumulative socioeconomic impacts. In other words, the socioeconomic impact from this project will be the primary source of the cumulative socioeconomic impacts outside of Roanoke. As with socioeconomic impacts, wildlife fragmentation impacts have been limited historically because of the rural nature of the study area and the limited development that has occurred. Therefore, fragmentation impacts from this project will be the primary source of cumulative fragmentation impacts. Regarding cumulative wetland impacts, FHWA disagrees with the Corps' approach. FHWA believes that the significance of cumulative impacts on a particular resource is determined by comparing the incremental impact from the project to the cumulative impact from past, present, and reasonably foreseeable projects on that resource, which establishes the context for considering significance. Given the Corps approach, we could theoretically be required to prepare EISs for projects with minor incremental impacts to individual resources such as maintenance projects because the cumulative impact from past, present, and reasonably foreseeable projects in the geographical area where the project was located was considered significant. Notwithstanding this difference in interpretation, FHWA agrees with the Corps that wetlands in the study area are a relatively minor component of the landscape and restricted in large part to stream corridors, given the topography of the region. Therefore, cumulative effects of I-73 to wetlands in the study area are not extensive, since most development has occurred outside of wetlands.

Environmental Protection Agency (January 29, 2007):

Comment: Upon review of the final EIS, EPA has continuing concerns for the environmental impacts of this project based on the lack of quantifiable mitigation proposals for the estimated

impacts. For example, the final EIS estimates that the ALC will impact 3,370 acres of forest habitat. The mitigation discussed in the environmental consequences section of the final EIS indicates that site specific mitigation measures will become refined during project development and where permits or memoranda of agreements (MOAs) are required, minimization measures for unavoidable impacts will be developed. This approach is taken for terrestrial habitat impacts and aquatic habitat impacts. This approach makes it difficult to determine whether the impacts of the project will be sufficiently mitigated since the quantification is deferred to the permitting processes. This lack of quantifiable mitigation may be caused by the broad level corridor study used for the project, however, there appear to be further opportunities to avoid, minimize, and mitigate for impacts of this project. EPA recommends continued Resource Agency participation through the required permitting process to fully mitigate the impacts of this project. This continued Agency participation could be incorporated into an adaptive management process that follows the planning phases and attempts to further minimize the impacts.

Response: Comments noted. See the mitigation table attached to the Record of Decision for a more detailed listing of the minimization and mitigation measures that FHWA has committed to as well as the additional coordination. It is expected that the details of some of these commitments as they relate to endangered species will be fleshed out during the Section 7 consultation process when it is conducted. Regarding terrestrial and habitat impacts, the final EIS acknowledges that these impacts are likely overstated. As you recognized in your comments, the assessment of impacts for this project is based on a broad level corridor study. Specifically, the direct acreage impacts shown in the final EIS are based on a 600 foot location corridor. In contrast, the amount of right-of-way that may be needed in rural areas, not including cut and fill slopes, may be as low as 160 feet and even less in urban areas. During final design, more accurate information regarding terrestrial and habitat impacts will be possible (and hence, more appropriate minimization and mitigation measures) when the project's right-of-way limits are established. FHWA will work with the resource agencies as various phases of the project are developed to further minimize impacts.

Comment: [paraphrase] EPA acknowledges that additional information was provided in the final EIS on the evaluation of the Route 220 upgrade as an alternative in response to comments that were received. They add that without the comprehensive comparison of this upgrade alternative to the other build alternatives, EPA is not fully able to evaluate the social or environmental impacts between the ALC and the Route 220 upgrade. It may be difficult to determine if the ALC would be the least damaging practicable alternative (LEDPA) required through the Clean Water Act section 404 requirements without this full comparison.

Response: Some clarification is needed on the upgrade alternative that is referenced. Alternative 3 and its variations, which was carried forward in the draft EIS for consideration, represents an upgrade of existing Route 220 to principal arterial standards for a freeway and allows an apples-to-apples comparison with the ALC in terms of social and environmental impacts. As mentioned in the comment, the Route 220 upgrade discussion provided in the final EIS was developed to address comments on the draft EIS. This upgrade alternative has also been characterized as a "low-build" alternative or a "lesser design speed" alternative. The discussion of "low-build alternatives" in the draft EIS (which was expanded upon in the final EIS) was included because it allows one to see the relative differences that exist in cost between them as concepts and the build alternatives carried forward. The primary difference in impacts and cost between a "low-build alternative" and the build alternatives carried forward in the draft EIS will

occur in the use of at-grade intersections in place of grade-separated interchanges. In reality, we would not develop a project of this length by establishing in advance and confining ourselves to a single design speed for the entire corridor given the many factors that affect that decision. The design speed of a facility is not arbitrarily set; instead, it is determined based on anticipated traffic and the functional classification of the roadway with an eye to topography, driver expectancy and environmental constraints. The functional classification of roadways is a process whereby roads are grouped into classes or systems according to the service they are intended to provide as this service relates to mobility and access. In the case of Interstate 73, it is a Congressionally-designated high priority corridor that will be included in the National Highway System. Therefore, for reasons that have been documented previously, Interstate 73 is functionally classified as a principal arterial and would be designed to principal arterial design standards. As described in FHWA's functional classification guidelines, principal arterial routes are intended to maximize mobility while minimizing access. In addition to the functional classification of a roadway, design speed will vary depending upon topography. Topography can be broken down into mountainous, rolling, and level terrain. Each type of terrain has a design speed associated with it. For example, the design speed for mountainous, rolling, and level rural principal arterial freeways is 50, 60, and 70 mph, respectively. The design speed for mountainous rural principal arterial non-freeways can be 40 or 50 mph while the design speed for rolling rural principal arterial non-freeways can be 50 or 60 mph, and the design speed for level rural principal arterial non-freeways can be 60 or 70 mph. Therefore, based on topography alone, a project like Interstate 73 would not necessarily be designed to the same design speed throughout its entire length because it could vary with the topography. In addition, design speeds will differ based on whether the facility is located in a rural area or an urbanized area. While a 70 mph design speed is desired in rural areas, lower design speeds such as 50 and 60 mph are acceptable in urbanized areas where the built-up environment constrains design considerations. The point of all this is that there are many factors that affect the design speed and associated design standards of a facility. Given the factors identified, it is premature in the environmental process to commit to a particular design speed irrespective of design year traffic, topography, etc. Notwithstanding, some assumptions have been made about design speed in the EIS to allow for the assessment of environmental impacts. For these reasons, FHWA does not consider a "low build" alternative to be a realistic or viable alternative for purposes of making a LEDPA comparison.

Comment: EPA has remaining concerns about the extent of the direct and indirect effects of this project in forest habitat in the study area. The direct and indirect impacts to this resource may be approximately 7,800 acres.

Response: Comment noted. As stated previously, the direct acreage impacts shown in the final EIS are based on a 600 foot location corridor and are expected to decrease during final design when the right-of-way limits are established. The amount of right-of-way that may be needed in rural areas where the majority of these impacts will occur may be as low as 160 feet, not including cut and fill slopes. The significance of any impact is defined by the context and intensity of the impact. While the acreage impacts are large when viewed in a vacuum, we have made a concerted effort to establish a context for the forest habitat impacts. This is why we have expressed these impacts as a percentage of the available resource in the study area. With that in mind, the direct impacts to forest habitat resources as a result of the ALC represents approximately 1.3% of the forested habitat resources located in the study area. When it comes to

indirect impacts, recognize that those acreage impacts are based upon a worst case scenario where it is assumed that all developable land within a one mile radius of each interchange (eight existing interchanges and 13 new interchanges) located along the ALC would be developed by the design year. While those indirect impacts are significant, there is little probability that they would materialize in their entirety by the design year.

Comment: Based on the significant direct and indirect impacts to forest habitat, the lack of quantifiable mitigation for certain environmental impacts and lack of full evaluation of an upgrade alternative, we remain concerned about the environmental impacts of this project. As stated previously, we believe that there is considerable potential for further minimization of the impacts of the project if there is continued coordination with the resource agencies. We recommend continued coordination through the associated permitting process and MOAs established for this project as well as establishing an Agency Coordination Meeting to assist in further minimizing impacts. We would strongly encourage the continued reduction of the forest habitat impacts on this project, perhaps through green infrastructure techniques that support the establishment of wildlife corridors and optimizing mitigation locations.

Response: See previous responses. FHWA and VDOT will work and coordinate with the resource agencies as appropriate to identify measures to further minimize the impacts of the project.

United States Department of the Interior (January 30, 2007):

Comment: The U.S. Fish and Wildlife Service (USFWS) will use [the biological assessment found in the final EIS] for reference purposes during formal Section 7 consultation between FWS and the FHWA. Since surveys were last conducted in 2002 for the Roanoke logperch and James spiny mussel, both federally listed endangered species, these surveys must be repeated within two years from initiation of construction at each survey location.

Response: All necessary endangered species surveys will be repeated as required by the FWS. In addition, the biological assessment will be updated to reflect any new information resulting from the updated surveys, and the biological assessment will be updated to take into account the six new sites where populations of the Roanoke logperch were discovered as a result of Range-wide Assessment of Habitat Suitability for the Roanoke logperch conducted by the Virginia Transportation Research Council. This information will be used to refine the knowledge concerning the status of the species and its distribution.

Comment: Regarding bridge design over waters containing federally listed species, the USFWS recommends that bridges be constructed without deck drains/scuppers. Bridges should be constructed to facilitate drainage of stormwater off the bridges into settling basins on adjacent, non-floodplain locations.

Response: The bridge drainage system will be evaluated during final design. If the system is feasible and does not create any safety issues (i.e. ponding of water on the bridge), FHWA will incorporate the concept into the design of the bridge. It is FHWA's understanding that whatever the final decision is on the drainage system, the USFWS will need that information when developing its biological opinion.

Comment: USFWS repeats its recommendation to perform endangered species recovery activities in association with this project, including but not limited to habitat restoration and

recovery planning. VDOT and the USFWS were previously involved in discussions to conduct habitat restoration, but discussions ended in May of 2005. USFWS recommends that discussions be resumed in an effort to implement Roanoke logperch recovery activities within the project area.

Response: Comment noted. While FHWA has identified potential mitigation, minimization and conservation measures in the biological assessment consistent with the USFWS recommendations, it is our understanding that a final decision on those measures and the specific details will be worked out as part of the Section 7 consultation process when it is conducted. Notwithstanding, FHWA is receptive to the USFWS's recommendations and will participate in endangered species recovery activities as part of this project. Regarding the discussions that ended in May of 2005, these discussions have taken place in a variety of contexts throughout the development of the final EIS. The context that you are most likely referring to involved a one-time grant program for environmental streamlining that was administered by FHWA. Both VDOT and the FHWA Virginia Division Office worked with the USFWS to identify proposals for that grant program related to the Roanoke logperch. While the proposals were unsuccessful in securing funding from FHWA (numerous proposals had been submitted in Virginia, and FHWA was only able to fund one proposal per state), one of the USFWS's proposal ended up being funded by the Virginia Transportation Research Council. That proposal, the Range-wide Assessment of Habitat Suitability for the Roanoke logperch, was completed in December 2006 and resulted in the discovery of six new sites where the Roanoke logperch was found. Since the project is currently unfunded and there is no timetable for developing the project let alone the segment that is of greatest concern with respect to endangered species, FHWA believes that it is premature to develop specific commitments further at this time. FHWA will resume discussions regarding endangered species recovery activities with the USFWS during final design after more detailed information on the design of river crossings and methods of construction are known and the corresponding endangered species impacts have been further refined.

Comment: Regarding the response to the Department of the Interior letter dated February 6, 2001, (Appendix C of the final EIS), it is the understanding of the USFWS that the percentages shown in the Table are for direct impacts only, and do not represent indirect, secondary, or cumulative impacts of the proposed project on agricultural and forest lands. USFWS recommends that updated figures be provided for future coordination on this project.

Response: The USFWS' understanding is correct; the percentages shown are for direct impacts. Impacts to agriculture and forest land from indirect or secondary impacts are addressed in Section 4.11 of the final EIS and more specifically, depicted in Table 4.11-3. These impact acreages were arrived at by using a method recommended by EPA for assessing indirect or secondary impacts. It is important to point out that the direct acreage impacts shown in the final EIS are based on a 600 foot location corridor. As shown in the final EIS, the amount of right-of-way that may be needed in rural areas may be as low as 160 feet, not including cut and fill slopes. Therefore, the direct impacts to agriculture and forest land have likely been overstated. During final design, more accurate information regarding agriculture and forest land impacts will be possible when the project's right-of-way limits are established.

Comment: USFWS remains concerned about the large scale impacts to natural habitat and farmland that are likely to occur if the project is constructed. All candidate build alternatives would adversely impact thousands of acres of natural habitat and farmland. Such federally-

funded habitat destruction would have substantial negative impacts on the fish and wildlife resources in the construction area and wildlife-related recreation. The USFWS does not support the expenditure of federal funds that results in unmitigated destruction of fish and wildlife habitat.

Response: See the previous answer regarding the overstatement of impacts. The significance of any impact is defined by the context and intensity of the impact. By showing the acreage of agriculture and forest land direct impacts as a percentage of the available resource in the study area, we have attempted to put the “large scale impacts” in context. It should be recognized that in developing candidate build alternatives, a concerted effort was made to avoid wildlife refuges, wildlife management areas, public parks, public multi-use areas, publicly owned open bodies of water, etc. where public wildlife-related recreation is likely to occur. The effort to avoid these types of resources has been successful to the point that the ALC will not directly impact any of these types of public resources.

Comment: [paraphrase/summary] Regarding the response to the Department of the Interior letter dated February 6, 2001, (Appendix C of the final EIS), the USFWS cited the response regarding some of the mitigation measures that FHWA and VDOT have committed to or are committed to discussing further with the USFWS. The USFWS also made reference to the discussions regarding commitments that ended in May of 2005, stated that FHWA and VDOT have made no commitments to accomplish any of these potential mitigation measures, and reiterated their recommendation that discussions leading to commitments to accomplish these potential mitigation measures be resumed.

Response: To reiterate, FHWA will participate in endangered species recovery activities as part of this project as well as the preservation of forest land. FHWA expects that many if the details of these commitments will be defined during the Section 7 consultation process when more detailed design and construction information will be available. However, since the project is currently unfunded and there is no timetable for developing the project let alone the segment that is of greatest concern with respect to endangered species, FHWA believes that it is premature to resume these discussions at this time. FHWA will resume discussions after more detailed information on the design of river crossings and methods of construction are known and the corresponding impacts have been further refined.

Virginia Department of Environmental Quality (January 29, 2007):

Comment: For each area along the highway where any work is to take place, the applicant needs to conduct an investigation on and near the property to identify any solid or hazardous waste site issues before work can commence. This investigation should include a search of waste-related databases. Please see the attached page regarding this database search.

Response: Comment noted. In developing the EIS, many of the cited databases were reviewed in assessing the impact of each alternative on known solid and hazardous material sites. During final design, these databases will be reviewed again for updates as is standard practice. Should these databases identify any known solid or hazardous waste issues within or adjacent to the proposed right-of-way, then environmental investigations will be undertaken to ascertain the extent of those issues and the appropriate response.

Comment: Any soil that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable Federal, State, and local laws and

regulations. Also, structures to be demolished should be checked for asbestos-containing materials and lead-based paint prior to demolition.

Response: All applicable Federal, State, and local laws regarding contaminated soil, asbestos-containing materials and lead-based paint will be complied with.

Virginia Department of Historic Resources (January 19, 2007):

Comment: On September 8, 2006, the Department of Historic Resources signed a Programmatic Agreement on this undertaking pursuant to Section 106 of the National Historic Preservation Act, as amended, and its implementing regulation 36 CFR Part 800. We look forward to continuing to work with the Federal Highway Administration and the Virginia Department of Transportation as they fulfill the requirements of this agreement.

Response: Comment noted.

Virginians for Appropriate Roads/Ann Rogers (January 25, 2007):

Virginians for Appropriate Roads (VAR) submitted numerous comments and several attachments of supporting documentation, much of which had been submitted previously as part of the EIS development process and considered as part of that effort. These comments are addressed here to the degree that they represent new substantive comments.

Roanoke Logperch Comments:

Comment: [paraphrase/summary] VAR references the I-73 draft EIS Re-evaluation included in Appendix H of the final EIS that was completed in June of 2005 and claims that it is wholly inadequate and fails to recognize and acknowledge many details surrounding the inadequacy of the environmental analysis. VAR references information in the Re-evaluation regarding interactions with the USFWS regarding the federally-listed endangered Roanoke logperch and the conclusion that was reached regarding future consultation, claiming that the Re-evaluation ignores subsequent communications from the USFWS dated January 31, 2005, in which the USFWS recommended Option 3 instead of the ALC. The USFWS letter also recommended that FHWA perform an impact assessment recommended by Dr. Paul Angermeier, “a preeminent authority on the Roanoke logperch.” This impact assessment was discussed in an article titled, “A Conceptual Framework for Assessing Impacts of Roads on Aquatic Biota” that was published in *Fisheries* magazine. VAR adds that the January 31, 2005, letter from the USFWS remains unacknowledged and the impact assessment that was recommended has never been performed. VAR then goes on to summarize the article and its conclusions.

Response: The Re-evaluation addresses changes to the project, changes to the surrounding environment, and new information since the draft EIS was approved. Recommendations by the USFWS for a particular alternative or a methodology for assessing impacts are not binding nor considered new information in the context of a Re-evaluation. Resource and regulatory agencies often make recommendations regarding methodologies and/or alternatives based on the resources they are responsible for managing or regulating, recognizing that FHWA has the final decision. The FHWA does not have the luxury of only considering a single resource or a limited number of resources in arriving at a decision on a project, which is why resource and regulatory agencies often make recommendations for alternatives that have greater impacts to the social environment while minimizing impacts to the natural environment. Instead, FHWA must consider impacts to all resources while trying to balance impacts of one resource against another, in arriving at a decision. The article that was written by Dr. Angermeier has not gone

unacknowledged. The article was not included in the final EIS because it was not submitted during the comment period as comments on the draft EIS. Instead, FHWA has addressed the article in a memorandum to the project file. One of the primary issues that FHWA had with the article and its conclusions is the assessment that urbanization associated with I-73 would have high impacts on the five aquatic environmental parameters identified. While FHWA does not disagree that urbanization generally has high impacts on the environmental parameters identified, the authors do not make a reasoned case that I-73 itself would produce widespread urbanization which has allowed them to reach the conclusions in the article that they did. FHWA does not agree with the assumption that I-73 would produce widespread urbanization and has addressed this assumption in the draft EIS, final EIS, and the draft Biological Assessment for the Roanoke logperch that was prepared. In addition, the urbanization that is assumed to occur is shown to occur anywhere from 10 to 100 years after the project is constructed. However, our environmental analyses are based on design years and what the impacts will be 20+ years into the future. Finally, the authors acknowledge in their article, “We view our matrix as one of many tools that can be used to conceptualize and analyze environmental effects of roads.” One final point to be made regarding the article is that it recommends a certain type of methodology for assessing impacts to aquatic biota. Nowhere does the article specifically address impacts to the Roanoke logperch or the methodology that was used to develop the draft Biological Assessment, which was made available to a representative of VAR under the Freedom of Information Act as early as 2003. Likewise, the USFWS letter does not recommend that the FHWA use this impact assessment methodology for analyzing impacts to the Roanoke logperch. In their comment above, VAR has concluded that the USFWS letter dated January 31, 2005, is evidence that the conclusions reached in the Re-evaluation regarding formal consultation with the USFWS in the future are unsupported. The USFWS letter does not allow one to draw such a conclusion. Finally, the USFWS has had a copy of the draft Biological Assessment for the Roanoke logperch at their disposal since December of 2003. In their January 30, 2007, comments on the final EIS, the USFWS stated that they had reviewed the draft Biological Assessment included in the final EIS and would use it for reference purposes during formal consultation between the USFWS and FHWA. To date, the USFWS has not provided any comments on the content of the Biological Assessment or the methodology used to reach the conclusions contained therein despite having reviewed it.

Comment: [paraphrase/summary] Related to the previous comment, VAR believes that the January 31, 2005, letter from the USFWS represents the last word on formal consultation and VAR’s conclusion is that the last word from the USFWS is that formal consultation not be postponed. VAR states that the Re-evaluation is wholly dishonest in its regard of USFWS professional biological opinion and moreover, there is no authority for postponing consultation particularly in circumstances where the USFWS has effectively rescinded its agreement to do so.

Response: The USFWS letter did not address in any way their previous recommendations that formal consultation be postponed. When the Re-evaluation had been prepared, the USFWS had not issued any biological opinion on the Roanoke logperch other than to say that the project “is likely to affect this federally listed species” (November 25, 2002), which led to additional surveys for the Roanoke logperch being conducted. Further, there was no “agreement” between FHWA and the USFWS regarding the timing of formal consultation. Instead, the USFWS made a recommendation that formal consultation be postponed. Ultimately, the lead Federal agency (FHWA in this case) is responsible for compliance with the Endangered Species Act (ESA) and

National Environmental Policy Act (NEPA) and for determining when formal consultation will be carried out under the ESA relative to the NEPA; neither piece of legislation dictate when formal consultation is required to be conducted. Therefore, no authority is needed to “postpone” formal consultation until after the final EIS is completed, and no approval on the part of the USFWS is required to postpone it either. A similar point was made by the USFWS in their March 18, 2003, letter to Ms. Jerryanne Bier, who is a member of VAR. In that letter, the USFWS cited the reasons for recommending that formal consultation be postponed. None of those reasons were affected by the USFWS’ January 31, 2005, letter. Finally, in their January 30, 2007, comments on the final EIS, the USFWS stated that they had reviewed the draft Biological Assessment included in the final EIS and would use it for reference purposes during formal consultation between the USFWS and FHWA. The USFWS made no mention in their comments of conducting formal consultation earlier in the project development process than when they had previously recommended.

Comment: [paraphrase/summary] VAR makes several slanderous and unsubstantiated remarks against Mr. Edward Sundra, Senior Environmental Specialist for the FHWA, alleging that “Mr. Sundra edited the work of the scientists who authored the Biological Assessment, making substantive changes to the document without basis or expertise and only in the interest of producing a document that would support his pre-determined conclusion.” VAR also claims that the Biological Assessment was “manipulated” and conclusions regarding the impacts “gerrymandered” by Mr. Sundra. VAR further claims that the edits made by Mr. Sundra changed the meaning of the original passages and assert a conflict of interest under the National Environmental Policy Act and Endangered Species Act for the action agency to make changes in this manner. The basis for VAR’s comments appears to be information that was obtained under the Freedom of Information Act (FOIA). VAR implies that all of the changes were made to the Biological Assessment without the knowledge of VDOT because VDOT, when pressed, could not produce the Biological Assessment as it was conveyed in its original form by the consultant. Finally, VAR provides eight examples comparing the original text of the Biological Assessment to Mr. Sundra’s edits and explain how the meaning had been changed by Mr. Sundra despite the fact that “he has no scientific qualifications for drafting Biological Assessments.”

Response: First, under the FOIA, FHWA has provided every single piece of correspondence contained in their files and on their computers that represent “all records of communication between the Federal Highway Administration-Virginia Division Office and the Virginia Department of Transportation concerning Interstate 73” from March 15, 2002, to the present (March 5, 2007) to Ms. Jerryanne Bier, who is a member of VAR. This included early drafts of the Biological Assessment, which normally would be exempt under the FOIA because they relate to the deliberative process and are pre-decisional. Notwithstanding, FHWA provided every piece of correspondence that was obtained using a search standard of “reasonable effort” and did not knowingly withhold a single piece of correspondence or segregate the information in any way. Several times, FHWA included additional documentation not covered by Ms. Bier’s FOIA requests because it better established the context of the information that did satisfy her request. This was done to maintain as transparent a project development process as possible. If this is the source of VAR’s information and conclusions, then they overlooked several pieces of correspondence that undermine their comments. An e-mail dated October 21, 2003, from Mr. Martin Mitchell (author of the Biological Assessment), transmitted the draft Biological Assessment to FHWA for review while copying VDOT. That e-mail stated: “At Mark

Wittkofski's direction, I am sending you the final VDOT-reviewed I-73/Roanoke logperch Biological Assessment (see attachment). Mark asked me to mention that the Biological Assessment has undergone several layers of review by a wide variety of VDOT personnel (including Hydraulics, Soil & Water, Environmental, etc.). Please feel free to make whatever revisions and/or amendments to the document that you feel are necessary. If you have any questions or comments, please do not hesitate to contact me or Mark." FHWA is not in a position to comment on why VDOT could not produce the copy of the Biological Assessment that was transmitted with this e-mail for VAR when pressed. Further, e-mails from the November 2003 timeframe between Mr. Mitchell and Mr. Sundra show discussions between the two individuals clarifying some of the issues in the Biological Assessment. No changes were made to the Biological Assessment without the author's concurrence. In March of 2005, Mr. Sundra made additional editorial comments (using the 'track changes' feature of Microsoft) to the Biological Assessment in light of changes made to the ALC. On March 10th and again on March 11th, those changes were sent to the consultant and copied to VDOT. Mr. Sundra asked the consultant to share the changes with Mr. Mitchell for his review. Mr. Mitchell, using the 'accept-reject' feature of track changes reviewed each editorial comment. Mr. Sundra is a professional who has close to 20 years experience with NEPA and the ESA and to assert that he has "gerrymandered" the impacts and "manipulated" the Biological Assessment to arrive at results that would support "his pre-determined conclusion" is unfounded and amounts to slander. The FHWA is the lead federal agency under NEPA and the ESA for this project and is ultimately responsible for the documents prepared and their content, including the Biological Assessment. Accordingly, there is no conflict of interest. When one reviews the examples put forth by VAR to support their claims, it becomes clear that none of the changes made by Mr. Sundra involved biological issues that could be considered to solely come under the purview of a trained and practicing biologist. Instead, the changes made by Mr. Sundra were changes that he is qualified to make as a practicing and experienced professional.

Comment: [paraphrase/summary] In the form of a table, VAR takes issue with editorial changes made by Mr. Sundra to sections 3.2.2.1, 4.2.1.1 (two changes), 5.4.1 (two changes), 5.4.4, 6.1, and 7.0.

Response: It should be noted that Mr. Sundra made numerous editorial changes to the Biological Assessment and VAR has only objected to eight of those. While there is no reason to go over each of the examples cited by VAR because all of the changes were coordinated with the author of the Biological Assessment and concurred in by him, FHWA would like to address the change that is referenced by VAR in section 4.2.1.1 and 6.1 of the Biological Assessment. In this example, VAR references the insert that Mr. Sundra made regarding design features of I-73's crossing of the Pigg River. VAR objects to the inserted text claiming that it is unsupported by any preliminary design work and that the conclusions based on the hypothetical designs are unsubstantiated. However, Mr. Sundra is educated as a civil engineer and in construction management and a graduate of FHWA's 27-month Highway Engineer Training Program. Accordingly, he is amply qualified to comment on "hypothetical design" issues that VAR has objected to. Notwithstanding, Mr. Sundra did not come to this conclusion by himself. It followed discussions with VDOT and the subconsultant (HSM&M) to VDOT's consultant. This hypothetical design was developed further in 2005. In an e-mail dated May 13, 2005, from Mr. Bruce McAuliffe of VDOT to Mr. Sundra, he provided an overview of the work that had been done by HSS&M on the spanning of the Pigg River. Mr. Sundra had requested this information

to make sure that it could be included as a commitment in the Biological Assessment that would minimize environmental impacts. That e-mail, which has been released to Ms. Bier under FOIA, states, “I-73 crosses the Pigg River in Franklin County on horizontally curved alignment. The actual river crossing is very nearly at right angles to the stream, so no skewed piers should be required. The grade of I-73 at the crossing is approximately 50-ft above the flood elevation, and the overall length of the bridge is estimated at 530-ft. Economical spans for a bridge of this height and length would be in the area of 150-ft to 200-ft. Curved steel girders supporting a concrete deck is the logical choice for structure type at this crossing. The normal flow width of the Pigg River in this area is approximately 75-ft to 100-ft. Spans in the 150-ft to 200-ft range can easily clear-span the river. For sound environmental and construction economy reasons, no piers should be constructed in the normal flow of the Pigg River for this bridge.” Notwithstanding all of this discussion, the Biological Assessment and its conclusions were based on a worst-case scenario involving in-stream construction below the ordinary water line as discussed in Section 4.2.1.1 of the Biological Assessment.

Comment: [paraphrase/summary] In concluding their comments on the Roanoke logperch, VAR takes issue with the sweeping generalizations of the conclusions that have been reached, with the assertions regarding the distance of interchanges from the Pigg River, and provides additional information regarding unnamed tributaries within one mile of the Route 40 interchange that flow into the Pigg River.

Response: VAR’s comments taking issue with the Biological Assessment are noted. FHWA stands by its Biological Assessment. It will be up to the USFWS to develop a biological opinion based on the information at its disposal including information from Msrs. Wheeler and Angermeier and Ms. Rosenberger.

Comment: The implication in this section of the final EIS is that, since the Roanoke logperch is already threatened by the impacts of past and present human activity, additional threats from building I-73 do not matter. This is an inherently disingenuous statement because it is well known to VDOT and FHWA that further imperiling an imperiled species violates the Endangered Species Act.

Response: The “inherently disingenuous statement” that VAR has reacted to is their own statement summarizing the text in the final EIS. Nowhere does the final EIS state that “additional threats from I-73 do not matter.” Instead, the final EIS, in the context of cumulative impacts under NEPA, states, “...the construction of I-73 is expected to have minimal incremental impact on the Pigg River population of the Roanoke logperch when that incremental impact is considered in the context of the cumulative impact on the Roanoke logperch from past and present actions.” In contrast, cumulative impacts in the context of formal consultation under the ESA only considers cumulative impacts from future non-federal actions reasonably certain to occur while the cumulative impact of past and present actions establish the environmental baseline for the specie in question. Whether FHWA’s action “imperils” the continued existence of an endangered species is not a conclusion to be made under NEPA (which is VAR’s reaction to the NEPA comment) but will be an opinion that the USFWS will make as they carry out their responsibility under the ESA.

Old German Baptist Settlement Comments:

Comment: The Old German Baptist Brethren are not an ethnic group. If they had been an ethnic group, they would have been eligible for Environmental Justice protection.

Response: Correction regarding the term “ethnic” is noted. However, had they been an ethnic group, they still would not be covered under Environmental Justice because they are not a low income or minority population.

Comment: The Advisory Council did not review the eligibility of the Oak Hill community at the request of VAR, but rather reviewed and denied VAR’s request that the Oak Hill issue be sent to the Keeper of the National Register for eligibility determination.

Response: That is correct. The Advisory Council on Historic Preservation (Council) does not have the legal authority to review eligibility determinations when the lead federal agency and State Historic Preservation Office (SHPO) concur on a resource’s eligibility. However, VAR’s original request was that the Advisory Council recommend to FHWA that they elevate the eligibility issue to the Keeper of the National Register. Likewise, the Advisory Council did not only deny VAR’s request, they determined that a determination from the Keeper on the eligibility of the subject property for the National Register “was not necessary.”

Comment: Neither VDOT nor FHWA had acknowledged the presence or significance of the German Baptists of Franklin County prior to receipt of VAR’s October 2002 report, *Evaluation of Eligibility for the National Register of Historic Places of a Traditional Cultural Property and a Rural Historic Landscape: Oak Hill Old German Baptist Brethren Community Rural Historic District, Franklin County, Virginia*. Subsequent to receiving VAR’s report, VDOT commissioned the October, 2003, report, *Independent Evaluation of Oak Hill Old German Baptist Brethren Community as a Rural Historic Landscape and a Traditional Cultural Property, Franklin County, Virginia*. This report provides the first instance of VDOT’s acknowledging the presence and cultural significance of the German Baptists, but it describes their cultural and economic impact in an inappropriately minimalist framework, totally ignoring the uniqueness and intricacy of inter-familial networking, and the significant influence that the interfamilial networking has had in creating and sustaining Franklin County’s dairy industry, making Franklin County the second largest dairy producing county in Virginia. VAR then proceeds to cite statistical evidence of the continuing viability of the farming sector in Franklin County.

Response: Acknowledgement of the presence of the German Baptists of Franklin County by VDOT and FHWA is as indicated. However, the significance of the German Baptists is subjective and in the context of the Section 106 process, it was determined that German Baptists community was not significant. FHWA does not believe that the report prepared by VDOT minimizes the cultural and economic impact of the German Baptists. The subject report was based upon a series of interviews with the elders of the Oak Hill Old German Baptist Brethren congregation. While VAR has taken issue with the content of the report and in other correspondence disagreed with the conclusions that were reached, the elders reviewed the resulting report and did “not find any major inaccuracies that would alter the summary of the study.”

Comment: [paraphrase/summary] VAR states that the German Baptists provide a “cultural glue” that keeps the Franklin County dairy industry intact. They cite an excerpt from Dr. Charles Thompson’s book, *The Old German Baptist Brethren: Faith, Farming and Change in*

the Virginia Blue Ridge to support their position. In the excerpt, Dr. Thompson describes the decline of dairy farming in Franklin County but points out that it is still the largest producer in southwest Virginia because the German Baptists operate nearly half of the remaining dairies. He goes on to explain why the German Baptist contribution has kept the Franklin County dairy industry intact despite recent trends. VAR contends that locating I-73 through Oak Hill would disable the traditional cultural networking of the German Baptists and relegate their culture, and potentially the dairy industry of Franklin County, to the status of bygone relics. VAR questions why planning for I-73 is allowed to proceed without adequate consideration for the protection of the German Baptists whose traditional farming district at Oak Hill will be bisected by the new highway construction when federal and state transportation officials have received credible information about the serious and permanent impairment of the group's culture and economic livelihood.

Response: Based on the information in the final EIS which is representative of the interviews that were conducted with the elders of the Oak Hill German Baptist congregation, FHWA believes that it has adequately addressed the issues raised by VAR. All displaced farms will be provided an opportunity to relocate and re-establish their business and as such, be compensated for moving and re-establishment expenses.

Comment: [paraphrase/summary] VAR provided a synopsis of the major events in the Section 106 process concerning the Oak Hill German Baptist Rural Historic Landscape and accuse VDOT, FHWA, VDHR, and the Council of "blockading" all attempts by a citizen's group acting as a consulting party in the Section 106 process (VAR) from seeking appropriate protection for the congregations, families, and farms of the German Baptists of Oak Hill.

Response: It is important to point out regarding the synopsis provided by VAR that when they submitted new information in August of 2006 seeking an eligibility determination on Oak Hill as a rural historic landscape having significant patterns of folklife, they addressed and sent this information directly to both FHWA and the Council and copied the Virginia SHPO. This occurred just as the Section 106 Programmatic Agreement was being finalized and sent out for signature. When FHWA transmitted the Programmatic Agreement for signature in September of 2006, the new information submitted by VAR was addressed by FHWA as VAR acknowledges in their synopsis. However, both the Council and Virginia SHPO executed the agreement with the new information at their disposal and neither agency requested that FHWA consult further on this new information. Finally, while VAR may not like the outcome of the Section 106 process with respect to the German Baptists and they accuse VDOT, FHWA, VDHR and the Council of "blockading" all of its attempts to seek appropriate protection, the Section 106 process has run its course in accordance with the National Historic Preservation Act, and the conclusions that have been reached are consistent with that process.

Comment: [paraphrase/summary] VAR summarized the significance of the Oak Hill Old German Baptist Brethren district as well as the new information that they submitted to FHWA and the Council in August of 2006.

Response: Because this information has already been considered prior to the release of the final EIS, no further response is necessary.

Congressional Intent Comments:

Comment: [paraphrase/summary] VAR submitted comments questioning the reliance on Congressional intent and the error in referring to it as a purpose and need for I-73. VAR states that there is no Congressional mandate that states build I-73 or language in federal legislation that I-73 be planned or built as a limited-access freeway. VAR proceeds to point out what they consider VDOT and FHWA's flawed logic by reducing and characterizing that logic as follows: "Congress used the term "Interstate" in naming the High Priority Corridor, therefore, Congress intended the route to be an Interstate highway." Finally, VAR cites West Virginia as an example that is not building I-73 to interstate standards.

Response: This issue has been addressed extensively in the final EIS and the responses to comments on the draft EIS, therefore, it will only be addressed briefly here. First, "Congressional intent" is appropriately a component of the purpose and need of the project in keeping with FHWA purpose and need guidance. Simply, VDOT would not be studying I-73 in Virginia if it were not for the designation of the I-73 High Priority Corridor by Congress. In addition, "Congressional intent" was added as a component of the purpose and need at the suggestion of the Corps. Second, the logic behind the Interstate standard issue acknowledges the flexibility afforded each state by Congress in planning and developing I-73 in their respective states. This flexibility was afforded in the initial legislation designating I-73 as a high priority corridor. At no time has FHWA stated that there was a "Congressional mandate" to construct I-73 as a limited-access freeway. Instead, in both the draft and final EIS, FHWA and VDOT established why the I-73 High Priority Corridor has to be constructed, minimally, to principal arterial standards in Virginia. Further, as pointed out in the final EIS, the FHWA HQ Office, in an electronic message to Ms. Jerryanne Bier of VAR stated that the identification of the I-73 high priority corridor as an Interstate highway has been strengthened by Congress through several laws enacted since ISTEA. Notwithstanding this position, FHWA went on to explain in both the draft EIS and final EIS that the differences in design standards between a principal arterial freeway (i.e. Interstate) and other principal arterial roads was not appreciable different to affect the assessment of impacts (more on this issue below under 'Non-Interstate Options for Building I-73 Comments'). Finally, those who cite West Virginia often overlook the fact that North Carolina and South Carolina are planning and developing Interstate 73 in their states to Interstate design standards. A conversation with the West Virginia Division Office of FHWA revealed that "Congressional intent" was not a major component of the purpose and need of their project in West Virginia.

Access Management Comments:

Comment: [paraphrase/summary] VAR supports access management as a viable alternative for I-73, arguing that it can readily address the components of the purpose and need that have been identified. VAR argues that the issue has been ignored in the final EIS in spite of FHWA having received information on this topic since 1999. VAR also references a new planning effort in Franklin County to study best practice applications for access management on U.S. Route 220, citing the omission as disingenuous because it would appear to be a deliberate continuation of VDOT's attempt to thwart an awareness and understanding among local citizens and local governments of the role of access management as a tool for improving the safety and capacity of the U.S. Route 220 corridor without having to build a new highway on new alignment. VAR proceeds to describe Franklin County's current planning effort focusing on access management on U.S. Route 220. In addition, VAR acknowledges statements included in the draft EIS that address the impracticality of access management and agrees with VDOT that the tendency for

local government to add new access points might nullify over time many of the benefits of a comprehensive upgrade. VAR then cites the Franklin County planning effort characterizing it as a process that will allow the County to become actively involved in managing access and providing it with the tools to design and implement access management overlay zones.

Response: Access management is not a viable alternative since it is outside of VDOT's ability to implement as evidenced by the Franklin County initiative which is being initiated at the local level where land use is controlled. Accordingly, the information provided in the draft and final EIS sufficiently addresses the matter. In response to VAR's September 2006 letter submitting information on the Franklin County access management effort, FHWA stated, "When it comes to the control of access issue, the Commonwealth Transportation Board (CTB) has the authority under the Virginia State Code to apply limited access controls to a corridor, which is what you see on sections of Route 220 that bypass the towns of Rocky Mount and Martinsville. In these cases, VDOT is able to maintain the limited access control because they have the legal backing to do so. If VDOT were to try and change the limited access control placed on a facility by the CTB, they would first need CTB approval to do so. All other access control is left up to VDOT in conjunction and in cooperation with the localities who control land use decisions. In reality, there is no other type of access control recognized by the Virginia State Code. While VDOT may attempt to control access in a corridor to maintain a desired level of mobility, they have no existing legal authority to control that access which is why efforts to control access on routes in Virginia often lead to the circumstances recorded in the draft EIS where changes in land use and the desires of the localities for new access often negate the benefits of efforts to control access over time. For this reason, access control alternatives are not reasonable because they are outside the control of FHWA and can't be implemented with any degree of certainty or control by VDOT."

Economic Impact on I-73 Comments:

Comment: [paraphrase/summary] VAR cites the reaction from local officials in 1994 when the decision was made to re-route I-73 through the City of Roanoke and Roanoke County. Roanoke County Supervisor Mike Wray was "shocked" and stated that the highway was too uncertain and too far in the future to let it disrupt anyone's plans right now. Accordingly, Roanoke County officials have continued to approve new commercial development in the Route 220 corridor with little or no regard to the impacts that a four or six lane interstate facility would have on this development. Based on this, VAR charges that this is just another example of the disingenuousness that is rife throughout the final EIS and questions whether the right-of-way acquisition costs associated with building the ALC in the commercial district were given adequate consideration in VDOT's revised cost estimate.

Response: VAR's reference to 1994 is a reference to the feasibility study that was conducted by VDOT to narrow down the location of I-73 in western and southwest Virginia. VDOT conducted the corridor feasibility study which evaluated 13 broad corridors or locations for proposed I-73 in Virginia. In March of 1994, after VDOT completed the feasibility study, the Commonwealth Transportation Board selected a proposed location for the I-73 corridor that entered Virginia from West Virginia on Route 460 west of Narrows, and which generally followed Routes 460 and 220 to the North Carolina State line. However, in late 1994, the cities of Roanoke and Salem and the County of Roanoke expressed a desire that the location of I-73 be improved by routing it along I-581 and I-81 because they saw its benefit as a tool to facilitate economic development. In December of 1994, VDOT prepared a supplemental report for I-73

that determined it feasible to refine the location of I-73 using I-581 and I-81. The CTB approved the revised location and with the passage of the NHS Designation Act of 1995, Congress included the CTB-approved corridor for Interstate 73 in legislation which was the impetus for the draft EIS. Regarding the updated cost estimate, right-of-way costs were updated by reviewing land uses adjacent to the ALC.

Public Participation Process for I-73 Comments:

Comment: [paraphrase/summary] VAR submitted a July 2000 document titled, “Report to FHWA on Public Participation Process for I-73 in Virginia” that had been addressed to Mr. Harold Peaks in FHWA’s HQ Office. The report addressed the early public participation efforts associated with the I-73 feasibility study referenced in the previous comment.

Response: The public participation efforts carried out by VDOT for their feasibility study were addressed in the response to comments on the draft EIS and need not be elaborated on here. For example, in the response to comments from VAR’s Ms. Jerryanne Bier, FHWA stated, “Feasibility studies, planning studies, technical studies, etc. in and of themselves are not NEPA documents subject to CEQ’s requirements for purpose and need, alternatives development, analysis of environmental impacts, and public involvement. Instead, the decision to prepare a feasibility study using federal funds is an action subject to the requirements of NEPA, but that action meets the criteria for a categorical exclusion under section 1508.4 of CEQ’s regulations and section 771.117(a) of FHWA’s regulations. These are actions that do not require any further NEPA approvals by FHWA because they do not involve or lead directly to construction nor do they involve significant impacts. Had VDOT not used federal funds, for the feasibility study, then a CE determination would not have been required either. Further, feasibility studies do not result in implementable projects; they don’t establish a location that FHWA takes action on nor do they establish a project that will be developed through final design, right-of-way acquisition, and construction. The feasibility study carried out by VDOT only sought to narrow down the area over which VDOT would study the location of I-73 further. As a feasibility study, it satisfied any guidelines that exist for feasibility studies. VDOT could have simply established the study area for I-73 without conducting a feasibility study and not violated any federal laws in doing so. There are no NEPA public involvement requirements for actions that meet the criteria for a categorical exclusion; any public involvement performed for categorically excluded actions (preparation of a feasibility study in this case) is above and beyond what NEPA requires. In similar fashion, MPOs often prepare feasibility studies to determine what types of improvements to include in their long range plans. The preparation of those feasibility studies are subject to NEPA if they use federal funds to prepare them (as indicated above with the reference to CEQ’s and FHWA’s regulations), not the subject or content of the feasibility studies, themselves. For example, if the Hampton Roads MPO prepares a feasibility study to determine whether or not it was practical to implement light rail in the region, the physical preparation of the feasibility study itself would be subject to NEPA, not the light rail project that is the subject of the feasibility study. Notwithstanding, as stated in Section 2.2 (Alternatives Development and Alternatives Eliminated from Study) of the DEIS, VDOT conducted the corridor feasibility study which evaluated 13 broad corridors or locations for proposed I-73 in Virginia and in January and February of 1994, five public information meetings were held on the feasibility study (even though not required by NEPA). Approximately 1200 citizens attended these meetings which were held in Abington, Whytheville, Blacksburg, Roanoke, and Martinsville. In March of 1994, after VDOT completed the feasibility study, the Commonwealth Transportation Board selected a

proposed location for the I-73 corridor that entered Virginia from West Virginia on Route 460 west of Narrows, and which generally followed Routes 460 and 220 to the North Carolina State line. However, in late 1994, the cities of Roanoke and Salem and the County of Roanoke expressed a desire that the location of I-73 be improved by routing it along I-581 and I-81 because they saw its benefit as a tool to facilitate economic development. In December of 1994, VDOT prepared a supplemental report for I-73 that determined it feasible to refine the location of I-73 using I-581 and I-81. The CTB approved the revised location.”

Public Support for U.S. 220 Upgrade:

Comment: [paraphrase/summary] VAR contends that the final EIS conveniently leaves out information on public support to build I-73 as an upgrade of U.S. Route 220. VAR then cites VDOT’s own summary of public comments received during the I-73 Location Public Hearings, which “reveal a strong public sentiment favoring an upgrade of U.S. 220 as the best option for building I-73.

Response: Summary of the response from the Location Public Hearings were included in the responses to comments on the draft EIS where that issue was raised.

Non-Interstate Options for Building I-73 Comments:

Comment: [paraphrase/summary] VAR provided a recapitulation of the concepts that they have proffered to VDOT and FHWA to date as reasonable alternatives to building I-73 as an interstate facility. They then explain what access management is and why it would be effective in improving safety and capacity on U.S. Route 220 by citing to the FHWA brochure, “Benefits of Access Management.” VAR also provided an extensive list of unconventional intersections from the Applied Technology and Traffic Analysis Program, a joint initiative of the Office of Traffic and Safety at the Maryland State Highway Administration and the University of Maryland. VAR endorses a 50 to 60 mph design speed as the appropriate design speed for upgrading U.S. Route 220 given the environmental context. VAR cites the VDOT Roadway Design Manual with regards to turn radius and stopping sight distances and the appropriateness of the non-interstate design for the existing terrain. In addition, the non-interstate design provides flexibility to use intersections and interchanges and not just interchanges, which themselves promote sprawling development.

Response: To the degree that these general and summary comments require a response, they have been addressed elsewhere.

Comment: [paraphrase/summary] VAR takes exception to the claim that VDOT has given special attention to “low build” or “intermediate build” alternatives for upgrading the existing U.S. Route 220 roadbed to principal arterial standards with a 60 mph design speed prior to making a decision to exclude all but interstate options for building I-73. VAR cites a series of letters sent to VDOT requesting copies of any studies performed by VDOT in support of the claims made in the draft EIS. The information provided by VDOT in response to VAR’s request was enclosed with VAR’s September 17, 2006, letter to Mr. Edward Sundra of FHWA asking, “Is this material a complete set of all documentation of the work that VDOT performed to analyze the 50 and 60 mph principal arterial alternatives for building I-73?” In FHWA’s November 8, 2006, response, VAR states that Mr. Sundra did not reply to the above cited question and made no reference to the attached materials or the presence or availability of any additional materials that might better document VDOT’s claims. VAR concludes that the

information sent to them by VDOT does not provide evidence of a systematic analysis of testing of the “low build” or “intermediate build” alternative on the U.S. Route 220 corridor.

Response: VAR’s September 17, 2006, letter raised many issues and posed many questions. FHWA is not in a position to speak on behalf of VDOT regarding the information that it has in its files that was requested by VAR. Instead of addressing each question raised by VAR, FHWA chose to address the larger, more encompassing, issues raised by them. In its November 8, 2006, response, FHWA addressed the concepts of a “low build” or “intermediate build” alternatives with the following:

“First, I would like to address the concept of design speeds and the consideration of what has become known as “low-build alternatives” because there is some misunderstanding. The discussion of “low-build alternatives” in the draft Environmental Impact Statement (EIS) was included because it allows one to see the relative differences that exist in cost between them as concepts and the build alternatives carried forward. The primary difference in impacts and cost between a “low-build alternative” and the build alternatives carried forward in the draft EIS will occur in the use of at-grade intersections in place of grade-separated interchanges. In reality, we would not develop a project of this length by establishing in advance and confining ourselves to a single design speed for the entire corridor given the many factors that affect that decision.

The design speed of a facility is not arbitrarily set; instead, it is determined based on anticipated traffic and the functional classification of the roadway with an eye to topography, driver expectancy and environmental constraints. The functional classification of roadways is a process whereby roads are grouped into classes or systems according to the service they are intended to provide as this service relates to mobility and access. In the case of Interstate 73, it is a Congressionally-designated high priority corridor that will be included in the National Highway System. Therefore, for reasons that have been documented previously, Interstate 73 is functionally classified as a principal arterial and would be designed to principal arterial design standards. As described in FHWA’s functional classification guidelines, principal arterial routes are intended to maximize mobility while minimizing access.

In addition to the functional classification of a roadway, design speed will vary depending upon topography. Topography can be broken down into mountainous, rolling, and level terrain. Each type of terrain has a design speed associated with it. For example, the design speed for mountainous, rolling, and level rural principal arterial freeways is 50, 60, and 70 mph, respectively. The design speed for mountainous rural principal arterial non-freeways can be 40 or 50 mph while the design speed for rolling rural principal arterial non-freeways can be 50 or 60 mph, and the design speed for level rural principal arterial non-freeways can be 60 or 70 mph. Therefore, based on topography alone, a project like Interstate 73 would not necessarily be designed to the same design speed throughout its entire length because it could vary with the topography. In addition, design speeds will differ based on whether the facility is located in a rural area or an urbanized area. While a 70 mph design speed is desired in rural areas, lower design speeds such as 50 and 60 mph are acceptable in urbanized areas where the built-up environment constrains design considerations. The point of all this is that there are many factors that affect the design speed and associated design standards of a facility. Given the factors identified, it is premature in the environmental process to commit to a particular design speed

irrespective of design year traffic, topography, etc. Notwithstanding, some assumptions have been made about design speed in the EIS to allow for the assessment of environmental impacts.”

Comment: [paraphrase/summary] It is misleading for the final EIS to state that most of the resources associated with a rural principal arterial design concept will mimic the impacts documented in the draft EIS for a principal arterial – freeway design. VAR cites VDOT’s Geometric Design Standards for Rural Principal Arterial System (GS-1) and questions the veracity of repeated claims that the width of a freeway design is virtually the same as the width of the principal arterial design and therefore, the principal arterial freeway design can be used, for planning purposes, as a surrogate for the principal arterial design. VAR states that using the principal arterial freeway design as a surrogate for the principal arterial non-freeway design does not work. VAR also questions what they consider inconsistencies between Figure 2.3-1 in the final EIS and VDOT’s Geometric Design Standards for rural principal arterials. Citing VDOT’s Geometric Design Standards for Rural Principal Arterial System (GS-1), VAR has determined that there is a 12 foot difference between the principal arterial freeway design and principal arterial non-freeway design. VAR also cites the VDOT Roadway Design manual regarding clear zones and concludes that they are an optional feature of roadway design. They claim that the inclusion of clear zones in Figure 2.3-1 obfuscates the fact that the minimum width of any principal arterial with any design speed is 12 feet narrower than the minimum width of any interstate freeway with any design speed. VAR does admit that if a decision is made to include clear zones in either the freeway or principal arterial with 70 mph design speed, then and only then would it be appropriate to say that the two highway widths are identical; they add however, that it can’t be assumed that the concept of clear zone would be used.

Response: If we accept VAR’s argument that clear zones are an optional feature of roadway design and should not be included in the determinations of minimum width for freeways and non-freeways, then it reduces the 12 foot difference identified by VAR to 2 feet because both the shoulders (which accounts for 4 feet of that difference) and front slope of the ditch (which accounts for 6 feet of the difference) fall within the clear zone. Obviously, even though they are part of the clear zone, shoulders can’t be eliminated because they are not an optional feature of roadway design. Therefore, the difference would only be 6 feet using VAR’s approach. However, this 6 foot difference must be understood within the context of the overall roadway width. If the roadway footprint for a freeway is approximately 125 feet from edge of shoulder to edge of shoulder based on Figure 2.3-1, then a 6 foot difference resulting in a roadway footprint of approximately 119 feet would yield comparable results in assessing impacts.

Notwithstanding, statements about the comparability of the principal arterial freeway design and the principal arterial non-freeway design were based on Figure 2.3-1 from the final EIS. This figure was developed using VDOT’s Geometric Design Standards for Rural Principal Arterial System (GS-1) in conjunction with the footnotes that accompany those design standards (the footnotes were not included with VAR’s attachment). Using this figure and assuming that there is no clear zone yields an edge of shoulder to edge of shoulder width for a freeway of 125 feet and an edge of shoulder width to edge of shoulder width of 121 feet for non-freeways, a difference of four feet. Therefore, FHWA stands by its statements that the impacts from a rural principal arterial freeway design and rural principal arterial non-freeway design are comparable. When one takes into account the added width from the cut or fill slopes, then the width of the cross section will increase and the four foot difference becomes even more obscured. And, if we

include clear zones, then we agree with VAR's statement that it would be "appropriate to say that the two highway widths are identical."

Despite the discussion above, FHWA disagrees with VAR that clear zones should not be included in determining the width of a roadway's footprint and in turn, the impacts associated with that footprint. Clear zones are incorporated into the design of a roadway where practicable. Therefore, their inclusion should be assumed and impacts assessed accordingly instead of assuming that they will not be incorporated into the design of a roadway. The cross-sections included in the EIS for purposes of assessing environmental impacts are typical cross-sections. They are typical in that they would be used throughout the project without taking into account site specific topography and environmental conditions, which could alter some of the dimensions. Therefore, while clear zones may be eliminated during final design, they need to be included for purposes of impact analysis during planning so environmental impacts are not understated. In areas where important environmental features exist, then decisions to eliminate clear zones can be made during planning to comply with federal regulations and requirements as was done with the I-73 crossing of the Blue Ridge Parkway. At this location, a decision has been made to eliminate clear zones in order to maintain the I-73 footprint within the existing 160 foot right-of-way for purposes of minimizing impacts to the Blue Ridge Parkway in accordance with Section 106 and Section 4(f).

Comment: It is also misleading to compare the 70 mph freeway design with the 70 mph principal arterial design in the context of the present argument. Nobody, least of all VAR, is suggesting that the 70 mph principal arterial non-freeway design be considered among the alternatives for building a U.S. Route 220 upgrade option.

Response: Regardless of whether a 70 mph freeway is compared to a 70 mph principal arterial non-freeway, a 60 mph freeway is compared to a 60 mph principal arterial non-freeway, or a 70 mph freeway is compared to a 60 mph principal arterial non-freeway, the difference in width between a freeway and non-freeway is going to be the same regardless of the design speed as VAR acknowledges in their comments. In their comments, VAR has stated that an alternative with a 60 mph design speed would be well suited for the U.S. Route 220 corridor given the topography. However, as stated previously, the design speed of a facility is not based solely on topography. It is also based on anticipated traffic and the functional classification of the road (which is related to mobility and access; principal arterial routes are designed to maximize mobility while minimizing access) with an eye to driver expectancy and environmental constraints.

Typical Section of the Blue Ridge Parkway Comments:

Comment: [paraphrase/summary] VAR takes issue with Figure 2.6-8 in the final EIS showing a drawing of a six-lane interstate with the label "Typical Section Blue Ridge Parkway 6 Lanes." They claim that this label is misleading because presently there are no 6-lane crossings of the Blue Ridge Parkway and therefore, the figure should not have been labeled typical. VAR then cites communications with Mr. Gary Johnson of the National Park Service to support their conclusion that there are no six-lane interstate crossings.

Response: The use of the word 'typical' in the figure is not to be interpreted to mean that the six-lane Interstate cross-section is typical of other six-lane Interstate crossings of the Blue Ridge Parkway. Instead, 'typical' is an engineering term used to refer to the cross-section that will be

used for this project without taking into account site specific topography and environmental conditions, which may alter some of the dimensions.

Relocation Impacts Comments:

Comment: [paraphrase/summary] In response to a statement in the final EIS that the ALC would have lower relocation impacts than the alternatives that improve existing Route 220, VAR states that the portion of the ALC that will be superimposed on U.S. 220 through Hunting Hills and Clearbrook will have tremendous relocation impacts on dense commercial development.

Response: As documented in the final EIS, the ALC would displace 249 residential units, 60 businesses, four churches, one fire station, and two other non-profits. In contrast, the alternatives that improve existing U.S. Route 220, namely Option 3 and its variations, would impact 455-707 residential units, 135-147 businesses, 9-13 churches, and 2-3 other non-profits. Both the ALC and Option 3 and its variations would have the same relocation impacts at Hunting Hills and Clearbrook because they include the same segment through that area.

Blue Ridge Parkway Comments:

Comment: [paraphrase/summary] In a separate attachment to their comments, VAR points out that the final EIS introduces a design change to the project from the concept offered in the draft EIS. Specifically, the project would eliminate the existing access at U.S. Route 220 (the draft EIS had shown an interchange with I-73 at this location) with a new access road for the Parkway off Buck Mountain Road in the Clearbrook section of Roanoke County. VAR contends that the new access will result in an adverse impact to the scenic and historic integrity of the Blue Ridge Parkway that is not acknowledged or evaluated in the final EIS. VAR adds that the existing access ramps connecting the Parkway with U.S. Route 220 feature nearly uninterrupted protected forest views, due to the fact that the ramps are contained in the same parcels of land owned by the NPS. The two options to replace this access from U.S. Route 220 identified in the final EIS would increase the adverse effects to the Parkway because both options would remove crucial vegetated buffers from an area of Roanoke County that has been slated for and is experiencing rapid commercial and residential development. Both sites have already been and are likely to continue to be compromised by haphazard, intrusive commercial and residential development that will be visible to motorists entering or exiting the Parkway at either new access point. VAR also contends that the cumulative impact of 1) building I-73 upon the existing U.S. 220 roadbed through the Clearbrook section of Roanoke County; 2) replacement of the existing ramps connecting the Parkway to U.S. Route 220; and 3) existing threats to the Parkway's scenic values that resulted in Roanoke County's portion of the Parkway being named a Last Chance Landscape, will result in a net negative impact to the Parkway's scenic and historic integrity that was not adequately evaluated in the final EIS, and that should be given consideration in a Section 4(f) analysis. The conclusion in the final EIS that the new access does not constitute a "use" of the Parkway cannot be supported.

Response: VDOT conducted additional environmental analyses to determine the impacts that the new access points proposed by the NPS would have. FHWA conducted a re-evaluation in March of 2006 using the information developed by VDOT and concluded that the changes to the scope of the project do not involve significant environmental impacts let alone significant environmental impacts not already considered in the draft EIS. Therefore, a supplemental draft EIS was not warranted or prepared. Because of the limited environmental impacts associated with the new access points, the impact information included in the final EIS was not affected and

changes were not needed. Consequently, there was no need for “evaluation” in the final EIS. Visual impacts associated with the new access points was one of the issues considered in the re-evaluation, and they were determined not to be significant. Therefore, they too were not addressed any further in the final EIS. This approach is consistent with the Council on Environmental Quality’s NEPA regulations which state that impacts should be discussed in proportion to their significance and only brief discussions of non-significant issues are needed. The issues that FHWA had determined needed to be addressed in the final EIS, such as the applicability of Section 4(f), were addressed accordingly.

Generally speaking, VAR’s claims that the new access road for the Parkway will result in an adverse impact to the scenic and historic integrity of the Blue Ridge Parkway that is not acknowledged or evaluated in the final EIS are surprising. A Section 106 Programmatic Agreement (PA) was prepared because there will be an adverse effect on the Parkway from the proposed I-73 crossing as well as the new access points developed by the NPS. Information on the development of the PA as well as the PA itself are included in the final EIS. Under Section 106, an adverse effect is defined in the following manner: “An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.” When an adverse effect is identified, a Memorandum of Agreement/Programmatic Agreement is required that documents how those adverse effects will be taken into account. This is usually done by developing stipulations that identify the measures or efforts that will be undertaken to minimize or mitigate the adverse effect. By signing the PA, signatories agree to assume responsibility for those measures assigned to them; additionally, signatories essentially agree that the stipulations identified in the agreement are adequate for addressing the undertaking’s adverse effects. In the case of I-73, VAR was a consulting party to the Section 106 process and a signatory to the Programmatic Agreement, concurring in the agreement on September 22, 2006. When VAR signed the agreement, they sent a letter to FHWA stating, “VAR’s signature of the Programmatic Agreement does not signify that VAR agrees that there has been compliance with Federal Highway Administration obligations under federal environmental and historic preservation laws, particularly with regard to the adequacy of identification measures.” VAR’s position on the adequacy of identification measures is borne out by their repeated efforts on behalf of the Oak Hill Old German Baptist Brethren district. However, at no time did VAR object to the stipulations that were included in the PA to address adverse effects to the Blue Ridge Parkway from the proposed crossing of I-73 or the new access points. For example, one of the stipulations included in the PA states, “To minimize the effect of the crossing on the Blue Ridge Parkway, VDOT shall ensure that the aesthetic treatments of the Interstate 73 crossing of the Blue Ridge Parkway and of the new access connection to the Blue Ridge Parkway – to include aesthetic elements of the bridge carrying the Blue Ridge Parkway over Interstate 73, the areas vacated by the existing Blue Ridge Parkway connecting ramps, and any associated landscape or streetscape elements—is compatible with the historic character of the Blue Ridge Parkway.” In transmitting the executed PA to FHWA, the Advisory Council on Historic Preservation stated, “Thank you for working with us and the other parties to finalize this Programmatic Agreement so that it effectively addresses the effects of the undertaking on the Blue Ridge Parkway...”

Recognizing that the remaining comments and issues summarized and paraphrased above are in an introduction to more detailed comments, the other comments that were made and issues that were raised by VAR in their introduction are addressed below.

Comment: [paraphrase/summary] The final EIS does not include among the build options for I-73 a comprehensive upgrade of U.S. Route 220 to principal arterial standards with a design speed of between 50 and 60 mph and utilizing access management techniques to enhance the corridor's safety and capacity. Such a build option would preserve the existing Parkway access at U.S. Route 220 and would help preserve what remains of the scenic and historic integrity of Roanoke County's portion of the Parkway.

Response: The issue regarding a comprehensive upgrade of U.S. Route 220 to principal arterial standards with a design speed of between 50 and 60 mph and utilization of access management techniques has been addressed elsewhere in this document.

Comment: The proposed new access road would constitute a new "use" of the Blue Ridge Parkway, within the meaning of Section 4(f) of the Department of Transportation Act. Therefore, a Section 4(f) analysis, including consideration of a new build option for I-73 consisting of a comprehensive upgrade to U.S. Route 220 built to principal arterial standards, is required to address the foregoing concerns.

Response: FHWA has reviewed the proposed new access to the Parkway under the authority prescribed them by Section 4(f) and determined that there is no Section 4(f) use. This information was appropriately addressed in the final EIS. To summarize this information, FHWA has determined that the only possible use would be a constructive use, and the standard used by FHWA in this circumstance can be found in 23 CFR Part 771.135(p)(5)(viii). The standard established by this section of the regulation states that changes in accessibility do not constitute a Section 4(f) "use" if the change will not substantially diminish the utilization of the resource. VAR has not explained how *utilization* of the Parkway would be *substantially diminished* by the proposed change in access. If anything, VAR has made a case that the existing and planned development adjacent to the Parkway in the Clearbrook area has and will substantially diminished the historic and scenic qualities of the Parkway regardless of the future of I-73, not the new access.

Comment: [paraphrase/summary] VAR provided a description from their perspective of the existing U.S. Route 220 access to the Blue Ridge Parkway and the quality of the viewshed that drivers entering and exiting the Parkway experience. VAR concludes that the experience of entering and exiting the Parkway from U.S. Route 220 "remains reminiscent of an earlier, more bucolic era of our country's history. It is an overwhelming pleasant and vivifying experience, no matter how many times it is experienced. The existing Blue Ridge Parkway access ramps from U.S. Route 220 provide the motorist an opportunity to enter and enjoy lovely tracts of protected forest views uninterrupted by intrusions of modern development. The ramps are irreplaceable as thematically appropriate entryways into the splendor of forest, rock, field and road that is the Blue Ridge Parkway."

Response: In their comments on the draft EIS, before the new access alternatives were under consideration, the U.S. Department of the Interior (USDOI) identified the existing U.S. Route 220 crossing of the Blue Ridge Parkway as their most preferred crossing for I-73 among the alternatives under consideration. The USDOI stated that the existing U.S. Route 220 corridor

has been part of the Parkway visitor driving experience since the Parkway was constructed through the Roanoke Valley during the late 1950s and early 1960s. They acknowledged that the widening of Route 220 at this location would be more consistent with existing land use than the other four Parkway crossing locations that were under consideration.

Regarding visual impacts, VAR has drawn their conclusions about the adverse impacts to the scenic integrity of the Parkway based on what they believe Parkway visitors will experience over a very short time period lasting just seconds when entering or exiting the Blue Ridge Parkway in the Clearbrook area. This narrowly defined context for the Parkway visitors' experience has allowed VAR to draw their conclusions while ignoring the larger Parkway visitor experience through the Clearbrook area. For the draft EIS, an extensive visual impact analysis was conducted for the draft EIS as well as important visual resources within the study area such as the Appalachian Trail, Blue Ridge Parkway, Mill Mountain and Roanoke Mountain. For the visual impact assessment conducted for the draft EIS, each segment (i.e. 118C in this case) comprising each option or alternative was divided into landscape units; segment 118C was divided into four landscape units. Of these four landscape units, none were determined to be unique in terms of visual quality or the rarity of the view in the landscape unit. The landscape unit that encompasses the existing Route 220 crossing of the Blue Ridge Parkway also encompasses the future access proposed by the NPS and serves as the context for purposes of determining whether the change in access would adversely impact the visual quality ratings that were developed for the draft EIS. Regarding this landscape unit and its rating, the National Park Service made the following comment on the draft EIS: "The particular landscape unit that encompasses this geographic area is comprised of rural residences, agricultural lease lands, a major quarry operation, and the four-lane highway corridor of U.S. Route 220. The NPS reviewers concur with the statements...that this Segment 118C crossing would have a moderate to high visual impact primarily for surrounding homes. However, visual impacts to the Parkway visitor experience in this landscape unit are seen as being relatively low because this location is already dominated by highly impacting land uses including a quarry and a four-lane highway. The existing U.S. Route 220 corridor is a dominant visual element in the landscape and has directly affected the visitor's experience of the highway since the early 1960's." As acknowledged by the NPS, the visual impact of the road on the surrounding environment (the view of the road from surrounding homes) is expected to be moderate to high. Changes in the access proposed by the NPS as a result of this project are expected to have minimal impact on this rating (view of the road), especially in light of the more dominant impact from I-73 itself. Likewise, since the Parkway visitor experience in this landscape unit is already relatively low, changes in access are only expected to have a minor impact in terms of the Parkway visitor experience and aren't expected to adversely affect the current visual impact rating, which the NPS acknowledged as relatively low. Therefore, since the Parkway visitor experience in this landscape unit is already relatively low and compromised, FHWA concluded in its re-evaluation that the visual or scenic integrity of the Parkway would be minimally impacted by the new access. In contrast to the VAR approach, this is based on the visual quality analysis prepared for the EIS where visual quality as a measurement of the Parkway visitor experience was concerned about the experience over a much longer stretch of the Parkway and not just the visitor experience where that visitor enters and exits the Parkway.

The new access road, especially where it is located on Parkway property, will be designed in accordance with the NPS' design standards for the Parkway and any aesthetic and landscaping treatment will be developed in consultation with the NPS and be consistent with existing treatments.

Comment: [paraphrase/summary] VAR provided background information on why the existing access to the Blue Ridge Parkway at Route 220 is being closed and replaced elsewhere.

Response: VAR's background information is accurate but not complete. Although the NPS does not allow direct access to the Interstate from the Blue Ridge Parkway as a matter of policy, four alternatives for access to the BRP via secondary roads were developed for the final EIS. After subsequent consideration by the NPS, however, they requested that VDOT not replace access to the BRP as part of the Interstate 73 project and the alternatives were dropped from further consideration. It was VDOT's understanding at the time that the NPS' request was an effort on their part to comply with the general principles of their General Management Plan to reduce access points along the Parkway and reduce commuter traffic, which is seen as being inconsistent with the purpose of the Parkway and the intended Parkway visitor experience. The existing U.S. Route 220 access, apparently, was one of the access points that wasn't consistent with the general principles of the Parkway's Management Plan because of its use by commuter traffic. It was also VDOT's understanding that the NPS' policy to not allow direct access to the Interstate system was based on the differences in speed that exist on the Parkway and on the Interstate system making it difficult for motorists to safely transition from one to the other.

Comment: [paraphrase/summary] VAR cites problems with the Buck Mountain East and West Access alternatives. The problems that they cite relate to future commercial development in and around and in view of the new access alternatives. Regarding the Buck Mountain East alternative, VAR takes issue with the County for their unwillingness to deny requests from developers for rezoning, which has resulted in intense pressure for additional commercial development. VAR makes reference to the Clearbrook Village Overlay District and the design guidelines for that district. They accuse the County of "blatant violations" of their design guidelines and cite numerous examples of how a new automobile dealerships in the Clearbrook area violate these guidelines. VAR cites additional examples of violations and the County's lax enforcement of the overlay district's guidelines. Regarding the Buck Mountain West alternative, VAR cites additional examples of how the area around this access point is experiencing rapid residential development and development pressure. VAR concludes that the Buck Mountain corridor is an inappropriate environment in which to attempt the planning of any new access because the "entire area is a hotbed of development growth." Since construction of any Buck Mountain access is at least ten years away, there is a rather high order of probability that growth within the Buck Mountain corridor will increase significantly bringing into question whether the Buck Mountain access can be built at all. In both of their discussions on the Buck Mountain East and West access alternatives, VAR states that the merits of these alternatives, relative to the merits of the existing U.S. 220 alternative for providing access to the Parkway from Clearbrook, have not been given adequate consideration from a Section 4(f) perspective.

Response: VAR makes a compelling case that existing and future development in the Clearbrook area adjacent to the Parkway has and will continue to compromise the historic and scenic integrity of the Parkway in this area, regardless of the future of I-73. As for the applicability of

Section 4(f), this issue was addressed above. Notwithstanding, VAR has not explained the “Section 4(f) perspective” that would apply here.

Comment: [paraphrase/summary] Citing the width of the existing U.S. route 220 crossing and comparing it to the proposed width of I-73 at this location (160 feet), VAR concludes that I-73’s visual intrusion into the motorists experience of the Parkway at this point will be much worse than it is presently.

Response: This is why an adverse effect determination was made for the I-73 crossing of the Blue Ridge Parkway. In their October 21, 2004, letter to VDHR (which VAR was copied on), VDOT stated, “Given the visual alteration involved in replacing the current bridge and improving the existing roadway to interstate standards within Segment 118C of the revised ALC, the proposed undertaking would diminish the Blue Ridge Parkway’s integrity of setting and feeling. As a result, the proposed Interstate 73 Corridor project will have an adverse effect on historic properties.” The adverse effect determination is the reason a PA was subsequently developed that documents how that adverse effect would be taken into account through minimization and mitigation measures. VAR concurred in the PA on September 22, 2006.

Comment: [paraphrase/summary] VAR points out that the segment of the Blue Ridge Parkway that traverses Roanoke County has been named a “Last Chance Landscape” by Scenic America due to intensifying development patterns in Roanoke County which threaten the Parkway’s scenic values. VAR cites a *Roanoke Times* article that stated that visitors are now likely to avoid visiting portions of the Parkway where the viewshed has been intensively developed, of which Clearbrook and much of Roanoke County would be illustrative. “Intensive residential development plus intensive commercial development plus I-73’s 160-foot wide Parkway crossing plus poorly planned new Parkway access in the Buck Mountain corridor may be the “1-2-3-4 punch” that critically impairs the Blue Ridge Parkway’s scenic and historic values in Roanoke County.”

Response: As stated earlier, VAR has made a case that the existing and planned development adjacent to the Parkway in the Clearbrook area has and will substantially diminish the historic and scenic qualities of the Parkway regardless of the future of I-73. As explained above, VDOT began developing alternatives for the final EIS to provide access to the Blue Ridge Parkway off of secondary roads in the vicinity of the existing U.S. Route 220 access. However, these alternatives were dropped as the request of the NPS. It was VDOT’s understanding at the time that the NPS’ request was an effort on their part to comply with the general principles of their General Management Plan to reduce access points along the Parkway and reduce commuter traffic, which is seen as being inconsistent with the purpose of the Parkway and the intended Parkway visitor experience. The new access road, especially where it is located on Parkway property, will be designed in accordance with the NPS’ design standards for the Parkway and any aesthetic and landscaping treatment will be developed in consultation with the NPS and be consistent with existing treatments. It was also VDOT’s understanding that the NPS’ policy to not allow direct access to the Interstate system was based on the differences in speed that exist on the Parkway and on the Interstate system making it difficult for motorists to safely transition from one to the other.

Comment: VAR contends that the cumulative impact of 1) building I-73 at the existing U.S. Route 220 crossing; 2) building new Parkway access within the rapidly developing Buck

Mountain corridor; and 3) the existing threats to the Parkway's scenic values that resulted in the Roanoke County portion being named a Last Chance Landscape will result cumulatively in a net negative impact to the Parkway's scenic and historic integrity that should be given careful consideration in a Section 4(f) analysis.

Response: Regarding cumulative impacts as they relate to Section 4(f), Section 4(f) only applies to FHWA actions. FHWA did address Section 4(f) in the final EIS as it relates to the I-73 crossing of the Blue Ridge Parkway and the change in access. Because there is no "use" of the Parkway, a Section 4(f) analysis is not required. Existing threats to the Parkway's scenic values that resulted in Roanoke County's portion of the Parkway being named a Last Chance Landscape are not FHWA actions and would not be subject to a Section 4(f) analysis. Notwithstanding, the final EIS did address cumulative impacts to the Blue Ridge Parkway but not as a Section 4(f) issue.

Comment: [paraphrase/summary] VAR questions whether I-73 can be constructed through Clearbrook while simultaneously avoiding the historic Clearbrook Elementary School and the Blue Ridge Parkway, contending that either one or the other of these two historic resources is likely to be directly used in the construction of I-73. VAR points out that they requested schematic drawings of the Clearbrook section of I-73 as a way to determine if I-73 can actually be built on the existing right-of-way through the Clearbrook area. According to VAR, requests for schematics were ignored.

Response: VAR's request for "schematics" was addressed by FHWA in an e-mail to Ms. Rogers of VAR on July 14, 2005. As part of that e-mail, FHWA attached a figure of the typical section for the I-73 crossing of the Blue Ridge Parkway developed by VDOT's consultant, showing that I-73 could be accommodated by the existing 160 foot right-of-way. This is the same information that appears in Figure 2.6-8 of the final EIS, and FHWA has made a commitment to utilize this typical section for the I-73 crossing of the Blue Ridge Parkway. However, FHWA has not said or made a commitment to build I-73 "on the existing right-of-way through the Clearbrook area." Instead, VDOT has committed to not acquire any property from Clearbrook Elementary School by maintaining the existing right-of-way limits in front of the school. In the July 14, 2005, e-mail, FHWA acknowledged that "right-of-way might be needed on the other side of Route 220 as the as the alignment is kept off of school property."

Comment: [paraphrase/summary] The remainder of VAR's comments address 'alternatives not considered in the final EIS' and other related issues, which is a reiteration of the comments that they made elsewhere and are documented above.

Response: The issues raised by VAR related to other alternatives have already been addressed above and require no further response.

Change in Critical Accident Rates on U.S. 220 Comments:

Comment: [paraphrase/summary] VAR cites a report prepared by independent consultant, John Moore, in 2003 on access management in the Route 220 corridor that compares, in part, the safety issues, accident rate index, accidents, fatalities, and injuries included in the 1994 Route 220 Safety Report to the 2000 VDOT I-73 Location Study Traffic and Transportation Technical Memorandum. VAR quotes from Mr. Moore's report and emphasizes the conclusion: "Transportation System Management (TSM) improvements are effective in improving safety and

reducing accidents.” VAR concludes that the evidence provides a clear indication that minimal TSM and No-Build projects completed in high accident rate areas worked as planned.

Response: Conclusions regarding the effectiveness of TSM measures to address safety issues on U.S. Route 220 are acknowledged in the responses to comments on the draft EIS that are included in the final EIS (see responses to Bamford, Bier, and Foster to name a few). However, these same responses point out that safety is only one component of the project’s purpose and need and they address the ability, or lack there of, of the TSM Alternative to address the other components of the purpose and need.

Re-evaluation Comments:

Comment: [paraphrase/summary] There is a park focusing on an area around the Pigg River Dam that is being planned by Franklin County. Assuming that the Pigg River recreational development project is a future Section 4(f) resource, FHWA has not given consideration to impacts that building I-73 less than a mile from the project will have on the plans to use that area.

Response: Planned recreational areas or public parks are not subject to the provisions of Section 4(f). Notwithstanding, an article about the park that appeared in the *Richmond Times Dispatch* on March 11, 2007, pointed out that federal funding for the park is contingent upon studies demonstrating that the park will not impact the Roanoke logperch. Further, as stated in the final EIS, the ALC crossing of the Pigg River will be located approximately 14,000 feet downstream of the dam as measured along the stream channel.

L. Decision

Based on the information provided and the reasons cited, the alternative selected by FHWA for the Interstate 73 Location Study is the alternative selected by the CTB and identified in the final EIS as the ALC and depicted in Figure 2.6-6. The adopted location corridor consists of segments 374, 375, 118C, 118, 118B, 400, 153, 202A, 385, 369, 373, 333 and 398. The alternative would be a limited access facility constructed to principal arterial design standards for a freeway. It would consist of a 5.7 mile segment on existing Interstate 581 along with a 66.01 mile section on new location.

Date

Roberto Fonseca-Martinez
Division Administrator

Response: Conclusions regarding the effectiveness of TSM measures to address safety issues on U.S. Route 220 are acknowledged in the responses to comments on the draft EIS that are included in the final EIS (see responses to Bamford, Bier, and Foster to name a few). However, these same responses point out that safety is only one component of the project's purpose and need and they address the ability, or lack there of, of the TSM Alternative to address the other components of the purpose and need.

Re-evaluation Comments:

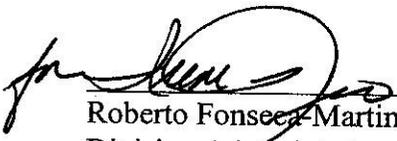
Comment: [paraphrase/summary] There is a park focusing on an area around the Pigg River Dam that is being planned by Franklin County. Assuming that the Pigg River recreational development project is a future Section 4(f) resource, FHWA has not given consideration to impacts that building I-73 less than a mile from the project will have on the plans to use that area.

Response: Planned recreational areas or public parks are not subject to the provisions of Section 4(f). Notwithstanding, an article about the park that appeared in the *Richmond Times Dispatch* on March 11, 2007, pointed out that federal funding for the park is contingent upon studies demonstrating that the park will not impact the Roanoke logperch. Further, as stated in the final EIS, the ALC crossing of the Pigg River will be located approximately 14,000 feet downstream of the dam as measured along the stream channel.

L. Decision

Based on the information provided and the reasons cited, the alternative selected by FHWA for the Interstate 73 Location Study is the alternative selected by the CTB and identified in the final EIS as the ALC and depicted in Figure 2.6-6. The adopted location corridor consists of segments 374, 375, 118C, 118, 118B, 400, 153, 202A, 385, 369, 373, 333 and 398. The alternative would be a limited access facility constructed to principal arterial design standards for a freeway. It would consist of a 5.7 mile segment on existing Interstate 581 along with a 66.01 mile section on new location.

3-30-07
Date


Roberto Fonseca-Martinez
Division Administrator