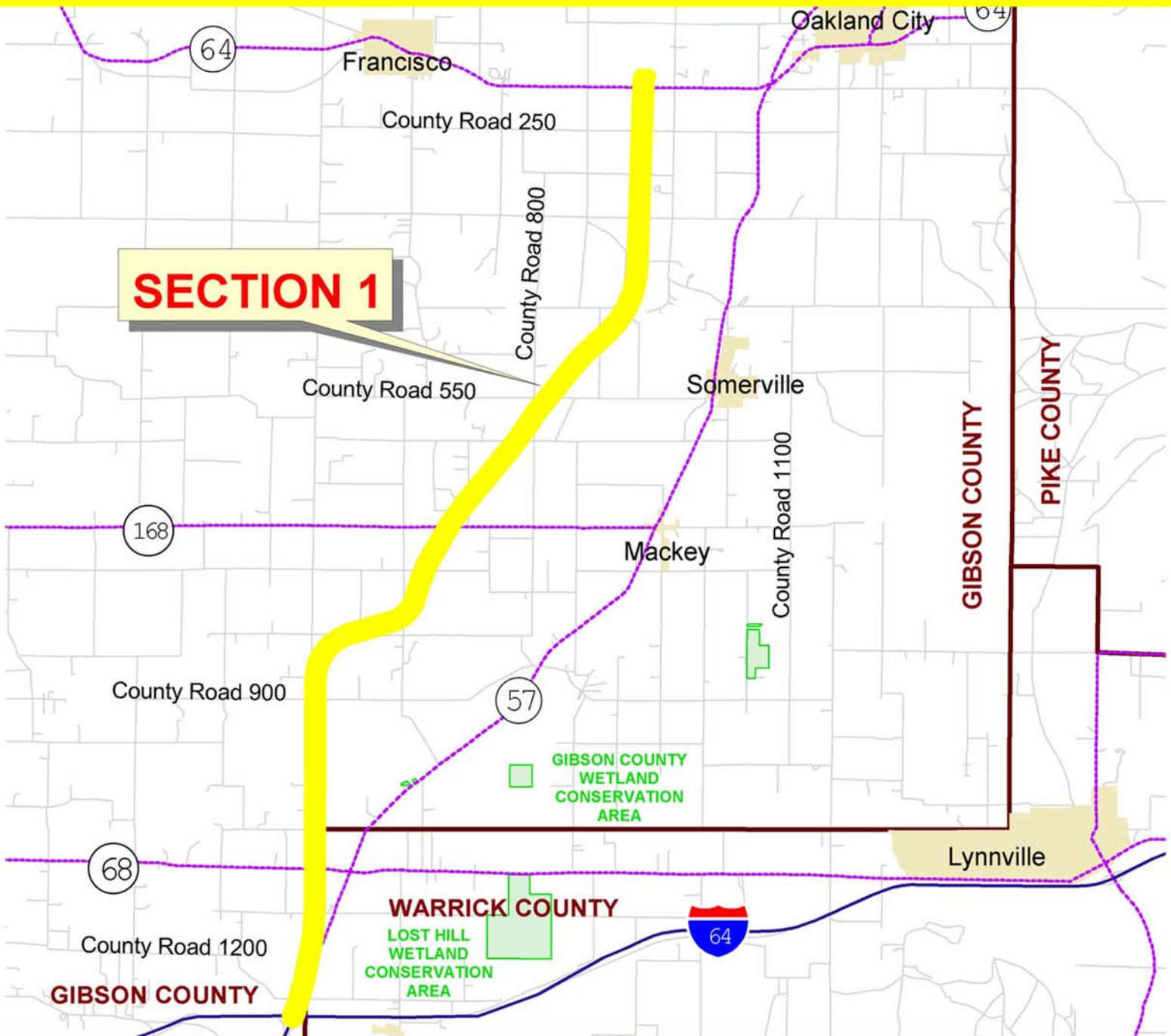


# TIER 2 RECORD OF DECISION

## I-69 Evansville to Indianapolis, Indiana

### Section 1: Evansville to Oakland City



December 12, 2007



FHWA-IN-EIS-06-01-F

**I-69 Evansville to Indianapolis, Indiana**

**Tier 2 RECORD OF DECISION**  
**Section 1: Evansville to Oakland City**

U.S. Department of Transportation  
Federal Highway Administration

**December 12, 2007**



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## **1.0 BACKGROUND**

### **1.1 Evansville-to-Indianapolis Section of I-69**

In March 2004, the Federal Highway Administration (FHWA) issued a Tier 1 Record of Decision (ROD) for the Evansville-to-Indianapolis section of I-69. In the Tier 1 ROD it was determined to build an interstate highway, I-69, between Evansville and Indianapolis, Indiana, and selected a “corridor,” Alternative 3C, in which to build the highway. The corridor is generally 2,000 feet in width but narrower in some places and broader in others. The Tier 1 ROD also divided the Evansville-to-Indianapolis project into six separate sections for more detailed Tier 2 studies. The southernmost of these six sections is Section 1, which extends from the I-64/I-164/SR 57 interchange, north of Evansville, to approximately one-half mile north of SR 64 near Oakland City. The proposed action addressed in this ROD is the completion of an Interstate highway within Section 1 of the approved I-69 Tier 1 corridor.

### **1.2 Tiered Approach**

FHWA initiated the Tier 1 study on January 5, 2000, with the publication of a Notice of Intent in the *Federal Register*. In the Tier 1 portion of the study (which was concluded with the Tier 1 ROD), the “big picture” issues were addressed on a corridor-wide basis, while taking into account the full range of impacts. The Tier 1 ROD approved a corridor for this project and approved termini for Tier 2 sections. Individual Tier 2 National Environmental Policy Act (NEPA) studies are being conducted to determine an exact alignment for the project in each of the six Tier 2 sections.

The Tier 2 study in Section 1 was initiated April 29, 2004, when FHWA published a Notice of Intent in the *Federal Register* to advise that a Tier 2 Environmental Impact Statement (EIS) would be prepared for Section 1 of the I-69 Evansville-to-Indianapolis project. This document is the ROD for Tier 2 Section 1.

## **2.0 DECISION**

The proposed action in the I-69 Tier 2 EIS for the I-69 Section 1 project involves the completion of an Interstate highway from approximately I-64 north of Evansville to SR 64 near Oakland City. Section 1, approximately 13.1 miles in length, extends through Warrick and Gibson Counties, Indiana.

The Selected Alternative for Section 1 is Alternative 4 (see Figures 1A–1C, pp. 3–5), as described in the *I-69 Evansville to Indianapolis, Indiana, Tier 2 Final Environmental Impact Statement, Evansville to Oakland City* (FEIS) issued in October 2007. As further detailed below, this ROD also determines the location of interchanges, grade separations, and mitigation measures for Section 1.

This ROD is executed in conformance with the Council on Environmental Quality (CEQ) regulations implementing the NEPA and documents FHWA compliance with NEPA and all other applicable Federal statutes, regulations, and requirements. This decision is based on analyses contained in the Draft Environmental Impact Statement (DEIS) issued in December 2006; the FEIS issued October 17, 2007; the comments of federal and state agencies, members of the public, and elected officials; and other information in the project record. In the event of any differences in wording, the ROD takes precedence over the FEIS.

## **2.1 Selected Alternative**

### **2.1.1 Selection of Alternative 4**

The DEIS recommended **Alternative 4** as the preferred alternative. Modifications made to the alternative subsequent to and resulting from the DEIS public comment period included providing a break in the access control west of the I-69/SR 68 interchange to retain the SR 68/CR 525E intersection, and locating an overpass on CR 650E rather than CR 825S. These modifications were identified and evaluated in the Tier 2 Section 1 FEIS, published in October 2007.

The Section 1 FEIS sufficiently describes the development and evaluation of alternatives (Chapters 3 and 6), the affected environment (Chapter 4), potential environmental consequences of the proposed project (Chapter 5), proposed mitigation (Chapter 7), and coordination with regulatory agencies and comments from the agencies and the public (Chapter 11).

FHWA and the Indiana Department of Transportation (INDOT) have provided opportunities for government agency and public involvement in the development of the EIS documentation. Several opportunities and methods were used to involve the public and agencies in the study (see FEIS Chapter 11, *Comments, Coordination and Public Involvement*). The staffing of a local project office, project newsletter, hotline, website, outreach meetings, and other means were used to solicit input. Public and agency input was also sought at key milestones in this Tier 2 study, including a public hearing on the DEIS. Both the DEIS and FEIS were made available for public review. The comments received on the DEIS have been adequately addressed in the FEIS. Although comments were not solicited on the FEIS, two were received and are addressed in this ROD (see Section 7.0 and Appendix D).

### **2.1.2 Location of Section 1 Corridor and Selected Alternative—Alternative 4**

The Tier 1 ROD approved a corridor (Alternative 3C) for I-69 between I-64 north of Evansville and I-465 south of Indianapolis and divided the project into six sections. The location of Alternative 4 is substantially within Section 1 of the Alternative 3C corridor. Alternative 4's southern terminus is the I-64/I-164/SR 57 interchange north of Evansville and its northern terminus is approximately one-half mile north of SR 64 near Oakland City, a distance of approximately 13.1 miles. The Section 1 project corridor extends through Warrick and Gibson Counties, Indiana, with the majority of the corridor being in Gibson County. The Section 1 FEIS, Section 1.3, describes the Section 1 corridor in detail. Figures 1A – 1C (pp. 3 - 5) show the location of the corridor and Alternative 4.

### **2.1.3 Variations in Corridor Width**

In Section 1, the corridor generally retains the 2,000 foot width identified during the Tier 1 study; however, in accordance with the Tier 1 decision to minimize impacts at the crossing of Pigeon Creek, the corridor was narrowed to approximately 550 feet as it crosses Pigeon Creek to avoid and minimize impacts to forested areas and wetlands.



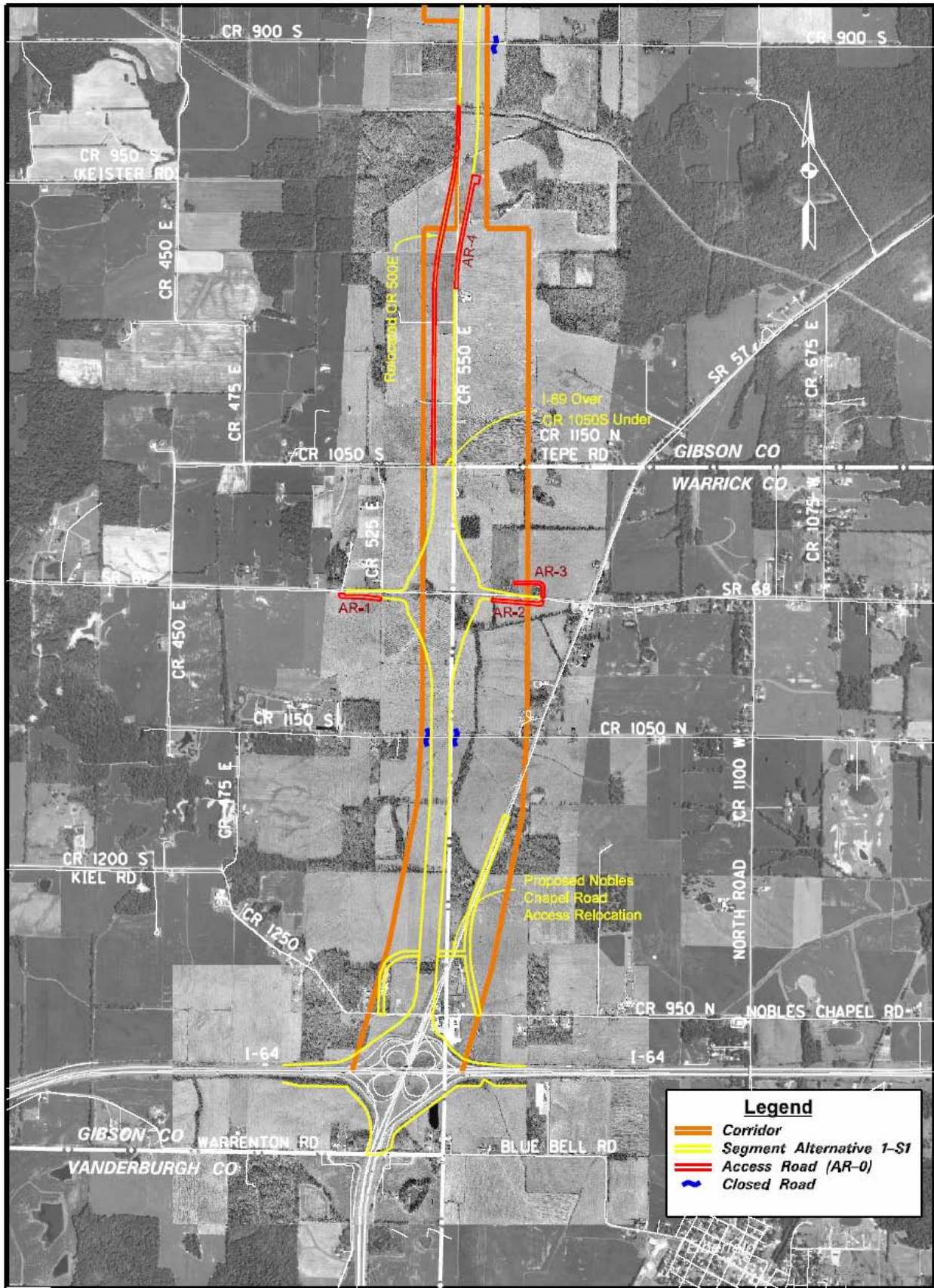


Figure 1A — I-69 Section 1: Selected Alternative 4, South Segment

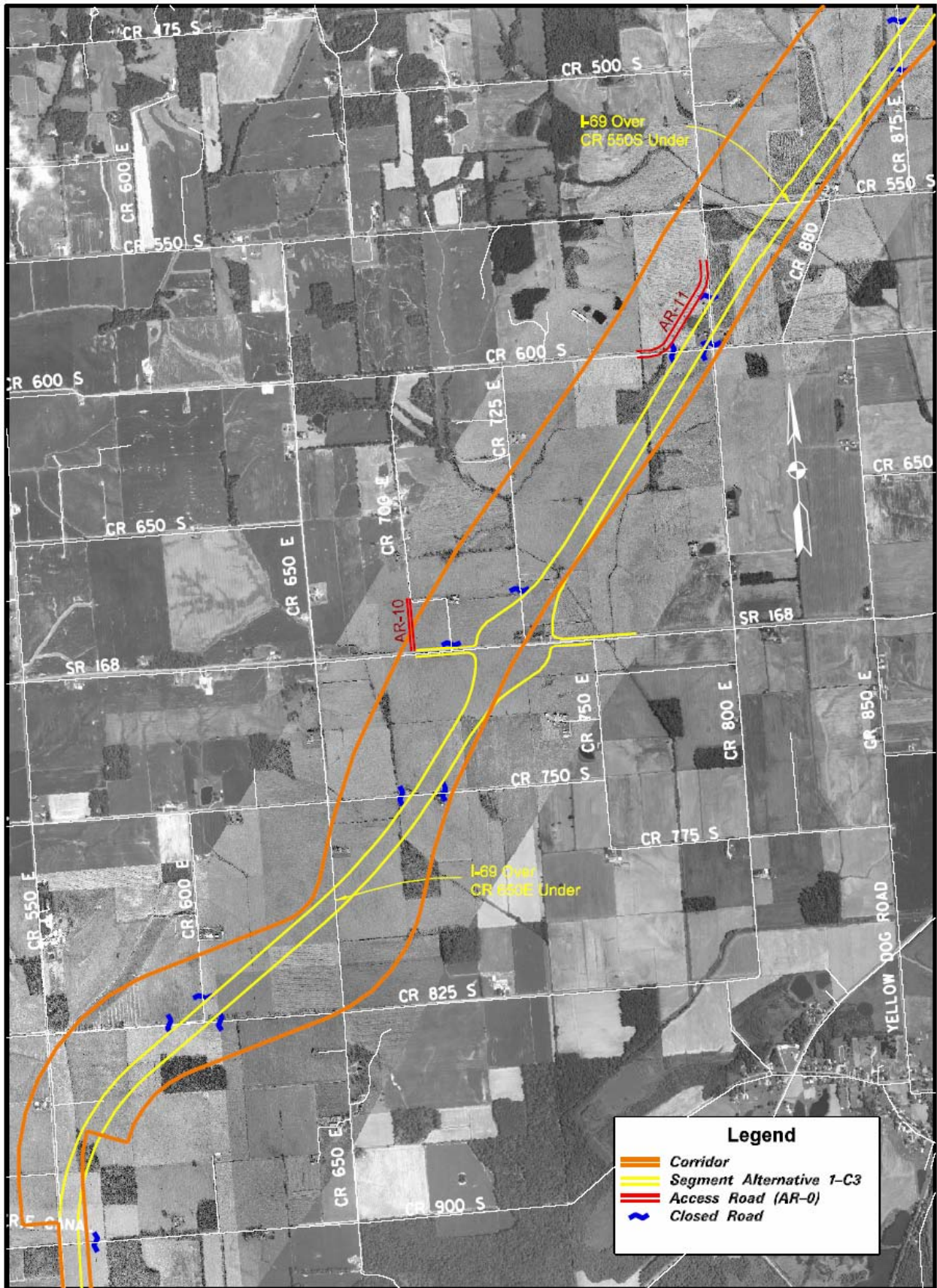


Figure 1B — I-69 Section 1: Selected Alternative 4, Central Segment

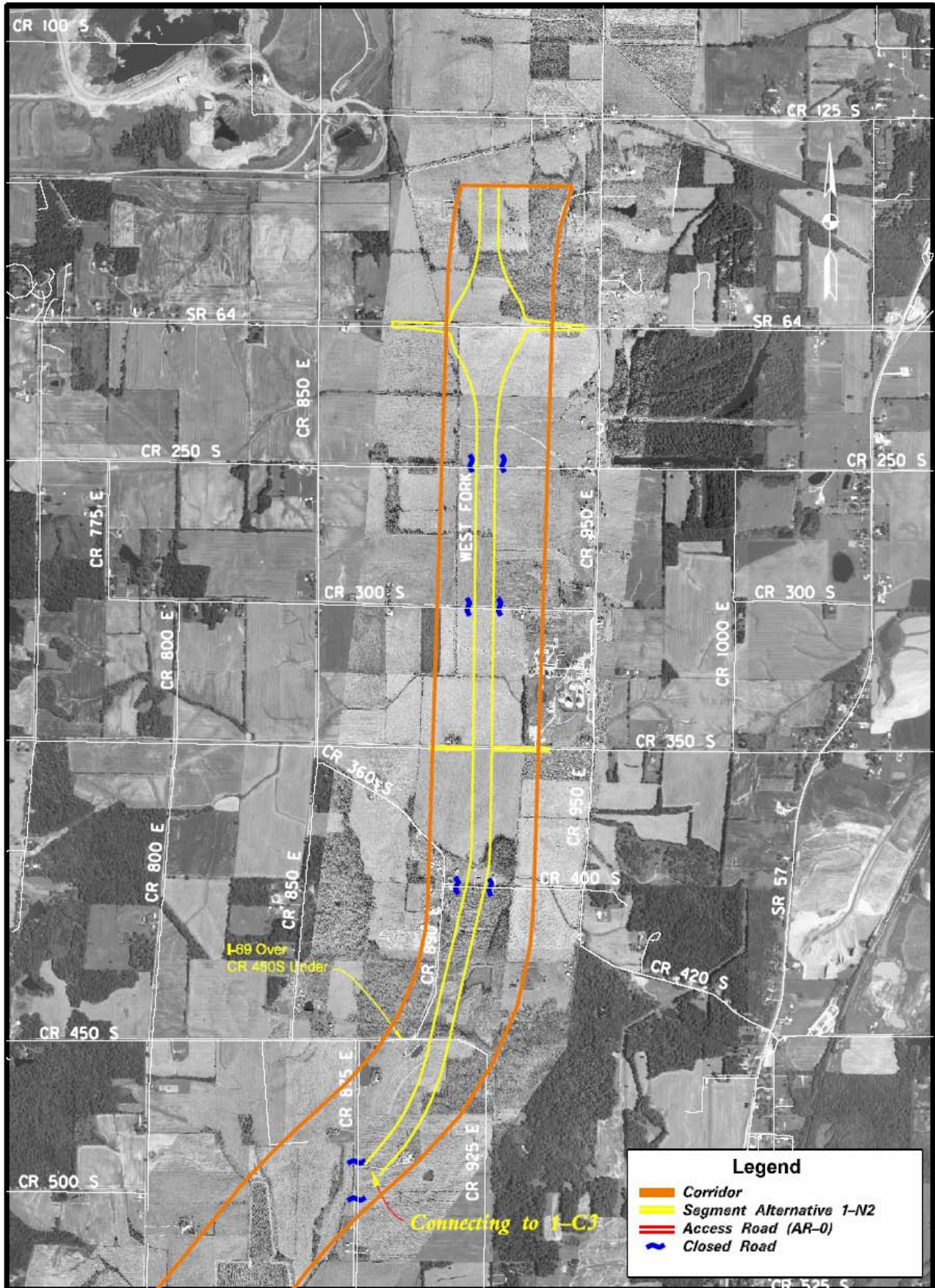


Figure 1C — I-69 Section 1: Selected Alternative 4, North Segment

#### **2.1.4 Typical Cross Sections**

The environmental impact calculations in the FEIS were based on the typical cross sections contained in the FEIS (see Vol. I,<sup>1</sup> Chapter 3, *Alternatives*). In Section 1, the typical cross section employed for the analysis in the FEIS has an approximately 350-foot-wide right-of-way within which are two 12-foot-wide travel lanes in each direction separated by a depressed median that includes paved inside shoulders. To the outside of each pair of travel lanes there is an outside clear zone<sup>2</sup> containing paved shoulders. In addition to this footprint required for the roadway, median and shoulders, land is provided for cut and fill slopes, right-of-way fencing and maintenance. Typical sections are also assumed for other roads that affect freeway interchanges and grade separations. Typical sections are depicted on FEIS Figures 3-6A through 6-G in Chapter 3. Typical sections are for impact estimation purposes only. Final design will be in compliance with the Indiana Design Manual and other applicable standards and specifications.

#### **2.1.5 Interchanges, Overpasses, and Access Roads**

The Tier 1 FEIS identified potential interchange locations in Section 1 at State Road (SR) 68, SR 168, and SR 64, and potential grade separations at County Road (CR) 650E, CR 550S, and CR 350S. These locations were identified in the Tier 1 study for the purpose of estimating potential impacts, benefits, and costs. Decisions regarding the number and location of interchanges and grade separations were not made in the Tier 1 ROD, which stated that such decisions would be made in Tier 2.

The interchanges and grade separations identified in Tier 1 are also proposed in the Tier 2 Section 1 FEIS. Additional grade separations are included at the following locations: relocated Nobles Chapel Road, CR 1050N (Tepe Road), and CR 450S.

Access roads are proposed in several locations where road closures are required; and, in some instances, local roads would be relocated or have sections realigned (see Table 5, p. 14). These elements may be modified as a result of detailed design. This may include the elimination of access roads where it is determined that it is more economically feasible to purchase the landlocked parcels during the right-of-way acquisition process.

This ROD approves the locations of the interchanges, grade separations, and access roads (which include new roads, road relocations, and realignments) that are features of Alternative 4.

#### **2.1.6 Property Acquisition**

This ROD approves the use of federal funds for property acquisition for the project. This ROD will require federally funded acquisition of property for mitigation purposes, as described in Section 5.0, herein.

INDOT has already commenced right-of-way acquisition activities, as follows:

- Acquisition of right-of-way on the 28 parcels affected within the first two miles of Section 1 has resulted in the following activity: as of December 5, 2007, 19 parcels had been acquired.

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<sup>1</sup> Unless otherwise noted, all references to the Tier 2 Section 1 FEIS are to Volume I.

<sup>2</sup> A clear zone is the unobstructed, relatively flat area provided beyond the edge of the traveled way. The clear zone is intended to allow errant vehicles to stop or maneuver without striking any fixed objects. The clear zone includes any shoulders and auxiliary lanes.

- The acquisition of mineral rights is being pursued from two coal companies. Where the mineral rights of individual property owners have been retained by the property owners, the mineral rights will be acquired as part of the fee simple acquisition of their property.

Acquisition of these properties, with state funds only, did not influence the decisions for the project including the need to construct the project, the consideration of alternatives, and the selection of the design or location.

### **2.1.7 Rest Areas**

As stated in the Tier 1 ROD, the number and locations of rest areas will be determined in Tier 2. During the Section 1 Tier 2 study, the need for rest areas was not identified in Section 1.

## **2.2 Mitigation**

This ROD approves and directs the implementation of the mitigation measures listed in the Section 1 FEIS, Chapter 7, *Mitigation and Commitments*. FHWA will support efforts, in cooperation with INDOT and applicable resource agencies, to ensure the timely implementation of these measures. Mitigation measures implemented pursuant to this ROD (including land acquisition) shall be eligible for federal funding, subject to prior approval by FHWA. See Section 5.0, *Measures to Minimize Harm*, herein, for further discussion of mitigation.

Some of the mitigation measures involve a commitment to specific design features (e.g., wildlife crossings in the vicinity of Pigeon Creek, south of CR 600S, and at CR 450S) or mitigation activity (e.g., mitigating for forest lands at a 3 to 1 ratio). Other measures involve a commitment to conduct further analysis (e.g., the completion of archaeological Phase Ic investigations at two locations). For activities directly related to the quantity of impacts, the Tier 2 Section 1 FEIS Chapter 7 identifies mitigation quantities specific to impacts determined in the Tier 2 Section 1 study. Mitigation quantities are based on ratios determined during Tier 1 and Tier 2 consultation with regulatory agencies and agreed to in the Tier 1 and Tier 2 Records of Decision. Mitigation measures are identified in Section 5.0, herein, and are summarized on the Commitments Summary Form in Appendix A.

Detailed design will continue to make efforts to further reduce impacts to sensitive resources. When this is determined possible without reducing the performance of the Selected Alternative or increasing impacts to other sensitive resources and in consultation with the appropriate resource agencies, mitigation quantities may be reduced but the agreed to ratios shall be maintained. Impacts to these resources and mitigation will be tracked and reported to the appropriate resource agencies on an annual basis.

## **3.0 ALTERNATIVES CONSIDERED**

The range of alternatives in the second tier of a tiered NEPA study is circumscribed by the decisions reached in Tier 1. The Tier 2 alternatives are substantially located within the 2,000-foot-wide corridor established in the Tier 1 ROD. This section of the Tier 2 ROD briefly describes the Purpose and Need for the proposed action, the alternatives evaluation procedures, the alternatives considered, and the balancing of values that formed the basis for the decision to select Alternative 4. FEIS Section 3.2, *Development of Alternatives*, describes in detail the scoping process, the development of alternative roadway alignments, and the identification of interchange locations and configurations within the approved corridor for Section 1.

In the Section 1 Study Area, the transportation performance goals identified in the Tier 2 study include the improvement of accessibility, a reduction in congestion, and an improvement in safety. Economic development goals evaluated the role of the transportation system in leading to enhanced economic growth. FEIS Section 2.5, *Project Goals and Performance Measures*, gives the specific performance goals and associated performance measures. The Tier 2 scoping process defined the range of alternatives to be considered and the process to be used to address potential environmental impacts. The scoping of alternatives included extensive opportunities for public and government agency input.

All alternatives developed in the Tier 2 study in Section 1 were located substantially within the approved corridor, and all have interchanges at the same three state highways—SR 68, SR 168, and SR 64. As the analysis in the FEIS shows (see Section 3.3, *Detailed Performance Analysis of Alternatives*), alternatives in Section 1 all provide a significant improvement with regard to these project goals, and do so in nearly an identical manner. Likewise, the similarity among the estimated cost ranges of the alternatives precluded using cost as a significant factor in distinguishing among alternatives. Accordingly, the primary tools used to screen alternatives and identify a Selected Alternative were the analyses of the potential social, economic, and environmental impacts; public input; and engineering design standards<sup>3</sup>.

### **3.1 Purpose and Need**

The overall Purpose and Need for the I-69 Evansville-to-Indianapolis project was established in the Tier 1 EIS and Tier 1 ROD. The overall project Purpose and Need was based on regional goals for the entire Southwest Indiana region, which includes 26 counties and encompasses a quarter of the State of Indiana. These broad regional goals were used as the basis for evaluating alternatives in Tier 1, when the alternatives analysis involved comparing different corridors 140 to 160 miles in length spread across a broad geographic area. The Tier 1 ROD determined that the Tier 2 Purpose and Need would primarily focus on local needs specific to individual sections.

The purpose of the Tier 2 Section 1 project is to advance the overall goals of the I-69 Evansville-to-Indianapolis project in a manner consistent with the commitments in the Tier 1 ROD, while also addressing local needs identified in the Tier 2 process.

Local needs identified in Tier 2 for Section 1 are based upon and supportive of the project Purpose and Need and broad, regional goals developed in the Tier 1 study. The local needs were identified primarily through an extensive public involvement process that included comments from the general public, local officials, local business owners/managers, members of the Section 1 Community Advisory Committee (CAC), and others. The identified needs include:

- Complete Section 1 of I-69 as determined in the Tier 1 ROD
- Increase personal accessibility for area residents
- Reduce existing and forecasted traffic congestion
- Improve traffic safety
- Support local economic development initiatives

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<sup>3</sup> An example of the use of engineering design standards in the evaluation of alternatives occurs in the Central Segment of the Section 1 corridor. Alternative 1-C1 was eliminated in part because of reverse curves in the alignment that were absent from the alignment of Alternative 1-C3. A reverse curve, as found in Alternative 1-C1, may contribute to driver error, and generally is regarded as an undesirable design feature, especially on high speed freeways.

These needs are defined in greater detail in the FEIS Section 2.3, *Needs Assessment*. The public involvement process is described in detail in FEIS Chapter 11, *Comments, Coordination and Public Involvement*. The Selected Alternative—Alternative 4—developed in Section 1 addresses the overall goals of Tier 1 and the local needs identified in the Tier 2 study.

The purpose and need analysis and traffic forecasts in the Section 1 FEIS used Version 4 of the Indiana Statewide Travel Demand Model (ISTDM v. 4) (see FEIS Section 3.1.2, *Traffic Modeling*). ISTDM v. 4 was produced in 2004. Its assumptions about new projects which would be built by the forecast year of 2030 were based on the then-current INDOT Long Range Transportation Plan. In June, 2007, INDOT issued its 2030 Long Range Plan 2007 Update. This Update modified the list of committed projects scheduled to be built by the Year 2030. Appendix B to this ROD contains a technical memorandum analyzing the effects which these changes in assumptions would have on traffic forecasts used in Section 1's FEIS. This memorandum shows that the differences in forecasts due to the changes in future year projects are negligible, and not statistically significant.

## **3.2 Identification and Evaluation of Alternatives**

For purposes of reference and analysis, the Section 1 corridor was divided into three segments referred to as South (S), Central (C), and North (N). All alternatives developed in the Tier 2 study in Section 1 were located substantially within the Tier 1-approved corridor,

### **3.2.1 Preliminary Alternatives**

Preliminary alternatives developed within each segment are consistent with both INDOT's *Design Manual (IDM)* and the American Association of Highway and Transportation Officials' (AASHTO) *A Policy on Geometric Design of Highways and Streets*. FEIS Chapter 3, *Alternatives*, describes the alternatives development, evaluation, and screening process in detail.

In the initial stage of the alternatives' development process a computer-aided engineering alignment tool—Quantm—was used to help generate alternatives within the approved I-69 corridor. Some of the cost and impact minimizing alternatives generated by Quantm were used as a beginning point and were refined to obtain alignments that had the desired horizontal geometry while taking into account social, economic, and other non-construction cost-related considerations.

The preliminary alternatives developed through this process included mainline alignments in each of the three corridor segments (four in the South, three in the Central, and four in the North), and five options for the proposed I-64/I-164/I-69 interchange. The locations of the other interchanges in Section 1—SR 68, SR 168, and SR 64—had been proposed in the Tier 1 study and confirmed in the Tier 2 study.

All of the preliminary alternatives in Section 1 had the same beginning and ending points, had interchanges with the same crossroads at approximately the same location, and were relatively similar in length. Each alternative satisfied the Purpose and Need for the project, and did so in a virtually identical manner. As noted above, the primary tools used to screen alternatives were the analyses of the potential social, economic, and environmental impacts; public and resource agency input; and engineering design standards.

### 3.2.2 Alternatives Carried Forward

As a result of the evaluation and screening process, seven segment alignments and three I-64/I-164/I-69 interchange options were carried forward for detailed study. The alternatives carried forward are identified in Table 1. The mainline segment alignments and interchange options are depicted in the Tier 2 Section 1 FEIS in Figures 3-23 through 3-29 and Figures 3-18 through 3-20, respectively.

**Table 1: Alternatives Carried Forward**

MAINLINE ALTERNATIVES	
<p><b>South Segment</b></p> <p>...begins I-164 at the Blue Bell Road-Warrenton Road overpass, just south of the I-64 interchange, and goes to an east-west line approximately 900 feet north of Pigeon Creek. Features of the alternatives include an interchange with I-64/I-164, an overpass at Tepe Road, an interchange with SR 68, and a wildlife crossing in the vicinity of Pigeon Creek. All alternatives bridge a tributary to Pigeon Creek and Pigeon Creek.</p>	
<p><b>Alternative 1-S1</b> (3.94 miles)</p>	Alternative 1-S1 is parallel to and immediately west of the right-of-way of Gibson CR 550E, which will be relocated to the west of Alternative 1-S1.
<p><b>Alternative 1-S3</b> (3.95 miles)</p>	Farther east than Alternative 1-S1. It is parallel to and east of the right-of-way of CR 550E. It allows the entire length of CR 550E to remain open to traffic without relocation of the roadway.
<p><b>Central Segment</b></p> <p>...begins at the north terminus of the South Segment and continues northeast to an east-west line approximately 3,000 feet south of Gibson CR 450S. An interchange with SR 168 and bridges over CR 650E and CR 550S are features of the alternatives.</p>	
<p><b>Alternative 1-C1</b> (5.47 miles)</p>	Initially follows the center of the corridor with a series of reverse curves, and then follows a straight alignment along the western edge of the corridor to its transition to the North Segment.
<p><b>Alternative 1-C3</b> (5.46 miles)</p>	Eliminates the reverse curves in Alternative 1-C1. It curves directly to the northeast, follows a straighter alignment than Alternative 1-C1, and stays in the most eastern portion of the corridor.
<p><b>North Segment</b></p> <p>... begins at the north terminus of the Central Segment and continues north to the northern terminus of Section 1 approximately one-half mile north of SR 64 in Gibson County. An overpass on CR 350S and an interchange with SR 64 are features of all alternatives.</p>	
<p><b>Alternative 1-N1</b> (3.65 miles)</p>	Westernmost alignment and requires the closure of a portion of CR 890E. It runs adjacent to and crosses West Fork Keg Creek. CR 450S would overpass I-69.
<p><b>Alternative 1-N1 Modified</b> (3.61 miles)</p>	Same alignment as Alternative 1-N1 except south of CR 400S, where Alternative 1-N1's alignment was modified to shift eastward, leaving CR 890E open. The alternative overpasses CR 450S and provides a wildlife crossing.
<p><b>Alternative 1-N2</b> (3.62 miles)</p>	Approximately in the center of the corridor and avoids CR 890E. The alternative overpasses CR 450S and provides a wildlife crossing.
I-64/I-164/I-69 INTERCHANGE OPTIONS	
<p><b>Option 1</b></p>	Minor modification to existing interchange.
<p><b>Option 2</b></p>	Rebuild west half of existing interchange.
<p><b>Option 3</b></p>	Rebuild cloverleaf interchange on new location.



Table 2 provides a comparison of the impacts of the segment alternatives that received detailed evaluation in the DEIS. Note: Alternative 1-S1 data incorporates Interchange Option 2, and Alternative 1-S3 data incorporates Interchange Option 3. Linking Option 2 to Alternative 1-S3 would result in significant right-of-way impacts. The combination of Option 3 and Alternative 1-S3 would avoid these impacts; therefore, Option 3 was carried forward as a component of Alternative 1-S3. The combination of Option 2 and Alternative 1-S1 also would avoid these impacts and would be less costly to construct. For these and other reasons (see Section 3.3, *Selected Alternative—Alternative 4*, herein), Interchange Option 2 was carried forward as a component of Alternative 1-S1. (See FEIS Section 3.4.2, *Interchange Options*, for additional discussion.)

**Table 2: Comparative Impacts Summary—Section 1 Segment Alternatives**

EVALUATION FACTORS	1-S1	1-S3	1-C1	1-C3	1-N1	1-N1 Modified	1-N2
Length (Miles)	3.94	3.95	5.47	5.46	3.65	3.61	3.62
Approximate Right-of-Way (AC)	234	232	285	281	204	203	205
Estimated Total Cost Range (Year 2010 dollars) – Excludes mitigation***	\$88,820,000 - \$92,620,000	\$89,650,000 - \$93,550,000	\$65,510,000 - \$68,490,000	\$63,940,000 - \$66,850,000	\$61,800,000 - \$64,530,000	\$62,910,000 - \$65,780,000	\$54,670,000 - \$57,160,000
<b>Environmental Consequences</b>							
Residential Relocations	6	5	6	6	8	6	6
Commercial / Farm Displacements	0 / 1	0 / 0	0 / 0	0 / 1	1 / 1	0 / 0	0 / 0
Farmland Required (AC)	205	203	249	246	179	178	179
Floodplain (AC)	15.1	14.7	20.8	20.6	0	0	0
Wetlands (AC): Emergent & Forested	0.67	0.67	0.01	0.11	0.12	0.28	0.41 or 0.57 *
Jurisdictional Streams (LF): LF within right-of-way / (Relocation)	5,755 / (400)	6,730 / (2,000)	8,135 / (2,700)	6,725 / (1,155)	10,540 / (650)	9,980 / (650)	4,235 / (240) or 3,035 / (240) *
Open Water Impacts (AC)	0	0	0	0.22	0.02	0.36	0.7 or 0.5*
Historic: NRHP Listed / Eligible	0	0	0	0	0	0	0
Archaeological**:NRHP Listed / Eligible	**	**	**	**	**	**	**
Hazardous Materials (Potential Sites)	1	1	2	1	0	0	0
Utility Impacts (Major) (LF)	0	3,000	0	0	600	600	0
Forest: Upland Forest (AC)	7.0	15.4	4.5	4.2	23.0	12.0	16.3 or 16.2 *
Core Forest Direct Impact (AC)	0	0	0	0	1	0	0
Core Forest Reduction (AC)	0	0	0	0	8	0	1
<i>Abbreviations Key: LF = Linear Feet AC = Acres NRHP = National Register of Historic Places</i>							
<i>Green denotes components of the Selected Alternative—Alternative 4.</i>							
<i>* N2 connecting with either Alternative 1-C1 or 1-C3 (Selected Alternative). If not separately identified, both are the same.</i>							
<i>** The Phase Ia reconnaissance conducted for Section 1 did not locate any sites eligible for listing in the National Register of Historic Places. Phase Ic survey has been completed on one of three sites selected for this level of investigation. Because access to the other two properties has been denied, the Phase Ic surveys will be completed following right-of-way acquisition. A Memorandum of Agreement between FHWA and the Indiana SHPO has been prepared stipulating procedures that would be followed should a site(s) be found eligible for NRHP listing. See FEIS Section 5.14.2.4, "Summary of Archaeological Resources in Study Corridor," for discussion of the archaeological surveys conducted for Section 1.</i>							
<i>*** Mitigation cost estimates were not used to evaluate alternatives within segments because some mitigation measures cannot be segmented and provide meaningful data.</i>							

These segment alternatives may be combined to form eight build alternatives that extend from the southern terminus of Section 1 at I-64 to the northern terminus approximately one-half mile north of SR 64. Table 3 identifies the build alternatives and the combination of interchange options and segment alternatives of which they are composed.

**Table 3: Section 1 Build Alternatives**

ALTERNATIVE	COMBINATION	LENGTH (Miles)	TOTAL COST RANGE (Year 2010 Dollars)
1	Option 2 and 1-S1 + 1-C1 + 1-N1	13.06	\$219,530,000 - \$229,040,000
2	Option 2 and 1-S1 + 1-C3 + 1-N1 Modified	13.01	\$218,390,000 - \$227,970,000
3	Option 2 and 1-S1 + 1-C1 + 1-N2	13.02	\$212,000,000 - \$221,280,000
<b>4 (Selected)</b>	<b>Option 2 and 1-S1 + 1-C3 + 1-N2</b>	<b>13.01</b>	<b>\$210,400,000 - \$219,610,000</b>
5	Option 3 and 1-S3 + 1-C1 + 1-N1	13.07	\$220,930,000 - \$230,540,000
6	Option 3 and 1-S3 + 1-C3 + 1-N1 Modified	13.02	\$219,770,000 - \$229,450,000
7	Option 3 and 1-S3 + 1-C1 + 1-N2	13.03	\$213,410,000 - \$222,770,000
8	Option 3 and 1-S3 + 1-C3 - 1-N2	13.03	\$211,790,000 - \$221,080,000

### 3.2.3 Cost Comparison

Detailed preliminary project cost estimates were prepared for all the alternatives. Table 4 provides the estimated cost ranges for each build alternative. As the data shows, the estimated costs are generally close, and were not used to select the alternatives. Project cost estimates included costs for construction, engineering and design, administration, right-of-way acquisition (land acquisition and relocations), utility relocation (major utilities), and mitigation.

**Table 4: Estimated Cost Ranges for Build Alternatives 1 Through 8 — Year 2010 Dollars**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8
Construction	\$182,370,000- \$190,310,000	\$182,880,000- \$190,840,000	\$177,220,000- \$184,930,000	\$175,900,000- \$183,560,000	\$184,030,000- \$192,040,000	\$184,540,000- \$192,570,000	\$178,870,000- \$186,660,000	\$177,560,000- \$185,290,000
Design/Engineering	\$8,250,000- \$9,570,000	\$8,150,000- \$9,520,000	\$7,940,000- \$9,250,000	\$7,890,000- \$9,180,000	\$8,320,000- \$9,650,000	\$8,220,000- \$9,600,000	\$8,000,000- \$89,330,000	\$7,950,000- \$9,260,000
Administration	\$13,340,000- \$13,610,000	\$13,380,000- \$13,640,000	\$12,970,000- \$13,220,000	\$12,870,000- \$13,120,000	\$13,470,000- \$13,730,000	\$13,500,000- \$13,770,000	\$13,090,000- \$13,350,000	\$12,990,000- \$13,250,000
Right-of-Way	\$11,570,000	\$10,670,000	\$10,430,000	\$10,330,000	\$9,840,000	\$8,940,000	\$8,700,000	\$8,600,000
Utility Relocation	\$ 584,000	\$ 584,000	\$ 441,000	\$ 441,000	\$ 1,300,000	\$ 1,300,000	\$ 1,160,000	\$ 1,160,000
Mitigation	\$ 3,400,000	\$ 2,720,000	\$ 3,010,000	\$ 2,980,000	\$ 3,970,000	\$ 3,270,000	\$ 3,580,000	\$ 3,530,000
<b>Estimated Total Cost Range (Rounded)</b>	<b>\$219,530,000- \$229,040,000</b>	<b>\$218,390,000- \$227,970,000</b>	<b>\$212,000,000- \$221,280,000</b>	<b>\$210,400,000- \$219,610,000</b>	<b>\$220,930,000- \$230,540,000</b>	<b>\$219,770,000- \$229,450,000</b>	<b>\$213,410,000- \$222,770,000</b>	<b>\$211,790,000- \$221,080,000</b>
<i>Green denotes the Selected Alternative—Alternative 4.</i>								
<i>Note: Cost estimates for Alternatives 1 – 4 incorporate costs of Interchange Option 2; cost estimates for Alternatives 5 – 8 incorporated costs of Interchange Option 3.</i>								

### 3.3 Selected Alternative—Alternative 4

#### 3.3.1 Description of Alternative 4, by Segment

**South Segment Alternative 1-S1:** From its southern terminus at the Blue Bell Road-Warrenton Road bridge over I-164, Alternative 4 travels due north and provides an interchange for I-69 with I-64/I-164, utilizing Option 1 initially and Option 2 ultimately (see discussion in Section 3.3.2, herein). North of the interchange, the alternative goes due north to SR 68, where an interchange is provided. The alternative proceeds north and overpasses Tepe Road (CR 1050S). North of Tepe Road it is parallel to and immediately west of the right-of-way of Gibson CR 550E. The alternative crosses a tributary to Pigeon Creek and Pigeon Creek, where the Tier 1 corridor is reduced to approximately 550 feet in width to limit the potential for impact to wetlands and forested areas, before terminating approximately 900 feet north of Pigeon Creek.

*Local Access:* A new road referred to as the **Connector Road** will be constructed from Nobles Chapel Road northward to existing SR 57 north of Nobles Chapel Church. CR 1250S will be rerouted to the north, more or less parallel to I-69, then overpass I-69, intersect old SR 57, and then tie into the new Connector Road referenced above. CR 950N will also tie into the Connector Road. CR 550E will be relocated to the immediate west of the Alternative 1-S1 alignment and continue to provide a connection between Tepe Road and CR 900S just north of the Pigeon Creek. The existing CR 550E roadway (east of the freeway) will remain open to traffic to just south of its severance by I-69 (south of the Pigeon Creek crossing), at which point an extension of the road eastward will provide access to farmland north and east. Access roads to serve residences and farmland adjacent to the southwest, southeast, and northeast quadrants of the I-69/SR 68 interchange are also proposed. A break in the access control on SR 68 northwest of the interchange will be permitted to maintain the connection between CR 525E and SR 68.

**Central Segment Alternative 1-C3:** The alternative begins approximately 900 feet north of Pigeon Creek. The alternative curves to the northeast and goes in a northeasterly direction to approximately 3,000 feet south of CR 450S, where the North Segment begins. There is an interchange with SR 168 and an overpass at CR 650E.

*Local Access:* CR 700E will be extended due south to maintain its connection with SR 168. An access road will link CR 600S and CR 800E, both of which would otherwise be terminated west of I-69.

**North Segment Alternative 1-N2:** The southern terminus of this segment alternative begins at the northern terminus of the Central Segment Alternative 1-C3 and terminates approximately one-half mile north of SR 64. From the point of transition from the Central Segment it curves in a northeasterly direction to avoid CR 890E, two small wetland areas to the west, and a pond to the east. The alternative overpasses CR 450S. The alignment then curves due north to its terminus. CR 350S will overpass the interstate and there will be an interchange with SR 64.

*Local Access:* No local access roads are proposed.

Table 5 lists the interchanges, grade separations (overpasses/underpasses), and access roads that are features of the Selected Alternative, Alternative 4, by corridor segment.

**Table 5: Alternative 4—Interchanges, Grade Separations, and Access Roads**

Interchange	
South Segment	I-64/I-164/I-69
	SR 68
Central Segment	SR 168
North Segment	SR 64
Grade Separation *	
South Segment	Nobles Chapel Road (CR 1250S & CR 950N)/Connector Road *
	Tepe Road (CR 1050S)
Central Segment	CR 650E
	CR 550S
North Segment	CR 450S *
	CR 350S *
Relocation/ Realignment	
South Segment	Nobles Chapel Road (CR 1250S & CR 950N)/Connector Road
	CR 550E
Access Road (AR**)	
South Segment	<u>AR 1</u> : South side of SR 68 west of I-69, this road connects properties to SR 68 where direct access was terminated by the new control of access on SR 68.
	<u>AR 2</u> : South side of SR 68 east of I-69, this road connects properties to SR 68 where direct access was terminated by the new control of access on SR 68.
	<u>AR 3</u> : North side of SR 68 east of I-69, this road connects properties to SR 68 where direct access was terminated by the new control of access on SR 68.
	<u>AR 4</u> : East side of I-69, this road is an extension of existing CR 550E to provide access to a property. Access to the property from CR 550E will be cut off by the construction of I-69.
Central Segment	<u>AR 10</u> : West side of I-69, this road connects CR 700E to SR 168 and provides access to farm properties. The connection of CR 700E to SR 168 will be cut off by the access control requirement near the SR 168/I-69 interchange.
	<u>AR 11</u> : West side of I-69, this road connects CR 600S to CR 800E. The intersection of these two roads will be cut off by the construction of I-69.
* Indicates the county road will overpass the interstate. In the other instances, the interstate will overpass the county road.	
** AR identifies access roads on Figures 1A – 1C, pp. 3 – 5, herein.	

### 3.3.2 Rationale for Selection of Alternative 4

Alternative 4 was identified as the preferred alternative in the Section 1 DEIS and that recommendation was carried forward into the FEIS. The segment alternatives that were combined to create Alternative 4 are interchange Option 2 with mainline segment Alternatives 1-S1, 1-C3, and 1-N2. These alternatives, and the reasons for their selection and the elimination of non-preferred alternatives, are described briefly below and in greater detail in FEIS Section 6.2, *Comparison of Alternatives*.

**South Segment Alternative 1-S1** is the Selected Alternative over Alternative 1-S3 for reasons that include the following:

- Requires 400 linear feet of stream relocation; Alternative 1-S3 requires 2,000 linear feet.
- Has 8.4 acres less impact to forest areas than Alternative 1-S3.
- Avoids the costly relocation of 3,000 feet of an overhead electrical transmission line, which would be relocated with Alternative 1-S3.
- Is preferred by the Section 1 CAC members, who said it would have less overall impact to farmland so long as the connectivity of Tepe Road and CR 550E could be maintained to retain the farming community's access in that area. As a result, the alternative will overpass Tepe Road and CR 550E will be relocated westward, extending north from Tepe Road to tie into the existing bridge over Pigeon Creek. Relocating CR 550E to the west of I-69 avoids separating farmsteads east of CR 550E from adjacent farm fields and severs 8 farm fewer parcels than Alternative 1-S3 (which severs 16 parcels).
- Uses Interchange Options 1 (initially) and 2 (ultimately), which involve modifications to rather than the complete relocation of the existing interchange, and are less costly than Option 3 (see discussion, below).
- Is preferred by the Indiana Department of Natural Resources (IDNR), which stated in a letter dated June 23, 2005, that other alternatives "will cause significant forested habitat loss and habitat fragmentation south of CR 1050N" (see FEIS Vol. II, Appendix B).

**Key Evaluation Factors Considered in Selection of Alternative 1-S1**

Advantages of Alternative 1-S1

- Fewer farmland impacts, overall
- Fewer forest impacts
- Fewer stream impacts
- Fewer riparian habitat impacts
- Avoids 3,000' of power line
- Interchange Option less costly
- Preferred by CAC and IDNR

Disadvantages of Alternative 1-S1

- 1 more relocation
- 10 more parcels for ROW
- 0.4 acre more floodplain encroachment
- New CR 550E bridge over Pigeon Creek tributary

Advantages shared with Alternative 1-S3

- Nobles Chapel Road connectivity
- Tepe Road connectivity
- CR 550E connectivity
- Pigeon Creek wildlife corridor

Impacts shared with Alternative 1-S3

- 0.67 acre wetland impact

#### I-64/I-164/I-69 Interchange Options

Of the three I-64/I-164/I-69 interchange options carried forward for detailed analysis in the South Segment, Option 2 is considered the ultimate configuration. However, because Option 1 would require the least modification to the existing interchange, would be the least costly option to construct, and would serve projected traffic volumes in the short-term, it could be constructed initially to provide the Interstate-to-Interstate connection in the most timely and cost-effective manner. At a later date, as traffic volumes dictate, the Option 1 interchange can be modified to produce the Option 2 configuration. The footprint of Option 1 is entirely within the larger footprint of Option 2. The right-of-way would be purchased for Option 2 when Section 1 is constructed as a measure to protect against inflation in land prices and in the cost of

acquiring developed properties should new development occur within the area needed for future right-of-way. Because the right-of-way for Option 2 will incorporate all of that needed for Option 1, Option 2 represents both options in the evaluation of impacts of the build alternatives in the FEIS. Interchange Option 3 was linked with Segment Alternative 1-S3, which was eliminated as noted above. Option 3 was the most costly of the interchange alternatives, and could not connect with the selected Segment Alternative 1-S1 without causing significant right-of-way impacts that could be avoided with the combination of Alternative 1-S1 with Options 1 or 2.

**Central Segment Alternative 1-C3** is the Selected Alternative over Alternative 1-C1 for reasons that include the following:

- Requires less stream relocations (1,155 linear feet versus 2,700 linear feet with Alternative 1-C1).
- Eliminates the repeated curves in the alignment that occur with Alternative 1-C1. A reverse curve may contribute to driver error, and generally is regarded as an undesirable design feature, especially on high speed freeways.
- Requires 4.0 acres less right-of-way.
- Requires 3.0 acres less farmland acquisition and 2 fewer farmland severances.
- Impacts 0.3 acre less forest.
- From CR 750S north, it is preferred by IDNR (see above-referenced letter).

<p><b>Key Evaluation Factors Considered in Selection of Alternative 1-C3</b></p> <p><u>Advantages of Alternative 1-C3</u></p> <ul style="list-style-type: none"> <li>• Fewer riparian habitat impacts</li> <li>• Fewer stream impacts</li> <li>• Eliminates reverse curves</li> <li>• Wildlife crossing at stream</li> </ul> <p><u>Disadvantages of Alternative 1-C3</u></p> <ul style="list-style-type: none"> <li>• 1 more road closing</li> <li>• 0.1 acre more wetlands impact</li> <li>• 1 farm displacement</li> </ul> <p><u>Advantages shared with Alternative 1-C1</u></p> <ul style="list-style-type: none"> <li>• CR 550S connectivity</li> </ul> <p><u>Impacts shared with Alternative 1-C1</u></p> <ul style="list-style-type: none"> <li>• Residential relocations (6)</li> </ul>
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Regarding the selection of Alternative 1-C3 over 1-C1: Alternative 1-C3 has 0.3 acre less impact to forests and 0.2 acre less impact to floodplains, but 0.1 acre more impact to wetlands. It should be noted that the wetlands are basically contiguous and stretch across the project corridor north and south of CR 550S. Although Alternative 1-C1's impact to wetlands is slightly less than that of Alternative 1-C3, Alternative 1-C1's alignment impacts 2.7 acres of a forest adjacent to the wetlands while that of Alternative 1-C3 impacts 0.2 acre of that forest; and it also has greater impacts to streams, including 1,545 linear feet more stream relocation. In addition, the alignment of Alternative 1-C3 eliminates the reverse curves that are present in Alternative 1-C1 and are not preferred from an engineering and driver safety perspective.

Note: Primarily to minimize the amount of forest impact, IDNR recommended a "hybrid" that would use Alternative 1-C1 between CR 900S and CR 750S, and 1-C3 from CR 750S northward. The hybrid would have 0.7 acres less forest impact than Alternative 1-C3. However, Alternative 1-C1 south of CR 750S has the same wetland impacts, greater impacts to riparian habitat, and more linear feet of stream in the right-of-way than Alternative 1-C3, and also has the reverse curves that are not preferred from an engineering and driver safety perspective. Because "forest" was the only category where the hybrid's impact was less than that of Alternative 1-C3, the benefits of Alternative 1-C3 are considered to outweigh that of the hybrid. (For further discussion of IDNR's comments, see the Central Segment subsection in FEIS Section 6.3.1, *Rationale for Selection of Preferred Alignment Alternative*.)

**North Segment Alternative 1-N2** is the Selected Alternative over Alternatives 1-N1 and 1-N1 Modified for reasons that include the following:

- Has fewer overall stream impacts, including 240 linear feet of stream relocation versus 650 linear feet with either of the other alternatives.

Note: Minimizing or avoiding stream impacts, particularly to West Fork Keg Creek, and reducing the number of residential relocations placed the Alternative 1-N2 alignments farther east in the corridor than the alignments of Alternatives 1-N1 and 1-N1 Modified, with the following results:

- There are more farmland severances with the recommended alignment. However, all of the severed farmland parcels are accessible via local county roads.
- Minimizing impacts to West Fork Keg Creek results in a 1-acre reduction in a core forest north of SR 64, which was of concern to IDNR. Alternative 1-N2 was developed as an avoidance alternative to minimize impacts to that stream, based on agencies' comments (U.S. Environmental Protection Agency [USEPA] and Indiana Department of Environmental Management [IDEM]) on the importance of considering impacts to streams in the evaluation of alternatives. Locating I-69 west of the Alternative 1-N2 alignment would place a portion of West Fork Keg Creek within the I-69 right-of-way. This, in effect, would turn more than 2,600 linear feet of the stream into a roadside ditch, with the justification being avoidance of impacts to the forest north of SR 64. In either scenario, impacts to one resource are minimized at the expense of another resource. It also should be noted that while avoiding impacts to both resources is desirable, there are regulatory requirements associated with impacts to streams, such as the West Fork of Keg Creek. IDEM is one of the permitting agencies regulating such impacts, as part of Indiana's Section 401 Water Quality Certification review of the U.S. Army Corps of Engineers (USACE) Section 404 permits.
- Avoids relocation of 600 linear feet of electrical transmission line that would be relocated with Alternatives 1-N1 and 1-N1 Modified.
- From CR 875E to CR 300S, is noted by IDNR to cross "a large upland forested area with the least habitat impacts of all of the alternatives..." (see letter in FEIS, Vol. II, Appendix B).
- Provides a wildlife crossing where I-69 overpasses CR 450S (as would Alternative 1-N1 Modified but not Alternative 1-N1).
- Requires the fewest number of relocations (2) in a cluster of 13 residences along CR 890E and CR 400S, and no commercial displacements.
- South of CR 400S, avoids 1-acre direct core forest impact and 8-acre core reduction that would result with Alternative 1-N1. Note that this avoidance results in impacts to constructed wetlands ranging from 0.45-acre to 0.16-acre more than the other alternatives. As with forest-versus-West Fork Keg Creek impacts, referenced above, impacts to one resource are minimized at the

**Key Evaluation Factors Considered in Selection of Alternative 1-N2**

Advantages of Alternative 1-N2

- Fewest stream impacts
  - Fewer forest impacts than 1-N1
  - No transmission line relocation
- These advantages, taken together with the benefits shared with Alternative 1-N1 Mod (see below), were the primary reasons for the selection of this alternative.*

Disadvantages of Alternative 1-N2

- Greater forest impact than 1-N1 Mod; and 1 acre reduction in core forest.
- Greatest pond impacts
- Greatest wetlands impacts

Advantages shared with Alternative 1-N1 Mod over Alternative 1-N1

- CR 890E connectivity
- Wildlife corridor at CR 450S
- 1 less public road closing than 1-N1
- 1 less relocation than 1-N1

expense of another resource. In its comments on the DEIS, the U.S. Department of the Interior (USDOI) agreed with the alignment that avoided the core forest impact, noting it would be more difficult to mitigate/replace the forest than the constructed wetlands. (For further discussion of wetland and forest impacts, see the North Segment subsection in FEIS Section 6.3.1, *Rationale for Selection of Preferred Alignment Alternative*.)

### **3.3.3 Potential Reasonably Foreseeable Impacts of Alternative 4**

The FEIS for Section 1 was published in October 2007. Potential reasonably foreseeable impacts associated with the project are discussed in detail in that document. Table 2 (p. 11), summarizes potential environmental impacts associated with the segment alternatives carried forward for detailed evaluation. Table 6 (p. 19) summarizes the potential environmental impacts associated with the Selected Alternative, by major resource categories evaluated in the FEIS (primarily in Chapter 5, *Environmental Consequences*; Chapter 6, *Comparison of Alternatives*; and Chapter 8, *Section 4(f) Evaluation*).

### **3.3.4 Consistency With Established Statewide Transportation Planning Goals**

In June 2007, INDOT issued its 2030 Long Range Plan 2007 Update. This Update retains both the Statewide Mobility Corridors and Commerce Corridors. I-69 between Evansville and Bloomington is shown as both a proposed Statewide Mobility Corridor and Commerce Corridor. INDOT has included an I-69 construction project in its 18-Month Letting list. The initial construction project as currently scoped extends for two miles from I-64 north to SR 68. With the issuance of the ROD for I-69 Section 1, detailed design will be completed and construction is expected to begin in the first half of 2008. INDOT has already commenced right-of-way acquisition activities using state funds with the understanding that in no way may any acquisitions affect the decisions to be made during the NEPA process. Funding for right-of-way and preliminary design has been included by amendment in INDOT's Statewide Transportation Improvement Program (INSTIP) for fiscal year 2007.

### **3.3.5 Environmentally Preferable Alternative—Alternative 4**

As summarized above and in greater detail in the FEIS (see Section 6.2, *Comparison of Alternatives*, and Section 6.3, *Selection of Preferred Alignment Alternative*), Alternative 4 is the alternative that sufficiently addresses the Purpose and Need for action while balancing important environmental, community, and economic values. While some of the other alternatives have lower impacts on certain environmental resources, those alternatives have greater impacts on other sensitive resources. Thus, Alternative 4 is the environmentally preferable alternative among the alternatives that adequately achieve the project's objectives. This finding is made in accordance with 40 CFR §1505.2(b).

**In weighing all these factors, FHWA and INDOT determined that Alternative 4 best satisfies the project purposes while having an acceptable level of impacts.**

### **3.3.6 Cost Savings Consideration With I-64/I-164/I-69 Interchange Options**

The near-term cost savings for Selected Alternative 4 is estimated to be approximately \$16 million (2010 dollars) by initially constructing Interchange Option 1 as a feature of that alternative. Constructing Option 2 at a later date would result in an overall increase in the "year of expenditure costs" as a result of inflation.



**Table 6: Impacts Summary, Section 1 Selected Alternative**

EIS Categories	Potential Impacts	Selected Alternative Alternative 4
<b>Social</b>	<b>Relocations / displacements:</b> Residential Commercial / Farms Institutional	18 0 / 2 0
	<b>Bicycle &amp; pedestrian route impacts</b>	I-69 crosses IDNR's Hoosier Hills Route #4 bike route along SR 68. Route to retain connectivity. There are no pedestrian facilities in the corridor.
<b>Land Use</b>	<b>Total Acres of ROW to be acquired:</b>	<b>720</b>
	Agricultural	630
	Developed	51
	Upland habitat (includes forest areas)	36
	Open water (lakes, ponds, etc.)	0.7
	Wetlands: Emergent & forested	1.35
<b>Farmland</b>	<b>Farmland impacts:</b>	493
	Cropland acres to be acquired	14
	Number of uneconomic remnants	4
	Number of parcels landlocked	
	Prime/unique farmland acres in ROW:	
	<ul style="list-style-type: none"> <li>▪ Warrick County</li> <li>▪ Gibson County</li> </ul> Statewide + local important farmland acres in ROW	39.8 511.4 0
<b>Economic</b>	<b>Estimated crop production loss (i.e., farm income)—Warrick + Gibson Counties:</b>	\$152,000
	<b>Estimated loss in tax base</b>	\$76,000
<b>Visual</b>	<b>View from / of I-69:</b>	Pleasant view of primarily a rural, farmland landscape An interstate set in a flat to rolling agricultural landscape
	View from the road View of the road	
<b>Environmental Justice</b>	<b>Impact on minority/low-income populations</b>	No disproportionately high or adverse effect on minority or low-income populations.
<b>Air Quality</b>	<b>Air quality standard exceedances predicted (based on current SIP budget)</b>	0
<b>Noise</b>	<b>Number of sites that approach or exceed 67 dBA</b>	1 (3 receivers represented)
	<b>Sites predicted to have <i>substantial</i> (15 dBA increase in noise levels)</b>	0
<b>Wild &amp; Scenic Rivers</b>	<b>Wild &amp; Scenic Rivers impacts</b>	0
<b>Construction</b>	<b>Construction impacts</b>	Temporary dust, noise, traffic delays, water quality impacts.
<b>Mineral Resources</b>	<b>Mineral resources potentially in ROW:</b>	
	Gas wells (number)	0
	Coal reserves (acres)	123
<b>Hazardous Waste</b>	<b>HAZMAT sites potentially in ROW:</b>	1
	Sites 1 (gas station) & 4 (fuel terminal)	No impact
	Site 2 (oil storage tanks)	Potential Phase II
	Site 3 (oil storage tanks)	No impact
	Multiple Sites: Electrical transformers; oil and gas pipelines & appurtenances	Coordination with owner for proper handling or removal if affected.

**Table 6: Impacts Summary, Section 1 Selected Alternative (Continued)**

EIS Categories	Potential Impacts	Selected Alternative Alternative 4
<b>Threatened &amp; Endangered (T/E) Species</b>	<b>Impacts to listed species:</b>  Federal-listed threatened/endangered (Corridor studied for Indiana bat, bald eagle, eastern fanshell mussel)  State-listed threatened/endangered/rare/special concern	Indiana bat captured west of corridor; no roost trees located. No T/E species found in corridor. Formal Section 7 consultation concluded.  Red-shouldered hawk (state special concern) observed approx. 400' east of ROW; no impact expected.
<b>Water Resources</b>	<b>Surface water impacts:</b> Wetlands (acres): Emergent/forested/ farmed  Streams: Linear feet of streams within ROW / (relocations) <ul style="list-style-type: none"> <li>▪ Perennial</li> <li>▪ Intermittent</li> <li>▪ Ephemeral</li> </ul> Total linear feet stream impact: ROW / (relocation) Open water (ponds, lakes) Floodplain (acres) at Pigeon Creek  <b>Ground water impacts:</b> Private wells in ROW Wellhead Protection Zone Sole Source Aquifer	1.33 / 0.02 / 0.0  770 / (0) 10,795 / (640) 3,885 / (1,155) 15,450 / (1,795)  0.7 36  1 0 0
<b>Forest</b>	<b>Forest impacts:</b> total acres & percent of acres in corridor  <b>Core forest impacts:</b> (acres)  <b>Riparian impact</b> (acres, 100' either side of stream center)	27.4 (14%)  1 (Due to redefined forest edge)  14.0 (3,680 linear feet)
<b>Karst</b>	<b>Karst feature</b>	0
<b>Managed Land</b>	<b>Property A</b> (approx. 43-acre site): <ul style="list-style-type: none"> <li>▪ USFWS Wetland Development Agreement (a Partners for Fish and Wildlife Program)</li> <li>▪ USDA-NRCS, Wildlife Habitat Incentive Program</li> <li>▪ USDA Farm Services Agency, Conservation Reserve Program</li> <li>▪ IDNR Game Bird Habitat Development Program</li> </ul> <b>Property B</b> (approx. 1.5-acre site): <ul style="list-style-type: none"> <li>▪ USDA Farm Services Agency, Conservation Reserve Program</li> </ul>	11.0 acres in ROW . Land area left (6 ac. west of I-69, 26 ac. east of I-69).  1.5
<b>Permits</b>	<b>Permits potentially needed prior to construction</b>	USACE Section 404/Section 10; IDEM 401, 402 & Isolated Wetlands Permit, Rule 5; IDNR Construction in a Floodway.
<b>Cumulative</b>	<b>Cumulative land use changes (acres)—Gibson, Warrick, Vanderburgh Counties:</b>  Average direct conversion of agricultural land  Total Indirect/Induced Changes  Total Changes from Others (No Build)  <b>Cumulative Land Use Change</b>  <b>I-69 Contribution to Cumulative Impacts</b>	8,448  391  6,438  15,277  7.0%
<b>Energy</b>	<b>Energy impacts</b>	Major one-time energy resources demand during construction. Once in operation, greater fuel consumption than No-Build due to higher speed and vehicle miles traveled.
<b>Short-Term vs. Long-Term</b>	<b>Short-term uses versus long-term productivity</b>	Temporary construction impacts; permanent loss of cropland; residential displacements.  Completes a link in I-69 National Corridor and enhances local & regional long-term productivity.

**Table 6: Impacts Summary, Section 1 Selected Alternative (Continued)**

EIS Categories	Potential Impacts	Selected Alternative Alternative 4
Historic Resources	National Register of Historic Places eligible or listed resources— <i>None within APE</i>	0
Archaeol. Resources*	National Register of Historic Places eligible or listed resources [See note, below]	0
Commitment of Resources	Irreversible & irretrievable commitment of resources	Potential impacts include permanent commitment of dollars & resources for construction; environmental impacts from induced development. Anticipated benefits include improved accessibility & safety, time savings, greater availability of services.
Sections 4(f) & 6(f)	Section 4(f) evaluation	No direct or constructive use of publicly owned park, recreational area, wildlife/waterfowl refuge, or land from a historic property on or eligible National Register.
	Section 6(f) evaluation	No known resources funded by the Land and Water Conservation Act.

**Abbreviations Key:**

**ROW** = Right-of-way

**USDA** = U.S. Department of Agriculture

**SIP** = State Implementation Plan

**USFWS** = U.S. Department of the Interior, Fish and Wildlife Service

**IDEM** = Indiana Department of Environmental Management

**IDNR** = Indiana Department of Natural Resources

**NRCS** = Natural Resource Conservation Service

**NAC** = Noise Abatement Criteria

**USACE** = U.S. Department of the Army, Corps of Engineers

**Section 4(f)** = A section of the Department of Transportation Act (1966) requiring avoidance of certain resources (such as public parks and recreational areas, historic and archaeological sites, wild and scenic rivers, or wildlife management areas) when a feasible alternative is possible.

**Section 6(f)** = Section 6(f) of the Land and Water Conservation Fund Act of 1965 prohibits the conversion of any property acquired or developed with any assistance of the fund to anything other than public outdoor recreation use without the approval of the Secretary of the Department of the Interior.

**\* Note Regarding Archaeological Resources:** \* *The Phase Ia and Ib reconnaissance conducted for Section 1 did not locate any sites eligible for listing in the National Register of Historic Places. Phase Ic survey is underway but the results will not be final until all sites selected for the survey can be tested. This is not anticipated to occur until properties containing two as-yet unsurveyed sites have been acquired by INDOT as part of the right-of-way acquisition phase. A Memorandum of Agreement between FHWA and the Indiana SHPO has been prepared stipulating procedures that would be followed should a site(s) be found eligible for NRHP listing. See the FEIS, Section 5.14.2.4, Summary of Archaeological Resources in Study Corridor, for discussion of the archaeological surveys conducted for Section 1.*

**4.0 SECTION 4(f)**

As previously indicated in the Tier 2 FEIS (see Chapter 8, *Section 4(f) Evaluation*), FHWA finds, in accordance with 23 CFR 771.135(o)(2), that:

- The preliminary findings made in the Tier 1 FEIS for the overall I-69 Evansville-to-Indianapolis project in accordance with 23 CFR 771.135(o)(1) remain valid, and;
- The criteria of 23 CFR 771.135(a) have been met for Section 1 of the I-69 Evansville-to-Indianapolis project and it has been determined that Section 1 will not use any identified resources protected under this regulation. Though it has been determined to be unlikely, if any archaeological sites eligible for the National Register of Historic Places (NRHP) are identified that should be preserved in place in this section of the project, the protections under this section will be applied.

## 5.0 MEASURES TO MINIMIZE HARM

Throughout this study, efforts have been made to avoid human and natural resources. In Tier 1, the 2,000-foot-wide corridor was narrowed to approximately 550 feet in width at the crossing of Pigeon Creek and a nearby tributary to minimize impacts to forest and wetland areas. During the Tier 2 study, in the same location a wildlife crossing was included as a feature of the alternatives developed in the area, and two additional wildlife crossings are features of the Selected Alternative. Avoidance and the opportunity to minimize impacts were used in the decision-making process to identify a preferred alternative alignment. For example, the ability to provide a wildlife crossing at CR 450S combined with the avoidance of a core forest impact, minimized impacts to West Fork Keg Creek, and fewer relocations in a rural housing cluster all contributed to the selection of segment Alternative 1-N2 as preferred in the northern section of the corridor. Environmental agencies and the public have been instrumental in providing assistance (see FEIS Chapter 11, *Comments, Coordination, and Public Involvement*) to avoid and minimize impacts upon both the human and natural environment, and helped develop many of the mitigation measures identified in the FEIS.

During the Tier 1 process, conceptual mitigation proposals were developed as the starting point for identifying the total mitigation for constructing I-69 from Evansville to Indianapolis. As required by the Tier 1 ROD, these measures were considered during the Tier 2 process in Section 1. As a result of this consideration, mitigation measures specific to the conditions and potential impacts within Section 1 were developed based on the more detailed information and interactions with the public and resource agencies. Where applicable, these mitigation measures incorporate and, in some cases, expand upon the “major mitigation initiatives” developed during Tier 1 (see Tier 1 FEIS, Vol. I, Chapter 7, *Mitigation and Commitments*).

Initiatives that apply to Section 1 are identified in the text that follows. For more detailed discussion of mitigation measures, see the Tier 2 Section 1 FEIS Chapter 7, *Mitigation and Commitments*.

### 5.1 Tier 1 Mitigation Commitments and Associated Tier 2 Section 1 Commitments

FHWA and INDOT committed to mitigation identified in the Tier 1 FEIS Chapter 7, *Mitigation and Commitments* based on current information. The Tier 1 ROD stipulated that mitigation measures specified in Tier 1 will be reviewed and may be modified in Tier 2 in consultation with environmental resource agencies, based on more detailed environmental impact data developed in the Tier 2 studies (pp. 27-28). The following sections identify the Tier 1 commitments that apply to Section 1 and their application within this section. In this ROD, FHWA and INDOT commit to the mitigation identified below.

#### 5.1.1 Context Sensitive Solutions / Community Advisory Committee

In keeping with stipulations in the Tier 1 ROD, five CAC meetings were held in Section 1 prior to the publication of the Tier 2 Section 1 FEIS. CAC members provided valuable input in matters relating to access, particularly in the Pigeon Creek area, where maintaining local access while providing for a wildlife corridor and considering concerns about flooding were key issues. INDOT will continue the coordination with local authorities during the design phase to obtain input on further measures. Other instances of context sensitivity in Section 1 are two additional wildlife crossings—at the crossing of a small stream south of CR 600S, and at CR 450S.

### 5.1.2 Wetland Mitigation

Wetland impacts in Section 1 are relatively small and primarily occur to emergent wetlands. INDOT and FHWA will follow the mitigation ratios listed in their Wetlands Memorandum of Understanding (MOU) signed January 28, 1991. In addition, INDOT and FHWA will implement any additional mitigation measures imposed by USACE and IDEM as part of any permits granted under Section 404 of the Clean Water Act. Under the 1991 MOU, emergent wetlands would be mitigated at a ratio of 2 to 1 or 3 to 1 and forested wetlands would be mitigated at a ratio of 3 to 1 or 4 to 1. Ratios used to determine mitigation will depend upon the quality of the resource. In the case of any forested wetlands in this Section, it is anticipated a 3 to 1 ratio would apply. Selected Alternative 4 would impact approximately 1.33 acres of emergent wetlands and only 0.02 acre of forested wetland. Based on the 1991 Wetlands MOU ratios, mitigation for wetland impacts in Section 1 could total approximately 2.7 acres. The mitigation proposed in the Tier 2 Biological Assessment (described below) totals 4.9 acres, making the ratio greater than the 3 to 1. The MOU is provided in the Tier 2 Section 1 FEIS Vol. II, Appendix T.

The Section 1 Tier 2 Biological Assessment (BA) and *Conceptual Mitigation Plan* (see FEIS Vol. II, Appendix Q) identify a 160-acre site in Gibson County as the proposed mitigation site for Section 1. Pigeon Creek flows through the site, which is located in the Highland-Pigeon 8-digit watershed. The majority of the site is within the floodplain of Pigeon Creek. The site is within the 2.5-mile radius described for Indiana bat (*Myotis sodalis*) maternity colony #1 in the Summer Action Area extending into the Section 1 corridor. Current land owners have executed transfer documents for a conservation easement in favor of INDOT for the development of mitigation on the parcel for I-69. The goal of this mitigation is to create wetlands, streams, and bottomland forests that enhance the habitat value of this area for a number of species, including the Indiana bat, as well as improve the environment and water quality of the Highland-Pigeon watershed. Mitigation plans would result in connecting two isolated forested NWI mapped wetlands in the northeast portion of the site to a larger block of NWI mapped forested wetland area in the southeast portion of the site, thereby creating approximately 60 acres of core forest habitat. The proposed design of the mitigation site would include the development of the following:

- 1.9 acres of forested wetlands
- 3.0 acres of emergent wetlands
- 96 acres of non-wetland bottomland reforestation
- 12,015 linear feet of stream development
- 6,350 linear feet of herbaceous filter strips (24 acres)
- 30.4 acres of existing bottomland/wetland forest preservation

These combined mitigation areas will create a district of wetland, riparian, and bottomland woods habitat within an area where the majority is currently being farmed. As stipulated in the Tier 1 ROD (p. 29) and iterated in the Section 1 Tier 2 BA (p. 62) and Tier 2 Biological Opinion (BO; p. 5), the mitigation site will be monitored in accordance with the applicable permit conditions.

If the current mitigation plan cannot be successfully implemented at the currently proposed site, alternative mitigation site(s) will be identified and obtained in consultation with the appropriate resource agencies.

### 5.1.3 Forest Mitigation

In Section 1, approximately 27.4 acres would be directly affected by the Selected Alternative. As committed to in the Tier 1 ROD (p. 29), upland forest impacts will be mitigated at a ratio of 3 to 1 (2 to 1

by purchasing and protection of existing tracts and 1 to 1 minimum by planting trees). Approximately 82 acres of mitigation would be required in Section 1. The Pigeon Creek area site described above for wetland mitigation is the primary site proposed for mitigating forest impacts in Section 1. The total forest mitigation proposed in the Tier 2 Section 1 BA will be approximately 125 acres—43 acres more than the 3 to 1 ratio would provide when applied to the 27.4-acre forest impact identified in Section 1. In all, the entire 160-acre site has about 52 acres more than is needed to mitigate all wetland, forest, and riparian impacts identified in the Tier 2 Section 1 study. These extra acres may be applied as necessary to other sections of I-69 in consultation with appropriate agencies.

Impacts to non-wetland linear wooded riparian areas that are not in a regulated floodway will be mitigated at a ratio of 1 to 1 on a linear feet basis in consultation with IDEM and USACE. Selected Alternative 4 impacts approximately 3,600 linear feet of non-wetland riparian habitat, none of which is in a floodway. Note that this mitigation will be included with the 3 to 1 forest mitigation acres (described above) when possible and should not be considered as additional forest mitigation in acres if the appropriate ratios can be attained. As noted in the Tier 2 Section 1 BA (Tier 2 FEIS, Appendix Q), approximately 26 acres of the forest mitigation will be riparian habitat planted along the stream channels to be developed within the mitigation site.

#### **5.1.4 I-69 Community Planning Program**

The I-69 Community Planning Program, committed to in the Tier 1 ROD (p. 30), will help to set in place a regional strategy for providing resources to local communities to manage the growth and economic development associated with I-69. Gibson, Warrick, and Vanderburgh Counties and the cities of Evansville, Oakland City, and Princeton are eligible for grants, which were made available in late August 2007. Oakland City has recently (October 2007) been awarded a grant, and the other eligible communities in Section 1, noted above, have submitted applications.

The local communities could use these grants to prepare transportation land use plans, zoning and subdivision ordinances, and special highway corridor “overlay zones” for development. The I-69 project website provides a link to the Community Planning Program website ([www.i69indyevn.org/CommunityPlanningProgram](http://www.i69indyevn.org/CommunityPlanningProgram)). The website contains information including a concise description of the program, examples of eligible activities, and other information about the program.

#### **5.1.5 Update County Historic Surveys**

As part of the Tier 1 commitment, FHWA and INDOT will provide funding and technical assistance to support a comprehensive effort to update the Interim Reports for Gibson and Warrick Counties. The reports are used to update the Indiana Historic Sites and Structures Inventory (IHSSI), which is managed by IDNR-Division of Historic Preservation and Archaeology (DHPA).

As part of this commitment, IDNR-DHPA will be provided with the IHSSI survey forms when they are completed following the completion of this study, and the survey for Warrick County will begin. I-69 Section 2 also extends into Gibson County; therefore, to insure a thorough survey and avoid duplication of effort and data, the survey for Gibson County will begin following the issuance of the I-69 Section 2 ROD. (Note: these surveys are outside the Area of Potential Effects studied as part of the Section 106 process to identify impacts by the project on historic resources.)

### 5.1.6 Bridging of Floodplains

The Tier 1 ROD states that the decision to bridge floodplains, other than the Patoka River and Flat Creek floodplains would be made in Tier 2. The only Federal Emergency Management Agency (FEMA) mapped floodplain identified in Section 1 occurs in the Pigeon Creek area. In Tier 1, the project corridor was narrowed to about 550 feet in the vicinity of the crossing of a tributary to Pigeon Creek and Pigeon Creek to avoid wetlands east and west of the corridor. The corridor traverses the narrowest section of the floodplain in the vicinity of the creek crossings. INDOT will work closely with IDNR to adequately study the impacts to the Pigeon Creek floodplain during further development of the I-69 project. A final hydraulic design study that addresses various structure size alternatives will be completed during a future final design phase of I-69, and a summary of this will be included with the Field Check Plans and Design Summary. Although complete bridging of the floodplain is not proposed, the Tier 2 Selected Alternative would avoid most of the wetlands and bridge much of the floodplain.

### 5.1.7 Biological Surveys on Wildlife and Plants

In keeping with stipulations in the Tier 1 revised Biological Opinion and the commitment in the Tier 1 ROD (p. 31), a work plan for surveying, monitoring, and reporting on the Indiana bat (*Myotis sodalis*) will be developed and conducted in consultation with and approved by the U.S. Fish and Wildlife Service (USFWS). This mist netting effort will be beyond the Tier 2 sampling requirements. Monitoring surveys focused at maternity colonies (the Pigeon Creek colony #1, for Section 1) will be completed the summer before construction begins and will continue each subsequent summer during the construction phase and for at least five summers after construction has been completed. If Indiana bats are captured, radio transmitters will be used in an attempt to locate roost trees, and multiple emergence counts will be made at each located roost tree. These monitoring efforts will be documented and summarized within an annual report prepared for USFWS.

## 5.2 Additional Section 1 Commitments

The FEIS Section 7.3, *Section 1 Mitigation Measures and Commitments*, provides specific mitigation measures and commitments proposed for each resource category in Section 1 to be implemented at the appropriate time during project development, construction, and as part of the maintenance of the highway. In addition to the mitigation measures identified above, mitigation measures for the following categories of impacts are presented in that section and are considered an integral part of the Selected Alternative. Therefore, in this ROD, FHWA and INDOT commit to the mitigation identified below.

- Social and Neighborhood. Commitments include providing for local access via service drives and overpasses; and assistance available to all acquisitions and displacements through the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. The relocation program provides assistance to displaced persons in finding comparable housing that is decent, safe, and sanitary; and to displaced businesses, farms, and nonprofit organizations.
- Construction. Commitments include several measures to mitigate impacts, as appropriate, such as use of erosion control devices, swales to protect sources of potable water, maintenance of equipment to control air quality impacts, date-restricted tree-cutting to avoid impacts to Indiana bats, revegetation of disturbed areas, use of native grasses and native wildflowers when revegetating disturbed soils in the right-of-way and medians, spill containment measures, a maintenance of traffic plan, noise abatement measures, adherence to the Wetland MOU, and

compliance with requirements in permits received following the approval of this document, such as Construction in a Floodway permits.

- Historic and Archaeological Resources. Phase 1c subsurface reconnaissance agreed to in the Memorandum of Agreement (MOA; see FEIS Vol. II, Appendix F) will be completed before construction on the project could begin at that site. Commitments are included in the MOA to mitigate adverse impacts to archaeological resources that are determined eligible for the NRHP as a result of Phase 1c surveys, if any such resources are identified.
- Visual Impacts. Mitigation of visual impacts will be considered during final design as part of Context Sensitive Solutions considerations, which may include vegetative screening and non-diffuse lighting if warranted.
- Open Water Impacts. Mitigation involves using a 1 to 1 ratio for 0.7 acre of impacts to ponds/lakes (including palustrine unconsolidated bottom [PUB] wetlands) as a result of the Selected Alternative (see FEIS Section 5.19.2.4, *Mitigation*). Borrow pit construction may be considered for mitigating these open water impacts.
- Stream Impacts. IDEM criterion calls for mitigating based on the *length of impact*, while USACE bases mitigation on *acres of impact below the ordinary high water mark*. A 1 to 1 ratio will be used in both cases to mitigate impacts to streams in Section 1.
- Hazardous Material Impacts. Appropriate cleanup of hazardous materials, if any, will be coordinated with appropriate agencies and property owners.
- Floodplain Impacts will be further minimized as feasible during final design and permitting.
- Wetland Impacts. In addition to the mitigation identified in Section 5.1.2, above, the following commitments are made:
  - Wetland impacts will be minimized by further refinements in the alignment during design, if feasible. INDOT and FHWA are committed to mitigating for unavoidable wetland losses.
  - Wetlands within the right-of-way that are not to be filled will be delineated and protected from construction use.
  - Wetlands outside the actual footprint of the project will be protected from I-69 construction-related impacts from borrow and waste activities (see FEIS Sections 5.12.2.10, *Wetlands*, and 7.3.4, *Construction*). Wetland areas outside the construction limits will be identified and protected from use as borrow or waste disposal sites, construction staging areas, etc. Wetlands adjacent to the construction limits will be protected with silt fences and other erosion control measures. Special Provisions in contracts relating to the construction of I-69 will include prohibiting the filling and other damaging of wetlands outside the construction limits. Note: this prohibition would not extend to isolated ponds such as farm ponds and those developed from old borrow sites.
  - Construction will adhere to the Wetland MOU (dated January 28, 1991).
  - To prevent herbicides from entering wetland areas, "Do Not Spray" signs will be posted as appropriate in the right-of-way.
  - If appropriate, wetland mitigation may include wetland pooling.



- Farmland Impacts will be minimized where feasible by managing access at interchange locations to discourage the development of large expanses of prime farmland, providing access to avoid landlocking parcels where reasonable, and providing overpasses at selected locations to maintain local road connectivity and access to farmland.
- Water Body Modifications will be minimized by keeping tree clearing and snag removal to a minimum and limited to within calendar requirements and the construction limits, mitigating unavoidable stream impacts in coordination with permitting agencies (IDEM, IDNR, and USACE), using soil bioengineering techniques for bank stabilization where situations allow, placing culverts and other devices so they do not preclude the movement of fish and other aquatic organisms, and using erosion control devices to minimize sediment and debris.
- Ecosystems Impacts will be minimized by controlling invasive plants, coordinating with the USFWS pursuant to the Migratory Bird Treaty Act of 1918, and providing wildlife corridors in three locations (see Section 5.1.1, above).
- Water Quality Impacts will be minimized by crossing streams at their narrowest floodway width to the extent feasible, developing stream mitigation plans where necessary, returning disturbed in stream habitats to their original condition when possible, minimizing tree clearing and snag removal, avoiding wetlands as much as possible and following the 1991 Wetland MOU, following Best Management Practices (BMP) for erosion control, providing grass-lined ditches connected to filter strips and containment where appropriate, and minimizing the amount of salt used for deicing.
- Threatened and Endangered Species. Conservation measures identified in the Tier 1 revised BO, and Tier 2 Section 1 BA and mitigation plan address impacts to Indiana bats. These measures are listed in the Tier 2 Section 1 FEIS, Section 7.3.15, *Threatened and Endangered Species*, and the documents are provided in their entirety in FEIS Vol. II, Appendices N and Q, respectively. Mitigation measures include:

Indiana bat (*Myotis sodalis*)

- Prohibiting cutting trees with diameter of three or more inches between April 15 and September 15, minimizing tree clearing and snag removal when feasible, and keeping those activities within the construction limits.
- Adhering to the 1991 Wetland MOU (see Tier 2 Section 1 FEIS Vol. II, Appendix T).
- Using measures to avoid water quality contamination, such as using designated equipment service areas, equipment maintenance.
- Where appropriate, using spill prevention/containment, revegetation, and bridge design to avoid water quality contamination.
- Summer habitat creation and enhancement in the Summer Action Area through wetland and forest mitigation focused on riparian corridors and existing forest blocks to provide habitat connectivity (as described in Sections 5.1.2 and 5.1.3, above).
- Mitigating forest impacts at a ratio of 3 to 1 (replacement at a 1 to 1 minimum ratio and preservation at a 2 to 1 ratio).
- Providing for education opportunities to inform the public about the presence and protection of bats, particularly the Indiana bat: As required by the Tier 1 ROD, \$25,000

will be provided for the creation of an educational poster or exhibit and/or other educational outreach media to inform the public about the presence and protection of bats, particularly the Indiana bat.

#### Barn owl (*Tyto alba*)

Habitat for barn owls may be present within one mile of either side of the Section 1 corridor. This species, which is listed as State Endangered, is rare and usually associated with roosts, such as barns, attics, and silos. Any such structures to be removed by this project will be inspected for this species.

### **5.3 Tracking of Mitigation Commitments**

Tracking of mitigation commitments and mitigation activities associated with each will be performed by INDOT. The overall mitigation tracking is intended to include a GIS database for tracking of mitigation properties. In addition to the GIS database, INDOT will maintain a mitigation commitments listing that will be utilized to track all mitigation, including non-land-based mitigation commitment items, for implementation status. The multiple annual monitoring reports required by permit conditions, and under the conditions of the Section 1 Tier 2 BO, will include the GIS database information as well as tabular summary data derived from the database. INDOT is coordinating with agencies to identify agency-specific information to be included in the GIS database. INDOT will provide to permitting agencies and USEPA the tracking summary data on an annual basis. The summary will identify the mitigation commitments and describe the status of the activities-to-date associated with each commitment.

## **6.0 MONITORING AND ENFORCEMENT**

Coordination with all appropriate state and federal regulatory agencies occurred throughout the Tier 1 process and has continued in Tier 2. Major regulatory requirements applicable to this project include the following:

- Consultation regarding historic and archaeological resources under Section 106 of the National Historic Preservation Act;
- Certification of conformity under the Clean Air Act;
- Consultation regarding threatened and endangered species under Section 7 of the Endangered Species Act;
- Permitting activities required as follows: permitting under Section 404 of the Clean Water Act, which requires permits for discharges into wetlands or other waters of the United States; water quality certification under Section 401 of the Clean Water Act; Construction Within a Floodway permitting under Indiana Flood Control Act; National Pollution Discharge Elimination System (NPDES) permitting for storm water discharges under the Clean Water Act; permitting under Rule 5 of Indiana State Regulations regarding erosion and sediment control.

Actions committed to or taken to comply with the requirements are summarized below. Monitoring of the commitments within this project will be accomplished in part by INDOT maintaining the mitigation commitments listing and tracking GIS database with regular reviews by FHWA as the project progresses.

## 6.1 Section 106 (National Historic Preservation Act)

For Tier 2 of the I-69 project, a phased approach to investigate archaeological resources was developed. The phased approach included research of existing records and literature to identify known and potential resources in the project corridor. The research phase was followed by a Phase 1a surface survey and visual inspection to locate potential resources within the Area of Potential Effect (APE) of the preferred alternative, and a Phase 1b intensive survey was undertaken at one site to further assess NRHP eligibility. No sites identified within the Selected Alternative 4 were recommended for Phase II evaluation and the Indiana State Historic Preservation Officer (SHPO) concurred with this finding. Phase 1c investigations were recommended for three locations within the Alternative 4 alignment—Pigeon Creek, Halfmoon Creek, and West Fork Keg Creek; however, access was granted at only one of these locations (see FEIS Section 5.14, *Archaeology Impacts*.)

On July 16, 2007, FHWA signed a “Revised Section 106 Findings and Determinations: Area of Potential Effect, Eligibility Determinations, Effect Finding,” that incorporated the findings of archaeological investigations together with aboveground properties. FHWA, in consultation with the Indiana SHPO, determined that there are no NRHP-eligible resources affected within the APE of Section 1; however, due to the inability to complete Phase 1c investigations, “the finding is ‘No adverse effect’ with conditions to be set forth in the Memorandum of Agreement.” On August 13, 2007, the Indiana SHPO concurred with this finding. Completion of the Phase 1c evaluations will occur following acquisition of the subject properties. Commitments for completion of the Phase 1c evaluations and further consultation if any potentially eligible resources are identified have been included in the Memorandum of Agreement<sup>4</sup> If results of additional testing show that Phase III Archaeological Mitigation would be warranted, that work would be completed, in consultation with the Indiana SHPO, before construction on the project could begin at that site. The FEIS Vol. II, Appendix F, contains all documentation related to Section 106 activities in Section 1.

## 6.2 Air Quality Conformity Finding (Clean Air Act)

The Evansville Metropolitan Planning Organization (MPO) included Tier 1 Preferred Alternative 3C in its 2030 Transportation Plan and the U.S. Department of Transportation (USDOT) found it to conform to both the 8-hour Ozone and PM<sub>2.5</sub> regional conformity requirements based on a 2017 construction timeline. The regional conformity demonstration has been updated (May 2007) to reflect the revised I-69 implementation timeline (completion of construction by year 2010 for I-69 Section 1 from I-64 to SR 68), in accordance with the May 20, 2003, FHWA *Policy Memorandum: Air Quality Conformity* (see FEIS Vol. II, Appendix J). FHWA’s conformity finding for Evansville’s Transportation Plan was issued on June 8, 2007. A project level carbon monoxide (CO) hot-spot analysis was completed for I-69 Section 1 build alternatives, and the results were all below the associated CO National Ambient Air Quality Standards (NAAQS). Consultation regarding PM<sub>2.5</sub> qualitative hot-spot analysis affirmed that Alternative 4 is not a project of air quality concern and therefore no further analysis is required (see FEIS Section 5.9, *Air Quality*).

Regarding Mobile Source Air Toxics (MSATs), in the absence of established criteria for determining when MSAT emissions should be considered a significant issue in the NEPA context, a qualitative analysis of

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<sup>4</sup> The consulting parties were provided the opportunity to sign the MOA as concurring parties, and three chose to do so. Two of the consulting parties responded before the publication of the Section 1 FEIS, and their submittals were included with the MOA in that document (see FEIS Vol. II, Appendix F). The third consulting party’s concurring party submittal arrived after the FEIS was published. It is included in Appendix C, herein.

emissions to compare or differentiate among proposed project alternative scenarios was prepared, per FHWA<sup>5</sup> guidance. MSAT emissions are projected to decrease substantially in the future as a result of new EPA programs. As a result, the I-69 Section 1 project is expected to result in low potential MSAT effects. In addition, the I-69 Section 1 corridor is situated in a rural setting, which would tend to lessen any impact from MSAT emissions.

### **6.3 Section 7 (Endangered Species Act)**

A Tier 2 BA for Section 1 (see FEIS Vol. II, Appendix Q) on the preferred alternative was prepared for USFWS in accordance with procedures set forth in the revised Tier 1 BO issued by USFWS on August 24, 2006 (see FEIS Vol. II, Appendix N). The Tier 2 Section 1 BA—which includes a plan for mitigation for impacts to wetlands, forests, and streams on a 160-acre site in Gibson County—stipulates that all conservation measures reported in the revised Tier 1 BO will be carried out as written. It provides USFWS new and/or detailed information including a discussion of the expanded Summer Action Area for the Indiana bat, revised direct forest impact data, and a proposed mitigation site plan; and document compliance with the requirements of the revised Tier 1 BO.

Conservation measures were jointly developed by the FHWA, INDOT, and USFWS during informal consultation and were subsequently incorporated into the Tier 1 BA and the Tier 1 BA Addendum as part of the official Proposed Action for the I-69 project. The Tier 2 Section 1 BA and mitigation plan are consistent with the mitigation and commitments in the revised Tier 1 BO, except where status changes were made in conservation measures reported in the revised Tier 1 BO. Such changes are documented in the Tier 2 BO issued August 29, 2007 (see FEIS Vol. II, Appendix Q), and generally occur because the conditions (such as karst features and environmentally sensitive areas) related to the conservation measures were found not to exist in Section 1.

Since conservation measures are part of the Proposed Action, their implementation is required under the terms of the consultation. These measures were specifically designed to avoid and minimize impacts of the proposed action on Indiana bats and bald eagles and to further their recovery. The Tier 2 Section 1 FEIS (see Section 7.3.15, *Threatened and Endangered Species*) presents the conservation measures applicable to Section 1. FEIS Section 5.17 (also titled *Threatened and Endangered Species*) and the revised Tier 1 BO provide a history of the Section 7 consultation for this project. The revised Tier 1 BO also contains the complete list of conservation measures for the I-69 project as a whole. The issuance of the Tier 2 Section 1 BO concluded formal Section 7 consultation for I-69 Section 1.

### **6.4 Permitting**

#### **6.4.1 Section 404 Permits (Clean Water Act)**

Projects involving discharges of material into waters of the United States, including jurisdictional wetlands require a permit or a letter of permission from USACE prior to the commencement of construction. As part of this project, all streams and potential wetlands within the project area were assessed. The assessment identified the streams and wetland areas within the project area that would be subject to USACE permitting jurisdiction.

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<sup>5</sup> Interim Guidance on Air Toxics in NEPA Documents, FHWA, Feb. 3, 2006.

At the same time as the FEIS was being finalized for publication, coordination was underway with the USACE to make a Jurisdictional Determination for “Waters of the United States” that will be regulated under Section 404 of the Clean Water Act. In its Jurisdictional Determination (as documented in FEIS Vol. II, Appendix B – see letter dated August 17, 2007), USACE has determined that, for Section 1, all water resources impacted within Section 1 (streams, wetlands and open waters) to be waters of the U.S. and subject to permitting under the requirements of Section 404 of the Clean Water Act.

The Tier 2 Section 1 FEIS (see Section 5.17, *Water Resources*) identifies stream, wetland, and open water impacts and the agreed to mitigation ratios: 1 to 1 ratio for streams and open water, and 2 to 1 and 3 to 1 ratios for emergent wetlands and forested wetlands, respectively. The Section 1 Tier 2 BA and *Conceptual Mitigation Plan*, approved in USFWS’s Tier 2 Section 1 BO (see FEIS Vol. II, Appendix Q) sets forth the specific plans for meeting these mitigation requirements. The Plan employs mitigation ratios greater than those required; therefore, the USACE permit conditions will be addressed by the proposed mitigation for impacts to those resources.

The Section 404 Permit application process is underway, but the USACE review has not been completed in time for reporting in this ROD. Applicable Section 404 Permit(s) will be obtained prior to the start of construction on this project and any mitigation required by those permits will be implemented.

#### **6.4.2 Section 401 Water Quality Certification (Clean Water Act)**

Section 401 Water Quality Certifications must be obtained from IDEM prior to issuance of a Section 404 Permit. Following a review of the permit application received on September 14, 2007, and modifications received on October 16, 2007, IDEM granted a Section 401 Water Quality Certification for the I-69 Section 1 project as described in the application and modifications. The certification was made contingent upon conditions cited in the agency’s notification letter, dated October 26, 2007 (see Appendix C, herein).

#### **6.4.3 Construction in a Floodway Permit (Flood Control Act)**

Construction in a Floodway permits will be applied for during the design phase of this project.

#### **6.4.4 NPDES Permit**

An individual National Pollution Discharge Elimination System (NPDES) Permit will be applied for during the design phase of this project, if required.

#### **6.5 Section 4(f) (Department of Transportation Act)**

The criteria of 23 CFR 771.135(a) have been met for Section 1 of the I-69 Evansville-to-Indianapolis project and it has been determined that Section 1 will not use any identified resources protected under this regulation. Though it has been determined to be unlikely, if any archaeological sites eligible for the NRHP are identified that should be preserved in place in this section of the project, the protections under this section will be applied. For a discussion of Section 4(f), please refer to Section 4.0 of this ROD and the Tier 2 Section 1 FEIS, Chapter 8, *Section 4(f) Evaluation*.

## 7.0 COMMENTS ON THE FINAL EIS

This portion of the ROD includes comments received by the INDOT on the Final EIS for the I-69 Tier 2 Section 1 project. The Final EIS was approved by the FHWA on October 17, 2007. The Notice of Availability of the Final EIS was published in the *Federal Register* on October 26, 2007.

Comments on the Final EIS were received from USEPA and the IDNR-DHPA. In its comment letter of November 20, 2007, USEPA acknowledged that “information in the FEIS is generally responsive to all our specific recommendations” (made in the agency’s comments on the DEIS). Many of the comments included recommendations regarding information that the agency wishes to see provided in the EISs of Sections 2 through 6. In its comment letter of November 21, 2007, IDNR-DHPA noted its concurrence with the findings regarding impacts to cultural historic and archaeological resources, and with the provision for completing archaeological investigations.

INDOT and FHWA have carefully reviewed all comments received on the Final EIS and it has been determined that the substantive environmental issues raised in the comments have been fully addressed. FHWA has considered all Final EIS comments in reaching the decisions documented in this ROD.

The comments have been summarized in the text box on the following page (p. 33). Detailed, point-by-point responses to the comments have been prepared in support of this ROD and are provided in the Comments and Responses (C/R) document in Appendix D, herein. In the C/R document, each substantive comment within a submittal is presented individually and is immediately followed by the response. Copies of the correspondence, as submitted by the commentors, follow the C/R document.

## SUMMARY OF COMMENTS ON TIER 2 SECTION 1 FEIS

### U.S. Environmental Protection Agency

- Reiterated the agency's rating of "Lack of Objection" given the DEIS and noted that it was based on "the minimal differences between the alternatives in the type and level of impacts to resources." USEPA also noted that the FEIS "continues to identify that the majority of direct impacts in Section 1 are to farmland" (EPA-1).
- Stated that "information in the FEIS is generally responsive to all our specific recommendations" (EPA-6).
- Recommended the FEISs for Sections 2 through 6 include the following:
  - A list of substantive changes between the DEIS and the FEIS (EPA-2).
  - As appropriate, the recommendations the agency provided in its comments on Section 1's EISs (EPA-4 and 8).
  - Updated information about the Community Planning Program to better inform the indirect/cumulative impacts analysis and proposed mitigation. Such information should include identifying the participating communities and how they propose to use the grant money, and disclosing how the proposals provide protection and/or enhancement of the community's natural resources (EPA 10).
  - A cross reference that would clearly identify on the impaired streams map (Figure 4.3-7 in Section 1's FEIS) the sections of impaired streams listed on Table 4.3 (EPA-11).
- Recommended tracking and disclosure of direct and indirect impacts along the entire Evansville-to-Indianapolis project (EPA-5); and requested that stream and karst feature impacts be included in the tally of direct impacts to be provided to USEPA and permitting agencies for the 142-mile alignment (EPA-9). Also, recommended that the Section 1 ROD provide either the details of the mitigation tracking method or the timetable for the development and disclosure of the details (EPA-5 and 9).
- Commended INDOT for the forest mitigation ratio commitments and for proposing three wildlife crossings (EPA-7).
- Recommended continued coordination with IDEM on "post construction stormwater management relevant to a high capacity freeway, so that runoff is handled well" (EPA-12).
- Requested to review the Section 1 mitigation plan once it is past the conceptual stage (EPA-13).
- Noted that information and insights about the use of the Indiana Wetland Rapid Assessment Procedures (InWRAP) should be shared with agencies and Taylor University (EPA-14).
- Acknowledged the clarification in the FEIS that the U.S. Army Corps of Engineers makes the Clean Water Act Section 404 *Least Environmentally Damaging Practicable Alternative* (LEDPA) determination (EPA-15); and noted the FEIS better (than the DEIS) explains "the trade-offs of environmental impacts between alternatives" (EPA-16).
- Requested clarification regarding the wetland mitigation proposed in Section 1, listed several questions regarding specific information it was seeking, and noted: "Much work remains for planning and monitoring the mitigation project" (EPA-17). The agency also noted that the "quality and success of all of the mitigation areas will depend on adequate buffers between those areas and properties not held in a perpetual conservation easement" (EPA-18).

### Indiana Department of Natural Resources – Division of Historic Preservation & Archaeology

- Noted its concurrence with "the FEIS's characterization of the project's impacts on above-ground properties and impacts on archaeological properties, as known to date, and we are satisfied with the provisions for completion of the archaeological investigations in the September 7, 2007 Section 106 memorandum of agreement for this undertaking" (DHPA-1).

*Note: (EPA-#) indicates the Identification Code provided with each comment and response in the Comment/Response document in Appendix D.*

## 8.0 RECORD OF DECISION

For the foregoing reasons, and based on the analysis and evaluation contained in the project's Final Environmental Impact Statement; after careful consideration of all the identified social, economic, and environmental factors and input received from other agencies, organizations, and the public; and the factors and project commitments and mitigation measures outlined above, it is the decision of the FHWA to approve the selection of the Alternative 4 as the Selected Alternative for the I-69 Tier 2 Section 1 project.

12/12/2007

Date

Robert F. Tally, Jr.

Robert F. Tally, Jr.  
Division Administrator  
Federal Highway Administration  
Indiana Division





***I-69 CORRIDOR TIER 2 STUDIES***  
Evansville to Indianapolis

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**APPENDIX A**

**COMMITMENTS SUMMARY FORM**

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### Commitments Summary Form

<b>Des. No.:</b>	0300377
<b>Project No.:</b>	
<b>Counties:</b>	Gibson and Warrick Counties
<b>Description:</b>	Tier 2 I-69 Evansville to Indianapolis, Section 1
<b>Project Termini:</b>	Interchange of I-64 and I-164 north of Evansville to SR 64 west of Oakland City
<b>Average R/W Width:</b>	350 feet

<p><b>Committed Items:</b> (If implementation is not possible, section that made commitment must document review.) <i>Note: These include some Tier 1 commitments which have been satisfied during this Tier 2 study.</i></p>																											
<p>1. The Section 7 Incidental Take Limits for the Indiana bat are listed below:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Take Source</th> <th style="text-align: left;">Bat Description</th> <th style="text-align: left;">Annual Limit</th> <th style="text-align: left;">Total Limit (2013-2030)</th> </tr> </thead> <tbody> <tr> <td>Road Kill</td> <td>Female/Juvenile</td> <td>Annual Limit for</td> <td>8 bats</td> </tr> <tr> <td>Road Kill</td> <td>Male</td> <td>roadkill is 1 bat</td> <td>5 bats</td> </tr> <tr> <td colspan="3">Habitat Loss/ Harassment</td> <td>8 bats</td> </tr> <tr> <td colspan="3">Forest Loss</td> <td>28 acres</td> </tr> <tr> <td colspan="3">Non Forested Wetland Loss</td> <td>1.33 acres</td> </tr> </tbody> </table> <p>Formal consultation with the USFWS must be reinitiated if annual roadkill exceeds limits or forest/wetland loss exceeds limits by 10% or more.</p>				Take Source	Bat Description	Annual Limit	Total Limit (2013-2030)	Road Kill	Female/Juvenile	Annual Limit for	8 bats	Road Kill	Male	roadkill is 1 bat	5 bats	Habitat Loss/ Harassment			8 bats	Forest Loss			28 acres	Non Forested Wetland Loss			1.33 acres
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<p>2. The Incidental Take Limits for the bald eagle are listed below:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Take Source</th> <th style="text-align: left;">Description</th> <th style="text-align: left;">Take Limit</th> <th style="text-align: left;">Time Range</th> </tr> </thead> <tbody> <tr> <td>Road Kill</td> <td></td> <td>3 eagles</td> <td>any 5 year period</td> </tr> <tr> <td>Forest Loss</td> <td colspan="3">Not Applicable to Section 1</td> </tr> </tbody> </table> <p>Formal consultation with the USFWS must be reinitiated if limits for take are exceeded.</p>				Take Source	Description	Take Limit	Time Range	Road Kill		3 eagles	any 5 year period	Forest Loss	Not Applicable to Section 1														
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Road Kill		3 eagles	any 5 year period																								
Forest Loss	Not Applicable to Section 1																										
<p>3. Develop a detailed, site specific mitigation plan for the proposed Section 1 Mitigation Area. Plans will include construction and establishment, 5-year monitoring, and long term management. The Biological Opinion (BO) lists points for the plan to address.</p>																											
<p>4. Anywhere within Pigeon Creek Maternity Colony circle, mitigation construction must begin before or during the first summer season (15 April to 15 September) immediately after and I-69 tree clearing or construction. All mitigation construction and planting must be completed 3 years after initiation.</p>																											

**Committed Items:** (If implementation is not possible, section that made commitment must document review.) *Note: These include some Tier 1 commitments which have been satisfied during this Tier 2 study.*

5. An annual report is required for both the Indiana Bat and the Bald Eagle.

FHWA will provide the Service with a written annual report that summarizes the previous year's conservation and mitigation accomplishments, remaining efforts, and any problems encountered within Section 1. This annual report will be completed throughout the 5-year post-construction monitoring period. The annual report for Section 1 may be a stand-alone document or included as part of the annual report required under the 2006 Tier 1 BO Terms & Conditions Number 2.

2006 Tier 1 BO Terms and Conditions #2 - FHWA will prepare and annual report detailing all conservation measures, mitigation efforts, and monitoring that have been initiated, are on-going- or completed during the previous calendar year and the current status of those yet to be completed. The report will be submitted to the Service's Bloomington Field Office (BFO) by 31 January each year (the first report will be due 1-31-07) and reporting will continue for at least 5 years post-construction or until otherwise agreed to with the Service.

6. All I-69 engineering supervisors, equipment operators, and other construction personnel and INDOT (and/or concessionaire) maintenance staff will attend a mandatory environmental awareness training that discloses:

Indiana Bats – where known sensitive Indiana bat sites are located in the project area, address any other concerns regarding Indiana bats, and presents a protocol for reporting the presence of any live, injured, or dead bats observed or found within or near the construction limits or right-of-way during construction, operation, and maintenance of I-69.

Bald Eagles – where known bald eagle nests are located in the project area, addresses any other concerns regarding bald eagles, and presents a protocol for reporting any eagle nests, any live, sick, injured, or dead eagles observed or found within or near the construction limits or right-of-way during construction, operation, and maintenance of I-69. Project personnel will also be instructed about the terms and conditions of the Incidental Take Statement and the restrictions imposed by them before construction and operation begins.

7. Any dead bats located within the construction limits, right-of-way, rest stops, or mitigation areas of I-69, regardless of species, should be immediately reported to USFWS Bloomington Field Office (BFO) [(812) 334-4261], and subsequently transported (frozen or on ice) to BFO. No attempt should be made to handle any live bat, regardless of its condition; report bats that appear to be sick or injured to BFO. BFO will make a species determination of any dead or moribund bats. If an Indiana bat is identified, BFO will contact the appropriate Service or Law Enforcement office as required.

8. Any dead bald or golden eagles found within the construction limits, right-of-way, rest stops, or mitigation areas of I-69, should be reported to BFO [(812) 334-4261] as soon as possible and subsequently transported (frozen or on ice) to BFO. Any sick or injured bald or golden eagle located within the construction limits, right-of-way, rest stops, or mitigation areas of I-69 should immediately be reported to BFO (and an Indiana Conservation Officer or the State Police if outside of normal business hours or on weekends). If possible, attempts should be made to remove an injured eagle from harm's way, until a trained person arrives to safely capture and transport the bird. Sick and injured eagles will be transported to a veterinarian or a rehabilitation center that has a valid Federal permit to treat and rehabilitate eagles.

9. Alignments will be located to minimize impacts to forested areas and core forests.

<p><b>Committed Items:</b> (If implementation is not possible, section that made commitment must document review.) <i>Note: These include some Tier 1 commitments which have been satisfied during this Tier 2 study.</i></p>
<p>10. To locate Indiana bats within the action area, mist net surveys will be conducted as part of Tier 2 studies. If captured, Indiana bats will be radio-tracked to locate roost trees.</p>
<p>11. Bridge surveys will be conducted in action area as part of Tier 2 studies.</p>
<p>12. Site specific plans will be developed including stream mitigation and monitoring plans regarding stream relocations.</p>
<p>13. INDOT will adhere to the multi-agency Wetland and Karst MOUs.</p>
<p>14. Equipment servicing and maintenance areas will be restricted to designated areas away from streams and sinkholes to their immediate watersheds.</p>
<p>15. Where appropriate, road side ditches will be constructed with filter strips and containment basins.</p>
<p>16. Construction equipment will be maintained in proper mechanical condition.</p>
<p>17. Roadways will be designed to contain accidental spills.</p>
<p>18. Herbicide use will be minimized in identified environmentally sensitive areas.</p>
<p>19. Bridges will be designed with none or a minimum of in-span drains and water will be directed toward drainage turnouts at the ends of the bridge.</p>
<p>20. Appropriately designed measures for controlling erosion and sediment (such as placement of riprap check dams in drainage ways and ditches, installation of silt fences, and covering exposed areas with erosion control matting or straw) will be implemented to prevent sediment from entering the stream or leaving the construction site. These measures will be maintained until construction is complete and all disturbed areas are stabilized.</p>
<p>21. Parking and turning areas for heavy equipment will be outside and away from environmentally sensitive areas.</p>
<p>22. Wetland and forest mitigation will occur within the action area with priority given to sites within 2.5 miles of Indiana bat capture sites or roost trees. Mitigation sites will be planted with a mixture of native trees that is largely comprised of species that have been identified as having relatively high value as potential Indiana bat roost trees. Tree plantings will be monitored for five years after planting to ensure establishment and protected in perpetuity via conservation easements.</p>
<p>23. Forest impacts occurring within each of the thirteen 2.5 mile radius maternity colony areas would be mitigated by replacement (i.e. planting of new forest and purchase of existing) at approximately 3:1, preferably in the vicinity of the known roosting habitat.</p>
<p>24. Summer habitat will be purchased at fair market value in the action area from “willing sellers” to preserve summer habitat. Any acquired summer habitat area would be turned over to an appropriate government conservation and management agency for protection in perpetuity via conservation easements.</p>

**Committed Items:** (If implementation is not possible, section that made commitment must document review.) *Note: These include some Tier 1 commitments which have been satisfied during this Tier 2 study.*

25. Conduct additional mist net surveys at 50 sites to monitor status of the 13 known Indiana bat maternity colonies in the action area (only 4 sites are applicable for Section 1). Surveys will be completed the summer before construction begins in a given section and will continue each subsequent summer during the construction phase and for at least five summers after construction has been completed. If Indiana bats are captured, radio transmitters will be used in an attempt to locate roost trees. These monitoring efforts will be documented and summarized within an annual report prepared for the Service.

26. Total funding of \$25,000 will be provided for the creation of an educational poster or exhibit and/or other educational outreach media to inform the public about the presence and protection of bats, particularly the Indiana bat.

27. GIS maps and databases developed and compiled for use in proposed I-69 planning will be made available to the public.

28. INDOT and FHWA will develop a program that establishes a regional strategy for managing growth.

29. Wildlife passages will be used at key locations along the Interstate to reduce wildlife impacts. Three wildlife corridors are proposed for Section 1: at the crossing of Pigeon Creek, at the crossing of CR 450 S, and along a creek just south of CR 600 S. The structures for Pigeon Creek and at CR 450S would have sufficient clearance (minimum 8' x 24') to permit the passage of large mammals beneath them, thereby preserving the connection to wildlife habitat east and west of the Interstate. The structure south of CR 600S would provide for a natural substrate bottom to facilitate the passage of fauna of moderate to small size. Other measures could include, but are not limited to:

- Barrier fencing (large species).
- All wildlife crossing types will be determined and designed considering size, placement, substrate, vegetative cover, moisture, temperature, light, and human disturbance.
- Roadway warning signs and flashers.
- Planting unpalatable species near roadway to reduce likelihood of wildlife attraction.

30. INDOT and FHWA will provide financial and technical assistance to the SHPO to support the completion of field surveys and publishing of County Interim Reports for the Inventory. Also, INDOT and FHWA will cooperate with the IDNR-DHPA to provide the most current information on historic structures in counties that the selected alternative traverses (i.e., Gibson, Pike, Daviess, Martin, Monroe, Morgan, Johnson, and Warrick Counties, and the portion of Marion County that includes Decatur, Perry, and Franklin Townships).

<p><b>Committed Items:</b> (If implementation is not possible, section that made commitment must document review.) <i>Note: These include some Tier 1 commitments which have been satisfied during this Tier 2 study.</i></p>
<p>31. Where reasonable and cost effective, local access roads (e.g., frontage roads and road relocations) will be used to maintain accessibility for residences, farm operations, businesses, churches, schools and other land uses.</p>
<p>32. Efforts will be made to minimize the disruption of local cross roads and bicycle facilities, and minimize impacts to school bus routes.</p>
<p>33. Efforts will be made to minimize the number of relocations.</p>
<p>34. All acquisitions and relocations required by this project will be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended, 49 CFR (Code of Federal Regulations) 24, and Title VI of the Civil Rights Act of 1968.</p>
<p>35. If the preferred alternative disturbs ground within 100 feet of a cemetery gravesite, a development plan will be completed and submitted to IDNR Division of Historic Preservation and Archaeology during the design phase of project development as per the Indiana Historic Preservation and Archaeology Law (IHPAA).</p>
<p>36. Noise abatement measures have been analyzed. These included roadway geometrics (see next point) and noise barriers. In Section 1 there is only one site (Site 9, described in Section 5.10, <i>Highway Noise Impact</i>) where noise levels affected by the project required analysis of noise abatement measures. The analysis determined such measures were not reasonable (See Section 5.10, <i>Highway Noise</i>).</p>
<p>37. Environmentally sensitive locations (e.g., wetlands, sinkholes, archaeology sites) in the general area will be clearly shown on construction plans. Sites within the right-of-way will be delineated. These sites will not be permitted for use as staging areas, borrow, or wasted sites.</p>
<p>38. Wetlands adjacent to construction limits will be protected with silt fences and other erosion control measures.</p>
<p>39. Timely revegetation after soil disturbance will be implemented and monitored. Revegetation will consider site specific needs for water. Erosion control measures will be put in place as a first step in construction and maintained throughout construction.</p>
<p>40. If riprap is utilized for bank stabilization, it shall be of appropriate size and extend below the low-water elevation to provide for aquatic habitat</p>
<p>41. Slopes will be designed that resist erosion. If they exceed 2 to 1, they will include stabilization techniques. Soil bioengineering techniques for bank stabilization will be considered where situations allow.</p>
<p>42. To protect sources of potable water, construct grassy swales to divert stormwater from the road to ditches and streams, and use construction methods to reduce turbidity that construction temporarily causes.</p>
<p>43. Construction equipment will be maintained in proper mechanical condition. Fugitive dust generated during land clearing and demolition procedures will be controlled by proper techniques.</p>

**Committed Items:** (If implementation is not possible, section that made commitment must document review.) *Note: These include some Tier 1 commitments which have been satisfied during this Tier 2 study.*

44. To avoid any direct take of Indiana bats, no trees with a diameter of 3 or more inches will be removed between April 15 and September 15. Tree clearing and snag removal will be avoided or kept to a minimum and limited to within the construction limits. In the median, outside the clear zone and considering other safety factors, tree clearing will be kept to a minimum with woods kept in as much a natural state as reasonable. Forested medians will be managed following IDNR State Forest timber management plan.

45. Revegetation of disturbed areas will occur in accordance with INDOT standard specifications. Woody vegetation will only be used a reasonable distance beyond the clear zone to ensure a safe facility. Revegetation of disturbed soils in the right-of-way and medians will utilize native grasses and native wildflowers, as appropriate, such as those cultivated through INDOT's Roadside Heritage program.

46. During construction, any spill incidents on site will be handled in accordance with INDOT spill response protocol as outlined in its Construction Activity Environmental Manual and Field Operations Manual Procedure 20.

47. Heavy blasting is not anticipated; however, in the event it is required, strict blasting specifications will be followed.

48. A Traffic Management Plan will be developed in design through coordination with local agencies, emergency responders, and schools to ensure that appropriate access is maintained during construction with as little disturbance to emergency routes as possible. Early notice of detour routes will be provided to the local communities.

49. Construction in a Floodway permit(s) would be applied for before or during the design phase of this project.

50. Construction will adhere to the Wetland MOU (dated January 28, 1991). The Wetland MOU minimizes impacts to the Indiana bat by mitigating for wetland losses, and creating bat foraging areas at greater ratios than that lost to the project.



**Committed Items:** (If implementation is not possible, section that made commitment must document review.) *Note: These include some Tier 1 commitments which have been satisfied during this Tier 2 study.*

51. BMPs will be used in the construction of this project to minimize impacts related to borrow and waste disposal activities. Solid waste generated by clearing and grubbing, demolition or other construction practices will be removed from the location and properly disposed. Contractors are required to follow safeguards established in INDOT's *Standard Specifications*. These safeguards include obtaining required permits, and identifying and avoiding or mitigating impacts at borrow/disposal sites that contain wetlands or archaeological resources. Special Provisions will also include prohibiting tree clearing from April 15 to September 15 within the Summer Action Area of the Indiana bats, as identified in the revised Tier 1 and Tier 2 BOs; and prohibiting the filling and other damaging of wetlands outside the construction limits. Note: this prohibition would not extend to isolated ponds such as farm ponds and those developed from old borrow sites.

52. Burning of construction related debris would be conducted in accordance with all local, state, and federal regulations. All burning will be conducted a reasonable distance from all homes and care will be taken to alleviate any potential atmospheric conditions that may be a hazard to the public. All burning will be monitored.

53. Wetlands within the right-of-way that are not to be filled will be delineated and protected from construction use.

54. Phase 1c testing has not been completed. Commitments for completion of the Phase 1c work and any subsequent phases of archaeological investigation identified through that research have been developed for an MOA. If the results of additional testing show that Phase III Archaeological Mitigation would be warranted, that work would be completed, in consultation with the Indiana SHPO, before construction on the project could begin at that site. Any sites requiring further investigations will be included in the Record of Decision.

55. Efforts will be made in this project to create positive impacts and reduce negative impacts without compromising traffic operations and safety. Visual and aesthetic resource issues will be addressed in greater detail through INDOT's continuing consultation with the Section 1 CAC and local groups and/or communities during the design phase.

56. Appropriate cleanup of hazardous materials and/or removal of underground storage tanks (USTs) and aboveground storage tanks (ASTs) may be required if a contaminated site is purchased. INDOT will coordinate with the appropriate agencies and property owners to see that proper cleanup of any contaminated site is completed.

**Committed Items:** (If implementation is not possible, section that made commitment must document review.) *Note: These include some Tier 1 commitments which have been satisfied during this Tier 2 study.*

57. Where construction would require the removal / relocation of buried fuel (oil, natural gas, and diesel) pipelines, coordination will occur with pipeline owners, per INDOT's *Standard Specifications*. Also, stipulations in the *Standard Specifications* will be followed to ensure safe removal / relocation of the pipelines and associated appurtenances, and appropriate remediation of soils and groundwater impacts, should such be necessary. In addition, the procedure will include advance notification of IDEM regarding the potential for contamination of groundwater and need for remediation.

58. INDOT will be responsible for proper closing of any improperly abandoned oil well discovered during construction within the project right-of-way, according to INDOT Standard Operating Procedures for closing wells that are to be abandoned. In addition, the procedure will include advance notification of IDEM regarding the potential for contamination of groundwater and need for remediation.

59. Longitudinal and transverse floodplain encroachments will be minimized, where reasonable, through design practices such as longer bridges and perpendicular stream crossings. The crossing at Pigeon Creek is a perpendicular crossing. The bridge will span enough of the floodplain to prevent a rise in the existing high water elevation. A hydraulic study during final design will determine the length of the span.

60. Wetlands and wetland complexes will continue to be avoided as much as possible. Wetlands outside the actual footprint of the project will be protected from secondary construction impacts specific to borrow and waste sites.

61. Wetlands determined to be "waters of the U.S." will be replaced in accordance with the MOU between INDOT, USFWS, and IDNR as dated January 28, 1991, or any successor agreement entered into by these agencies.

62. Post DO NOT DISTURB signs at the construction zone boundaries and do not clear trees or understory vegetation outside the boundaries.

63. INDOT will work with local officials to manage access at interchange locations. This is with the intent of directing subsequent development away from large expanses of prime farmland, thus preserving this resource.

**Committed Items:** (If implementation is not possible, section that made commitment must document review.) *Note: These include some Tier 1 commitments which have been satisfied during this Tier 2 study.*

64. Many farm parcels that would have lost access as a result of the project will be provided access via new roads as features of the project. Where providing access was not deemed reasonable from an economic standpoint (i.e., it would cost more to provide new access than to acquire the property), the disposition of landlocked parcels and uneconomic remnants will be addressed during final design. In several locations overpasses will be provided to maintain the connectivity of local roads. The overpasses would facilitate access to farm operations divided by I-69.

65. Coordination will continue with the NRCS in Section 1 to determine the feasibility of participating in the Farm and Ranch Lands Protection Program (formerly known as the Farmland Protection Program).

66. Regional farmland protection strategies will be incorporated into the I-69 Community Planning Program.

67. Riparian forest impacts were calculated by identifying plant communities within 100 feet of a stream, measured from the stream's center. If these riparian forests are identified as wetland forests, the impacts will be mitigated according to the Wetland MOU. If the riparian forests are identified as non-wetland forests in a floodway, impacts will be mitigated according to IDNR ratios: 2:1 replanting or 10:1 preservation. (It should be noted no non-wetland forest in a floodway have been identified in Section 1.) Impacts to non-wetland riparian forests that are not in a floodway will be mitigated at a ratio of 1 to 1 on a linear feet basis in consultation with IDEM and USACE.

68. The realignment of surface streams or impacts to riffle-pool complexes and natural stream geomorphology will be avoided where reasonable. In instances where this is not possible, stream impacts will be minimized and mitigated. Stream relocations will be completed using the natural channel design features that are identified through coordination with IDNR to develop a channel that is as good as or better than the impacted channel considering, also, a channel's status as a legal drain.

69. Where reasonable, below-water work will be restricted to placement of piers, pilings and/or footings, shaping of spill slopes around the bridge abutments, and placement of riprap.

70. Where reasonable, channel work and vegetation clearing shall be restricted to within the width of the normal approach road right-of-way.

71. Culverts and other devices will be placed so that they do not preclude the movement of fish and other aquatic organisms. Culverts and other devices will be used to preserve existing drainage patterns.

72. Post "Do Not Mow or Spray" signs where woody vegetation, wetlands, wildflowers or environmentally sensitive areas occur.

**Committed Items:** (If implementation is not possible, section that made commitment must document review.) *Note: These include some Tier 1 commitments which have been satisfied during this Tier 2 study.*

73. In mitigation sites and within the proposed right-of-way for I-69, INDOT will use appropriate herbicides and/or physical mechanisms to control invasive plants, such as purple loosestrife, canary reed grass, kudzu, Japanese knotweed and others.

74. Coordination with USFWS will continue pursuant to the Migratory Bird Treaty Act of 1918.

75. Minimize tree clearing and snag removal near streams. [Note: Providing approximately 20 feet of cleared space around a bridge would be permitted to allow sufficient room for bridge maintenance and inspection.]

76. Make every effort to minimize the amount of salt used on the bridges and roads for deicing. Use alternative substances (e.g., sand) or low salt as much as possible. INDOT's Standard Operating Procedures for applying deicing chemicals to roadways and bridges, including the mixture composition of these deicing materials, is included in this FEIS as Appendix R.

77. Any barn, silo, or structure with an attic that is to be removed by this project will be inspected for the presence of the state endangered barn owl (*Tyto Alba*).

78. Complete all approved discharges no later than two (2) years after issuance of the Section 401 Water Quality Certification dated October 26, 2007. The applicant may request a one (1) year extension to the Section 401 Water Quality Certification by submitting a written request ninety (90) days prior to the deadline stated above.

79. Complete all activities necessary to create the mitigation wetland within one (1) year after issuance of the Section 401 Water Quality Certification dated October 26, 2007, unless IDEM grants a written extension upon request.

**Items for further consideration:** (Designer or other responsible party must briefly describe and implement response.)

1. Working with the service (USFWS), develop national best management practices (BMP's) for addressing Indiana bat issues associated with FHWA-funded projects within the range of the Indiana bat.
2. Provide funding to expand on scientific research and educational outreach efforts on Indiana bats in coordination with the service's BFO.
3. In coordination with the BFO, purchase or otherwise protect additional Indiana bat hibernacula and forested swarming habitat in Indiana.
4. Provide funding to staff a full-time Indiana Bat Conservation Coordinator position within the BFO, which has the service's national lead for recovering the wide-ranging species.
5. Working with the service, develop guidelines for addressing Bald Eagle issues associated with FHWA projects in the Midwest.
6. If delisted, provide funding to implement a bald eagle post-delisting monitoring plan in Indiana or throughout the Midwest.
7. Expand on educational and outreach efforts on bald eagles in Indiana.
8. Where reasonable, the preferred alternative follows existing property lines and minimizes dividing or splitting of large tracts of farmland to reduce the creation of point rows and uneconomic remnants.
9. The final design of the preferred alternative may include shifting the alternative both vertically and horizontally, wherever feasible, to minimize noise impacts where other factors are not prohibitive.
10. Consideration will be given to providing reasonable and feasible noise abatement early in construction for the added benefit of mitigating construction noise. Construction vehicles will be required to follow INDOT *Standard Specifications* on controlling noise.
11. Construction noise abatement measures may be required in areas where residences or other sensitive noise receivers are subjected to excessive noise from highway operations. Consideration will be given to providing reasonable and feasible noise abatement early in the construction phase to mitigate construction noise. Noise impacts could be controlled through the regulation of construction time and hours worked, using noise-controlled construction equipment, limitations of construction vehicles during evening and weekend hours and by locating equipment storage areas away from noise sensitive areas.
12. Conventional lighting is currently provided at the I-64/I-164/SR 57 interchange. That lighting will be perpetuated and additional lighting may be provided for the proposed I-64/I-164/I-69 interchange. Conventional lighting is also being considered on a short-term basis (2 – 3 years) on the south side of

**Items for further consideration:** (Designer or other responsible party must briefly describe and implement response.)

the SR 68 interchange. During this short-term period, I-69 will terminate at SR 68 and traffic will be routed to SR 57. The lighting is proposed as a safety measure during this time. (Conventional highway lighting has poles of about 40 feet with 250 or 400 Watt HPS lamps.) It is not anticipated that any other section of the roadway in Section 1 will require lighting. If during final design other locations are identified where lighting is deemed necessary, INDOT will consider the use of non-diffuse, energy-efficient lighting.

13. The extent of artificial bank stabilization will be minimized. Soil bioengineering techniques for bank stabilization will be considered where situations allow.

14. Where reasonable, the preferred alternative will cross rivers and streams at their narrowest floodway width, and reduce the number of stream relocations and floodplain encroachments.

15. Return disturbed in-stream habitats to their original condition, when possible, upon completion of construction in the area. Also, to help offset stream impacts, the mitigation plan proposes on-site mitigation (e.g., bridging, oversizing box culverts, and use of three-sided box culverts to maintain a natural substrate, and possible bio-engineering for stream bank stabilization) in all suitable areas in the preferred alternative's right-of-way.

16. Post informational signs noting the location and crossing of the Wabash-Erie Canal.



**APPENDIX B**

**TECHNICAL MEMORANDUM**

**EFFECT OF INDOT'S 2030 LONG-RANGE PLAN CHANGES  
ON I-69 TIER 2 SECTION 1 TRAFFIC FORECASTS**



## I-69 CORRIDOR TIER 2 STUDIES Evansville to Indianapolis

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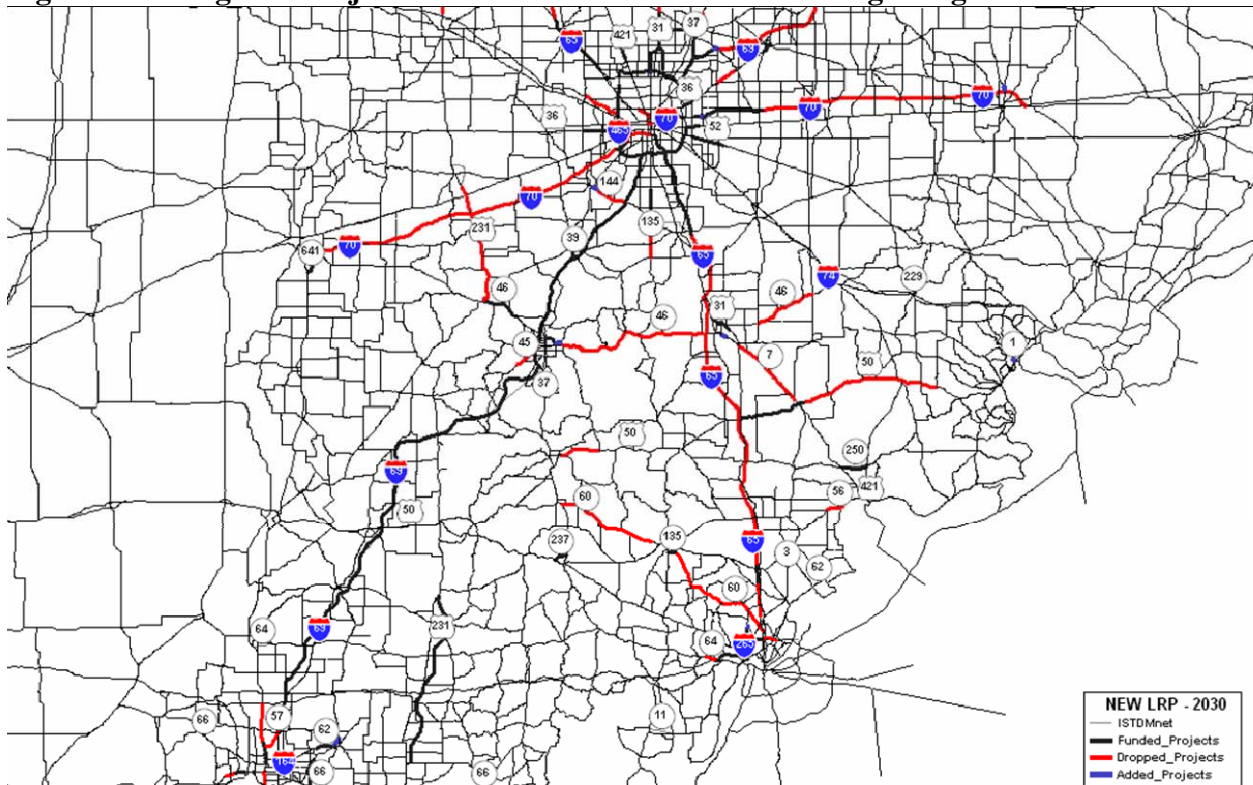
## Purpose of the Technical Memorandum

In June 2007, INDOT issued a new statewide long-range transportation plan (LRP) for 2030. The net effect of the new LRP was to designate a large number of previously planned projects as “unfunded”. All of the previously planned projects had been assumed to be built for purposes of the I-69 Tier 2 2030 traffic forecasts. This change in the LRP assumptions raises a question about the validity of the Section 1 forecasts and their associated levels of service (LOS). Given this question, a comparison between the traffic forecasts on I-69 under both sets of assumptions regarding the LRP projects was undertaken. This memorandum describes the analysis and conclusions of that comparison.

## Analysis

The following figure depicts: the funded projects in the new LRP; the dropped (i.e., “unfunded”) projects; and the added projects. As the graphic shows, there are no projects in Section 1 that have been affected by the new LRP. The nearest affected projects are the elimination of improvements to US 41 and SR 57 – both south of I-64 in Vanderburgh County.

**Figure 1: Changes in Project Status in INDOT’s New 2030 Long-Range Plan**





For this analysis, the Indiana Statewide Travel Demand Model (ISTDM v4) was run for the year 2030 with all projects in Southwestern Indiana represented in the network as they are currently planned in the new LRP. I-69 was represented as completed between Evansville and Indianapolis. The resulting total traffic volumes on I-69 in Section 1 were then statistically compared with the traffic volumes on the same links of I-69 under the previous scenario in which all of the “dropped projects” were represented in the network.

**Table 1: 2030 Traffic Forecasts on I-69 Before and After INDOT Long-Range Plan Changes<sup>1</sup>**

	<b>Before</b>	<b>After</b>
<b>I-64 to SR 68</b>	31,769	31,640
<b>SR 68 to SR 168</b>	28,520	28,385
<b>SR 168 to SR 64</b>	29,231	29,884

A paired Student’s *t*-test was conducted to determine if a statistically significant difference exists between the means of the two sets of forecast 24-hour traffic volumes in Section 1 of I-69. Further, for both model runs, the modeled traffic volumes were post-processed to determine the levels of service (LOS) associated with the traffic volumes.

## Results and Conclusion

The actual difference between the two average (mean) 24-hour traffic volumes is less than one half of 1%. The resulting *t*-statistic is -0.496 with a corresponding probability (*p*) of 0.669. In other words, it can be said with 95% confidence that there is a 66.9% probability that there is no difference in the mean traffic volumes in Section 1 of I-69 between the two model runs. These findings lead to the conclusion that the changes in INDOT’s LRP make will make no significant difference on long-range forecast traffic volumes in this section of I-69.

The comparison between link-specific LOS’s also indicated no change. Levels of service on Section 1 of I-69 will remain at A or B regardless of the change in LRP projects.

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<sup>1</sup> Traffic forecasts represent 24-hour total volumes obtained from the Indiana Statewide Travel Demand Model (v.4).



# **I-69 CORRIDOR TIER 2 STUDIES**

Evansville to Indianapolis

## **APPENDIX C**

### **CORRESPONDENCE SINCE PUBLICATION OF TIER 2 SECTION 1 FEIS**

**C-1 SECTION 106 CONCURRING PARTY**

**C-2 INDIANA DEPARTMENT OF ENVIRONMENTAL  
MANAGEMENT: I-69 SECTION 1, 401 WATER QUALITY  
CERTIFICATION**

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U.S. Department  
of Transportation

**Federal Highway  
Administration**

Indiana Division

575 North Pennsylvania Street, Room 254  
Indianapolis, Indiana 46204

RECEIVED SEP 17 2007  
**APPENDIX C-1**

September 12, 2007

HDA-IN

Dear Consulting Party:

As part of the Section 106 consultation for the I-69 Evansville to Indianapolis, Section 1, the Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT) are providing you, as a consulting party, a copy of the Memorandum of Agreement (MOA) on which FHWA and the State Historic Preservation Officer (SHPO) have concurred.

Please review the MOA. The draft MOA was circulated on July 16, 2007. The SHPO submitted comments, which have been addressed. The Peoria Tribe of Indians of Oklahoma submitted a letter noting its lack of objection to the proposed construction and requesting further consultation should items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) be discovered during construction.

Per Section 106 regulations, FHWA and the SHPO are the official signatories to the MOA. INDOT is an invited signatory.

We invite you as a consulting party to concur in this MOA. If you choose to concur in the MOA, then you may do so by signing the enclosed concurrence page. The FHWA hopes that all consulting parties will concur in the MOA; however, we realize that some may not choose to do so. The decision of a consulting party not to concur in the MOA does not invalidate the MOA.

If you wish to be a concur in the MOA, please sign the concurrence page and return the original signed sheet to the Section 1 Project Office using the enclosed envelope, no later than September 28, 2007. Any questions or comments may be directed to Mr. Anthony DeSimone at (317)226-5307.

Sincerely,

Robert F. Tally, Jr., P.E.  
Division Administrator

Enclosure

Cc:  
John Carr (IN-SHPO)



CONCURRING PARTY:

DELAWARE NATION

TAMARA FRANCIS

By:  Date: 2/18/07

Organization and Title (if representing an organization): \_\_\_\_\_



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

103-0001-1P6  
APPENDIX C-2

Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
(800) 451-6027  
www.IN.gov/idem

October 26, 2007

VIA CERTIFIED MAIL HAND DELIVERY

Mr. Richard Phillabaum  
Indiana Department of Transportation  
100 N. Senate Avenue, Room N642  
Indianapolis, IN 46204

RECEIVED  
OCT 29 2007  
BLA - EVANSVILLE

Dear Mr. Phillabaum:

Re: Section 401 Water Quality Certification  
Project: I-69 Section 1  
IDEM No.: 2007-513-87-JWR-A  
COE No.: LRL-2007-1043-asb  
INDOT Des. No. 0300377  
County: Warrick and Gibson

Office of Water Quality staff has reviewed your application for Section 401 Water Quality Certification dated and received September 14, 2007. According to the application, you propose to construct I-69 Section 1 of 6 which will be a 4-lane interstate facility between I-64 in Warrick County and SR 64 in Gibson County. The total project length for Section 1 is approximately 13 miles. The construction of the interstate facility will impact 12 wetlands totaling 1.16 acres of emergent wetland and 0.02 acre of forested wetland. The project will also impact 4 open water areas totaling 0.75 acre and 40 streams totaling 15,573 linear feet of stream. The impacts are necessary to construct the road bed and other transportation related infrastructure such as bridges, culverts, and ramps. Only clean fill material will be discharged into the aquatic environments. As compensatory mitigation for the proposed impacts, you will create approximately 2.0 acres of forested wetland, 3.0 acres of emergent wetland, and 11,970 linear feet of intermittent/ephemeral streams with forested riparian corridors 50 feet wide on each side totaling 27.7 acres of corridor. Additionally, you will plant a vegetated buffer along 6,350 linear feet of legal drains on the property totaling 26.2 acres. You will also preserve and protect approximately 30.4 acres of forested wetlands located on the mitigation property. The compensatory mitigation site is located west of CR 550 East and immediately south of Pigeon Creek in the SW ¼, Section 25, Township 3 South, Range 10 West, Gibson County, Elberfield USGS Quad. The transportation project is located on the west side of SR 57 between I-64 and SR 64 in Warrick and Gibson Counties.

Based on available information, it is the judgment of this office that the proposed project will comply with the applicable provisions of 327 IAC 2 and Sections 301, 302, 303, 306, and 307 of the Clean Water Act if the recipient of the certification complies with the conditions set forth below. Therefore, subject to the following conditions, the Indiana Department of Environmental Management (IDEM) hereby grants Section 401 Water Quality Certification for the project described in your application received September 14, 2007, and modifications received October 16, 2007. Any changes in project design or scope not detailed in the application described above or modified by the conditions below are not authorized by this certification.

### **CONDITIONS OF THE SECTION 401 WATER QUALITY CERTIFICATION:**

The recipient of the certification shall:

- 1) Deposit any dredged material in a contained upland disposal area to prevent sediment runoff to any waterbody.
- 2) Install erosion control methods prior to any soil disturbance to prevent soil from leaving the construction site. Appropriate erosion control methods include, but are not limited to, straw bale barriers, silt fencing, erosion control blankets, phased construction sequencing, and earthen berms. Monitor and maintain erosion control structures and devices regularly, especially after rain events, until all soils disturbed by construction activities have been permanently stabilized.
- 3) Install silt fence or other erosion control measures around the perimeter of any wetlands and/or other waterbodies to remain undisturbed at the project site.
- 4) Allow the commissioner or an authorized representative of the commissioner (including an authorized contractor), upon the presentation of credentials:
  - a) to enter the property of the recipient of the certification;
  - b) to have access to and copy at reasonable times any records that must be kept under the conditions of this certification;
  - c) to inspect, at reasonable times, any monitoring or operational equipment or method; collection, treatment, pollution management or discharge facility or device; practices required by this certification; and any mitigation wetland site;
  - d) to sample or monitor any discharge of pollutants or any mitigation wetland site.
- 5) Complete all approved discharges no later than two (2) years of the date of issuance of this Section 401 Water Quality Certification. The applicant may request a one (1) year extension to the Section 401 Water Quality Certification by submitting a written request ninety (90) days prior to the deadline stated above. The written request shall contain an account of which discharges and mitigation have been completed and list the reasons an extension is requested.
- 6) Implement the mitigation plan as described in correspondence from Jeremy Kieffner, Bernardin, Lochmueller & Associates dated October 16, 2007 (referred to collectively



hereinafter as the “mitigation plan”), and as modified by the conditions of this certification. The wetlands and streams created or restored pursuant to the mitigation plan shall be referred to hereinafter as the “mitigation wetland” or “mitigation wetlands.”

- 7) Complete all activities necessary to create the mitigation wetland within one (1) year of the effective date of this certification, unless IDEM grants a written extension upon request. These activities include excavation, grading, installation of hydrologic controls, and planting.
- 8) Monitor the mitigation wetland site(s) for a minimum period of three (3) continuous years. If the site(s) does not meet the success criteria, specified in **Condition 9**, for two consecutive years in this three year period, then the applicant will monitor the site(s) for an additional two years for a total of five years. For IDEM to release the mitigation site from this monitoring requirement, the permittee must demonstrate to IDEM, through their monitoring reports, that the site(s) meet or exceed the success criteria for at least two (2) consecutive years. If the site(s) fails to meet the success criteria for at least two (2) consecutive years within a five year period, then corrective actions will be required. These corrective actions may include additional grading, planting, relocation, or other actions deemed necessary by IDEM to meet the success criteria. Corrective actions often include extended monitoring to verify the effectiveness of the corrective action. Extended monitoring may constitute the sole corrective action if IDEM believes that the site needs more time to meet the success criteria. Once the permittee believes the site meets or exceeds all of the success criteria listed below, the permittee may submit a proposed final monitoring report to IDEM and suspend monitoring. If IDEM confirms that the mitigation site meets or exceeds all of the success criteria, then IDEM shall notify the permittee that the mitigation is complete and that the permittee may permanently discontinue monitoring.
- 9) Ensure that the mitigation wetland meets all of the following success criteria for at least two (2) consecutive years:
  - a) The area of wetland established, as measured by a wetland delineation, must meet or exceed the 5 acres of wetland compensatory mitigation required.
  - b) The wetland actually established must consist of 2.0 acres of forested wetland and 3.0 acres of emergent wetland.
  - c) Greater than 50% of the dominant vegetation species must have a wetland indicator of FAC (i.e., facultative) or wetter.
  - d) The hydrology at the mitigation wetland site must meet the wetland hydrology criteria contained in the United States Army Corps of Engineers Wetland Delineation Manual, Technical Report Y-87-1 (January, 1987).
  - e) The combined surface areal coverage of *Phalaris arundinacea* (reed canary grass) and *Typha spp.* (cattail) shall not exceed 15% of the mitigation wetland.
  - f) The mitigation wetland is free of the following exotic species: *Lythrum salicaria* (purple loosestrife), *Phragmites australis* (common reed), and *Myriophyllum spicatum* (water milfoil).
  - g) Native plant species excluding *Typha spp.* (cattail) must have an areal cover of at least 70%.

- h) No more than 10% of the surface area coverage of the mitigation wetland may be open water, bare ground, or a combination of the two. Open water and bare ground are defined as areas with less than 10% areal vegetative cover.
  - i) For forested wetland areas, the average density of live individuals of tree species shall be at least 200 stems per acre.
  - j) Any additional success criteria specified in the mitigation plan.
- 10) Ensure the forested riparian corridor tree plantings meet all of the following success criteria:
- a) 50 % of the planted trees shall be alive at the end of monitoring.
  - b) The forested riparian corridor is 50 feet on each side of the streams being created.
  - c) The forested riparian corridor is 11,970 linear feet in length and totals 27.7 acres.
  - d) The forested riparian corridor is free from *Elaeagnus umbellate* (autumn olive), *Elaeagnus angustifolia* (russian olive), *Rosa multiflora* (multiflora rose), and *Lonicera maackii*, *L. morrowii*, *L. tatarica* (honeysuckle).
- 11) Monitor the mitigation wetland and forested riparian corridors annually, starting one full growing season after construction and planting, to determine whether the wetlands and corridor are achieving the success criteria specified in **Conditions 9 and 10** of this certification. The recipient of the certification must complete corrective actions as are necessary to ensure the mitigation wetland and forested riparian corridors will achieve the success criteria within the required period. These corrective actions may include additional grading, plantings, or relocation of the mitigation wetland, along with extended monitoring. Describe in the monitoring reports any corrective actions taken to ensure success of the mitigation site.
- 12) Permanently and clearly identify on-site all mitigation wetlands after construction of the mitigation wetlands. If the mitigation wetlands to be established are adjacent to or near existing wetlands, then permanent stakes/markers must distinguish the mitigation wetland from the existing wetland.
- 13) Submit annual monitoring reports of the mitigation wetland and forested riparian corridor plantings to this office by December 31 of each year until released from monitoring by this office. These reports shall contain information concerning what steps the recipient of the certification has taken to create the mitigation wetland and whether the wetland is achieving each of the success criteria specified in **Conditions 9 and 10**. The reports shall include the following:
- a) The IDEM identification number.
  - b) As-built plans (in the first year's report).
  - c) Discussion of hydrology at the mitigation site.
  - d) Discussion of plant community development at the mitigation wetland site.
  - e) Discussion of methods or means used to determine compliance with the success criteria.
  - f) Photographs representative of the mitigation wetland site and sampling points.
  - g) Identification of any problems with meeting the success criteria.
  - h) Recommendations for correcting any problems identified.

- i) Wetland delineation for the mitigation wetland in the final monitoring report.
- 14) Submit as-built plans with the first year's monitoring report for the mitigation stream and/or wetland. As-built plans shall include the final grade elevations at one foot contours, including a plan view and cross sections. For relocated streams, this shall include a longitudinal profile, and lateral cross sections at the apex of each meander and at the midpoint between meanders. For wetlands, this shall include a cross section along the primary axis and secondary axis. In addition, as-built plans shall include locations and elevations of structures (e.g., culvert inverts, outfalls, inlets, berms, piezometers, wells, etc.), including markers specified in Condition 11. As-built plans shall also include the species and quantities of each species that were planted. Deviations from the approved mitigation plan must be highlighted and explained.
- 15) File a signed and recorded environmental notice, which describes the compensatory mitigation contained in the mitigation plan, with the department within sixty (60) days of the release from monitoring requirements. You may substitute a copy of a properly recorded deed restriction or conservation easement protecting the mitigation site(s) to satisfy this condition.
- 16) Allow no construction equipment, temporary run-arounds, coffer dams, temporary causeways, temporary crossings, or other such structures to enter or be constructed within any of the streams within the I-69 Section 1 corridor, unless specifically stated, depicted, or detailed in the aforementioned correspondence and project plans. A modification of this Section 401 Water Quality Certification is required from this office if any of the aforementioned items are needed for project construction.
- 17) Remove any temporary causeway or other approved temporary structures used to facilitate construction or access upon completion of construction activities.
- 18) Ensure that all excavated material from the Old Pigeon Creek channel is disposed of in an upland location.
- 19) Establish permanent monitoring stations within the existing wetlands to determine if the creation of the stream channels is adversely affecting the hydrology of the existing forested wetlands. Information gathered from these monitoring stations shall be discussed in the annual monitoring reports required by **Condition 13**. If the hydrology of the existing wetlands is adversely impacted by the creation of the stream channels then mitigation or restoration will be required for the existing wetlands.
- 20) Restore the soils, vegetation, and hydrology to the wetland areas proposed to be impacted by the excavation of the stream channels.
- 21) Seed and stabilize the new stream channels and stream banks with an appropriate seed mix native to the region.

This certification does not relieve the recipient of the responsibility of obtaining any other permits or authorizations that may be required for this project or related activities from IDEM or any other agency or person. You may wish to contact the Indiana Department of Natural Resources at 317-232-4160 (toll free at 877-928-3755) concerning the possible requirement of natural freshwater lake or floodway permits. In addition, you may wish to contact IDEM's Stormwater Permits Section at 317-233-1864 concerning the possible need for a 327 IAC 15-5 (Rule 5) permit if you plan to disturb greater than one (1) acre of soil during construction.

This certification does not:

- (1) authorize impacts or activities outside the scope of this certification;
- (2) authorize any injury to persons or private property or invasion of other private rights, or any infringement of federal, state or local laws or regulations;
- (3) convey any property rights of any sort, or any exclusive privileges;
- (4) preempt any duty to obtain federal, state or local permits or authorizations required by law for the execution of the project or related activities; or
- (5) authorize changes in the plan design detailed in the application.

Failure to comply with the terms and conditions of this Section 401 Water Quality Certification may result in enforcement action against the recipient of the certification. If an enforcement action is pursued, the recipient of the certification could be assessed up to \$25,000 per day in civil penalties. The recipient of the certification may also be subject to criminal liability if it is determined that the Section 401 Water Quality Certification was violated willfully or negligently.

This certification is effective eighteen (18) days from the mailing of this notice unless a petition for review and a petition for stay of effectiveness are filed within this 18-day period. If a petition for review and a petition for stay of effectiveness are filed within this period, any part of the certification within the scope of the petition for stay is stayed for fifteen (15) days, unless or until an Environmental Law Judge further stays the certification in whole or in part.

This decision may be appealed in accordance with IC 4-21.5, the Administrative Orders and Procedures Act. The steps that must be followed to qualify for review are:

- 1) You must petition for review in writing that states facts demonstrating that you are either the person to whom this decision is directed, a person who is aggrieved or adversely affected by the decision, or a person entitled to review under any law.
- 2) You must file the petition for review with the Office of Environmental Adjudication (OEA) at the following address:

Office of Environmental Adjudication  
100 North Senate Avenue  
IGCN Room N1049  
Indianapolis, IN 46204

- 3) You must file the petition within eighteen (18) days of the mailing date of this decision. If the eighteenth day falls on a Saturday, Sunday, legal holiday, or other day that the OEA offices are closed during regular business hours, you may file the petition the next day that the OEA offices are open during regular business hours. The petition is deemed filed on the earliest of the following dates: the date it is personally delivered to OEA; the date that the envelope containing the petition is postmarked if it is mailed by United States mail; or, the date it is shown to have been deposited with a private carrier on the private carrier's receipt, if sent by private carrier.

Identifying the certification, decision, or other order for which you seek review by number, name of the applicant, location, or date of this notice will expedite review of the petition.

Note that if a petition for review is granted pursuant to IC 4-21.5-3-7, the petitioner will, and any other person may, obtain notice of any prehearing conferences, preliminary hearings, hearings, stays, and any orders disposing of the proceedings by requesting copies of such notices from OEA.

If you have procedural questions regarding filing a petition for review you may contact the Office of Environmental Adjudication at 317-232-8591.

If you have any questions about this certification, please contact Jason Randolph, Project Manager, of my staff at 317-233-0467, or you may contact the Office of Water Quality through the IDEM Environmental Helpline (1-800-451-6027).

Sincerely,



Marylou Poppa Renshaw, Chief  
Watershed Planning Branch  
Office of Water Quality

cc: Mike Hasty, USACE-Louisville  
Andy King, USFWS  
Danny Gautier, IDNR  
Jeremy Kieffner, Bernardin, Lochmueller and Associates.

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## **I-69 CORRIDOR TIER 2 STUDIES**

Evansville to Indianapolis

### **APPENDIX D**

#### **COMMENTS AND RESPONSES ON TIER 2 SECTION 1 FEIS**

- D-1 COMMENTS AND RESPONSES**
- D-2 USEPA COMMENT LETTER (11-20-07)**
- D-3 IDNR-DHPA COMMENT LETTER (11-21-07)**

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**U. S. Environmental Protection Agency, Region 5**

11/ 20/07

**Kenneth Westlake**

**EPA-1**

Comment: *I am writing to provide the U.S. Environmental Protection Agency's (U.S. EPA) comments on the above referenced I-69 Section 1 Tier 2 Final Environmental Impact Statement (FEIS) under the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act.*

*The Section 1 Tier 2 EIS is the first of six Tier 2 EISs submitted for our review for the Federal Highway Administration (FHWA) and the Indiana Department of Transportation's (INDOT) proposed 142-mile-long I-69 (Evansville to Indianapolis) project. I-69 is currently proposed as a freeway facility that utilizes interchanges for access control. The Section 1 Tier 2 FEIS sets a standard for the type and level of information and analysis that FHWA and INDOT will utilize for the next five I-69 Tier 2 EISs.*

*Section 1 is the southern most section and is approximately 13 miles in length. The Section 1 Tier 2 FEIS continues to identify the DEIS Preferred Alternative, Alternative 4, as the Section 1 preferred route alignment alternative. The Preferred Alternative, is comprised of Segments 1-S1, 1-C3 and 1-N2 with proposed diamond interchanges at State Roads (SR) 68, SR 168 and SR 64, Interchange Option 2 for the I-64/I-164/I-69 interchange and local access roads.*

*U.S. EPA reviewed the 1-69 Tier 2 Draft EIS (DEIS) for Section 1 and rated it "Lack of Objections" in our letter dated February 20, 2007. Our rating, in part, was based on the minimal differences between the alternatives in the type and level of impacts to resources. The FEIS continues to identify that the majority of direct impacts in Section 1 are to farmland. Direct wetland impacts are still predicted to be less than 2 acres. The predicted forest impacts have been reduced to 27 acres in the FEIS from 33 acres identified in the DEIS.*

Response: *This I-69 Tier 2 Record of Decision approves preferred Alternative 4 as the Selected Alternative in Section 1. Farmland will be the major resource impacted by the project. Efforts will continue through final design to minimize impacts to all resources, where feasible.*

**EPA-2**

Comment: *The list of substantive changes between the DEIS and the FEIS provided at the beginning of each FEIS chapter was very helpful in expediting our FEIS review. We recommend this method be used in all future I-69 Tier 2 EISs.*

Response: *To facilitate USEPA's reviews of EISs from Sections 2 through 6 of the I-69 Evansville-to-Indianapolis project, the list of substantive changes between the DEIS and the FEIS provided at the beginning of each FEIS chapter will be included in all future I-69 Tier 2 EISs. In addition, as was the case with USEPA's comments on the Section 1 DEIS, copies of all of the agency's comments on the Section 1 FEIS will be provided to those sections for incorporation of the agency's recommendations, as appropriate.*

**EPA-3**

Comment: *The U.S. EPA DEIS comment letter advised that the Section 1 EIS would benefit from additional discussion, clarification, and correction in the areas of (1) Selection of the Preferred Alternative, (2) Air Quality, (3) Waters of the U.S./Streams and Wetlands, (4) Mitigation. We requested specific information be included in the Section 1 Tier 2 FEIS.*

Response: In response to USEPA's request that specific information be included in the FEIS in the above-cited areas, additional information/clarifications/corrections were provided as appropriate in FEIS sections<sup>1</sup> that include the following: Preferred Alternative—Section 6.3.1, *Rationale for Selection of Preferred Alignment Alternative*; Air Quality—Sections 5.9.3, *Methodology* and 5.9.6, *Analysis*; Waters.../Streams and Wetlands—Section 5.19, *Water Resources* (various subsections), Section 4.3.2.3, *Rivers, Streams, and Watersheds*, Section 1.2.2.2, *Tier 1 FEIS* [see LEDPA reference], and the Tier 2 Section 1 Biological Assessment (BA; see FEIS Vol. II, Appendix Q); and Mitigation—Section 7.2, *Major Mitigation Initiatives*, and 7.3, *Section 1 Mitigation Measures and Commitments* [various subsections]. As noted in USEPA's comment letter, substantive changes between the DEIS and FEIS were identified at the beginning of each FEIS chapter/section for ease of reference. The information/clarifications/corrections in sections noted herein, as well as others not cited, were so identified.

#### **EPA-4**

Comment: *U.S. EPA recommended that FHWA/INDOT consider our comments and incorporate our recommendations, as appropriate, when developing the Tier 2 DEISs for Sections 2, 3, 4, 5 and 6.*

Response: Please see response to comment EPA-2.

#### **EPA-5**

Comment: *In addition, we recommended the direct and indirect impacts associated with the entire 142-mile-long I-69 Indianapolis to Evansville be disclosed in the Tier 2 NEPA documentation and the Tier 2 studies identify the mitigation measures that will be undertaken to compensate for these impacts. We advised that a clear method be designed and identified now, before the first Tier 2 Record of Decision (ROD), in order to keep track of these impacts and mitigation measures.*

Response: As noted in the FEIS Response to Comments (Vol. III, Part A, Comment AF01-3), FHWA and INDOT have agreed to provide a tally of direct impacts of all Tier 2 sections in each section's Tier 2 FEIS, for informational purposes only. FEIS Vol. II Appendix S contains the "tally" data for Section 1. The "tally" should be regarded as approximate, and subject to change as the I-69 project proceeds through Tier 2.

In the "tally," indirect impacts will not be included. "Adding up" the indirect impact estimates for each section would result in significant "double counting," given that there is a total overlap of the study areas for indirect impacts of at least two miles at the connecting ends of each section. No attempt is made to strictly identify indirect impacts specific to one section; therefore, the values cannot be added to produce a meaningful total. It would be virtually impossible to segregate indirect impacts completely from one section to the next. Also, NEPA does not require mitigation for indirect impacts. Therefore, although the indirect impacts of all Tier 2 sections will not be included in the tally, the indirect impacts resulting from I-69 within the study area of a section will be included in that section's EIS.

As recommended by USEPA, an overall I-69 direct impacts/permitting/mitigation tracking method is being developed in consultation with permitting agencies and USEPA. It is anticipated that the tracking will be accomplished primarily by INDOT maintaining a mitigation commitments listing and utilizing a GIS database. Please see response to comment EPA-9, below, for a further discussion of this commitment.

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<sup>1</sup> Unless otherwise noted, references to the Section 1 FEIS are to Volume I of that document.

**EPA-6**

Comment: *The information in the FEIS is generally responsive to all our specific recommendations. For example, the FEIS provides additional discussion on how the Preferred Alternative was selected, and additional clarification regarding PM2.5 and Carbon Monoxide Hotspot Analysis, and includes a qualitative Mobile Source Air Toxics (MSAT) analysis.*

Response: Comment noted. Please see response to comment EPA-3 regarding additional information/clarification provided in response to USEPA comments.

**EPA-7**

Comment: *We commend INDOT for committing to 3:1 upland forest mitigation, and 4:1 forested wetland mitigation and for incorporating three wildlife crossings during Section 1 final design.*

Response: The Section 1 DEIS Table 5.19-10, "Acres of Wetland Impacts and Potential Mitigation," inadvertently included a reference to acres of mitigation assuming a 4 to 1 ratio for forest wetland impacts. That reference was removed from the table in the FEIS and a note was added stating that the "mitigation commitment in the Tier 1 Plan was for 3 to 1 and 2 to 1, only." Further clarification was included in FEIS Section 5.20, *Forests* (subsection 5.20.4), wherein the following was stated:

*Under the 1991 [Wetland] MOU, emergent wetlands would be mitigated at a ratio of 2 to 1 or 3 to 1 and forested wetlands would be mitigated at a ratio of 3 to 1 or 4 to 1. Ratios used to determine mitigation will depend upon the quality of the resource. In the case of any forested wetlands in this Section, it is anticipated a 3 to 1 ratio would apply [underscore added here for emphasis].*

It should be noted that only 0.2 acre of forested wetland in Section 1 would be directly impacted by the project, in which case the mitigation based on a 4 to 1 ratio would be 0.8 acre. However, the Section 1 BA proposes to develop 1.9 acres of forested wetlands, which is substantially more than required if the 4 to 1 ratio were applied.

**EPA-8**

Comment: *In addition, the FEIS identifies that FHWA and INDOT will consider our Tier 2 Section 1 EIS comments and recommendations when preparing the Tier 2 EISs for Sections 2, 3, 4, 5, and 6 of the I-69 Evansville to Indianapolis project.*

Response: Please see response to comment EPA-2.

**EPA-9**

Comment: **Impact and Mitigation Tracking:** *The FEIS also identifies that FHWA/INDOT will provide a tally of direct impacts associated with the entire 142-mile-long I-69 Indianapolis to Evansville alignment identified in each section's Tier 2 studies. Appendix S of the Section 1 Tier 2 EIS provides the running tally information to date for a limited number of impact categories. We note that stream impacts and karst features impacts are not currently included in the tracking tables in Appendix S. We request FHWA and INDOT include stream impacts and karst features impacts as part of the running tally for all Tier 2 sections.*

*The FEIS identifies that an overall impacts/permitting/tracking method is being developed in consultation with permitting agencies and U.S. EPA. The FEIS also states that INDOT will coordinate with agencies to identify agency-specific information to be included in the database for tracking and will provide to permitting agencies and U.S. EPA a tracking summary on an annual basis. The summary will identify the permitting and mitigation commitments and describe the status of the activities to date associated with each commitment. We continue to recommend the Section 1 Tier 2 ROD provide the detailed mitigation tracking method*

*developed in consultation with U.S. EPA and the other agencies. If this is not possible, then the ROD should identify when the specifics of the tracking method will be developed and disclosed.*

Response: INDOT and FHWA will provide the requested data as soon as they are available. As p.1 of FEIS Vol. II Appendix S described, the tabulation of impacts by Tier 2 section depends upon the availability of these data in a published NEPA document. A “NEPA document” is the Tier 1 FEIS, a Tier 2 Screening of Alternatives Report, a Tier 2 DEIS, or a Tier 2 FEIS. The paragraphs below describe how INDOT and FHWA will provide these data for the resources identified by USEPA.

- *Stream Impacts:*

Stream impacts were not identified on a section-by-section basis in the Tier 1 FEIS. At present, these impacts are identified for five of the six Tier 2 sections, either in an FEIS (Section 1) or a Screening of Alternatives Report (Sections 2 through 5). Once a Screening of Alternatives Report is published for Section 6, the data will be available to tabulate and track stream impacts for all Tier 2 sections. Also, unlike the resources shown in the Section 1 FEIS Vol. II Appendix S, it is not possible to make a direct comparison of stream impact estimates between Tier 1 and Tier 2. In the Tier 1 FEIS, stream impacts were estimated as the number of crossings of perennial and intermittent streams for end-to-end alternatives (Tier 1 FEIS, Table 5.22-1). In Tier 2, estimates are made both of linear feet and acres of impacts, and include impacts to ephemeral streams as well (see Section 1 FEIS, Table 5.19-8).

- *Karst Impact:*

Karst impacts were not identified on a section-by-section basis in the Tier 1 FEIS. Karst impacts will occur only in Tier 2 Sections 4 and 5, and are enumerated in the Screening of Alternatives Report for both sections. However, the Screening Reports enumerated the impacts to karst features in different ways, which were suited to screening alternatives in each section. Section 4 is a new terrain project, and its karst impacts were enumerated by the number of features (springs [large and small], sinkholes, swallets, and sinking streams) impacted. Section 5 involves the upgrade of an existing facility, and its estimates of karst impacts are for acres of impacts to springs, sinkholes and sinking streams. INDOT and FHWA are determining how to calculate impacts for the DEIS in these two sections in order to provide impacts which can be combined between sections, while at the same time accounting for the different considerations involved in upgrading an existing facility versus constructing a new facility. Also, as with stream impacts, it will not be possible to make a direct comparison of Tier 2 karst impacts with Tier 1 impact estimates. In the Tier 1 FEIS, karst impacts were calculated as acres of impacts for end-to-end alternatives for only certain karst features (Table 5.24-1). Specifically, only impacts to sinkhole areas of 80 acres or more, as well as impact to sinking basins, were calculated.

The overall mitigation tracking is intended to include a GIS database for tracking of mitigation properties including required acres and credited acres as well as additional site information. With the securing of the Section 1 Mitigation Parcel, this database has only recently been drafted and distributed to the Water Resources Group for comment. In addition to the GIS database, INDOT will maintain a mitigation commitments listing that will be utilized to track all mitigation, including non-land based mitigation commitment items for implementation status. The multiple annual monitoring reports required by the Section 404 and Section 401 permit conditions, and under the conditions of the Biological Opinion will include the GIS database information as well as tabular summary data derived from the database.

**EPA-10**

Comment: **I-69 Community Planning [Program]:** *We appreciate the update on the status of the I-69 Community Planning [Program]. However, we note that development of this mitigation commitment from the March 2004, I-69 Tier 1 ROD has taken substantial time to develop. The FEIS states that planning grant applications were only made available to eligible communities in late August 2007. The FEIS identifies that the deadline for grant applications as November 2, 2007. Consequently, there is no information in the Section 1 Tier 2 FEIS that identifies which, if any, communities in the Section 1 study area will definitely participate in this planning program. There is no information in the Tier 2 Section 1 FEIS concerning what, if any, measures the communities plan to implement (e.g., land use plans, zoning, regulations) in order to protect and enhance resources of concern in their local community and/or county nor how or when they plan to implement them. This type of information would have better informed the indirect/cumulative impacts analysis and proposed mitigation for Section 1.*

*We recommend that the next five Tier 2 EISs provide updates on community participation in the planning program. The updates should include but not be limited to the identification of all participating communities and disclose what each participating community is doing with their planning grant money. I-69 Tier 2 EISs should also disclose whether or not and how a community's proposal provides tangible protection and/or enhancement of the natural resources within that community. This information should be used to inform the indirect/cumulative impacts analysis and proposed mitigation identified in the Tier 2 EIS for each Tier 2 Section.*

Response: In August 2007 grant application materials were made available to the 31 eligible communities identified in the Tier 1 FEIS and ROD. All communities participating in the program are required to address the protection of natural resources either directly or indirectly through methods such as land use plans, ordinances, and resolutions. In addition, communities are able to address economic development, general growth management, or the enhancement of local planning capacity. The program was structured in two grant rounds to allow communities flexibility in submitting their application for funds. In the first round, communities were required to submit either a grant application or a letter of intent to apply in the second round. The deadline for submission was October 5, 2007. Grant applications from communities choosing to apply in the second round were due on December 7, 2007.

All Section 1 communities participated in the first round. Oakland City applied in the first round and was awarded a grant for \$50,000 on October 22, 2007. INDOT, its program consultants, and the Office of Community of Rural Affairs are working with Oakland City to complete the necessary administrative processes. Gibson County, Princeton, Warrick County/Elberfeld and Vanderburgh County/Evansville submitted letters of intent in the first round and applications in the second round. Each community submitting an application in the second round is eligible for \$50,000.

A status update of the Community Planning Program, including grant applications provided during the second round of submittals, will be provided to USEPA separately.

**[USEPA offers] the following comments for consideration in preparing information for required permits for Section 1 and/or for inclusion in future Tier 2 EISs for Sections 2, 3, 4, 5, and 6:**

#### EPA-11

Comment: **Impaired Water Bodies:** We requested a map be added to the FEIS that would help the reader's understanding of the proposed project and its impact on downstream resources and where they are located in the stream network. The map in FEIS Figure 4.3-7 and the table of the causes of impairment (Table 4.3) are important additions to the document. What is still missing is the information that would allow the reader to identify/cross reference between map segments and table segments. The map is helpful in building the argument that these receptor areas are far enough away from the proposed project area to not be an active issue.

Response: The data presented in the above-referenced table is a summary of impaired stream data available on the Indiana Department of Environmental Management (IDEM) website ([www.in.gov/idem/programs/water/303d/index.html](http://www.in.gov/idem/programs/water/303d/index.html)). The map showing the locations of impaired waterbodies is on the USEPA "EnviroMapper for Envirofacts" website ([www.epa.gov/enviro/emef.asp](http://www.epa.gov/enviro/emef.asp)). The USEPA map features include the locations of impaired streams and the codes listed on the IDEM 303(d) List of Impaired Streams identifying each impaired stream section. This IDEM 303(d) code data was not observed to be available at the time the Section 1 FEIS was being prepared. As USEPA's comment noted, the impaired areas are far enough from the project "to not be an active issue." Such may not be the case with the remaining sections of the I-69 project. Therefore, this feature will be utilized, as appropriate, in future EIS documentation prepared by other sections of I-69.

#### EPA-12

Comment: **Highway runoff control:** Table 5.19-13 addresses acute toxicity criteria and pollutant concentrations derived from rural highways. This presents a limited "worse case" approach to looking at water quality criteria values for highway runoff and its contributing to a decline in water quality. Again, the distance in this specific impairment situation lessens the issue of contribution to existing stream impairments.

Maintenance of overall water quality in local streams and wetlands is always an issue, however. We encourage FHWA and INDOT to work with IDEM on post-construction stormwater management relevant to a high capacity freeway, so that runoff is handled well.

Response: INDOT is committed to working with IDEM to address post-construction stormwater management as applicable to their pending stormwater permit application currently under review at IDEM.

#### EPA-13

Comment: **Stream Mitigation:** Progress has been made planning new channels as part of a multi-element compensatory mitigation plan. We wish to see the proposed mitigation plan again, when it moves beyond the conceptual stage.

Response: The proposed mitigation plan will be made available to USEPA and other appropriate regulatory agencies once the arrangements for acquiring the mitigation site have been concluded.

#### EPA-14

Comment: **InWRAP:** INDOT needs to share information and insights on the use of the Indiana Wetland Rapid Assessment Procedure (InWRAP) for this proposal with the agencies working in Indiana, as well as Taylor University. This would include IDEM, IDNR, USFWS and U.S. EPA. Again this is something that can occur outside the schedule for any EIS document.

Response: As noted in the response to USEPA's comment on the DEIS (FEIS Vol. III, Part A, Comment AF01-16), all information regarding INDOT's experience with InWRAP within the context of the I-69 project has been provided to Taylor University, the developer of the protocol. This information will also be shared with appropriate agencies, including those listed above.

#### EPA-15

Comment: **Tier 1 CWA Section 404 Least Environmentally Damaging Practicable Alternative (LEDPA):** Thank you for clarifying in the FEIS that it is the Corps that must make the LEDPA determination for Clean Water Act Section 404 permitting purposes for the I-69 project.

Response: Comment noted.

#### EPA-16

Comment: **Tier 2 Section 1, Selection of NEPA Preferred Alternative (Chapter 6, Section 6.3) and CWA Section 404 permitting:** Although the differences between the various EIS alternatives' impacts are similar, there is still a half acre wetland spread between alternatives, which will need to be considered in its regulatory context. The explanation of trade-offs of environmental impacts between alternatives has been better explained in the FEIS.

Response: Comment noted. The Corps of Engineers will consider the different wetland impacts for the alternatives as part of its processing of the Section 404 Permit for the Selected Alternative.

#### EPA-17

Comment: **Potential Wetland Compensatory Mitigation Sites:** Progress has been made on the conceptual mitigation plan, which endeavors to meet multiple mitigation objectives at the same site, including for 404 permitting purposes. It is located near the proposed corridor area. This is a reasonable start to a mitigation project, but we see the need for some basic technical clarification for the wetlands portion of the project. "Developing" wetlands is a vague term. We offer some of the questions that will need to be answered in order to develop and implement an adequate mitigation project.

- Does INDOT propose to restore wetlands, where they have previously existed, in the farmed areas?
- How will this occur, especially how will the hydrology be brought back and maintained over the years?
- The proposed wetland ends in a straight line along the eastern property line -- what impacts will it have on neighboring property and vice versa, especially should it become developed or farmed?
- Has a check on farmed wetland status or an on-site delineation occurred, since National Wetlands Inventory maps can present inaccuracies due to age or to the limitations of aerial photography in wooded areas?

Much work remains for planning and monitoring the mitigation project.

Response: The mitigation plan does propose to restore wetlands where they previously existed. These wetlands will be restored by elimination of drainage tiles and minor excavation to match elevations of adjacent existing wetlands. The design plan includes the wetland mitigation area in a revised location but with one boundary along the southern property line with a 30-foot

ingress/egress/buffer strip. This southern boundary is further buffered from the adjacent agricultural land use by an existing levee. Multiple on-site reviews of the mitigation site have identified existing wetlands on the site, which will be preserved, and no evidence of farmed wetlands.

**EPA-18**

Comment: **Potential Hazards to Compensatory Mitigation Sites:** *We appreciate that issues concerning drainage maintenance and mineral rights are being worked out, since they are a key to sustaining the success of the project. We note that the proposed wetland mitigation area directly abuts additional privately-held property. The quality and success of all of the mitigation areas will depend on adequate buffers between those areas and properties not held in a perpetual conservation easement.*

Response: The mitigation focus areas have been located in attractive mitigation areas with the greatest potential for success. While we recognize the concern of contaminated runoff from adjacent properties, the proposed site receives little runoff from adjacent properties. In addition, excess mitigation acreage will also provide additional “buffers” in the proposed plan.

**Indiana Department of Natural Resources**  
**Division of Historic Preservation & Archaeology**  
**James A. Glass, Ph.D.**

11/21/07

**DHPA-1**

Comment: *Pursuant to the National Environmental Policy Act and Section 106 of the National Historic Preservation Act, the staff of the Indiana State Historic Preservation Officer has reviewed the aforementioned FEIS, which was received on October 24, 2007 under cover letter from Thomas H. Seeman of the Indiana Department of Transportation.*

*We concur with the FEIS's characterization of the project's impacts on above-ground properties and impacts on archaeological properties, as known to date, and we are satisfied with the provisions for completion of the archaeological investigations in the September 7, 2007 Section 106 memorandum of agreement for this undertaking.*

Response: Comment noted.<sup>2</sup>

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<sup>2</sup> Section 1's consulting parties were provided the opportunity to sign as concurring parties to the Memorandum of Agreement, and two did so prior to the publication of the FEIS (see the MOA in the Section 1 FEIS Vol. II, Appendix F). Since the publication of the FEIS, a third consulting party signed as a concurring party. That signature sheet is included in Appendix C, herein.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

**APPENDIX D-2**

NOV 20 2007

REPLY TO THE ATTENTION OF:

E-19J

✓ Robert F. Tally, Jr., Division Administrator  
Federal Highway Administration - Indiana Division  
575 North Pennsylvania St., Room 254  
Indianapolis, IN 46204

Karl B. Browning, Commissioner  
Indiana Department of Transportation  
100 North Senate Ave., Room N642  
Indianapolis, Indiana 46204

**RE: I-69 Evansville to Indianapolis, Tier 2 Final Environmental Impact  
Statement for Section 1: Evansville to Oakland City. CEQ No. 20070446**

Dear Mr. Tally and Mr. Browning:

I am writing to provide the U.S. Environmental Protection Agency's (U.S. EPA) comments on the above referenced I-69 Section 1 Tier 2 Final Environmental Impact Statement (FEIS) under the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act.

The Section 1 Tier 2 EIS is the first of six Tier 2 EISs submitted for our review for the Federal Highway Administration (FHWA) and the Indiana Department of Transportation's (INDOT) proposed 142-mile-long I-69 (Evansville to Indianapolis) project. I-69 is currently proposed as a freeway facility that utilizes interchanges for access control. The Section 1 Tier 2 FEIS sets a standard for the type and level of information and analysis that FHWA and INDOT will utilize for the next five I-69 Tier 2 EISs.

Section 1 is the southern most section and is approximately 13 miles in length. The Section 1 Tier 2 FEIS continues to identify the DEIS Preferred Alternative, Alternative 4, as the Section 1 preferred route alignment alternative. The Preferred Alternative, is comprised of Segments 1-S1, 1-C3 and 1-N2 with proposed diamond interchanges at State Roads (SR) 68, SR168 and SR64, Interchange Option 2 for the I-64/I-164/I-69 interchange and local access roads.

U.S. EPA reviewed the I-69 Tier 2 Draft EIS (DEIS) for Section 1 and rated it “Lack of Objections” in our letter dated February 20, 2007. Our rating, in part, was based on the minimal differences between the alternatives in the type and level of impacts to resources. The FEIS continues to identify that the majority of direct impacts in Section 1 are to farmland. Direct wetland impacts are still predicted to be less than 2 acres. The predicted forest impacts have been reduced to 27 acres in the FEIS from 33 acres identified in the DEIS. The list of substantive changes between the DEIS and the FEIS provided at the beginning of each FEIS chapter was very helpful in expediting our FEIS review. We recommend this method be used in all future I-69 Tier 2 EISs.

The U.S. EPA DEIS comment letter advised that the Section 1 EIS would benefit from additional discussion, clarification, and correction in the areas of (1) Selection of the Preferred Alternative, (2) Air Quality, (3) Waters of the U.S. / Streams and Wetlands, and (4) Mitigation. We requested specific information be included in the Section 1 Tier 2 FEIS. U.S. EPA recommended that FHWA/INDOT consider our comments and incorporate our recommendations, as appropriate, when developing the Tier 2 DEISs for Sections 2, 3, 4, 5 and 6. In addition, we recommended the direct and indirect impacts associated with the entire 142-mile-long I-69 Indianapolis to Evansville be disclosed in the Tier 2 NEPA documentation and the Tier 2 studies identify the mitigation measures that will be undertaken to compensate for these impacts. We advised that a clear method be designed and identified now, before the first Tier 2 Record of Decision (ROD), in order to keep track of these impacts and mitigation measures.

The information in the FEIS is generally responsive to all our specific recommendations. For example, the FEIS provides additional discussion on how the Preferred Alternative was selected, and additional clarification regarding PM2.5 and the Carbon Monoxide Hotspot Analysis, and includes a qualitative Mobile Source Air Toxics (MSAT) analysis. We commend INDOT for committing to 3:1 upland forest mitigation, and 4:1 forested wetland mitigation and for incorporating three wildlife crossings during Section 1 final design. In addition, the FEIS identifies that FHWA and INDOT will consider our Tier 2 Section 1 EIS comments and recommendations when preparing the Tier 2 EISs for Sections 2, 3, 4, 5, and 6 of the I-69 Evansville to Indianapolis project.

**Impact and Mitigation Tracking:** The FEIS also identifies that FHWA/INDOT will provide a tally of direct impacts associated with the entire 142-mile-long I-69 Indianapolis to Evansville alignment identified in each section’s Tier 2 studies. Appendix S of the Section 1 Tier 2 EIS provides the running tally information to date for a limited number of impact categories. We note that stream impacts and karst features impacts are not currently included in the tracking tables in Appendix S. We request FHWA and INDOT include stream impacts and karst features impacts as part of the running tally for all Tier 2 sections.

The FEIS identifies that an overall impacts/permitting/tracking method is being developed in consultation with permitting agencies and U.S. EPA. The FEIS also states

that INDOT will coordinate with agencies to identify agency-specific information to be included in the database for tracking and will provide to permitting agencies and U.S. EPA a tracking summary on an annual basis. The summary will identify the permitting and mitigation commitments and describe the status of the activities to date associated with each commitment. We continue to recommend the Section 1 Tier 2 ROD provide the detailed mitigation tracking method developed in consultation with U.S. EPA and the other agencies. If this is not possible, then the ROD should identify when the specifics of the tracking method will be developed and disclosed.

**I-69 Community Planning [Program]:** We appreciate the update on the status of the I-69 Community Planning [Program]. However, we note that development of this mitigation commitment from the March 2004, I-69 Tier 1 ROD has taken substantial time to develop. The FEIS states that planning grant applications were only made available to eligible communities in late August 2007. The FEIS identifies that the deadline for grant applications as November 2, 2007. Consequently, there is no information in the Section 1 Tier 2 FEIS that identifies which, if any, communities in the Section 1 study area will definitely participate in this planning program. There is no information in the Tier 2 Section 1 FEIS concerning what, if any, measures the communities plan to implement (e.g., land use plans, zoning, regulations) in order to protect and enhance resources of concern in their local community and/or county nor how or when they plan to implement them. This type of information would have better informed the indirect/cumulative impacts analysis and proposed mitigation for Section 1.

We recommend that the next five Tier 2 EISs provide updates on community participation in the planning program. The updates should include but not be limited to the identification of all participating communities and disclose what each participating community is doing with their planning grant money. I-69 Tier 2 EISs should also disclose whether or not and how a community's proposal provides tangible protection and/or enhancement of the natural resources within that community. This information should be used to inform the indirect/cumulative impacts analysis and proposed mitigation identified in the Tier 2 EIS for each Tier 2 Section.

We offer the following comments for your consideration in preparing information for required permits for Section 1 and/or for inclusion in future Tier 2 EISs for Sections 2, 3, 4, 5 and 6.

**Impaired Water Bodies:** We requested a map be added to the FEIS that would help the reader's understanding of the proposed project and its impact on downstream resources and where they are located in the stream network. The map in FEIS Figure 4.3-7 and the table of the causes of impairment (Table 4.3) are important additions to the document. What is still missing is the information that would allow the reader to identify/cross reference between map segments and table segments. The map is helpful in building the argument that these receptor areas are far enough away from the proposed project area to not be an active issue.

**Highway runoff control:** Table 5.19-13 addresses acute toxicity criteria and pollutant concentrations derived from rural highways. This presents a limited “worse case” approach to looking at water quality criteria values for highway runoff and its contributing to a decline in water quality. Again, the distance in this specific impairment situation lessens the issue of contribution to existing stream impairments.

Maintenance of overall water quality in local streams and wetlands is always an issue, however. We encourage FHWA and INDOT to work with IDEM on post-construction stormwater management relevant to a high capacity freeway, so that runoff is handled well.

**Stream Mitigation:** Progress has been made planning new channels as part of a multi-element compensatory mitigation plan. We wish to see the proposed mitigation plan again, when it moves beyond the conceptual stage.

**InWRAP:** INDOT needs to share information and insights on the use of the Indiana Wetland Rapid Assessment Procedure (InWRAP) for this proposal with the agencies working in Indiana, as well as Taylor University. This would include IDEM, IDNR, USFWS and U.S. EPA. Again this is something that can occur outside the schedule for any EIS document.

**Tier 1 CWA Section 404 Least Environmentally Damaging Practicable Alternative (LEDPA):** Thank you for clarifying in the FEIS that it is the Corps that must make the LEDPA determination for Clean Water Act Section 404 permitting purposes for the I-69 project.

**Tier 2 Section 1, Selection of NEPA Preferred Alternative (Chapter 6, Section 6.3) and CWA Section 404 permitting:** Although the differences between the various EIS alternatives’ impacts are similar, there is still a half acre wetland spread between alternatives, which will need to be considered in its regulatory context. The explanation of trade-offs of environmental impacts between alternatives has been better explained in the FEIS.

**Potential Wetland Compensatory Mitigation Sites:** Progress has been made on the conceptual mitigation plan, which endeavors to meet multiple mitigation objectives at the same site, including for 404 permitting purposes. It is located near the proposed corridor area. This is a reasonable start to a mitigation project, but we see the need for some basic technical clarification for the wetlands portion of the project. “Developing” wetlands is a vague term. We offer some of the questions that will need to be answered in order to develop and implement an adequate mitigation project.

- Does INDOT propose to restore wetlands, where they have previously existed, in the farmed areas?

- How will this occur, especially how will the hydrology be brought back and maintained over the years?
- The proposed wetland ends in a straight line along the eastern property line—what impacts will it have on neighboring property and vice versa, especially should it become developed or farmed?
- Has a check on farmed wetland status or an on-site delineation occurred, since National Wetlands Inventory maps can present inaccuracies due to age or to the limitations of aerial photography in wooded areas?

Much work remains for planning and monitoring the mitigation project.

**Potential Hazards to Compensatory Mitigation Sites:** We appreciate that issues concerning drainage maintenance and mineral rights are being worked out, since they are a key to sustaining the success of the project. We note that the proposed wetland mitigation area directly abuts additional privately-held property. The quality and success of all of the mitigation areas will depend on adequate buffers between those areas and properties not held in a perpetual conservation easement.

Thank you for the opportunity to comment. If you have any questions about U.S. EPA's comments, please contact Virginia Laszewski at 312-886-7501 or email her at [laszewski.virginia@epa.gov](mailto:laszewski.virginia@epa.gov). Please send us a copy of the I-69 Tier 2 Section 1 ROD when it is available.

Sincerely,



Kenneth A. Westlake, Supervisor  
NEPA Implementation  
Office of Enforcement and Compliance Assurance

- cc: U.S. Army Corps of Engineers – Louisville District, Attention: CELRL-OP-F,  
P.O. Box 59, Louisville, KY 40401-0059 (Doug Shelton/Mike Hasty)  
U.S. Fish and Wildlife Service, Region 3, Bloomington Ecological Services  
Office, 620 S. Walker Street, Bloomington, IN 47403-2121 (Scott Pruitt/  
Andy King)  
Indiana Department of Environmental Management, Office of Water Quality,  
Section 401 Water Quality Certification Program, 100 N. Senate Avenue,  
MC 65-40, Indianapolis, IN 46204-2251 (Jason Randolph, South Area  
Project Manager)  
Indiana Department of Natural Resources, 402 W. Washington St., Rm W264,  
Indianapolis, IN 46204 (Matt Buffington)

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Division of Historic Preservation & Archaeology • 402 W. Washington Street, W274 • Indianapolis, IN 46204-2739  
Phone 317-232-1646 • Fax 317-232-0693 • dhpa@dnr.IN.gov

November 21, 2007

Robert F. Tally, Jr., P.E.  
Division Administrator  
Federal Highway Administration, Indiana Division  
575 North Pennsylvania Street, Room 254  
Indianapolis, Indiana 46204

Federal Agency: Federal Highway Administration, Indiana Division

Re: "I-69 Evansville to Indianapolis, Indiana / Tier 2 Final Environmental Impact Statement / Section 1, Evansville to Oakland City," Volumes I, II, and III, dated October 17, 2007 ("FEIS"); FHWA-IN-EIS-06-01-F; Des. No. 0300377; DHPA #1353

Dear Mr. Tally:

Pursuant to the National Environmental Policy Act and Section 106 of the National Historic Preservation Act, the staff of the Indiana State Historic Preservation Officer has reviewed the aforementioned FEIS, which was received on October 24, 2007 under cover letter from Thomas H. Seeman of the Indiana Department of Transportation.

We concur with the FEIS's characterization of the project's impacts on above-ground properties and impacts on archaeological properties, as known to date, and we are satisfied with the provisions for completion of the archaeological investigations in the September 7, 2007 Section 106 memorandum of agreement for this undertaking.

If you have questions about archaeological issues, please contact Dr. Rick Jones at (317) 233-0953 or [rjones@dnr.IN.gov](mailto:rjones@dnr.IN.gov). Questions about historic buildings or structures pertaining to this project may be directed to John L. Carr (317) 233-1949 or [jcarr@dnr.IN.gov](mailto:jcarr@dnr.IN.gov).

Very truly yours,

James A. Glass, Ph.D.  
Deputy State Historic Preservation Officer

JAG:JLC:JRJ:jlc

cc: Thomas H. Seeman, Project Manager, Office of Project Management, Indiana Department of Transportation  
Christopher D. Koepfel, Administrator, Cultural Resources Section, Indiana Department of Transportation

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