

APPENDIX C

COMMENTS AND RESPONSES

C-1 Comments and Responses

C-2 Original Comment Letters

APPENDIX C-1
COMMENTS AND RESPONSES

**City of Bloomington Office of the Common Council (BCC)01
Letter from BCC to Robert F. Tally (FHWA-IN) – 08/22/2011**

BCC01-01

Comment:

As a member of the Bloomington/Monroe County Metropolitan Planning Organization Policy Committee, I am writing to raise objections to the 1-69 Section 4 Final Environmental Impact Statement (FEIS) submitted to your office last month. For reasons explained below, I believe that the project is currently ineligible for approval and that FHWA will be acting beyond the scope of its authority if it issues a Record of Decision at this time.

As you know, federal regulations require that a project within the jurisdiction of an MPO be consistent with the Transportation Improvement Plan (TIP) before the State may include it in the Statewide Transportation Improvement Program. *23 U.S.C. 450.216(k)*. The BMCMPPO approved the proposed 2012-2015 TIP on May 13, 2011. In spite of this action, , the State submitted its 2012-2015 STIP on June 17, 2011, which FHWA subsequently approved, referencing the now outdated 2010-2013 TIP for BMCMPPO, instead of the 2012-2015 TIP which supersedes the earlier TIP.

To my knowledge, the State has yet to certify the proposed 2012-2015 TIP. By contrast, the Indianapolis MPO Policy Committee voted to approve its new 2012-2015 Indianapolis Regional Transportation Improvement Program (IRTIP) on May 4, 2011 and approved by INDOT approximately three weeks later. Your office certified the updated IRTIP for inclusion in the 2012-2015 STIP by on July 11, 2011. Since the BMCMPPO TIP update was approved at approximately the same time as the IRTIP, I believe our TIP was not incorporated into the 2012-2015 STIP for political, rather than administrative, reasons.

I am concerned because the 2012-2015 TIP removed the I-69 Section 4 project that had been part of the amended 2010-2013 TIP. The policy committee deliberately removed the 1-69 project from the TIP, in part, because the State did not provide the financial information we requested from Deputy Commissioner Sam Sarvis at our October 2010 meeting. Without this information, we could not reasonably determine whether sufficient funding would be available for the project as is required under *23 U.S.C. 450.324(i)*.

I believe the 2012-2015 Indiana STIP invalid with respect to the 1-69 Section 4 project since the STIP does not reflect the BMCMPPO current position on the issue. Further, I believe that the project is ineligible for federal funding pursuant to *23 U.S.C. 450.330(d)* and that FHWA may not issue a ROD for the FEIS under the current circumstances.

Response: Please see responses to Comments Baker 01-01, Baker 01-02, Baker 01-03, and Martin 01-02

Baker01

E-mail from Andrew (Jack) Baker to Robert F. Tally (FHWA-IN), Jay DuMontelle (FHWA-IN) and Michelle Allen (FHWA-IN) – 08/22/2011

Responses Provided by Robert Tally, in e-mail to Andrew Baker on 08/26/2011**Baker01-01****Comment:**

I am concerned our next BMCMPPO meeting in September will be a replay of our previous meeting and will have the same outcome. We will likely adopt a TIP without inclusion of I-69 and will be in the same position as now – having a locally adopted TIP that is unacceptable to INDOT. We need your active participation and guidance in this meeting. In particular we need to know – and INDOT needs to know –

Can INDOT continue to reject our most recent adopted TIP; for how long? What are Federal requirements regarding State acceptance or rejection of a locally adopted TIP?

Response:

23 CFR 450.324 provides the Federal requirements for development and content of the Transportation Improvement Program (TIP). Section (a) of this citation requires that a TIP be updated at least every four years, and be approved by the Metropolitan Planning Organization (MPO) and the Governor. This citation further states that the TIP may be updated more frequently, but the cycle for updating the TIP must be compatible with the Statewide Transportation Improvement Program (STIP) development and approval process. The current TIP for the Bloomington/Monroe County Metropolitan Planning Organization (BMCMPPO) is from 2010 to 2013, which remains in effect until it either expires or is replaced by a TIP approved by the MPO and Governor. If either the Governor or the MPO do not approve the TIP, then it is not valid and cannot be included in the STIP. That is why the new Indiana Department of Transportation (INDOT) STIP was approved with the 2010 to 2013 TIP referenced as the BMCMPPO's current TIP. The expiration of the current TIP (June 26, 2013) is the critical date after which no further federal actions on projects would be able to be taken unless a new TIP has been approved before then by the MPO and Governor.

Baker01-02**Comment:**

Does INDOT, according to Federal guidelines, have proper fiscal constraint to construct I-69 section 4?

Response:

23 CFR 450.216 (m) states that: "The STIP shall include a project only if full funding can be reasonably anticipated to be available for the project. Financial constraint of the STIP shall be demonstrated and maintained by year and shall include sufficient financial information to demonstrate which projects are to be implemented using current and/or reasonable available revenues." The Federal Highway Administration (FHWA) approved the State's STIP, which contained a fiscal constraint determination. Section 4 of I-69 was included in the STIP for the portion outside of the BMCMPPO's boundary and by referencing BMCMPPO's current 2010 – 2013 TIP, the portion inside the BMCMPPO's boundary is included as well. By taking this action, FHWA has determined that this project is contained in a fiscally constrained STIP and TIP.

Baker01-03**Comment:**

With its refusal to accept our new TIP can INDOT withhold our Federal funds and/or redirect those funds for construction of I-69?

Response:

23 CFR 450.330 (b) states that: "In metropolitan areas not designated as Transportation Management Agencies (TMAs), projects to be implemented using title 23 USC funds or funds under title 49 USC Chapter 53, shall be selected by the State and/or the public transportation operator(s), in cooperation with the MPO from the approved Metropolitan TIP." The BMCMPPO is designated as a non-TMA and therefore, all projects advanced by the MPO are at the discretion of the State. We expect that the 3C planning process will culminate in an agreed upon list of projects to be included in the TIP and STIP for advancement.

Baker01-04**Comment:**

At the last MPO meeting, there were a number of questions that Sam Sarvis, representing INDOT, could not answer regarding environmental issues that opponents believe should be answered prior to including I-69 in the 2012-2015 TIP. Was it appropriate for INDOT to ask that I-69 be included in our local TIP prior to the completion of a final EIS?

Response:

Yes, it was appropriate for INDOT to request that I-69 be included in the TIP prior to the completion of the EIS process. Federal regulations require that before signing a Record of Decision (ROD), that the selected alternative be consistent with the TIP, STIP and Plans for the MPO and State. The Federal Regulations further require that at least the next phase of the project (final design and/or Right-of-Way) be included in the TIP and/or STIP before a ROD is signed.

Baker01-05**Comment:**

Is the MPO obligated to now include construction of this project in our TIP if environmental questions still cannot be answered during the September 9 meeting?

Response:

Other than stated above, the planning process and the environmental process are separate activities. The MPO as a policy body may decide what projects are included in their TIP and Plan. The MPO is not "obligated" to act on a sponsor's request, but the Policy Board is to act in accordance with their By-Laws, Planning Agreement and 3C process with the State when voting on such requests.

You provided two additional questions from MPO Policy member Richard Martin, which are addressed as follows:

Martin comment

1) The first is the extent to which a local community's standards can be over-ridden by state and federal authorities to promote regional objectives. This is particularly important for the I69 route decision that places it in an area where we would not allow a local road to be

constructed. We have suspected this was the case but until the FEIS was completed it was not known for certain – now it is. The conflict arises because local standards are far more restrictive than state or federal standards. It is the route selection that causes the conflict because there are route choices that do not create the conflict. Essentially the state and federal government are willing to make environmental/cost trade-off decisions that we are not.

FHWA Response

As part of FHWA's oversight of State DOTs, we approve design standards used for Interstate and other State Highways which are to be used for Interstate and National Highway System (NHS) projects regardless of funding source and for all other federally funded highways off of those systems. The use of locally developed standards is up to the State DOT to decide if that is appropriate. We encourage (but not require) the State and Local Agencies to work through and resolve any conflicts between State and Local standards within a Context Sensitive Solutions process to attempt to find solutions that work for both the State and the Community.

Martin Comment

2) The second has to do with completion of I69 beyond Section 4. The position of INDOT has always been that there would be a steady progression of I69 progress from Evansville to Indianapolis. I would expect that if this is indeed the case, there would be no need to terminate I69 at SR37 with a signalized intersection and a design specification with functionality for at least 10 years. I believe there are serious impediments to bringing SR37 to Interstate standards in the near-term. So the issue is not simply completion of Section 4 but the full completion of I69 without a lingering SR37 through Bloomington and Monroe County for many years to come trying to serve I69 traffic loads.

FHWA Response

Nationally I-69 has been divided into 32 Segments of Independent Utility (SIUs) for development between Canada and Mexico. SIU Number 1 extends from Port Huron, Michigan to I-465 on the northeast side of Indianapolis. SIU Number 2 begins on the northeast side of Indianapolis and ends on the south side of Indianapolis. SIU Number 3 is begins at I-465 on the south side of Indianapolis and ends at I-64 in Evansville. SIU 4 begins at I-64 in Evansville and ends in Henderson, Kentucky.

SIU Number 3 from Indianapolis to Evansville was advanced in the Tier 1 EIS which culminated in March 2004 with a corridor decision for alternative 3C. This process was consistent with CEQ and FHWA regulations allowing for NEPA studies for large, complex projects to be carried out in a two-staged "tiered" process. Following the Tier 1 Record of Decision in 2004, the corridor was divided into six sections of Independent Utility and Logical Termini for the Tier 2 process. The EIS process has been completed for Sections 1, 2 and 3, which are under construction at this time. Section 4 is nearing the completion of the EIS process at this time. The Tier 2 EIS process for Sections 5 and 6 remain to be completed. It is our understanding that INDOT has indicated their desire to continue progress on Section 5 of the I69 corridor, and will be starting field investigations in the near future as part of the Tier 2 process.

Regarding the issue of the I-69 connection with SR-37, we recognize that there will need to coordinate with the Section 5 Tier 2 EIS process before making a final decision as to the type of permanent connection that will be needed at this location. This decision will be based on the alternatives considered in the Section 5 Tier 2 EIS process. Therefore, we

have concurred with INDOT, that at this time, Section 4 may terminate at a signalized intersection with SR-37 until the Section 5 EIS process has culminated in a final cross-section and connection decision. We recognize the concerns raised about the steady progression of I-69 from Evansville to Indianapolis, however, each of the Tier 2 Sections were chosen and analyzed as having Independent Utility and Logical Termini, of which Section 4 will have. There is a discussion on deferring the SR-37 interchange discussed in Appendix PP of the Section 4 FEIS, which can be located at <http://www.i69indyevn.org/section-4-feis/>.

Martin01

E-mail from Richard Martin to Robert F. Tally (FHWA-IN) – 08/27/2011

Responses Provided by Robert Tally, in e-mail to Richard Martin on 08/30/2011

Martin01-01

Comment:

Bob,

Thank you for your response to Jack's inquiry (refers to Comment Baker01). If appropriate I would like to get some clarification on a couple of your statements.

In 1) below you state, "The expiration of the current TIP (June 26, 2013) is the critical date after which no further federal actions on projects would be able to be taken unless a new TIP has been approved before then by the MPO and Governor." Does this mean that federal funds are not available to the state past that date for projects within the BMCMPPO jurisdiction?

Response:

Good to hear from you. In response to your follow up questions and comments, I offer the following responses:

1) "Does this mean that federal funds are not available to the state past that date for projects within the BMCMPPO jurisdiction?"

You are partially correct. If the TIP expires and a new TIP has not been approved by the MPO and Governor by that date, then no new federally funded projects could be authorized and approved. All currently funded (authorized) projects would be able to continue, but no new authorizations would occur. All federal funds flow from FHWA through the State. In the unfortunate event that the BMCMPPO TIP were to expire, the State would ultimately decide where else in the State they would use any funds that they had previously committed to the BMCMPPO area.

Martin01-02

Comment:

In 2) below you state, "Section 4 of I-69 was included in the STIP for the portion outside of the BMCMPPO's boundary and by referencing BMCMPPO's current 2010 – 2013 TIP, the portion inside the BMCMPPO's boundary is included as well. By taking this action, FHWA has determined that this project is contained in a fiscally constrained STIP and TIP." Does this mean

that if the BMCMPPO does not add the portion inside the BMCMPPO's boundary to its TIP for construction, the determination of fiscal constraint is no longer valid and must be revisited?

Response:

2) "Does this mean that if the BMCMPPO does not add the portion inside the BMCMPPO's boundary to its TIP for construction, the determination of fiscal constraint is no longer valid and must be revisited?"

From our perspective, this is not a fiscal constraint issue, it is an issue of a project (or the portion of a project) within the BMCMPPO boundary being included in approved transportation plans and transportation improvement programs and therefore able to receive a Federal Authorization for construction. If the portion of the project within the BMCMPPO were not to be added to the TIP for construction, then FHWA would not be able to authorize federal funds to construct that portion. However, portions of the project outside of the BMCMPPO boundary would be able to be authorized and approved for construction using federal funds because they would be contained in the approved STIP.

Martin01-03

Comment:

In 3) below you state, "We expect that the 3C planning process will culminate in an agreed upon list of projects to be included in the TIP and STIP for advancement." Clearly the Governor and the BMCMPPO do not agree upon a list of projects at this point. Is it the desire of FHWA that the BMCMPPO defer to the state policy?

I assume that the requirement for agreement through a comprehensive, cooperative, and continuing process is intended to provide leverage to both parties in the effort to reach that agreement. Local opposition to routing I69 through Monroe County, and more particularly the City of Bloomington, has certainly been continuing for the past decade. As the INDOT planning process has progressed and evidence accumulated concerning impact and opportunities, i.e. the I69 plan has become more comprehensive in scope both officially and unofficially, local opposition has grown. We are now at the point where both of our locally elected legislative bodies and the BMCMPPO have voted against the I69 project as presented to them. To my knowledge, as requested by INDOT, we have participated in public meetings, briefings and work sessions related to the I69 project – we are cooperating but yet we are not agreeing.

As one example of INDOT's failure to cooperate I cite the emergency assess issue in western Monroe County. This issue has been discussed on many occasions but INDOT has yet to file with FHWA a request for such access. I suspect that statements by your department have lead them to believe such access is not possible yet we find them in many places throughout the interstate system. But if INDOT does not make the request, nothing happens to address the problem we believe is critical to the protection of life and property.

Response:

3) "Clearly the Governor and the BMCMPPO do not agree upon a list of projects at this point. Is it the desire of FHWA that the BMCMPPO defer to the state policy?"

This is an issue that remains to be resolved between the State and the MPO. FHWA is neither for nor against any specific project. In this type of situation, FHWA provides technical assistance and makes eligibility determinations regarding project sponsor requests. It is not the role of FHWA to direct either party to take a specific position regarding these types of issues,

rather we encourage the State and MPOs to work together to resolve these types of matters in a cooperative manner.

Martin01-04

Comment:

In 4) below you state, “Environmental issues for Section 4 of I-69 are a part of the EIS process of which has not yet culminated in a Record of Decision (ROD). To the extent possible, all environmental questions should be directed to FHWA and INDOT as part of the record and process for this EIS.” How can anyone expect a comprehensive review and composition of comments by local officials and interested parties for a 1500 page report prepared over several years by a team of consultants when the comments period is 30 days? How is this expectation justified within the 3C process requirement? In the end I will be asked to vote on a project that I do not comprehend adequately and that is described in a document I have not reviewed adequately.

For over 30 years I have participated in local planning and zoning processes, both as an interested citizen and for the last 12 years as an appointed official. During that time I have reviewed many assessments of environmental conditions associated with development projects and comprehensive planning efforts. A consistent observation has been that environmental efficacy is ultimately suppressed by economic efficiency – striking an appropriate balance is the phrase we use, and I have used, to proceed with development injurious to our environment but beneficial to particular individuals. Fortunately our environment has tremendous capacity for absorption of abuse, but it is certainly not infinite capacity.

Response:

4) “How can anyone expect a comprehensive review and composition of comments by local officials and interested parties for a 1500 page report prepared over several years by a team of consultants when the comments period is 30 days? How is this expectation justified within the 3C process requirement? In the end I will be asked to vote on a project that I do not comprehend adequately and that is described in a document I have not reviewed adequately.”

The Record of Decision (ROD) for Section 4 will be the culmination of years of development and analysis that started with the initiation of the Tier 1 EIS. The Draft EIS for Section 4 was published in the Federal Register on July 30, 2010 and we accepted comments during the extended comment period for the DEIS as well as after the closure of the comment period. During the comment period, a public hearing was held at the Eastern Greene Middle School near Bloomfield on Thursday, August 26, 2010. The FEIS was published in accordance with 23 CFR 771.125. 23 CFR 771.127 stipulates when a Record of Decision can occur, which is no sooner than 30 days after publication of the Final EIS notice in the Federal Register or 90 days after publication of a notice for the Draft EIS, whichever is later. I emphasize all of this to indicate that this document and the information contained therein has been under review for over a year. To date we have received numerous comments on the FEIS and are continuing to accept comments until the close of the FEIS comment period.

I would also reaffirm that the Planning and Environmental processes are separate but linked activities. As I responded to previously, “before signing a Record of Decision (ROD), the selected alternative must be consistent with the TIP, STIP and Plans for the MPO and State.” What a Policy Board Member bases their “vote” on is ultimately their decision.

Martin01-05

Comment:

In this regard, the central question is, "Does this route alignment for Section 4 meet acceptable criteria for environmental impacts?" My responsibility as a BMCMPO member is to consider all evidence of possible environmental impacts, not just those contained in the EIS 2 report.

Response:

5) "In this regard, the central question is, "Does this route alignment for Section 4 meet acceptable criteria for environmental impacts?" My responsibility as a BMCMPO member is to consider all evidence of possible environmental impacts, not just those contained in the EIS 2 report.

Per National Environmental Policy Act (NEPA) requirements, ongoing consultation with State and Federal Resource Agencies occurred throughout the project development process for this project. The US Fish and Wildlife Service, US Environmental Protection Agency, Indiana Department of Environmental Management, and Indiana Department of Natural Resources, among others, were consulted throughout the Tier 1 and Tier 2 processes. These agencies were consulted to ensure Federal and State environmental requirements were met, and they also assisted with avoidance, minimization and mitigation decisions. Within FHWA, the FEIS has received a thorough review at three levels; the FHWA Indiana Division, FHWA Headquarters Environmental Program Office and FHWA's Legal Counsel. All three of these offices determined that the Section 4 FEIS met all of the criteria for environmental impacts, which authorized me to affix my signature to the document. The Record of Decision (ROD) will present the basis for the decision as specified in 40 CFR 1505.2, summarize any mitigation measures that will be incorporated in the project and document any required Section 4(f) approval in accordance with part 774 of Title 23.

Martin01-06

Comment:

The report itself contains results indicating that the I69 construction would conflict with local development standards, particularly as they apply to karst features. Is FHWA expecting me to vote for a federal project with less restrictive standards than those we have imposed upon ourselves through legislative action?

Response:

6) "The report itself contains results indicating that the I69 construction would conflict with local development standards, particularly as they apply to karst features. Is FHWA expecting me to vote for a federal project with less restrictive standards than those we have imposed upon ourselves through legislative action?"

The Federal Regulations all point to and reference compliance with Federal and State law. In this case, as Section 4 has been developed, all Federal and State Regulatory Resource Agencies that have jurisdiction for these laws have been engaged appropriately. Title 23, Chapter 1, Section 109 (b) states that "The geometric and construction standards to be adopted for the Interstate System shall be those approved by the Secretary in cooperation with the State transportation departments." Therefore, it is our view that the State is in the best position to make the final determination regarding the applicability of standards and ordinances enacted at the local level.

Martin01-07

Comment:

In response to my specific question in this regard, you state, "We encourage (but not require) the State and Local Agencies to work through and resolve any conflicts between State and Local standards within a Context Sensitive Solutions process to attempt to find solutions that work for both the State and the Community." Since I have raised this issues on several occasions, I would expect a cooperative partner to identify this process as a possibility for addressing this conflict – they have not. I was not even aware such a process was enabled by FHWA.

More generally, I have found the whole process of dealing with federal and state agencies very difficult. Most of that difficulty results from my lack of knowledge about formal procedures and criteria. I wish our BMCMPPO staff were a bit more assertive in this regard. You have been very helpful and my brief discussions with your staff are constructive. INDOT staff have been less helpful, probably because we seem to be in an adversarial status. For example, had I been informed about the specific ROD phase approval criteria, my motion to include the preliminary design and ROW phases of the BMCMPPO portion in out TIP late last year would not have included the ROW phase as requested by Mr. Sarvis. To have a successful cooperative relationship, all parties must be aware of their responsibilities. As an MPO we have not been as judicious as the law allows.

It is important for all of us to remember that the EIS 1 route decision was conditioned upon a satisfactory EIS 2 assessment. Therefore, a failure of the EIS 2 to meet acceptable criteria would simply mean a revisiting of the route selection process rather than termination of the I69 project segment SIU Number 3.

Response:

I reviewed the remainder of your comments but found no additional questions for which it appears that a response was requested. Please let me know if you have further questions or if I can be of further assistance.

Martin02

E-mail from Richard Martin to Robert F. Tally (FHWA-IN) – 08/31/2011

Responses Provided by Robert Tally, in e-mail to Richard Martin on 09/02/2011

Martin02-01

Comment:

1) I have been going over Appendix GG in an attempt to understand the manner in which State and Federal engineers evaluate opportunities and risks. In that Appendix, several references are made to a Brazil 2007 study in regards a Critical Length of Grade assessment. This study is used in part to justify a request for a Level Two Design Exception. I obtained a copy of that study and have communicated with its author Professor Setti. As clearly stated in the paper and confirmed by him, "The decision to modify the speed difference in the current geometric design standards, however, must be supported by additional data to be obtained with further research, which should be based on(sic) a larger and more representative database than the one used in this study." He stated that no further research has been conducted by him or anyone else to his

knowledge. He also stated that “the speed difference curve would very likely be different for different countries, as it is directly related to accident rates.” Is it common practice in transportation engineering studies to use preliminary results from other countries to justify major changes to design standards on Federal projects?

Response:

#1) Is it common practice in transportation engineering studies to use preliminary results from other countries to justify major changes to design standards on Federal projects?

I am having staff look into the issues you have raised. To be prompt, I wanted to reply to assure you that your comment and question concerning Appendix GG will be reviewed prior to our issuance of the Record of Decision, and will be responded to as part of that document.

Further response (subsequent to Mr. Tally’s 09-02-11 e-mail) follows: As pointed out by the commenter, relevant studies are limited and the Section 4 Level Two Design Exception for Critical Length of Grade, FEIS Appendix GG, used the most recent applicable study data available. “Revising the AASHTO Curve: Accident Involvement Rates for Trucks and Speed Differentials on Highway Grades” (Brazil, 2007) more accurately reflects multi-lane divided highways and the safer nature of freeway facilities compared to two-lane rural highways. Furthermore, the benefit/cost ratios would be minimally affected if the AASHTO Exhibit 3-58 data, as presented originally in the DEIS, were to be used in the analysis. The data from these studies was used to determine a crash reduction factor (CRF) which changes little between the two studies.

See also Response to Comment Dunlap07-05. This response clarifies that INDOT did not “rely” on the Brazil study to justify the design guidelines. Rather, the Brazil study confirms INDOT’s original analysis that was done using the long-accepted guidance from AASHTO study. It is the professional judgment of INDOT’s highway engineers and of the highway engineers of consultants hired by INDOT to assist in preparing the analysis, and of the FHWA engineers who reviewed the analysis, that the analysis of the length of grade issue is thorough and complete and its conclusions are fully supported by available data. While other engineers may disagree with the conclusions reached by INDOT and FHWA, INDOT and FHWA have determined that the other engineer’s analysis of the issue does not change their opinion.

Martin02-02:

Comment:

2) In late July the Tier 2 was released to the public. Until that time and despite repeated requests, no one from local government was given access to preliminary engineering studies, environmental assessments, or other contents of the Tier 2 material except in a very general way. We did have limited discussions at two local meetings and Bill Williams did attend some of the weekly sessions in Indianapolis. But to say that we, as a local government entity were full 3C participants would be incorrect. While State and Federal agencies have been working to prepare the Tier 2 study, local government has not been allowed to participate except to ask questions regarding very general statements made a limited meeting presentations. Had we been given the requested access, such questions as, “What is the impact on air quality from increased grade standards for this project?” or “What is the increase erosion load expected from changes in embankment?” might have been asked. Is it the position of FHWA that parity of partnership in the 3C process is possible when one of the parties has only 30 days to review the work of the other two that was accomplished over 3 years?”

Response: #2) "Is it the position of FHWA that parity of partnership in the 3C process is possible when one of the parties has only 30 days to review the work of the other two that was accomplished over 3 years?"

The continuing, cooperative, and comprehensive (3-C) planning process specifically pertains to the way that Metropolitan area transportation plans and programs are intended to be developed. There is no inherent relationship between the 3C planning process and a 30 day waiting period after a Final Environmental Impact Statement (FEIS) is published before a Record of Decision (ROD) can be signed. Continuing involvement with the MPO should occur before, during, and after the environmental process when necessary. I believe that INDOT intends to work with the City and County as design progresses, and my staff are planning to attend the next coordination meeting set for Wednesday, September 7th.

Martin02-03:

Comment:

And now my request is: a) since the BMCMPPO and the State of Indiana have not reached agreement on a satisfactory TIP that includes funding for I69 construction within the jurisdiction, and b) since Monroe County has consistently expressed a desire to be a full participant in the 3C process, and c) since full participation has been limited by INDOT and contractor failure to produce requested information, I request that you extend the Tier 2 EIS comment period to be a full 90 days. We may not get through all of the material in a satisfactory manner in that time but I know we have not had sufficient time to date.

Response: #3) "I request that you extend the Tier 2 EIS comment period to be a full 90 days. We may not get through all of the material in a satisfactory manner in that time but I know we have not had sufficient time to date."

In response, I want to convey that the 30 day waiting period after the Final Environmental Impact Statement (FEIS) is intended to allow FHWA an internal final review period and requires publication in the federal register. Comments are often received, and are addressed in the Record of Decision (ROD). Another important purpose of the 30 day period is the pre-decisional referral process to the Council on Environmental Quality (CEQ) as discussed in 40 CFR 1504. Agencies, for certain reasons, have the right to refer or elevate decisions they are concerned about to the CEQ. Procedurally, this elevation can only occur after the FEIS and before the agency makes its final decision with issuance of the ROD. There has been continuous involvement with agencies throughout this project, and have not been any referrals to CEQ. In addition, over 40 comment letters have been received on the Section 4 FEIS. FHWA and INDOT are currently reviewing these comments, and they will all be addressed in the Record of Decision. Based on the above reasons for the 30 day period as well as over 40 comment letters being received for the record, I find no justification for providing an extension beyond the current 30 day period for the FEIS.

Williams01

E-mail from Bill Williams (Monroe County Engineering, writing on behalf of Richard Martin) to Robert F. Tally (FHWA-IN) – 09/02/2011

Williams01-01

Comment:

Good afternoon all.

In reviewing the FEIS, in preparation for the upcoming meeting, there are several items that should be addressed as it relates to the low-cost alternative.

Those are;

Comment:

1) Truck Grades - the FEIS references a study conducted in Brazil as it relates to grades for trucks. In reviewing the document and having had correspondence with the author of the study, the referenced study may not be suitable for application to this project. It specifically states that additional data and study should be conducted. We are concerned that this has not been thoroughly reviewed and have concerns with the application of the Brazil study.

Also, as it relates to truck grades over the study period of the FEIS, what data or further studies have been conducted to account for additional trucks in the 20 year design period? Has anyone determined the additional emissions from truck traffic on a 4% versus a 5% grade and the cumulative affect this will have on air quality in the areas of the proposed steeper grades?

Response: Regarding truck grades and the Brazil study, please see Response to Comment Dunlap 07-05. The analysis described in Response to Comment Dunlap 07-05 assumes a 2% annual increase in truck traffic each year over the previous year. The standard tool used to analyze emissions for this project (MOBILE6) does not account for changes in emissions on varying grades. INDOT is unaware of a tool which estimates changes in emissions as a function of grade.

Williams01-02

Comment:

2) Commitment to SR 37 improvements prior to Section 5 construction - are the projects listed in the FEIS real projects? I know the INDOT has began design of the intersection improvements at State Road 45 with Harmony / Garrison Chapel Road and with Breeden Road. Vernal Pike has the highest crash rate in the area and we are extremely concerned with the safety of travelers in this area, as well as the other intersections mentioned in the FEIS. What commitment will INDOT make to assure they become a reality as soon as possible?

Response:

The Section 4 FEIS identified intersection improvement projects along SR 45 due to Sections 1-3 being constructed and open to traffic before Section 4 is completed. It is anticipated that traffic volumes on SR 45 will temporarily increase before Section 4 is constructed. It will serve as a link between the I-69 / US 231 interchange and SR 37 and Bloomington. These intersections include SR 45 and Harmony Road, SR 45 and Burch Road, and SR 45 and Breeden Road. Please see Appendix OO for more information. These projects have been programmed and will be implemented by INDOT's Seymour District. It is anticipated that all three intersection improvements will be completed before Sections 1-3 are open to traffic in 2012.

The Section 4 FEIS also identified interim intersection improvements along SR 37 when Sections 1-4 are constructed and open to traffic before Section 5 is constructed. Vernal Pike is identified as an intersection with traffic congestion and safety concerns. Appendix PP of Section 4's FEIS recommends that INDOT advance design and construction of this project

shortly after the Federal Highway Administration (FHWA) issues a Record of Decision (ROD) for Section 5. Please see Appendix PP for more information regarding an interim traffic and safety analysis for SR 37.

Williams01-03

Comment:

3) Slopes - There has been a lot of work reviewing the clear zone requirements relative to a 3:1 slope versus a 2:1 slope. It appears the safety issue has been adequately addressed with the 30 foot clear zone requirement. The concern we have with increasing the slope is the erodability of the soils in this area. In reviewing the Universal Soil Loss table, it appears that soil loss would almost double given the proposed increase in slope (6.5% soil loss vs. 13% soil loss over a 50' horizontal area). What will be done to mitigate this and how will the slopes be maintained?

Response:

This comment addresses a post-NEPA issue to be addressed during design.

Boyd01**E-mail from Jan Boyd to Project Website and Michelle Allen (FHWA-IN) - 07/22/2011****Boyd01-01****Comment:**

I received the updated, final 800.11(e) CD documentation for Section 4 dated July 8, 2011. I have started looking through the CD and find additional information which was not included in the previous revised CD, but I see no date as to when comments are due. Please advise as to when consulting party comments are due regarding this updated CD.

Response:

See response to Boyd02-01, below.

Boyd02**E-mail from Jan Boyd to Project Website and Michelle Allen (FHWA-IN) - 07/28/2011****Boyd02-01****Comment:**

2ND REQUEST

I received the updated, final 800.11(e) CD documentation for Section 4 dated July 8, 2011. I have started looking through the CD and find additional information which was not included in the previous revised CD, but I see no date as to when comments are due. Please advise as to when consulting party comments are due regarding this updated CD.

Response:

The following response was provided to the commenter on July 28, 2011, "We wish to thank you for your participation as a consulting party for this undertaking. Pursuant to 800.11(f) of 36 CFR part 800 of the National Historic Preservation Act, we have transmitted to consulting parties and to the Advisory Council on Historic Preservation a copy of the Memorandum of Agreement signed by Federal Highway Administration, the State Historic Preservation Officer, and the Indiana Department of Transportation with an updated 800.11(e) document. As required by 800.11(f), this document contains a discussion of "measures considered to avoid or minimize the undertaking's adverse effects and a summary of the views of consulting parties and the public."

This mailing titled "Updated, Final 800.11(e) dated July 8, 2011, I-69 Tier 2 Studies Section 4" marks the end of Section 106 consultation for Section 4 and is for your record only."

Boyd03**E-mail from Jan Boyd to Project Website and Michelle Allen (FHWA-IN) - 08/21/2011****Boyd03-01****Comment:**

I am writing regarding EIS No. 20110228, Final EIS, FHWA, IN, I-69 Evansville to Indianapolis Tier 2 Section 4 Project. In looking at the original Federal Register /Vol 76, No. 141/Friday, July

22, 2011/Notices it stated review period ends: 08/15/2011. As a Consulting Party for Section 4, I received my Section 4 FEIS DVD's on Saturday, July 23, 2011. Why would the review period end on 8/15/2011 when this would be only 24 days after it was published?

Also, Federal Register/Vol. 76, No. 146/Friday, July 29, 2011/Notices showed the Amended Notice, with a review period ends 08/22/2011 date. Laura Hilden of INDOT sent out a letter dated August 15, 2011 on INDOT letterhead in which it states "On August 2, 2011, you were sent a letter along with a corrected copy of the Volume III, Comments and Responses DVD for the above referenced Final EIS". How could the Federal Register Amended Notice date be published July 29, 2011 when INDOT even states in writing the corrected DVD was not sent out until August 2, 2011? I received my corrected Vol III DVD on Saturday, August 6, 2011. I feel the amended review period ends date should be revised to September 2, 2011, to end 30 days after the Corrected DVD's were sent out.

I am awaiting your immediate response since the published review period shows it ends tomorrow, August 22, 2011.

Please include this e-mail as part of the I-69 Official Administrative Record.

Response:

The following response was provided to the commenter on August 24, 2011, "all Environmental Impact Statements are filed with the Environmental Protection Agency (EPA), and EPA publishes a "Notice of Availability" each week in the Federal Register. For the I-69 Section 4 FEIS, EPA had been sent the document for publication, but had incorrectly published the review period to end on August 15, 2011. I contacted EPA shortly after publication, and they had realized the mistake. EPA then followed up with the amended federal register notice which cited the correct date to end the review period on August 22, 2011. For more information on how documents are filed and review timeframes, you can follow this link on EPA's website: <http://www.epa.gov/compliance/nepa/submiteis/#more>. The corrected DVD that was sent had three minor corrections, which were detailed in the letter from INDOT on August 15, 2011. These minor changes did not necessitate an extended review period."

Boyd04

E-mail from Jan Boyd to Laura Hilden (INDOT) and Michelle Allen (FHWA-IN) - 08/21/2011

Boyd04-01

Comment:

I received your letter dated August 15, 2011 Re: I-69 Section 4, Tier 2, FEIS specifying where the corrections were made for Volume III, Comments and Responses DVD for the FEIS. You state in your letter "The references in the original responses to "Appendix NN" were removed because in the Final EIS Appendix NN does not exist". This statement is not correct. I have looked at the original comments and responses in Part A that you specified as PO 07-02, PO 07-03 and PO 12-26, and I expected just the reference to Appendix NN would have been removed as you stated. This is not the case, the ORIGINAL RESPONSE was removed.

Response: See Responses to Comments Dunlap 02-01 and Dunlap 03-01.

Boyd04-02

Comment:

Also, if responses were deleted, why is the Corrected DVD Part A 1,257 pages and the original DVD Part A only 1,255 pages? I have looked at the Corrected DVD and the responses to PO 07-02, PO 07-03 & PO 12-26 refers you to PI 322-01. I have compared the original DVD to the Corrected DVD regarding this response PI 322-01 and the responses are the same.

You stated in your letter "The above three changes are the only changes made to the original DVD, Volume III, Comments and Responses, enclosed in the FEIS". Please respond to what other changes have been made from the original Volume III – Comments and Responses DVD dated July 2011 in Part A to make this Corrected DVD 2 pages longer?

Response: The Section 4 FEIS's original Volume III and the Corrected Volume III were compared. The referenced difference in the number of pages was determined to be caused by formatting.

Boyd04-03

Comment:

Your letter dated August 15, 2011, was on Indiana Department Of Transportation letterhead but was mailed in an DLZ envelope and postmarked with a zip code out of South Bend, IN? Why was your letter not sent out in an INDOT envelope if INDOT originated the letter? Please respond to these questions

Also, the INDOT letter on the corrected DVD, which was signed by you, was not dated. Why would a letter have been written without a date?

Response: DLZ is under contract to INDOT to provide various professional services for the I-69 Section 4 FEIS. As such, DLZ's South Bend Office was responsible for mailing the referenced project related materials. Regarding the undated letter contained in the DVD, many such letters were mailed and all could not be mailed on the same day. The letter's postmark may be referenced to determine when it was mailed. It should be noted that recent INDOT cover letters transmitting DEIS/FEISs (e.g., the Section 3 and 4 DEIS and FEIS transmittal letters from INDOT) typically have not been dated.

Boyd05

Letter from Jan Boyd to Robert F. Tally (FHWA-IN), Virginia Laszewski (USEPA) and Project Website - 08/22/2011

Boyd05-01

Comment:

First, I would like to state that I question the review period ends date on the Amended Federal Register Notice. The Corrected Vol III DVD was not sent out until August 2, 2011, per a letter dated August 15, 2011, from Laura Hilden on INDOT letterhead. You received a copy of my e-mail to Michelle Allen at FHWA, and also a copy of my e-mail to Laura Hilden, both e-mailed August 21, 2011, in which I question this amended date. I have received NO reply back from anyone mentioned above. What is the correct date that responses are due by?

Response: Refer to the response to comment HEC01-01.

Boyd05-02

Comment:

Regarding the Section 106 Historic Report, I have questioned the determination of eligibility on the Dowden Farm (Greene 55042) based on inaccurate information supplied by Weintraut & Associates. This farm has been in our family for 92 years. This farm retains its fence lines, garden area, and drive, along with above ground structures. The Report on the Ineligibility of the Dowden Farm For Listing in the National Register of Historic Places that was submitted to The Keeper contained errors and omissions. This report contains omitted structures, which should have been listed as "Contributing". It contains two (2) hog structures, which Weintraut listed as "in ruins", and has now admitted these were errors. Weintraut & Associates also omitted another above ground structure, along with a salt block feeder, which are both above ground structures. This salt block feeder is a permanent structure which should have been included. With these additional structures, it now makes the "contributing" structures greater in number than "non-contributing" structures. The eligibility or ineligibility of this farm should be based on correct and accurate information, which was not done. When will a correct and accurate report be available, and re-submitted to The Keeper?

Response: The Keeper of the National Register of Historic Places (NRHP) has determined that this farmstead is not an eligible resource. The Keeper makes the final determination regarding the eligibility of properties for the NRHP. The Dowden Farm has been investigated pursuant to Section 106 of the National Historic Preservation Act (NHPA) and its enabling provisions found in 36 CFR 800. As part of the Section 106 consultation, comments regarding the Dowden Farm property have been discussed and considered pursuant to 36 CFR 800.16(f) and have been addressed in Sections 3 and 4 consultation. It remains the opinion of the State Historic Preservation Officer (SHPO) and the Keeper of the National Register, that Dowden Farm is not eligible for the NRHP.

Boyd05-03

Comment:

In the FEIS, Section 4, Vol III, Part A, Comment AS001-01 by James A. Glass, Deputy State Historic Preservation Officer, states that the Historic properties listed would not be adversely affected, but this is a conditional concurrence. It is based upon the project being constructed in strict accordance with the two conditions outlined. INDOT's response is NOT a commitment to stay with the condition outlined by Dr. Glass. Any changes in the design will require a re-evaluation of the impacts on these properties, i.e a SEIS will be required.

Response: As stated in the response to Comment AS001-01 on page 130 in Vol III of the Section 4 FEIS, any design changes in the vicinity of historic properties that potentially affect the integrity of these properties will be evaluated for adverse impacts and, if necessary, lead to initiation of additional consultation regarding effects during the post-NEPA design phase of the project. This is consistent with the Section 106 Memorandum of Agreement (MOA) developed for Section 4.

Boyd05-04**Comment:**

In the FEIS, Section 4, Vol III, Part A, Comment AS001-02 by James A. Glass, Deputy State Historic Preservation Officer, believes that the visual impact of the project on Scotland Hotel, Blackmore Store, Koontz House, and Maurice Head House would not be adverse, as long as the new highway is constructed in hill cuts of the depths projected by FHWA in the 800.11 (e) documentation and as long as the wooded areas between those properties and the new highway will remain in place, except to the extent that trees are proposed by FHWA and INDOT to be removed from the anticipated, new highway right-of-way. My comment is that since FHWA and INDOT have no control over these trees, and if they would be cut and removed, then the condition set by Dr. Glass would no longer exist, and that would result in visual impacts to these properties. Also, without these trees there would be greater noise impact since these trees would no longer block the noise. This would be an increase in the noise level.

Response: Please see response to Comment Boyd05-03.

Boyd05-05**Comment:**

The Historic Property Report failed to live up to their methodology by not including every property on their inventory log. Per the FEIS, Section 4, Vol III, Part A, Comment AS001-04 by James A. Glass, Deputy State Historic Preservation Officer, comments that archaeological site 12Gr1095 is the site not mentioned in the DEIS. The response is that Section 4.4.3.1 of the DEIS was incorrect. How many more errors, such as this, have been made? The public has no way of knowing.

Response: Archaeological site 12Gr1095 was erroneously omitted from the DEIS. This error was corrected in the FEIS. The site is not located within the right-of-way of Refined Preferred Alternative 2, and will not be affected by the Section 4 project.

Boyd06

E-mail from Jan Boyd to Michelle Allen (FHWA-IN) and Project Website - 08/22/2011

Boyd06-01**Comment:**

2ND REQUEST

From: Bill & Jan Boyd

Sent: Sunday, August 21, 2011 9:49 PM

To: michelle.allen@dot.gov; i-69.section_4@i69indyevn.org

Cc: Robert Tally; Kenneth Westlake; Executive Secretary FHWA

Subject: EIS No. 20110228 Amended FR Notice

Michelle,

I am writing regarding EIS No. 20110228, Final EIS, FHWA, IN, I-69 Evansville to Indianapolis Tier 2 Section 4 Project. In looking at the original Federal Register /Vol 76, No. 141/Friday, July 22, 2011/Notices it stated review period ends: 08/15/2011. As a Consulting Party for Section 4, I received my Section 4 FEIS DVD's on Saturday, July 23, 2011. Why would the review period end on 8/15/2011 when this would be only 24 days after it was published?

Also, Federal Register/Vol. 76, No. 146/Friday, July 29, 2011/Notices showed the Amended Notice, with a review period ends 08/22/2011 date. Laura Hilden of INDOT sent out a letter dated August 15, 2011 on INDOT letterhead in which it states "On August 2, 2011, you were sent a letter along with a corrected copy of the Volume III, Comments and Responses DVD for the above referenced Final EIS". How could the Federal Register Amended Notice date be published July 29, 2011 when INDOT even states in writing the corrected DVD was not sent out until August 2, 2011? I received my corrected Vol III DVD on Saturday, August 6, 2011. I feel the amended review period ends date should be revised to September 2, 2011, to end 30 days after the Corrected DVD's were sent out.

I am awaiting your immediate response since the published review period shows it ends tomorrow, August 22, 2011.

Please include this e-mail as part of the I-69 Official Administrative Record.

Response:

See response to Boyd03-01 above.

Boyd07

E-mail from Jan Boyd to Laura Hilden (INDOT) and Michelle Allen (FHWA-IN) – 08/22/2011

Boyd07-01

Comment:

2ND REQUEST

From: Bill & Jan Boyd

Sent: Sunday, August 21, 2011 10:32 PM

To: lhilden@indot.in.gov ; michelle.allen@dot.gov

Cc: Robert Tally ; Executive Secretary FHWA ; Kenneth Westlake

Subject: Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

Ms. Hilden,

I received your letter dated August 15, 2011 Re: I-69 Section 4, Tier 2, FEIS specifying where the corrections were made for Volume III, Comments and Responses DVD for the FEIS. You state in your letter "The references in the original responses to "Appendix NN" were removed because in the Final EIS Appendix NN does not exist". This statement is not correct. I have looked at the original comments and responses in Part A that you specified as PO 07-02, PO 07-03 and PO 12-26, and I expected just the reference to Appendix NN would have been removed as you stated. This is not the case, the ORIGINAL RESPONSE was removed.

Also, if responses were deleted, why is the Corrected DVD Part A 1,257 pages and the original DVD Part A only 1,255 pages? I have looked at the Corrected DVD and the responses to PO 07-02, PO 07-03 & PO 12-26 refers you to PI 322-01. I have compared the original DVD to the Corrected DVD regarding this response PI 322-01 and the responses are the same.

You stated in your letter "The above three changes are the only changes made to the original DVD, Volume III, Comments and Responses, enclosed in the FEIS". Please respond to what other changes have been made from the original Volume III – Comments and Responses DVD dated July 2011 in Part A to make this Corrected DVD 2 pages longer?

Your letter dated August 15, 2011, was on Indiana Department Of Transportation letterhead but was mailed in an DLZ envelope and postmarked with a zip code out of South Bend, IN? Why was your letter not sent out in an INDOT envelope if INDOT originated the letter? Please respond to these questions

Also, the INDOT letter on the corrected DVD, which was signed by you, was not dated. Why would a letter have been written without a date?

I am awaiting your responses to all of my questions listed above.

Please include this e-mail as part of the Official Administrative Record.

Response:

See responses to comment Boyd04.

Boyd08

E-mail from William A. Boyd to Laura Hilden (INDOT) – 08/22/2011

Boyd08-01

Comment:

I received your letter dated August 15, 2011 regarding the above referenced project.

I have a serious disagreement concerning your explanation as to why references to "Appendix NN" were removed from the I-69 Section 4, Tier 2 Environmental Impact Statement. Your letter states that references to the appendix were removed because"... the final EIS Appendix NN does not exist". I believe this is a very grave misstatement of fact.

The first public edition of Volume III, Comments and Responses, Part A did indeed make reference to the document titled "Appendix NN". In response to comment P0007-02, was this statement (with emphasis added):

*"This suggested alignment (as well as a similar one suggested by Dr. Patrick Munson) were evaluated. This evaluation **is documented in Appendix NN**, Analysis of Munson and IKC Alternatives. It found that the suggested alignments would result in no more than a very minor decrease in karst feature impacts. The Tier 1 Record of Decision (ROD) provides that alignments outside of the approved corridor may occur only "to avoid significant impacts within the selected corridor" (ROD, Section 2.3.5). The analysis found that the suggested alignments would not result in a significant decrease in karst*

impacts."

The response to comment PO007-03, was this statement, in part (with emphasis added):

*"See response to Comment PC007-02, **which determined** that the lack of a significant reduction in karst impacts precluded consideration on this alternative. The potential cost reduction noted in this comment is a secondary issue which would not be considered unless there was a significant reduction in karst impacts. In that context, the suggested alignment would cost about \$37 million less to construct in Year 2010 dollars (see **Appendix NN**)...."*

And the response to comment PO012-26 was the following statement (with emphasis added):

*"The Ecosystems section of the Tier 1 FEIS (including Figure 5.23-5 which shows that corridor 3C passes through an area of dense karst features) documents that it was recognized during Tier 1 that significant karst features would be encountered by the Tier 2 Section 4 Alternatives. The number of karst features in Section 4 is consistent with this Tier 1 finding. **Two related alignments outside of the Tier 1 corridor were evaluated**; see Response to Comment PO007-02, as well as Appendix NN, Analysis of Munson/IKC Alternatives, for additional information."*

The authors of the referenced comments are knowledgeable and professional individuals, who know the topic well. INDOT has sought their expertise in the past, so their comments must be taken seriously, not just dismissed.

Additionally, in the above referenced response, there were two text sizes in the document first released to the public.

In examining the response to comment PO012-26, it is apparent that INDOT has in effect re-opened the Tier 1 evaluation without public advertisement or comment.

Documents in my possession detail requirements for the preparation of "Appendix NN" by Bernardin-Lochmueller Associates as part of Contract Amendment #11, EDS #A249-5-320089, to contract 030301, dated October 15, 2004. See Task 2.3.2.7 in contract amendment #11. There were four Appendices added by this amendment. Three of the four were made available to the public in the Final EIS, however "Appendix NN" was not.

The original responses are, in my view, correct that "Appendix NN" does exist, however it sheds light on a long-known problem for this project. INDOT apparently is attempting to withhold this information from the public as well as Federal Regulators. INDOT not only removed references to "Appendix NN", it also changed the responses to the comments. This is pure censorship and a highly questionable act on a public document.

It is apparent that the public paid for the preparation of "Appendix NN" and are entitled to be made aware of, and comment on the contents of "Appendix NN".

Response: Please see Responses to Comments Dunlap 02-01 and Dunlap 03-01. Please note that no document entitled "Appendix NN" was prepared by INDOT, in any draft or final form.

Boyd08-02

Comment:

Your letter also states in the last sentence of the second paragraph, "***The above three changes are the only changes made to the original DVD, Volume III, Comments and Response,***" however, the "corrected copy" is two pages longer than the original document, 1257 pgs. vs. 1255 pgs. Perhaps you will explain to the public, Federal Regulators and myself, how INDOT can remove text yet generate two additional pages?

Response:

See response to comment Boyd04-02.

Boyd08-03

Comment:

Lastly, I find it quite odd that a letter from an a State employee, yourself, has arrived in an envelope with DLZ logo, and sent from an office in South Bend, Indiana. Why is the public being milked for mailing costs from a Consultant when the letter should have been mailed with INDOT's own facilities?

Response: Refer to the response to Comment Boyd04-03.

Boyd08-04

Comment:

In INDOT's effort to cover-up the real truth about "Appendix NN", the hole being dug by this misrepresentation of facts is getting deeper and wider. I suggest that if INDOT is going to continue to withhold and misrepresent the facts, then y'all better get your stories straight.

I suggest a visit to www.i69whistleblower.org to set the record straight.

Response: Please see Response to Comment Boyd 08-01.

Boyd09

E-mail from Jan Boyd to Michelle Allen (FHWA-IN) – 08/24/2011

Boyd09-01

Comment:

I understand from an auto reply e-mail that you were out of the office until today, Wednesday, August 24, 2011. My previous e-mails are below.

Also, please provide me with the federal regulations that establish the comment period time frame for the Final EIS.

Response:

See response to Boyd03-01

Boyd09-02

Comment:

In addition, I am stating that my e-mails are NOT comments to the I-69 Section 4 FEIS. These are questions to you regarding the Federal Register Notice. For some reason, unknown to me, Mr. Michael Grovak of Bernardin, Lochmueller & Associates, Inc. (BLA) is responding to me from the e-mail I sent to you. The Federal Register Notice and the Federal Register Notice-Amended list you as the person to contact with any questions.

A prompt reply from you is appreciated.

Please include this e-mail as part of the Official Administrative Record.

Response: All comments or questions received regarding the Section 4 FEIS during the Section 4 FEIS period of availability are documented as comments on the Section 4 FEIS. Appropriate responses are prepared.

Boyd10

E-mail from Jan Boyd to Mike Grovak (PMC) – 08/24/2011

Boyd10-01

Comment:

I have informed you several times that my e-mail does NOT involve comments to the FEIS for Section 4, these are questions regarding the Corrected FEIS Vol III for Section 4 of I-69.

I am still awaiting a response from Ms Hilden of INDOT.

You also did not answer my question as to why you, an Bernardin, Lochmueller & Associates, Inc. (BLA) employee, are replying to my e-mail to Laura Hilden, an INDOT employee?

Please include my e-mails as part of the Official Administrative Record.

Response: Refer to the responses to Comments Boyd 08-03 and Boyd09-2 above.

Boyd11

E-mail from Jan Boyd to Laura Hilden (INDOT) – 08/25/2011

Boyd11-01

Comment:

THIRD REQUEST

From: Bill & Jan Boyd

Sent: Monday, August 22, 2011 11:32 PM

To: lhilden@indot.in.gov ; michelle.allen@dot.gov

Cc: Robert Tally ; Executive Secretary FHWA ; Kenneth Westlake

Subject: 2ND REQUEST - Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

2ND REQUEST

From: Bill & Jan Boyd

Sent: Sunday, August 21, 2011 10:32 PM
To: lhilden@indot.in.gov ; michelle.allen@dot.gov
Cc: Robert Tally ; Executive Secretary FHWA ; Kenneth Westlake
Subject: Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

Ms. Hilden,

I received your letter dated August 15, 2011 Re: I-69 Section 4, Tier 2, FEIS specifying where the corrections were made for Volume III, Comments and Responses DVD for the FEIS. You state in your letter "The references in the original responses to "Appendix NN" were removed because in the Final EIS Appendix NN does not exist". This statement is not correct. I have looked at the original comments and responses in Part A that you specified as PO 07-02, PO 07-03 and PO 12-26, and I expected just the reference to Appendix NN would have been removed as you stated. This is not the case, the ORIGINAL RESPONSE was removed.

Also, if responses were deleted, why is the Corrected DVD Part A 1,257 pages and the original DVD Part A only 1,255 pages? I have looked at the Corrected DVD and the responses to PO 07-02, PO 07-03 & PO 12-26 refers you to PI 322-01. I have compared the original DVD to the Corrected DVD regarding this response PI 322-01 and the responses are the same.

You stated in your letter "The above three changes are the only changes made to the original DVD, Volume III, Comments and Responses, enclosed in the FEIS". Please respond to what other changes have been made from the original Volume III – Comments and Responses DVD dated July 2011 in Part A to make this Corrected DVD 2 pages longer?

Your letter dated August 15, 2011, was on Indiana Department Of Transportation letterhead but was mailed in an DLZ envelope and postmarked with a zip code out of South Bend, IN? Why was your letter not sent out in an INDOT envelope if INDOT originated the letter? Please respond to these questions

Also, the INDOT letter on the corrected DVD, which was signed by you, was not dated. Why would a letter have been written without a date?

I am awaiting your responses to all of my questions listed above.

Please include this e-mail as part of the Official Administrative Record.

Response:

See responses to comment Boyd04.

Boyd12

E-mail from Jan Boyd to Michelle Allen (FHWA-IN) – 08/25/2011

Boyd12-01

Comment:

Thank you for the reply. If I understand you correctly, you are stating the review period end date was amended because it was incorrect, not because it was extended due to the "Corrected" Vol III DVD having been mailed out later. Thank you for EPA's website info, I have started looking through it.

You state the Corrected DVD had three minor corrections. I guess it depends on your definition of "minor". All three comment numbers mentioned had the original responses deleted. I am questioning since these responses were deleted, how can the Corrected Vol III Part A DVD be 1,257 pages, when the original DVD was 1,255 pages? Deleting responses would make Part A less pages, not more pages. What has changed to make the Corrected Vol III, Part A two (2) pages longer?

As I have stated earlier, these are questions, not "comments" regarding the Section 4 FEIS.

Response :

See responses to comment Boyd04.

Boyd13

E-mail from Jan Boyd to Laura Hilden (INDOT) – 08/25/2011

Boyd13-01

Comment:

4TH REQUEST

From: Bill & Jan Boyd
Sent: Thursday, August 25, 2011 12:11 AM
To: lhilden@indot.in.gov
Cc: Robert Tally; Executive Secretary FHWA ; Kenneth Westlake ; michelle.allen@dot.gov
Subject: 3RD REQUEST - Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

3RD REQUEST

From: Bill & Jan Boyd
Sent: Monday, August 22, 2011 11:32 PM
To: lhilden@indot.in.gov ; michelle.allen@dot.gov
Cc: Robert Tally ; Executive Secretary FHWA ; Kenneth Westlake
Subject: 2ND REQUEST - Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

2ND REQUEST

From: Bill & Jan Boyd
Sent: Sunday, August 21, 2011 10:32 PM
To: lhilden@indot.in.gov ; michelle.allen@dot.gov
Cc: Robert Tally ; Executive Secretary FHWA ; Kenneth Westlake
Subject: Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

Ms. Hilden,

I received your letter dated August 15, 2011 Re: I-69 Section 4, Tier 2, FEIS specifying where the corrections were made for Volume III, Comments and Responses DVD for the FEIS. You state in your letter "The references in the original responses to "Appendix NN" were removed

because in the Final EIS Appendix NN does not exist". This statement is not correct. I have looked at the original comments and responses in Part A that you specified as PO 07-02, PO 07-03 and PO 12-26, and I expected just the reference to Appendix NN would have been removed as you stated. This is not the case, the ORIGINAL RESPONSE was removed.

Also, if responses were deleted, why is the Corrected DVD Part A 1,257 pages and the original DVD Part A only 1,255 pages? I have looked at the Corrected DVD and the responses to PO 07-02, PO 07-03 & PO 12-26 refers you to PI 322-01. I have compared the original DVD to the Corrected DVD regarding this response PI 322-01 and the responses are the same.

You stated in your letter "The above three changes are the only changes made to the original DVD, Volume III, Comments and Responses, enclosed in the FEIS". Please respond to what other changes have been made from the original Volume III – Comments and Responses DVD dated July 2011 in Part A to make this Corrected DVD 2 pages longer?

Your letter dated August 15, 2011, was on Indiana Department Of Transportation letterhead but was mailed in an DLZ envelope and postmarked with a zip code out of South Bend, IN? Why was your letter not sent out in an INDOT envelope if INDOT originated the letter? Please respond to these questions

Also, the INDOT letter on the corrected DVD, which was signed by you, was not dated. Why would a letter have been written without a date?

I am awaiting your responses to all of my questions listed above.

Please include this e-mail as part of the Official Administrative Record.

Response:

See responses to comment Boyd04.

**Citizens for Appropriate Rural Roads (CARR)01
Letter from CARR to Robert F. Tally (FHWA-IN), Executive Secretary (FHWA) and Kenneth Westlake (USEPA) – 08/21/2011**

CARR01-01

Comment:

A Supplemental EIS is needed for Section 4 and possibly the entire I-69 project. Much new information, revelations of concealed data, failure to do needed studies, manipulation of data, selective use of data (cherry picking), theft of private property and changes in design have led to significant changes in environmental as well as social and fiscal impacts of the I-69 project. Many of these changes were not revealed in previous EISs for this project and were not subject to public review. Violations of required design and construction activities and premature land acquisitions also need to be addressed. Numerous design changes have been made after the ROD in other sections of the I-69 corridor. These changes will impact human safety, health and cause extensive damage to human property as well as to the environment. A SEIS is needed to study these changes and impacts and how they change the nature and expected outcomes of the project.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-01 in Volume III of the Section 4 FEIS.

CARR01-02

Comment:

Several impacts of the I-69 extension have changed. Some of these changes are addressed in the following comments. Some of these comments are extracted from a legal complaint, "Complaint For Violations Of National Environmental Policy Act and Administrative Procedures Act" Cause No. 1-11-CV-1031-SEB-MJD, referred to in the text as "Complaint".

Karst Impacts: "Substantial new detailed information regarding Karst features impacted by I-69 including in Section 4 has recently become available -- within the last 6 months via a FOIA request submitted by Plaintiffs to FHWA, and via the I-69 Section 4 Draft EIS. This new information shows more than 1400 Karst features impacted by Section 4 of I-69 alone. Much of this Karst information was known to INDOT and FHWA when the Tier 1 NEPA process was conducted but the text of the 1994 study disclosing this Karst information was excluded from the Tier 1 DEIS and public comment process and the exhibits to the 1994 Karst study were never released to the public until Plaintiffs just obtained them via a FOIA request of FHWA. These exhibits show many Karst features not disclosed in the Tier 1 EIS. The Tier 1 EIS did not disclose but could have disclosed the extent and nature of the extensive Karst features (e.g. sink holes, caves, springs) that would be impacted by INDOT and FHWA's selected I-69 route." (See: Complaint)

Response: The issue of the use of the 1994 karst study was fully litigated and resolved in a previous lawsuit brought by CARR and others challenging the adequacy of the TIER 1 FEIS and ROD. In *HEC, et al., v. FHWA*, 06-cv-1442 (S.D. Ind.), the district court found that FHWA acted reasonably in determining not to use the information in the 1994 karst study as part of the Tier 1 FEIS. (December 10, 2006 Opinion, pp. 27-29). The time to challenge the district court's

decision has long since passed. Also, nothing in the comment brings to light any information that was not known and considered at the time that FHWA issued the Tier 1 ROD. Moreover, the 1994 karst study (without the maps) was included as an appendix to the Tier 1 ROD. Finally, the assertion that there are over 1,400 karst features in Section 4 alone is without substance. As shown in Table 5.21-1 in the Section 4 FEIS, there is a total of 448 karst features in and near the Section 4 corridor. The Refined Preferred Alternative 2 will directly impact 88 to 108 of these features. Thus, the selected alternative avoids 76% - 80% of the identified features in the corridor. The reference to "over 1,400 features" in this comment appears to refer to FEIS Table 5.21-1, which includes features outside of the Section 4 corridor, but hydrologically associated with the corridor.

CARR01-03

Comment:

Massive impacts on karst features are expected in Section 4. (See maps, pages 5-731-736.) These impacts may in turn impact the federally endangered Indiana Bat by alterations in air and water flow and cave microclimates as well as direct impacts due to flooding of caves.

Response:

Between 88 and 108 of the 448 karst features identified within the Section 4 corridor are located within the right-of-way of Refined Preferred Alternative 2. No caves within the Section 4 corridor have been identified as being used by Indiana Bats as a hibernaculum. Of the caves located outside the corridor, but determined to be hydrologically linked to the corridor, only one has been identified as being used by Indiana Bats as a hibernaculum. Refined Preferred Alternative 2 runs about seven tenths of a mile south of the cave location at the closest point. However, recharge is derived in part from three sinking streams which receive run-off from the Section 4 corridor. These features are located approximately 4 miles east of the cave. The majority of the recharge to the cave is derived from more proximal features. It is not anticipated that the project will cause an appreciable degradation of the cave water quality or quantity. Drainage to the sinking streams will be dispersed through natural vegetation and/or an engineered treatment system before entering the groundwater system.

Also, the U.S. FWS has thoroughly analyzed this information and has concluded that the Section 4 project is not likely to jeopardize the continued existence of the Indiana bat.

CARR01-04

Comment:

Karst impacts were not studied in areas of induced growth. One of these areas, an add-on interchange and mile long access road, earlier rejected by USFWS, is near a major Indiana Bat hibernaculum.

A slight variation in the route in Section 4 would miss significant karst features but this variation, allowed for in the NEPA process, has been rejected for dubious and unconvincing reasons.

The original FEIS contained an Appendix labeled "NN". Although this appendix contained no text it was referred to in the comments section. Appendix NN apparently contained information concerning the avoidance of karst features. A revised, or "corrected" FEIS Comments DVD was later published. This "corrected" FEIS was accompanied by a letter saying that Appendix NN did

not exist and the only changes made to the Comments section were to remove the references to Appendix NN. However, it appears that significant additional information was also removed from the “corrected” disc and the deleted information does not exist anywhere else in the FEIS. Therefore, this letter from Laura Hilden, an INDOT employee, is misleading and false. The mysterious disappearance of Appendix NN and its contents needs to be investigated.

Response: See Responses to Comments Dunlap 02-01 and Dunlap 03-01; no version of the FEIS contained an “Appendix NN.” There is no specific information provided regarding “significant additional information” which is described as removed from the FEIS. No other modifications were made to the FEIS, other than to revise 3 responses in Volume III. With regard to karst impacts in areas of induced growth, please see Response to Comment USEPA 03-01.

CARR01-05

Comment:

Impacts on the federally endangered Indiana Bat:

The Indiana Bat is under severe stress due to a newly found pathogen. The so-called White Nose Syndrome (WNS) is killing huge numbers of bats in the eastern portion of its range and it has recently been found in Indiana caves. Hibernacula in some eastern states have suffered mortality rates of over 90% and up to 100% of the bats in some caves due to the fungus. The US Fish and Wildlife Service conservatively estimates that in Indiana around 60% of the Indiana Bats could be killed by WNS. The Indiana Bat is also stressed by other factors such as human interference, disappearance of its preferred habitat through logging and other developments, climate changes and possibly air and water pollution that impact its immune system. Building a major interstate truck corridor through prime Indiana Bat habitat, including near maternal colonies, and possible impacts to its hibernacula could cause the Indiana Bat to be extirpated in the State. These impacts need to be addressed before construction begins in Section 4.

“Although FHWA and FWS repeatedly consulted formally under the ESA on the issues related to the endangered Indiana Bat including regarding the White Nose Syndrome, and FHWA prepared several biological assessment reports on the Indiana Bat issues and FWS prepared several biological opinions on the I-69 impacts on the Indiana Bat, FHWA and INDOT did not make these reports or the substance of the information contained therein available for timely public review and comment as part of the corresponding steps in the NEPA EIS process either in Tier 1 or Tier 2. These reports were only presented in the NEPA process after the corresponding NEPA public comment period was completed.” (See: Complaint)

Response: PMC INDOT and FHWA have worked very closely with USFWS in studying the Indiana bat in the summer, fall, winter, spring and migration times, and these agencies have also cooperated in avoiding and minimizing impacts to this species throughout the project. In addition, INDOT, FHWA and USFWS have partnered in unprecedented mitigation efforts, e.g., purchasing the 3rd and 4th largest Indiana bat caves in Indiana protecting approximately 37,000 Indiana bats and their associated significant winter habitat. Mitigation in Section 4 protects about 9% of their total estimated 2009 population in the nation, and more than 3,000 acres of mitigation property including forests, wetlands, streams, springs, caves, karst, wildlife and plants offer a net gain in Indiana bat habitat. Such natural resources will be protected in perpetuity.

The May 25, 2011 USFWS Amendment to the Tier 1 Revised Programmatic Biological Opinion addresses White Nose Syndrome (WNS), a fungal infection affecting bats in the United States during winter in caves. It was discovered in 2006 in New York and its spreading into other states is estimated to have killed 1 million or more bats. It was first reported in Indiana February 2010, and no mortalities to the Indiana bat has been reported in Indiana as reported in the Tier 2 BO. USFWS does believe the disease will continue to spread with some level of mortality likely to occur.

In USFWS's Tier 2 Biological Opinion (BO) for Section 4, USFWS stated that no component of the proposed action is expected to result in harm, harassment, or mortality at a level that would reduce appreciably the reproduction, numbers, or distribution of the Indiana bat and provided a no jeopardy finding. Furthermore, USFWS reports that in the event a 60% population decline over a period of several years does occur within the Midwest due to WNS, they believe the small amount of estimated project-related take over the next 17 years is not measurable and therefore will not result in any appreciable reduction in the survival or recovery potential for the species within the Midwest Recovery Unit.

The Section 4 Tier 2 BO was provided in the Section 4 FEIS. It could not be prepared until a Preferred Alternative was identified in the Section 4 DEIS, and a Biological Assessment (BA) of that Preferred Alternative was submitted to USFWS. The Section 4 BO was issued on July 6, 2011. Both the Section 4 BO and BA were published as part of the Section 4 FEIS, which was approved by FHWA and INDOT on July 13, 2011. There is no provision or requirement under the Endangered Species Act for public review and comment of Biological Opinions.

CARR01-06

Comment:

Clean Air Act Impacts: "Section 4 of I-69 goes through Greene County which is a Clean Air Act (CAA) maintenance area requiring a CAA conformity determination to ensure any new transportation project complies with the emissions limits set in the CAA State Implementation Plan. Plaintiffs recently learned within the past six months that the latest motor vehicle data and resulting emissions data shows that Greene County will not be in conformity with the CAA SIP and therefore, pursuant to the CAA (42 U.S.C. § 7506), INDOT and FHWA are prohibited from approving I-69 in Greene County (i.e. cannot approve I-69 Section 4 or Section 3). Thus, the legal status of Section 4 and Section 3 of I-69 have changed. However, instead of using this most current and accurate motor vehicle and emissions data to perform the conformity analysis for Greene County INDOT and its contractor, with the approval of FHWA, knowingly used outdated and inaccurate data for the conformity study in order to avoid a CAA non-conformity finding, which would have precluded INDOT and FHWA from approving I-69 sections 3 and 4. The new data and its implications for CAA conformity, air pollution and public health, and the ability of I-69 to be approved in Greene County were knowingly concealed from the public and knowingly excluded from the NEPA process." (See: Complaint)

Response: INDOT and FHWA used the most current available certified fleet vehicle data to conduct the conformity analysis for Section 4 in Greene County. The determination of appropriate data and methodology for the conformity determination was made through the standard interagency process involving USEPA and the Indiana Department of Environmental

Management (IDEM). USEPA made the following two statements in its comment letter on the Section 4 FEIS:

“EPA concurs with FHWA's air conformity determination.” (p. 2)

“**Air Conformity:** The FEIS includes the FHWA conformity determination, discussion and supporting documentation. EPA has reviewed this conformity determination and concurs.” (p. 11)

CARR01-07

Comment:

Changes In Funding I-69 Project:

“Plaintiffs learned within the last 6 months that in August 2010 INDOT submitted to the FHWA and FHWA apparently approved an “administrative modification” to the State Long Range Transportation Plan (SLRTP) which reclassified the funding for I-69 Section 4 as “traditional” from the previous category of (unspecified) “innovative” and moved the planning/implementation time period for I-69 Section 4 from the 2016-2020 period forward to the period of 2010-2013. These changes should have been submitted for public review and comment as an “amendment” to the State Plan and should have been included in a NEPA EIS or SEIS for public review and comment but were not. The consequences of these changes are significant because the change involves re-allocating more than one billion dollars of gas tax revenues away from other transportation projects in Indiana and allocating these funds to I-69 instead. This change inevitably results in more than one billion dollars in other transportation projects in the State that would have been funded being abandoned. The direct and indirect economic and transportation related consequences to the communities affected by these abandoned projects were not even identified let alone analyzed and subjected to public comment and review in an EIS.” (See: Complaint.)

Response: It is within INDOT’s discretion to modify and adjust the projects in its Long Range Plan, as well as their timing. Those modifications and adjustments are not subject to NEPA. The Section 4 project satisfies FHWA requirements for fiscal constraint; see Response to Comment Baker 01-02.

CARR01-08

Comment:

Failure To Follow Proper Procedures And Intimidation Of A Public Body:

“The Bloomington Monroe County Metropolitan Planning Organization (MPO) disapproved I-69 Section 4 in voting to remove I-69 Section 4 from its Transportation Improvement Plan (TIP). This MPO decision should constitute a legal barrier to proceeding with INDOT’s currently selected I-69 route. However, instead of respecting the MPO vote and subjecting this change to a NEPA SEIS and public review process, INDOT instead within the last 60 days submitted to FHWA, and FHWA apparently accepted, the MPO's TIP decision of November 2010 which had included I-69 (even though outdated and rescinded in regard to I-69) and failed to submit the May 2011 MPO vote disapproving and excluding I-69. INDOT and FHWA had initially obtained the November 2010 (now rescinded) MPO vote approving I-69 only by threatening to withhold funding from Bloomington and Monroe County.” (See: Complaint.)

Response: This comment does not address any issues relating to the Section 4 FEIS. To the extent a response is needed, see Response to Comment Baker 01-01.

CARR01-09

Comment:

Failure To Address Archeological Sites:

“INDOT and FHWA have engaged in a pattern of delaying the collection of information regarding archaeological (sic) sites until after the NEPA decisions that might be impacted by them have been made and the public comment periods are completed. Several key studies required to be conducted on archaeological sites were postponed not only until after the Tier 1 EIS but also until after the Tier 2 site specific EISs and public comment periods.” (See: Complaint.)

Response: The analysis of cultural resources in the Tier 1 FEIS did not include detailed archaeological site investigations. It included consideration of archaeological sites listed in or eligible for the National Register of Historic Places (Tier 1 FEIS, Volume I p. 5-100). It also includes an MOA which provided that detailed archaeological studies would be conducted in Tier 2 when specific alignments are determined. See Tier 1 FEIS, Volume II, Appendix P.

Phase Ia archaeological surveys were conducted for the Tier 2 Preferred Alternative. The results of such surveys have been provided to and reviewed by the State Historic Preservation Officer (SHPO), with their comments being incorporated into the EIS as part of the Section 106 documentation. The archaeological survey reports were not provided to other consulting parties or the general public due to the sensitive nature of the information. While the Phase Ia surveys were completed, property owner access for more extensive excavation work associated with Phase Ic and II testing was denied, and these evaluations were addressed in the Memorandum of Agreement (MOA) for this project, which stipulates that these evaluations will be completed when INDOT has access to the properties, and that the data and documentation will be reviewed by the SHPO for their concurrence regarding any additional activity that may be needed. Also, per the MOA, modifications to the Section 4 project which fall outside of the current APE for archaeological resources will be subject to archaeological evaluation and assessment. If FHWA determines that the modifications have the potential to cause adverse effects on archaeological resources, then FHWA shall re-open the Section 106 process in accordance with the 36 C.F.R. part 800 regulations in effect at that time.

CARR01-10

Comment:

Bad Faith In Declaring Historic Property Not Eligible As Historic Sites:

“INDOT and FHWA engaged in bad faith in submitting the Dowden Farm historic property to the Keeper of the National Register of Historic Places for a determination that the site was not eligible without providing notice to or allowing participation by the owners of that property, the Boyd family.” (See: Complaint.)

“During the Tier 2 Section 3 NEPA process INDOT and FHWA discovered that one or more bridges in Section 3 in the I-69 corridor had been determined by experts and their colleagues to be eligible to be listed as historic sites under federal law. Rather than reporting this fact in the public review process for the Draft EIS and analyzing the impacts on this historic bridge, INDOT and FHWA worked out of the public view to convince State and federal officials to change the

eligibility determination on this bridge and declare it not eligible as a historic site. This entire process of reclassifying this historic site was not disclosed to the public during the Section 3 NEPA process and INDOT and FHWA completed the final EIS and ROD for Section 3 of I-69 without mention of these actions. “ (See: Complaint,)

Response:

Regarding the Dowden Farm, see Response to Comment Boyd 05-02.

FHWA’s Determination of Eligibility for Sections 3 or 4 of I-69 did not include the US 231 Bridges as eligible for listing in the NRHP. However, the later issued Statewide Historic Bridge Inventory listed two of the US 231 Bridges located within the Section 4 APE as eligible. To resolve this apparent discrepancy, additional research was conducted on the background of the bridges, and a report was prepared regarding the eligibility of the bridges. The report, which is included in Appendix G of the Section 4 Section 106 documentation, concludes that inclusion of the two bridges in the Statewide Historic Bridge Inventory was based on a faulty factual premise (specifically, the construction dates of the bridges). This faulty premise led to the equally faulty determination that the two bridges were eligible for listing. Because the bridges were listed as part of the statewide effort to survey all bridges, it was determined that the bridges should be eliminated from the Statewide Historic Bridge Inventory. Thus, the report analyzing the factual basis for listing the bridges was submitted to consulting parties for the Statewide Historic Bridge Inventory project. Because the Finding of Eligibility for Sections 3 and 4 were not based on the same faulty factual premise, there was no need to amend those eligibility findings or discuss them in the EIS. In addition, the Section 3 ROD was completed in January 2010.

CARR01-11

Comment:

Removal Of Private Property Without Consent:

“INDOT and FHWA and their contractors have engaged in a pattern of entering onto private property without permission or knowledge of the landowners for archaeological investigations and removing artifacts from those private properties without consent from or the knowledge of the landowners, in violations of State and federal law.” (See: Complaint.)

Response: Letters notifying property owners of planned field survey activities were provided in advance of archaeological surveys. If a property owner stated an objection to INDOT’s entry onto the property, surveys were postponed to a later date when access could be secured. Archaeological surveys and/or investigations are specifically authorized by Indiana Code 8-23-7-26. The survey and investigation activities that IC 8-23-7-26 authorizes INDOT to perform by “manual or mechanical means” on private property expressly include: “(1) inspecting, (2) measuring, (3) leveling, (4) boring, (5) trenching, (6) sample-taking, (7) archeological digging, (8) investigating soil and foundation, (9) transporting equipment, (10) and any other work necessary to carry out the survey or investigation.”

CARR01-12

Comment:

Studies Performed Without Knowledge Of Property Owners:

INDOT and FHWA has also engaged in a pattern of entering private properties for noise impact studies at times when the owners are absent and unable to offer input on relevant noise issues.

Response:

A Notice of Entry for Survey or Investigation was distributed to all property owners within the corridor prior to any field investigations being performed. Field work performed as part of the noise analysis was limited to collecting existing noise level measurements. These were collected at 68 representative receptor locations throughout the corridor. Measurements were collected on February 13-17, 2006; March 26, 2006; and March 15, 2010 between the timeframes of 7:00 am to 6:00 pm. Noise measurements collected along the state roads within the corridor occurred during the normal A.M. and/or P.M. peak hour traffic periods between the time frames of the Monday P.M peak hour through the Friday A.M. peak hour. The A.M. and P.M. peak hour traffic for these types of roadways typically occurs between 7:00 AM to 9:00 AM and 4:00 P.M. to 6:00 P.M, respectively. Noise level measurements collected along the other roadways within the corridor were collected between the time-frames of 7:00 am to 6:00 pm. These measurements were collected to establish the existing conditions noise levels to be used when evaluating the substantial increase criteria. Input from the property owners would have had no affect on the noise analysis since the design year predicted noise level readings were generated using TNM 2.5, which is a computer modeling program developed by the Federal Highway Administration.

CARR01-13**Comment:**

These changes, as well as others commented on below, require a SEIS.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-05 in Volume III of the Section 4 FEIS. None of the comments provide new information justifying preparation of an SEIS for the Section 4 project.

CARR01-14**Comment:**

Our specific comments on the above impacts as well as other information in the FEIS for Section 4 follow.

SUMMARY:**The entire NEPA, EIS process for I-69 has been an elaborate deception.**

This EIS, like all the ones before it, is biased, misleading and filled with errors. The outcome of those studies has never been in doubt. The preferred route was predetermined. These EISs have not served to inform the public or policy makers as to the extent and cost of the impacts of this project. It is a classic example of quantity over quality.

All rational arguments against I-69 are treated like flies at a picnic. In the end it is a serious waste of tax dollars used to further a socially and environmentally destructive, hugely expensive, unnecessary highway. It has been allowed to proceed due to political pressure and lack of oversight and outright collusion by state and federal agencies. The personal threats directed towards public employees, researchers and other who might have spoken out against this project have led to a distorted perception by the public at large of its purpose, need, impacts and costs.

The State of Indiana will suffer negative consequences for generations because of the construction of this highway and due to the process by which it was advanced. The benefits will never outweigh the enormous costs both in dollars and damage to the economy and the environment. It is being constructed in a shoddy, substandard manner through one of the most environmentally sensitive areas of the State. Lost opportunity costs alone will make this project a sad reminder of backward thinking and greed over good sense, good government and responsible transportation planning.

This dysfunctional process has led to great frustration and bitter disappointment on the part of many, many citizens who once believed that truth was more important than special interests and politics. It will bolster the ranks of cynics who proclaim: 'You can't beat the government, no matter what, so don't even try,' As a result, many caring citizens will withdraw from participation in civic discourse. It has been the most undemocratic process we have ever experienced. Indiana deserves better.

The only possible good outcome of this process would be if agencies and educational institutions used it as an example of how not to do EISs. It is an embarrassment to Indiana and a slap in the face of responsible transportation planning.

It is highly doubtful that this highway will ever be completed from Canada to Mexico as planned. It is also doubtful that sections 5-6 in Indiana will be completed in the near future. They may never be completed. Since many of the predicted benefits and assumptions are based a completed route, all such presumed benefits and assumptions are unreliable.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comments PO009-01 to -04 in Volume III of the Section 4 FEIS.

CARR01-15

Comment:

COMMENT PERIOD TOO SHORT:

The comment period for this massive FEIS was never clearly stated. After the initial release of the FEIS a revised FEIS was released with no clear explanation of why it was being revised. To critically read this FEIS one must also refer back to previous EISs. This is a very time consuming process. In addition, there are 44 appendices. Some of these documents are very large. The Draft Stream Assessment Report is 1200 pages; the karst reports are about 750 pages; the noise report is over 650 pages; the Draft Wetland Report is 346 pages and on and on. Many of these pages contain pictures but they still must be studied. We do not criticize the length of these reports, but we do request more time to review them.

Response:

Regarding the length of the review period for the Section 4 FEIS, see Response to Comment Martin 02-03.

CARR01-16

Comment:

Appendix NN was missing. In the revised FEIS this appendix was expunged altogether. Since this appendix apparently dealt with karst issues it could have been of significant value. Why was it deleted?

Response: See Responses to Comments Dunlap 02-01 and Dunlap 03-01.

CARR01-17

Comment:

We also need more time for experts to examine particular aspects of the reports. Let it go on the record that the time given to review all of these documents is ridiculously insufficient. Our comments are, therefore, not as thorough as they could be. One has to wonder if INDOT/FHWA are hiding something. If studied more carefully what else would be found that compromises the justification for this highway. If you want to hide needles throw them in haystacks.

ALL PREVIOUS COMMENTS TO BE INCLUDED AS COMMENTS ON THIS FEIS

We request that all of the comments previously submitted by Citizens for Appropriate Rural Roads (CARR) on all previous EISs for this project be included as comments on this Section 4, Tier 2 FEIS.

Response:

Regarding the length of the review period for the Section 4 FEIS, see Response to Comment Martin 02-03. All comments submitted regarding previous NEPA studies were considered in the course of those studies, and no further response is required.

CARR01-18

Comment:

COMMENTS ON CHAPTER 2: PURPOSE AND NEED

Page 2-9 mentions some vague support for I-69 by some businesses in Bloomington but nothing is stated about the opposition in Bloomington. The Bloomington Common Council has passed a resolution, signed by the Mayor, opposing bringing I-69 through their city. The Monroe County Commissioners have also passed a resolution opposing building I-69 through the county. In fact, there has been strong opposition to I-69 from its inception, but no mention is made of this.

No mention is made of the thousands of petition signatures and citizen comments against the new terrain I-69 that have been submitted over the years.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-11 in Volume III of the Section 4 FEIS.

CARR01-19

Comment:

No alternatives to an interstate were studied for Section 4. Since each section is a stand-alone project, other alternatives, including upgrading existing roads, should be a part of this FEIS.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-12 in Volume III of the Section 4 FEIS.

CARR01-20

Comment:

The section on safety, 2.3.4, has been changed from the DEIS. The categories of highways in Table 2-3 are different from the crash table used in the DEIS so it is impossible to make comparisons but it appears that the overall number of accidents and fatalities on non-interstate highways and interstate highways are significantly lowered. This greatly reduces the safety impacts of the project. The table in the FEIS does not show injury crashes but instead shows data for "all crashes". Why was this new category used? Table 5.5-4 shows that there is very little if any difference in crashes for the no-build compared to the build alternative.

Response:

See Response to Comment CARR02-01.

CARR01-21

Comment:

It is unclear if these charts included increases in traffic on SR-37. Table 5.6-6 shows that traffic on SR 37 will increase greatly due to I-69. It is unlikely that SR 37 will be upgraded in the near future, if ever. When I-69 dumps much more traffic on this already busy highway, accidents and fatalities will increase.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-14 in Volume III of the Section 4 FEIS.

CARR01-22

Comment:

It should also be noted that the I-69 extension is being built cheaper and will not be up to the same standards as existing interstate highways. The new I-69 extension will be less safe than standard interstates.

The safety impacts of this new interstate needs to be reevaluated and compared to improvements to existing roadways. This should be studied in a supplemental EIS.

Response:

See Response to Comment CARR 02-03.

CARR01-23

Comment:

The traffic modeling used for this DEIS is highly suspect. This DEIS states that newer models are being used to show the need for this highway. Models, as most people know, are subject to biased manipulations. INDOT can devise a model to prove anything it wants. Valid models are best created by independent organizations. That has not been the case with I-69 modeling. These newer models purport to show that the increase in traffic on SR- 37, even if it is not upgraded, will cause no problems. This is not credible.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-14 in Volume III of the Section 4 FEIS.

CARR01-24

Comment:

Traffic on SR -37 is already congested at times. Dumping thousands more vehicles, including many big trucks on SR-37 will undoubtedly increase congestion problems and cause more accidents. If there isn't going to be much increase in traffic then where do INDOT's projections for economic development come from? And why are we building a major new interstate with all its attendant damage to the environment and huge costs if there won't be vast improvements in the economy? INDOT wants to have it both ways: great economic development but no problems. This is completely unrealistic and deceptive.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-14 in Volume III of the Section 4 FEIS.

CARR01-25

Comment:

This FEIS states that forecasted traffic volumes for the Build Alternative assumes all 6 sections are built, including a new Ohio River Bridge. (5-209) This is a dubious assumption. The state does not have the money to complete Section 1-3 and little or no money for Sections 4-6. It is unlikely that all the sections will ever be built. The bridge over the Ohio River is estimated to cost \$1 billion alone. The State of Kentucky has stated that the only way it could pay its share is by making it a toll bridge. The chances of that being approved are very slim. Wildly optimistic funding projections are simply not credible.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-15 in Volume III of the Section 4 FEIS.

CARR01-26

Comment:

This FEIS does not deal with alternatives to this interstate for relieving some traffic problems. For example, the planned interchange at the Greene County/Monroe County line is given as the only way to reduce congestion on SR 45. It is unrealistic to think that many drivers will use the interstate when SR 45 will be a more direct route. There are other ways to reduce congestion but those methods were not even considered.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-16 in Volume III of the Section 4 FEIS.

CARR01-27

Comment:

COMMENTS ON CHAPTER 5: ENVIRONMENTAL CONSEQUENCES

As this chapter makes clear, there will be serious environmental damage inflicted on this area of the state. Unfortunately, little will be done to make up for this damage. "Mitigation" will not prevent or remedy the destruction. Many of the other measures proposed are unlikely to be carried out due to funding difficulties. Over time, the highway will continue to impact wildlife all along the route and the quality of Indiana's environment will continue to deteriorate. This is inexcusable as a reasonable alternative route, US41 and I-70, is available. That route was rejected for political reasons. In fact, political considerations dictated the preferred route. Specific comments follow.

P. 5-6--The decision to use only data that could be applied to all 26 counties in the Tier 1 study was a seriously flawed accommodation to INDOT. They had already decided on their preferred route and did not want any serious, foreseeable problems to interfere. This resulted in the use of incorrect data that allowed INDOT to overlook problems they knew were going to impact the preferred route. Karst information is a case in point. The karst data used for the Tier 1 study was known to be incomplete and incorrect. Yet it was allowed because it was the only karst data that was available covering all 26 counties. In Tier 2 studies, more current, specific and complete data was used and the impacts to karst are revealed to be enormous, as most karst experts knew they would be. Allowing INDOT to hide data until it is too late to change the route is unacceptable. It will result in a more expensive and environmentally destructive route.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Responses to Comments PO009-17 and -18 in Volume III of the Section 4 FEIS.

CARR01-28

Comment:

Reasonable alternatives avoiding karst features are available. A proposal by independent groups and individuals to shift the route slightly so that it would impact significantly fewer karst features and save tens of millions of dollars and cut off about a mile of roadway was rejected by INDOT for dubious reasons. An appendix that was to address this alternative, Appendix NN, mysteriously disappeared from the revised FEIS.

Response: See Responses to Comments Dunlap 02-01, Dunlap 03-01, and HEC 01-02.

CARR01-29

Comment:

P. 5-7, 5-8: Features of the low-cost design (LCD) studied in Sections 2-3 are incorporated into the initial cost design (ICD) for Section 4. These include a narrower median and shoulders. These will result in a less safe highway. The low-cost alternative for Section 4 might also include steeper grades and cheaper pavement materials, i.e., asphalt instead of concrete. The overall result is the construction of a substandard highway and means more costs will accrue in the long run. It also means a more dangerous highway. A dollar saved now means a thousand dollars spent later and more lives lost. This shortsighted approach is very poor public policy and is an irresponsible use of transportation tax dollars. This FEIS also states that design changes can be made after the ROD. Citizens can have no confidence that what INDOT promises now will actually be carried out. We see this already happening in Sections 2-3. It is unclear if these LCD changes will be made in Section 1.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-19 in Volume III of the Section 4 FEIS.

CARR01-30

Comment:

P. 5-45, 50: The Pic-a-Chic Farms business would be relocated by any alternative for the highway. The DEIS states that the owner would just relocate on another part of the property. This is misleading. In a news article in the Bloomington Herald-Times, August 15, 2010, one of the co-owners states: "We won't be able to relocate this venue. It's just a one-of-a-kind place." She goes on to say: "I just don't understand why they need I-69." The business's response to the Business Needs Survey says nothing about relocating the business on another part of the property. The site now is secluded and quiet. Being located next to an international truck corridor would not help that business. We have to question how many other responses have been distorted by this FEIS. Due to the short comment period there is not enough time to investigate these concerns.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-20 in Volume III of the Section 4 FEIS.

CARR01-31

Comment:

P. 5-49, 52: Replacement housing does not take into account the acreage it is on nor does it replace the peace and quiet and quality of life that is lost. Homeowners who are left stranded next to a major highway lose more than just some land. They lose the value of their homes and remaining land. They may be forced to move because they cannot live next to a noisy, polluting interstate. Noise levels at the Rolling Glen Estates and Farmer' Field Acres neighborhoods

would be excessive but INDOT states it would not be cost effective to build noise barriers. ('There goes the neighborhood!') There is no compensation for these losses. According to INDOT, loss of quality of life is non-compensable.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-21 in Volume III of the Section 4 FEIS.

CARR01-32

Comment:

Rural communities are by their nature dispersed but are still communities. INDOT does not consider the impacts of this highway on rural communities. This highway will create a huge barrier separating families in rural areas. Rural families don't live in clustered housing but nevertheless they are neighborhoods.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-21 in Volume III of the Section 4 FEIS.

CARR01-33

Comment:

P. 5-52: Replacement farmland is difficult to find in Sections 1, 2, 3 or 4. Lost farmland cannot be mitigated, it is just lost forever. In a time of worldwide food shortages it becomes a moral issue to destroy farmland in order to build another highway. This was not addressed in this FEIS.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-22 in Volume III of the Section 4 FEIS.

CARR01-34

Comment:

Section 5.2: As in other sections of this DEIS, INDOT ignores the deep and widespread opposition to this highway proposal. They only euphemistically refer to "concerns". There has never been as much opposition to a highway project in Indiana as there is to the I-69 extension. But in INDOT's public documents and statements, the past 2 decades of opposition and massive citizen comments against the project are treated as a mere nuisance. All of INDOT's proclamations of the importance of public comments are nothing more than empty words. INDOT is less concerned about citizens' concerns as the early settlers were concerned with the concerns of the Native Americans.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-23 in Volume III of the Section 4 FEIS.

CARR01-35

Comment:

P. 5-57: The FEIS states: “No person displaced by this project will be required to move from a displaced dwelling unless comparable replacement housing is available to that person. In Section 2, this edict was not followed. At least one homeowner was ordered out of his home and was not compensated for months. The family was forced to put their belongings in rental storage and pay rent on a home. INDOT’s treatment of homeowners is callous, cruel and arrogant.

Response:

This issue was raised in this organization’s comment letter on the Section 4 DEIS. See Response to Comment PO009-24 in Volume III of the Section 4 FEIS.

CARR01-36

Comment:

We have heard similar stories from other sections. We have also heard disturbing stories of INDOT preying on elderly people who are confused by the land acquisition process and are forced out and don’t know what to do. These predatory tactics are reprehensible. The human suffering caused by I-69 is not addressed in the FEIS and there is no “mitigation” proposed for the permanent damage that greed and politics are wreaking on human life.

Response:

This issue was raised in this organization’s comment letter on the Section 4 DEIS. See Response to Comment PO009-25 in Volume III of the Section 4 FEIS.

CARR01-37

Comment:

P. 5-81: By agreement with, and in response to concerns from the USFWS, no interchange in the Greene Co./Monroe Co. area was planned for in Tier 1. This was to avoid development in sensitive karst areas and near a major Indiana Bat hibernaculum. Now such an interchange is not only in the design, but is preferred and economic studies are based upon it. Clearly, INDOT cannot be trusted to hold to its promises.

Response:

This issue was raised in this organization’s comment letter on the Section 4 DEIS. See Response to Comment PO009-26 in Volume III of the Section 4 FEIS.

CARR01-38

Comment:

This decision also demonstrates that INDOT is more concerned with economic development than with the health of the environment. This interchange will also have negative social impacts. Sprawl development that is generated by interchanges like this one will only lead to problems in the future. Greater demand will be put on local law enforcement agencies and school systems as demand for services increases. Typically, the tax base increases somewhat but not enough

to cover the cost of services. As the area develops congestion will increase as well. This pattern of development ends up being problematic for everyone. It has been discredited and should not have been allowed. This is another example of INDOT pandering to local officials to get support for the highway knowing the outcome will not be in the community's best interest. Further comments on this interchange follow in this document.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-26 in Volume III of the Section 4 FEIS.

CARR01-39

Comment:

This FEIS's claim that the interchange at the MC/GC line would take large numbers of vehicles off SR 45 is questionable. Victor Pike, where the SR-37/ I-69 interchange would be located is 3.5 miles south of the current interchange at SR-37/SR-45. This means someone using SR 45 from the Bloomfield area would have to travel an extra 7 miles on a round trip if they were to use I-69 to travel to the same point.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-27 in Volume III of the Section 4 FEIS.

CARR01-40

Comment:

5.4: Farmland is an irreplaceable resource. Its loss cannot be mitigated. In fact, the mitigation of forest will require the loss of more farmland.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-29 in Volume III of the Section 4 FEIS.

CARR01-41

Comment:

Section 5.5: Each of the six sections of I-69, Evansville to Indianapolis, are supposed to be segments of independent utility (SIUs). That is, they are stand-alone projects whose justifications do not depend on each other. In reality, this is a sham. Segmenting the project was done to avoid admitting to the total cost and impacts of the entire route. Of what possible value is Section 3 as a stand alone project: an interstate highway from Washington, Indiana to SR 231 in rural Greene County, Crane NSWC notwithstanding? The FEIS states on 5-183: "The localized impacts (referring to Section 4) need to be viewed in relation to the overall economic benefits that will accrue to all of Southwest Indiana when I-69 is completed between Evansville and Indianapolis." This same statement appears in the FEISs for Sections 2 and 3. These statements tie all the sections together into one project, which is what it really is. Also see Page 5-209: predicted traffic volumes and economic projections depend on completion of the entire route from Kentucky to Indianapolis. These EISs have in reality segmented one project. This

used to be forbidden but the rules were changed to make the proposed highway more acceptable.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-30 in Volume III of the Section 4 FEIS.

CARR01-42

Comment:

The Traffic Analysis Zones (TAZs) used traffic forecasts based on outdated assumptions. The ISTDM used for this DEIS was developed in 2004 with a base year of 2000. Due to high fuel prices and fewer VMTs the future patterns of growth have changed. Concern over global climate change will also alter previous assumptions about traffic patterns and volumes. More current data and assumptions for traffic analysis must be used if his study is to be predictive of future traffic patterns. The traffic data in this EIS is unreliable.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-31 in Volume III of the Section 4 FEIS.

CARR01-43

Comment:

P. 5-195-196: The Tables on these pages show very little job growth due to I-69—a total of 771 jobs in Monroe and Greene Counties by the year 2030. If I-69 is completed in 2014, as predicted, that equates to only 48 jobs per year. Over half of those will be in Monroe County. The majority of the jobs for Greene County would be near the US- 231 exit. This is the location of the West Gate Development. That development is highly speculative and may not generate the jobs predicted due to lack of supporting infrastructure. The rest of Greene County, including Bloomfield, is predicted to get only 35 jobs induced by I-69 in 16 years. An increase of 517 jobs is expected for the no-build scenario.

If I-69 is supposed to be a jobs generator it is not indicated by these data. How can we believe INDOT when they say this highway will generate economic growth throughout SW Indiana? Also, these charts do not indicate how many of these jobs would be new jobs as opposed to relocated jobs. The "Transfer Effect" would predict that most of these jobs would be relocations from other areas in Indiana. In fact, this is already happening. The West Gate development has brought some jobs, but many of those are existing jobs moved from the surrounding area. For example, SAIC jobs were transferred from Bloomfield to West Gate.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-33 in Volume III of the Section 4 FEIS.

CARR01-44

Comment:

P. 5-198: There will be a loss in the tax base due to the presence of I-69. There will also be a loss in property value due to I-69. Homes and land near an interstate are devalued due to noise, light and air pollution. The only exceptions may be near an interchange, but even that is not assured. Many interstate interchanges in rural areas do not become developed, or only slightly so. This is confirmed as one drives the interstates, including I-69, through rural areas. The County Line Interchange and its mile long access road are in an environmentally sensitive area so induced growth may be restricted. If it is not restricted it will lead to serious environmental damage.

The land values given on this page are too low. Land in Monroe County is very highly valued now. In some rural areas it sells at around \$15,000/acre. Greene County land sells for less than Monroe County land but still more than the \$2000 estimated in this FEIS. Land values do fluctuate but they do not drop this low.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-34 in Volume III of the Section 4 FEIS.

CARR01-45

Comment:

P. 5-209: This FEIS states: "The forecasted traffic volumes for the Build Alternative assume the following: all of the six Tier 2 sections are completed for I-69 between Evansville and Indianapolis; and the I-69 project between Henderson and Evansville is completed, including an additional Ohio River bridge in Evansville." As noted elsewhere in these comments, all three of these conditions are highly unlikely to be fulfilled in the near future, if ever. **Therefore, for these and other reasons, the traffic modeling for this highway is not reliable and is not predictive of future patterns or volumes of traffic.** P. 5-185: Some of the traffic counts in Chart 5.6-1 make no sense. This chart shows traffic on SR 45 from SR 37 to SR 445 plummeting. Why? Much of the traffic on SR 45 is from residents and businesses in that area. These numbers are not likely to drop due to I-69. From SR 445 to SR 37, the distance on I-69 would be greater than on SR 45. Travelers going from Bloomington to Bloomfield will not use I-69 because it would also be longer than on existing roads. From the interchange at SR 231 to Bloomfield would be 7.5 miles long, fifteen miles for a round trip. Granted that SR 54 is winding in places, but it is not 7.5 miles longer.

The idea that all roads that parallel or cross I-69 would lose traffic to I-69 is also suspect. What happened to the induced travel that comes with economic development? Will there be no development and therefore less traffic? The traffic modeling for this project is simply not reliable.

A supplemental EIS is needed to reevaluate the traffic impacts of this project in light of numerous uncertainties.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Responses to Comments PO009-35 and -36 in Volume III of the Section 4 FEIS.

CARR01-46

Comment:

P. 5-197: Monroe County officials were told during the Tier 1 study that no roads would be closed in Monroe County. More roads could be closed following final design, as indicated in this FEIS.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-37 in Volume III of the Section 4 FEIS.

CARR01-47

Comment:

Section 5.7.3.2: The FEIS states that some views of the highway will be obstructed due to vegetative cover. On many stretches, this will only be true for about half the year, May through October. Perhaps INDOT has forgotten that most trees are bare from November to May.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-38 in Volume III of the Section 4 FEIS.

CARR01-48

Comment:

Section 5.21: Karst impacts will be enormous. Other experts have covered this subject and we will address it more thoroughly elsewhere in our comments.

All of these impacts could have been avoided by using the US 41/I-70 alternative. A bypass is currently under construction around Terre Haute. This route would have avoided most of the environmental impacts and would have been about one-half the cost of the new terrain route. The time savings on the new terrain route compared to the upgraded US 41/I-70 route are insignificant.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-39 in Volume III of the Section 4 FEIS.

CARR01-49

Comment:

It is important to stress that the proper way to confront karst impacts is to avoid them whenever possible. The MOU for karst kicks in only when impacts cannot be avoided. Karst impacts could have been avoided by using other alternatives.

Response:

See Response to Comment HEC 01-02.

CARR01-50

Comment:

Section 5.9.2: MSAT: This FEIS essentially dismisses any increase in Mobile Source Air Toxics, MSATs, as unimportant or unknowable. It further states that future regulatory control will decrease these emissions. According to this DEIS: "... emissions will likely be at or lower than present levels in the design year as a result of USEPA's national control programs that are projected to reduce the MSAT emissions by 72% from 1990 to 2050." This statement disregards the political reality behind these projections and whether they will ever be achieved.

This FEIS further states: "...the closest communities to the Preferred Alternative are the unincorporated communities of Scotland and Hobbieville, which are about one-half mile away. What about Bloomington? This Section will dump large amounts of traffic, and pollutants, in the area of SR -37, a very busy, major thoroughfare.

This highway will generate much more traffic in a relatively unpolluted area of the state. This will cause a concomitant increase in MSATs spread over a wide area. For this DEIS to throw up its hands and say, essentially: 'gee, its too bad but there is nothing we can do about it, and besides, trust us, it won't be all that bad.' This is an unacceptable failure to admit and to deal with a real problem: I-69 will substantially increase toxic emissions along its entire length. To dismiss pollution because it will occur in a relatively unpolluted area is irresponsible. To say, in effect, pollution isn't a problem until it gets "really bad" is dismissive of the health concerns of rural communities. It is unsatisfactory and repugnant. It is like saying: 'we won't make any attempt to prevent or deal with a problem until it is making people obviously sick'.

It has also been revealed that INDOT did not use the most current emissions data to do its air quality analyses. Air quality impacts must be addressed in a supplemental EIS.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Responses to Comments PO009-40 to -42 in Volume III of the Section 4 FEIS. There is no new information offered in the comment that warrants preparation of a supplemental EIS.

CARR01-51

Comment:

To attempt to balance the negative effects of air pollution with a decrease in accidents (5- 276) is ludicrous. As can be shown with the simplest of studies, congestion, accidents and fatalities are likely to increase with I-69.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-43 in Volume III of the Section 4 FEIS.

CARR01-52

Comment:

On page 5-271 fine particulate matter (PM-2.5) is dismissed in one sentence as not a problem. This is unacceptable. I-69 will be a major truck route from Canada to Mexico. These trucks mostly use diesel fuel which is a source of fine PM pollution. This source must be evaluated in a supplemental EIS.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-44 in Volume III of the Section 4 FEIS.

CARR01-53**Comment:**

Section 5.10: Highway Noise: The I-69 International NAFTA Truck Corridor will bring significant noise pollution to a relatively quiet area of the state. That pollution will occur 24 hours a day, 7 days a week, 365 days a year-- forever. This impact will be felt for miles on either side of the highway. Attempt to cheapen the highway design to allow steeper grades will make it much worse. Attempts to downplay this impact with lots of numbers are like trying to cover up the sound of a racetrack with billboards. **Noise pollution is a serious problem with this highway proposal that will not and cannot be mitigated by INDOT. The affect of noise pollution from this project on human health and wildlife impacts has not been adequately studied.** Once again, this DEIS is dismissive of the impacts of this highway in rural areas. Noise pollution should be included in a supplemental EIS.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-45 in Volume III of the Section 4 FEIS. There is no new information offered in the comment that warrants preparation of a supplemental EIS.

CARR01-54**Comment:**

P. 5-377: Heavy blasting will occur in Section 4. This has the potential to not only disturb the quality of life but also to disturb karst features and damage water wells and the foundation of homes throughout the area. It will also negatively impact wildlife, including the federally endangered Indiana Bat. If water wells and homes are damaged it is unlikely INDOT or their contractors will admit it was due to their activities. This could generate legal challenges and costs that neither the public nor the state can afford.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-46 in Volume III of the Section 4 FEIS.

CARR01-55**Comment:**

The following species are in Section 4 but were not observed by INDOT's consultants: Spadefoot toad, barn owl, red-shouldered hawk, cerulean warbler, bobcat, rough green snake, bald eagle, and cougar. What else did they miss? How thorough was their study? What did they chose not to see? In Section 4, another wildlife rich area of the state, one of the last ones left, will be desecrated and fragmented with loss of critical habitat, replaced by another highway. And so it may go until nothing is left but memories and regrets.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-47 in Volume III of the Section 4 FEIS.

CARR01-56**Comment:**

P. 5-494: This page states that trees will be left in the median for Indiana Bat habitat. On page 496, under the heading "All Habitats" it is stated that no trees will be left in the median. In another section it states the IDNR will manage the timber in the median. Which is it?

Response:

The statement on p. 5-494 was in error. There will be no trees in the median in Section 4.

CARR01-57**Comment:**

P. 5-496: This page says interchanges in karst areas will be limited. In fact, in Tier 1 there were no plans for an interchange at the Greene County/Monroe County Line. Now such an interchange is preferred. INDOT's assurances are as vaporous as auto exhaust.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-49 in Volume III of the Section 4 FEIS.

CARR01-58**Comment:**

P. 5-499: This FEIS states that tree plantings for mitigation will be monitored for only 5 years. After that they will be protected by conservation easements. This is not adequate protection. It will take 100 years for a forest to mature from a planted field. Who will oversee these areas for that length of time? Easements have a way of disappearing and being forgotten. Other priorities can also override an easement.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-50 in Volume III of the Section 4 FEIS.

CARR01-59**Comment:**

P. 5-500-504: Several measures are given to monitor Indiana bats and perhaps purchase habitat, but some conditions for implementation of these measures are vague and uncertain. None of these efforts will be as successful as not building the highway at all. USFWS is given the authority to protect this bat and presumably they would continue to do so without this highway. There is no guarantee that this will be carried out after a period of years has passed and priorities and funding levels change. One provision in this FEIS concerning bats is that

\$25,000 will be provided (by whom is not stated) for educational posters and other outreach measures. This is scandalous. The sad reality is that if we don't make a greater effort to protect bats and their habitat we may end up with pictures on a poster but no bats.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-51 in Volume III of the Section 4 FEIS.

CARR01-60

Comment:

On page 5-388 the DEIS states: "INDOT will coordinate with IDNR to evaluate potential impacts to the eastern box turtle during construction and develop protocols to address these impacts." In the FEIS, 5-505, it states: "INDOT will continue to coordinate with the IDNR to minimize impacts to the eastern box turtle in Section 4." This appears to be a downgrade of protection for the threatened box turtle. What contractor is going to limit in any way his work to consider the presence of a turtle? **How many IDNR personnel hours are going to be committed to this work when this agency is already understaffed and underfunded? INDOT's promises simply cannot be relied on.**

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-52 in Volume III of the Section 4 FEIS.

CARR01-61

Comment:

P. 5-521: **The FEIS states: "The field investigations for this study did not include extensive trapping or other observations that would confirm the presence of listed species in the project corridor."** This is made clear by the number of even common species that were not noted in this study. The impacts of this highway on many species is simply unknown. Given the length of this chapter one would expect a more thorough examination of wildlife impacts. A few prominent species were given special attention and everything else is forgotten. Mitigation focuses on these few prominent species but the rest are on their own. No one will study them and the impacts will go unreported. One thing is certain, the quality of the overall environment in SW Indiana will suffer greatly due to the construction of I-69.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-53 in Volume III of the Section 4 FEIS.

CARR01-62

Comment:

Section 5.18.4: All of the measures proposed in this section are tenuous. Concerns with wildlife crossings, lighting, and vegetative planting are mentioned as possible measures to be used to ameliorate the impacts on wildlife. However, **statements such as: "...consideration will be given to..."**, **"measures will be assessed..."**, and **"...where feasible..."** are not reassuring.

When funding is such a problem, as with this highway, it is unlikely most of these measures will actually be undertaken. It appears that these proposals are made to ensure the cooperation of agencies like USFWS whose responsibility is to protect ecosystems and wildlife.

Wildlife collisions with vehicles are certain to occur in this area. Measures to provide wildlife corridors may actually concentrate animals in some areas and make impacts more likely. Extensive measures to prevent impacts would be very expensive and therefore unlikely to be carried out.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Responses to Comments PO009-54 to -55 in Volume III of the Section 4 FEIS.

CARR01-63

Comment:

The assessment of impacts on wetlands due to I-69 is sketchy and unclear. On page 5-544 of the FEIS it states: "Generally speaking, NWI wetlands are identified by aerial mapping and are not field verified. Then, at 5-546 it states:" It should be noted that the Tier 1 estimation of impacts was based on NWI data while the Tier 2 evaluation was based on field reconnaissance and determinations of wetlands within the construction limits of the Section 4 alternatives." However, the DEIS, page 5-427, carries the exact same language as the FEIS! Was the FEIS done before the DEIS was released? Were wetland impacts actually field verified? These wetland statements are highly suspect as to what work and verifications was actually done.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-56 in Volume III of the Section 4 FEIS.

CARR01-64

Comment:

The FEIS admits (5-551) that the alignment was not able to avoid many wetland impacts in the preferred corridor. Because there are two alternatives (low-cost and initial cost) and the study does not indicate which will be used, it is impossible estimate the amount of damage to wetlands. The information in Table 5.19-4 is not totaled which makes comparisons difficult.

Proposed mitigation of wetland impacts is vague and contingent on unclear criteria. (5- 592) Once again we run into the phrase "...will be considered..." when mitigation options are mentioned, and, "...as appropriate..." when spraying of herbicides are mentioned. This is no assurance as to what may, or may not, actually be done.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Responses to Comments PO009-57 to -58 in Volume III of the Section 4 FEIS.

CARR01-65

Comment:

The route chosen for I-69 will cause a degradation of the environment that will not be mitigated. This could have all been avoided by using the US-41/I-70 alternative.

Response:

This comment raises a Tier 1 issue, which requires no further response.

CARR01-66

Comment:

P .5-563: The FEIS states that the preferred alternative 2 would relocate 63--69 streams. The DEIS, page 5--446, states that alternative 2 would require the relocation of 39--44 streams. The DEIS puts the length of relocations at 22,658 feet for alternative 2. The FEIS puts the length of relocations at 38,556 feet for alternative 2. How could so many stream impacts have been missed in the DEIS? These are major environmental impacts. It is not clear in this section if streams in karst areas were correctly identified.

Response:

Stream relocation impacts are higher than presented in the DEIS, since some relocated stream segments were incorrectly classified as stream crossings (i.e. culverts, pipes). While the reported nature of the impact has changed, the total linear feet of impact to streams (crossings and relocations) has not changed. These impacts have been reclassified as relocations and were reported correctly in the FEIS.

CARR01-67

Comment:

Once again, environmental impacts were understated in the DEIS. As a result, reviewers were not commenting on the actual impacts of the project. A supplemental EIS is clearly needed to assess all of these additional impacts.

Response:

See Response to Comment CARR01-66. Impacts were not understated in the DEIS, but were misclassified. This misstatement was corrected in the FEIS.

CARR01-68

Comment:

Due to the short comment period we were unable to thoroughly study the impacts of this project on these very important wetland and stream resources.

Response:

Please see Response to Comment Martin 02-03.

CARR01-69

Comment:

P. 5-595: Runoff from highways can be a serious environmental problem, as this DEIS points out. This is especially true in karst areas. Unfortunately, proposed drainage controls for runoff are weak, at best. INDOT's current deicing practices do not mention deicing procedures in environmentally sensitive areas (Appendix Q). **INDOT and their contractors have a poor record for controlling erosion and there are no assurances their practices in these areas will improve.**

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-60 in Volume III of the Section 4 FEIS.

CARR01-70

Comment:

P. 5-596: The discussion of responses to hazardous waste spills is vague and unverified. Are local emergency responders adequately trained and do they have the personnel and equipment to handle waste spills? How long would it take for state agencies to reach a spill site? How active and equipped are these response agencies? I-69 will be a major truck corridor and a hazardous materials route that will traverse very environmentally sensitive areas including karst terrain. What will happen when a truck hauling toxic liquid turns over, breaks open and empties its contents into a sinkhole? Roads will be closed and access will be limited for emergency responders, so who is liable for accidents? For example, the Indiana Creek Firefighters will have very limited access to I-69 as it runs through their area of responsibility. How are they supposed to carry out their duties and are they liable for damages if they can't reach an accident within their area?

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-61 in Volume III of the Section 4 FEIS.

CARR01-71

Comment:

Alternative routes could have avoided karst areas all together. Even within Section 4 moving the route a short distance outside the corridor would avoid many karst features. This movement would be allowed within the guidelines of this EIS. **INDOT is not following the first principle of the karst MOU, which is to avoid karst areas whenever possible.**

Response: See Responses to Comments HEC 01-02, Dunlap 02-01 and Dunlap 03-01.

CARR01-72

Comment:

Pp, 5-600: It appears that no study was done to evaluate the impacts of I-69 to private water wells. Forty-six such wells were identified for the preferred alternative but these were only wells

within 1000 feet of the ROW. Construction can impact wells situated beyond 1000 feet, especially in areas where there will be blasting. **There is no discussion of mitigation for contamination or diminution of water in private wells. The impacts of the highway on this valuable resource are completely inadequate and must be addressed in an SEIS.**

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-62 in Volume III of the Section 4 FEIS.

CARR01-73

Comment:

Pp. 5-615-620: The numbers on these stream maps are unreadable so their accuracy is impossible to verify. The map through the property of the Tokarskis is inaccurate. It does not show a sinking stream that traverses their property.

Response:

The designation of karst feature names/types can vary depending upon the flow conditions under which features are encountered and the professional judgment of hydrogeologists. Within the referenced property, two features were judged to be swallets rather than sinking streams as they were located in "dry runs" as opposed to flowing stream channels. The maps showing stream designations also are available electronically at www.i69indyevn.org; these electronic images can be magnified as needed.

CARR01-74

Comment:

P. 5-648: Mitigation ratios for forest losses will be based on the entire Evansville to Indianapolis route not necessarily for each section. This raises serious questions: each section is supposed to be independent of all other sections (SIUs) yet mitigation will extend over a 147 mile corridor. This ties the sections together. Loss of forest in one section may not be mitigated in that section which means impacts of each section are not necessarily remedied in that section but in some other section. This is one example of how SIUs do not work and should not be allowed. The I-69 extension, from I-465 to Kentucky, is one project with a set of costs, benefits and impacts and that is the way it should have been studied. Arguing that it is too big a project to study in detail all at once is not convincing. It may have taken more time but it certainly could have been done. The impacts of this project are so extreme that it must be looked at as a whole and not broken up into little pieces to make it more palatable. If the public and responsible public officials choke on the damages and costs so be it.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-64 in Volume III of the Section 4 FEIS.

CARR01-75

Comment:

P. 5-649: The study states that core forests in some areas would increase based on mitigation. This is a false statement. Mitigation does not replace core forest. As described in this EIS,

mitigation sets aside existing forest areas to be supervised for a period of time and other areas to be planted with seedling. These latter areas won't be mature forest for a hundred years, if ever. **Global climate change may impact forest succession. Future forest succession will most likely not mirror the past.**

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-65 in Volume III of the Section 4 FEIS.

CARR01-76

Comment:

Also, it must be acknowledged that not only are core forests fragmented by this highway, but also proposed mitigation sites are next to this highway. This will further degrade the quality of these forests due to noise, light, air and water pollution. The quality of these forests will decline. **Mitigation will not replace or make up for the loss of core forests due to this project.**

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-66 in Volume III of the Section 4 FEIS.

CARR01-77

Comment:

Section 5.21: There will be major karst impacts due to this project. The US-41/I-70 alternative would have avoided all of these impacts. One of the main points in the Karst Memorandum Of Understanding is to avoid karst areas where possible. This was not done. This DEIS recognizes that karst features were likely missed in the karst studies. This is undoubtedly the case, e.g., in the section from SR 54 to Harmony Road only one sinking stream is counted in the preferred alternative. We know that there are at least 2 such streams in one small stretch of this route. Only two other sinking streams are listed for the rest of the route. This number seems quite low.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-67 in Volume III of the Section 4 FEIS.

CARR01-78

Comment:

There will be no meaningful mitigation of impacts to karst areas. Even within the chosen corridor a route with many fewer impacts to karst features was not preferred. The reasons for this are clear—INDOT has been instructed by Governor Daniels to fast track this project. Preventing environmental damage and saving money is of secondary importance to speed. Money will be saved elsewhere by cheapening the construction parameters. As well as our comments here, we include the comments of Keith Dunlap and the Indiana Karst Conservancy.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-68 in Volume III of the Section 4 FEIS.

CARR01-79**Comment:**

Section 5-22.3: Thirty-eight privately owned managed areas will be impacted, directly or indirectly, by this highway. These lands total over 2,000 acres. They are used mostly for conservation purposes and all would be negatively impacted. Private landowners' efforts to conserve natural areas are being seriously thwarted by this highway. Forest and wetland mitigation ratios will be the same as for the rest of the highway. No special mitigation efforts will be made to make up for the degradation and loss of these areas.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-69 in Volume III of the Section 4 FEIS.

CARR01-80**Comment:**

P. 5-770: Construction in a floodway permits will be required for this project. Unfortunately, these permits are being manipulated to allow INDOT to cheapen the design of the highway. In Section 2, parallel permits were sought for a bridge over Prairie Creek. Construction permits are applied for under one set of design standard and later a new set of permits is applied for to allow shortening of bridges. This shortening will cause more flooding so more flood easements are then required. These changes will cause significant impacts to farming operations and also lead to wildlife impacts. If allowed to continue, a substandard highway will be built that will have more negative impacts and fewer benefits. This directly impacts the purpose and need of the project. **Manipulation of the permitting process should not be allowed for this project for any reason.**

This same manipulation could also occur with Class V Injection Well Permits. This should not be allowed.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-70 in Volume III of the Section 4 FEIS.

CARR01-81**Comment:**

P. 5-771: **Rule 5, Erosion Control has already been violated numerous times in Section 4. These violations are documented with pictures.** INDOT and their contractors have a history of violating Rule 5.

Response: A Rule 5 permit has been secured for survey activities associated with geotechnical boring and erosion and sediment control measures have been implemented and maintained in accordance with this permit.

CARR01-82

Comment:

This FEIS's attempt to downplay the impacts of this project by comparing the loss of resources in the corridor to all the resources in a 26 county study area is very misleading. The impacts in a particular area are immediate and serious losses. These conversions can drastically change the character and quality of the local environment and the local economy. Taking large swathes of farmland and closing roads in farm county has significant negative impacts. Forest and wetlands losses and degradation in less disturbed areas of the state have a deep impact on what is left. The forests in Monroe and Greene Counties that would be cut up by this highway are some of the last remaining large tracts of forests in the state. Fragmenting them impacts the environment in Indiana as a whole. Neo-tropical migrant warblers, for example, will have fewer nesting sites which means fewer of these birds in the state. **Indiana was originally about 96% forested, it is now about 19% forested. Those losses did not occur in one huge block but in small losses over many years. These takings are a continuation of a way of thinking that has created the environmental crisis we are in today—'oh, this is only one small area we are taking, there is plenty more out there'. Oh, this will add only a little bit more pollution to this area that has lots of clean air so it won't make any difference. These excuses, repeated over and over, lead to a degraded, polluted landscape. This may have been accepted years ago, before we realized the problems we were creating, but in the world we live in it is intolerable.** This is especially disconcerting because a less disruptive alternative was available. All of these losses are completely unnecessary, especially since the presumed benefits are so minimal.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-71 in Volume III of the Section 4 FEIS.

CARR01-83

Comment:

P. 5-787, Table 5.24-2: Projected job creation for this section is slight: 771 jobs by the year 2030. And some of these jobs are also counted for Section 3 (5-788). This computes to 39 jobs per year. **At a median projected cost of \$670 million for Section 4, each job will cost nearly \$900,000.** This is way out of line with all other job creation mechanisms. (Note; we do not accept this DEIS's estimate of \$533 million for the low-cost alternative. Construction through the karst areas will, by INDOT's own admission, be difficult. There are likely more karst features to deal with than are currently known. It is understood that INDOT routinely inflates benefits and underestimates costs. We are now seeing cost increases in Sections 1-3.)

According to the FEIS, 336 jobs in Greene County will be created near the West Gate development. How many of these jobs are already there? The jobs at West Gate may not be due to I-69 at all. Those types of defense jobs do not depend on access to an interstate highway. Many of those workers would very likely come from surrounding counties, not all will come from Greene County. This is already occurring. **Only 35 jobs are projected for the rest**

of Greene County by 2030 years due to the presence of I-69. Monroe County is forecast to gain 400 jobs by 2030.

I find no discussion in this EIS of the transfer effect: most jobs brought to an area by a new highway are not new jobs but transfers from other areas. This is a well know factor that tempers job numbers and that this FEIS has neglected to mention.

The process of predicting job growth is subjective and speculative; there are no guarantees. The benefits appear to be so slim that they cannot justify such destruction and degradation of the environment, or the extreme cost.

Without I-69, this FEIS forecasts no increase in jobs in Greene County to the year 2030. What happened to the West Gate jobs? Those jobs will not depend on the presence of I-69. The no-build scenario predicts an increase in population of 2000 for Greene County. The data for Monroe County show much larger increases in jobs and population growth for the no-build scenario: 22,275 jobs and a population increases of 39,000. Why such a difference? Perhaps this is a function of the belief by Monroe County economic development personnel that highways are economic saviors. But if so, why are the predicted improvements for Greene County so minor even with I-69? It might be a scare tactic by Greene County officials to gain support for I-69.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Responses to Comments PO009-72 to -76 in Volume III of the Section 4 FEIS.

CARR01-84

Comment:

The Section 4 DEIS states: "Greene County recently adopted a comprehensive plan to provide local planning officials the tools to control development through land use planning." This statement is incorrect. This FEIS has corrected the mistake; it now states: "Greene Counties recently adopted comprehensive plan includes recommendations for protection of karst resources." (P. 799.)

There is great controversy surrounding planning and zoning in this county. Recent plans to zone some areas around I-69 have met with fierce opposition. In addition, planning may not control growth at all. It just allows a small group of developers to control who gets to develop and where they get to develop. There is no assurance that planning and zoning will limit growth to any extent. Certainly that is not the intent of Greene County officials. On the other hand, little growth is predicted in Greene County outside the West Gate area. They can't have it both ways—lots of growth and no impacts.

The DEIS for Section 4 states that according to the expert land use panels in Monroe and Greene Counties, most of the growth from I-69 will occur outside the project area. This needs to be explained. Where will it occur? The DEIS for Section 4 also states: "As **Figure 5.24-1** (p. 5.24-687) shows, the majority of the predicted development would occur near the interchanges with US 231, the Greene/Monroe County Line, and SR 37." Why the contradiction? What do they mean by growth?

This part of the study is very confusing. In previous comments we pointed out that, as predicted by the study, little growth is predicted outside the interchange areas. This area of induced growth needs to be redone to make it clear and verifiable, if that is even possible. This would be appropriate for a supplemental EIS.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Responses to Comments PO009-78 to -79 in Volume III of the Section 4 FEIS.

CARR01-85

Comment:

P.5-820: The DEIS states: "Because it was determined through this analysis that there were no significant impacts to farmland, wetlands, and streams, no monitoring system would be put in place for these resources." No significant impacts!? I presume this means cumulative impacts. Does this imply no development? INDOT may not want to monitor the impacts but that does not mean they will not occur. Of course farmland, wetlands and streams will be impacted, if there is development, but the public will not hear about them because they won't be publicized. The same is true for impacts on private water wells. These impacts should be addressed in a supplemental EIS.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-80 in Volume III of the Section 4 FEIS.

CARR01-86

Comment:

P. 5-823-25, Tables 5.24-6,7,8: Indirect impacts to karst have not been determined. This will undoubtedly lead to increased costs. There will be no mitigation to make up for the loss of farmland. **In fact, mitigation for other lost resources could convert over 1100 additional acres of farmland to other uses.** A total of 4280 to 4613 acres of farmland will be converted due to I-69. This figure should be added in whenever farmland losses are discussed.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-81 in Volume III of the Section 4 FEIS.

CARR01-87

Comment:

Pp. 5-821 and 825: The chart on forest changes and the statement on induced growth state that there will be no net loss of forest due to I-69 construction. This is simply wrong. Forest mitigation does not replace all of the forests taken for the highway. It simply preserves other forested areas for an undetermined period of time and replants agricultural fields. Those replanted areas will take a hundred years, if ever, to replace the lost mature forests.

Response: This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-81 in Volume III of the Section 4 FEIS.

CARR01-88

Comment:

P. 5-808: According to FHWA, runoff from highways poses no pollution problems. This is a dubious conclusion. In other parts of this FEIS runoff is mentioned as a problem. Highway runoff certainly can pollute surface waters and does so regularly. To claim it is below EPA criteria is suspect. Highway run off is a very serious problem in karst areas.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-83 in Volume III of the Section 4 FEIS.

CARR01-89

Comment:

In general, too much credit is given to INDOT's "Standard Specifications and Special Provisions" for overseeing construction and making sure proper procedures are followed. INDOT cannot be trusted to monitor their own activities and FHWA is little more than a rubber stamp for INDOT. This will lead to problems not only during construction but in the future. INDOT is being driven by political pressure which has already caused problems. Some of those problems are mentioned elsewhere in these comments. **Lack of oversight is a very serious concern.**

Response: This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-84 in Volume III of the Section 4 FEIS.

CARR01-90

Comment:

P. 5-818: The four points listed on this page which are supposed to be measures to limit cumulative impacts are meaningless, feel good pabulum. In practice they are seldom followed. Costs are the determining factor for design and construction.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-85 in Volume III of the Section 4 FEIS.

CARR01-91

Comment:

Section 5.25, Energy Impacts: The construction of the I-69 extension will result in a significant increase in energy use. Higher interstate speeds increase fuel consumption and induce more travel. Closing roads will result in more local travel to get around the highway. If the low-cost alternative is followed and increased grades are allowed, then even more energy will be consumed.

This project is out-of-time in its purpose and needs. The travel demands of the future will not be a simple replay of the past. It may have been acceptable in the 1940s or 50s but it is anachronistic and irresponsible in our current environment.

Table 5.25-1: does not show if it refers to the low-cost or the initial cost alternative. There will be a difference.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-86 in Volume III of the Section 4 FEIS.

CARR01-92

Comment:

One environmental issue not dealt with in this DEIS is the composition of fill materials. That decision is presumably left up to the contractors. **One possible problem is the use of coal combustion waste (CCW) for fill. Near water sources and in karst areas use of this toxic material should not be allowed.** We understand CCW is being considered for building the ramps to the bridge over the White River in Pike and Daviess Counties. CCW has been used in other transportation projects in Indiana.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-87 in Volume III of the Section 4 FEIS.

CARR01-93

Comment:

COMMENTS ON CHAPTER 7 Mitigation and Commitments:

Table 7-1: GIS availability, Updating Historic Sites and Distance Learning have nothing to do with mitigation yet are listed as major mitigation initiatives.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-88 in Volume III of the Section 4 FEIS.

CARR01-94

Comment:

P. 7-4: **There is a huge hole in the Context Sensitive Solutions (CSS) initiative. The measures listed are contingent and will "...be considered within the objectives of mobility, safety and economics."** This leaves INDOT with broad categories of reasons to do nothing at all within the guidelines of CSS. CSS is another of the feel good initiatives that do little in actual practice.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-89 in Volume III of the Section 4 FEIS.

CARR01-95**Comment:**

P. 7-4: Mitigation lands will be donated to local or governmental agencies and have deed restrictions. This does not assure they will be protected forever. Agencies and conservation groups sometimes sell off or trade protected sites for various reasons. Funding of personnel to monitor these sites is also not always available and the sites end up being neglected. Purchase of mitigation sites is not assured. As noted, this will depend on availability, coordination with agencies, willing sellers and funding.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-90 in Volume III of the Section 4 FEIS.

CARR01-96**Comment:**

P. 7-7: The FEIS suggests that mitigation sites may be found within the Crane NSWC. It is not known if this is even possible. This is federal land; just because the land is there does not mean it can be bought or used for mitigation purposes. This section also states that this site could be "...used to add to the existing core forest areas." One would have to assume that it is already core forest area and so how is it adding to core forest? You don't add to core forest by simply protecting existing areas.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-91 in Volume III of the Section 4 FEIS.

CARR01-97**Comment:**

Some mitigation measures mentioned here are subject to "cost effectiveness" or "cost benefit considerations." This opens a huge loophole: it will be very easy to say, gee, we just can't afford this now. This is more likely to occur because the funding for this entire project is in doubt. How can INDOT cut out interchanges and then add amenities for wildlife? Also, on page 7-27 it says that amenities for the Fern Hill Nudist Colony, to block the view and make the area more attractive, would be considered. How is INDOT going to explain that to farmers who have lost access to their fields? How can it justify those amenities while denying noise barriers to homeowners?

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-92 in Volume III of the Section 4 FEIS.

CARR01-98

Comment:

P. 7-8: The FEIS states: "In Section 4, the proposed forest mitigation sites are the same as those described above for wetland mitigation." It is unclear from this statement if mitigation sites are being double counted. Is the same acreage being used for both forest and wetland mitigation?

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-93 in Volume III of the Section 4 FEIS.

CARR01-99

Comment:

P. 7-17: Decisions on local access roads will not be determined until the final design stage. Once again, cost will be a deciding factor. How in hell can agencies ac (sic)

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-94 in Volume III of the Section 4 FEIS.

CARR01-100

Comment:

P. 7-19: The DEIS states that roadway geometrics will be considered to abate noise levels. It does not mention the opposite is also true: **the low--cost alternative for the highway would increase allowable grades which would cause a serious increase in noise levels.** Noise barriers are unlikely because most of Section 4 is rural and because they cost a lot of money and the health and well being of rural citizens is not important to INDOT and FHWA.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-95 in Volume III of the Section 4 FEIS.

CARR01-101

Comment:

Pp. 7-18-23: **These pages of possible control measures are riddled with contingency phrases that completely muddle their certainty.**

Storm water protection measures in karst areas will be followed only in the right-of-way. This is not adequate. There will be many karst features next to the highway that also must be protected from run off and storm water drainage.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-96 in Volume III of the Section 4 FEIS.

CARR01-102

Comment:

Heavy blasting will occur. This could not only affect Indiana bat populations but also many other kinds of wildlife. It could also affect water wells and the foundations of houses. These other impacts apparently were not studied.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-97 in Volume III of the Section 4 FEIS.

CARR01-103

Comment:

Pp. 7-23: Expecting construction workers, maintenance staff and other workers to report on the presence of bats for as long as the highway exists is a joke. No one can possibly believe this would happen.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-98 in Volume III of the Section 4 FEIS.

CARR01-104

Comment:

P. 7--56: There is a blatant falsehood on this page: it states that avoidance of karst features has been a key objective in studies dating back to the early 1990s. Why then, wasn't the US--41/I--70 route chosen? That alternative has zero karst features.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-99 in Volume III of the Section 4 FEIS.

CARR01-105

Comment:

P. 7-63: It is not indicated how much construction costs are increased to mitigate karst impacts. Because of the huge number of karst features impacted, construction costs through this karst area will be enormous—if it is done correctly.

Response: For Section 4, construction costs in karst terrain have been increased to account for anticipated structural treatments for the roadway and karst mitigation. See Appendix D of the FEIS, *Cost Estimation Methodology*, for more information.

CARR01-106

Comment:

COMMENTS ON CHAPTER 11: COMMENTS COORDINATION AND PUBLIC INVOLVEMENT

Not once in this chapter is the widespread and overwhelming opposition to I-69 mentioned. At the public hearing in Greene County CARR presented documents to be included in the public record that clearly show this opposition. **A stack of paper over 8 feet high containing tens of thousands of petition signatures and comments were presented to INDOT. In all, approximately 140,000 petition signatures opposing I-69 have been submitted to INDOT—all met with stony silence.** Table 11-2 shows 0 petitions received when in fact there were stacks of petitions, as noted above, delivered to officials at public meetings.

Official opposition by public bodies, e.g., city councils, county commissioners, and elected state officials has also been ignored. **It appears that the only comments that matter are those in support of the highway.** This one-sided interest in comments is unacceptable. We are supposed to live in a democracy where the opposition is acknowledged and respected. This has not been the attitude with the proposed I-69 highway. Despite its public statements, INDOT views the opposition as an obstacle it has to get over to do whatever it wants. **There has been no attempt to work with I-69 opposition groups or public officials to discuss how to plan for responsible transportation options.**

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-101 in Volume III of the Section 4 FEIS.

CARR01-107

Comment:

GENERAL COMMENTS: THE PROCESS IS BROKEN

Bernardin--Lochmueller & Assoc (BLA), the lead consultant for the I-69 project, has given large sums of money to various governors' campaigns for many years. This Pay-To-Play requirement to assure BLA will get future contracts has been privately conveyed to us by personnel at BLA. Unfortunately, it means that citizens do not get unbiased studies. Neither the outcome nor the route of the I-69 proposal has been in doubt for 20 years. This is just one of the problems that indicates that the entire process is broken.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-102 in Volume III of the Section 4 FEIS.

CARR01-108

Comment:

Tiering is also a major problem. We have commented on this aspect previously. Sufficient and complete information is not given in Tier 1 to adequately inform citizens and policy makers to make informed judgments on the merits of the project. We understand that under NEPA guidelines INDOT does not have to pick the most environmentally, socially and fiscally

responsible alternative, but they are required to give credible, complete and verifiable information. This has not been done with this project. **Tier 1 information was incomplete, inaccurate and biased in favor of a predetermined route for this highway.** This undermines a basic tenant of NEPA: agencies are not supposed to mislead and lie to get what they want. **In Tier 2 the extent of the environmental, social and fiscal costs are more completely revealed, after the route is decided and it is too late to change it.** This corrupts the entire process. Segmentation of the project is also a major problem which we discuss in more detail later in these comments.

Tiering and segmentation also allow the approval of projects far in advance of their actual construction dates. This means information about some projects, such as costs and need, are out-of-date before the process is started or completed.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-103 in Volume III of the Section 4 FEIS.

CARR01-109

Comment:

A major overhaul of the EIS procedures is needed to insure that the public and public officials are getting complete, impartial, and timely information on which to base decisions on the feasibility of this as well as other projects. Reliable information is a fundamental requirement of a functioning democracy. That requirement has been distressingly missing since the I-69 process began.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-103 in Volume III of the Section 4 FEIS.

CARR01-110

Comment:

A recently published book: I-69, The Unfinished History of the Last Great American Highway, by Matt Dellinger, details the history and political chicanery that has led to I-69 being a "priority" project.

LOST OPPORTUNITY COSTS:

INDOT states (P. 2-7) that they will use "traditional transportation funding" for Section 4. **The billions of dollars spent on I-69 means that that much money will not be available for other needed transportation projects throughout the State. This is an important issue that needs to be addressed in a Supplemental EIS.** Roads and bridges in Indiana are badly in need of repair and upgrades. A recent federal report rated 4000 bridges in Indiana as structurally deficient or obsolete. Road projects and INDOT personnel are being cut to save money. Indeed, this project is being cheapened to save money and this will result in a substandard highway that will require more maintenance sooner. It is also creating a less safe highway that will result in more accidents and deaths. Indiana's deficient transportation system

is also causing serious economic losses. These losses and long-term costs must be included in any benefit/cost analysis for the I-69 project.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Responses to Comments PO009-104 to -105 in Volume III of the Section 4 FEIS.

CARR01-111

Comment:

In the Tier 1, FEIS the FHWA gave assurances that INDOT had the funding to build I-69 through traditional funding sources. This turned out to be wrong. The state has had to use income from the long-term lease of the northern toll road to begin Sections 1-3. The \$700 million budgeted for those sections is already too little. Those costs have risen to nearly \$1 billion and are likely to increase, even as measures to cheapen the highway are ongoing. It will also be noted that gas tax revenues are down and the federal highway trust fund is essentially in receivership.

A reliable source of funding for the entire I-69 project should have been guaranteed before any section was started. Otherwise, the state risks starting a project, spending millions, and later admitting it does not have the money to finish it. **Unfortunately, this standard operating procedure for major INDOT projects—let's just get it started and spend enough money so they won't be able to just drop it later. This is extremely poor public policy and an irresponsible use of scarce transportation dollars.**

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Responses to Comments PO009-106 to -107 in Volume III of the Section 4 FEIS.

CARR01-112

Comment:

LACK OF OVERSIGHT

We understand that state and federal oversight agencies do not choose projects to build, INDOT and the Governor do that. But these agencies have a responsibility to see that the health and safety of citizens is assured and that the environment is properly protected. **There is a serious lack of oversight of the I-69 project by state and federal agencies which are supposed to fulfill that role.** This defect is due in part to an inability to oversee projects and not just to a lack of desire to do so. The Federal Highway Administration (FHWA) is too closely tied to the political powers in the state to exercise independent oversight. In fact, Robert Tally, FHWA's Division Administrator is a supporter of this project. FHWA personnel have been known to manipulate data to remove obstacles to the construction of the I-69 extension.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-108 in Volume III of the Section 4 FEIS.

CARR01-113

Comment:

The Environmental Protection Agency (EPA), the Indiana Department of Natural Resources (IDNR), Indiana Department of Environmental Management (IDEM), US Army Corp of Engineers (USACOE) and the U.S. Fish and Wildlife Service are constrained in their duties by a lack of personnel and political pressure to not interfere with the I-69 project. This has been an ongoing problem. **Personnel in state agencies have been threatened with a loss of their jobs if they do anything to get in the way of the completion of I-69.** Even a slowing of the process due to legitimate concerns is forbidden because of these threats. Problems are covered up or not addressed. In these circumstances, **agencies can be placated by “mitigation” projects. INDOT mollifies them with set asides, studies, promises to monitor impacts and money to pay personnel.** INDOT has paid for personnel in federal agencies to work on I-69 studies and to hurry the process. This opens up the possibility of conflicts of interest.

For the above reasons, these oversight agencies tend to work for and with each other rather than for the public good. No one wants to cross a sister agency. No one wants to be perceived as delaying I-69. Oversight has been replaced by accommodation. **Politics is, in fact, the chief regulator of this project. The loser is the public, the environment and fiscal responsibility.**

These problems are well understood by anyone familiar with this project. It is another example of why the process to build I-69 is broken.

These serious faults need to be investigated by an independent body if meaningful oversight and regulation are to be restored.

Lack of regulation by state and federal agencies across the country has resulted in calamities from economic collapse to coal mine disasters to widespread food borne illnesses to the Deep Water Horizon oil calamity in the Gulf of Mexico. **I-69 is a disaster in the making. We can only hope that someone wakes up to the lurking problems before deaths, injuries and environmental disasters occur.** It is unlikely that anyone, anywhere will accept responsibility or be held accountable after the collisions, mishaps and failures occur.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-109 in Volume III of the Section 4 FEIS.

CARR01-114

Comment:

BAIT-AND-SWITCH TACTICS ARE UNACCEPTABLE

In Sections 2-3 major changes in design of the highway were made after the FEIS and ROD. Many supporters were led to believe the highway would have interchanges and grade separations that they thought would give them improved access. After they bought into the project they were told these promises could not be kept. Rising costs were the reasons cuts had to be made. **In a classic bait--and--switch routine some interchanges were “deferred”, which means they will likely never be built, more roads were closed and bridges were shortened which will cause more flooding, all to reduce costs.**

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-110 in Volume III of the Section 4 FEIS.

CARR01-115

Comment:

These changes also affect the efficiency of the highway and directly impact the purpose and need of the project. Many of the presumed benefits used to justify the highway are weakened or eliminated yet no attempt is made to reevaluate the project based on these design changes.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-110 in Volume III of the Section 4 FEIS.

CARR01-116

Comment:

Due to a lack of oversight, we fear the same will happen in Section 4. Will communities be told one thing now and something else when it comes time to construct the highway? INDOT, unfortunately, has no credibility due to its past statements and subsequent actions. Over the years many of their statements have been proven false and their estimates way off. For example, **the cost of the highway has risen steadily even though they consistently say they believe the cost is right at the time they estimate it.** We have many times argued that the costs are low-balled and the benefits exaggerated. In fact, we have a better record for predicting costs and benefits than INDOT does. Why should communities and public officials believe anything INDOT say now?

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-110 in Volume III of the Section 4 FEIS.

CARR01-117

Comment:

MITIGATION

Many mitigation measures are contingent on funding and "feasibility". Many similar phrases are scattered throughout this document. Road closings, access roads and wildlife mitigation measures are also contingent on funding and "feasibility". What does "feasibility" depend on? That is never explained. There is no assurance that agency personnel or funding will be available in the future to carry out proposed monitoring schedules.

The mitigation measures proposed here will not make up for the severe environmental damage caused by this highway. Forest mitigation, at a ratio of 3:1 will not replace the forests cut down. Two of the three acres will be simply setting aside other forested area that will not be cut for now. Another one acre of agricultural land will be planted with seedlings. Those replanted areas will take around 100 years to mature and so do not replace existing forests. How long they will

be monitored is uncertain. Due to the long time periods involved, it is not certain that mitigation areas will remain under supervision in perpetuity as suggested, or even for 5 years. Some of the forest mitigation land will be next to this interstate which means it will be degraded from the start. Air, noise, water and light pollution that wasn't there before will corrupt these forests forever. Farmland losses, of course, cannot be mitigated. Karst mitigation and monitoring will depend on funding and personnel that may not be there.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Responses to Comments PO009-111 to -112 in Volume III of the Section 4 FEIS.

CARR01-118

Comment:

OTHER ISSUES:

Much of the I-69 corridor is in an earthquake zone. All bridges for I-69 must be built to earthquake standards. INDOT has not committed to these building standards.

Response: This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-113 in Volume III of the Section 4 FEIS.

CARR01-119

Comment:

Governor Daniels has instructed INDOT to "Throw out the rulebook to the extent the feds will let you do it." This is a dangerous directive that will lead to many problems. An independent monitoring service should be required to oversee all construction activities. Self-monitoring by INDOT or its contractors will result in shoddy, unsafe work.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-114 in Volume III of the Section 4 FEIS.

CARR01-120

Comment:

SECTION 106 I-69 Tier 2 Studies, Section 4,

Specific Comments:

--The Project Description should state that it is unlikely that the entire project will ever be completed from Kentucky to Indianapolis. In addition the Project Description should state that it is extremely unlikely that the Canada to Mexico I-69 will ever be completed.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-115 in Volume III of the Section 4 FEIS.

CARR01-121

Comment:

--CARR rejects the finding of no adverse effect on the Scotland Hotel, the Blackmore Store, Old Clifty Church and the Koontz House. There is no guarantee that the design proposed in the DEIS or the FEIS or the ROD will be the actual design of the highway.

The finding of no adverse impacts to the Old Clifty Church is unacceptable. It is nonsense to state that the noise and pollution of an international truck route will have no adverse impact on this lovely old chapel and its rural setting. This chapel is still used by people in the area. In a 2006 letter to Robert Talley, John Carr acknowledged "...that the serenity of the setting of the Old Clifty Church is important to the use of that historic property."

- I-69 will have a negative effect on the Scotland Hotel and the Blackmore Store in Scotland. Development that will follow the highway will further deteriorate this historic setting. We reject the consultants finding of no adverse impact on these historic properties.

-I cannot find in this report any evaluation of the long-term and cumulative impacts to historic properties and cultural landscapes from development. The APE is much too narrow. Impacts from development around intersections will spread for several miles in all directions. The APE needs to be expanded and long term and cumulative impacts to historic properties in the expanded area must be fully and honestly evaluated.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Responses to Comments PO009-116 to -117 in Volume III of the Section 4 FEIS.

CARR01-122

Comment:

--Regarding Appendix N, part G: The information in this appendix shows a very clear conflict of interest by SHPO and DNR-DHPA. It appears that the National Register eligibility for the 231 Bridges--Doan's Creek and Doan's Branch--has been sacrificed on the I-69 altar. This is really scandalous. As a consulting party, I received no notice about the change in eligibility for these bridges.

This change in eligibility indicates the arbitrary and capricious manner in which eligibility to the National Register is decided. The 231 bridges are at least in their historic locations. The Harris Ford Bridge in Monroe County was moved from a different county.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-118 in Volume III of the Section 4 FEIS.

CARR01-123

Comment:

-Despite the fact that I have several times submitted comments about the Knott property (Taylor Ridge Road and CR 450 South), I cannot find any mention of it in this document. This

property has at least 3 historic coalmines and the remains of a camp. These date from the early 1900's. There is a retaining wall extant along the creek and spoil piles are evident.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-119 in Volume III of the Section 4 FEIS.

CARR01-124

Comment:

-CARR rejects the Weintraut & Associates designation of the Dowden-Boyd farmstead as not eligible for the Historic Register. We request a new evaluation by an unbiased scholar.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-120 in Volume III of the Section 4 FEIS.

CARR01-125

Comment:

-CARR questions why this report has been submitted (July 23, 2010) as the report states "since results of the archaeology surveys are unknown at the time of this drafting, the finding for this project is "adverse effect."" If the archaeological studies were not complete, why was the DEIS released on July 23, 2010. This is an inexcusable ploy to rush the project forward in keeping with Governor Daniels' political ambitions.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-121 in Volume III of the Section 4 FEIS.

CARR01-126

Comment:

-The Section 4 study lists 22 cemeteries within the APE, the earliest dating from 1818. No mention is made of noise and visual impacts to the cemeteries.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-122 in Volume III of the Section 4 FEIS.

CARR01-127

Comment:

-The cross section graphics used to demonstrate noise and/or visual impacts to historic properties are technical, clean and precise ON PAPER. At the meeting at the Section 4 office in December 2009, the consultants were clearly charmed by this graphic tool. In fact, it is nonsense to think that this gives any realistic idea of the impact of an international truck route

on these historic properties and cultural resources. The line of sight graphs do not necessarily simulate the on-the-ground conditions. Not enough information is given. Very slight changes in elevation can dramatically change the line of view. The conclusion of no adverse impacts on historic properties is incorrect. There is no assurance that the lines of sight indicated in the cross section graphics will not change. It is probable they will change. Since the project is being cheapened, it is quite likely that the final design will be significantly different from the design demonstrated in the cross section graphics.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-123 in Volume III of the Section 4 FEIS.

CARR01-128

Comment:

-Audio tours are not mitigation for the destruction that I-69 will cause. They are frippery at the taxpayers' expense.

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-124 in Volume III of the Section 4 FEIS.

CARR01-129

Comment:

-Trees are not mitigation of visual impacts unless the tree stand is large enough to shield the line of sight **in all seasons AND**, INDOT purchases the tree lots and maintains them as barriers to views in perpetuity

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-124 in Volume III of the Section 4 FEIS.

CARR01-130

Comment:

--The following statement from I-69 Evansville to Indianapolis Tier 2 Studies Historic Property Report, Section 4 Description of Undertaking Section 4: US 231 (near Crane NSWC) to SR 37 (near Bloomington) August 29, 2006 is incorrect:

"In a continued effort to include the public in the transportation decision-making process, INDOT has divided the approved corridor, which is approximately 2,000 feet wide and 142 miles long, into six sections."

The statement should be corrected to read:

"In a continued effort to avoid reporting the true costs and impacts of the entire project, INDOT has divided the approved corridor, which is approximately 2,000 feet wide and 142 miles long, into six sections."

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-125 in Volume III of the Section 4 FEIS.

CARR01-131**Comment:**

General remarks:

Since 1990, the environmental and historical studies of the I-69 project have been fraught with errors and calculated intent to mislead the public and elected officials about the costs and impacts of this project. The main (unstated) purpose of I-69 is political. The purpose of the project is to ensure the support of the Evansville development community and the highway construction lobby for whichever political party and individual politician is currently in power.

The original intent of the EIS process under NEPA and the Section 106 process was to ensure that elected officials and citizens have information about the environmental and cultural impacts and costs of a project before starting it, to determine if it should be built. NEPA and NHPA have been co-opted by the highway construction lobby. The environmental and historic review process has become a cash cow for engineering and consulting firms, at the taxpayers' expense.

The I-69 project is a particularly egregious example of this abuse of the public trust.

The political pressures for the Build alternative have skewed the environmental and historic studies. The Federal HIGHWAY Administration relies on models and standards that are designed to support building highway projects over maintaining the quality of life in rural areas and preservation of cultural resources.

It would be far better for the consultants, INDOT and FHWA to just be truthful and acknowledge that the damage this project is doing to our historic and cultural resources is permanent and cannot be repaired or mitigated.

"Perhaps our age will be known to the future historian as the age of the bulldozer and the exterminator; and in many parts of the country the building of a highway has about the same result upon vegetation and human structures as the passage of a tornado or the blast of an atom bomb."--Lewis Mumford

Response:

This issue was raised in this organization's comment letter on the Section 4 DEIS. See Response to Comment PO009-126 in Volume III of the Section 4 FEIS.

CARR01-132

Comment:

APPENDICES:

A: Greene/Monroe County Line Interchange:

Mr Gary Fisk Section 4 Project Manager PO Box 8464 Evansville IN 47716 RE: I-69 Tier 2 Section 4 DEIS comments (Greene/Monroe County Line Interchange) Mr Fisk: This comment letter will be focused on the selection and evaluation of the recommended interchange Option 1 (intermediate interchanges at SR 45 and Greene/Monroe County Line) in comparison to the less expensive and lower impact (in a number of ways) Option 3 (intermediate interchanges at SR 45 and SR 54).

Introduction: First I understand the rationale of adding the Greene/Monroe County Line interchange to address the post-Tier 1 public input and the need to consider it in the Tier 2 study, but I do not agree that the benefits in the final analysis really addresses the needs and issues raised by the public, and those needs and issues could be better resolved by other means at less cost and less impact as I will discuss in this analysis letter.

Furthermore, I think it was irresponsible and arbitrary for InDOT to eliminate the SR 45 / SR 54 interchange (Option 3) as a carry-forward option into the final analysis. It obviously would have been a stronger performing contender than Option 4 (SR 45 only) in the final recommendation decision and in many respects is superior to Option 1.

The SR 45 / SR 54 interchange option (Tier2, Option 3) was the primary interchange configuration under the Tier 1 EIS. While the Tier 1 FEIS/ROD allowed for other options to be considered, there was a formal commitment made by InDOT in consultation with the EPA and USFWS that for environmental impact reasons, no interchanges would be sited in Monroe County with the implications being no interchange(s) between SR 54 and SR 37. To me, this commitment should have been honored unless there were overwhelming compelling reasons to change, and then only under full agreement with the agencies expressing concerns. From the discussion and evaluation in the Tier 2 Section 4 DEIS, the justifications to change from the original commitment are not compelling, nor even justifiable, and thus Option 3 should be the recommended interchange option in the FEIS/ROD.

Elimination of the SR 54 interchange options: From Section 3.4.2.2, the argument for the elimination of the SR 54 interchange options was simply one of spacing, relative to the SR 45 interchange, 1.8 miles to the southwest. While the AASHTO "Green Book" (2004) does suggest a minimum spacing of 2 miles in rural areas, it is clear there is no hard evidence to support this recommendation and the DEIS even describes this as a "rule of thumb" rather than a hard policy with defensible justifications*. The rationale is that

* I found only one paper, *Safety Assessment of Interchange Spacing on Urban Highways* (FHWA Tech Brief), that really addressed this issue and that study was focused on higher volume urban freeways. Their conclusion was there was a slight correlation to interchange spacing, but suggested their model be used primarily for accessing inserting new interchanges between two existing interchanges. They also indicated the "rule of thumb" recommendations were also based on optimizing cost and use, not just safety. Further, they indicated any increase in injuries that might be caused by interchange spacing might be offset or exceeded by reduced injuries on local roads by the added access to the freeway.

September 20, 2010

Dunlap: I-69 Section 4 Interchange Options Comments, page 2

drivers need a certain distance to merge and get accustomed to the highway before the next exit and this might be valid for a high traffic volume highway, but I-69 in Section 4 will be a relatively low volume highway (this characterization was made in a number of places in the

DEIS when other safety issues were being minimized). Further, it seems counter-intuitive that the spacing in rural areas needs to be any greater than the 1-mile separation suggested for urban areas where traffic is generally greater and more distractions are present. In I-69 Section 5, the SR45 and SR 48 interchanges will be only 1.2 miles apart and there are other examples in Indiana where existing rural/semi-rural interchanges are less than 2 miles in spacing (e.g., on I-65, exits 101 and 99 are only 1.5 miles apart; on I-64, exits 118 and 119 are only 1.6 miles apart). While the spacing between SR 45 and SR 54 should be noted as an issue with some negative consideration, it should not have been the sole reason for this option to not be carried forward for further analysis, especially considering InDOT has illustrated that it is willing to make gross exceptions to other design criteria where safety degradations are clearly understood (e.g., *Appendix GG*, letter requesting “*Level 2 Design Exception for Critical Length of Grade*”). From my perspective, using the interchange spacing “policy” was a simple way to eliminate Option 3 and make Option 1 the most attractive in the carry-forward alternatives. For the remainder of this comment letter, I will be comparing Option 1 with Option 3.

Costs: While there are no cost figures for Option 3 in Table 6-14, it can be assumed that the costs for the SR 54 interchange would be comparable to the costs of the SR 45 interchange, being of similar design and Table 3-23 suggests that the SR 54 acreage would be about the same or perhaps slightly less than the SR 45 interchange. So for the following discussion, I will assume the total costs and right-of-way footprint for Option 3 is twice that of Option 4. This would indicate Option 3 would be \$25-35 million less than Option 1. While InDOT has only selectively used “benefit-to-cost” analyses when it is to their advantage (e.g., *Appendix GG*), I will selectively use it in my analysis where appropriate.

Performance (safety): From Table 3-10, the net improvement of safety for Option 1 compared to Option 3 is the annual reduction of 4 injuries and 2 property damage accidents. Using the “costs” values in Table 5.5-4, the “benefit” for Option 1 would be a user avoidance of \$422,800 annually. Using InDOT’s B/C analysis and the \$25-35 million initial cost, the B/C value in 2030 would be between 0.20 – 0.23 indicating the added safety does not justify the more expensive Option 1 compared to Option 3.*

I also have safety concerns over the new 2-way stop that is proposed at the SR 445 and SR 45 intersection. I foresee the tendency of traffic entering that intersection from the east speeding above the 55 mph limit due to its limited access condition and prior 70 mph conditions. Further, line of sight for traffic on SR 45 to the west will be compromised by the elevation grade that SR 445 must take to reach SR 45. It would appear InDOT is eliminating a troubled signal-lighted “Y” intersection with a 2-way stop intersection with high-speed cross traffic. Now the accidents will be high-speed side impacts rather than lower speed rear-end impacts.

Performance (travel time): From Table 3-5, the Travel Times to Selected Destinations shows nearly identical aggregate times for Option 1 compared to Option 3. Therefore the * It should be noted that the no-build option saves \$6 million/year in safety-related “costs” in addition to the \$533- 798 million initial costs for Section 4.

Dunlap: I-69 Section 4 Interchange Options Comments, page 3

B/C value would be 0.0 indicating the Travel Time performance does not justify the more expensive Option 3. A similar conclusion can be made from Table 3-7, Travel Time to the Interstate System.

Congestion Relief: Tables 3-8 and 3-9 indicate that Option 1 is superior to Option 3 in reducing miles travel and times spent in congested areas, but the difference between the two options is less than 4% and the DEIS states that all of the options satisfies the local goals to reduce traffic congestion. If all other costs (initial build and ongoing users costs) were the same between the two options, Option 1 would be the preferred configuration in this metric. However, the initial costs are not the same (see Costs discussed above) and user costs are not the same either (see discussion below), so the cost of congestion relief needs to be better understood and analyzed. Table 6-13 does not have Option 3 statistics, but Option 3 is probably only slightly

better than Option 4, so the “trouble areas” appear to be the 8-mile section of SR 45 from SR 445 to Leonard Spring Road. An alternative study should be made to determine what improvement in Level of Service and traffic capacity could be made to SR 45 for \$25-35 million (e.g., adding bypass shoulder lanes at intersections for left-turning traffic, straightening curves, SR 45 / SR 445 intersection improvements, etc). Only after these further studies are made can one conclude which option is better from a benefit/cost aspect and local traffic improvements. The DEIS is deficient without such a study.

User costs: Table 6-13 would suggest that approximately 4800 vehicles per day would be diverted onto I-69 under Option 1 compared to Option 3. Of those 4800 vehicles, the vast majority of those vehicles* would proceed north on SR37 where their first opportunity to exit I-69 would likely be the SR 45 exit. Thus it is easy to compare the user costs (time and fuel) between Option 1 and Option 3 for those vehicles traveling the two routes from the intersections of SR 45 /SR 445 and SR 45 / SR 37. Via SR 45, the distance is 11.3 miles with most of the posted speed limit being 50 mph. Via I-69, the route is approximately 14.5 miles at a combination of 55 and 70 mph. Drive times are nearly identical under ideal conditions, although the SR 45 route could be slower during congested times and dependent upon traffic lights**. The real difference between the two routes is fuel consumed. Via I-69, the trip is an additional 3.2 32 miles longer, which if you assume an average fuel economy of 21 mpg, would consume an additional 0.15 gallons of gas. Assuming 3850 vehicles per day, that would equate to 210,000 gallons per year, or \$600,000/year, all to arrive at the same location. The longer route would also produce another 2,000 tons of CO2 per year. So to summarize, if Option 1 is constructed, it will entice approximately 3,850 vehicles a day to make the same trip in about the same amount of time, but consume more fuel and emit more green-house gases. So essentially, InDOT is proposing to spend \$25-35 million of taxpayer’s money to encourage drivers to waste gas with no other benefit.

Access to I-69: According to the DEIS, there were many public comments that suggested an interchange near Carter Road should be *added in addition* to interchanges at SR 45 and SR 54 (e.g., CAC meeting #2) and I can understand the perception that this

* I could not derive the number of vehicles entering the County Line interchange which would then proceed north on SR 37 from the DEIS, but I suspect it would be above 80%, so I will assume it is 3,850 vehicles per day. ** I drive SR 45 quite often and have timed my drive times from SR 37 to SR 445 at various times of the day with typical range of 13 to 15 minutes. Calculated times for I-69 would be approximately 13 minutes.

Dunlap: I-69 Section 4 Interchange Options Comments, page 4

exchange is needed. Greene County residents living west and north of SR 54 and SR 445 (e.g., Bloomfield area) felt they were gaining nothing from I-69 without this new interchange, but as discussed above, even with the interchange, they gain very little, if anything, compared to the existing SR 45 travel route to Bloomington. Furthermore, by including the Greene/Monroe County interchange, this eliminates the SR 54 interchange (not something disclosed to those CAC participants making suggestions to add the new interchange), which actually would provide some benefit to far southeastern Greene County and northwestern Lawrence County residents. These residents actually could benefit by I-69, allowing quicker travel times to Bloomington simply because of a longer travel distance at higher speeds, even if the user costs are greater from the longer route. So by selecting Option 3 over Option 1, you do gain benefit as well as save \$25-35 million.

Reduced Access as a result of I-69: I-69 will potentially close a number of existing county roads, thus reducing local access, increasing emergency response times, school bus travel times/distances, and general commuter times/distances/costs. Ideally, no existing country roads would be closed, but at \$1-2 million per grade separation, it is likely some roads will be closed to contain costs. However, if Option 3 was selected over Option 1, the cost savings on interchanges could likely fund nearly all of the grade separations and still have an overall lower

price tag. I am sure a benefit-to-cost analysis in spending funds on more grade separations compared to the Option 1 (rather than Option 3) would show more local benefit to those who live along the path of I-69.

Direct Acreage Impact: Table 6-14 does not include Option 3, but one can estimate acreage impact by doubling Option 4 acreage, as the interchange for SR 54 is very similar to SR 45. Thus Option 1 compared to Option 3 will destroy 100-108 additional acres, most being forested land with a dis-proportional amount being core forest. Since forest- land is being mitigated at 3:1, Option 1 will require approximately 230 additional acres of mitigation acquisition. At \$16,600/acre (page 7-44), that is over \$3.8 million just for mitigation that could be avoided.

Stream impacts: It is hard to analyze Option 3 stream impact (not included in Table 6- 14) since the SR 54 interchange ramps would need to cross a minor stream (likely with culverts), but it is clear the impact would be considerably less than Option 1 which requires the connector road to cross Indian Creek and its floodplain using a full bridge.

Indirect impacts: The original intent of the EPA and USFWS during Tier 1 planning was to disallow any interchanges between SR 37 and SR 54 to discourage indirect development in western Monroe County where karst features and sub-surface drainage are prevalent*. InDOT at the end of Tier 1 seemed to concur with this direction, but quickly changed directions after the Tier 1 ROD was issued. Option 1 in the Tier 2 study greatly subverts this planning, encouraging development south and west of the Greene/Monroe County Line interchange. While it is understood that public input favors additional interchanges, InDOT also has an obligation to follow agency input and the concerns that they expressed, as the agencies understands the overall impacts from a higher level of planning.

* This commitment was also documented in the *Bloomington, Indiana State Road 37 Corridor Accessibility Study*.

Dunlap: I-69 Section 4 Interchange Options Comments, page 5

I also disagree with the rationale and discussion on page 6-39 suggesting that the Greene/Monroe County Line interchange would reduce indirect impact because it “demotes” the SR 45 improvement project planned closer to Bloomington. The development closer to Bloomington is going to proceed regardless. Furthermore, whether you improve the flow of traffic by upgrading SR 45 or by diverting traffic by adding the County Line interchange, the end result is exactly the same (i.e., lower congestion will promote development regardless of the way the congestion is reduced). The only thing the County Line interchange will do is to leapfrog development into eastern Greene County near the intersection of SR 45 and SR 445, and likely along SR 445 and SR 54 west of SR 445.

Endangered Species: The USFWS and Indiana DNR obviously have great concerns and oversight responsibility that the I-69 project does not directly or indirectly impact the Indiana bat. Of greatest concern would be impacts to Ray’s Cave, the largest known winter hibernaculum for the species known anywhere*. I believe the original goal of the agencies was to maintain a minimum five-mile buffer from this cave, which the Tier 1 corridor accomplished. However, with the Greene/Monroe County Line interchange introduced during Tier 2, the five-mile buffer has been violated as the western end of the connector road and the reconfiguring of the SR 445 and SR 45 intersection is within 5 miles of the cave’s entrance (and even closer if you consider the underground passages). Furthermore and more importantly, the interchange at that location will encourage development on SR 54 west of SR 445, which likely will have further indirect impacts. While the USFWS may not be able to stop InDOT from constructing the Greene/Monroe County Line interchange, from my conversations, they are definitely not in favor of it, and would greatly prefer Option 3 compared to Option 1. It should also be pointed out that at the time the Revised Tier 1 Biological Opinion (BO) was issued in 2006, the future for the Indiana bat was thought to be trending to recovery. However, with the onset of White-nose Syndrome (WNS) since 2006, it is very likely the species, along with several other hibernating bat species, may be greatly impacted and likely facing regional extinction.** So the

“acceptance” of the County Line interchange in the 2006 BO may now be suspect and outdated. The bottom line, Option 1 will have a greater impact on the Indiana bat, and thus should not be selected in the Tier 2 final EIS and ROD. Option 3 is a much better choice.

Relocations: The interchange at the Greene/Monroe County Line would displace half of all the businesses directly impacted by the entire Section 4 projects and approximately one-fifth of the residential homes (13 total displacements). This seems like a disproportionately large number of business and homes relocations for the supposed benefits “gained” by Option 1. Option 3 would displace no businesses and only 1 or 2 residences. Thus, significantly less disruption to those impacted residences and businesses. The large number of displacements were acknowledged on page 5-41 of the DEIS, but apparently had little impact on the final recommendation. * I have first hand knowledge as I have personally participated in the biennial population census of this cave since 1989, and have invested significant effort to protect this and other Indiana bat hibernacula in Indiana over the past 25 years.

** An Emerging Disease Causes Regional Population Collapse of a Common North American Bat Species, Frick, et al, *Science* v329, p 679, August 2010.

Dunlap: I-69 Section 4 Interchange Options Comments, page 6

Noise: Option 1 with the Greene/Monroe County Line interchange would expose approximately 60 additional residential homes to “highway” noise caused by traffic on the new connector that passes directly south of Shea Estates and Shady Meadows sub- divisions. Option 3 with interchange ramps adjacent to I-69 at SR 54 would likely add little additional noise to nearby residents near SR 54.

Business Impact due to Changes in Traffic Patterns: Pages 5-167/168 indicates the six businesses located east of SR 445 on SR 45 “could be adversely affected by changes in traffic volumes [due to] decreased pass-by traffic”. What the DEIS does not state, however, is that there are over 30 businesses located along SR 45 between SR 445 and Curry Pike, many which would be impacted by a loss of nearly 5000 vehicles per day. This would result in a negative economic impact for a significant area and potentially loss of some of these businesses, loss of employment, and loss of citizen’s livelihoods.

Emergency Responses to I-69: One of the main arguments for adding the Greene/Monroe County Line exchange was a concern voiced by Emergency Responders to accidents on I-69. Their argument was that Option 3 (access at SR 54 and SR 37) would significantly increase response times to an accident mid-way between those two access points. From that standpoint, Option 1 would improve the situation, however, minimum times to the mid-point could still range from 9-15 minutes depending upon the responder according to the November 18, 2009 memo from Bruce Hudson to Gary Fisk (*Appendix BB*). This memo went on to recommend emergency access at Burch Road (1.4 miles from Van Buren Station 19 in Stanford) that would reduce the access times to I-69 to approximately 4 minutes and response time to the mid-point to 6 minutes, completely negating the need for the County Line interchange at significant cost savings. That memo further pointed out the importance of that emergency access point related to providing initial containment for spill incidents in the highly karst area of southwestern Monroe County. The DEIS repeatedly states the County Line interchange was added after listening to emergency responder in 2005, so why does it seem to ignore those same responders making a better recommendation in 2009. It is sad that this great solution is buried in the back of an appendix with no mention or consideration of it in the main document.

If Option 3 were selected over Option 1, it would have the added benefit of improving the emergency response times by the Indian Creek Township Fire Department and the Center Township Volunteer Fire Department to the stretch of I-69 between Hobbieville and SR 45 via the SR 54 interchange.

In summary, Option 3 with emergency access at Burch Road would be a much better solution for emergency response compared to Option 1 while savings millions of dollars in the process

(perhaps some of this saved money could fund a complete haz-mat/spill response team at Station 19).

Summary: In closing, I have studied the DEIS very carefully and I do not see compelling evidence to select Option 1 as the “recommended” interchange option, and in contrast, I see many objective reasons to select Option 3 including a lower cost, equal or near equal performance, and significantly reduced environmental impacts.

Dunlap: I-69 Section 4 Interchange Options Comments, page 7 Sincerely,
Keith Dunlap PE 32 Troon Ct Greenwood IN 46143 317.882.5420

Response:

This letter was submitted as a comment on the Section 4 DEIS. It was addressed in Section 4 FEIS, Volume III, Response to Comment PI581.

CARR01-133

Comment:

B: Preserving Karst, Slight Change In Alignment:

RECOMMENDATIONS FOR CHANGES IN THE ‘BIG BEND’ SEGMENT OF I-69 SECTION 4 IN WESTERN MONROE COUNTY, INDIANA

Submitted as Comments on I-69 Evansville to Indianapolis Tier 2 Studies, Section 4 – US 231 to SR 37

by Patrick J. Munson, 6707 W. Rock East Rd., Bloomington, IN 47403 October 26, 2010

The present corridor and alignment of Section 4 (‘existing alignment’ hereafter) crosses Indian Creek just north of Hobbieville and continues northward as it ascends the east wall of the valley of the creek to Carter Road near the Greene-Monroe County line. It then continues northward, descends back into the Indian Creek valley and crosses the creek once again. After threading its way between the historic Virginia Ironworks (on the east) and the historic Sparks Cemetery (on the west) it ascends to the crest of the west wall of Indian Creek valley. At that point it abruptly turns eastward, descending, once again, into the valley and crossing Indian Creek for the third time. Continuing eastward the alignment punches through or climbs over a ridge that separates Indian Creek from the valley of the unnamed tributary that runs parallel with and south of Evans Road, and then continues eastward and ascending to Harmony Road, where it punches through the high ridge that is the crest of the Chester Escarpment (and the watershed between the Indian Creek and Clear Creek drainages).

The ‘Big Bend’ between where the existing alignment crosses Carter Road and where it crosses Harmony Road *makes no sense*. What does make sense, from a number of considerations, is an essentially straight-line, southwest-northeast connection between the Carter Road and Harmony Road crossings (see following map). There would be four major advantages to choosing this proposed alignment for this segment of Section 4:

1. The alignment proposed here is slightly more than one mile shorter than the existing alignment.
2. The existing alignment has three crossings of Indian Creek (requiring three bridges and associated cuts and fills, as well as wetland mitigation). The proposed alignment has one crossing.
3. The existing alignment between Carter Road and Harmony Road, per above, has three ascents and three descents. Disregarding modifications from cuts and fills, proceeding northbound these ascents-descents involve a 200 foot descent from Carter Road to the crossing of Indian Creek, a 130 ascent from the creek to the sharp north- to-east bend, a 120 foot descent back down to the creek, a 150 ascent to the crest of the east wall of Indian Creek valley, an 80 descent to the floor of the valley of the tributary that parallels Evans Road, and

then a 170 foot ascent to Harmony Road. In contrast, the proposed alignment from Carter Road to Harmony Road has a single 2“smooth” ascent of only 50 feet over nearly four miles (an imperceptible grade of 0.25%).

4. The segment of the existing alignment between Carter Road and Harmony Road impacts approximately 25% on all karst features that occur within the entirety of Section 4, including three “unavoidable” large swallow holes (‘swallets’) that lie 1000 to 3500 feet west of Harmony Road and 500 to 1000 feet south of Evans Road. Further, there is (in my opinion) at least a 90% probability of a substantial (but as of yet undocumented) horizontal cave system directly under the existing alignment along the west wall of Indian Creek valley just west of Breeden Road (see Munson et al., February 2, 2004, Addendum to: Assessment of Sinkhole Areas and Karstic Features that were omitted in the Final Environmental Impact Statement for the Proposed I69 Alternate 3C Corridor). The alignment proposed here lies along the northwest edge of the crest of a high ridge (which is the watershed between the Indian Creek and Little Indian Creek valleys). Because of the elevation of this ridge it is underlain mostly by thick sandstones of the Sample, Elwren, Big Clifty, and early Pennsylvanian members (the exception is the thin—c. 10 foot thick—Beech Creek Limestone, but other than small springs this limestone in this area rarely contains karst features). From my personal knowledge of the area, I predict that the proposed new alignment segment would cross zero sinkholes, zero caves, and at most five or six small, inconsequential springs.

The question that now presents itself, given the arguments for the alignment proposed here, is what was/is the rationale for the ‘Big Bend’ in the existing alignment? I have asked this question repeatedly to persons employed by INDOT and who presumably are in a position to know. The only answer I’ve received is that it was done to avoid impacts on the historic Virginia Ironworks complex. This is, to put it bluntly, utter nonsense. The existing alignment passes about 1000 feet west of the iron furnace and its associated building and about 3000 feet north of the iron ore mines. However, if the alignment turned northeastward at Carter Road, as proposed here, it would miss the furnace and associated buildings by 7/8ths of a mile and the ore mines by 1.25 miles. The only thing of substance relative to the ironworks that the proposed alignment comes close to is an historic sandstone quarry (archaeological site 12-MO-1187) that *might* be associated, but (a) there is no documentation that this site was in fact associated with the ironworks, and (b) the site lies about 800 feet north of the proposed alignment. Lastly, anticipating the argument that “we can’t change the corridor at this late date,” I offer some purely economic considerations. Certainly considering four miles of new corridor would involve millions of dollars for assessment of environmental impacts and for engineering studies. But this would be offset by savings that I’m sure would be measured in tens of millions of dollars (50 million total??) if the corridor was moved in this segment of Section 4. Specifically, the proposed corridor segment has one mile less ROW, has two fewer bridges, has six fewer large cuts and fills, and avoids the cost of mitigation of about 25% of the karst features that are present in the entirety of the existing Section 4 alignment.

Response:

This letter was submitted as a comment on the Section 4 DEIS. It was addressed in Section 4 FEIS, Volume III, Response to Comment PI658.

CARR01-134

Comment:

C: Preserving Karst, Slight Change in Corridor:

Indiana Karst Conservancy, Inc. "PROTECTING CAVES THROUGH ACTIVE CONSERVATION"

PO BOX 2401 · INDIANAPOLIS, IN, 46206-2401 · IKC.CAVES.ORG October 16, 2010

Mr. Gary Fisk Section 4 Project Manager PO Box 8464 Evansville IN 47716

RE: I-69 Tier 2 Section 4 DEIS comments Dear Mr. Fisk:

The Indiana Karst Conservancy is a non-profit environmental organization focused on cave and karst protection in Indiana, so as you can imagine, our organization is quite interested in Section 4 of the I-69 project. We have reviewed the entire Section 4 Draft Environmental Impact Statement and the unredacted *Survey of Karst Features Report* (Appendix AA) and have a number of general comments and concerns. We have also collaborated with other reviewers on specific details and analyses and understand their comments are being submitted, so we will not duplicate those comments in detail in this letter.

We would first like to complement InDOT and the preparers of the *Survey of Karst Features Report*. The document is thorough and well organized with extensive maps detailing the karst features found, recharge areas delineated, and the dye traces completed. However, we think this document was subsequently poorly used (and mis-used) in that it gave InDOT over confidence by having a specific list of features to avoid in the existing corridor, rather than an understanding that I-69 is entering a mine-field of "unexploded ordnance" waiting to be uncovered as the bulldozers proceed. We understand InDOT's position that "failure is not an option" in constructing I-69 and one way or another there will be a highway that spans from the start point at Section 3 and ends at SR 37 in Bloomington. However, we firmly believe that InDOT failed to exercise all of the options afforded to them in the Tier 1 Record of Decision, specifically, **"...the flexibility will exist to consider alternatives outside the selected corridor to avoid significant impacts within the selected corridor."**

The *Survey of Karst Features Report* clearly indicated numerous "hot spots" east of Rockport Road and the DEIS perhaps correctly suggested that shifting the alignment north or south would likely just find more "hot spots", so the "head down and plow ahead" approach basically categorized the impacts as "unavoidable". We do not necessarily agree with this, but have no viable alternatives to suggest other than to not build the highway.

However, west of Rockport Road, while the densities of karst features are less, there are many more opportunities to avoid such features beyond tweaking the alignments within the corridor. Missing a few identified features is no assurance major caves passages will not be intersected (caves are like icebergs, most are hidden below the "waterline"). We suggest that InDOT should have looked at alignments shifted significantly outside of the given corridor, such as the proposal attached at the end of this letter. While obviously there is no guarantee this alignment would not also encounter some karst features, the impact likelihoods are less

IKC I-69 SECTION 4 DEIS COMMENTS, PAGE 2 for two reasons: first it is a shorter route (1 to 1-1/2 miles depending upon the in-corridor alignments) and second, much of the alignment runs on the top of the ridge.

Basically the alignment we are proposing would replace portions of sub-sections 4F and 4G. The new alignment would follow Alternatives 4F-1 east of Hobbieville to the point where it crosses Indian Creek. From there the alignment would parallel the eastern boundary of the existing corridor east of Carmichael Cemetery to the point where the alignment would cross into Monroe County. From there it would curve east along the ridge top, staying on the ridge top in township sections 18, 17, 8, and 9, passing just south of Mt Zion Church where it would re-enter the existing corridor and blend back into the existing 4G alignments just west of Rockport Road.

Approximately 3-1/2 miles of the proposed alignment would venture outside the Tier 1 corridor, less than 3% of the entire I-69 corridor.

Independent of the karst impact avoidance, this shorter alignment would greatly reduce the right-of-way and mitigation acres needing to be acquired, reduce the number of stream crossings (particularly Indian Creek), reduce the vertical profile variation significantly, improve a number of performance metrics (reduced travel time, improved safety, reduced user operating expenses, reduced auto emissions, all the result of eliminating 13 to 20 million miles traveled per year) and perhaps most importantly, reduce the initial construction costs by \$17 - 40 million. Looking at construction and users costs for the first 20 years, the proposed alignment would save \$50 - 92 million in present value dollars, potentially 10-20 % of the entire Section 4 initial cost, and avoid 150,000 tons of CO₂ being produced (a concern that will grow significantly in the next 20 years). While we understand looking at a new alignment outside of the corridor at this stage of the project would result in additional scoping and some confusion, we feel that neglecting to do so would be completely irresponsible and a breach of the NEPA process to study viable alternatives authorized under the Tier 1 ROD. To us, the DEIS is flawed without such an alternative being considered.

Our second major issue to comment on is the DEIS 's recommendation for interchange Option 1 which includes the Greene/Monroe County Line interchange. We have carefully studied the reasons and rationale for adding this post-Tier 1 interchange. While we understand the perception of why this interchange is desirable for local access and utilization, our evaluation concludes that this interchange provides very little, if any, benefit over traveling to Bloomington via the existing SR 45 route. Emergency response on I-69 was another justification for this interchange, but a DLZ study in Appendix BB suggests a much better solution would be to have an emergency entry point at the Burch Road grade separation. Our preference would be the Tier 1 proposed interchanges at SR 54 and SR 45 (Option 3). These interchanges would provide local access for those who could benefit from I-69 and better serve emergency responders along the western half of Section 4. Option 3 would also be much less expensive and have less direct impact on right-of-way footprint, stream crossings, resident noise exposure, and residential and business relocations.

However, our main objection to the Green/Monroe County Line interchange are the same objections USFWS and EPA raised in Tier 1, that being the increase of indirect impacts on karst due to development in western Monroe County along SR 45 and potential impacts on Ray's Cave due to development on SR 54 west of SR 445. The concerns raised during the IKC I-69 SECTION 4 DEIS COMMENTS, PAGE 3

Tier 1 study, which we concur with, were that an interchange between SR 37 and SR 54 would leapfrog development into far western Monroe County and eastern Greene County, rather than the slower "sprawl" emanating from Bloomington. We also disagree with InDOT's stated logic in the DEIS that this interchange would "demote" the upgrading of SR 45, thus slowing development west of Bloomington (page 6-39). It is the level of congestion that slows growth. It does not matter if the congestion is decreased by upgrading SR 45 or by diverting traffic off SR45 onto I-69, the end result is the same, development is encouraged when transportation facilitates it. So the County Line interchange would encourage "sprawl" by reducing congestion closer to Bloomington **and** encourage new growth around the SR 45/SR 445 intersection growing in all directions.

The County Line interchange would also directly inject development into Ray's Cave five-mile Winter Active Area, something we thought InDOT had agreed to avoid during the Tier 1 consultation with USFWS. With the onslaught of White-nose Syndrome, minimizing development in this cave's WAA will be critical for the survival of the Indiana bat. Finally, we also find it objectionable that InDOT is not honoring its Tier 1 commitment to not have an interchange in western Monroe County. While technically the proposed interchange is located just feet into Greene County, we feel the spirit and intent of the commitment is being violated. It

is clear from all the agency communications in Appendix C that the County Line interchange is contentious. It is even more disheartening when there is no compelling analysis to support this interchange compared to reverting to interchanges at SR 54 and SR 45 as proposed in Tier 1. We feel InDOT has done a huge injustice to the environment in ignoring USFWS's and EPA's position by promoting, then recommending the County Line interchange.

Sincerely

James Adams Secretary Indiana Karst Conservancy

cc: USFWS, EPA

Response:

This letter was submitted as a comment on the Section 4 DEIS. It was addressed in Section 4 FEIS, Volume III, Response to Comment PO-007.

CARR01-135

Comment:

D: Critical Length of Grade

Mr Gary Fisk Section 4 Project Manager PO Box 8464 Evansville IN 47716

RE: I-69 Tier 2 Section 4 DEIS comments (Critical Length of Grade)

Mr Fisk:

As an engineer who works in the commercial transportation industry, where productivity, costs, and safety are paramount, I was quite interested in the Appendix GG, *Low Cost Design Memorandum*. While there are certainly design criteria that can be implemented to save construction costs, reduce the project's environmental footprint, and have little long-term impact to the user's safety and operational costs, the proposal to change the Critical Length of Grade (from 10 mph to 20 mph allowed speed reduction of heavy vehicles) immediately put up a red flag for me. And as I read the details and studied the justifications provided in the deviation request, it became apparent that the analysis of this criterion was incomplete and unsophisticated, some of the assumptions appeared flawed, and the approach taken to accept a significant increase in the number of deaths and injuries to save upfront costs using a simple benefit-to-cost analysis without looking at the absolute numbers was frankly rather morbid. With one of the supposed goals for the I-69 project being to improve overall safety, it seems completely inconsistent to accept design changes that would drastically compromise this goal. I would also suggest that if you utilized this same justification approach of safety benefits verses cost for the entire \$533-798 million Section 4 project, one would have to conclude the highway should not be built.

In addition to compromising the goal of improved safety by increasing the Critical Length of Grade, other goals and performance measures in Table 2-4 potentially are impacted including efficient transportation of goods that impact economic development and even the stated goal of "*Development of a freeway which meets current design standards*". Somehow, having to formally request for a design deviation from current minimum standards would clearly indicate that InDOT is not serious about meeting their own goals for the project.

As I understand it, venturing below the current AASHTO "Green Book" standards can expose the State to tort liabilities should an accident occur as a result of the below standard design (FHWA's *Flexibility in Highway Design*, Chapter 2). This is particularly true if the original justification for the deviation was flawed.

The following is my analysis and comments on information presented in the October 1, 2009 Office Memorandum from Gary Fisk to the I-69 Tier 2 PMC. I do not design highways for a living, so some of the approaches and assumption may be common in the industry even if they do not seem obvious to me, but I am familiar with the physics and dynamics of vehicles and

characteristics of human drivers so hopefully my insight and alternative analyses will be useful.
August 20, 2010Dunlap: I-69 Section 4 Low Cost Design Standards Comments, page 2

Comments:

1) The Benefit-to-Cost Ratio Analysis (B/C) spreadsheet calculations attached in Appendix GG were based on a 20-year return (I see nothing magical about the year 2030). However, the design changes being considered will impact users for the next 50-100 years, as it is not likely that the highway vertical profiles will ever be changed during the lifetime of the highway. So for the first example at grade 368+00 to 410+00 SB, rather than evaluating the 0.44 B/C value* at 20 years, one should look at 0.84 at 50 years or 1.16 at 100 years. Basically, if the highway is to be in service for more than 70 years (B/C=1.0), which it very likely the case, the decision to accept the sub-standard design change is not justifiable. Looking at this in absolute values, during the first 50 years of service, **this one 0.8 mile section of the interstate**, if designed to the deviated standards will statistically result in an **additional** 4 deaths, 73 injuries, and 303 property damage accidents compared to the highway constructed to industry standards. I'm sure the families of these 4 victims (and all the other victims who died on the other sub-standard grades proposed in Section 4) will be understanding that InDOT calculated their "costs" and decided it was cheaper to build an inferior highway after using a one page spreadsheet to justify their decision.

2) There seems to be a huge difference in the "costs per accident" values used in the deviation calculations verses those quoted in the DEIS. In Table 5.5-4 (page 5- 170), the cost of a fatal crash is \$4,720,000, for an injury the cost is \$103,000, and for a property damage accident it is \$5,400. In the deviation calculation, the combined value of fatalities and injuries was \$75,000 and \$6500 for property accidents. Since the values in DEIS seem more current (and more realistic), I think those are the ones that should have been used. Recalculating the InDOT spreadsheet for the first example, the breakeven point is only 12 years and the B/C value at 20 years was 1.61, and 3.11 for 50 years. This change alone would indicate the deviation should not be accepted.

3) According to the Critical Length of Grade discussion in Appendix GG, "*InDOT B/C analysis methodology calculates a user benefit based upon savings from reduced accidents as one of the main factors.*" My comment would be that ignoring the other major user costs as discussed on page 5-169 in the DEIS (e.g., cost of additional used fuel, extended commercial driver costs) in the B/C analysis is biased and these costs should be included. If the design is changed to create longer grades where a commercial vehicle is running at a slower average speed over the same horizontal length, there are direct costs associated with the design. For the 0.8 mile grade used in the first example, and assuming a 5 mph average delta reduction over the length of the grade, a driver wage of \$15/hr, a fuel costs of \$3/gal, a WOT fuel usage of 22 grams/sec, and 2671 trucks per day, I calculated an **additional** "user cost" of \$105,300/year for the 20 mph design compared to the standard 10 mph design. Including these costs in the B/C analysis, the breakeven point is now only 9 years, the B/C value at 20 years would be 2.17 and the B/C value at 50 years would be 4.18. To look at absolute

* Note, in this context, a B/C value of less than 1.0 would indicate the "costs" of the projected deaths, injuries, and accidents occurring on the sub-standard highway does not exceed the cost to construct the highway to industry standards, so the sub-standard highway is "acceptable". A B/C value greater than 1.0 would suggest the sub-standard (low-cost) design should be rejected.

Dunlap: I-69 Section 4 Low Cost Design Standards Comments, page 3

numbers, over the first 50 years **on just this one 0.8 mile grade**, an additional 2.5 million gallons of fuel would be consumed, 28,000 tons of additional CO2 emitted, and 101,000 man-hours lost if the sub-standard design is constructed. There would also be greater user costs for light vehicles having to navigate more aggressive vertical road profiles resulting in decreased fuel economy, but those are not easily quantified using the simplistic approach employed here.

4) In addition to the tangible users costs of safety and those discussed in the above paragraph, there are also many less tangible user “costs” that may be hard to calculate, yet should be discussed (and should have at least been mentioned in the Low Cost Design Standards document). These “costs” include increased emissions (directly proportional to additional fuel burned), increased noise (trucks operating at WOT conditions for a greater period of time over the same horizontal distance), increased insurance related to higher county accident rates, and increased light vehicle driver annoyance of having to pass slow-moving trucks. While the grade discussion is focused on the longer/steeper uphill grades, since the alignments are not being bifurcated, the sub-standard design would also have matching longer/steeper downhill grades which would encourage truck to over speed (another safety issue), increase service brake usage (resulting in greater maintenance costs), increase exhaust brake (Jake brake) usage (significantly increases noise), and proportionally increased diesel emissions (current technologies work best under steady state conditions and more aggressive vertical highway profiles cause variations/cycling in fueling rates that decrease the overall effectiveness in emission treatment).

5) On sheet 2 of 3 of the Level 2 Deviation for Critical Length of Grade (dated 9/17/2009 calculated by “CMG”) it appears the F10, I10, and PDO10 calculations are incorrect. These would appear to be the baseline F0, I0, and PDO0, if I am following the calculations. I believe the proper F10, I10, and PDO10 should be 3.66 times the given values. This would also increase the F20, I20, and PDO20 values by the same 3.66 value. Thus for the first example, the F20 value should be 0.235/yr, the I20 value should be 4.063/yr and the PDO20 value should be 16.957/year. Using these values in InDOT’s B/C analysis worksheet using the 5.5-4 costs, the breakeven point would be less than 3 years with a B/C value of 5.98 at 20 years and a B/C value of 11.55 at 50 years. If one assume other major costs are included as was done in comment 3) above, the breakeven point would still be less than 3 years with a B/C value of 6.537 at 20 years and a B/C value of 13.98 at 50 years.

6) While the design standard for the highway is 70 mph, the speed limits for trucks in Indiana is currently 65 mph (this was acknowledged in the discussion, but ignored in the analysis). Thus, a design that uses a critical length of grade based upon a 10 mph reduction is creating a situation where the truck is actually slowed to 55 mph while the light vehicle traffic remains at 70* mph, resulting in a delta speed of 15 mph. Likewise, a design that uses a critical length of grade based upon on a 20 mph reduction could slow a truck to 45 mph resulting in a 25 mph * InDOT’s Corridor Travel Demand Model would indicate that the actual free-flow speed estimate would be 73.3 mph for a full access-controlled multilane highway posted 70 mph. This estimated speed might even be conservative for light vehicles if the 73.3 mph average is an aggregate of all vehicles with heavy vehicles constrained by the 65 mph posted speed limit.

Dunlap: I-69 Section 4 Low Cost Design Standards Comments, page 4

delta. Using the same InDOT methodology, for the first example, the F20 value would increase to 0.401/yr, the I20 value would increase to 6.933/yr and the PDO20 value would increase to 28.934/year (note, I had to extrapolate the AASHTO Exhibit 3-58 involvement rate chart at 25 mph since they do not provide data at that extreme – this should be another red flag that this is an unacceptably dangerous operating condition). The Crash Reduction Factor for the first example (25 mph to 15 mph delta) would also decrease to 0.67. Using these numbers in the B/C analysis worksheet assuming the 5.5-4 costs would result in a breakeven point of less than 2 years with a B/C value of 9.00 at 20 years and a B/C value of 17.38 at 50 years. If one assume other major costs as was done in item 3) above, the breakeven point would still be less than 2 years with a B/C value of 9.55 at 20 years and a B/C value of 18.45 at 50 years. If you would prefer to put this in terms of absolute safety for **this one 0.8 mile stretch of highway**, selecting the substandard design over 50 years would statistically result in an **additional 23 deaths, 401 injuries, and 1672 accidents.**

7) To be constructive, if I had been tasked to perform this analysis, I would have employed a more sophisticated system-level approach that would not look at individual segments of the highway as was done in *Appendix GG*, but rather determine an aggregate safety value and user performance costs over the entire Section 4 segment for the standard and “low-cost” designs. This approach would much better represent the true tradeoffs of the two designs and provide comparative absolute numbers that could then be balanced with the increased cost of construction. Since the two vertical profiles are known (Appendices R1 and R2), commercial vehicle performance simulations* could be conducted assuming a representative vehicle (or array of typical vehicles) in both directions on both designs to obtain overall fuel consumption, total travel time, and composite safety values. For each profile, the composite safety value would be computed summing localized values calculated for small finite increments (say ten-foot lengths or whatever fidelity the vertical profiles are described). Using crash involvement rates, traffic volumes, and InDOT’s death, injury, and accident values the total section cost of decreased “safety” could be calculated for each design.

Combining these with fuel use and wage costs would give total user costs for the two profiles. The differences in total user costs over the life of the highway could then be compared to the initial cost of the two designs. The comparison could also be extended further by using the same simulation software to predict the fuel usage of representative light-duty vehicles on the two profiles, then including those user costs in the comparison.

8) In the deviation to accept the sub-standard Critical Length of Grade, there was a brief discussion on the consideration to add truck-climbing lanes on the steeper/longer grades as InDOT’s highway standards (IDM) recommends. This apparently was dismissed as unnecessary, justifying the decision that the highway will have “sufficient capacity so that slow moving vehicles does not impede the following vehicles that can readily move left to the adjacent lane without difficulty.” It would seem InDOT engineers have never traveled I-70 or I-64 in areas where there are long grades and commercial trucks. You essentially force all the light vehicles into the left hand lane all the time and heaven forbid if you

* If InDOT does not have such simulation software, it is readily available. One such simulation package is PSAT from the Department of Energy’s Argonne National Laboratory.

Dunlap: I-69 Section 4 Low Cost Design Standards Comments, page 5

have one semi-truck trying to pass a second (slower) truck on a grade where you then back up and compress traffic in both lanes, a prime ingredient in chain- reaction pile ups. This is not a condition one would expect for a 21st century designed highway. I think it is also curious that Indiana highways designed 40 years ago (e.g., SR 37 between Bloomington and Martinsville) included numerous truck-climbing lanes, yet I assume when Section 5 of I-69 is reconstructed, these lanes will be deemed as unnecessary. This just doesn’t seem logical.

So forgive me when I have to disagree with your statement that your deviation request was made after “...careful consideration of impact to safety, mobility, and project costs”.

From the above re-analyses with the Benefit-to-Cost ratios greatly exceeding 1.0, it would only seem appropriate that InDOT immediately withdraw their original request dated October 28, 2009 for the level 2 deviation based upon the flawed/inconsistent assumptions and simplistic methodology used to justify the stated recommendation for such a significant design change.

In closing, as a Professional Engineer, regardless of the methodology that could have been used, I find it very troublesome that the agency that is responsible for designing and constructing safe highways in Indiana would pursue major designs changes that intuitively should be discarded (without the need for B/C calculations) when it is clear the change could significantly decrease the safety of the design. If InDOT can’t afford to construct highways that meet national and your own design standards and provide acceptable safety to the users, perhaps InDOT need to rethink their priorities and construct fewer highways to stay within their budgets.

Sincerely,
Keith Dunlap PE 32 Troon Ct Greenwood IN 46143 317.882.5420

Response:

This letter was submitted as a comment on the Section 4 DEIS. It was addressed in Section 4 FEIS, Volume III, Response to Comment PI580.

CARR 02

E-mailed Comments to FHWA – 08/23/2011

CARR02-01

Comment:

From: Thomas & Sandra Tokarski [carr@bluemarble.net]
Sent: Tuesday, August 23, 2011 10:04 AM
To: Robert Tally; max.azizi@dot.gov; execsecretariat.fhwa@fhwa.dot.gov;
Westlake.Kenneth@epamail.epa.gov; Hilden, Laura
Subject: additional comments I-69
Attachments: FEIS additions.docx; ATT00001..htm

Enclosed are additional comments from Citizens for Appropriate Rural Roads on the I-69, Tier 2 Section 4, FEIS. Please include them in the official record for this project.

Thomas Tokarski

August 23, 2011

The following are additions to the comments of Citizens for Appropriate Rural Roads(CARR) for the I-69, Tier 2, Section 4, FEIS. Please include them in the official record.

The section on safety changed significantly from the DEIS to the FEIS. Due to changes in categories of highways and the categories of crashes studied, it is difficult or impossible to compare the DEIS numbers with the FEIS numbers in Tables 2.3 However, it now appears that accident rates are down for all categories of highways so the DEIS numbers were incorrect. These updated statistics were available for use in the DEIS. Why were they not used? In spite of lower accident rates, it now appears that there will be more accidents with the I-69 build scenario versus the no-build scenario (Tables 3-10, DEIS and FEIS). It is unclear if these tables are comparable since the categories in Tables 2.3 are different. Are the categories used to Tables 3-10 the same in the DEIS and FEIS?

Response: In response to a comment provided on the DEIS by this organization, more current crash rates were identified and used in the FEIS. See Response to Comment PO009-13 in Volume III of the FEIS. Table 3-10 provides data by type of road (interstate and non-interstate), type of crash (fatal, injury and property damage), and county in both the DEIS and FEIS; the categories were not changed.

CARR02-02

Comment:

Since vehicle miles traveled is expected to increase across the board with a new interstate through a region, this will lead to more accidents. The rationale that traffic will be diverted off local roads to the interstate is true to some extent but it will also put more traffic on local roads. This complex of changes is not well explained.

Response: Vehicle miles traveled will increase in the Section 4 project area due to I-69. Overall crash rates will be significantly reduced, since travel on interstate highways is much safer than travel on other roads. See FEIS Table 2-3, which shows that crash rates on interstate highways are one-third to one-fourth those on two-lane state highways.

CARR02-03

Comment:

I-69 is being built to different standards than typical interstate highway to save money. The safety impacts of these differing standards must be addressed. For example, how does increasing the allowable grade impact safety? Since I-69 is planned to be a major international truck corridor this change should be significant.

Response:

As outlined in the FEIS, INDOT is considering a range of design criteria for I-69, Section 4. The Section 4 FEIS, Appendix GG - Low-Cost Design Memorandum summarizes the design criteria differences between the Initial design criteria and Low-Cost design criteria. Both sets of criteria satisfy the "13 Controlling Criteria" identified by FHWA and reiterated in the Indiana Design Manual as Level One design criteria. These 13 criteria have been identified by FHWA as having substantial importance to the operational and safety performance of any highway such that special attention should be paid to them in design decisions. To clarify, the maximum allowable grade for a freeway (a level one design criteria) is not proposed to be exceeded. The impacts on safety, costs, and the environment for utilizing the design flexibility of the "critical length of grade," a level two design criteria, were examined in Appendix GG. The proposed criteria have been reviewed and approved by INDOT and forwarded to the FHWA. There is no evidence that the road will be less safe. These criteria will be further reviewed and all decisions regarding which criteria will be used for I-69 will be made during final design.

CARR02-04

Comment:

Also, in the FEIS it was revealed that the interchange at SR-37 and I-69 will not be built until Section 5 is built. In the interim, a stoplight will be place at that intersection. The impact of this change on Level Of Service and accident rates has apparently not been studied. Since there is currently no time schedule for completing Section 5 the stoplight will be in place for years.

Response: See Response to Comment HEC 01-11.

DHPA01
Letter to Laura Hilden (INDOT) – 08/15/11

DHPA01-01

Comment:

Pursuant to the National Environmental Policy Act of 1969, as amended (42 U.S.C. § 4321, *et seq.*) and Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. § 470f) and implementing regulations at 36 C.F.R. Part 800, the staff of the Indiana State Historic Preservation Officer has selectively reviewed the final environmental impact statement (“FEIS”) submitted under your cover letter, which was received on July 14, 2011 for the aforementioned project in Greene and Monroe counties in Indiana.

We have no comments on impacts to archaeological resources and above-ground historic properties beyond those we have offered previously.

Response:

Comment noted.

DHPA01-02

Comment:

If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations.

If you have questions about archaeological issues, please contact Dr. Rick Jones at (317) 233-0953 or rjones@dnr.IN.gov. Questions about buildings or structures should be directed to John Carr at (317) 233-1949 or jcarr@dnr.IN.gov.

Response:

Comment noted.

Dunlap01
E-mail from Keith Dunlap to Project Website – 07/27/2011

Dunlap 01-01

Comment:

On the FEIS, links to Appendices A & B are broken on the website. Also, there is no Appendix NN (website or DVDs), yet it is referred to multiple times in the Comments/Response section.

Response:

On July 28, 2011, the commenter was informed that the links for Appendices A & B had been established and were available for review. The commenter was informed that Volume III, Part A (Responses to Comments) located on the website and the DVD version available for review contained three locations that required corrections. The commenter was informed that a "corrected" version had been posted to the project website. The commenter was informed that DVD copies to be made available for review were in the process of being replaced.

Dunlap02
E-mail from Keith Dunlap to Project Website – 07/28/2011

Dunlap 02-01

Comment:

What about Appendix NN which is supposedly an analysis and response to Pat Munson and the IKC's suggestion for a different alignment?

Response:

See response to Dunlap03-01, below.

Dunlap03
E-mail from Keith Dunlap to Project Website – 07/28/2011

Dunlap 03-01

Comment:

I have not gotten a response about the availability of Appendix NN. Do I need to file a FOI request to obtain this document?

Response:

On August 5, 2011, the commenter was informed that the request for what was labeled as "Appendix NN" in some copies of the Section 4 FEIS had been received. The commenter was informed that the text in the FEIS that refers to Appendix NN was in error. It was explained that there was no Appendix NN in the Section 4 FEIS. It was explained that the erroneous reference had been removed and corrected copies had been distributed to all who received the Section 4 FEIS. It was determined that there was no need for an appendix to explain the rationale for deciding not to evaluate potential alignments from Mr. Munson (PI322) and from the Indiana Karst Conservancy (PO007) and that the rationale for making that determination could be fully explained in responses to those comments. Additional analysis of the suggested alignments was performed and has been made part of the administrative record for this project.

Dunlap04
E-mail from Keith Dunlap to Jason DuPont – 08/15/2011

Dunlap 04-01

Comment:

I'm not sure if you are the correct person to be e-mailing this inquiry to, but you were the contact I came across as the PMC for Section 4. I have questions and concerns over the revised analysis performed to justify the Level 2 Design Exception related to the Critical Length of Grade documented in Appendix GG of the Section 4 FEIS. I had previously submitted extensive comments on this subject for the DEIS (see comment letter PI580). While some of the previous errors were corrected, many of my other comments were dismissed and it is still my personal and professional opinion that the evaluation is incomplete, flawed, and do not adequately protect the safety or financial interests of the citizens of Indiana.

If you could please explain to me, what is the process used to review and approve Design Exceptions. Are they independently reviewed? Does the FHWA review them? How are deviation decisions documented beyond the original deviation request. Also what are my options to submit comments and/or ask for addition review of this analysis.

Response:

Critical Length of Grade is identified as a Level Two Design Criteria in the Indiana Design Manual (IDM). The IDM defines a Level Two item as follows (Section 40-8.02(02)):

Level Two design criteria are those which are judged to be important indicators of a highway's safety and serviceability, but are not considered as critical as the Level One criteria. If a Level Two criterion is not satisfied, the designer will document in the project file that the criterion has not been satisfied and will provide a brief rationale for not satisfying it. However, it is not necessary to prepare an in-depth documentation to justify the decision.

Furthermore, Item 2 under Section 40-8.03 of the IDM states:

The design exception process will be applied as follows: Federal-Aid Project on the National Highway System. A design element that does not satisfy the Level One criteria will be addressed as described in Section 40-8.04. For a Level Two design exception, the designer should inform FHWA of the exception if the project is not exempt from FHWA oversight.

Based on the above, the approval process for a Level Two exception is as follows: A memo (or other form of documentation) is prepared and submitted to the INDOT Project Manager for his "concurrence" and a copy is then contained in the project file. In addition, this documentation is provided to FHWA for their information.

For I-69 Section 4, a "global" memo was prepared as part of the EIS/Engineer's Report to document the concurrence and general use of the Critical Length of Grade level two design exception. During the final engineering and design, the designer will be required to prepare individual Level 2 Design Exception memos documenting each instance where the critical length of grade is exceeded. These will again be submitted and reviewed by the INDOT Project Manager for his "concurrence" and documentation will be provided to FHWA.

Dunlap05
Letter from Keith Dunlap to Laura Hilden (INDOT) – 08/16/2011

Dunlap 05-01

Comment:

I received your letter today dated August 15th 2011 detailing the changes made to the "corrected copy" of the re-distributed Volume III DVD. Your letter states that the "only" changes made to the DVD were to remove the three references to "Appendix NN". However, if you compare the original response to the "corrected" response for PO007-03, it appears significant additional information was removed from the original disk, specifically that the IKC's suggested alignment would cost \$37 million less to construct, an important fact to consider. As far as I can tell, this detail is not documented any place else in the FEIS.

I don't know if this discrepancy was your fault, or that you were simply misinformed by someone else at InDOT or one of your contractors, but regardless, I think your letter was misleading and untruthful, and further erodes any creditability that your agency has with the public.

Original P0007-03 Response:

See response to Comment PO007-02, which determined that the lack of a significant reduction in karst impacts precluded consideration on this alternative. The potential cost reduction noted in this comment is a secondary issue which would not be considered unless there was a significant reduction in karst impacts. In that context, the suggested alignment would cost about \$37 million less to construct in Year 2010 dollars (see Appendix NN). INDOT weighs any cost savings for this portion of the project against the risk of increased total project costs for all of Section 4. Recently, INDOT has found the bid environment for construction projects to be favorable. Bringing projects to bid in an expedited manner takes full advantage of this environment. If additional time to bring the Section 4 project to construction results in increases in construction bid prices, it could negate much or most of this cost difference. For example, were the time taken to fully consider the Munson Alignment result in an increase of 3 -4 % in total project cost, the Section 4 project cost would increase by \$16 to \$29 million.

Corrected Response:

Please see response to Comment PI322-01.

Response: As the corrected response to Comment PI322-01 states in detail, the key issue in considering the alignments outside the corridor is whether they avoid significant impacts within the corridor. The response clearly shows that neither of these selected alignments would avoid significant karst impacts. Once this has been established, no further consideration of the suggested alignments is warranted.

Dunlap06
E-mail from Keith Dunlap to Jason DuPont – 08/16/2011

Dunlap 06-01

Comment:

Please re-read my original e-mail as I asked some specific questions that I would like a legitimate reply. If you are not the responsible person or can not answer my questions, then please inform me who I should contact concerning my questions.

Response:

On August 17, 2011 the commenter was informed that all questions submitted will be addressed as comments to responses on the FEIS, which will be included in the Section 4 Record of Decision (ROD). It was explained that no interim responses would be provided. Original e-mail cited in this comment is Comment Dunlap04.

Dunlap07
E-mailed Letter from Keith Dunlap to Robert F. Tally (FHWA-IN) – 08/22/2011

Dunlap 07-01

Comment:

As a Professional Engineer who works in the commercial transportation industry, where productivity, costs, and safety are paramount, I was quite interested in the original DEIS Appendix GG, Low Cost Design Memorandum. While there are certainly design criteria that can be implemented to save construction costs, reduce the project's environmental footprint, and have little long-term impact to the user's safety and operational costs, the proposal by InDOT and their contractor DLZ to change the Critical Length of Grade (from 10 mph to 20 mph allowed speed reduction of heavy vehicles) immediately put up a red flag for me. And as I read the original details and studied the justifications provided in the deviation request, it became apparent that the analysis had major issues and omissions. As a result, I submitted numerous comments (ref comments PI580 in Volume 3, Part A of the FEIS) in hopes that these errors, issues, and omissions would be considered and corrected. However, for the most part (although they did submit a revised deviation request), it appears that the engineers doing the deviation analysis disagreed with most of my substantive comments, have a significantly different interpretation of when a deviation is acceptable, and are under considerable pressure to reduce initial construction costs even at the expense of safety to met the directive given by Governor Daniel ("Don't be prisoners to the way things have always been done." – obviously the Governor is not an engineer when it comes to understanding and appreciating design standards). The discussion to follow is apparently in conflict with the DLZ engineers who submitted the Critical Length of Grade deviation request, so as the responsible agency to review and approve the requested deviation, I ask at a minimum that the FHWA have an independent entity review my comments (both in this letter and my original DEIS submission) and DLZ's revised analysis.

Response: Please see responses to Comments Dunlap 04-01 and Dunlap 07-04. INDOT will follow all appropriate FHWA requirements in considering any Level II design exceptions, such as that required for a critical length of grade.

Dunlap07-02**Comment:**

I'd like to start with the discussion of if this deviation should even be a consideration under the circumstances. In researching the FHWA deviation process (I ask for an expansion from the Section 4 PMC, but was rebuffed), the overall philosophy is that for the most part, and particularly for new construction projects where constraints are less of an issue, highway designs should follow accepted design criteria. However, it is acknowledged that there will be situations where physical constraints make it impossible to meet the design standards, or the costs would be exceptionally high, but in all cases safety should be the guiding criteria and deviations that compromise safety should be avoided. I will argue that the design environment in Section 4 related to vertical profiles is not at all extraordinary, the costs to meet the standard design guidelines is not exceptional or unanticipated (and in fact budgeted and accepted during Tier 1), and that the compromise to safety is significant. It is completely inappropriate to be considering deviating from the Critical Length of Grade design standard simply on the basis of lowering construction costs, but especially where safety is clearly being compromised, and therefore the deviation should be rejected.

Response:

Please see response to comment Dunlap04-01 regarding the Level Two Design Exception Process.

The FHWA's Flexibility in Highway Design notes, "An important concept in highway design is that every project is unique," and "Designers are faced with the task of balancing the need for the highway improvement with the need to safely integrate the design into the surrounding natural and human environments." Using the flexibility within the states adopted standards (i.e. the IDM) is one way to achieve a balanced road design that considers costs, as well as environmental impacts. The low cost design criteria being considered also substantially decrease the environmental impacts of the new interstate. The Indiana Design Manual (IDM) describes Level Two design criteria such as the critical length of grade criteria, as those which are judged to be important indicators of a highway's nominal (expected) safety and serviceability. However, the substantive or long term safety performance of a roadway does not always directly correspond to its level of nominal safety. There are many reasons for this—primary among them is the fact that the criteria are based on many factors (safety being just one) and are derived from simplifying models and assumptions that are broadly applied (*Mitigation Strategies for Design Exceptions, Federal Highway Administration, July 2007*). The design exception for critical length of grade is conservative in its estimation of nominal safety effects and it is believed that the substantive safety of the proposed interstate will be unaffected by utilizing the flexibility of this standard.

Dunlap07-03**Comment:**

I would also like to dispute the implication in response PI580-02 that the Indiana Design Manual (IDM) suggests a general grade deviation is acceptable as long as truck-climbing lanes are evaluated ("If the critical length of grade is exceeded, the grade should be flattened, if practical, or the need a truck-climbing lane should be evaluated."). This directive does not imply that a general design philosophy should be altered or ignored, especially when it is practical to design within the accepted criteria.

Response:

The critical length of grade criteria is unique in that there is no specified minimum value and the criteria is directly tied to the warrants for truck-climbing lanes. As the AASHTO Geometric Design of Highways and Streets (Green Book) states (pg 236): “if the desired freedom of operation is to be maintained on grades longer than critical, design adjustments or extra lanes should be considered. It further indicates that the data for critical length of grade should be used with other pertinent factors, such as traffic volume in relation to capacity (level of service) to determine where added lanes are warranted. As part of the analysis, the need for truck climbing lanes was incorporated in the Level 2 design exception in Appendix GG.

Dunlap07-04**Comment:**

Beyond my argument that the proposed deviation request does not meet the criteria to be considered, there are still a number of technical issues that appear to be in dispute between the DLZ engineers and myself.

First and foremost is the understanding of what will be the true speed differential under the “20 mph” allowed speed reduction grade criteria. The DLZ engineers claim this is 20 mph using the facility design speed of 70 mph for all vehicles. However, in Indiana, the operations speed for large truck is 65 mph, so a grade length physically designed for a 20 mph maximum slowdown would have a truck running 45 mph at the top of the grade which would make the true differential speed 25 mph between the truck and approaching light vehicles. To argue that a truck starting at 65 mph at the bottom of the grade will only slow down to 15 mph on a grade designed with a critical length of 20 mph reduction defines logic and physics. It is fine to argue semantics of facility design speeds verses reality, but that does not negate the true implications on safety. Indiana is already at a safety disadvantage even with the 10 mph Critical Length of Grade design criteria, so considering a further deviation is beyond comprehension. Ignoring in the deviation analysis that in Indiana, large trucks on interstate highways have a maximum speed limit slower than the light vehicles is simply wrong and irresponsible.

Response:

There are a wide variety of factors that ultimately affect the operational speeds of vehicles. The truck speed models are not absolute and are representative of trucks that perform more poorly with an approximate 85th percentile weight to power ratio of trucks studied throughout the United States (NCHRP Report 505, Review of Truck Characteristics as Factors in Roadway Design, 2003). In other words, the average truck on the interstate will outperform the truck speed models used in the analysis of the critical length of grade. In addition, the use of a 70 MPH entering speed for an uphill grade versus using the truck posted speed limit of 65 MPH is supported by the Momentum Grade criteria contained within section 44-1.04 of the Indiana Design Manual. The criteria states that trucks speed will increase up to 10 mph on a downgrade. Thus it is a reasonable assumption that in Section 4 where every upgrade is preceded by a downgrade the running speed of trucks will be closer to 70 MPH than to 65 MPH upon entering an uphill grade. The critical length of grade analysis is also consistent with AASHTO Green Book Exhibit 3-63 (and IDM Figure 44-2B) which are based on a truck entering speed of 70 MPH.

The critical length of grade standard adopted by Indiana is the same as the national standards outlined in the AASHTO Green Book; therefore Indiana is not at a safety disadvantage. In fact,

Indiana has elevated critical length of grade to a Level Two Design Criteria where national and other state standards only require written design exceptions for the FHWA 13 Controlling Criteria (INDOT Level One Design Criteria).

Dunlap07-05

Comment:

Next I have questions about the “Crash Involvement Rate” charts used in the analysis. In the original analysis published in the DEIS, the analysis used the AASHTO Exhibit 3-58 chart because it was considered “conservative”, although the “revised” chart from a 2007 Brazil study by Melo and Setti was acknowledged. In the revised deviation analysis published with the FEIS, it was determined that the “less conservative” Brazil study was now okay with the explanation that this chart was more appropriate for multi-lane highways. While I concur that the new study on face value appears to be more appropriate, it is not clear that the AASHTO has fully vetted and accepted this new study, based on very limited data(nine data points), and in fact the authors of the Brazil paper state, “The decision to modify the speed difference in the current geometric design standards, however, must be supported by additional data to be obtained with further research, which should be based a larger and more representative database than the one used in this study.” So in other words, even the authors are suggesting the use of this revised chart is premature at best and it is certainly questionable that InDOT would use this chart to justify \$100 million decisions that significantly impact safety. This is an indefensible position.

Ironically, while the crash involvement rates were significantly lower in the Brazil revised chart, the ratios of those rates (used in the deviation analysis) are actually more pronounced using the Brazil chart compared to the AASHTO charts at the larger differential speeds due to the exponential nature of the revised curve. For the 15 mph to 25 mph condition, crash rates are 7.8 times greater using the revised chart compare to 6.2 times using the traditional AASHTO chart. Either way, the ratios are clear indications that this deviation request is unacceptable, regardless of how much savings there might be. The safety of the citizens of Indiana should not be compromised by constructing a sub-standard design.

Response:

Relevant Studies are limited and the Section 4 Level Two Design Exception for Critical Length of Grade, FEIS Appendix GG, used the most recent applicable study data available. “Revising the AASHTO Curve: Accident Involvement Rates for Trucks and Speed Differentials on Highway Grades” (Brazil, 2007) more accurately reflects multi-lane divided highways and the safer nature of freeway facilities compared to two-lane rural highways. However, as noted by the commenter, both studies reflect comparable crash reduction ratios for the speed reductions analyzed. The estimated annual crashes used in the Benefit/Cost analysis were not based on either the AASHTO Exhibit 3-58 or the Brazil, 2007 study but instead used published crash involvement rates for heavy trucks on interstate highways. Recalculating the benefit/cost ratios using the AASHTO Exhibit 3-58 data to calculate crash reduction factors (CRF), as presented originally in the DEIS, there is minimal difference with the B/C values still well below 1.0 at 0.49 and 0.22 (compared to 0.48 and 0.19 reported in Appendix GG) for the highway segments analyzed. These recalculations are documented in a memorandum in the project administrative record.

The research done by authors of the Brazil, 2007 study is supported by considering a combination of the AASHTO Curve: Accident Involvement Rates for Trucks and Speed

Differentials on Highway Grades (Exhibit 3-58) and the accident rates published in the *Large Truck and Bus Crash Facts 2008* (Federal Motor Carrier Safety Administration - Analysis Division, March 2010). The AASHTO curve used a combination of roadway classifications with a higher crash involvement rate while the U.S. crash facts show a lower crash involvement rate for interstates. Thus, it would be reasonable that the crash involvement rate for trucks and speed differential on interstate grades would be lower as reported by the Brazil, 2007 study. The call by Melo and Setti for additional research is typical of many studies of this nature and does not negate the research done.

As a Level 2 design criteria, it is perfectly within the realm of engineering discretion and interstate design standards for INDOT to use the flexibility within the critical length of grade standard to reduce costs and impacts. FHWA has been informed of this decision.

Dunlap07-06

Comment:

My final criticisms have to do with the benefit-to-cost ratio calculations, even though I feel this methodology is inappropriate in the context of a deviation request that does not meet the justifications previously discussed:

1) The original analysis in the DEIS used a 20 year “recovery period” which I criticized as being arbitrary and did not reflect the period of time the design decision would impact the users. In the revised analysis, this recovery period was increased to 30 years, but this still appears to be arbitrary and the IDM indicates the recovery period should be, “...the time period that the improvement can reasonably be expected to impact accident experience.” Since the highway elevation profile is unlikely to ever change, its impact on accidents is likely to be very long, easily 50 years and more likely 100 years and the recovery period should reflect that fact.

Response:

This issue was raised in this individual’s comment on the Section 4 DEIS. See Response to Comment PI580-03 in Volume III of the Section 4 FEIS. The Benefit-to-Cost (B/C) analysis was performed using guidance from the Indiana Design Manual, Chapter 50 (IDM) and the Hazard Elimination Program – Manual on Improving Safety of Indiana Road Intersections and Sections, Joint Transportation Research Program in Cooperation with INDOT and FHWA (JTRP). A 30 year recovery period was chosen since it is the maximum length noted for any major construction type noted in the IDM or JTRP Study.

Dunlap07-07

Comment:

2) I still do not understand the cost numbers used in the B/C analysis compared to the numbers published in Table 5.5-4 and used in numerous places in the DEIS and FEIS. The aggregate costs for F/I in Table 5.5-4 are approximately 4 times greater than the numbers used in the Appendix GG B/C calculations. The PI580-04 response indicated the B/C values excluded “non-monetary” costs. I find it difficult to understand how the “non-monetary” costs are nearly 3 times that of the “monetary” costs and why the B/C should not include all the costs to society, just not the direct costs. Why should a design decision that is supposed to protect the safety of the uses exclude “lost earnings, lost household income, pain and suffering, and lost of quality of life”? So is INDOT saying none of those factors should be considered when deciding to

constructing a less safe highway? Either Table 5.5-4 is correct and the deviation analysis needs to be revised, or the numbers used in the deviation analysis are correct and Table 5.5-4 and all the analysis in the FEIS needs to be revised. InDOT can't have it both ways.

Response:

This issue was raised in this individual's comment on the Section 4 DEIS. See Response to Comment PI580-04 in Volume III of the Section 4 FEIS. The accident costs used in the Benefit/Cost Analysis follow INDOT guidance and are based on Indiana Design Manual, Figure 50-2a. Furthermore, the Fatal/Injury (F/I) category is also a weighted average of fatal accident cost and several different severity levels of injury accident costs. Based on national data, fatal injuries comprise only approximately 0.50 percent of all accidents. Therefore, the F/I accident category does reflect the much higher cost of fatal accidents.

Dunlap07-08

Comment:

3) I still do not understand why definable user operational costs should not be included in the B/C analysis. It also seems arbitrary for the IDM to indicate these costs should be considered if the B/C ratio is near 1.0, but not otherwise. The reduced construction cost savings is a benefit for the citizens paying for the project and should be appropriately balanced against the safety costs and added users costs of the same citizens over the lifetime of decision. It is illogical and inappropriate to selectively look at only part of the citizen's "costs" in performing the B/C analysis.

After considering all of the above factors, and as I previously demonstrated in my DEIS comments, the B/C values in the deviation analysis would be significantly greater than zero and thus the deviation should be rejected (but I still stand by my position that the deviation should not even be a consideration).

Response:

According to the Indiana Design Manual (IDM), any cost-effective methodology should recognize its limitations including that the analysis can only consider those impacts which are quantifiable and which can be assigned a realistic monetary value. It cannot realistically incorporate the impacts of such factors as general design consistency, aesthetics, land values and uses, access, driver convenience and comfort, social ramifications, or environmental consequences. Therefore, the results of a cost-effective analysis should only serve as a tool to the decision maker. Despite its analytical approach, there is nonetheless a great deal of subjectivity in the analysis. The final decision must place the results in proper perspective when considering the limitations of the cost-effective methodology. There are also numerous non-user benefits that impact the broader community beyond the highway users that were also considered (but not monetized) in the decision to utilize the flexibility allowed in the critical length of grade criteria. Realistic monetary value is difficult to assign to non-user benefits such as the reduced environmental impacts of the low cost criteria. The Section 4 Level Two Design Exception for Critical Length of Grade, FEIS Appendix GG, chose to focus on the major quantifiable impacts in the cost-effective methodology.

Dunlap07-09

Comment:

A closing thought or two... While researching the design standard deviation process, I found an interesting discussion on the FHWA website that described tort liability related to design decisions. All I can say is that I would not want to be on the State's side of a wrongful-death suit defending the design decisions and justification calculations made by InDOT and its contractors in this deviation request. Lives will be lost as a result of this deviation decision.

Finally, as a Professional Engineer, I find it very troublesome that the agency that is responsible for designing and constructing safe highways in Indiana would pursue a design deviation that intuitively should not be considered and will clearly and significantly decrease the safety of those who will use this new highway. I hope that FHWA will have the insight to reject this deviation request as part of the Record of Decision (ROD).

Response:

Please see response to comment Dunlap 04-01. For I-69 Section 4, a "global" memo was prepared as part of the EIS/Engineer's Report to document the concurrence and general use of the Critical Length of Grade level two design exception. During the final design, the designer will be required to prepare individual memos for each instance where the critical length of grade is exceeded. These will again be submitted and reviewed by the INDOT Project Manager for his "concurrence" and documentation will be provided to FHWA.

Dunlap08

E-mailed Letter from Keith Dunlap to Robert F. Tally (FHWA-IN) – 08/22/2011

Dunlap 08-01

Comment:

I continue to be dismayed by blatantly misleading statements in the Section 4 NEPA documents (both the DEIS and the FEIS). The following statements in the FEIS are clearly false, regardless of how many times it is repeated:

"As outlined in the DEIS, INDOT is considering a range of design criteria for I-69, Section 4. Detailed information about the low-cost design criteria is included in Appendix GG, Low-Cost Design Memorandum. **These criteria satisfy INDOT's Design Manual and there is no evidence that the road will be less safe.** [sic] The decision regarding which criteria will be used for I-69 will be finalized during design."

Response:

Please see response to comment Dunlap07-02. The consideration of the range of design criteria is within engineering judgment and discretion of INDOT, and has been reviewed by FHWA.

Dunlap08-02

Comment:

The Critical Length of Grade criteria being considered in the Appendix GG does not satisfy the Indiana Design Manual or FHWA Green Book standards, and is the reason why InDOT and its contractors are requesting a deviation to allow the standard to be ignored. Furthermore the justification for the deviation is based looking at the increased number of deaths, incapacitating injuries, non-incapacitating injuries, and property damages and comparing those “costs” to the saving that would be gained by constructing the highway using the sub-standard criteria. Clearing if you are counting “dead bodies” in your analyses, this is “evidence” that the Low-Cost Design Criteria are less safe.

Response:

Please see response to comments Dunlap07-02, -03 and -05. Appendix GG provides analysis of the low cost design criteria. The evaluation of crash data is the method INDOT prescribes in its analysis. The material presented in AASHTO Green Book is a guideline, not a standard. INDOT has the discretion to make decisions based on engineering judgement.

Dunlap08-03

Comment:

It is also intuitive that many of the other Low-cost Design criteria reduce safety when compared to the traditional criteria used by InDOT in the past (and on other sections of I-69). It is only because these criteria are still within standard guidelines that InDOT does not have to do through the trade-off exercise of calculating the “costs” of reduced safety to the savings in construction costs.

Response:

Please see response to comments Dunlap07-02.

**Hoosier Environmental Council (HEC)01
Letter to Robert F. Tally (FHWA-IN) – 08/22/2011**

HEC01-01

Comment:

The Hoosier Environmental Council (“HEC”) formally submits the following comments on the Final Environmental Impact Statement (“FEIS”) for Section 4 of the I-69 Project.

Incorporation of comments on Tier 2 Section 4 DEIS

HEC incorporates by reference its comments on the Tier 2 Section 4 DEIS.

Supplemental Comments specific to Section 4 FEIS

Process

The process of releasing and announcing the FEIS for Section 4 was flawed and inadequate. The first notice of availability was published July 22, 2011, and announced a 24 day review period ending August 15, 2011. A corrected notice of availability was published on July 29, 2011, announcing that the review period would end August 22, 2011. However, the corrected FEIS information for Section 4 was not distributed until August 1, 2011, after the date of the corrected Federal Register notice. Given the foregoing, and the requirements of FHWA’s NEPA regulations, we believe that the review period should extend for at least 30 days, and run from August 1, 2011 until August 31, 2011.

Response:

All comments on the Section 4 DEIS were addressed in Volume III of the Section 4 FEIS.

All environmental impact statements are filed with the U.S. Environmental Protection Agency (USEPA) and USEPA prepares and publishes a Notice of Availability each week in the Federal Register. The Tier 2 Section 4 FEIS was sent to USEPA but USEPA's Notice of Availability published in the July 22, 2011 Federal Register incorrectly stated that the review period would end on August 15, 2011. FHWA informed USEPA of the incorrect review end date, and USEPA published a Federal Register Amended Notice on July 29, 2011, correcting the review end date to August 22, 2011.

On August 2, 2011, INDOT sent a letter along with a corrected copy of the Volume III (Comments and Responses) DVD of the Tier 2 Section 4 FEIS to all agencies, organizations, and individuals that were sent the Tier 2 Section 4 FEIS per the July 22, 2011 Federal Register Notice of Availability. On August 15, 2011, INDOT sent a second letter to all recipients of the corrected Volume III DVD indicating that corrections were made for responses to certain comments as contained in the Public Organization subcategory of Volume III, Part A. This letter further explained that three specific responses with references to Appendix NN were removed because Appendix NN does not exist in the Tier 2 Section 4 FEIS and that responses to those comments were made in the corrected Volume III DVD directly following those comments in lieu of preparation of an actual appendix to address the comments. These corrections are considered to be minor changes and do not necessitate an extended review period for the Tier 2 Section 4 FEIS.

In addition, this Record of Decision was not approved until September, 2011, beyond the period suggested in this comment.

HEC01-02

Comment:

Chapter 3 – Alternatives

In completing the FEIS, and in its response to comments, INDOT improperly discounted the recommendation of several commenters (Pat Munson and Indiana Karst Conservancy) who requested for INDOT to examine an alternative alignment in part of Section 4 that would have avoided a substantial amount of impacts to the area's karst features. INDOT stated that, because these impacts were not "unanticipated" or "unexpected", it had no obligation to seriously consider in Tier 2 an alignment outside the approved Tier 1 corridor. However, the criteria for consideration of alternatives outside the selected corridor do not require that the impacts be "unanticipated" or "unexpected", but merely that they be "significant". See Section 2.3.5 of I-69 Tier 1 Record of Decision, quoted below.

"2.3.5 Potential to Consider Alternatives Outside Selected Corridor. In general, the range of alternatives considered in a Tier 2 study will be confined to the selected Alternative 3C corridor. However, the flexibility will exist to consider alternatives outside the selected corridor to avoid significant impacts within the selected corridor."

Clearly, the impacts to karst are not just significant, but dramatic. They are also more significant than described or identified in the Tier 1 FEIS. For example, in the **Comparison of Tier 1 and Tier 2 Impacts to Key Resources, Appendix KK of the Section 4 FEIS**, the number of karst features identified as affected in Tier 1 is 50, compared the Tier 2 finding of 632 to 652 karst features affected. This is an increase of over 1,100 percent. INDOT's failure to consider this recommendation to examine an alternative alignment in Section 4 is contrary to law, the Tier 1 Record of Decision, and the commitment made in the interagency Karst MOU to "avoid karst areas" in determining a proposed highway alignment.

Response: The data used in the Tier 1 analysis of karst impacts was the best available data for the 26 counties in the Tier 1 Study Area. As documented in the Tier 1 FEIS (see p. 5-237), which states, "According to the Director of the IGS in a memo dated May 5, 2003 (see Appendix Y), the maps provided by IGS were compiled in an objective and systematic manner across the entire region, and were the best available for the intended purpose of a preliminary Tier 1 evaluation of alternatives routes on a regional scale." These were the data which were used to compare impacts of alternatives to karst resources.

As noted in Response to Comment PI322-01 in the FEIS, Dr. Munson's suggested alignment would avoid 15 karst features by diverting from the Preferred Alternative for 5.5 miles. That same response documents that the alignment suggested by the Indiana Karst conservancy would avoid 22 karst features by diverting from the proposed alignment for 9.3 miles. These recommendations would avoid between 2.4 and 2.7 features per mile, while impacting an unknown number of features. Neither of these suggested alignments would avoid a "significant" number of karst features.

As stated in Section 2 of the ROD, Section 2.3.5 of the Tier 1 ROD establishes that a decision to analyze an alignment that is outside the approved corridor must be premised by an initial finding that the "outside the corridor" alignment was needed "to avoid significant resources within the selected corridor." FHWA interprets this language to mean that the ability to consider or adopt an alignment outside the corridor, except for small deviations required by engineering reasons, must be based on a finding that the Tier 2 study uncovered potential impacts to

resources at a level that was not anticipated in the Tier 1 EIS. The karst resources in the area of the suggested alignments was not unanticipated. Thus, the threshold condition for looking at an alignment outside of the established corridor has not been met. In addition, FHWA has determined that the possible avoidance of 15-22 karst features does not constitute avoidance of "significant impacts within" the selected corridor, when it was known and acknowledged in the Tier 1 ROD that any alignment within the approved corridor would impact karst features. Given the relatively few number of karst features that would purportedly be avoided¹ and the significant deviation from the corridor into areas never before considered as part of the project, the determination that neither of the proposed alignments meets the standard established in the Tier 1 ROD for moving an alignment outside of the approved Tier 1 corridor is entirely justified and a reasonable conclusion based on facts in the record.

This magnitude of impacts to karst features was anticipated during Tier 2 studies, and the suggested alignments do not result in avoiding "significant" impacts to karst features.

HEC01-03

Comment:

INDOT's selection of interchange option 1, including the Greene-Monroe County line interchange, is another instance of the project's failure to avoid karst compacts, despite INDOT's commitment in the Karst MOU to do so. On page 11-20, the FEIS states, "While the FWS preference is that there would be no interchanges developed within the karst area, the project purposes are much better satisfied with one interchange in a karst area." With this statement, INDOT ignores the recommendations of the U.S. FWS and U.S. EPA to limit I-69's impacts to karst. INDOT also selected the south alignment for the connector road, while acknowledging that this alignment has greater impacts: "The South Connector Road generally has higher impacts and costs than the North Connector Road, since it is longer." (page 11-21). Moreover, despite the FEIS claim that the limited access character of the connector road will limit induced development in karst, this development will simply move to the intersection of the connector road with SR 45 and SR 445.

Response:

Interchange Option 1 (SR 45, Greene County/Monroe County Line, and SR 37) is recommended for Refined Preferred Alternative 2 because it performs significantly better in fulfilling the project purposes. Specifically, this interchange option serves the greatest traffic volume and provides the greatest congestion relief and reduction in crashes in the five-county Study Area, especially along SR 45. The Greene/Monroe County Line interchange has nearly double the overall interchange demand volume of SR 45 and provides increased accessibility to Eastern Greene County and Bloomfield area residences. It has considerable local government and public support and provides accessibility for emergencies along I-69 and in Eastern Greene County and Western Monroe County and reduced traffic volumes and congestion relief on SR 45 from SR 445 into Bloomington.

With regards to the consideration of potential karst impacts associated with the recommended interchanges for Refined Preferred Alternative 2, substantial coordination with Federal and state resource agencies was undertaken about the Greene County/Monroe County Line interchange throughout Tier 2 Section 4 alternatives development. At two major project coordination milestones – the Purpose and Need/Preliminary Alternatives meeting/webcast held on

¹ Neither comment offered convincing or adequate evidence that the proposed alignments themselves would not affect karst features.

December 19, 2005 and the alternatives Screening meeting held on August 31, 2006 – the potential interchange was discussed with Federal and state resource agencies and opportunities to comment on the interchange were provided. As noted in the various summaries of the coordination process (see Chapters 3.2.2, 11.2.3, and 11.4.2.), concerns about potential impacts associated with this interchange were expressed, however, no rejection of the potential Greene County/Monroe County Line interchange was made.

The South Connector Road is longer and generally will incur higher impacts and costs in comparison to the North Connector Road. These higher costs and impacts were considered and weighed against traffic performance and improved safety associated with the South Connector Road. The South Connector Road is included in Refined Preferred Alternative 2 because it demonstrated the best transportation performance and associated traffic reductions on SR 45 between SR 445 and SR 37, provides a direct connection for travel between Eastern Greene County/Bloomfield and the Bloomington urbanized area, and replaces an unconventional and potentially confusing intersection (SR 45/SR 445) with a safer conventional four-leg intersection.

Given the extremely scattered nature of the anticipated induced development, it is not possible to identify specific areas (such as a specific intersection) where development will occur, such as the intersection of the South Connector Road at SR 45/SR 445. As FEIS Table 5.24-1 shows, the project is forecasted to result in 160 acres of indirect development within an area of 73,822 acres. Identifying “specific areas” where this development would occur would require specifying exactly where within a 460 acre area one acre of development would occur (73,882/160 is approximately 460 acres).

HEC01-04

Comment:

Chapter 5 – Environmental Consequences

Wildlife Impacts - Federally Endangered Species

The FEIS, the Amendment to the Revised Tier 1 Biological Opinion, and the Section 4 Biological Opinion are incomplete in their analysis of the I-69 project’s impacts on the endangered Indiana bat and its habitats. The Section 4 alignment passes through and nearby extensive Indiana bat habitats – mature forest, wooded streams, and important hibernacula. This area includes 4 maternity colonies, and at least 15 caves and their associated swarming areas where Indiana bats have been found.

Specifically, the FEIS and BOs have not adequately analyzed the full and cumulative impacts of the highway’s route on this complex of hibernacula and surrounding habitats. Besides Ray’s Cave, which is designated as critical habitat for the bat, Coon’s Cave and Grotto Cave will be affected by I-69 and have experienced significant increases recently in their Indiana bat populations. Collectively, this is an extremely important region for Indiana bats but we do not believe that the studies to date sufficiently analyze the project’s effects, such as fragmentation of summer habitat and swarming areas, interference with migratory patterns, or changes to cave conditions and climates. These impacts affect the quality and integrity of both the individual maternity colonies and caves as well as the entire complex of habitats.

Response: The United States Fish and Wildlife Service (USFWS) is the federal agency responsible for providing a Biological Opinion (BO) during Section 7 consultation. The biological opinion is the document stating the finding of the USFWS as to whether or not the proposed

federal project is likely to jeopardize the continued existence of listed species or adversely modify critical habitat.

The Section 4 Tier 2 BO was issued on July 6, 2011. The USFWS analyzed the impacts from the proposed project and states the following in its Tier 2 BO, “The effects associated with the proposed construction, operation, and maintenance of Section 4 of I-69 are within the scope of effects contemplated in the recently amended Tier 1 Revised Programmatic Biological Opinion (RPBO) (2011). Upon evaluation of the proposed project, we believe incidental take of Indiana bats in the Section 4 Action Area is likely, but the impact of such taking is not likely to jeopardize the continued existence of the Indiana bat and is not likely to adversely modify the bat’s designated Critical Habitat.” (pg. 1)

As also stated by USFWS in its Section 4 Tier 2 BO, “the owner of two Priority 1A hibernacula has recently signed a permanent conservation easement on 289 acres which includes Coon and Grotto Caves and the surrounding habitat. This habitat is especially important during the fall swarming and spring staging periods for the Indiana bat. Over 37,000 Indiana bats hibernated in these two caves in 2009. Permanent protection and management of these two caves will significantly reduce the estimated take associated with unauthorized disturbance and vandalism at Coon Cave. The 2006 Tier 1 RPBO estimated the take of over 180 bats at Coon Cave through the year 2030 due to increased human disturbance; this will now be eliminated. A conservation easement on at least one other small Indiana bat hibernacula is also expected to be purchased in the near future. Gating, fencing, or other techniques to protect known hibernacula will be pursued where warranted. Any gating erected as mitigation will be closely monitored. Management and protection of these important hibernacula will be critical for the protection, survival, and recovery of the species.” (pg. 59) INDOT purchased the conservation easement on the 289 acres (including Coon and Grotto Caves) as part of I-69 mitigation efforts.

The Tier 2 BO of USFWS reported that “Although short-term reductions in habitat quality may occur, overall long term habitat restoration and protection efforts are expected to improve the habitat conditions for Indiana bats.

INDOT, FHWA and USFWS completed the most thorough Indiana bat surveys that have ever been completed on this species. They include summer mist netting of approximately 197 sites with radio-telemetry identifying roost tree locations for maternity colony determinations; cave evaluations of some 373 cave records and field reviews of 250 of these caves from micro-climate conditions (air flow, temperature, flooding, volume, length); harp trapping/mist netting in spring and fall of approximately 60 caves; cave surveys of approximately 75 caves; and pre- and post-construction monitoring now and into the future for some 50 pre-approved sites in the project.

In addition, INDOT, FHWA and USFWS have worked together to avoid and minimize impacts to the Indiana bat since the conception of the project. They include agencies agreeing to move the I-69 mainline six (6) miles from Ray’s Cave (was 3.5 miles), spanning the Patoka River floodplain, and not including an interchange in the karst area near Indian Creek area. Similarly, they avoided and minimized impacts by using GIS, dye tracing, and biological surveys, and avoiding and minimizing impacts to bat habitat (e.g., forest, roost trees, wetlands, riparian). Lastly, they have worked with a number of agencies to increase permeability or cross connectivity for wildlife movements.

INDOT, FHWA and USFWS have worked together to find and purchase biologically attractive Indiana bat habitat. Upon completion of I-69, INDOT will have some 10 to 11 square miles of mitigation lands purchased which include forest preservation, reforestation, wetland development, and stream improvements. INDOT has purchased 3 hibernacula (Coon, Grotto, and Clifty) along with a verbal agreement for another hibernaculum purchase. These four (4) Indiana bat hibernacula of a known 16 Indiana bat hibernacula in Greene and Monroe Counties harbor some 38,000 Indiana bats in winter which equals 9% of their range-wide population. INDOT also purchased another cave of which modifications to the entrance will improved air circulation and hopefully serve as a future Indiana bat hibernacula. Mitigation efforts have strategically purchased excellent Indiana bat habitat adjacent to existing Indiana bat habitat to protect in perpetuity mitigation lands in block preservation. Two such block preservation areas in Section 4 equal between 2-3 square miles each of forest which includes karst, streams, springs, forests, wetlands, and many plant and animal species, some federal and state listed. Such areas are protected in perpetuity from development.

The Tier 2 BO of USFWS reported “To minimize and mitigate impacts to bats due to habitat loss in Section 4, existing high quality forested habitat suitable for Indiana bat foraging and roosting, as well as areas suitable for restoration, were identified within the Action Area. In identifying mitigation properties, INDOT and FHWA used the following criteria:

- Recorded Indiana bat hibernacula
- Roost tree(s) and flyways connected to a Roost (including bridge)
- Areas within a Maternity Colony or Winter Focus Area
- Visible or known karst features (e.g., caves, sinkholes, springs)
- Part of a larger contiguous block of forest/property
- Preservation of especially older growth forests with snags/shaggy barked trees
- Reforestation and restoration practices (e.g., wetlands and streams)
- Biologically attractive areas with streams, springs, wetlands, forests, karst and endangered species
- Potential for Human Development”

The Tier 2 BO of USFWS also reported: “The currently proposed 3,600 acres of forest and wetland mitigation in Section 4 has been strategically located to improve upon the existing high-quality habitat within and near the various maternity colony areas and hibernacula; therefore, we believe adverse impacts to the colonies and any adult males occurring in the immediate area will be further minimized and should not be long lasting. Because over 2,150 acres of existing forest habitat will be protected and over 1,000 acres of forest and wetland habitat will be developed and/or enhanced based on the initial alternative, the maternity colonies within Section 4 will experience a net gain of habitat as part of the Proposed Action and receive both short and long-term benefits that will continue in perpetuity.”

HEC01-05

Comment:

Further, we do not believe that the Indiana bat mitigation requirements are sufficient to offset impacts to the Indiana bat, even more so now that White-nose Syndrome is present in Indiana. The BO focuses on Ray’s Cave because it is a critical habitat for the Indiana bat. However, in addition to going very close to Ray’s Cave winter use areas, the planned route goes directly through several foraging/swarming areas around other hibernacula caves in Section 4. The project’s impact on this complex of hibernacula caves has not been analyzed thoroughly either in the FEIS or the BO. The Indiana bat population at these locations is not as high as at Ray’s

Cave, but still numbers in the hundreds and may increase in the future given the stresses at other locations. The route will fragment these winter use areas individually and as a complex. The impact of fragmentation has not been analyzed and the importance of the cave use areas as a group/complex is not well understood. We do know, however, that the relative importance of individual caves for the bats can change over time (e.g., the recent dramatic increase in numbers of bats using Coon/Grotto). The impact from habitat fragmentation is more than the simple loss of forest habitat acreage. Fragmentation goes to the integrity and quality of the hibernacula areas for the bats at critical times in fall and spring. Without further study of habitat fragmentation, the true impact of this project on the Indiana bat can not be known.

Response: The USFWS analyzed the effects of I-69 in consideration with White Nose Syndrome (WNS) in its Amendment to the Tier 1 Revised Programmatic Biological Opinion (RPBO) dated May 25, 2011. The Amendment to the Tier 1 RPBO states, "After reviewing the current status of the Indiana bat, updated information regarding WNS and the environmental baseline for the action area, and new information regarding the preferred alignment of the road connecting the County Line Interchange to SR 45/54/445 in Greene County, the USFWS has concluded that appreciable reductions in the likelihood of survival and recovery of Indiana bats due to the construction, operation, and maintenance of I-69 from Evansville to Indianapolis, Indiana are unlikely to occur, and hence, FHWA has ensured that their proposed action is not likely to jeopardize the continued existence of the Indiana bat or destroy or adversely modify its designated critical habitat." (pg. 18)

Please also see response to Comment HEC01-04.

HEC01-06

Comment:

Moreover, although the BO suggests a conservation easement be placed on at least one cave, there is no indication that INDOT has the money or expertise to hold and manage such easements in perpetuity. There is no identified plan for passing these easements off to an organization that can hold and manage them in perpetuity. Most importantly, there is no indication that conservation easements alone can actually compensate for the fragmentation and potential loss of integrity and quality discussed above.

Response: See response to Comment HEC01-04. INDOT will be the long-term manager of these sites unless they are turned over to another agency or land steward for long-term management. At this time, no other agencies or land stewards have been identified for specific mitigation sites; however, they may be identified in the future. As long as INDOT is the long-term manager of the mitigation sites, it will be INDOT's responsibility to defray any costs of correcting any misplaced actions/inactions by the easement-granting landowners. If the mitigation site(s) are turned over to another long-term management agency or land steward, the receiving agency or land steward will assume responsibility for such costs. This provision will be included in the land transfer documentation from INDOT to the long-term manager.

HEC01-07

Comment:

Chapter 7 -- Mitigation and Commitments

Karst Mitigation

INDOT's response to our concerns about implementation of and compliance with the Karst MOU does not provide acceptable assurances that compliance with the MOU will be adequately monitored and enforced. ("INDOT and FHWA-IN are committed to fulfilling the requirements of the Karst MOU. This commitment includes assisting other signatory agencies.") It is not sufficient that INDOT and FHWA commit to assisting the other agencies in implementing the MOU, which in other words states that if the other agencies cannot assure compliance, INDOT will police itself. Successful implementation of the requirements of the Karst MOU requires that the resource agencies – US FWS, IDEM and IDNR – provide independent oversight of the project and compliance with the MOU. If these resource agencies are unable to provide this oversight, then the assertion by INDOT and FHWA that the Karst MOU will provide suitable protection for karst features, which is made repeatedly in the FEIS, is unreliable.

Response: INDOT and FHWA are committed and required to fulfill the requirements of the Karst MOU. Per the Karst MOU, the Karst MOU signatory agencies will be engaged at multiple points as design and construction of the project progresses. Per Stipulation #6, they will be invited to attend field checks and meetings dealing with efforts to negate or minimize adverse effects. Per Stipulation #8, the signatory agencies will be provided an opportunity to review the monitoring and maintenance plan developed for the project. The results of the monitoring will be submitted to the IDNR, USFWS, and IDEM on a regular basis. Per Stipulation #10, an agreement will be developed which will set out the appropriate and practicable measures to offset unavoidable impacts to karst features. This agreement will be signed by the agencies and become a part of the contract documents for the project. Per Stipulation #13, IDNR, IDEM, and USFWS personnel will monitor construction and maintenance to the agreed upon terms. Per Stipulation #14, if during construction the mitigation agreement must be altered, all the agencies will be contacted and agreement reached prior to work continuing in that specific area of the project. Per Stipulation #16, if a state/federal endangered/threatened species is found during construction, work in that area of the project will stop and the IDNR and USFWS will be immediately notified. In addition, INDOT will have full time construction inspection staffing to assure that the construction elements identified through the MOU stipulations are addressed.

Finally, there is simply no reason to believe that the other agencies that are signatories of the Karst MOU will fail to perform their assigned roles. FHWA has no reason to believe that IDNR, IDEM and the USFWS will not be fully engaged in the Karst MOU process as this project proceeds.

HEC01-08

Comment:

In addition, INDOT's responses to DEIS comments completely ignored the MOU's "avoidance first" policy. The FEIS states: "The project is being developed in accordance with the Karst MOU. Potential effects upon features that are hydrologically linked to impacted features will be ***minimized through the implementation of Best Management Practices (BMPs) such as natural vegetative treatment or an engineered treatment measure.***" Volume III, Part A, Page 365 [emphasis added]. For INDOT to demonstrate that it is truly "committed to fulfilling the requirements of the Karst MOU," it should reexamine the route alignments that would result in avoiding a significant proportion of the karst impacts in Section 4.

Response: See response to comment HEC01-02. Also, as shown in Table 5.21-1 of the Section 4 FEIS, there are a total of 448 karst features identified in the Section 4 corridor. Table 5.21-2 shows that Refined Preferred Alternative 2 will impact between 88 and 108 of these karst features. The Refined Preferred Alternative thus avoids between 76 and 80% of the identified features in the corridor.

HEC01-09

Comment:

Forest mitigation

The proposed mitigation is inadequate to replace the lost habitats. Forest habitats will be “replaced” at only a 1:1 ratio, with another 2:1 ratio for “preserving” existing forest through purchase. Purchasing existing forest provides no net gain of forest land; it just prevents additional future loss. The proposed mitigation practice does not represent a true 3:1 replacement ratio, which should require that 3 acres of forest be re-created through plantings for every 1 acre destroyed. Even at a 3:1 ratio, the function of a mature forest will take 100 years or more to replace.

Response:

FHWA and INDOT will provide mitigation for upland forest impacts at a ratio of 3:1 as committed in the Tier 1 FEIS and ROD. Mitigation goals are to replace direct forest impacts at a minimum 1:1 ratio and provide additional forest preservation for mitigation at a ratio of up to 2:1.

The mitigation ratios were approved by the regulatory agencies as part of Tier 1 and reconfirmed in Tier 2 through coordination with the regulatory agencies. As a result, this 3:1 mitigation ratio is stated as a required conservation measure in the Tier 2 Biological Opinion issued by the USFWS.

HEC01-10

Comment:

Cost

The FEIS justifies the increase in part by noting that three items (utility relocation, mitigation costs, and construction administration costs) were not included in the Tier 1 estimates. INDOT claims that the “three costs ... (utility relocation, mitigation, and construction administration) were not included in the Tier 1 cost estimates for any Tier 1 alternative. The Tier 1 cost estimation methodology was appropriate for comparing alternatives at a Tier 1 level of analysis.” Volume III, Part A, Page 369. This cost estimation methodology ignores the fact that existing roadways have inherently lower costs with regards to these three factors. Only one of the Tier 1 alternatives, U.S. 41/I-70, entirely followed existing roadways, so the cost savings from the three factors listed above were not properly accounted for in the Tier 1 analysis. Therefore, it was not appropriate to use the chosen methodology for Tier 1 since it was biased against one of the alternatives.

Response:

This comment addresses a Tier 1 issue and requires no further response in this Tier 2 document.

HEC01-11

Comment:

I-69/U.S. 37 Interchange

The FEIS states that the “only proposed deferral in Section 4 is the construction of the full interchange at SR 37. It would be an unsound use of INDOT’s funds to build the full interchange before the construction of the Section 5 project.” Volume III, Part A, Page 369. Appendix PP indicates that this decision was made because the current alignment of U.S. 37 does not match the proposed alignment of Section 5 of I-69. “In addition, the technical memo shows that at least 10 years into the future, this ‘T’ intersection design operates at Level of Service (LOS) A or B for all traffic movements.” Appendix PP, pg 2.

The technical memo does not address how the “T” intersection will affect the capacity of Section 4 to achieve the core goals outlined in the Purpose and Need section – particularly the accessibility to Bloomington and Indianapolis – should Sections 5 and 6 fail to be completed. In addition to reexamining these issues with regard to Section 4, INDOT should also study how the “T” intersection will affect the accessibility, travel time, economic development, and congestion between Southern locations along U.S. 37, such as Bedford and Paoli, and Northern locations like Bloomington, Martinsville, and Indianapolis.

Response: Goals of regional accessibility are not affected by comparatively minor design details at one location. In addition, the effects of this temporary T-interchange on regional development throughout southwest Indiana is insignificant and discountable. As the quoted citation in the comment notes, an interim “T” interchange will operate at LOS A or B for all traffic for at least 10 years into the future. By definition, there is no “congestion” associated with a portion of a highway operating at these high levels of service. When Section 5 is completed, there will be a directional interchange providing for all traffic movements at this location.

HEC01-12

Comment:

Conclusion

Because of the I-69 highway’s significant environmental impact, high cost, and questionable benefits, Section 4 as well as the entire Alternative 3C route for the new-terrain I-69 should be reevaluated, and instead INDOT should pursue the U.S. 41/I-70 route alternative.

Response:

This comment addresses a Tier 1 issue and requires no further response in this Tier 2 document.

**Indiana Karst Conservancy (IKC)-01
Letter to Robert Tally (FHWA-IN) - 08/21/2011**

IKC01-01

Comment:

The Indiana Karst Conservancy is a non-profit environmental organization focused on cave and karst protection in Indiana, so as you can imagine, our organization is quite interested in Section 4 of the I-69 project. We previously reviewed the entire Section 4 Draft Environmental Impact Statement and the unredacted Survey of Karst Features Report (Appendix AA) and submitted substantive comments (see comment PO007 in Volume 3, Part A, of the FEIS) that focused on two specific topics, as it was our opinion that there were some major flaws in the Draft and not the Final EIS documents.

Principally, the IKC submitted a proposal for an alternative alignment that could avoid a significant area of karst (see page 5). We had estimated the proposal would save \$17-40 million dollar in construction costs, but more importantly would significantly reduce the number of known (and especially unknown) karst features impacts, would essentially reduce every other environmental and economic impact, and significantly improve safety and highway performance metrics. These later benefits are all the result of shortening the length of the alignment by more than a mile by removing the “big bend” in sub-Sections 4F and 4G within the Monroe County portion of the interstate.

After submitting this alternative alignment proposal during the DEIS comment period, there were indications (e.g., InDOT extended a contract with BLA) that this new alignment would be legitimately evaluated as required under the NEPA process, but in the main FEIS and appendices documents, no substantive mention of the alternative alignment or the study was made. There were a few details disclosed in the original comment/response section of the FEIS (e.g., the construction cost saving of the IKC alignment would save \$37 million) and indications more details of the analysis were included in Appendix NN, but InDOT later stated these references were in error and no Appendix NN existed. Subsequently, InDOT revised the comment/response section to retract those references and other material details of the proposed alignment evaluation. So if the study was performed, it should have been a part of the FEIS with its merits acknowledged for all to see, and if the study was not performed, then InDOT failed to do its duty to explore this valid and viable proposal.

Response: Regarding Appendix NN, see Responses to Comments Boyd 08-01, Dunlap 02-01, and Dunlap 03-01.

IKC01-02

Comment:

Regardless of what obligations InDOT has to study this proposal under the NEPA process (although we would say it is very rare there are opportunities to consider a proposal that has only positive aspects, saves money, and essentially has no negative environmental/economic tradeoffs), InDOT definitely has an obligation to seriously evaluate this proposal under the 1993 Karst MOU agreement. Throughout the DEIS and the FEIS, InDOT repeatedly states that the Karst MOU is a cornerstone of their design philosophy when designing in karst topography regions and InDOT was committed to adhering to the agreement. However it appears the level of commitment is only at their convenience. While InDOT expended significant resources to

investigate and document the “thousands” of karst features (caves, sinkholes, springs, etc) in their proposed alignments and the defined corridor, they failed to capitalize on that wealth of information to make appropriate decisions. As they indicated in the FEIS, from their perspective, the karst impacts in their proposed alignments (and corridor) are “unavoidable” and therefore they will simply “mitigate” those impacts during the details design and build stages. However, the fundamental mandate in the Karst MOU is upfront avoidance, and at the point InDOT determined the existing alignments within the corridor could not meet the directives of the MOU, they should have looked at potential alignments outside of the corridor to see if the “avoidance” criteria could be met. Only after an exhaustive examination of alternatives should InDOT have determined that it was not “practical” to avoid the karst features and then focused on mitigating their impacts.

Response: See Response to Comment PI322-01 in Volume III of the Section 4 FEIS regarding the rationale for not considering the suggested alignment outside of the Section 4 corridor. The alignment suggested by IKC would bypass over 9 miles of the Preferred Alternative, in which only 22 karst features are impacted (see Response to Comment HEC 01-02). Only 20% of the karst feature impacts potentially would be avoided by modifying over 30% of the preferred alignment. This would be imprudent, especially given that the new alignment would impact an unknown number of additional karst features. The suggested alignment does not offer the opportunity to avoid significant karst impacts.

IKC01-03

Comment:

In the comment/response section (ref comment PI322), InDOT did acknowledge that the IKC proposed alignment could avoid impacting up to 22 known karst features (and untold unknown features), out of a total of 106 karst features along the preferred Section 4 alignment. This is potentially 20% of the total, previously labeled as “unavoidable”. InDOT dismissed this as not being significant (a criteria they state as necessary to invoke the “flexibility” to look outside the Tier 1 corridor), but the need to comply with the Karst MOU should have demonstrated that the level of significance had been met. Both USFWS (a party to the MOU) and the USEPA were critical in their DEIS comments pertaining to the apparent impacts to the karst. Again, meeting the obligations under the Karst MOU would seem to elevate the impact “significance” criteria to look outside the original corridor as allowed under the Tier 1 Record of Decision (ROD).

Response: See Response to Comment IKC 01-02.

IKC01-04

Comment:

Also, rather than argue on the merits of the IKC proposed alignment, InDOT dismissed them with two invalid arguments: First, InDOT indicated the cost of delaying the highway would exceed any estimated cost savings, focusing only on the cost aspect of the proposed alignment. This argument seems to completely discount the reduction of environmental impacts gained by the proposal and thus violates the NEPA process. If this argument was valid, then InDOT should have bypassed the entire NEPA process since the delay to perform this study surely unnecessarily delayed the project by years and the project could have been built much cheaper by ignoring the environmental studies.

Response: Response to Comment PI322-01 in Volume III of the Section 4 FEIS provides the response to IKC's suggested alignment outside of the corridor. By demonstrating that the alignments suggested by two commenters fail to provide for the avoidance of significant impacts, it renders the consideration of relative cost moot. Response to Comment PI322-01 does not discuss costs or cost tradeoffs.

IKC01-05

Comment:

Second, InDOT provided a circular argument that the IKC proposal was basically suggested too late in the NEPA process to be considered. As we understand it, InDOT's logic is that the Tier 1 corridor was selected without significant detailed environmental study with the understanding that there would be risk areas, but this was understood and accepted by the participating resource agencies and the public. During the Tier 2 study, InDOT did the best they could within the prescribed corridor to mitigate impacts, but looking outside of the corridor was really unnecessary because "everyone" had already agreed during Tier 1 that a certain level of impacts was likely and the "threshold of significance" was much higher than just having a viable alternative that would greatly outperform those within the corridor. While we do understand that the IKC proposal is being introduced "late in the game", the necessity of the alternative was not obvious until the DEIS was published. This does not excuse InDOT's inaction for looking into alternatives to avoid the "unavoidable" karst when they first recognized the problem when the karst fieldwork was performed several years prior to it being made public. The timing of our proposal was dictated by the public release of the information that necessitated the alternative, and to discount it completely on the basis that it was introduced near the end of Tier 2 rather than in Tier 1 makes a mockery of the entire NEPA process.

Response: The Tier 1 Record of Decision provides an important safe harbor which allows FHWA and INDOT to manage the Tier 2 studies in a reasonable manner and allows residents and property owners within the 26 county Tier 1 study area a great measure of certainty about the areas which the project will impact. As Response to Comment PI322-01 in Volume III of the Section 4 FEIS states:

"The existence of these karst impacts within the portion of the Section 4 alignment addressed in the comments was known and analyzed in the Tier 1 FEIS and Tier 1 ROD. These and other impacts were considered and a corridor selected that other resource agencies agreed offered the least environmental impacts while meeting the purpose and need for the project. Other factors cited in the comment (such as stream crossings or grade variations) were known and analyzed in the Tier 1 FEIS and were considered in Record of Decision which selected the Tier 1 corridor. The Tier 1 studies provided extensive opportunities for public and agency involvement; these included 3 formal public hearings, 15 additional public information meetings, and 136 additional community outreach meetings (see Tier 1 FEIS, Section 11.3). A total of 26 agency review and coordination meetings were held (see Tier 1 FEIS, Section 11.4). In addition, over 22,000 comments were received on the Tier 1 DEIS. In none of these venues were any suggestions made to consider a corridor corresponding to these suggestions.

In summary, because the suggested alignment (which is located outside of the Section 4 corridor for a significant distance) does not result in avoiding significant impacts, FHWA has properly determined that no further analysis of the suggested alignment is needed. The timing factor relates to the fact that this project is part of a "tiered" NEPA analysis. The Tier 1 decision

selected Alternative 3C over other alternatives knowing and acknowledging that any alignment within that corridor would impact karst resources. Thus, with that decision made, the ability to select an alignment outside of the corridor approved in the Tier 1 ROD was limited to circumstances in which FHWA determines that significant impacts to resources, beyond what was contemplated in the Tier 1 EIS, have been identified and should be avoided. As explained in the FEIS, the suggested alignment does not, in FHWA's determination meet this standard.

IKC01-06

Comment:

The bottom line, the ROD pertaining to sub-Sections 4F and 4G should not be approved until a full evaluation of the IKC alignment proposal is completed and the USEPA and those agencies involved in the Karst MOU have had an opportunity to review and comment. The substantive merits of the proposal including:

- Elimination of over a mile of alignment/right-of-way/roadway.
- Reduced construction costs (\$37 million per InDOT's estimates)
- Reduced impact on known karst features and the need to mitigate those features.
- Reduced impact on unknown karst features that will be discovered during the build process, which will require field decisions that likely will compromise the ability to mitigate those features properly.
- Reduced forest impact, which also eliminates 3:1 mitigation of those acres.
- Reduction in the number of stream crossing of Indian Creek from 3 to 1 and other smaller tributaries, reducing water quality impacts and corresponding mitigation.
- Reduction in the number of grade inclines/declines and the cut/fills needed (the IKC proposal has a single grade).
- Reduction in the number of miles of highway within the Coon and Grotto Winter User Area. These caves jointly host nearly as many Indiana bats as Ray's Cave and may become critical habitat for the species.
- Reduced impact from roads that are closed since the proposed alignment is shorter, runs through less populated areas, and is further away from SR 45, the primary artery for those who live south of the FEIS preferred alignment.
- Reduction in mobility/user costs over the lifetime of the highway due to the shorter travel length of the highway.
- Reduction in auto/truck emissions due to the shorter travel distance and on-grade operations.
- Improved safety metrics due to the shorter travel distance and the elimination of grades resulting in speed differential accidents.
- Improvement in the overall Evansville-to-Indiana travel times and other performance metrics due to the shorter travel length.

Response: See Responses to Comments IKC 01-02 through 01-05.

IKC01-07

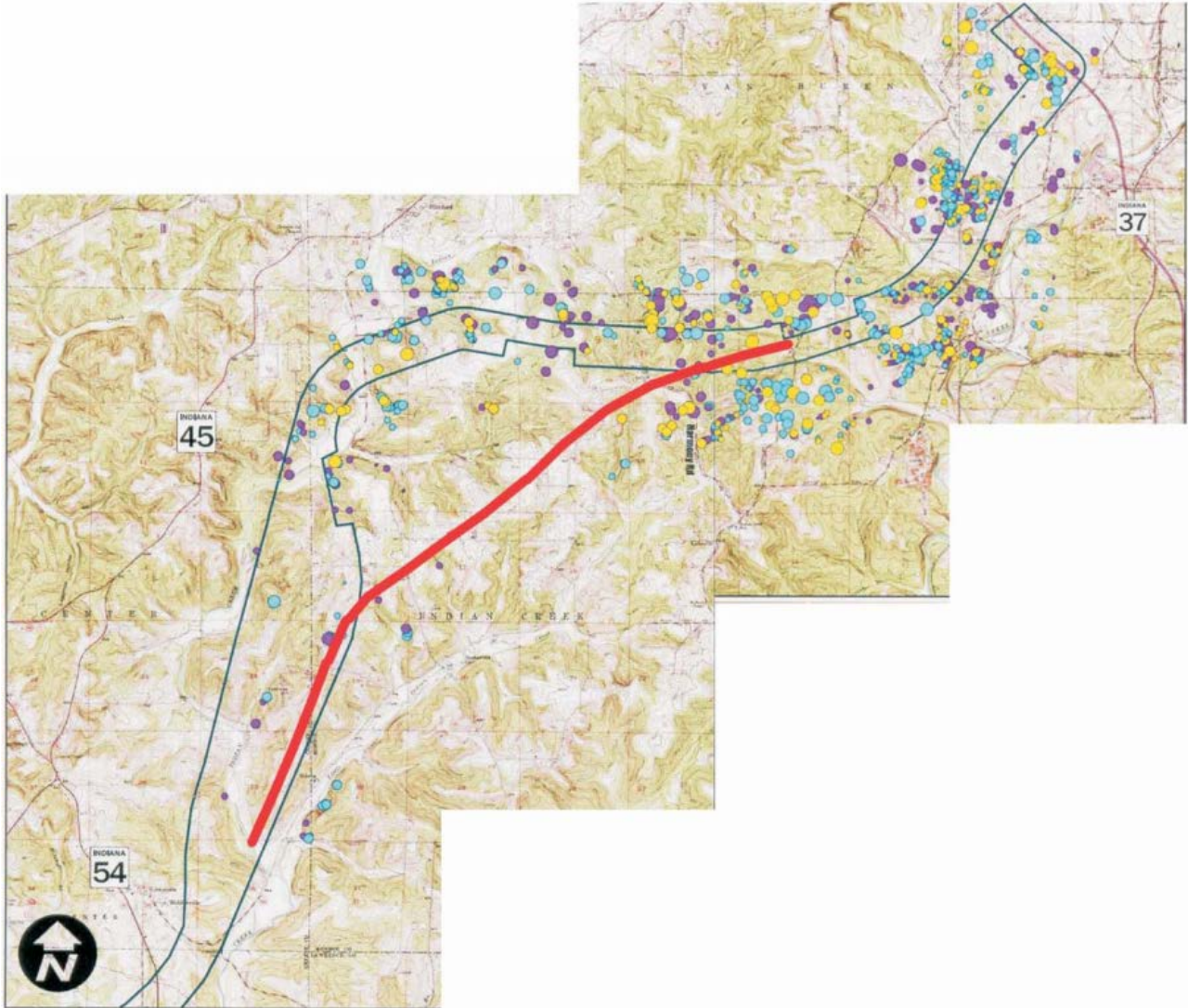
Comment:

Please see the IKC's DEIS for more specifics of the merits of its proposed alignment.

Finally, we would also like to again voice our disappointment in the inclusion of the Monroe/Greene County Line interchange in the FEIS. For an interchange that wasn't even a consideration in the Tier 1 study, it is most curious that InDOT has determined that this interchange be considered "essential" even though the mobility performance is only slightly better than option 3, the justification is at best suspect and biased, and it is the worst option environmentally (including intrusion into the Ray's Cave Winter Use Area). It is also telling that the both the USFWS and USEPA were critical of the interchange for many reasons, but that InDOT seemed to completely dismiss their concerns in the FEIS concerning the final configuration.

Response: Interchanges at SR 45, Greene/Monroe County Line, and SR 37 (Interchange Option 1) are included in Refined Preferred Alternative 2. Interchange Option 3, with proposed interchanges at SR 45, SR 54, and SR 37, was evaluated and discarded as an Alternative Carried Forward. Overall, Interchange Option 3 would have noticeably less congestion relief as compared to Interchange Option 1 for both daily vehicle miles traveled and daily vehicle hours traveled within the 5-county Section 4 Study Area. Finally, Interchange Option 3 has a travel demand that is about 3,100 vehicles per day, or about 38%, less than Interchange Option 1. In addition to these disadvantages, Interchange Option 3 also does not meet the desired rural interchange spacing per INDOT policy. The 1.8-mile spacing between the SR 45 and SR 54 interchanges falls well below the minimum 3-mile spacing in rural areas as set forth in the *Indiana Design Manual* and adopted in the *Tier 2 Project Guidance Manual*.

The map following these comments was provided as part of this comment. It previously was provided as part of this organization's comment on the DEIS, and illustrates the alignment which it suggested in Comment PO007.



Licht01
E-mail from John Licht to Project Website - 07/22/2011

Licht01-01

Comment:

We are seeking information on all I-69 and railroad intersections, active and inactive for all sectors.

Response:

On July 28, 2011, the commenter was informed that no railroad intersections, either active or inactive, are crossed by in the Section 4 project area. The commenter was referred to the July 22, 2011 Section 4 Final Environmental Impact Statement available for viewing on the project website for additional information about railroads crossed by I-69 within the Section 4 project area.

Clarke01
E-mail from Scott Clarke to Project Website - 07/26/2011

Clarke01-01

Comment:

Has a decision been reached on the bridge for Harmony Road? Also what bridges will be going across I-69 in southern Monroe County?

Response:

On July 28, 2011, the commenter was informed that the Final Environmental Impact Statement (FEIS - July 22, 2011) for the I-69 Evansville to Indianapolis Tier 2 Studies Section 4 project recommends that Harmony Road remain open with a grade separation (overpass) over I-69. The commenter was informed that the Record of Decision (ROD) for this project is expected in August and this document will make the final determination on road closures.

The commenter was informed that within southern Monroe County, Carmichael Road, Breeden Road, Burch Road, Harmony Road, Rockport Road, Lodge Road, Tramway Road and Bolin Lane are also recommended to be grade separated from I-69 (with an overpass or underpass), and the only roads that would be closed in southern Monroe County are Carter Road, Evans Lane, West Evans Lane, Big Sky Lane, and the connection from West That Road to SR 37 (which would only be closed on the west side of SR 37).

Merriman01
E-mail from Jerry Merriman to William Sampson (DLZ) - 07/26/2011

Merriman01-01

Comment:

I have just received duplicate mailings of three DVD's (six total) covering the I-69 Tier 2 Section 4 Final Environmental Impact Statement (FEIS). I did not request these DVD's and I would have preferred to view the information online or at my local public library. Please remove my name

and address from your mailing list, and please reply by e-mail to let me know I have been removed.

Response:

On August 3, 2011, the commenter was informed that his name had been removed from the I-69 Evansville to Indianapolis Section 4 Tier 2 Studies project mail list, and that DVDs were provided to persons who commented on the DEIS.

Merriman02

E-mail from Jerry Merriman to Project Website - 08/18/2011

Merriman02-01

Comment:

Thanks for letting me know. I did receive the letter--in fact I received two copies of the same letter, mailed in separate envelopes to my name and address. The same thing happened with previous mailings, so please check to make sure that my information is completely removed.

From:section4pm@i69indyevn.org [section4pm@i69indyevn.org]

Sent: Thursday, August 18, 2011 8:40 AM

To: Merriman, Jerry S

Cc:i-69.section_4@i69indyevn.org

Subject: I69 Section 4 Mail List

We regret to inform you that a corrective letter pertaining to the DVD(s) your received will be forthcoming. It was our intention to remove your name from the mail list prior to this occurring. Please accept our apology. If you have any questions or if we may be of further assistance, please do not hesitate to call or write. Thank you.

Sincerely,

Response:

On 08/19/2011, the commenter was informed that the mailing address had been updated to reflect this request.

Higgins01

E-mail from Eddie Higgins to Project Website - 07/27/2011

Higgins01-01

Comment:

I live at 7170 South Harmony Road Bloomington. i have looked at so many maps and seen so many different ways that I69 is being built. No one has contact or anything and I was wanting to make sure that if my house is going to be taken out or what. Can anyone tell yay or nay if it will be?

Response:

On August 3, 2011, the commenter was provided drawings depicting the location of the subject property relative to the I-69 alignment. It was explained that the property is located north of the limits of Harmony Road construction and would not be impacted. The commenter was informed that the property is not considered a relocation.

Young01

E-mail from Marie Young to Project Website - 07/27/2011

Young01-01

Comment:

I am unable to find specifics regarding the Vernal Pike realignment. Will there be an entrance from I-69 directly onto Vernal Pike or will those wanting to visit businesses on Vernal Pike have to take 45/46 toward Ellettsville to Smith Road and then turn onto Vernal from there?

Response:

On August 3, the commenter was informed that all comments on the Section 4 FEIS will be addressed in the Section 4 Record of Decision (ROD). It was also noted that Vernal Pike is in Section 5 of the I-69 project and that this comment was forwarded to the Section 5 staff for consideration.

Kirk01

E-mail from Jim Kirk to FHWA and FHWA Executive Secretary - 08/10/2011

Response provided in letter from Bren George of FHWA on 08/30/2011

Kirk01-01

Comment:

I urge you to to increase financial oversight of new-terrain I-69 in light of its growing financial cost and environmental footprint. We so many roads and bridges in need of repair. It seems ridiculous to spend this kind of money on a highway system when a perfectly good one is almost completely built and in place. Not to mention wasting of some of Indiana's natural scenic beauty and resources.

Response:

This is in response to your electronic mail (e-mail) to the Federal Highway Administration (FHWA), dated August 10, 2011, regarding increasing FHWA financial oversight of the new Interstate 69 (I-69) corridor project, in light of its "growing financial cost and environmental footprint". Your e-mail was referred to the Indiana Division office for response, and I have been asked by the Division to respond to you.

The FHWA understands and appreciates your concerns, and would like you to know that we have been and will continue to maintain full oversight of the funds and process during the development and construction of this project. This includes our oversight of the environmental impacts, the cost, and design standards. The FHWA cannot approve the Record of Decision (ROD) for the I-69 projects unless they are included in a fiscally constrained Indiana Statewide Transportation Improvement Program (INSTIP). Essentially, FHWA takes its oversight responsibilities very seriously to ensure that all applicable laws and regulations are met before federal funds are authorized.

For this type of project, the surface transportation act, the "Safe, Accountable, Flexible, Efficient Transportation Act; A Legacy for Users" (SAFETEA-LU) requires a Financial Plan (FP) to be developed by the State, and updated annually. It also requires that the FP be reviewed and approved by the FHWA. FHWA Cost Estimating Guidance requires that all costs (including adequate contingencies and reserves for all cost elements) associated with the project, from the environmental clearance phase through final construction, must be included in the FP

regardless of the source of funding. These costs must be expressed in year of expenditure dollars and estimated using a risk based approach. The FHWA also conducts cost estimate reviews as appropriate at critical stages throughout the life of the project.

We understand that there may be roads and bridges that may need repair; however, you should be aware that funds under the Federal-aid Highway Program are made available to INDOT each year by statutory formula. INDOT works with the local officials to determine which projects are developed within funding limits. When the State decides to use Federal-aid funds or when Federal action is required, essentially, our role is to work cooperatively with the State to ensure full compliance with Federal requirements. While FHWA is actively involved in developing various projects, we do not decide which and how projects are advanced for Federal-aid funds. However, our planning regulations emphasize that transportation priorities be established by the local governments and that the collective effects of all improvements to the transportation system be identified.

Long01

E-mail Comment – 08/20/2011

Long01-01

Comment:

Hi Kirk - Don't know if you remember us, but Gary and I stopped by your office on Monday afternoon asking about information on I-69 near a house we are considering purchasing. I used to work in noise analysis including highway noise, and am wondering if you could provide us with results for the house at 4850 Evans Rd. I have seen a software package that calculates the highway noise as a line source and, using ray tracing, calculate noise levels at various receiver points along the road, taking into account distance of source to receiver, nearby reflective structures, density of trees, and absorption of reflective ground surfaces. I am wondering if you have access to such a study and if you could give us the noise maps or at least some loudness numbers for the house (which is somewhat blocked from the highway view by a two-car garage).

I left a message on your cell phone too.

Response:

The residence located at 4850 Evans Road is located within the study limits for the noise analysis that was performed for this project and was assigned a receptor ID of R-181. Federal Highways Transportation Noise Model (TNM) version 2.5 was used to generate predicted noise levels for the design year 2030 for the Refined Preferred Alternative No. 2 using both the initial design criteria and the low-cost design criteria. The predicted noise level at R-181 using the initial design criteria for the design year 2030 was 62.4 dBA. The predicted noise level at R-181 using the low-cost design criteria for the design year 2030 was 62.3 dBA. The existing noise level (ambient reading) that was used for this location was 39.7 dBA. As a result, this location has a 22.7 dBA (22.8 dBA) increase over the existing noise level. This increase is considered a substantial increase and thus is classified as a traffic noise impact. An abatement analysis was performed. It was determined that it was "feasible" to obtain a 5 dBA reduction in the noise level at this location. However, noise abatement at this location did not meet the cost-effective portion of the reasonableness criteria. As a result, noise abatement was not recommended for this location. The final determination regarding whether noise abatement is reasonable and feasible will be made during final design. A copy of the complete noise analysis can be found in the FEIS, Appendix X.

Sorenson01**E-Mail from Clark Sorenson to Dave Pluckebaum – 08/16/2011****Sorenson01-01****Comment:**

You may recall at last Tuesday's Section 4 CAC meeting at Eastern Heights HS, Greene County Indiana I asked the question about the earliest possible Record of Decision (ROD) response for Section 4 from Federal Highway Administration.

Since the I-69 Section 4 FEIS issued by INDOT on July 20, 2011 was NOT "final" (due to subsequent release of revised Volume III without any explanation of what was changed), the earliest ROD from FHA possible should be approximately September 6, 2011.

Please follow up with Steve Walls at INDOT Section 4 Office as Steve said he'd investigate and reply to my question.

Please note I'm copying DOT Inspector General on this email.

Response:

See response to Sorenson04-01. Also, on August 17, 2011 the commenter was informed that all comments on the Section 4 FEIS would be addressed in the Section 4 Record of Decision (ROD).

Sorenson02**E-Mail from Clark Sorenson to Mike Grovak (PMC) – 08/17/2011****Sorenson02-01****Comment:**

Please consider what you refer to as my I-69 Section 4 "Comment" as a very serious question I made in public is on the record and deserves an accurate and immediate answer.

To think INDOT (you) can wait until a ROD is issued flies in the face of honest public scrutiny of the I-69 project.

Steve Walls? and Dave Pluckebaum of INDOT took my question seriously as well as my email address which seems was passed along to you.

My question was serious at I-69 Section 4 CAC meeting Aug 10, 2011 in front of many many witnesses.

It will be a serious mistake if I don't receive an official answer immediately about timing when the ROD can legally be issued after Volume III of FEIS was revised/reissued after three weeks had passed from initial issuing of FEIS on July 20, 2011.

Something smells....

Response:

See Response to Sorenson04-01.

Sorenson03**E-Mail from Clark Sorenson to Mike Grovak (PMC) – 08/19/2011****Sorenson03-01****Comment:**

To date, I have not had a reply to my question about the timing of Federal Highway Administration's Record of Decision Section 4 of proposed I-69. My formal question is based on INDOT's issuing of a "corrected" Volume III which I received on August 10, via USPS. The FEIS was released on July 20, 2011.

Recently, I received a letter from INDOT in a DLZ marked return address envelope. The letter explained the corrected/revised FEIS Volume III had eliminated Appendix NN.

However, there is still no explanation of why this specific Appendix NN was removed from FEIS. Will INDOT explain why Appendix NN was removed from FEIS?

Please correct me if I'm wrong, but I believe Appendix NN dealt with sensitive local karst environmental issues and also contained details of a potential significant construction cost reduction if the current FEIS alignment was moved slightly in Monroe County Indiana. Is this correct?

I request an immediate answer to the above questions.

Response:

See response to Sorenson04-01. It should be noted that the change described in this comment consisted of removal of references to the appendix which was not provided and did not exist, not the removal of an actual appendix to the FEIS. Also, on August 19, 2011 the commenter was informed that all comments, with responses, would be published in the Section 4 ROD and that all comments are evaluated on an equal basis. The commenter was informed that any further comments on similar topics would be included and answered in the Section 4 ROD; however, no acknowledgements of such future comments would be provided.

Sorenson04**E-mail from Clark Sorenson to Mike Grovak (PMC) – 08/24/2011****Sorenson04-01****Comment:**

To not answer my question demanding the extension of the public response period to I-69 Section 4 FEIS Record of Decision is clearly an attempt by INDOT to deny changes were made to the "Final" EIS after it was published on July 20, 2011.

Changes were made by INDOT approximately ten days after FEIS was originally issued to remove the important hide Appendix NN in the FEIS document.

The removal of Appendix NN SUBSTANTIALLY changes the entirety of the complete original Section 4 "Final" EIS issued by INDOT.

To wait until AFTER the Section 4 Federal Highway Administration Record of Decision (ROD) is issued to address my concerns about a proper delay of the ROD for changes made by INDOT is patently dis-ingenuous at the least and very likely illegal under Federal Law.

I strongly suggest you escalate my concerns to appropriate levels of your superiors at BLA and INDOT immediately and delay the ROD to reflect changes made to the "Final" EIS in August of 2011.

By copy to President Obama I implore his staff to request Ray LaHood Secretary of Transportation immediately investigate my concerns and weigh in on the legality of issuing the Federal Record of Decision with out regard to substantial and substantive changes made after the document was published. This MUST be done BEFORE the Federal Highway Administration issues a Record of Decision.

I'm happy to talk with Federal Highway Officials and/or US DOT staff about my concerns. My phone number is 812-825-5013.

Response:

All environmental impact statements are filed with the U.S. Environmental Protection Agency (USEPA) and USEPA publishes a Notice of Availability each week in the Federal Register. The Tier 2 Section 4 FEIS was sent to USEPA but was incorrectly published in the July 22, 2011 Federal Register with a review end date of August 15, 2011. Upon being informed by FHWA of the incorrect review end date, USEPA published a Federal Register Amended Notice on July 29, 2011 which corrected the review end date to August 22, 2011.

On August 2, 2011, INDOT sent a letter along with a corrected copy of the Volume III (Comments and Reponses) DVD of the Tier 2 Section 4 FEIS to all agencies, organizations, and individuals that were sent the Tier 2 Section 4 FEIS per the July 22, 2011 Federal Register Notice of Availability. On August 15, 2011, INDOT sent a second letter to all recipients of the corrected Volume III DVD indicating that corrections were made for responses to certain comments as contained in the Public Organization subcategory of Volume III, Part A. This letter further explained that three specific responses with references to Appendix NN were removed because Appendix NN does not exist in the Tier 2 Section 4 FEIS and that responses to those comments were made in the corrected Volume III DVD directly following those comments in lieu of preparation of an actual appendix to address the comments. These corrections are considered to be minor changes and do not necessitate an extended review period for the Tier 2 Section 4 FEIS.

USEPA01

Letter to Robert F. Tally (FHWA-IN) and Michael B. Cline (INDOT) – 08/22/2011

USEPA01-01

Comment:

The U.S. Environmental Protection Agency Region 5 (EPA) has reviewed the Tier 2 Final Environmental Impact Statement (FEIS) for Section 4 of the I-69 Indianapolis to Evansville, Indiana project. We offer our comments under the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act.

The Section 4 Tier 2 FEIS is the fourth of six Tier 2 FEISs EPA reviewed for the Federal Highway Administration (FHWA) and Indiana Department of Transportation's (INDOT) proposed 142-mile-long I-69 Indianapolis to Evansville Project. I-69 is currently proposed as a freeway facility that utilizes interchanges for access control. Section 4 extends for approximately 26.7 miles from just east of US 231 to State Road 37 (SR 37). The proposed Section 4 new terrain roadway would cross numerous streams (many assessed as moderate or high quality), numerous karst features of high importance, steep slopes, and large tracts of intact forest land in substantially rural areas of Greene and Monroe Counties.

The Section 4 FEIS Refined Preferred Alternative 2 is a refined version of the Section 4 DEIS Preferred Alternative 2. The refinements are identified as minor changes in profile grade and local access design, and shifts in the proposed right-of-way. Refined Preferred Alternative 2 is comprised of subsection alignments Refined 4A-2, Refined 4B-1, Refined 4C-2, Refined 4D-1, Refined Hybrid 4E-1/4E-2, Refined 4F-3, 4G-2 and Refined 4H-2 and includes three proposed interchanges (Option 1) at SR 45, the Greene/Monroe County Line (with a South Connector Road), and SR 37. Impacts associated with the FEIS Refined Preferred Alternative 2 are not substantially different from those identified for the DEIS Preferred Alternative 2. However, the estimate of linear feet of stream relocations has substantially increased for all DEIS alternatives. Stream relocations for the Refined Preferred Alternative 2 has increased from 22,658 linear feet (initial design criteria) / 16,315 linear feet (low-cost design criteria) in the DEIS to 37,325 linear feet (initial design criteria) / 30,861 linear feet (low-cost design criteria) in the FEIS.

Response: Comment noted.

USEPA01-02

Comment:

EPA reviewed and commented on the Tier 2 Section 4 DEIS and rated the DEIS Preferred Alternative 2 as "EC-2, Environmental Concerns-Insufficient Information" in our letter dated October 28, 2010. EPA concerns related primarily to the project having the potential for direct and indirect adverse impacts to surface and groundwater quality and quantity in relation to streams/ponds/wetlands, drinking water supplies (wells and springs) and associated public health risks, particularly in karst areas and other challenging environments. We specified that, in order to fully assess environmental impacts, additional analysis regarding the vulnerability of water resources should be undertaken and additional mitigation measures identified in the FEIS. We also provided comments and recommendations regarding EPA Class V permits under the Safe Drinking Water Act, and air quality conformity. EPA concurs with FHWA's air conformity determination.

Response: Comment noted.

USEPA01-03

Comment:

We find the FEIS is informative and generally responsive to most of our DEIS concerns and recommendations regarding the proposal. For example, the FEIS text has been modified to more accurately reflect the assessment of stream quality in Section 4. Table 3 of Appendix A of the Stream Evaluation Report (FEIS Appendix M) provides stream identification numbers and identifies whether a bridge or a particular culvert size is being proposed for a particular stream stretch for Refined Preferred Alternative 2 (initial design criteria). While the text of the FEIS does not elaborate on stream riffle-pool complexes the FEIS states that realignment of surface streams or impacts to riffle-pool complexes, and natural stream geomorphology will be avoided where reasonable. A firm commitment (page 7-30) is made that wetlands and other water resources will be actively avoided throughout the final design of the Section 4 roadway. The FEIS incorporates EPA's recommended language regarding EPA Class V permits. It includes new Tables 5.24-2a and 7-1 a *Best Management Practices in Karst Terrain*. A firm commitment is made that if active groundwater flow paths are discovered, measures will be taken to perpetuate the flow and protect water quality (page 7-55). The FEIS includes an update on the status of potential mitigation sites for Section 4. It also includes the air quality conformity finding and supporting documentation.

The FEIS provides additional information with the addition of Figures 5.24-4 (Land Use Changes by 2030 for the No-Build Scenario), 5.24-5 (Karst Features Identified within Karst Study Area), and 5.24-6 (Impacts of I-69 Section 4 and Other Major Projects Within the Section's Geographic Scope) to spatially identify areas where surface and groundwater resources are vulnerable as a result of potential induced growth associated with Section 4. However, the FEIS provides minimal analysis of the information presented. In addition, regarding karst environments. A single, spatial overlay map of the Traffic Analysis Zone (TAZ) Induced Growth data included in Figure 5.24-1, the soil septic absorption data included in Figure 5.24-4, and the karst feature densities included in Figure 5.24-5 would provide a better understanding of potential stressors to karst resources and water supplies stemming from potential induced development. Additionally, this analysis would be strengthened by including the location of specific known karst features, the location of existing private water wells (previously included in Figure 4.3-4), and springs used for individual potable water supplies.

Response: Thank you for your comment. INDOT and FHWA appreciated the USEPA's comments and did try to be responsive to them.

Analysis of the data shown in Figures 5.24-4 through 5.24-6 was not included because the exact location of indirect development within the Traffic Analysis Zones (TAZs) is not known. The indirect development for Section 4 in karst terrain is estimated to be 135 acres. The total area of TAZs where induced development is forecasted in karst terrain is 61,010 acres. This results in 0.2% of the total area anticipated to experience induced development in karst terrain. Identifying specific locations and specific karst features affected by induced development would be highly speculative. Multiple maps were included in Chapter 5.24 because we were concerned that showing all data on one map at the scale presented in the FEIS would be visually crowded. Please note that the acreage data per TAZ shown in Figure 5.24-1 is included on Figures 5.24-4 and 5.24-5.

The specific location of karst features is not shown in the FEIS due to sensitivity reasons related to karst resources. Particularly, the locations of caves and associated springs and sinkholes are considered confidential and such confidentiality was agreed upon to obtain cave databases. The specific locations of karst features are only known within and near the Section 4 corridor. A karst survey was not performed for the entire TAZs forecasted to experience induced development.

USEPA01-04

Comment:

Throughout the FEIS and Survey of Karst Resources Report, FHWA/INDOT have committed to developing mitigation measures for karst features consistent with the 1993 Karst MOU signed by INDOT, Indiana Department of Natural Resources (IDNR), Indiana Department of Environmental Management (IDEM) and U.S. Fish and Wildlife Service (USFWS). The 1993 MOU established the framework for ensuring that INDOT's transportation projects are constructed in an environmentally sensitive manner that protects groundwater quality, public health and safety, and the environment. The terms and conditions included in the MOU are adequate, provided karst resources, impacts, and Best Management Practices (BMPs) and mitigation alternatives are considered during the preliminary design phase of the project. Rigorous implementation of the MOU is critical to prevent potential irreparable impacts to karst resources and adverse effects on public safety. According to the FEIS most of this work will take place after the Section 4 Record of Decision is issued.

Response: INDOT and FHWA are committed to implementing the stipulations found in the Karst MOU. Karst resources, impacts, BMPs and mitigation alternatives will be considered during the preliminary design phase of the project. Stipulations 1-4 of the Karst MOU were addressed during the National Environmental Policy Act (NEPA) portion of the project. Stipulations 5-17 will be implemented during design and construction of the project.

USEPA01-05

Comment:

The FEIS is not clear regarding when and what specific steps will be taken during preliminary design phase to further identify karst features and explain how that information will be used to identify committed mitigation measures for incorporation in the final design, construction and operation of the Section 4 Preferred Refined Alternative 2.

We provide detailed comments in the enclosure to this letter regarding EPA's outstanding concerns and make additional recommendations regarding measures the FHWA/INDOT could take to help ensure the environment, public health and safety are adequately protected.

Response: Pre-construction studies may identify previously unknown karst features or hydrological connectivity to the proposed right-of-way. Such studies include, but are not limited to: geotechnical surveys, video records from geotechnical boreholes, geophysical surveys (electro resistivity, etc.), and supplemental dye tracing. The results of these pre-construction studies will be provided to the IDNR, IDEM, and USFWS prior to construction as a part of the Karst MOU coordination process. Appropriate structural or mitigation measures will be developed for newly identified features and provided to the Karst MOU signatory agencies along with the planned measures to addressed features identified in the karst studies to date.

USEPA01-06

Comment:

Appendix KK of the Section 4 FEIS provides an updated running tally of the direct impacts to resources of concern of the overall I-69 Indianapolis to Evansville project, as we requested. The resources being tallied and tracked are new acres of right-of-way, farmland impacts, forest impacts, wetland impacts, floodplain impacts, residential impacts, business impacts, and now includes karst feature impacts. The tally does not include stream impacts or cumulative impacts. We recommend stream impacts be tracked as well.

Response: Tier 1 impacts compared stream impacts by calculating the number of stream crossings for perennial and intermittent streams. In addition, the Tier 1 study did not show these impacts by Tier 2 section. Tier 2 impacts are calculated on the basis of linear feet of stream impacts, and no such calculations have been published yet for Section 6. There is no basis to compare Tier 1 and Tier 2 stream impacts, nor to compute estimated stream impacts for all Tier 2 sections.

USEPA01-07

Comment:

We appreciate the additional information regarding INDOT's tracking system. We reiterate our request that all future Tier 2 EISs for I-69 (Sections 5 and 6) include a detailed explanation of the tracking system and any updates made to the system. INDOT is using the tracking system to help ensure that the overall I-69 project's impacts are identified and all Tier 1 and Tier 2 NEPA mitigation commitments. EPA understands that the tracking system will track three types of mitigation: 1) mitigation commitments required by regulation or permit conditions; 2) other mitigation commitments made in the EIS in response to public or agency comments; and 3) other mitigation measures that will get "further consideration." To date, EPA has received only the February 22, 2010 annual monitoring report. Please send us the second I-69 annual monitoring report as soon as it is available.

Response: The second I-69 annual monitoring report will be sent to USEPA by December 31, 2011.

USEPA01-08

Comment:

**Comments Concerning the I-69 Evansville to Indianapolis,
Tier 2 Final Environmental Impact Statement (FEIS)
Section 4 -Crane NSWC to Bloomington, Indiana
CEQ No. 20110228**

Review of the FEIS indicates that most of EPA's DEIS concerns and recommendations are addressed in the FEIS. The FEIS provides additional information with the addition of Figures 5.24-4 (Land Use Changes by 2030 for the No-Build Scenario), 5.24-5 (Karst Features Identified within Karst Study Area), and 5.24-6 (Impacts of I-69 Section 4 and Other Major Projects Within the Section's Geographic Scope) to spatially identify areas where surface and groundwater resources are vulnerable as a result of potential induced growth associated with Section 4. However, the FEIS provides minimal analysis of the information presented.

Response: Please see response to Comment USEPA01-03.

USEPA01-09

Comment:

Throughout the FEIS and Survey of Karst Resources Report, FHWA/INDOT have committed to developing mitigation measures for karst features consistent with the 1993 Karst MOU signed by INDOT, Indiana Department of Natural Resources (IDNR), Indiana Department of Environmental Management (IDEM) and U.S. Fish and Wildlife Service (USFWS). The 1993 MOU established the framework for ensuring that INDOT's transportation projects are constructed in an environmentally sensitive manner that protects groundwater quality, public health and safety, and the environment. The terms and conditions included in the MOU are adequate, provided karst resources, impacts, and Best Management Practices (BMPs) and mitigation alternatives are considered during the preliminary design phase of the project. According to the FEIS most of this work will take place after the Section 4 Record of Decision is issued.

Response: Please see response to Comment USEPA01-04.

USEPA01-10

Comment:

The FEIS is not clear regarding when and what specific steps will be taken during preliminary design phase to further identify karst features and explain how that information will be used to identify committed mitigation measures for incorporation into the final design, construction and operation of the Section 4 Preferred Refined Alternative 2 to help insure that environmental resources such as surface water and groundwater, drinking water supply wells and karst resources will not be adversely impacted.

Response: Please see response to Comment USEPA01-05.

USEPA01-11

Comment:

The following comments, for the most part, identify EPA's outstanding concerns in more detail and make additional recommendations regarding measures the FHWA/INDOT could take to further help insure environmental resources, public health and safety are adequately protected.

Please note that the date of EPA's response letter to FHWA/INDOT's responses to EPA DEIS comments is March 9, 2011 and not March 8, 2011, as stated frequently stated in the FEIS.

Response: Correction noted.

USEPA01-12

Comment:

WATER RESOURCES

Streams: Stream impacts are the major aquatic issue for Section 4 of the proposed I-69 highway. The FEIS includes additional attention to overall stream quality. Stream impact discussions have been revised in the FEIS to include a habitat quality weighting of stream impacts in order to incorporate additional information regarding stream quality. Tentative structures (bridges or culverts) for each potential stream crossing are identified on Appendix A - Tables 3 and 4 of the Stream Evaluation Report found in Appendix M. The FEIS acknowledges the need to identify adequate sedimentation control for construction impacts, including steep terrain. Potential Best Management Practices (BMPs) are identified and it is recognized that INDOT will work with IDEM to further identify suitable measures for erosion control. Stream inventory numbers appear to be shown on several FEIS maps; however, the numbers are for the most part illegible and stream inventory identification numbers are not included in the stream discussions in the FEIS, as we requested. We continue to recommend that all streams with riffle-pool structures be bridged and that the bridges span a stream's 100-year floodplain whenever feasible.

Response: A final hydraulic design study will be completed during the design phase, and a summary of this will be included with the Field Check Plans and Design Summary. The channels of all perennial streams with riffle-pool structures, as well as portions of their overbanks, will be bridged to minimize stream and riparian impacts. With regard to legibility of stream maps, please see Response to Comment CARR 01-73.

USEPA01-13

Comment:

Compensatory Mitigation: The FEIS provides an update on the development of compensatory mitigation for wetland and stream impacts. The FEIS Biological Assessment includes an updated compensation mitigation plan since the DEIS. The FEIS acknowledges that wetland and forest mitigation requirements will be calculated in acres and stream mitigation requirements will be calculated in linear feet in consultation with IDEM and the Corps during permitting for Section 4. The FEIS currently identifies that mitigation for Preferred Refined Alternative 2 would be between 15.79 and 29.14 acres for wetland impacts between 5.26 to 13.09 acres. Assuming 1:1 mitigation ratio, the FEIS identified required mitigation for stream impacts would range from 93,196 linear feet to 111,247 linear feet (page 7-62).

We continue to recommend that riparian buffers in specified minimum widths need to be used to protect stream stability and quality. The FEIS identifies that if the mitigation site(s) are turned over from INDOT to another long-term management agency or land steward, the receiving agency or land steward would be taking the responsibility to cover this cost. This will need to be included in the land transfer documentation from INDOT to the long-term manager.

Response: It is anticipated that riparian buffers will be a component of the final stream mitigation plan for Section 4. INDOT will be the long-term manager of these sites and will be responsible for this management and costs unless they are turned over to another agency or land steward for long-term management. If the mitigation site(s) are turned over to another long-

term management agency or land steward, the receiving agency or land steward will assume responsibility for such costs. This provision will be included in the land transfer documentation from INDOT to the long-term manager.

USEPA01-14

Comment:

Clean Water Act (CWA) Section 404: EPA reserves its right to provide additional review and comment regarding wetlands and streams during the U.S. Army Corps of Engineers Clean Water Act (CWA) Section 404 permitting process.

EPA reiterates its position that the quantity and quality of stream resources proposed to be relocated or permanently lost in this project, will need formal compensatory mitigation in CWA 404 permitting, no matter what permitting tool is chosen by the Louisville District of the Corps of Engineers. Any of these streams that prove to be outside of current Federal jurisdiction should be mitigated under any applicable State jurisdiction and/or under NEPA.

Response: Comment noted.

USEPA01-15

Comment:

KARST RESOURCES

Analysis of Karst Impacts as part of the Alternatives Consideration Process

Table 6-17 in the FEIS presents the *Comparative Impact Summary* for the Section 4 Alternatives. It unclear exactly how the "Areas of Importance" factored into the overall comparative impacts summary. The karst-related information presented in Table 6-17 includes only the number of karst features to be impacted by each alternative. It would be helpful to see how the "Areas of Importance" factored into the karst impacts component of the *Comparative Impact Summary*.

Response: The karst feature impact information presented in Table 6-17 is limited to the number of features affected by the project alternatives. Ten features were given the label "areas of importance". Areas of importance were considered in the planning and development of project alternatives. Seven of these features are caves with hydrologic connection to the Section 4 corridor. These caves are not located within the corridor. The project alternatives are on a common alignment in proximity to these caves and therefore have the same potential for impacts. Another area of importance is a large karst spring. This spring will not be directly affected but the project alternatives do encroach upon a portion of the spring's drainage area. The project alternatives are on a common alignment in proximity to this drainage area and therefore have the same potential for impacts. Another area of importance is the I-69/SR 37 vicinity, where bedrock is believed to be highly fractured. The project alternatives are on a common alignment in proximity to this area and therefore have the same potential for impacts. The final area of importance is an area of dense feature concentration just north of Tramway Road. Karst groundwater flow paths were found to be short and predictable. Therefore, the typical highway-related karst system concerns (groundwater quality protection and the potential for transport of contaminants via unknown flowpaths over distance to unknown discharge points) are not as significant in this area. Because of the local and predictable nature of the

karst system in this area, it was the opinion of the karst specialists that the number of karst feature impacts associated with an alternative should not be a prevailing factor in the selection of a Preferred Alternative. Rather, the recommendation of a Preferred Alternative relative to karst resources in this area was made based on the location of the alignments relative to the prominent topographic ridge with extensive sinkhole development. The recommendation for a preferred alternative in this area was to cross the ridge at a lower topographic elevation further to the east.

USEPA01-16

Comment:

Section 5.21.3.7 of the FEIS justifies not sampling flora and fauna in all the potentially impacted caves, in part, by stating that some [karst] features such as those in "cut sections" would not be hydrologically impacted since the highway drainage will be below the feature. However, EPA understands that the exposure of the karst feature during construction (excavation and blasting) could have significant impacts on the biota since many are "cave obligate species," which exist only within a very narrow range of temperature and humidity.

Response: The cut section would be within the drainage area of the karst feature hydrologically connected to Rush To It Cave. The Rush To It Cave passage is not anticipated to be exposed during construction; however, if a limestone conduit is uncovered during construction changes in temperature, light, and humidity could occur. Additional biota sampling could be included in the monitoring and maintenance plan stipulated in the Karst MOU.

All blasting in the Winter Action Area (WAA) will follow the specifications developed in consultation with the USFWS to avoid compromising the structural integrity or alter the karst hydrology of nearby caves serving as Indiana bat hibernacula. All karst features within Section 4 are located within the Indiana bat WAA. This same commitment will also help in minimizing impacts to other cave species in addition to Indiana bats.

USEPA01-17

Comment:

Potential Impacts to Unknown Subsurface Karst Features

FHWA/INDOT have committed to minimizing impacts to unknown karst features through stipulations included in the 1993 Karst Memorandum of Understanding (MOU) signed by INDOT, IDNR, IDEM, and USFWS. However, EPA understands that early identification of karst feature locations and extents could advance the selection of potential mitigation measures and thus minimize potential impacts associated with construction activities. We recommend that INDOT consider that the geophysical surveys be conducted during the preliminary engineering phase of the design, prior to earth-disturbing activities. We recommend that a commitment be made by FHWA/INDOT to use "non-invasive ground disturbance" geophysical survey means in the identified "Areas of Importance" or other high-density karst feature areas along Refined Preferred Alternative 2. We recommend that the geophysical surveys be conducted during the preliminary engineering phase of the design, prior to earth-disturbing activities.

Response: INDOT will consider using geophysical surveys during the design phase of the project, prior to earth-disturbing activities. These will be considered in select areas, such as Areas of Importance identified in the Section 4 Karst Report or other high density karst feature

areas along Refined Preferred Alternative 2 and are anticipated to be completed in conjunction with geotechnical borings within these areas to further analyze detailed stratigraphy within the construction limits.

USEPA01-18

Comment:

Potential Impacts on Drinking Water Quantity and Quality and Induced Growth

The addition of Tables 5.21-2a and 7-1 provides a list of potential Best Management Practices (BMPs) in Karst Terrain. In addition, FHWA/INDOT commit to perpetuate flow and protect water quality if active groundwater flow paths are discovered. Figures 5.24-4, 5.24-5, and 5.24-6 have been added to the FEIS to spatially identify areas where surface and groundwater resources are vulnerable as a result of potential induced growth associated with Section 4.

With regard to karst environments, a single, spatial overlay map of the Traffic Analysis Zone (TAZ) Induced Growth data included in Figure 5.24-1, the soil septic absorption data included in Figure 5.24-4, and the karst feature densities included in Figure 5.25-5 would provide a better understanding of potential stressors to karst resources and water supplies stemming from potential induced development. Additionally, this analysis would be strengthened by including the location of specific known karst features, the location of existing private water wells (previously included in Figure 4.3-4), and springs used for individual potable water supplies.

Response: Please see response to Comment USEPA01-03.

USEPA01-19

Comment:

Baseline water quality sampling data is not included in the FEIS as EPA recommended. Baseline water quality sampling of karst features is anticipated as part of the monitoring and maintenance plan that will be developed in accordance with Item #8 of the Karst MOU. The timing for implementing Item #8 of the Karst MOU is unknown and thus it is unclear at which point within project delivery the baseline sampling will occur. EPA recommends that FHWA/INDOT commit to complete the requested baseline water quality sampling prior to the start of construction activity.

Response: Baseline water quality sampling is anticipated to be conducted prior to the start of construction in that area. The final plan developed under Item #8 of the Karst MOU will be reviewed in coordination with the signatory agencies.

USEPA01-20

Comment:

No analysis or discussion is included in the FEIS on the adequacy of currently in-place local, county, and state provisions that address residential and commercial development and long-term on-site wastewater treatment.

Response: The FEIS discusses local ordinances and plans which address the design, construction, installation, location, maintenance and operation of on-site wastewater treatment

systems. See FEIS, pp. 5-185ff. It is beyond the scope of INDOT's responsibilities, and would be highly subjective, to analyze or discuss the adequacy of these local ordinances and plans.

USEPA01-21

Comment:

Karst Fauna Study Methodology

Chapter 5.21 of the FEIS was revised to include further explanation on how caves were selected for fauna studies. However, response to comment AF002-64 states, "... Dr. Lewis did not have the connectivity data to determine the appropriate scope for cave surveys in the context of the Section 4 project." The FEIS is unclear as to who specifically was responsible for developing the karst fauna survey scope and why a recognized cave fauna/flora expert, such as Dr. Lewis, was not consulted during the scoping phase of the project.

Response: Hydrological connectivity with the preferred alternative and the potential for impact to caves/karst features were the determining factors for the karst fauna survey. This was determined by the project study team (including karst geologists, hydrogeologists, and engineers) prior to engaging Dr. Lewis, a technical expert in cave fauna, as a sub-consultant. INDOT and FHWA are following the Karst Memorandum of Understanding (MOU) and additional karst surveys may be determined necessary in coordination with the Karst MOU signatory agencies.

USEPA01-22

Comment:

The *Tier 2 Studies, Survey of Karst Features Report Addendum No. 1, Section 4, US 231 to SR 37* includes information on a new cave that was identified through the project's public outreach effort. This new cave has been added to the impact summary for all alternatives considered. The FEIS indicates that a site visit was conducted to this new feature on March 8, 2011. FHWA/INDOT subsequently determined, "no insects, invertebrates, or other fauna were observed inside the cave during the March 8, 2011 field review." The FEIS is, however, unclear as to whether or not a recognized cave biologist was consulted and what methodology/protocol was used to make this determination.

Response: The assessment of the conditions of this newly-emerging cave was completed by Garre Conner, PG, a cave expert with 40 or more years experience in karst in the Bloomington Area, who was part of the team which conducted the karst biological studies in 2004 through 2006. This survey team evaluated 373 cave records in this area and 250 caves were visited in the field, and identified 14 hibernacula entrances. The assessment applied the six criteria listed on FEIS p. 5-721, which were the same criteria applied in the 2004 through 2006 studies.

USEPA01-23

Comment:

Variability in Flow Conditions as Part of the Pollutant Loading Analysis

As recommended in USEPA's October 28, 2010 comment letter, FHWA/INDOT revised the pollutant loading analysis to include the analysis of a typical versus extreme runoff event. The revised scenario presents a result more representative of natural conditions. The results of this

analysis are included in the *Tier 2 Studies, Survey of Karst Features Report Addendum No. 1, Section 4. US 231 to SR 37.*

Construction Blasting

Efforts to minimize impacts to the Indiana bat and Winter Action Areas (WAAs) are acknowledged in the FEIS. However, it is unclear as to how specifications developed through consultation with the USFWS aimed at protecting Indiana bat hibernacula will also help minimize impacts to water wells [as noted in FHWA/INDOT comment response AF002-39] or the biological and structural integrity of other karst features.

We understand that there are statutes and regulatory limits that regulate construction blasting. These limits may be in the form of measured peak particle velocities (ppv) or horizontal distances from the blast site(s). There are established national and state regulatory threshold ppv limit values that, when exceeded, may cause damage to structures or wells. However, we are unaware of any threshold limit values for natural karst environments. The FEIS fails to specifically address how the project will approach, monitor, and mitigate the effects of construction blasting on the impacted karst features and/or wells.

Response: Peak particle velocity thresholds established in existing regulations will be adhered to during the blasting and construction, and monitoring is anticipated to assure these thresholds are met. In addition, all blasting in the Winter Action Area (WAA) will follow the specifications developed in consultation with the USFWS to avoid compromising the structural integrity or alter the karst hydrology of nearby caves serving as Indiana bat hibernacula. The goal of the blasting specifications is to minimize impacts to karst outside the project construction limits. All karst features within Section 4 are located within the Indiana bat WAA.

The monitoring and maintenance plan developed per the Karst MOU is anticipated to include monitoring of karst features to verify that they are not negatively impacted.

USEPA01-24

Comment:

Conducting geophysical surveys over known caves and/or concentrated karst features would provide data on the depth to a feature, size of a feature, the cap rock thickness above a feature, and the relative competency of the cap rock. Knowing these parameters would significantly decrease the probability of the construction blasting having a negative effect on karst features. Additionally, it could assist in delineating areas along the Preferred Alternative where construction blasting should be prohibited.

EPA recommends that a commitment be made by FHWA/INDOT to use "non-invasive ground disturbance" geophysical survey means in the identified "Areas of Importance" or other high-density karst feature areas along the Refined Preferred Alternative 2. It is recommended that the geophysical surveys be conducted during the preliminary engineering phase of the design, prior to earth-disturbing activities.

Response: Please see response to Comment USEPA01-17.

USEPA01-25

Comment:

Identification of Mitigation Measures for Karst Areas

The FEIS acknowledges that the Design/Build method is not anticipated to be a major component of the Section 4 project delivery. However, FHWA/INDOT's response to comment AF002-3 states that the Design/Build delivery method could "potentially" be chosen. Due to the complexities of the karst environment and the unknown location and number of karst features, we recommend that within sections of the Refined Preferred Alternative 2 where significant karst features are present (e.g., areas of high density or designated "Areas of Concern") the Design/Bid/Build project delivery method be utilized. The Design/Bid/Build delivery method will provide opportunities to further identify the type and location of karst impacts in the Refined Preferred Alternative 2 project area, which will facilitate the selection of appropriate project-specific design elements/BMPs before construction begins. The FEIS is unclear as to when a decision will be made regarding the project delivery method.

Response: It is anticipated that the Design/Bid/Build delivery method will be utilized in areas of karst terrain.

USEPA01-26

Comment:

Suggestions for Mitigation

Throughout the FEIS and Survey of Karst Resources Report, FHWA/INDOT have committed to developing mitigation measures for karst features consistent with the Karst MOU signed by INDOT, IDNR, IDEM, and DSFWS. The MOU established the framework for ensuring that transportation projects are constructed in an environmentally sensitive manner that protects groundwater quality, public health and safety, and the environment. The terms and conditions included in the MOU are adequate, provided karst resources, impacts, and BMPs and mitigation alternatives are considered during the preliminary design phase of the project.

We understand that appropriate BMP selections will be made on a case-by-case basis and that the designer and contractor will not be limited to the measures included in Table 5.24-2a and Table 7-1a. EPA recommends that any additional BMPs and/or new technologies considered be implemented at the discretion of the resource agencies and in accordance with stipulations outlined in the Karst MOU.

Rigorous implementation of the MOU is critical to prevent potential irreparable impacts to karst resources and adverse effects on public safety. Based on a review of the Section 4 FEIS and the Section 4 Survey of Karst Features Report, the following items have been identified as potential irreparable resource and/or safety impacts associated with construction of the Section 4 FEIS Refined Preferred Alternative 2 and recommend this be addressed in the ROD.

Cave Collapse -Potential collapses or subsidence events pose a threat to both natural ecosystems and infrastructure in karst environments. Construction of Section 4 as proposed has the potential to increase the likelihood of such occurrences if appropriate design measures are not identified and implemented early in the project development process. Such events are typically irreparable as they can have detrimental effects on sensitive cave environments and biota. There is also an inherent public safety concern related to collapse and subsidence events in areas of high karst feature density. This inherent safety concern could potentially be

compounded through highway construction activities and highway operation.

Response: INDOT and FHWA acknowledge that collapses or subsidence events pose a threat to natural systems and infrastructure in karst environments. INDOT will investigate all types of structural treatment measures for karst features during the design effort and will implement appropriate measures to avoid these types of events.

USEPA01-27

Comment:

Backfilling of Caves -Backfilling of caves and karst voids can have negative impacts on sensitive cave ecosystems, water quality, and water quantity. Backfilling these areas eliminates essential habitats for cave biota and fauna, impacts animal migration, and impacts air flow, while also posing threats to water quality and quantity. The damming effect caused by backfilling could redirect water into other sensitive subsurface ecosystems that are currently dry, sever groundwater recharge flow paths, or cause a blowout on the ground surface or beneath a constructed roadway embankment section.

Response: If active groundwater flowpaths are discovered, measures will be taken to perpetuate the flow, protect water quality, and minimize ecological impacts. INDOT and FHWA will follow the Karst MOU and coordinate with the MOU signatory agencies on the treatment of karst features.

USEPA01-28

Comment:

Hazardous Materials Spills -Karst recharge features provide a direct conduit to groundwater resources. This level of connectivity increases the likelihood that a hazardous material spill along the Section 4 corridor would have detrimental impacts to karst ecosystems and ground water resources. The potential for hazardous materials to reach the karst network untreated poses a serious health and safety concern to residents, land operators, and business owners who rely on groundwater for drinking water and production activities.

Response: Per Stipulation #7 of the Karst MOU, hazardous materials traps (HMT's) will be constructed at storm water outfalls and other locations that will protect karst features from spill contamination.

USEPA01-29

Comment:

Construction Blasting -Construction blasting associated with constructing Section 4 has the potential to have direct impacts on groundwater flow, water availability for residential and commercial uses, and sensitive karst ecosystems and biota. Blasting in areas of high karst feature density can increase an area's susceptibility to future collapses and subsidence events; both of which pose safety concerns to the travelling public.

Response: INDOT and FHWA acknowledge that construction activities have the potential to alter karst flowpaths. All blasting in the Winter Action Area (WAA) will follow the specifications

developed in consultation with the USFWS to avoid compromising the structural integrity or alter the karst hydrology of nearby caves serving as Indiana bat hibernacula. The goal of the blasting specifications is to minimize impacts to karst outside the project construction limits. All karst features within Section 4 are located within the Indiana bat WAA. In addition, blasting thresholds established in existing regulations will be adhered to during the blasting and construction.

USEPA01-30

Comment:

Water Quantity -Construction of Section 4 has the potential to result in irreversible impacts to water availability as a result of groundwater flow path severance. Construction activities, including cuts, fills, and blasting, have the potential to alter surface and subsurface features in such a way that recharge areas are reduced and new flow paths are established.

Response: Please see responses to Comments USEPA01-27 and USEPA01-29.

USEPA01-31

Comment:

Water Quality Impacts Associated with Induced Development -Areas of anticipated induced growth have been identified in the FEIS. As acknowledged in the FEIS, there are areas within the anticipated induced growth areas where natural conditions make surface and groundwater particularly vulnerable. This includes known karst environments where individual karst features have not been inventoried. There is potential for Section 4 to spur induced development in these areas that poses a threat to sensitive karst environments, water quality, and safety. The potential for irreparable impacts is high if local review and design processes and local planning and development regulations are not considered as induced development activity occurs.

Response: See FEIS pp. 5-815 through 5-818 for a description of local review processes for development in karst areas.

USEPA01-32

Comment:

AIR QUALITY

Air Conformity: The FEIS includes the FHWA conformity determination, discussion and supporting documentation. EPA has reviewed this conformity determination and concurs.

Response: Comment noted.

USEPA01-33

Comment:

Greenhouse Gases/Climate Change: The FEIS does not specifically identify and discuss any anticipated effects of climate change on the project. We continue to recommend that stormwater management systems be designed with extra capacity, given that the frequency and intensity of precipitation events is likely to increase due to climate change.

Response: The hydrology used in drainage design is based on historic trends of rainfall amounts and durations. Any prediction which deviates significantly from historic trends is speculative. See Response to Comment AF002-38 in Volume III of the FEIS for additional details.

USEPA01-34

Comment:

Air Quality Mitigation During Construction: The FEIS explains that INDOT's construction policies do not provide for specific emissions criteria for diesel-fueled construction equipment beyond those that are already federally mandated. The FEIS states that such policies may be considered in the future. We continue to recommend that clean diesel strategies be employed during construction.

Response: This comment is very similar to one provided on the Section 4 DEIS. See Response to Comment AF 002-44 in Volume III of the Section 4 FEIS.

USEPA01-35

Comment:

UNDERGROUND INJECTION CONTROL (CLASS V PERMITS)

Permits (Section 5.23.8 EPA Class V Permits, and Chapter 7: The FEIS includes EPA's suggested changes regarding Class V permits. For additional information regarding EPA Class V permits and DIC program, contact Ross Micham, at 312/886-4237 or at micham.ross@epa.gov.

Response: Comment noted.

APPENDIX C-2
ORIGINAL COMMENT LETTERS

From: Baker, Andrew J [<mailto:ajbaker@indiana.edu>]
Sent: Monday, August 22, 2011 11:59 AM
To: Tally, Robert (FHWA); DuMontelle, Jay (FHWA); Allen, Michelle (FHWA)
Subject: RE: I-69 note to USDOT

Robert, Jay, Michelle, I am concerned our next BMCMPPO meeting in September will be a replay of our previous meeting and will have the same outcome. We will likely adopt a TIP without inclusion of I-69 and will be in the same position as now – having a locally adopted TIP that is unacceptable to INDOT. We need your active participation and guidance in this meeting. In particular we need to know – and INDOT needs to know –

- Can INDOT continue to reject our most recent adopted TIP; for how long? What are Federal requirements regarding State acceptance or rejection of a locally adopted TIP?
- Does INDOT, according to Federal guidelines, have proper fiscal constraint to construct I-69 section 4?
- With its refusal to accept our new TIP can INDOT withhold our Federal funds and/or redirect those funds for construction of I-69?
- At the last MPO meeting, there were a number of questions that Sam Sarvis, representing INDOT, could not answer regarding environmental issues that opponents believe should be answered prior to including I-69 in the 2012-2015 TIP. Was it appropriate for INDOT to ask that I-69 be included in our local TIP prior to the completion of a final EIS? Is the MPO obligated to now include construction of this project in our TIP if environmental questions still cannot be answered during the September 9 meeting?

Jack Baker
Vice Chairman
BMCMPPO Policy Committee
812 855 2241
ajbaker@indiana.edu



**City of Bloomington
Office of the Common Council**

August 22, 2011

Robert Tally, Division Administrator
Federal Highway Administration
575 N. Pennsylvania St., Room 254
Indianapolis, IN 46204

Dear Mr. Tally,

As a member of the Bloomington/Monroe County Metropolitan Planning Organization Policy Committee, I am writing to raise objections to the I-69 Section 4 Final Environmental Impact Statement (FEIS) submitted to your office last month. For reasons explained below, I believe that the project is currently ineligible for approval and that FHWA will be acting beyond the scope of its authority if it issues a Record of Decision at this time.

As you know, federal regulations require that a project within the jurisdiction of an MPO be consistent with the Transportation Improvement Plan (TIP) before the State may include it in the Statewide Transportation Improvement Program. *23 U.S.C. 450.216(k)*. The BMCMPPO approved the proposed 2012-2015 TIP on May 13, 2011. In spite of this action, the State submitted its 2012-2015 STIP on June 17, 2011, which FHWA subsequently approved, referencing the now outdated 2010-2013 TIP for BMCMPPO, instead of the 2012-2015 TIP which supersedes the earlier TIP.

To my knowledge, the State has yet to certify the proposed 2012-2015 TIP. By contrast, the Indianapolis MPO Policy Committee voted to approve its new 2012-2015 Indianapolis Regional Transportation Improvement Program (IRTIP) on May 4, 2011 and approved by INDOT approximately three weeks later. Your office certified the updated IRTIP for inclusion in the 2012-2015 STIP by on July 11, 2011. Since the BMCMPPO TIP update was approved at approximately the same time as the IRTIP, I believe our TIP was not incorporated into the 2012-2015 STIP for political, rather than administrative, reasons.

I am concerned because the 2012-2015 TIP removed the I-69 Section 4 project that had been part of the amended 2010-2013 TIP. The policy committee deliberately removed the I-69 project from the TIP, in part, because the State did not provide the financial information we requested from Deputy Commissioner Sam Sarvis at our

October 2010 meeting. Without this information, we could not reasonably determine whether sufficient funding would be available for the project as is required under 23 U.S.C. 450.324(i).

I believe the 2012-2015 Indiana STIP invalid with respect to the I-69 Section 4 project since the STIP does not reflect the BMCMPPO current position on the issue. Further, I believe that the project is ineligible for federal funding pursuant to 23 U.S.C. 450.330(d) and that FHWA may not issue a ROD for the FEIS under the current circumstances.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Ruff', written in a cursive style.

Andy Ruff

Bloomington City Council representative member of the BMCMPPO

From "Bill & Jan Boyd" <waboyd@iquest.net>
Subject: Updated, Final 800.11(e) dated July 8, 2011, I-69 Tier 2 Studies Section 4
Sent date: 07/22/2011 03:09:25 PM
To: <i-69.section_4@i69indyevn.org>, <michelle.allen@dot.gov>

Mr. Fisk and/or Mr Molt,

I received the updated, final 800.11(e) CD documentation for Section 4 dated July 8, 2011. I have started looking through the CD and find additional information which was not included in the previous revised CD, but I see no date as to when comments are due. Please advise as to when consulting party comments are due regarding this updated CD.

Thank you,
Jan Boyd

From: "Bill & Jan Boyd" <waboyd@iquest.net>
Subject: Re: 2ND REQUEST -Updated, Final 800.11(e) dated July 8, 2011, I-69 Tier 2 Studies Section 4
Sent date: 07/28/2011 04:57:27 PM
To: <i-69.section_4@i69indyevn.org>, <michelle.allen@dot.gov>
2ND REQUEST

From: Bill & Jan Boyd
Sent: Friday, July 22, 2011 3:09 PM
To: i-69.section_4@i69indyevn.org; michelle.allen@dot.gov
Subject: Updated, Final 800.11(e) dated July 8, 2011, I-69 Tier 2 Studies Section 4

Mr. Fisk and/or Mr Molt,

I received the updated, final 800.11(e) CD documentation for Section 4 dated July 8, 2011. I have started looking through the CD and find additional information which was not included in the previous revised CD, but I see no date as to when comments are due. Please advise as to when consulting party comments are due regarding this updated CD.

Thank you,
Jan Boyd

From: "Bill & Jan Boyd" <waboyd@iquest.net>
Subject: EIS No. 20110228 Amended FR Notice
Sent date: 08/21/2011 09:49:02 PM
To: <michelle.allen@dot.gov>, <i-69.section_4@i69indyevn.org>
Cc: "Robert Tally" <Robert.Tally@dot.gov>, "Kenneth Westlake" <Westlake.Kenneth@epamail.epa.gov>, "Executive Secretary FHWA" <execsecretariat.fhwa@fhwa.dot.gov>

Michelle,

I am writing regarding EIS No. 20110228, Final EIS, FHWA, IN, I-69 Evansville to Indianapolis Tier 2 Section 4 Project. In looking at the original Federal Register /Vol 76, No. 141/Friday, July 22, 2011/Notices it stated review period ends: 08/15/2011. As a Consulting Party for Section 4, I received my Section 4 FEIS DVD's on Saturday, July 23, 2011. Why would the review period end on 8/15/2011 when this would be only 24 days after it was published?

Also, Federal Register/Vol. 76, No. 146/Friday, July 29, 2011/Notices showed the Amended Notice, with a review period ends 08/22/2011 date. Laura Hilden of INDOT sent out a letter dated August 15, 2011 on INDOT letterhead in which it states "On August 2, 2011, you were sent a letter along with a corrected copy of the Volume III, Comments and Responses DVD for the above referenced Final EIS". How could the Federal Register Amended Notice date be published July 29, 2011 when INDOT even states in writing the corrected DVD was not sent out until August 2, 2011? I received my corrected Vol III DVD on Saturday, August 6, 2011. I feel the amended review period ends date should be revised to September 2, 2011, to end 30 days after the Corrected DVD's were sent out.

I am awaiting your immediate response since the published review period shows it ends tomorrow, August 22, 2011.

Please include this e-mail as part of the I-69 Official Administrative Record.

Thank you,
Jan Boyd

From: Bill & Jan Boyd [<mailto:waboyd@iquest.net>]
Sent: Sunday, August 21, 2011 10:32 PM
To: hilden@indot.in.gov; Allen, Michelle (FHWA)
Cc: Tally, Robert (FHWA); FHWA, ExecSecretariat (FHWA); Kenneth Westlake
Subject: Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

Ms. Hilden,

I received your letter dated August 15, 2011 Re: I-69 Section 4, Tier 2, FEIS specifying where the corrections were made for Volume III, Comments and Responses DVD for the FEIS. You state in your letter "The references in the original responses to "Appendix NN" were removed because in the Final EIS Appendix NN does not exist". This statement is not correct. I have looked at the original comments and responses in Part A that you specified as PO 07-02, PO 07-03 and PO 12-26, and I expected just the reference to Appendix NN would have been removed as you stated. This is not the case, the ORIGINAL RESPONSE was removed.

Also, if responses were deleted, why is the Corrected DVD Part A 1,257 pages and the original DVD Part A only 1,255 pages? I have looked at the Corrected DVD and the responses to PO 07-02, PO 07-03 & PO 12-26 refers you to PI 322-01. I have compared the original DVD to the Corrected DVD regarding this response PI 322-01 and the responses are the same.

You stated in your letter "The above three changes are the only changes made to the original DVD, Volume III, Comments and Responses, enclosed in the FEIS". Please respond to what other changes have been made from the original Volume III – Comments and Responses DVD dated July 2011 in Part A to make this Corrected DVD 2 pages longer?

Your letter dated August 15, 2011, was on Indiana Department Of Transportation letterhead but was mailed in an DLZ envelope and postmarked with a zip code out of South Bend, IN? Why was your letter not sent out in an INDOT envelope if INDOT originated the letter? Please respond to these questions

Also, the INDOT letter on the corrected DVD, which was signed by you, was not dated. Why would a letter have been written without a date?

I am awaiting your responses to all of my questions listed above.

Please include this e-mail as part of the Official Administrative Record.

Jan Boyd
8301 Forward Pass Rd
Indianapolis, IN 46217-4423

From "Bill & Jan Boyd" <waboyd@iquest.net>

Subject: FHWA-IN-EIS-11-01-F I-69 Section 4, Tier 2, FEIS Comments

Sent date: 08/22/2011 10:42:11 PM

To: "Robert Tally" <Robert.Tally@dot.gov>, <i-69.section_4@i69indyevn.org>, "Virginia Laszewski" <Laszewski.Virginia@epamail.epa.gov>

Cc: "Executive Secretary FHWA" <execsecretariat.fhwa@fhwa.dot.gov>, "Kenneth Westlake" <Westlake.Kenneth@epamail.epa.gov>

Attachments: [Sec 4 FEIS Comments-Jan Boyd.pdf \[1 MB \]](#)

Please find attached comments to I-69, Section 4, Tier 2, FEIS.

August 22,2011

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

RE: 1-69 Section 4, Tier 2, Final Environmental Impact Statement Comments
FHWA-IN-EIS-11-01-F

Dear Mr. Tally:

First, I would like to state that I question the review period ends date on the Amended Federal Register Notice. The Corrected Vol III DVD was not sent out until August 2, 2011, per a letter dated August 15, 2011, from Laura Hilden on INDOT letterhead. You received a copy of my e-mail to Michelle Allen at FHWA, and also a copy of my e-mail to Laura Hilden, both e-mailed August 21,2011, in which I question this amended date. I have received NO reply back from anyone mentioned above. What is the correct date that responses are due by?

Regarding the Section 106 Historic Report, I have questioned the determination of eligibility on the Dowden Farm (Greene 55042) based on inaccurate information supplied by Weintraut & Associates. This farm has been in our family for 92 years. This farm retains its fence lines, garden area, and drive, along with above ground structures. The Report on the Ineligibility of the Dowden Farm For Listing in the National Register of Historic Places that was submitted to The Keeper contained errors and omissions. This report contains omitted structures, which should have been listed as "Contributing". It contains two (2) hog structures, which Weintraut listed as "in ruins", and has now admitted these were errors. Weintraut & Associates also omitted another above ground structure, along with a salt block feeder, which are both above ground structures. This salt block feeder is a permanent structure which should have been included. With these additional structures, it now makes the "contributing" structures greater in number than "non-contributing" structures. The eligibility or ineligibility of this farm should be based on correct and accurate information, which was not done. When will a correct and accurate report be available, and re-submitted to The Keeper?

In the FEIS, Section 4, Vol III, Part A, Comment AS001-01 by James A. Glass, Deputy State Historic Preservation Officer, states that the Historic properties listed would not be adversely affected, but this is a conditional concurrence. It is based upon the project being constructed in strict accordance with the two conditions outlined. INDOT's response is NOT a commitment to stay with the condition outlined by Dr. Glass. Any changes in the design will require a re-evaluation of the impacts on these properties, i.e a SEIS will be required.

In the FEIS, Section 4, Vol III, Part A, Comment AS001-02 by James A. Glass, Deputy State Historic Preservation Officer, believes that the visual impact of the project on Scotland Hotel, Blackmore Store, Koontz House, and Maurice Head House would not be adverse, as long as the new highway is constructed in hill cuts of the depths

projected by FHWA in the 800.11 (e) documentation and as long as the wooded areas between those properties and the new highway will remain in place, except to the extent that trees are proposed by FHWA and INDOT to be removed from the anticipated, new highway right-of-way. My comment is that since FHWA and INDOT have no control over these trees, and if they would be cut and removed, then the condition set by Dr. Glass would no longer exist, and that would result in visual impacts to these properties. Also, without these trees there would be greater noise impact since these trees would no longer block the noise. This would be an increase in the noise level.

The Historic Property Report failed to live up to their methodology by not including every property on their inventory log. Per the FEIS, Section 4, Vol III, Part A, Comment AS001-04 by James A. Glass, Deputy State Historic Preservation Officer, comments that archaeological site 12Gr1095 is the site not mentioned in the DEIS. The response is that Section 4.4.3.1 of the DEIS was incorrect. How many more errors, such as this, have been made? The public has no way of knowing.

Sincerely,

//sig//

Jan Boyd
8301 Forward Pass Road
Indianapolis, IN 46217

From "Bill & Jan Boyd" <waboyd@iquest.net>
Subject: 2ND REQUEST - EIS No. 20110228 Amended FR Notice
Sent date: 08/22/2011 11:30:50 PM
To: <michelle.allen@dot.gov>, <i-69.section_4@i69indyevn.org>
Cc: "Robert Tally" <Robert.Tally@dot.gov>, "Kenneth Westlake" <Westlake.Kenneth@epamail.epa.gov>, "Executive Secretary FHWA" <execsecretariat.fhwa@fhwa.dot.gov>

2ND REQUEST

From:[Bill & Jan Boyd](#)
Sent:Sunday, August 21, 2011 9:49 PM
To:[michelle.allen@dot.gov](#); [i-69.section_4@i69indyevn.org](#)
Cc:[Robert Tally](#); [Kenneth Westlake](#); [Executive Secretary FHWA](#)
Subject:EIS No. 20110228 Amended FR Notice

Michelle,

I am writing regarding EIS No. 20110228, Final EIS, FHWA, IN, I-69 Evansville to Indianapolis Tier 2 Section 4 Project. In looking at the original Federal Register /Vol 76, No. 141/Friday, July 22, 2011/Notices it stated review period ends: 08/15/2011. As a Consulting Party for Section 4, I received my Section 4 FEIS DVD's on Saturday, July 23, 2011. Why would the review period end on 8/15/2011 when this would be only 24 days after it was published?

Also, Federal Register/Vol. 76, No. 146/Friday, July 29, 2011/Notices showed the Amended Notice, with a review period ends 08/22/2011 date. Laura Hilden of INDOT sent out a letter dated August 15, 2011 on INDOT letterhead in which it states "On August 2, 2011, you were sent a letter along with a corrected copy of the Volume III, Comments and Responses DVD for the above referenced Final EIS". How could the Federal Register Amended Notice date be published July 29, 2011 when INDOT even states in writing the corrected DVD was not sent out until August 2, 2011? I received my corrected Vol III DVD on Saturday, August 6, 2011. I feel the amended review period ends date should be revised to September 2, 2011, to end 30 days after the Corrected DVD's were sent out.

I am awaiting your immediate response since the published review period shows it ends tomorrow, August 22, 2011.

Please include this e-mail as part of the I-69 Official Administrative Record.

Thank you,
Jan Boyd

From: Bill & Jan Boyd [waboyd@iquest.net]
Sent: Monday, August 22, 2011 11:32 PM
To: Hilden, Laura; michelle.allen@dot.gov
Cc: Robert Tally; Executive Secretary FHWA; Kenneth Westlake
Subject: 2ND REQUEST - Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

2ND REQUEST

From: [Bill & Jan Boyd](#)
Sent: Sunday, August 21, 2011 10:32 PM
To: hilden@indot.in.gov ; michelle.allen@dot.gov
Cc: [Robert Tally](#) ; [Executive Secretary FHWA](#) ; [Kenneth Westlake](#)
Subject: Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

Ms. Hilden,

I received your letter dated August 15, 2011 Re: I-69 Section 4, Tier 2, FEIS specifying where the corrections were made for Volume III, Comments and Responses DVD for the FEIS. You state in your letter "The references in the original responses to "Appendix NN" were removed because in the Final EIS Appendix NN does not exist". This statement is not correct. I have looked at the original comments and responses in Part A that you specified as PO 07-02, PO 07-03 and PO 12-26, and I expected just the reference to Appendix NN would have been removed as you stated. This is not the case, the ORIGINAL RESPONSE was removed.

Also, if responses were deleted, why is the Corrected DVD Part A 1,257 pages and the original DVD Part A only 1,255 pages? I have looked at the Corrected DVD and the responses to PO 07-02, PO 07-03 & PO 12-26 refers you to PI 322-01. I have compared the original DVD to the Corrected DVD regarding this response PI 322-01 and the responses are the same.

You stated in your letter "The above three changes are the only changes made to the original DVD, Volume III, Comments and Responses, enclosed in the FEIS". Please respond to what other changes have been made from the original Volume III – Comments and Responses DVD dated July 2011 in Part A to make this Corrected DVD 2 pages longer?

Your letter dated August 15, 2011, was on Indiana Department Of Transportation letterhead but was mailed in an DLZ envelope and postmarked with a zip code out of South Bend, IN? Why was your letter not sent out in an INDOT envelope if INDOT originated the letter? Please respond to these questions

Also, the INDOT letter on the corrected DVD, which was signed by you, was not dated. Why would a letter have been written without a date?

I am awaiting your responses to all of my questions listed above.

Please include this e-mail as part of the Official Administrative Record.

Jan Boyd
8301 Forward Pass Rd
Indianapolis, IN 46217-4423

From: William A. Boyd [waboyd@iquest.net]
Sent: Monday, August 22, 2011 3:16 PM
To: Hilden, Laura
Cc: execsecretariat.fhwa@fhwa.dot.gov; Westlake.Kenneth@epamail.epa.gov;
Laszewski.Virginia@epamail.epa.gov; scott_pruitt@fws.gov;
Robin_McWilliams@fws.gov; Robert.Tally@dot.gov; Section 4 Project Office
Subject: Reply to your letter regarding I-69 Appendix NN
Attachments: Reply to Laura Hilden 8-20-11.pdf

Ms. Hilden,

Attached is my reply to your letter regarding the corrected Volume III of the recently released I-69, Tier 2, Section 4 FEIS.

I would appreciate a response to my inquiries in the letter. Reply may be returned by e/mail or USPS delivery.

Thank you.

William A. Boyd
8301 Forward Pass Road
Indianapolis, IN 46217

August 20, 2011

Ms. Laura Hilden
Director, Environmental Services Division, INDOT
100 N. Senate Ave.
Indianapolis, IN 46204

RE I-69 Section 4, Tier 2, Final Environmental Impact Statement
Crane NSWC to Bloomington, Indiana
FHWA-IN-EIS-11-01-F

Dear Ms. Hilden:

I received your letter dated August 15, 2011 regarding the above referenced project.

I have a serious disagreement concerning your explanation as to why references to "Appendix NN" were removed from the I-69 Section 4, Tier 2 Environmental Impact Statement. Your letter states that references to the appendix were removed because "...*the final EIS Appendix NN does not exist*". I believe this is a very grave misstatement of fact.

The first public edition of Volume III, Comments and Responses, Part A did indeed make reference to the document titled "Appendix NN". In response to comment PO007-02, was this statement (with emphasis added):

"This suggested alignment (as well as a similar one suggested by Dr. Patrick Munson) were evaluated. This evaluation is documented in Appendix NN, Analysis of Munson and IKC Alternatives. It found that the suggested alignments would result in no more than a very minor decrease in karst feature impacts. The Tier 1 Record of Decision (ROD) provides that alignments outside of the approved corridor may occur only "to avoid significant impacts within the selected corridor" (ROD, Section 2.3.5). The analysis found that the suggested alignments would not result in a significant decrease in karst impacts."

The response to comment PO007-03, was this statement, in part (with emphasis added):

"See response to Comment PC007-02, which determined that the lack of a significant reduction in karst impacts precluded consideration on this alternative. The potential cost reduction noted in this comment is a secondary issue which

would not be considered unless there was a significant reduction in karst impacts. In that context, the suggested alignment would cost about \$37 million less to construct in Year 2010 dollars (see Appendix NN)....”

And the response to comment PO012-26 was the following statement (with emphasis added):

*“The Ecosystems section of the Tier 1 FEIS (including Figure 5.23-5 which shows that corridor 3C passes through an area of dense karst features) documents that it was recognized during Tier 1 that significant karst features would be encountered by the Tier 2 Section 4 Alternatives. The number of karst features in Section 4 is consistent with this Tier 1 finding. **Two related alignments outside of the Tier 1 corridor were evaluated**; see Response to Comment PO007-02, as well as Appendix NN, Analysis of Munson/IKC Alternatives, for additional information.”*

The authors of the referenced comments are knowledgeable and professional individuals, who know the topic well. INDOT has sought their expertise in the past, so their comments must be taken seriously, not just dismissed.

Additionally, in the above referenced response, there were two text sizes in the document first released to the public.

In examining the response to comment PO012-26, it is apparent that INDOT has in effect re-opened the Tier 1 evaluation without public advertisement or comment.

Documents in my possession detail requirements for the preparation of “Appendix NN” by Bernardin-Lochmueller Associates as part of Contract Amendment #11, EDS #A249-5-320089, to contract 030301, dated October 15, 2004. See Task 2.3.2.7 in contract amendment #11. There were four Appendices added by this amendment. Three of the four were made available to the public in the Final EIS, however “Appendix NN” was not.

The original responses are, in my view, correct that “Appendix NN” does exist, however it sheds light on a long-known problem for this project. INDOT apparently is attempting to withhold this information from the public as well as Federal Regulators. INDOT not only removed references to “Appendix NN”, it also changed the responses to the comments. This is pure censorship and a highly questionable act on a public document.

It is apparent that the public paid for the preparation of “Appendix NN” and are entitled to be made aware of, and comment on the contents of “Appendix NN”.

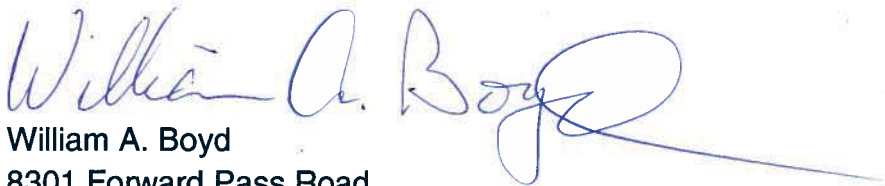
Your letter also states in the last sentence of the second paragraph, "***The above three changes are the only changes made to the original DVD, Volume III, Comments and Response,***" however, the "corrected copy" is two pages longer than the original document, 1257 pgs. vs. 1255 pgs. Perhaps you will explain to the public, Federal Regulators and myself, how INDOT can remove text yet generate two additional pages?

Lastly, I find it quite odd that a letter from an a State employee, yourself, has arrived in an envelope with DLZ logo, and sent from an office in South Bend, Indiana. Why is the public being milked for mailing costs from a Consultant when the letter should have been mailed with INDOT's own facilities?

In INDOT's effort to cover-up the real truth about "Appendix NN", the hole being dug by this mis-representation of facts is getting deeper and wider. I suggest that if INDOT is going to continue to withhold and misrepresent the facts, then y'all better get your stories straight.

I suggest a visit to www.i69whistleblower.org to set the record straight.

Respectfully submitted,



William A. Boyd
8301 Forward Pass Road
Indianapolis, IN 46217

From: "Bill & Jan Boyd" <waboyd@iquest.net>
Subject: EIS No. 20110228 Amended FR Notice
Sent date: 08/24/2011 10:32:08 AM
To: <michelle.allen@dot.gov>
Cc: "Robert Tally" <Robert.Tally@dot.gov>, "Kenneth Westlake" <Westlake.Kenneth@epamail.epa.gov>, "Executive Secretary FHWA" <execsecretariat.fhwa@fhwa.dot.gov>, <i-69.section_4@i69indyevn.org>

Michelle,

I understand from an auto reply e-mail that you were out of the office until today, Wednesday, August 24, 2011. My previous e-mails are below.

Also, please provide me with the federal regulations that establish the comment period time frame for the Final EIS.

In addition, I am stating that my e-mails are NOT comments to the I-69 Section 4 FEIS. These are questions to you regarding the Federal Register Notice. For some reason, unknown to me, Mr. Michael Grovak of Bernardin, Lochmueller & Associates, Inc. (BLA) is responding to me from the e-mail I sent to you. The Federal Register Notice and the Federal Register Notice-Amended list you as the person to contact with any questions.

A prompt reply from you is appreciated.

Please include this e-mail as part of the Official Administrative Record.

Thank you,
Jan Boyd

From:[Bill & Jan Boyd](#)
Sent:Monday, August 22, 2011 11:30 PM
To:[michelle.allen@dot.gov](#); [i-69.section_4@i69indyevn.org](#)
Cc:[Robert Tally](#); [Kenneth Westlake](#); [Executive Secretary FHWA](#)
Subject:2ND REQUEST - EIS No. 20110228 Amended FR Notice

2ND REQUEST

From:[Bill & Jan Boyd](#)
Sent:Sunday, August 21, 2011 9:49 PM
To:[michelle.allen@dot.gov](#); [i-69.section_4@i69indyevn.org](#)
Cc:[Robert Tally](#); [Kenneth Westlake](#); [Executive Secretary FHWA](#)
Subject:EIS No. 20110228 Amended FR Notice

Michelle,

I am writing regarding EIS No. 20110228, Final EIS, FHWA, IN, I-69 Evansville to Indianapolis Tier 2 Section 4 Project. In looking at the original Federal Register /Vol 76, No. 141/Friday, July 22, 2011/Notices it stated review period ends: 08/15/2011. As a Consulting Party for Section 4, I received my Section 4 FEIS DVD's on Saturday, July 23, 2011. Why would the review period end on 8/15/2011 when this would be only 24 days after it was published?

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I am awaiting your immediate response since the published review period shows it ends tomorrow, August 22, 2011.

Please include this e-mail as part of the I-69 Official Administrative Record.

Thank you,
Jan Boyd

From: Bill & Jan Boyd [mailto:waboyd@iquest.net]
Sent: Wednesday, August 24, 2011 10:01 AM
To: Grovak, Mike; Lhilden@indot.in.gov
Cc: michelle.allen@dot.gov; Robert Tally; Executive Secretary FHWA; Kenneth Westlake
Subject: Re: Letter Dated August 15, 2011 FHWA-IN-EIS-11-01-F

Mr. Grovak,

I have informed you several times that my e-mail does **NOT** involve **comments** to the FEIS for Section 4, these are **questions** regarding the Corrected FEIS Vol III for Section 4 of I-69.

I am still awaiting a response from Ms Hilden of INDOT.

You also did not answer my question as to why you, an Bernardin, Lochmueller & Associates, Inc. (BLA) employee, are replying to my e-mail to Laura Hilden, an INDOT employee?

Please include my e-mails as part of the Official Administrative Record.

Jan Boyd

From: Bill & Jan Boyd [mailto:waboyd@iquest.net]
Sent: Thursday, August 25, 2011 12:11 AM
To: Hilden, Laura
Cc: Robert Tally; Executive Secretary FHWA; Kenneth Westlake; michelle.allen@dot.gov
Subject: 3RD REQUEST - Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

3RD REQUEST

From: Bill & Jan Boyd
Sent: Monday, August 22, 2011 11:32 PM
To: lhilden@indot.in.gov ; michelle.allen@dot.gov
Cc: Robert Tally ; Executive Secretary FHWA ; Kenneth Westlake
Subject: 2ND REQUEST - Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

2ND REQUEST

From: Bill & Jan Boyd
Sent: Sunday, August 21, 2011 10:32 PM
To: lhilden@indot.in.gov ; michelle.allen@dot.gov
Cc: Robert Tally ; Executive Secretary FHWA ; Kenneth Westlake
Subject: Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

Ms. Hilden,

I received your letter dated August 15, 2011 Re: I-69 Section 4, Tier 2, FEIS specifying where the corrections were made for Volume III, Comments and Responses DVD for the FEIS. You state in your letter "The references in the original responses to "Appendix NN" were removed because in the Final EIS Appendix NN does not exist". This statement is not correct. I have looked at the original comments and responses in Part A that you specified as PO 07-02, PO 07-03 and PO 12-26, and I expected just the reference to Appendix NN would have been removed as you stated. This is not the case, the ORIGINAL RESPONSE was removed.

Also, if responses were deleted, why is the Corrected DVD Part A 1,257 pages and the original DVD Part A only 1,255 pages? I have looked at the Corrected DVD and the responses to PO 07-02, PO 07-03 & PO 12-26 refers you to PI 322-01. I have compared the original DVD to the Corrected DVD regarding this response PI 322-01 and the responses are the same.

You stated in your letter "The above three changes are the only changes made to the original DVD, Volume III, Comments and Responses, enclosed in the FEIS". Please respond to what other changes have been made from the original Volume III – Comments and Responses DVD dated July 2011 in Part A to make this Corrected DVD 2 pages longer?

Your letter dated August 15, 2011, was on Indiana Department Of Transportation letterhead but was mailed in an DLZ envelope and postmarked with a zip code out of South Bend, IN? Why was your letter not sent out in an INDOT envelope if INDOT originated the letter? Please respond to these questions

Also, the INDOT letter on the corrected DVD, which was signed by you, was not dated. Why would a letter have been written without a date?

I am awaiting your responses to all of my questions listed above.

Please include this e-mail as part of the Official Administrative Record.

Jan Boyd
8301 Forward Pass Rd
Indianapolis, IN 46217-4423

From: Bill & Jan Boyd [<mailto:waboyd@iquest.net>]
Sent: Thursday, August 25, 2011 9:41 AM
To: Allen, Michelle (FHWA)
Subject: Re: EIS No. 20110228 Amended FR Notice

Michelle,

Thank you for the reply. If I understand you correctly, you are stating the review period end date was amended because it was incorrect, not because it was extended due to the "Corrected" Vol III DVD having been mailed out later. Thank you for EPA's website info, I have started looking through it.

You state the Corrected DVD had three minor corrections. I guess it depends on your definition of "minor". All three comment numbers mentioned had the original responses deleted. I am questioning since these responses were deleted, how can the Corrected Vol III Part A DVD be 1,257 pages, when the original DVD was 1,255 pages? Deleting responses would make Part A less pages, not more pages. What has changed to make the Corrected Vol III, Part A two (2) pages longer?

As I have stated earlier, these are questions, not "comments" regarding the Section 4 FEIS.

Thank you,
Jan Boyd

From: Bill & Jan Boyd [mailto:waboyd@iquest.net]
Sent: Thursday, August 25, 2011 11:08 PM
To: Hilden, Laura
Cc: Robert Tally; Executive Secretary FHWA; Kenneth Westlake; michelle.allen@dot.gov
Subject: 4TH REQUEST - Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F
4TH REQUEST

From: [Bill & Jan Boyd](#)
Sent: Thursday, August 25, 2011 12:11 AM
To: lhilden@indot.in.gov
Cc: [Robert Tally](#) ; [Executive Secretary FHWA](#) ; [Kenneth Westlake](#) ; michelle.allen@dot.gov
Subject: 3RD REQUEST - Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

3RD REQUEST

From: [Bill & Jan Boyd](#)
Sent: Monday, August 22, 2011 11:32 PM
To: lhilden@indot.in.gov ; michelle.allen@dot.gov
Cc: [Robert Tally](#) ; [Executive Secretary FHWA](#) ; [Kenneth Westlake](#)
Subject: 2ND REQUEST - Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

2ND REQUEST

From: [Bill & Jan Boyd](#)
Sent: Sunday, August 21, 2011 10:32 PM
To: lhilden@indot.in.gov ; michelle.allen@dot.gov
Cc: [Robert Tally](#) ; [Executive Secretary FHWA](#) ; [Kenneth Westlake](#)
Subject: Letter dated August 15, 2011 FHWA-IN-EIS-11-01-F

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I received your letter dated August 15, 2011 Re: I-69 Section 4, Tier 2, FEIS specifying where the corrections were made for Volume III, Comments and Responses DVD for the FEIS. You state in your letter "The references in the original responses to "Appendix NN" were removed because in the Final EIS Appendix NN does not exist". This statement is not correct. I have looked at the original comments and responses in Part A that you specified as PO 07-02, PO 07-03 and PO 12-26, and I expected just the reference to Appendix NN would have been removed as you stated. This is not the case, the ORIGINAL RESPONSE was removed.

Also, if responses were deleted, why is the Corrected DVD Part A 1,257 pages and the original DVD Part A only 1,255 pages? I have looked at the Corrected DVD and the responses to PO 07-02, PO 07-03 & PO 12-26 refers you to PI 322-01. I have compared the original DVD to the Corrected DVD regarding this response PI 322-01 and the responses are the same.

You stated in your letter "The above three changes are the only changes made to the original DVD, Volume III, Comments and Responses, enclosed in the FEIS". Please respond to what other changes have been made from the original Volume III – Comments and Responses DVD dated July 2011 in Part A to make this Corrected DVD 2 pages longer?

Your letter dated August 15, 2011, was on Indiana Department Of Transportation letterhead but was mailed in an DLZ envelope and postmarked with a zip code out of South Bend, IN? Why was your letter not sent out in an INDOT envelope if INDOT originated the letter? Please respond to these questions

Also, the INDOT letter on the corrected DVD, which was signed by you, was not dated. Why would a letter have been written without a date?

I am awaiting your responses to all of my questions listed above.

Please include this e-mail as part of the Official Administrative Record.

Jan Boyd
8301 Forward Pass Rd
Indianapolis, IN 46217-4423

From: Thomas & Sandra Tokarski [mailto:carr@bluemarble.net]
Sent: Sunday, August 21, 2011 11:02 PM
To: Tally, Robert (FHWA); FHWA, ExecSecretariat (FHWA);
Westlake.Kenneth@epamail.epa.gov
Subject: Comments FEIS Tier 2 Section 4 I-69

The comments of Citizens for Appropriate Rural Roads, Inc (CARR) for the Tier 2 Section 4 Final EIS are attached to this email as a pdf.

Please ensure that these are included as part of the public record on this project

COMMENTS ON THE I-69 TIER 2, FEIS, SECTION 4

By: Citizens for Appropriate Rural Roads (CARR)

PO Box 54

Stanford, IN 47463

21 August 2011

A Supplemental EIS is needed for Section 4 and possibly the entire I-69 project. Much new information, revelations of concealed data, failure to do needed studies, manipulation of data, selective use of data (cherry picking), theft of private property and changes in design have led to significant changes in environmental as well as social and fiscal impacts of the I-69 project. Many of these changes were not revealed in previous EISs for this project and were not subject to public review. Violations of required design and construction activities and premature land acquisitions also need to be addressed. Numerous design changes have been made after the ROD in other sections of the I-69 corridor. These changes will impact human safety, health and cause extensive damage to human property as well as to the environment. A SEIS is needed to study these changes and impacts and how they change the nature and expected outcomes of the project.

Several impacts of the I-69 extension have changed. Some of these changes are addressed in the following comments. Some of these comments are extracted from a legal complaint, "Complaint For Violations Of National Environmental Policy Act and Administrative Procedures Act" Cause No. 1-11-CV-1031-SEB-MJD, referred to in the text as "Complaint".

Karst Impacts:

"Substantial new detailed information regarding Karst features impacted by I-69 including in Section 4 has recently become available -- within the last 6 months via a FOIA request submitted by Plaintiffs to FHWA, and via the I-69 Section 4 Draft EIS. This new information shows more than 1400 Karst features impacted by Section 4 of I-69 alone. Much of this Karst information was known to INDOT and FHWA when the Tier 1 NEPA process was conducted but the text of the 1994 study disclosing this Karst information was excluded from the Tier 1 DEIS and public comment process and the exhibits to the 1994 Karst study were never released to the public until Plaintiffs just obtained them via a FOIA request of FHWA. These exhibits show many Karst features not disclosed in the Tier 1 EIS. The Tier 1 EIS did not disclose but could have disclosed the extent and nature of the extensive Karst features (e.g. sink holes, caves, springs) that would be impacted by INDOT and FHWA's selected I-69 route." (See: Complaint)

Massive impacts on karst features are expected in Section 4. (See maps, pages 5-731-736.) These impacts may in turn impact the federally endangered Indiana Bat by alterations in air and water flow and cave microclimates as well as direct impacts due to flooding of caves.

Karst impacts were not studied in areas of induced growth. One of these areas, an add-on interchange and mile long access road, earlier rejected by USFWS, is near a major Indiana Bat hibernaculum.

A slight variation in the route in Section 4 would miss significant karst features but this variation, allowed for in the NEPA process, has been rejected for dubious and unconvincing reasons.

The original FEIS contained an Appendix labeled “NN”. Although this appendix contained no text it was referred to in the comments section. Appendix NN apparently contained information concerning the avoidance of karst features. A revised, or “corrected” FEIS Comments DVD was later published. This “corrected” FEIS was accompanied by a letter saying that Appendix NN did not exist and the only changes made to the Comments section were to remove the references to Appendix NN. However, it appears that significant additional information was also removed from the “corrected” disc and the deleted information does not exist anywhere else in the FEIS. Therefore, this letter from Laura Hilden, an INDOT employee, is misleading and false. The mysterious disappearance of Appendix NN and its contents needs to be investigated.

Impacts on the federally endangered Indiana Bat:

The Indiana Bat is under severe stress due to a newly found pathogen. The so-called White Nose Syndrome (WNS) is killing huge numbers of bats in the eastern portion of its range and it has recently been found in Indiana caves. Hibernacula in some eastern states have suffered mortality rates of over 90% and up to 100% of the bats in some caves due to the fungus. The US Fish and Wildlife Service conservatively estimates that in Indiana around 60% of the Indiana Bats could be killed by WNS. The Indiana Bat is also stressed by other factors such as human interference, disappearance of its preferred habitat through logging and other developments, climate changes and possibly air and water pollution that impact its immune system. Building a major interstate truck corridor through prime Indiana Bat habitat, including near maternal colonies, and possible impacts to its hibernacula could cause the Indiana Bat to be extirpated in the State. These impacts need to be addressed before construction begins in Section 4.

“Although FHWA and FWS repeatedly consulted formally under the ESA on the issues related to the endangered Indiana Bat including regarding the White Nose Syndrome, and FHWA prepared several biological assessment reports on the Indiana Bat issues and FWS prepared several biological opinions on the I-69 impacts on the Indiana Bat, FHWA and INDOT did not make these reports or the substance of the information contained therein available for timely public review and comment as part of the corresponding steps in the NEPA EIS process either in Tier 1 or Tier 2. These reports were only presented in the NEPA process after the corresponding NEPA public comment period was completed.” (See: Complaint)

Clean Air Act Impacts:

“Section 4 of I-69 goes through Greene County which is a Clean Air Act (CAA) maintenance area requiring a CAA conformity determination to ensure any new transportation project complies with the emissions limits set in the CAA State Implementation Plan. Plaintiffs

recently learned within the past six months that the latest motor vehicle data and resulting emissions data shows that Greene County will not be in conformity with the CAA SIP and therefore, pursuant to the CAA (42 U.S.C. § 7506), INDOT and FHWA are prohibited from approving I-69 in Greene County (i.e. cannot approve I-69 Section 4 or Section 3). Thus, the legal status of Section 4 and Section 3 of I-69 have changed. However, instead of using this most current and accurate motor vehicle and emissions data to perform the conformity analysis for Greene County INDOT and its contractor, with the approval of FHWA, knowingly used outdated and inaccurate data for the conformity study in order to avoid a CAA non-conformity finding, which would have precluded INDOT and FHWA from approving I-69 sections 3 and 4. The new data and its implications for CAA conformity, air pollution and public health, and the ability of I-69 to be approved in Greene County were knowingly concealed from the public and knowingly excluded from the NEPA process.” (See: Complaint)

Changes In Funding I-69 Project:

“Plaintiffs learned within the last 6 months that in August 2010 INDOT submitted to the FHWA and FHWA apparently approved an “administrative modification” to the State Long Range Transportation Plan (SLRTP) which reclassified the funding for I-69 Section 4 as “traditional” from the previous category of (unspecified) “innovative” and moved the planning/implementation time period for I-69 Section 4 from the 2016-2020 period forward to the period of 2010-2013. These changes should have been submitted for public review and comment as an “amendment” to the State Plan and should have been included in a NEPA EIS or SEIS for public review and comment but were not. The consequences of these changes are significant because the change involves re-allocating more than one billion dollars of gas tax revenues away from other transportation projects in Indiana and allocating these funds to I-69 instead. This change inevitably results in more than one billion dollars in other transportation projects in the State that would have been funded being abandoned. The direct and indirect economic and transportation related consequences to the communities affected by these abandoned projects were not even identified let alone analyzed and subjected to public comment and review in an EIS.” (See: Complaint.)

Failure To Follow Proper Procedures And Intimidation Of A Public Body:

“The Bloomington Monroe County Metropolitan Planning Organization (MPO) disapproved I-69 Section 4 in voting to remove I-69 Section 4 from its Transportation Improvement Plan (TIP). This MPO decision should constitute a legal barrier to proceeding with INDOT’s currently selected I-69 route. However, instead of respecting the MPO vote and subjecting this change to a NEPA SEIS and public review process, INDOT instead within the last 60 days submitted to FHWA, and FHWA apparently accepted, the MPO’s TIP decision of November 2010 which had included I-69 (even though outdated and rescinded in regard to I-69) and failed to submit the May 2011 MPO vote disapproving and excluding I-69. INDOT and FHWA had initially obtained the November 2010 (now rescinded) MPO vote approving I-69 only by threatening to withhold funding from Bloomington and Monroe County.” (See: Complaint.)

Failure To Address Archeological Sites:

“INDOT and FHWA have engaged in a pattern of delaying the collection of information regarding archaeological sites until after the NEPA decisions that might be impacted by them have been made and the public comment periods are completed. Several key studies required to be conducted on archaeological sites were postponed not only until after the Tier 1 EIS but also until after the Tier 2 site specific EISs and public comment periods.” (See: Complaint.)

Bad Faith In Declaring Historic Property Not Eligible As Historic Sites:

“INDOT and FHWA engaged in bad faith in submitting the Dowden Farm historic property to the Keeper of the National Register of Historic Places for a determination that the site was not eligible without providing notice to or allowing participation by the owners of that property, the Boyd family.” (See: Complaint.)

“During the Tier 2 Section 3 NEPA process INDOT and FHWA discovered that one or more bridges in Section 3 in the I-69 corridor had been determined by experts and their colleagues to be eligible to be listed as historic sites under federal law. Rather than reporting this fact in the public review process for the Draft EIS and analyzing the impacts on this historic bridge, INDOT and FHWA worked out of the public view to convince State and federal officials to change the eligibility determination on this bridge and declare it not eligible as a historic site. This entire process of reclassifying this historic site was not disclosed to the public during the Section 3 NEPA process and INDOT and FHWA completed the final EIS and ROD for Section 3 of I-69 without mention of these actions. “ (See: Complaint,)

Removal Of Private Property Without Consent:

“INDOT and FHWA and their contractors have engaged in a pattern of entering onto private property without permission or knowledge of the landowners for archaeological investigations and removing artifacts from those private properties without consent from or the knowledge of the landowners, in violations of State and federal law.” (See: Complaint.)

Studies Performed Without Knowledge Of Property Owners:

INDOT and FHWA has also engaged in a pattern of entering private properties for noise impact studies at times when the owners are absent and unable to offer input on relevant noise issues.

These changes, as well as others commented on below, require a SEIS.

Our specific comments on the above impacts as well as other information in the FEIS for Section 4 follow.

SUMMARY:

The entire NEPA, EIS process for I-69 has been an elaborate deception. This EIS, like all the ones before it, is biased, misleading and filled with errors. The outcome of those studies has never been in doubt. The preferred route was predetermined. These EISs have

not served to inform the public or policy makers as to the extent and cost of the impacts of this project. It is a classic example of quantity over quality.

All rational arguments against I-69 are treated like flies at a picnic. In the end it is a serious waste of tax dollars used to further a socially and environmentally destructive, hugely expensive, unnecessary highway. It has been allowed to proceed due to political pressure and lack of oversight and outright collusion by state and federal agencies. The personal threats directed towards public employees, researchers and other who might have spoken out against this project have led to a distorted perception by the public at large of its purpose, need, impacts and costs.

The State of Indiana will suffer negative consequences for generations because of the construction of this highway and due to the process by which it was advanced. The benefits will never outweigh the enormous costs both in dollars and damage to the economy and the environment. It is being constructed in a shoddy, substandard manner through one of the most environmentally sensitive areas of the State. Lost opportunity costs alone will make this project a sad reminder of backward thinking and greed over good sense, good government and responsible transportation planning.

This dysfunctional process has led to great frustration and bitter disappointment on the part of many, many citizens who once believed that truth was more important than special interests and politics. It will bolster the ranks of cynics who proclaim: 'You can't beat the government, no matter what, so don't even try,' As a result, many caring citizens will withdraw from participation in civic discourse. It has been the most undemocratic process we have ever experienced. Indiana deserves better.

The only possible good outcome of this process would be if agencies and educational institutions used it as an example of how not to do EISs. It is an embarrassment to Indiana and a slap in the face of responsible transportation planning.

It is highly doubtful that this highway will ever be completed from Canada to Mexico as planned. It is also doubtful that sections 5-6 in Indiana will be completed in the near future. They may never be completed. Since many of the predicted benefits and assumptions are based a completed route, all such presumed benefits and assumptions are unreliable.

COMMENT PERIOD TOO SHORT:

The comment period for this massive FEIS was never clearly stated. After the initial release of the FEIS a revised FEIS was released with no clear explanation of why it was being revised. To critically read this FEIS one must also refer back to previous EISs. This is a very time consuming process. In addition, there are 44 appendices. Some of these documents are very large. The Draft Stream Assessment Report is 1200 pages; the karst reports are about 750 pages; the noise report is over 650 pages; the Draft Wetland Report is 346 pages and on and on. Many of these pages contain pictures but they still must be studied. We do not criticize the length of these reports, but we do request more time to review them. Appendix NN was missing. In the revised FEIS this appendix was expunged altogether. Since this appendix apparently dealt with karst issues it could have been of significant value. Why was it deleted?

We also need more time for experts to examine particular aspects of the reports. Let it go on the record that the time given to review all of these documents is ridiculously insufficient. Our comments are, therefore, not as thorough as they could be. One has to wonder if INDOT/FHWA are hiding something. If studied more carefully what else would be found that compromises the justification for this highway. If you want to hide needles throw them in haystacks.

ALL PREVIOUS COMMENTS TO BE INCLUDED AS COMMENTS ON THIS FEIS

We request that all of the comments previously submitted by Citizens for Appropriate Rural Roads (CARR) on all previous EISs for this project be included as comments on this Section 4, Tier 2 FEIS.

COMMENTS ON CHAPTER 2: PURPOSE AND NEED

Page 2-9 mentions some vague support for I-69 by some businesses in Bloomington but nothing is stated about the opposition in Bloomington. The Bloomington Common Council has passed a resolution, signed by the Mayor, opposing bringing I-69 through their city. The Monroe County Commissioners have also passed a resolution opposing building I-69 through the county. In fact, there has been strong opposition to I-69 from its inception, but no mention is made of this.

No mention is made of the thousands of petition signatures and citizen comments against the new terrain I-69 that have been submitted over the years.

No alternatives to an interstate were studied for Section 4. Since each section is a stand-alone project, other alternatives, including upgrading existing roads, should be a part of this FEIS.

The section on safety, 2.3.4, has been changed from the DEIS. The categories of highways in Table 2-3 are different from the crash table used in the DEIS so it is impossible to make comparisons but it appears that the overall number of accidents and fatalities on non-interstate highways and interstate highways are significantly lowered. This greatly reduces the safety impacts of the project. The table in the FEIS does not show injury crashes but instead shows data for "all crashes". Why was this new category used? Table 5.5-4 shows that there is very little if any difference in crashes for the no-build compared to the build alternative.

It is unclear if these charts included increases in traffic on SR-37. Table 5.6-6 shows that traffic on SR 37 will increase greatly due to I-69. It is unlikely that SR 37 will be upgraded in the near future, if ever. When I-69 dumps much more traffic on this already busy highway, accidents and fatalities will increase.

It should also be noted that the I-69 extension is being built cheaper and will not be up to the same standards as existing interstate highways. The new I-69 extension will be less safe than standard interstates.

The safety impacts of this new interstate needs to be reevaluated and compared to improvements to existing roadways. This should be studied in a supplemental EIS.

The traffic modeling used for this DEIS is highly suspect. This DEIS states that newer models are being used to show the need for this highway. Models, as most people know, are subject to biased manipulations. INDOT can devise a model to prove anything it wants. Valid models are best created by independent organizations. That has not been the case with I-69 modeling. These newer models purport to show that the increase in traffic on SR-37, even if it is not upgraded, will cause no problems. This is not credible. Traffic on SR -37 is already congested at times. Dumping thousands more vehicles, including many big trucks on SR-37 will undoubtedly increase congestion problems and cause more accidents. If there isn't going to be much increase in traffic then where do INDOT's projections for economic development come from? And why are we building a major new interstate with all its attendant damage to the environment and huge costs if there won't be vast improvements in the economy? INDOT wants to have it both ways: great economic development but no problems. This is completely unrealistic and deceptive.

This FEIS states that forecasted traffic volumes for the Build Alternative assumes all 6 sections are built, including a new Ohio River Bridge. (5-209) This is a dubious assumption. The state does not have the money to complete Section 1-3 and little or no money for Sections 4-6. It is unlikely that all the sections will ever be built. The bridge over the Ohio River is estimated to cost \$1 billion alone. The State of Kentucky has stated that the only way it could pay its share is by making it a toll bridge. The chances of that being approved are very slim. Wildly optimistic funding projections are simply not credible.

This FEIS does not deal with alternatives to this interstate for relieving some traffic problems. For example, the planned interchange at the Greene County/Monroe County line is given as the only way to reduce congestion on SR 45. It is unrealistic to think that many drivers will use the interstate when SR 45 will be a more direct route. There are other ways to reduce congestion but those methods were not even considered.

COMMENTS ON CHAPTER 5: ENVIRONMENTAL CONSEQUENCES

As this chapter makes clear, there will be serious environmental damage inflicted on this area of the state. Unfortunately, little will be done to make up for this damage. "Mitigation" will not prevent or remedy the destruction. Many of the other measures proposed are unlikely to be carried out due to funding difficulties. Over time, the highway will continue to impact wildlife all along the route and the quality of Indiana's environment will continue to deteriorate. This is inexcusable as a reasonable alternative route, US41 and I-70, is available. That route was rejected for political reasons. In fact, political considerations dictated the preferred route. Specific comments follow.

P. 5-6--The decision to use only data that could be applied to all 26 counties in the Tier 1 study was a seriously flawed accommodation to INDOT. They had already decided on their preferred route and did not want any serious, foreseeable problems to interfere. This resulted in the use of incorrect data that allowed INDOT to overlook problems they knew

were going to impact the preferred route. Karst information is a case in point. The karst data used for the Tier 1 study was known to be incomplete and incorrect. Yet it was allowed because it was the only karst data that was available covering all 26 counties. In Tier 2 studies, more current, specific and complete data was used and the impacts to karst are revealed to be enormous, as most karst experts knew they would be. Allowing INDOT to hide data until it is too late to change the route is unacceptable. It will result in a more expensive and environmentally destructive route.

Reasonable alternatives avoiding karst features are available. A proposal by independent groups and individuals to shift the route slightly so that it would impact significantly fewer karst features and save tens of millions of dollars and cut off about a mile of roadway was rejected by INDOT for dubious reasons. An appendix that was to address this alternative, Appendix NN, mysteriously disappeared from the revised FEIS.

P. 5-7, 5-8: Features of the low-cost design (LCD) studied in Sections 2-3 are incorporated into the initial cost design (ICD) for Section 4. These include a narrower median and shoulders. These will result in a less safe highway. The low-cost alternative for Section 4 might also include steeper grades and cheaper pavement materials, i.e., asphalt instead of concrete. The overall result is the construction of a substandard highway and means more costs will accrue in the long run. It also means a more dangerous highway. A dollar saved now means a thousand dollars spent later and more lives lost. This shortsighted approach is very poor public policy and is an irresponsible use of transportation tax dollars. This FEIS also states that design changes can be made after the ROD. Citizens can have no confidence that what INDOT promises now will actually be carried out. We see this already happening in Sections 2-3. It is unclear if these LCD changes will be made in Section 1.

P. 5-45, 50: The Pic-a-Chic Farms business would be relocated by any alternative for the highway. The DEIS states that the owner would just relocate on another part of the property. This is misleading. In a news article in the Bloomington Herald-Times, August 15, 2010, one of the co-owners states: "We won't be able to relocate this venue. It's just a one-of-a-kind place." She goes on to say: "I just don't understand why they need I-69." The business's response to the Business Needs Survey says nothing about relocating the business on another part of the property. The site now is secluded and quiet. Being located next to an international truck corridor would not help that business. We have to question how many other responses have been distorted by this FEIS. Due to the short comment period there is not enough time to investigate these concerns.

P. 5-49, 52: Replacement housing does not take into account the acreage it is on nor does it replace the peace and quiet and quality of life that is lost. Homeowners who are left stranded next to a major highway lose more than just some land. They lose the value of their homes and remaining land. They may be forced to move because they cannot live next to a noisy, polluting interstate. Noise levels at the Rolling Glen Estates and Farmer' Field Acres neighborhoods would be excessive but INDOT states it would not be cost effective to build noise barriers. ("There goes the neighborhood!") There is no compensation for these losses. According to INDOT, loss of quality of life is non-compensable.

Rural communities are by their nature dispersed but are still communities. INDOT does not consider the impacts of this highway on rural communities. This highway will create a huge barrier separating families in rural areas. Rural families don't live in clustered housing but nevertheless they are neighborhoods.

P. 5-52: Replacement farmland is difficult to find in Sections 1, 2, 3 or 4. Lost farmland cannot be mitigated, it is just lost forever. In a time of worldwide food shortages it becomes a moral issue to destroy farmland in order to build another highway. This was not addressed in this FEIS.

Section 5.2: As in other sections of this DEIS, INDOT ignores the deep and widespread opposition to this highway proposal. They only euphemistically refer to "concerns". There has never been as much opposition to a highway project in Indiana as there is to the I-69 extension. But in INDOT's public documents and statements, the past 2 decades of opposition and massive citizen comments against the project are treated as a mere nuisance. All of INDOT's proclamations of the importance of public comments are nothing more than empty words. INDOT is less concerned about citizens' concerns as the early settlers were concerned with the concerns of the Native Americans.

P. 5-57: The FEIS states: "No person displaced by this project will be required to move from a displaced dwelling unless comparable replacement housing is available to that person. In Section 2, this edict was not followed. At least one homeowner was ordered out of his home and was not compensated for months. The family was forced to put their belongings in rental storage and pay rent on a home. INDOT's treatment of homeowners is callous, cruel and arrogant.

We have heard similar stories from other sections. We have also heard disturbing stories of INDOT preying on elderly people who are confused by the land acquisition process and are forced out and don't know what to do. These predatory tactics are reprehensible. The human suffering caused by I-69 is not addressed in the FEIS and there is no "mitigation" proposed for the permanent damage that greed and politics are wreaking on human life.

P. 5-81: By agreement with, and in response to concerns from the USFWS, no interchange in the Greene Co./Monroe Co. area was planned for in Tier 1. This was to avoid development in sensitive karst areas and near a major Indiana Bat hibernaculum. Now such an interchange is not only in the design, but is preferred and economic studies are based upon it. Clearly, INDOT cannot be trusted to hold to its promises. This decision also demonstrates that INDOT is more concerned with economic development than with the health of the environment. This interchange will also have negative social impacts. Sprawl development that is generated by interchanges like this one will only lead to problems in the future. Greater demand will be put on local law enforcement agencies and school systems as demand for services increases. Typically, the tax base increases somewhat but not enough to cover the cost of services. As the area develops congestion will increase as well. This pattern of development ends up being problematic for everyone. It has been discredited and should not have been allowed. This is another example of INDOT pandering to local officials to get support for the highway

knowing the outcome will not be in the community's best interest. Further comments on this interchange follow in this document.

This FEIS's claim that the interchange at the MC/GC line would take large numbers of vehicles off SR 45 is questionable. Victor Pike, where the SR-37/I-69 interchange would be located is 3.5 miles south of the current interchange at SR-37/SR-45. This means someone using SR 45 from the Bloomfield area would have to travel an extra 7 miles on a round trip if they were to use I-69 to travel to the same point.

5.4: Farmland is an irreplaceable resource. Its loss cannot be mitigated. In fact, the mitigation of forest will require the loss of more farmland.

Section 5.5: Each of the six sections of I-69, Evansville to Indianapolis, are supposed to be segments of independent utility (SIUs). That is, they are stand-alone projects whose justifications do not depend on each other. In reality, this is a sham. Segmenting the project was done to avoid admitting to the total cost and impacts of the entire route. Of what possible value is Section 3 as a stand alone project: an interstate highway from Washington, Indiana to SR 231 in rural Greene County, Crane NSWC notwithstanding? The FEIS states on 5-183: "The localized impacts (referring to Section 4) need to be viewed in relation to the overall economic benefits that will accrue to all of Southwest Indiana when I-69 is completed between Evansville and Indianapolis." This same statement appears in the FEISs for Sections 2 and 3. These statements tie all the sections together into one project, which is what it really is. Also see Page 5-209: predicted traffic volumes and economic projections depend on completion of the entire route from Kentucky to Indianapolis. These EISs have in reality segmented one project. This used to be forbidden but the rules were changed to make the proposed highway more acceptable.

The Traffic Analysis Zones (TAZs) used traffic forecasts based on outdated assumptions. The ISTDM used for this DEIS was developed in 2004 with a base year of 2000. Due to high fuel prices and fewer VMTs the future patterns of growth have changed. Concern over global climate change will also alter previous assumptions about traffic patterns and volumes. More current data and assumptions for traffic analysis must be used if his study is to be predictive of future traffic patterns. The traffic data in this EIS is unreliable.

P. 5-195-196: The Tables on these pages show very little job growth due to I-69—a total of 771 jobs in Monroe and Greene Counties by the year 2030. If I-69 is completed in 2014, as predicted, that equates to only 48 jobs per year. Over half of those will be in Monroe County. The majority of the jobs for Greene County would be near the US- 231 exit. This is the location of the West Gate Development. That development is highly speculative and may not generate the jobs predicted due to lack of supporting infrastructure. The rest of Greene County, including Bloomfield, is predicted to get only 35 jobs induced by I-69 in 16 years.

An increase of 517 jobs is expected for the no-build scenario.

If I-69 is supposed to be a jobs generator it is not indicated by these data. How can we believe INDOT when they say this highway will generate economic growth

throughout SW Indiana? Also, these charts do not indicate how many of these jobs would be new jobs as opposed to relocated jobs. The “Transfer Effect” would predict that most of these jobs would be relocations from other areas in Indiana. In fact, this is already happening. The West Gate development has brought some jobs, but many of those are existing jobs moved from the surrounding area. For example, SAIC jobs were transferred from Bloomfield to West Gate.

P. 5-198: There will be a loss in the tax base due to the presence of I-69. There will also be a loss in property value due to I-69. Homes and land near an interstate are devalued due to noise, light and air pollution. The only exceptions may be near an interchange, but even that is not assured. Many interstate interchanges in rural areas do not become developed, or only slightly so. This is confirmed as one drives the interstates, including I-69, through rural areas. The County Line Interchange and its mile long access road are in an environmentally sensitive area so induced growth may be restricted. If it is not restricted it will lead to serious environmental damage.

The land values given on this page are too low. Land in Monroe County is very highly valued now. In some rural areas it sells at around \$15,000/acre. Greene County land sells for less than Monroe County land but still more than the \$2000 estimated in this FEIS. Land values do fluctuate but they do not drop this low.

P. 5-209: This FEIS states: “The forecasted traffic volumes for the Build Alternative assume the following: all of the six Tier 2 sections are completed for I-69 between Evansville and Indianapolis; and the I-69 project between Henderson and Evansville is completed, including an additional Ohio River bridge in Evansville.” As noted elsewhere in these comments, all three of these conditions are highly unlikely to be fulfilled in the near future, if ever. **Therefore, for these and other reasons, the traffic modeling for this highway is not reliable and is not predictive of future patterns or volumes of traffic.**

P. 5-185: Some of the traffic counts in Chart 5.6-1 make no sense. This chart shows traffic on SR 45 from SR 37 to SR 445 plummeting. Why? Much of the traffic on SR 45 is from residents and businesses in that area. These numbers are not likely to drop due to I-69. From SR 445 to SR 37, the distance on I-69 would be greater than on SR 45. Travelers going from Bloomington to Bloomfield will not use I-69 because it would also be longer than on existing roads. From the interchange at SR 231 to Bloomfield would be 7.5 miles long, fifteen miles for a round trip. Granted that SR 54 is winding in places, but it is not 7.5 miles longer.

The idea that all roads that parallel or cross I-69 would lose traffic to I-69 is also suspect. What happened to the induced travel that comes with economic development? Will there be no development and therefore less traffic? The traffic modeling for this project is simply not reliable.

A supplemental EIS is needed to reevaluate the traffic impacts of this project in light of numerous uncertainties.

P. 5-197: Monroe County officials were told during the Tier 1 study that no roads would be closed in Monroe County. More roads could be closed following final design, as indicated in this FEIS.

Section 5.7.3.2: The FEIS states that some views of the highway will be obstructed due to vegetative cover. On many stretches, this will only be true for about half the year, May through October. Perhaps INDOT has forgotten that most trees are bare from November to May.

Section 5.21: Karst impacts will be enormous. Other experts have covered this subject and we will address it more thoroughly elsewhere in our comments.

All of these impacts could have been avoided by using the US 41/I-70 alternative. A bypass is currently under construction around Terre Haute. This route would have avoided most of the environmental impacts and would have been about one-half the cost of the new terrain route. The time savings on the new terrain route compared to the upgraded US 41/I-70 route are insignificant.

It is important to stress that the proper way to confront karst impacts is to avoid them whenever possible. The MOU for karst kicks in only when impacts cannot be avoided. Karst impacts could have been avoided by using other alternatives.

Section 5.9.2: MSAT: This FEIS essentially dismisses any increase in Mobile Source Air Toxics, MSATs, as unimportant or unknowable. It further states that future regulatory control will decrease these emissions. According to this DEIS: "... emissions will likely be at or lower than present levels in the design year as a result of USEPA's national control programs that are projected to reduce the MSAT emissions by 72% from 1990 to 2050." This statement disregards the political reality behind these projections and whether they will ever be achieved.

This FEIS further states: "...the closest communities to the Preferred Alternative are the unincorporated communities of Scotland and Hobbieville, which are about one-half mile away. What about Bloomington? This Section will dump large amounts of traffic, and pollutants, in the area of SR -37, a very busy, major thoroughfare.

This highway will generate much more traffic in a relatively unpolluted area of the state. This will cause a concomitant increase in MSATs spread over a wide area. For this DEIS to throw up its hands and say, essentially: 'gee, its too bad but there is nothing we can do about it, and besides, trust us, it won't be all that bad.' This is an unacceptable failure to admit and to deal with a real problem: I-69 will substantially increase toxic emissions along its entire length. To dismiss pollution because it will occur in a relatively unpolluted area is irresponsible. To say, in effect, pollution isn't a problem until it gets "really bad" is dismissive of the health concerns of rural communities. It is unsatisfactory and repugnant. It is like saying: 'we won't make any attempt to prevent or deal with a problem until it is making people obviously sick'.

It has also been revealed that INDOT did not use the most current emissions data to do its air quality analyses. Air quality impacts must be addressed in a supplemental EIS.

To attempt to balance the negative effects of air pollution with a decrease in accidents (5-276) is ludicrous. As can be shown with the simplest of studies, congestion, accidents and fatalities are likely to increase with I-69.

On page 5-271 fine particulate matter (PM-2.5) is dismissed in one sentence as not a problem. This is unacceptable. I-69 will be a major truck route from Canada to Mexico. These trucks mostly use diesel fuel which is a source of fine PM pollution. This source must be evaluated in a supplemental EIS.

Section 5.10: Highway Noise: The I-69 International NAFTA Truck Corridor will bring significant noise pollution to a relatively quiet area of the state. That pollution will occur 24 hours a day, 7 days a week, 365 days a year-- forever. This impact will be felt for miles on either side of the highway. Attempt to cheapen the highway design to allow steeper grades will make it much worse. Attempts to downplay this impact with lots of numbers are like trying to cover up the sound of a racetrack with billboards. **Noise pollution is a serious problem with this highway proposal that will not and cannot be mitigated by INDOT. The affect of noise pollution from this project on human health and wildlife impacts has not been adequately studied.** Once again, this DEIS is dismissive of the impacts of this highway in rural areas. Noise pollution should be included in a supplemental EIS.

P. 5-377: Heavy blasting will occur in Section 4. This has the potential to not only disturb the quality of life but also to disturb karst features and damage water wells and the foundation of homes throughout the area. It will also negatively impact wildlife, including the federally endangered Indiana Bat. If water wells and homes are damaged it is unlikely INDOT or their contractors will admit it was due to their activities. This could generate legal challenges and costs that neither the public nor the state can afford.

The following species are in Section 4 but were not observed by INDOT's consultants: Spadefoot toad, barn owl, red-shouldered hawk, cerulean warbler, bobcat, rough green snake, bald eagle, and cougar. What else did they miss? How thorough was their study? What did they chose not to see? In Section 4, another wildlife rich area of the state, one of the last ones left, will be desecrated and fragmented with loss of critical habitat, replaced by another highway. And so it may go until nothing is left but memories and regrets.

P. 5-494: This page states that trees will be left in the median for Indiana Bat habitat. On page 496, under the heading "All Habitats" it is stated that no trees will be left in the median. In another section it states the IDNR will manage the timber in the median. Which is it?

P. 5-496: This page says interchanges in karst areas will be limited. In fact, in Tier 1 there were no plans for an interchange at the Greene County/Monroe County Line. Now such an interchange is preferred. INDOT's assurances are as vaporous as auto exhaust.

P. 5-499: This FEIS states that tree plantings for mitigation will be monitored for only 5 years. After that they will be protected by conservation easements. This is not adequate protection. It will take 100 years for a forest to mature from a planted field. Who will oversee these areas for that length of time? Easements have a way of disappearing and being forgotten. Other priorities can also override an easement.

P. 5-500-504: Several measures are given to monitor Indiana bats and perhaps purchase habitat, but some conditions for implementation of these measures are vague and uncertain. None of these efforts will be as successful as not building the highway at all. USFWS is given the authority to protect this bat and presumably they would continue to do so without this highway. There is no guarantee that this will be carried out after a period of years has passed and priorities and funding levels change. One provision in this FEIS concerning bats is that \$25,000 will be provided (by whom is not stated) for educational posters and other outreach measures. This is scandalous. The sad reality is that if we don't make a greater effort to protect bats and their habitat we may end up with pictures on a poster but no bats.

On page 5-388 the DEIS states: "INDOT will coordinate with IDNR to evaluate potential impacts to the eastern box turtle during construction and develop protocols to address these impacts." In the FEIS, 5-505, it states: "INDOT will continue to coordinate with the IDNR to minimize impacts to the eastern box turtle in Section 4." This appears to be a downgrade of protection for the threatened box turtle. What contractor is going to limit in any way his work to consider the presence of a turtle? **How many IDNR personnel hours are going to be committed to this work when this agency is already understaffed and underfunded? INDOT's promises simply cannot be relied on.**

P. 5-521: **The FEIS states: "The field investigations for this study did not include extensive trapping or other observations that would confirm the presence of listed species in the project corridor."** This is made clear by the number of even common species that were not noted in this study. The impacts of this highway on many species is simply unknown. Given the length of this chapter one would expect a more thorough examination of wildlife impacts. A few prominent species were given special attention and everything else is forgotten. Mitigation focuses on these few prominent species but the rest are on their own. No one will study them and the impacts will go unreported. One thing is certain, the quality of the overall environment in SW Indiana will suffer greatly due to the construction of I-69.

Section 5.18.4: All of the measures proposed in this section are tenuous. Concerns with wildlife crossings, lighting, and vegetative planting are mentioned as possible measures to be used to ameliorate the impacts on wildlife. However, **statements such as: "...consideration will be given to...", "measures will be assessed...", and "...where feasible..." are not reassuring. When funding is such a problem, as with this highway, it is unlikely most of these measures will actually be undertaken.** It appears that these proposals are made to ensure the cooperation of agencies like USFWS whose responsibility is to protect ecosystems and wildlife.

Wildlife collisions with vehicles are certain to occur in this area. Measures to provide wildlife corridors may actually concentrate animals in some areas and make impacts more likely. Extensive measures to prevent impacts would be very expensive and therefore unlikely to be carried out.

The assessment of impacts on wetlands due to I-69 is sketchy and unclear. On page 5-544 of the FEIS it states: "Generally speaking, NWI wetlands are identified by aerial mapping and are not field verified. Then, at 5-546 it states:" It should be noted that the Tier 1 estimation of impacts was based on NWI data while the Tier 2 evaluation was based on field reconnaissance and determinations of wetlands within the construction limits of the Section 4 alternatives." However, the DEIS, page 5-427, carries the exact same language as the FEIS! Was the FEIS done before the DEIS was released? Were wetland impacts actually field verified? These wetland statements are highly suspect as to what work and verifications was actually done.

The FEIS admits (5-551) that the alignment was not able to avoid many wetland impacts in the preferred corridor. Because there are two alternatives (low-cost and initial cost) and the study does not indicate which will be used, it is impossible estimate the amount of damage to wetlands. The information in Table 5.19-4 is not totaled which makes comparisons difficult.

Proposed mitigation of wetland impacts is vague and contingent on unclear criteria. (5-592) Once again we run into the phrase "...will be considered..." when mitigation options are mentioned, and, "...as appropriate..." when spraying of herbicides are mentioned. This is no assurance as to what may, or may not, actually be done.

The route chosen for I-69 will cause a degradation of the environment that will not be mitigated. This could have all been avoided by using the US-41/I-70 alternative.

P .5-563: The FEIS states that the preferred alternative 2 would relocate 63-69 streams. The DEIS, page 5-446, states that alternative 2 would require the relocation of 39-44 streams. The DEIS puts the length of relocations at 22,658 feet for alternative 2. The FEIS puts the length of relocations at 38,556 feet for alternative 2. How could so many stream impacts have been missed in the DEIS? These are major environmental impacts. It is not clear in this section if streams in karst areas were correctly identified.

Once again, environmental impacts were understated in the DEIS. As a result, reviewers were not commenting on the actual impacts of the project. A supplemental EIS is clearly needed to assess all of these additional impacts.

Due to the short comment period we were unable to thoroughly study the impacts of this project on these very important wetland and stream resources.

P. 5-595: Runoff from highways can be a serious environmental problem, as this DEIS points out. This is especially true in karst areas. Unfortunately, proposed drainage controls for runoff are weak, at best. INDOT's current deicing practices do not mention deicing procedures in environmentally sensitive areas (Appendix Q). **INDOT and their**

contractors have a poor record for controlling erosion and there are no assurances their practices in these areas will improve.

P. 5-596: The discussion of responses to hazardous waste spills is vague and unverified. Are local emergency responders adequately trained and do they have the personnel and equipment to handle waste spills? How long would it take for state agencies to reach a spill site? How active and equipped are these response agencies? I-69 will be a major truck corridor and a hazardous materials route that will traverse very environmentally sensitive areas including karst terrain. What will happen when a truck hauling toxic liquid turns over, breaks open and empties its contents into a sinkhole? Roads will be closed and access will be limited for emergency responders, so who is liable for accidents? For example, the Indiana Creek Firefighters will have very limited access to I-69 as it runs through their area of responsibility. How are they supposed to carry out their duties and are they liable for damages if they can't reach an accident within their area?

Alternative routes could have avoided karst areas all together. Even within Section 4 moving the route a short distance outside the corridor would avoid many karst features. This movement would be allowed within the guidelines of this EIS. **INDOT is not following the first principle of the karst MOU, which is to avoid karst areas whenever possible.**

Pp, 5-600: It appears that no study was done to evaluate the impacts of I-69 to private water wells. Forty-six such wells were identified for the preferred alternative but these were only wells within 1000 feet of the ROW. Construction can impact wells situated beyond 1000 feet, especially in areas where there will be blasting. **There is no discussion of mitigation for contamination or diminution of water in private wells. The impacts of the highway on this valuable resource are completely inadequate and must be addressed in an SEIS.**

Pp. 5-615-620: The numbers on these stream maps are unreadable so their accuracy is impossible to verify. The map through the property of the Tokarskis is inaccurate. It does not show a sinking stream that traverses their property.

P. 5-648: Mitigation ratios for forest losses will be based on the entire Evansville to Indianapolis route not necessarily for each section. This raises serious questions: each section is supposed to be independent of all other sections (SIUs) yet mitigation will extend over a 147 mile corridor. This ties the sections together. Loss of forest in one section may not be mitigated in that section which means impacts of each section are not necessarily remedied in that section but in some other section. This is one example of how SIUs do not work and should not be allowed. The I-69 extension, from I-465 to Kentucky, is one project with a set of costs, benefits and impacts and that is the way it should have been studied. Arguing that it is too big a project to study in detail all at once is not convincing. It may have taken more time but it certainly could have been done. The impacts of this project are so extreme that it must be looked at as a whole and not broken up into little pieces to make it more palatable. If the public and responsible public officials choke on the damages and costs so be it.

P. 5-649: The study states that core forests in some areas would increase based on mitigation. This is a false statement. Mitigation does not replace core forest. As described in this EIS, mitigation sets aside existing forest areas to be supervised for a period of time and other areas to be planted with seedling. These latter areas won't be mature forest for a hundred years, if ever. **Global climate change may impact forest succession. Future forest succession will most likely not mirror the past.**

Also, it must be acknowledged that not only are core forests fragmented by this highway, but also proposed mitigation sites are next to this highway. This will further degrade the quality of these forests due to noise, light, air and water pollution. The quality of these forests will decline. **Mitigation will not replace or make up for the loss of core forests due to this project.**

Section 5.21: There will be major karst impacts due to this project. The US-41/I-70 alternative would have avoided all of these impacts. One of the main points in the Karst Memorandum Of Understanding is to avoid karst areas where possible. This was not done. This DEIS recognizes that karst features were likely missed in the karst studies. This is undoubtedly the case, e.g., in the section from SR 54 to Harmony Road only one sinking stream is counted in the preferred alternative. We know that there are at least 2 such streams in one small stretch of this route. Only two other sinking streams are listed for the rest of the route. This number seems quite low.

There will be no meaningful mitigation of impacts to karst areas. Even within the chosen corridor a route with many fewer impacts to karst features was not preferred. The reasons for this are clear—INDOT has been instructed by Governor Daniels to fast track this project. Preventing environmental damage and saving money is of secondary importance to speed. Money will be saved elsewhere by cheapening the construction parameters. As well as our comments here, we include the comments of Keith Dunlap and the Indiana Karst Conservancy.

Section 5-22.3: Thirty-eight privately owned managed areas will be impacted, directly or indirectly, by this highway. These lands total over 2,000 acres. They are used mostly for conservation purposes and all would be negatively impacted. Private landowners' efforts to conserve natural areas are being seriously thwarted by this highway. Forest and wetland mitigation ratios will be the same as for the rest of the highway. No special mitigation efforts will be made to make up for the degradation and loss of these areas.

P. 5-770: Construction in a floodway permits will be required for this project. Unfortunately, these permits are being manipulated to allow INDOT to cheapen the design of the highway. In Section 2, parallel permits were sought for a bridge over Prairie Creek. Construction permits are applied for under one set of design standard and later a new set of permits is applied for to allow shortening of bridges. This shortening will cause more flooding so more flood easements are then required. These changes will cause significant impacts to farming operations and also lead to wildlife impacts. If allowed to continue, a substandard highway will be built that will have more negative impacts and fewer benefits.

This directly impacts the purpose and need of the project. **Manipulation of the permitting process should not be allowed for this project for any reason.**

This same manipulation could also occur with Class V Injection Well Permits. This should not be allowed.

P. 5-771: **Rule 5, Erosion Control has already been violated numerous times in Section 4. These violations are documented with pictures.** INDOT and their contractors have a history of violating Rule 5.

This FEIS's attempt to downplay the impacts of this project by comparing the loss of resources in the corridor to all the resources in a 26 county study area is very misleading. The impacts in a particular area are immediate and serious losses. These conversions can drastically change the character and quality of the local environment and the local economy. Taking large swathes of farmland and closing roads in farm county has significant negative impacts. Forest and wetlands losses and degradation in less disturbed areas of the state have a deep impact on what is left. The forests in Monroe and Greene Counties that would be cut up by this highway are some of the last remaining large tracts of forests in the state. Fragmenting them impacts the environment in Indiana as a whole. Neo-tropical migrant warblers, for example, will have fewer nesting sites which means fewer of these birds in the state. **Indiana was originally about 96% forested, it is now about 19% forested. Those losses did not occur in one huge block but in small losses over many years. These takings are a continuation of a way of thinking that has created the environmental crisis we are in today—**'oh, this is only one small area we are taking, there is plenty more out there'. Oh, this will add only a little bit more pollution to this area that has lots of clean air so it won't make any difference. These excuses, repeated over and over, lead to a degraded, polluted landscape. This may have been accepted years ago, before we realized the problems we were creating, but in the world we live in it is intolerable.

This is especially disconcerting because a less disruptive alternative was available. All of these losses are completely unnecessary, especially since the presumed benefits are so minimal.

P. 5-787, Table 5.24-2: Projected job creation for this section is slight: 771 jobs by the year 2030. And some of these jobs are also counted for Section 3 (5-788). This computes to 39 jobs per year. **At a median projected cost of \$670 million for Section 4, each job will cost nearly \$900,000.** This is way out of line with all other job creation mechanisms. (Note; we do not accept this DEIS's estimate of \$533 million for the low-cost alternative. Construction through the karst areas will, by INDOT's own admission, be difficult. There are likely more karst features to deal with than are currently known. It is understood that INDOT routinely inflates benefits and underestimates costs. We are now seeing cost increases in Sections 1-3.)

According to the FEIS, 336 jobs in Greene County will be created near the West Gate development. How many of these jobs are already there? The jobs at West Gate may not be due to I-69 at all. Those types of defense jobs do not depend on access to an interstate

highway. Many of those workers would very likely come from surrounding counties, not all will come from Greene County. This is already occurring. **Only 35 jobs are projected for the rest of Greene County by 2030 years due to the presence of I-69.** Monroe County is forecast to gain 400 jobs by 2030.

I find no discussion in this EIS of the transfer effect: most jobs brought to an area by a new highway are not new jobs but transfers from other areas. This is a well know factor that tempers job numbers and that this FEIS has neglected to mention. The process of predicting job growth is subjective and speculative; there are no guarantees. The benefits appear to be so slim that they cannot justify such destruction and degradation of the environment, or the extreme cost.

Without I-69, this FEIS forecasts no increase in jobs in Greene County to the year 2030. What happened to the West Gate jobs? Those jobs will not depend on the presence of I-69. The no-build scenario predicts an increase in population of 2000 for Greene County. The data for Monroe County show much larger increases in jobs and population growth for the no-build scenario: 22,275 jobs and a population increases of 39,000. Why such a difference? Perhaps this is a function of the belief by Monroe County economic development personnel that highways are economic saviors. But if so, why are the predicted improvements for Greene County so minor even with I-69? It might be a scare tactic by Greene County officials to gain support for I-69.

The Section 4 DEIS states: “Greene County recently adopted a comprehensive plan to provide local planning officials the tools to control development through land use planning.” This statement is incorrect. This FEIS has corrected the mistake; it now states: “Greene Counties recently adopted comprehensive plan includes recommendations for protection of karst resources.” (P. 799.)

There is great controversy surrounding planning and zoning in this county. Recent plans to zone some areas around I-69 have met with fierce opposition. In addition, planning may not control growth at all. It just allows a small group of developers to control who gets to develop and where they get to develop. There is no assurance that planning and zoning will limit growth to any extent. Certainly that is not the intent of Greene County officials. On the other hand, little growth is predicted in Greene County outside the West Gate area. They can’t have it both ways—lots of growth and no impacts.

The DEIS for Section 4 states that according to the expert land use panels in Monroe and Greene Counties, most of the growth from I-69 will occur outside the project area. This needs to be explained. Where will it occur? The DEIS for Section 4 also states: “As **Figure 5.24-1** (p. 5.24-687) shows, the majority of the predicted development would occur near the interchanges with US 231, the Greene/Monroe County Line, and SR 37.” Why the contradiction? What do they mean by growth?

This part of the study is very confusing. In previous comments we pointed out that, as predicted by the study, little growth is predicted outside the interchange areas. This area of induced growth needs to be redone to make it clear and verifiable, if that is even possible. This would be appropriate for a supplemental EIS.

P.5-820: The DEIS states: “Because it was determined through this analysis that there were no significant impacts to farmland, wetlands, and streams, no monitoring system would be put in place for these resources.” No significant impacts!?! I presume this means cumulative impacts. Does this imply no development? INDOT may not want to monitor the impacts but that does not mean they will not occur. Of course farmland, wetlands and streams will be impacted, if there is development, but the public will not hear about them because they won’t be publicized. The same is true for impacts on private water wells. These impacts should be addressed in a supplemental EIS.

P. 5-823-25, Tables 5.24-6,7,8: Indirect impacts to karst have not been determined. This will undoubtedly lead to increased costs. There will be no mitigation to make up for the loss of farmland. **In fact, mitigation for other lost resources could convert over 1100 additional acres of farmland to other uses.** A total of 4280 to 4613 acres of farmland will be converted due to I-69. This figure should be added in whenever farmland losses are discussed.

Pp. 5-821 and 825: The chart on forest changes and the statement on induced growth state that there will be no net loss of forest due to I-69 construction. This is simply wrong. Forest mitigation does not replace all of the forests taken for the highway. It simply preserves other forested areas for an undetermined period of time and replants agricultural fields. Those replanted areas will take a hundred years, if ever, to replace the lost mature forests.

P. 5-808: According to FHWA, runoff from highways poses no pollution problems. This is a dubious conclusion. In other parts of this FEIS runoff is mentioned as a problem. Highway runoff certainly can pollute surface waters and does so regularly. To claim it is below EPA criteria is suspect. Highway runoff is a very serious problem in karst areas.

In general, too much credit is given to INDOT’s “Standard Specifications and Special Provisions” for overseeing construction and making sure proper procedures are followed. INDOT cannot be trusted to monitor their own activities and FHWA is little more than a rubber stamp for INDOT. This will lead to problems not only during construction but in the future. INDOT is being driven by political pressure which has already caused problems. Some of those problems are mentioned elsewhere in these comments. **Lack of oversight is a very serious concern.**

P. 5-818: The four points listed on this page which are supposed to be measures to limit cumulative impacts are meaningless, feel good pabulum. In practice they are seldom followed. Costs are the determining factor for design and construction.

Section 5.25, Energy Impacts: The construction of the I-69 extension will result in a significant increase in energy use. Higher interstate speeds increase fuel consumption and induce more travel. Closing roads will result in more local travel to get around the highway. If the low-cost alternative is followed and increased grades are allowed, then even more energy will be consumed.

This project is out-of-time in its purpose and needs. The travel demands of the future will not be a simple replay of the past. It may have been acceptable in the 1940s or 50s but it is anachronistic and irresponsible in our current environment.

Table 5.25-1: does not show if it refers to the low-cost or the initial cost alternative. There will be a difference.

One environmental issue not dealt with in this DEIS is the composition of fill materials. That decision is presumably left up to the contractors. **One possible problem is the use of coal combustion waste (CCW) for fill. Near water sources and in karst areas use of this toxic material should not be allowed.** We understand CCW is being considered for building the ramps to the bridge over the White River in Pike and Daviess Counties. CCW has been used in other transportation projects in Indiana.

COMMENTS ON CHAPTER 7 Mitigation and Commitments:

Table 7-1: GIS availability, Updating Historic Sites and Distance Learning have nothing to do with mitigation yet are listed as major mitigation initiatives.

P. 7-4: There is a huge hole in the Context Sensitive Solutions (CSS) initiative. The measures listed are contingent and will “...be considered within the objectives of mobility, safety and economics.” This leaves INDOT with broad categories of reasons to do nothing at all within the guidelines of CSS. CSS is another of the feel good initiatives that do little in actual practice.

P. 7-4: Mitigation lands will be donated to local or governmental agencies and have deed restrictions. This does not assure they will be protected forever. Agencies and conservation groups sometimes sell off or trade protected sites for various reasons. Funding of personnel to monitor these sites is also not always available and the sites end up being neglected. Purchase of mitigation sites is not assured. As noted, this will depend on availability, coordination with agencies, willing sellers and funding.

P. 7-7: The FEIS suggests that mitigation sites may be found within the Crane NSWC. It is not known if this is even possible. This is federal land; just because the land is there does not mean it can be bought or used for mitigation purposes. This section also states that this site could be “...used to add to the existing core forest areas.” One would have to assume that it is already core forest area and so how is it adding to core forest? You don’t add to core forest by simply protecting existing areas.

Some mitigation measures mentioned here are subject to “cost effectiveness” or “cost benefit considerations.” This opens a huge loophole: it will be very easy to say, gee, we just can’t afford this now. This is more likely to occur because the funding for this entire project is in doubt. How can INDOT cut out interchanges and then add amenities for wildlife? Also, on page 7-27 it says that amenities for the Fern Hill Nudist Colony, to block the view and make the area more attractive, would be considered. How is INDOT

going to explain that to farmers who have lost access to their fields? How can it justify those amenities while denying noise barriers to homeowners?

P. 7-8: The FEIS states: “In Section 4, the proposed forest mitigation sites are the same as those described above for wetland mitigation.” It is unclear from this statement if mitigation sites are being double counted. Is the same acreage being used for both forest and wetland mitigation?

P. 7-17: Decisions on local access roads will not be determined until the final design stage. Once again, cost will be a deciding factor. How in hell can agencies ac

P. 7-19: The DEIS states that roadway geometrics will be considered to abate noise levels. It does not mention the opposite is also true: **the low-cost alternative for the highway would increase allowable grades which would cause a serious increase in noise levels.** Noise barriers are unlikely because most of Section 4 is rural and because they cost a lot of money and the health and well being of rural citizens is not important to INDOT and FHWA.

Pp. 7-18-23: These pages of possible control measures are riddled with contingency phrases that completely muddle their certainty.

Storm water protection measures in karst areas will be followed only in the right-of-way. This is not adequate. There will be many karst features next to the highway that also must be protected from run off and storm water drainage.

Heavy blasting will occur. This could not only affect Indiana bat populations but also many other kinds of wildlife. It could also affect water wells and the foundations of houses. These other impacts apparently were not studied.

Pp. 7-23: Expecting construction workers, maintenance staff and other workers to report on the presence of bats for as long as the highway exists is a joke. No one can possibly believe this would happen.

P. 7-56: There is a blatant falsehood on this page: it states that avoidance of karst features has been a key objective in studies dating back to the early 1990s. Why then, wasn't the US-41/I-70 route chosen? That alternative has zero karst features.

P. 7-63: It is not indicated how much construction costs are increased to mitigate karst impacts. Because of the huge number of karst features impacted, construction costs through this karst area will be enormous—if it is done correctly.

COMMENTS ON CHAPTER 11: COMMENTS COORDINATION AND PUBLIC INVOLVEMENT

Not once in this chapter is the widespread and overwhelming opposition to I-69 mentioned. At the public hearing in Greene County CARR presented documents to be included in the public record that clearly show this opposition. **A stack of paper over 8 feet high containing tens of thousands of petition signatures and comments were**

presented to INDOT. In all, approximately 140,000 petition signatures opposing I-69 have been submitted to INDOT—all met with stony silence. Table 11-2 shows 0 petitions received when in fact there were stacks of petitions, as noted above, delivered to officials at public meetings.

Official opposition by public bodies, e.g., city councils, county commissioners, and elected state officials has also been ignored. **It appears that the only comments that matter are those in support of the highway.** This one-sided interest in comments is unacceptable. We are supposed to live in a democracy where the opposition is acknowledged and respected. This has not been the attitude with the proposed I-69 highway. Despite its public statements, INDOT views the opposition as an obstacle it has to get over to do whatever it wants. **There has been no attempt to work with I-69 opposition groups or public officials to discuss how to plan for responsible transportation options.**

GENERAL COMMENTS: THE PROCESS IS BROKEN

Bernardin-Lochmueller & Assoc (BLA), the lead consultant for the I-69 project, has given large sums of money to various governors' campaigns for many years. This Pay-To-Play requirement to assure BLA will get future contracts has been privately conveyed to us by personnel at BLA. Unfortunately, it means that citizens do not get unbiased studies. Neither the outcome nor the route of the I-69 proposal has been in doubt for 20 years. This is just one of the problems that indicates that the entire process is broken.

Tiering is also a major problem. We have commented on this aspect previously. Sufficient and complete information is not given in Tier 1 to adequately inform citizens and policy makers to make informed judgments on the merits of the project. We understand that under NEPA guidelines INDOT does not have to pick the most environmentally, socially and fiscally responsible alternative, but they are required to give credible, complete and verifiable information. This has not been done with this project. **Tier 1 information was incomplete, inaccurate and biased in favor of a predetermined route for this highway.** This undermines a basic tenant of NEPA: agencies are not supposed to mislead and lie to get what they want. **In Tier 2 the extent of the environmental, social and fiscal costs are more completely revealed, after the route is decided and it is too late to change it.** This corrupts the entire process. Segmentation of the project is also a major problem which we discuss in more detail later in these comments.

Tiering and segmentation also allow the approval of projects far in advance of their actual construction dates. This means information about some projects, such as costs and need, are out-of-date before the process is started or completed.

A major overhaul of the EIS procedures is needed to insure that the public and public officials are getting complete, impartial, and timely information on which to base decisions on the feasibility of this as well as other projects. Reliable information is a fundamental requirement of a functioning democracy. That requirement has been distressingly missing since the I-69 process began.

A recently published book: I-69, The Unfinished History of the Last Great American Highway, by Matt Dellinger, details the history and political chicanery that has led to I-69 being a “priority” project.

LOST OPPORTUNITY COSTS:

INDOT states (P. 2-7) that they will use “traditional transportation funding” for Section 4. **The billions of dollars spent on I-69 means that that much money will not be available for other needed transportation projects throughout the State. This is an important issue that needs to be addressed in a Supplemental EIS.** Roads and bridges in Indiana are badly in need of repair and upgrades. A recent federal report rated 4000 bridges in Indiana as structurally deficient or obsolete. Road projects and INDOT personnel are being cut to save money. Indeed, this project is being cheapened to save money and this will result in a substandard highway that will require more maintenance sooner. It is also creating a less safe highway that will result in more accidents and deaths. Indiana’s deficient transportation system is also causing serious economic losses. These losses and long-term costs must be included in any benefit/cost analysis for the I-69 project.

In the Tier 1, FEIS the FHWA gave assurances that INDOT had the funding to build I-69 through traditional funding sources. This turned out to be wrong. The state has had to use income from the long-term lease of the northern toll road to begin Sections 1-3. The \$700 million budgeted for those sections is already too little. Those costs have risen to nearly \$1 billion and are likely to increase, even as measures to cheapen the highway are ongoing. It will also be noted that gas tax revenues are down and the federal highway trust fund is essentially in receivership.

A reliable source of funding for the entire I-69 project should have been guaranteed before any section was started. Otherwise, the state risks starting a project, spending millions, and later admitting it does not have the money to finish it. **Unfortunately, this standard operating procedure for major INDOT projects—let’s just get it started and spend enough money so they won’t be able to just drop it later. This is extremely poor public policy and an irresponsible use of scarce transportation dollars.**

LACK OF OVERSIGHT

We understand that state and federal oversight agencies do not choose projects to build, INDOT and the Governor do that. But these agencies have a responsibility to see that the health and safety of citizens is assured and that the environment is properly protected. **There is a serious lack of oversight of the I-69 project by state and federal agencies which are supposed to fulfill that role.** This defect is due in part to an inability to oversee projects and not just to a lack of desire to do so. The Federal Highway Administration (FHWA) is too closely tied to the political powers in the state to exercise independent oversight. In fact, Robert Tally, FHWA’s Division Administrator is a supporter of this project. FHWA personnel have been known to manipulate data to remove obstacles to the construction of the I-69 extension.

The Environmental Protection Agency (EPA), the Indiana Department of Natural Resources (IDNR), Indiana Department of Environmental Management (IDEM), US Army Corp of

Engineers (USACOE) and the U.S. Fish and Wildlife Service are constrained in their duties by a lack of personnel and political pressure to not interfere with the I-69 project. This has been an ongoing problem. **Personnel in state agencies have been threatened with a loss of their jobs if they do anything to get in the way of the completion of I-69.** Even a slowing of the process due to legitimate concerns is forbidden because of these threats. Problems are covered up or not addressed. In these circumstances, **agencies can be placated by “mitigation” projects. INDOT mollifies them with set asides, studies, promises to monitor impacts and money to pay personnel.** INDOT has paid for personnel in federal agencies to work on I-69 studies and to hurry the process. This opens up the possibility of conflicts of interest.

For the above reasons, these oversight agencies tend to work for and with each other rather than for the public good. No one wants to cross a sister agency. No one wants to be perceived as delaying I-69. Oversight has been replaced by accommodation. **Politics is, in fact, the chief regulator of this project. The loser is the public, the environment and fiscal responsibility.**

These problems are well understood by anyone familiar with this project. It is another example of why the process to build I-69 is broken.

These serious faults need to be investigated by an independent body if meaningful oversight and regulation are to be restored.

Lack of regulation by state and federal agencies across the country has resulted in calamities from economic collapse to coal mine disasters to widespread food borne illnesses to the Deep Water Horizon oil calamity in the Gulf of Mexico. **I-69 is a disaster in the making. We can only hope that someone wakes up to the lurking problems before deaths, injuries and environmental disasters occur.** It is unlikely that anyone, anywhere will accept responsibility or be held accountable after the collisions, mishaps and failures occur.

BAIT-AND-SWITCH TACTICS ARE UNACCEPTABLE

In Sections 2-3 major changes in design of the highway were made after the FEIS and ROD. Many supporters were led to believe the highway would have interchanges and grade separations that they thought would give them improved access. After they bought into the project they were told these promises could not be kept. Rising costs were the reasons cuts had to be made. **In a classic bait-and-switch routine some interchanges were “deferred”, which means they will likely never be built, more roads were closed and bridges were shortened which will cause more flooding, all to reduce costs.**

These changes also affect the efficiency of the highway and directly impact the purpose and need of the project. Many of the presumed benefits used to justify the highway are weakened or eliminated yet no attempt is made to reevaluate the project based on these design changes.

Due to a lack of oversight, we fear the same will happen in Section 4. Will communities be told one thing now and something else when it comes time to construct the highway? INDOT, unfortunately, has no credibility due to its past statements and subsequent actions. Over the years many of their statements have been proven false and their estimates way off. For example, **the cost of the highway has risen steadily even though they consistently say they believe the cost is right at the time they estimate it.** We have many times argued that the costs are low-balled and the benefits exaggerated. In fact, we have a better record for predicting costs and benefits than INDOT does. Why should communities and public officials believe anything INDOT say now?

MITIGATION

Many mitigation measures are contingent on funding and “feasibility”. Many similar phrases are scattered throughout this document. Road closings, access roads and wildlife mitigation measures are also contingent on funding and “feasibility”. What does “feasibility” depend on? That is never explained. There is no assurance that agency personnel or funding will be available in the future to carry out proposed monitoring schedules.

The mitigation measures proposed here will not make up for the severe environmental damage caused by this highway. Forest mitigation, at a ratio of 3:1 will not replace the forests cut down. Two of the three acres will be simply setting aside other forested area that will not be cut for now. Another one acre of agricultural land will be planted with seedlings. Those replanted areas will take around 100 years to mature and so do not replace existing forests. How long they will be monitored is uncertain. Due to the long time periods involved, it is not certain that mitigation areas will remain under supervision in perpetuity as suggested, or even for 5 years. Some of the forest mitigation land will be next to this interstate which means it will be degraded from the start. Air, noise, water and light pollution that wasn't there before will corrupt these forests forever. Farmland losses, of course, cannot be mitigated. Karst mitigation and monitoring will depend on funding and personnel that may not be there.

OTHER ISSUES:

Much of the I-69 corridor is in an earthquake zone. All bridges for I-69 must be built to earthquake standards. INDOT has not committed to these building standards.

Governor Daniels has instructed INDOT to “Throw out the rulebook to the extent the feds will let you do it.” This is a dangerous directive that will lead to many problems. An independent monitoring service should be required to oversee all construction activities. Self-monitoring by INDOT or its contractors will result in shoddy, unsafe work.

SECTION 106 I-69 Tier 2 Studies, Section 4,

Specific Comments:

--The Project Description should state that it is unlikely that the entire project will ever be

completed from Kentucky to Indianapolis. In addition the Project Description should state that it is extremely unlikely that the Canada to Mexico I-69 will ever be completed.

--CARR rejects the finding of no adverse effect on the Scotland Hotel, the Blackmore Store, Old Clifty Church and the Koontz House. There is no guarantee that the design proposed in the DEIS or the FEIS or the ROD will be the actual design of the highway.

The finding of no adverse impacts to the Old Clifty Church is unacceptable. It is nonsense to state that the noise and pollution of an international truck route will have no adverse impact on this lovely old chapel and its rural setting. This chapel is still used by people in the area. In a 2006 letter to Robert Talley, John Carr acknowledged "...that the serenity of the setting of the Old Clifty Church is important to the use of that historic property."

- I-69 will have a negative effect on the Scotland Hotel and the Blackmore Store in Scotland. Development that will follow the highway will further deteriorate this historic setting. We reject the consultants finding of no adverse impact on these historic properties.

-I cannot find in this report any evaluation of the long-term and cumulative impacts to historic properties and cultural landscapes from development. The APE is much too narrow. Impacts from development around intersections will spread for several miles in all directions. The APE needs to be expanded and long term and cumulative impacts to historic properties in the expanded area must be fully and honestly evaluated.

--Regarding Appendix N, part G: The information in this appendix shows a very clear conflict of interest by SHPO and DNR-DHPA. It appears that the National Register eligibility for the 231 Bridges--Doan's Creek and Doan's Branch--has been sacrificed on the I-69 altar. This is really scandalous. As a consulting party, I received no notice about the change in eligibility for these bridges.

This change in eligibility indicates the arbitrary and capricious manner in which eligibility to the National Register is decided. The 231 bridges are at least in their historic locations. The Harris Ford Bridge in Monroe County was moved from a different county.

-Despite the fact that I have several times submitted comments about the Knott property (Taylor Ridge Road and CR 450 South), I cannot find any mention of it in this document. This property has at least 3 historic coalmines and the remains of a camp. These date from the early 1900's. There is a retaining wall extant along the creek and spoil piles are evident.

-CARR rejects the Weintraut & Associates designation of the Dowden-Boyd farmstead as not eligible for the Historic Register. We request a new evaluation by an unbiased scholar.

-CARR questions why this report has been submitted (July 23, 2010) as the report states "since results of the archaeology surveys are unknown at the time of this drafting, the finding for this project is "adverse effect."" If the archaeological studies were not complete, why was the DEIS released on July 23, 2010. This is an inexcusable ploy to rush the project

forward in keeping with Governor Daniels' political ambitions.

-The Section 4 study lists 22 cemeteries within the APE, the earliest dating from 1818. No mention is made of noise and visual impacts to the cemeteries.

-The cross section graphics used to demonstrate noise and/or visual impacts to historic properties are technical, clean and precise ON PAPER. At the meeting at the Section 4 office in December 2009, the consultants were clearly charmed by this graphic tool. In fact, it is nonsense to think that this gives any realistic idea of the impact of an international truck route on these historic properties and cultural resources. The line of sight graphs do not necessarily simulate the on-the-ground conditions. Not enough information is given. Very slight changes in elevation can dramatically change the line of view. The conclusion of no adverse impacts on historic properties is incorrect. There is no assurance that the lines of sight indicated in the cross section graphics will not change. It is probable they will change. Since the project is being cheapened, it is quite likely that the final design will be significantly different from the design demonstrated in the cross section graphics.

-Audio tours are not mitigation for the destruction that I-69 will cause. They are frippery at the taxpayers' expense.

-Trees are not mitigation of visual impacts unless the tree stand is large enough to shield the line of sight **in all seasons AND**, INDOT purchases the tree lots and maintains them as barriers to views in perpetuity

--The following statement from I-69 Evansville to Indianapolis Tier 2 Studies Historic Property Report, Section 4 Description of Undertaking Section 4: US 231 (near Crane NSWC) to SR 37 (near Bloomington) August 29, 2006 is incorrect:

“In a continued effort to include the public in the transportation decision-making process, INDOT has divided the approved corridor, which is approximately 2,000 feet wide and 142 miles long, into six sections.”

The statement should be corrected to read:

“In a continued effort to avoid reporting the true costs and impacts of the entire project, INDOT has divided the approved corridor, which is approximately 2,000 feet wide and 142 miles long, into six sections.”

General remarks:

Since 1990, the environmental and historical studies of the I-69 project have been fraught with errors and calculated intent to mislead the public and elected officials about the costs and impacts of this project. The main (unstated) purpose of I-69 is political. The purpose of the project is to ensure the support of the Evansville development community and the highway construction lobby for whichever political party and individual politician is currently in power.

The original intent of the EIS process under NEPA and the Section 106 process was to ensure that elected officials and citizens have information about the environmental and cultural impacts and costs of a project before starting it, to determine if it should be built. NEPA and NHPA have been co-opted by the highway construction lobby. The environmental and historic review process has become a cash cow for engineering and consulting firms, at the taxpayers' expense.

The I-69 project is a particularly egregious example of this abuse of the public trust.

The political pressures for the Build alternative have skewed the environmental and historic studies. The Federal HIGHWAY Administration relies on models and standards that are designed to support building highway projects over maintaining the quality of life in rural areas and preservation of cultural resources.

It would be far better for the consultants, INDOT and FHWA to just be truthful and acknowledge that the damage this project is doing to our historic and cultural resources is permanent and cannot be repaired or mitigated.

"Perhaps our age will be known to the future historian as the age of the bulldozer and the exterminator; and in many parts of the country the building of a highway has about the same result upon vegetation and human structures as the passage of a tornado or the blast of an atom bomb." --Lewis Mumford

APPENDICES:

A: Greene/Monroe County Line Interchange:

Mr Gary Fisk Section 4 Project Manager PO Box 8464 Evansville IN 47716

RE: I-69 Tier 2 Section 4 DEIS comments (Greene/Monroe County Line Interchange) Mr Fisk:

This comment letter will be focused on the selection and evaluation of the recommended interchange Option 1 (intermediate interchanges at SR 45 and Greene/Monroe County Line) in comparison to the less expensive and lower impact (in a number of ways) Option 3 (intermediate interchanges at SR 45 and SR 54).

Introduction: First I understand the rationale of adding the Greene/Monroe County Line interchange to address the post-Tier 1 public input and the need to consider it in the Tier 2 study, but I do not agree that the benefits in the final analysis really addresses the needs and issues raised by the public, and those needs and issues could be better resolved by other means at less cost and less impact as I will discuss in this analysis letter.

Furthermore, I think it was irresponsible and arbitrary for InDOT to eliminate the SR 45 / SR 54 interchange (Option 3) as a carry-forward option into the final analysis. It obviously would have been a stronger performing contender than Option 4 (SR 45 only) in the final recommendation decision and in many respects is superior to Option 1.

The SR 45 / SR 54 interchange option (Tier2, Option 3) was the primary interchange

configuration under the Tier 1 EIS. While the Tier 1 FEIS/ROD allowed for other options to be considered, there was a formal commitment made by InDOT in consultation with the EPA and USFWS that for environmental impact reasons, no interchanges would be sited in Monroe County with the implications being no interchange(s) between SR 54 and SR 37. To me, this commitment should have been honored unless there were overwhelming compelling reasons to change, and then only under full agreement with the agencies expressing concerns. From the discussion and evaluation in the Tier 2 Section 4 DEIS, the justifications to change from the original commitment are not compelling, nor even justifiable, and thus Option 3 should be the recommended interchange option in the FEIS/ROD.

Elimination of the SR 54 interchange options: From Section 3.4.2.2, the argument for the elimination of the SR 54 interchange options was simply one of spacing, relative to the SR 45 interchange, 1.8 miles to the southwest. While the AASHTO “Green Book” (2004) does suggest a minimum spacing of 2 miles in rural areas, it is clear there is no hard evidence to support this recommendation and the DEIS even describes this as a “rule of thumb” rather than a hard policy with defensible justifications*. The rationale is that

*I found only one paper, *Safety Assessment of Interchange Spacing on Urban Highways* (FHWA Tech Brief), that really addressed this issue and that study was focused on higher volume urban freeways. Their conclusion was there was a slight correlation to interchange spacing, but suggested their model be used primarily for accessing inserting new interchanges between two existing interchanges. They also indicated the “rule of thumb” recommendations were also based on optimizing cost and use, not just safety. Further, they indicated any increase in injuries that might be caused by interchange spacing might be offset or exceeded by reduced injuries on local roads by the added access to the freeway.

September 20, 2010

Dunlap: I-69 Section 4 Interchange Options Comments, page 2

drivers need a certain distance to merge and get accustomed to the highway before the next exit and this might be valid for a high traffic volume highway, but I-69 in Section 4 will be a relatively low volume highway (this characterization was made in a number of places in the DEIS when other safety issues were being minimized). Further, it seems counter-intuitive that the spacing in rural areas needs to be any greater than the 1-mile separation suggested for urban areas where traffic is generally greater and more distractions are present. In I-69 Section 5, the SR45 and SR 48 interchanges will be only 1.2 miles apart and there are other examples in Indiana where existing rural/semi-rural interchanges are less than 2 miles in spacing (e.g., on I-65, exits 101 and 99 are only 1.5 miles apart; on I-64, exits 118 and 119 are only 1.6 miles apart). While the spacing between SR 45 and SR 54 should be noted as an issue with some negative consideration, it should not have been the sole reason for this option to not be carried forward for further analysis, especially considering InDOT has illustrated that it is willing to make gross exceptions to other design criteria where safety degradations are clearly understood (e.g., *Appendix GG*, letter requesting “*Level 2 Design Exception for Critical Length of Grade*”). From my perspective, using the interchange spacing “policy” was a simple way to eliminate Option 3 and make Option 1 the most attractive in the carry-forward alternatives. For the remainder of this comment letter, I will be comparing Option 1 with Option 3.

Costs: While there are no cost figures for Option 3 in Table 6-14, it can be assumed that the costs for the SR 54 interchange would be comparable to the costs of the SR 45 interchange, being of similar design and Table 3-23 suggests that the SR 54 acreage would be about the same or perhaps slightly less than the SR 45 interchange. So for the following discussion, I will assume the total costs and right-of-way footprint for Option 3 is twice that of Option 4. This would indicate Option 3 would be \$25-35 million less than Option 1. While InDOT has only selectively used “benefit-to-cost” analyses when it is to their advantage (e.g., *Appendix GG*), I

will selectively use it in my analysis where appropriate.

Performance (safety): From Table 3-10, the net improvement of safety for Option 1 compared to Option 3 is the annual reduction of 4 injuries and 2 property damage accidents. Using the “costs” values in Table 5.5-4, the “benefit” for Option 1 would be a user avoidance of \$422,800 annually. Using InDOT’s B/C analysis and the \$25-35 million initial cost, the B/C value in 2030 would be between 0.20 – 0.23 indicating the added safety does not justify the more expensive Option 1 compared to Option 3.*

I also have safety concerns over the new 2-way stop that is proposed at the SR 445 and SR 45 intersection. I foresee the tendency of traffic entering that intersection from the east speeding above the 55 mph limit due to its limited access condition and prior 70 mph conditions. Further, line of sight for traffic on SR 45 to the west will be compromised by the elevation grade that SR 445 must take to reach SR 45. It would appear InDOT is eliminating a troubled signal-lighted “Y” intersection with a 2-way stop intersection with high-speed cross traffic. Now the accidents will be high-speed side impacts rather than lower speed rear-end impacts.

Performance (travel time): From Table 3-5, the Travel Times to Selected Destinations shows nearly identical aggregate times for Option 1 compared to Option 3. Therefore the

*It should be noted that the no-build option saves \$6 million/year in safety-related “costs” in addition to the \$533-798 million initial costs for Section 4.

Dunlap: I-69 Section 4 Interchange Options Comments, page 3

B/C value would be 0.0 indicating the Travel Time performance does not justify the more expensive Option 3. A similar conclusion can be made from Table 3-7, Travel Time to the Interstate System.

Congestion Relief: Tables 3-8 and 3-9 indicate that Option 1 is superior to Option 3 in reducing miles travel and times spent in congested areas, but the difference between the two options is less than 4% and the DEIS states that all of the options satisfies the local goals to reduce traffic congestion. If all other costs (initial build and ongoing users costs) were the same between the two options, Option 1 would be the preferred configuration in this metric. However, the initial costs are not the same (see Costs discussed above) and user costs are not the same either (see discussion below), so the cost of congestion relief needs to be better understood and analyzed. Table 6-13 does not have Option 3 statistics, but Option 3 is probably only slightly better than Option 4, so the “trouble areas” appear to be the 8-mile section of SR 45 from SR 445 to Leonard Spring Road. An alternative study should be made to determine what improvement in Level of Service and traffic capacity could be made to SR 45 for \$25-35 million (e.g., adding bypass shoulder lanes at intersections for left-turning traffic, straightening curves, SR 45 / SR 445 intersection improvements, etc). Only after these further studies are made can one conclude which option is better from a benefit/cost aspect and local traffic improvements. The DEIS is deficient without such a study.

User costs: Table 6-13 would suggest that approximately 4800 vehicles per day would be diverted onto I-69 under Option 1 compared to Option 3. Of those 4800 vehicles, the vast majority of those vehicles* would proceed north on SR37 where their first opportunity to exit I-69 would likely be the SR 45 exit. Thus it is easy to compare the user costs (time and fuel) between Option 1 and Option 3 for those vehicles traveling the two routes from the intersections of SR 45 /SR 445 and SR 45 / SR 37. Via SR 45, the distance is 11.3 miles with most of the posted speed limit being 50 mph. Via I-69, the route is approximately 14.5 miles at a combination of 55 and 70 mph. Drive times are nearly identical under ideal conditions, although the SR 45 route could be slower during congested times and dependent upon traffic lights**. The real difference between the two routes is fuel consumed. Via I-69, the trip is an additional 3.2

miles longer, which if you assume an average fuel economy of 21 mpg, would consume an additional 0.15 gallons of gas. Assuming 3850 vehicles per day, that would equate to 210,000 gallons per year, or \$600,000/year, all to arrive at the same location. The longer route would also produce another 2,000 tons of CO₂ per year. So to summarize, if Option 1 is constructed, it will entice approximately 3,850 vehicles a day to make the same trip in about the same amount of time, but consume more fuel and emit more green-house gases. So essentially, InDOT is proposing to spend \$25-35 million of taxpayer's money to encourage drivers to waste gas with no other benefit.

Access to I-69: According to the DEIS, there were many public comments that suggested an interchange near Carter Road should be *added in addition* to interchanges at SR 45 and SR 54 (e.g., CAC meeting #2) and I can understand the perception that this

*I could not derive the number of vehicles entering the County Line interchange which would then proceed north on SR 37 from the DEIS, but I suspect it would be above 80%, so I will assume it is 3,850 vehicles per day.

**I drive SR 45 quite often and have timed my drive times from SR 37 to SR 445 at various times of the day with typical range of 13 to 15 minutes. Calculated times for I-69 would be approximately 13 minutes.

Dunlap: I-69 Section 4 Interchange Options Comments, page 4

exchange is needed. Greene County residents living west and north of SR 54 and SR 445 (e.g., Bloomfield area) felt they were gaining nothing from I-69 without this new interchange, but as discussed above, even with the interchange, they gain very little, if anything, compared to the existing SR 45 travel route to Bloomington. Furthermore, by including the Greene/Monroe County interchange, this eliminates the SR 54 interchange (not something disclosed to those CAC participants making suggestions to add the new interchange), which actually would provide some benefit to far southeastern Greene County and northwestern Lawrence County residents. These residents actually could benefit by I-69, allowing quicker travel times to Bloomington simply because of a longer travel distance at higher speeds, even if the user costs are greater from the longer route. So by selecting Option 3 over Option 1, you do gain benefit as well as save \$25-35 million.

Reduced Access as a result of I-69: I-69 will potentially close a number of existing county roads, thus reducing local access, increasing emergency response times, school bus travel times/distances, and general commuter times/distances/costs. Ideally, no existing county roads would be closed, but at \$1-2 million per grade separation, it is likely some roads will be closed to contain costs. However, if Option 3 was selected over Option 1, the cost savings on interchanges could likely fund nearly all of the grade separations and still have an overall lower price tag. I am sure a benefit-to-cost analysis in spending funds on more grade separations compared to the Option 1 (rather than Option 3) would show more local benefit to those who live along the path of I-69.

Direct Acreage Impact: Table 6-14 does not include Option 3, but one can estimate acreage impact by doubling Option 4 acreage, as the interchange for SR 54 is very similar to SR 45. Thus Option 1 compared to Option 3 will destroy 100-108 additional acres, most being forested land with a dis-proportional amount being core forest. Since forest-land is being mitigated at 3:1, Option 1 will require approximately 230 additional acres of mitigation acquisition. At \$16,600/acre (page 7-44), that is over \$3.8 million just for mitigation that could be avoided.

Stream impacts: It is hard to analyze Option 3 stream impact (not included in Table 6-14) since the SR 54 interchange ramps would need to cross a minor stream (likely with culverts), but it is clear the impact would be considerably less than Option 1 which requires the connector road to cross Indian Creek and its floodplain using a full bridge.

Indirect impacts: The original intent of the EPA and USFWS during Tier 1 planning was to

disallow any interchanges between SR 37 and SR 54 to discourage indirect development in western Monroe County where karst features and sub-surface drainage are prevalent*. InDOT at the end of Tier 1 seemed to concur with this direction, but quickly changed directions after the Tier 1 ROD was issued. Option 1 in the Tier 2 study greatly subverts this planning, encouraging development south and west of the Greene/Monroe County Line interchange. While it is understood that public input favors additional interchanges, InDOT also has an obligation to follow agency input and the concerns that they expressed, as the agencies understands the overall impacts from a higher level of planning.

*This commitment was also documented in the *Bloomington, Indiana State Road 37 Corridor Accessibility Study*. Dunlap: I-69 Section 4 Interchange Options Comments, page 5

I also disagree with the rationale and discussion on page 6-39 suggesting that the Greene/Monroe County Line interchange would reduce indirect impact because it “demotes” the SR 45 improvement project planned closer to Bloomington. The development closer to Bloomington is going to proceed regardless. Furthermore, whether you improve the flow of traffic by upgrading SR 45 or by diverting traffic by adding the County Line interchange, the end result is exactly the same (i.e., lower congestion will promote development regardless of the way the congestion is reduced). The only thing the County Line interchange will do is to leapfrog development into eastern Greene County near the intersection of SR 45 and SR 445, and likely along SR 445 and SR 54 west of SR 445.

Endangered Species: The USFWS and Indiana DNR obviously have great concerns and oversight responsibility that the I-69 project does not directly or indirectly impact the Indiana bat. Of greatest concern would be impacts to Ray’s Cave, the largest known winter hibernaculum for the species known anywhere*. I believe the original goal of the agencies was to maintain a minimum five-mile buffer from this cave, which the Tier 1 corridor accomplished. However, with the Greene/Monroe County Line interchange introduced during Tier 2, the five-mile buffer has been violated as the western end of the connector road and the reconfiguring of the SR 445 and SR 45 intersection is within 5 miles of the cave’s entrance (and even closer if you consider the underground passages). Furthermore and more importantly, the interchange at that location will encourage development on SR 54 west of SR 445, which likely will have further indirect impacts. While the USFWS may not be able to stop InDOT from constructing the Greene/Monroe County Line interchange, from my conversations, they are definitely not in favor of it, and would greatly prefer Option 3 compared to Option 1. It should also be pointed out that at the time the Revised Tier 1 Biological Opinion (BO) was issued in 2006, the future for the Indiana bat was thought to be trending to recovery. However, with the onset of White-nose Syndrome (WNS) since 2006, it is very likely the species, along with several other hibernating bat species, may be greatly impacted and likely facing regional extinction.** So the “acceptance” of the County Line interchange in the 2006 BO may now be suspect and outdated. The bottom line, Option 1 will have a greater impact on the Indiana bat, and thus should not be selected in the Tier 2 final EIS and ROD. Option 3 is a much better choice.

Relocations: The interchange at the Greene/Monroe County Line would displace half of all the businesses directly impacted by the entire Section 4 projects and approximately one-fifth of the residential homes (13 total displacements). This seems like a disproportionately large number of business and homes relocations for the supposed benefits “gained” by Option 1. Option 3 would displace no businesses and only 1 or 2 residences. Thus, significantly less disruption to those impacted residences and businesses. The large number of displacements were acknowledged on page 5-41 of the DEIS, but apparently had little impact on the final recommendation.

*I have first hand knowledge as I have personally participated in the biennial population census of this cave since

1989, and have invested significant effort to protect this and other Indiana bat hibernacula in Indiana over the past 25 years.

** An Emerging Disease Causes Regional Population Collapse of a Common North American Bat Species, Frick, et al, *Science* v329, p 679, August 2010.

Dunlap: I-69 Section 4 Interchange Options Comments, page 6

Noise: Option 1 with the Greene/Monroe County Line interchange would expose approximately 60 additional residential homes to “highway” noise caused by traffic on the new connector that passes directly south of Shea Estates and Shady Meadows sub- divisions. Option 3 with interchange ramps adjacent to I-69 at SR 54 would likely add little additional noise to nearby residents near SR 54.

Business Impact due to Changes in Traffic Patterns: Pages 5-167/168 indicates the six businesses located east of SR 445 on SR 45 “could be adversely affected by changes in traffic volumes [due to] decreased pass-by traffic”. What the DEIS does not state, however, is that there are over 30 businesses located along SR 45 between SR 445 and Curry Pike, many which would be impacted by a loss of nearly 5000 vehicles per day. This would result in a negative economic impact for a significant area and potentially loss of some of these businesses, loss of employment, and loss of citizen’s livelihoods.

Emergency Responses to I-69: One of the main arguments for adding the Greene/Monroe County Line exchange was a concern voiced by Emergency Responders to accidents on I-69. Their argument was that Option 3 (access at SR 54 and SR 37) would significantly increase response times to an accident mid-way between those two access points. From that standpoint, Option 1 would improve the situation, however, minimum times to the mid-point could still range from 9-15 minutes depending upon the responder according to the November 18, 2009 memo from Bruce Hudson to Gary Fisk (*Appendix BB*). This memo went on to recommend emergency access at Burch Road (1.4 miles from Van Buren Station 19 in Stanford) that would reduce the access times to I-69 to approximately 4 minutes and response time to the mid-point to 6 minutes, completely negating the need for the County Line interchange at significant cost savings. That memo further pointed out the importance of that emergency access point related to providing initial containment for spill incidents in the highly karst area of southwestern Monroe County. The DEIS repeatedly states the County Line interchange was added after listening to emergency responder in 2005, so why does it seem to ignore those same responders making a better recommendation in 2009. It is sad that this great solution is buried in the back of an appendix with no mention or consideration of it in the main document.

If Option 3 were selected over Option 1, it would have the added benefit of improving the emergency response times by the Indian Creek Township Fire Department and the Center Township Volunteer Fire Department to the stretch of I-69 between Hobbieville and SR 45 via the SR 54 interchange.

In summary, Option 3 with emergency access at Burch Road would be a much better solution for emergency response compared to Option 1 while savings millions of dollars in the process (perhaps some of this saved money could fund a complete haz-mat/spill response team at Station 19).

Summary: In closing, I have studied the DEIS very carefully and I do not see compelling evidence to select Option 1 as the “recommended” interchange option, and in contrast, I see many objective reasons to select Option 3 including a lower cost, equal or near equal performance, and significantly reduced environmental impacts.

Dunlap: I-69 Section 4 Interchange Options Comments, page 7 Sincerely,
Keith Dunlap PE 32 Troon Ct Greenwood IN 46143 317.882.5420

B: Preserving Karst, Slight Change In Alignment:

RECOMMENDATIONS FOR CHANGES IN THE ‘BIG BEND’ SEGMENT OF I-69 SECTION 4 IN WESTERN MONROE COUNTY, INDIANA

Submitted as Comments on I-69 Evansville to Indianapolis Tier 2 Studies, Section 4 – US 231 to SR 37

by Patrick J. Munson, 6707 W. Rock East Rd., Bloomington, IN 47403 October 26, 2010

The present corridor and alignment of Section 4 (‘existing alignment’ hereafter) crosses Indian Creek just north of Hobbieville and continues northward as it ascends the east wall of the valley of the creek to Carter Road near the Greene-Monroe County line. It then continues northward, descends back into the Indian Creek valley and crosses the creek once again. After threading its way between the historic Virginia Ironworks (on the east) and the historic Sparks Cemetery (on the west) it ascends to the crest of the west wall of Indian Creek valley. At that point it abruptly turns eastward, descending, once again, into the valley and crossing Indian Creek for the third time. Continuing eastward the alignment punches through or climbs over a ridge that separates Indian Creek from the valley of the unnamed tributary that runs parallel with and south of Evans Road, and then continues eastward and ascending to Harmony Road, where it punches through the high ridge that is the crest of the Chester Escarpment (and the watershed between the Indian Creek and Clear Creek drainages).

The ‘Big Bend’ between where the existing alignment crosses Carter Road and where it crosses Harmony Road *makes no sense*. What does make sense, from a number of considerations, is an essentially straight-line, southwest-northeast connection between the Carter Road and Harmony Road crossings (see following map). There would be four major advantages to choosing this proposed alignment for this segment of Section 4:

1. The alignment proposed here is slightly more than one mile shorter than the existing alignment.
2. The existing alignment has three crossings of Indian Creek (requiring three bridges and associated cuts and fills, as well as wetland mitigation). The proposed alignment has one crossing.
3. The existing alignment between Carter Road and Harmony Road, per above, has three ascents and three descents. Disregarding modifications from cuts and fills, proceeding northbound these ascents-descents involve a 200 foot descent from Carter Road to the crossing of Indian Creek, a 130 ascent from the creek to the sharp north- to-east bend, a 120 foot descent back down to the creek, a 150 ascent to the crest of the east wall of Indian Creek valley, an 80 descent to the floor of the valley of the tributary that parallels Evans Road, and then a 170 foot ascent to Harmony Road. In contrast, the proposed alignment from Carter Road to Harmony Road has a single 2“smooth” ascent of only 50 feet over nearly four miles (an imperceptible grade of 0.25%).
4. The segment of the existing alignment between Carter Road and Harmony Road impacts approximately 25% on all karst features that occur within the entirety of Section 4, including three “unavoidable” large swallow holes (‘swallets’) that lie 1000 to 3500 feet west of Harmony Road and 500 to 1000 feet south of Evans Road. Further, there is (in my opinion) at least a 90% probability of a substantial (but as of yet undocumented) horizontal cave system directly under the existing alignment along the west wall of Indian Creek valley just west of Breeden Road (see Munson et al., February 2, 2004, Addendum to: Assessment of Sinkhole Areas and Karstic Features that were omitted in the Final Environmental Impact Statement for the Proposed I69

Alternate 3C Corridor). The alignment proposed here lies along the northwest edge of the crest of a high ridge (which is the watershed between the Indian Creek and Little Indian Creek valleys). Because of the elevation of this ridge it is underlain mostly by thick sandstones of the Sample, Elwren, Big Clifty, and early Pennsylvanian members (the exception is the thin—c. 10 foot thick—Beech Creek Limestone, but other than small springs this limestone in this area rarely contains karst features). From my personal knowledge of the area, I predict that the proposed new alignment segment would cross zero sinkholes, zero caves, and at most five or six small, inconsequential springs.

The question that now presents itself, given the arguments for the alignment proposed here, is what was/is the rationale for the ‘Big Bend’ in the existing alignment? I have asked this question repeatedly to persons employed by INDOT and who presumably are in a position to know. The only answer I’ve received is that it was done to avoid impacts on the historic Virginia Ironworks complex. This is, to put it bluntly, utter nonsense. The existing alignment passes about 1000 feet west of the iron furnace and its associated building and about 3000 feet north of the iron ore mines. However, if the alignment turned northeastward at Carter Road, as proposed here, it would miss the furnace and associated buildings by 7/8ths of a mile and the ore mines by 1.25 miles. The only thing of substance relative to the ironworks that the proposed alignment comes close to is an historic sandstone quarry (archaeological site 12-MO-1187) that *might* be associated, but (a) there is no documentation that this site was in fact associated with the ironworks, and (b) the site lies about 800 feet north of the proposed alignment.

Lastly, anticipating the argument that “we can’t change the corridor at this late date,” I offer some purely economic considerations. Certainly considering four miles of new corridor would involve millions of dollars for assessment of environmental impacts and for engineering studies. But this would be offset by savings that I’m sure would be measured in tens of millions of dollars (50 million total??) if the corridor was moved in this segment of Section 4. Specifically, the proposed corridor segment has one mile less ROW, has two fewer bridges, has six fewer large cuts and fills, and avoids the cost of mitigation of about 25% of the karst features that are present in the entirety of the existing Section 4 alignment.

C: Preserving Karst, Slight Change in Corridor:

Indiana Karst Conservancy, Inc. “PROTECTING CAVES THROUGH ACTIVE CONSERVATION”

PO Box 2401 · INDIANAPOLIS, IN, 46206-2401 · IKC.CAVES.ORG October 16, 2010

Mr. Gary Fisk Section 4 Project Manager PO Box 8464 Evansville IN 47716

RE: I-69 Tier 2 Section 4 DEIS comments Dear Mr. Fisk:

The Indiana Karst Conservancy is a non-profit environmental organization focused on cave and karst protection in Indiana, so as you can imagine, our organization is quite interested in Section 4 of the I-69 project. We have reviewed the entire Section 4 Draft Environmental Impact Statement and the unredacted *Survey of Karst Features Report* (Appendix AA) and have a number of general comments and concerns. We have also collaborated with other reviewers on specific details and analyses and understand their comments are being submitted, so we will not duplicate those comments in detail in this letter.

We would first like to complement InDOT and the preparers of the *Survey of Karst Features Report*. The document is thorough and well organized with extensive maps detailing the karst features found, recharge areas delineated, and the dye traces completed. However, we think this

document was subsequently poorly used (and mis-used) in that it gave InDOT over confidence by having a specific list of features to avoid in the existing corridor, rather than an understanding that I-69 is entering a mine-field of “unexploded ordnance” waiting to be uncovered as the bulldozers proceed. We understand InDOT’s position that “failure is not an option” in constructing I-69 and one way or another there will be a highway that spans from the start point at Section 3 and ends at SR 37 in Bloomington. However, we firmly believe that InDOT failed to exercise all of the options afforded to them in the Tier 1 Record of Decision, specifically, “...*the flexibility will exist to consider alternatives outside the selected corridor to avoid significant impacts within the selected corridor.*”

The *Survey of Karst Features Report* clearly indicated numerous “hot spots” east of Rockport Road and the DEIS perhaps correctly suggested that shifting the alignment north or south would likely just find more “hot spots”, so the “head down and plow ahead” approach basically categorized the impacts as “unavoidable”. We do not necessarily agree with this, but have no viable alternatives to suggest other than to not build the highway.

However, west of Rockport Road, while the densities of karst features are less, there are many more opportunities to avoid such features beyond tweaking the alignments within the corridor. Missing a few identified features is no assurance major caves passages will not be intersected (caves are like icebergs, most are hidden below the “waterline”). We suggest that InDOT should have looked at alignments shifted significantly outside of the given corridor, such as the proposal attached at the end of this letter. While obviously there is no guarantee this alignment would not also encounter some karst features, the impact likelihoods are less

IKC I-69 SECTION 4 DEIS COMMENTS, PAGE 2 for two reasons: first it is a shorter route (1 to 1-1/2 miles depending upon the in-corridor

alignments) and second, much of the alignment runs on the top of the ridge.

Basically the alignment we are proposing would replace portions of sub-sections 4F and 4G. The new alignment would follow Alternatives 4F-1 east of Hobbieville to the point where it crosses Indian Creek. From there the alignment would parallel the eastern boundary of the existing corridor east of Carmichael Cemetery to the point where the alignment would cross into Monroe County. From there it would curve east along the ridge top, staying on the ridge top in township sections 18, 17, 8, and 9, passing just south of Mt Zion Church where it would re-enter the existing corridor and blend back into the existing 4G alignments just west of Rockport Road. Approximately 3-1/2 miles of the proposed alignment would venture outside the Tier 1 corridor, less than 3% of the entire I-69 corridor.

Independent of the karst impact avoidance, this shorter alignment would greatly reduce the right-of-way and mitigation acres needing to be acquired, reduce the number of stream crossings (particularly Indian Creek), reduce the vertical profile variation significantly, improve a number of performance metrics (reduced travel time, improved safety, reduced user operating expenses, reduced auto emissions, all the result of eliminating 13 to 20 million miles traveled per year) and perhaps most importantly, reduce the initial construction costs by \$17 - 40 million. Looking at construction and users costs for the first 20 years, the proposed alignment would save \$50 - 92 million in present value dollars, potentially 10-20 % of the entire Section 4 initial cost, and avoid 150,000 tons of CO₂ being produced (a concern that will grow significantly in the next 20 years). While we understand looking at a new alignment outside of the corridor at this stage of the project would result in additional scoping and some confusion, we feel that neglecting to do so would be completely irresponsible and a breach of the NEPA process to study viable alternatives authorized under the Tier 1 ROD. To us, the DEIS is flawed without such an alternative being

considered.

Our second major issue to comment on is the DEIS 's recommendation for interchange Option 1 which includes the Greene/Monroe County Line interchange. We have carefully studied the reasons and rationale for adding this post-Tier 1 interchange. While we understand the perception of why this interchange is desirable for local access and utilization, our evaluation concludes that this interchange provides very little, if any, benefit over traveling to Bloomington via the existing SR 45 route. Emergency response on I-69 was another justification for this interchange, but a DLZ study in Appendix BB suggests a much better solution would be to have an emergency entry point at the Burch Road grade separation. Our preference would be the Tier 1 proposed interchanges at SR 54 and SR 45 (Option 3). These interchanges would provide local access for those who could benefit from I-69 and better serve emergency responders along the western half of Section 4. Option 3 would also be much less expensive and have less direct impact on right-of-way footprint, stream crossings, resident noise exposure, and residential and business relocations.

However, our main objection to the Green/Monroe County Line interchange are the same objections USFWS and EPA raised in Tier 1, that being the increase of indirect impacts on karst due to development in western Monroe County along SR 45 and potential impacts on Ray's Cave due to development on SR 54 west of SR 445. The concerns raised during the

IKC I-69 SECTION 4 DEIS COMMENTS, PAGE 3

Tier 1 study, which we concur with, were that an interchange between SR 37 and SR 54 would leapfrog development into far western Monroe County and eastern Greene County, rather than the slower "sprawl" emanating from Bloomington. We also disagree with InDOT's stated logic in the DEIS that this interchange would "demote" the upgrading of SR 45, thus slowing development west of Bloomington (page 6-39). It is the level of congestion that slows growth. It does not matter if the congestion is decreased by upgrading SR 45 or by diverting traffic off SR45 onto I-69, the end result is the same, development is encouraged when transportation facilitates it. So the County Line interchange would encourage "sprawl" by reducing congestion closer to Bloomington *and* encourage new growth around the SR 45/SR 445 intersection growing in all directions.

The County Line interchange would also directly inject development into Ray's Cave five-mile Winter Active Area, something we thought InDOT had agreed to avoid during the Tier 1 consultation with USFWS. With the onslaught of White-nose Syndrome, minimizing development in this cave's WAA will be critical for the survival of the Indiana bat.

Finally, we also find it objectionable that InDOT is not honoring its Tier 1 commitment to not have an interchange in western Monroe County. While technically the proposed interchange is located just feet into Greene County, we feel the spirit and intent of the commitment is being violated. It is clear from all the agency communications in Appendix C that the County Line interchange is contentious. It is even more disheartening when there is no compelling analysis to support this interchange compared to reverting to interchanges at SR 54 and SR 45 as proposed in Tier 1. We feel InDOT has done a huge injustice to the environment in ignoring USFWS's and EPA's position by promoting, then recommending the County Line interchange.

Sincerely

James Adams Secretary Indiana Karst Conservancy

cc: USFWS, EPA

D: Critical Length of Grade

Mr Gary Fisk Section 4 Project Manager PO Box 8464 Evansville IN 47716

RE: I-69 Tier 2 Section 4 DEIS comments (Critical Length of Grade)

Mr Fisk:

As an engineer who works in the commercial transportation industry, where productivity, costs, and safety are paramount, I was quite interested in the Appendix GG, *Low Cost Design Memorandum*. While there are certainly design criteria that can be implemented to save construction costs, reduce the project's environmental footprint, and have little long-term impact to the user's safety and operational costs, the proposal to change the Critical Length of Grade (from 10 mph to 20 mph allowed speed reduction of heavy vehicles) immediately put up a red flag for me. And as I read the details and studied the justifications provided in the deviation request, it became apparent that the analysis of this criterion was incomplete and unsophisticated, some of the assumptions appeared flawed, and the approach taken to accept a significant increase in the number of deaths and injuries to save upfront costs using a simple benefit-to-cost analysis without looking at the absolute numbers was frankly rather morbid. With one of the supposed goals for the I-69 project being to improve overall safety, it seems completely inconsistent to accept design changes that would drastically compromise this goal. I would also suggest that if you utilized this same justification approach of safety benefits verses cost for the entire \$533-798 million Section 4 project, one would have to conclude the highway should not be built.

In addition to compromising the goal of improved safety by increasing the Critical Length of Grade, other goals and performance measures in Table 2-4 potentially are impacted including efficient transportation of goods that impact economic development and even the stated goal of "*Development of a freeway which meets current design standards*". Somehow, having to formally request for a design deviation from current minimum standards would clearly indicate that InDOT is not serious about meeting their own goals for the project.

As I understand it, venturing below the current AASHTO "Green Book" standards can expose the State to tort liabilities should an accident occur as a result of the below standard design (FHWA's *Flexibility in Highway Design*, Chapter 2). This is particularly true if the original justification for the deviation was flawed.

The following is my analysis and comments on information presented in the October 1, 2009 Office Memorandum from Gary Fisk to the I-69 Tier 2 PMC. I do not design highways for a living, so some of the approaches and assumption may be common in the industry even if they do not seem obvious to me, but I am familiar with the physics and dynamics of vehicles and characteristics of human drivers so hopefully my insight and alternative analyses will be useful.

August 20, 2010Dunlap: I-69 Section 4 Low Cost Design Standards Comments, page 2
Comments:

1) The Benefit-to-Cost Ratio Analysis (B/C) spreadsheet calculations attached in Appendix GG were based on a 20-year return (I see nothing magical about the year 2030). However, the design changes being considered will impact users for the next 50-100 years, as it is not likely that the highway vertical profiles will ever be changed during the lifetime of the highway. So for the first example at grade 368+00 to 410+00 SB, rather than evaluating the 0.44 B/C value* at 20 years, one should look at 0.84 at 50 years or 1.16 at 100 years. Basically, if the highway is to be in service for more than 70 years (B/C=1.0), which it very likely the case, the decision to accept the sub-standard design change is not justifiable. Looking at this in absolute values, during the first 50 years of service, ***this one 0.8 mile section of the interstate***, if designed to the deviated

standards will statistically result in an **additional** 4 deaths, 73 injuries, and 303 property damage accidents compared to the highway constructed to industry standards. I'm sure the families of these 4 victims (and all the other victims who died on the other sub-standard grades proposed in Section 4) will be understanding that InDOT calculated their "costs" and decided it was cheaper to build an inferior highway after using a one page spreadsheet to justify their decision.

2) There seems to be a huge difference in the "costs per accident" values used in the deviation calculations verses those quoted in the DEIS. In Table 5.5-4 (page 5- 170), the cost of a fatal crash is \$4,720,000, for an injury the cost is \$103,000, and for a property damage accident it is \$5,400. In the deviation calculation, the combined value of fatalities and injuries was \$75,000 and \$6500 for property accidents. Since the values in DEIS seem more current (and more realistic), I think those are the ones that should have been used. Recalculating the InDOT spreadsheet for the first example, the breakeven point is only 12 years and the B/C value at 20 years was 1.61, and 3.11 for 50 years. This change alone would indicate the deviation should not be accepted.

3) According to the Critical Length of Grade discussion in Appendix GG, "*InDOT B/C analysis methodology calculates a user benefit based upon savings from reduced accidents as one of the main factors.*" My comment would be that ignoring the other major user costs as discussed on page 5-169 in the DEIS (e.g., cost of additional used fuel, extended commercial driver costs) in the B/C analysis is biased and these costs should be included. If the design is changed to create longer grades where a commercial vehicle is running at a slower average speed over the same horizontal length, there are direct costs associated with the design. For the 0.8 mile grade used in the first example, and assuming a 5 mph average delta reduction over the length of the grade, a driver wage of \$15/hr, a fuel costs of \$3/gal, a WOT fuel usage of 22 grams/sec, and 2671 trucks per day, I calculated an **additional** "user cost" of \$105,300/year for the 20 mph design compared to the standard 10 mph design. Including these costs in the B/C analysis, the breakeven point is now only 9 years, the B/C value at 20 years would be 2.17 and the B/C value at 50 years would be 4.18. To look at absolute

*Note, in this context, a B/C value of less than 1.0 would indicate the "costs" of the projected deaths, injuries, and accidents occurring on the sub-standard highway does not exceed the cost to construct the highway to industry standards, so the sub-standard highway is "acceptable". A B/C value greater than 1.0 would suggest the sub-standard (low-cost) design should be rejected.

Dunlap: I-69 Section 4 Low Cost Design Standards Comments, page 3

numbers, over the first 50 years **on just this one 0.8 mile grade**, an additional 2.5 million gallons of fuel would be consumed, 28,000 tons of additional CO₂ emitted, and 101,000 man-hours lost if the sub-standard design is constructed. There would also be greater user costs for light vehicles having to navigate more aggressive vertical road profiles resulting in decreased fuel economy, but those are not easily quantified using the simplistic approach employed here.

4) In addition to the tangible users costs of safety and those discussed in the above paragraph, there are also many less tangible user "costs" that may be hard to calculate, yet should be discussed (and should have at least been mentioned in the Low Cost Design Standards document). These "costs" include increased emissions (directly proportional to additional fuel burned), increased noise (trucks operating at WOT conditions for a greater period of time over the same horizontal distance), increased insurance related to higher county accident rates, and increased light vehicle driver annoyance of having to pass slow-moving trucks. While the grade discussion is focused on the longer/steeper uphill grades, since the alignments are not being bifurcated, the sub-standard design would also have matching longer/steeper downhill grades which would encourage truck to over speed (another safety issue), increase service brake usage

(resulting in greater maintenance costs), increase exhaust brake (Jake brake) usage (significantly increases noise), and proportionally increased diesel emissions (current technologies work best under steady state conditions and more aggressive vertical highway profiles cause variations/cycling in fueling rates that decrease the overall effectiveness in emission treatment).

5) On sheet 2 of 3 of the Level 2 Deviation for Critical Length of Grade (dated 9/17/2009 calculated by “CMG”) it appears the F_{10} , I_{10} , and PDO_{10} calculations are incorrect. These would appear to be the baseline F_0 , I_0 , and PDO_0 , if I am following the calculations. I believe the proper F_{10} , I_{10} , and PDO_{10} should be 3.66 times the given values. This would also increase the F_{20} , I_{20} , and PDO_{20} values by the same 3.66 value. Thus for the first example, the F_{20} value should be 0.235/yr, the I_{20} value should be 4.063/yr and the PDO_{20} value should be 16.957/year. Using these values in InDOT’s B/C analysis worksheet using the 5.5-4 costs, the breakeven point would be less than 3 years with a B/C value of 5.98 at 20 years and a B/C value of 11.55 at 50 years. If one assume other major costs are included as was done in comment 3) above, the breakeven point would still be less than 3 years with a B/C value of 6.537 at 20 years and a B/C value of 13.98 at 50 years.

6) While the design standard for the highway is 70 mph, the speed limits for trucks in Indiana is currently 65 mph (this was acknowledged in the discussion, but ignored in the analysis). Thus, a design that uses a critical length of grade based upon a 10 mph reduction is creating a situation where the truck is actually slowed to 55 mph while the light vehicle traffic remains at 70* mph, resulting in a delta speed of 15 mph. Likewise, a design that uses a critical length of grade based upon on a 20 mph reduction could slow a truck to 45 mph resulting in a 25 mph

* InDOT’s Corridor Travel Demand Model would indicate that the actual free-flow speed estimate would be 73.3 mph for a full access-controlled multilane highway posted 70 mph. This estimated speed might even be conservative for light vehicles if the 73.3 mph average is an aggregate of all vehicles with heavy vehicles constrained by the 65 mph posted speed limit.

Dunlap: I-69 Section 4 Low Cost Design Standards Comments, page 4

delta. Using the same InDOT methodology, for the first example, the F_{20} value would increase to 0.401/yr, the I_{20} value would increase to 6.933/yr and the PDO_{20} value would increase to 28.934/year (note, I had to extrapolate the AASHTO Exhibit 3-58 involvement rate chart at 25 mph since they do not provide data at that extreme – this should be another red flag that this is an unacceptably dangerous operating condition). The Crash Reduction Factor for the first example (25 mph to 15 mph delta) would also decrease to 0.67. Using these numbers in the B/C analysis worksheet assuming the 5.5-4 costs would result in a breakeven point of less than 2 years with a B/C value of 9.00 at 20 years and a B/C value of 17.38 at 50 years. If one assume other major costs as was done in item 3) above, the breakeven point would still be less than 2 years with a B/C value of 9.55 at 20 years and a B/C value of 18.45 at 50 years. If you would prefer to put this in terms of absolute safety for *this one 0.8 mile stretch of highway*, selecting the sub-standard design over 50 years would statistically result in an ***additional 23 deaths, 401 injuries, and 1672 accidents.***

7) To be constructive, if I had been tasked to perform this analysis, I would have employed a more sophisticated system-level approach that would not look at individual segments of the highway as was done in *Appendix GG*, but rather determine an aggregate safety value and user performance costs over the entire Section 4 segment for the standard and “low-cost” designs. This approach would much better represent the true tradeoffs of the two designs and provide comparative absolute numbers that could then be balanced with the increased cost of construction. Since the two vertical profiles are known (Appendices R1 and R2), commercial vehicle performance simulations* could be conducted assuming a representative vehicle (or array

of typical vehicles) in both directions on both designs to obtain overall fuel consumption, total travel time, and composite safety values. For each profile, the composite safety value would be computed summing localized values calculated for small finite increments (say ten-foot lengths or whatever fidelity the vertical profiles are described). Using crash involvement rates, traffic volumes, and InDOT's death, injury, and accident values the total section cost of decreased "safety" could be calculated for each design.

Combining these with fuel use and wage costs would give total user costs for the two profiles. The differences in total user costs over the life of the highway could then be compared to the initial cost of the two designs. The comparison could also be extended further by using the same simulation software to predict the fuel usage of representative light-duty vehicles on the two profiles, then including those user costs in the comparison.

8) In the deviation to accept the sub-standard Critical Length of Grade, there was a brief discussion on the consideration to add truck-climbing lanes on the steeper/longer grades as InDOT's highway standards (IDM) recommends. This apparently was dismissed as unnecessary, justifying the decision that the highway will have "sufficient capacity so that slow moving vehicles does not impede the following vehicles that can readily move left to the adjacent lane without difficulty." It would seem InDOT engineers have never traveled I-70 or I-64 in areas where there are long grades and commercial trucks. You essentially force all the light vehicles into the left hand lane all the time and heaven forbid if you

* If InDOT does not have such simulation software, it is readily available. One such simulation package is PSAT from the Department of Energy's Argonne National Laboratory.

Dunlap: I-69 Section 4 Low Cost Design Standards Comments, page 5

have one semi-truck trying to pass a second (slower) truck on a grade where you then back up and compress traffic in both lanes, a prime ingredient in chain- reaction pile ups. This is not a condition one would expect for a 21st century designed highway. I think it is also curious that Indiana highways designed 40 years ago (e.g., SR 37 between Bloomington and Martinsville) included numerous truck-climbing lanes, yet I assume when Section 5 of I-69 is reconstructed, these lanes will be deemed as unnecessary. This just doesn't seem logical.

So forgive me when I have to disagree with your statement that your deviation request was made after "...careful consideration of impact to safety, mobility, and project costs".

From the above re-analyses with the Benefit-to-Cost ratios greatly exceeding 1.0, it would only seem appropriate that InDOT immediately withdraw their original request dated October 28, 2009 for the level 2 deviation based upon the flawed/inconsistent assumptions and simplistic methodology used to justify the stated recommendation for such a significant design change.

In closing, as a Professional Engineer, regardless of the methodology that could have been used, I find it very troublesome that the agency that is responsible for designing and constructing safe highways in Indiana would pursue major designs changes that intuitively should be discarded (without the need for B/C calculations) when it is clear the change could significantly decrease the safety of the design. If InDOT can't afford to construct highways that meet national and your own design standards and provide acceptable safety to the users, perhaps InDOT need to rethink their priorities and construct fewer highways to stay within their budgets.

Sincerely,

Keith Dunlap PE 32 Troon Ct Greenwood IN 46143 317.882.5420

Jason Stone

From: Thomas & Sandra Tokarski [carr@bluemarble.net]
Sent: Tuesday, August 23, 2011 10:04 AM
To: Robert Tally; max.azizi@dot.gov; execsecretariat.fhwa@fhwa.dot.gov; Westlake.Kenneth@epamail.epa.gov; Hilden, Laura
Subject: additional comments I-69
Attachments: FEIS additions.docx; ATT00001..htm

Enclosed are additional comments from Citizens for Appropriate Rural Roads on the I-69, Tier 2 Section 4, FEIS. Please include them in the official record for this project.

Thomas Tokarski

August 23, 2011

The following are additions to the comments of Citizens for Appropriate Rural Roads(CARR) for the I-69, Tier 2, Section 4, FEIS. Please include them in the official record.

The section on safety changed significantly from the DEIS to the FEIS. Due to changes in categories of highways and the categories of crashes studied, it is difficult or impossible to compare the DEIS numbers with the FEIS numbers in Tables 2.3. However, it now appears that accident rates are down for all categories of highways so the DEIS numbers were incorrect. These updated statistics were available for use in the DEIS. Why were they not used? In spite of lower accident rates, it now appears that there will be more accidents with the I-69 build scenario versus the no-build scenario (Tables 3-10, DEIS and FEIS). It is unclear if these tables are comparable since the categories in Tables 2.3 are different. Are the categories used to Tables 3-10 the same in the DEIS and FEIS?

Since vehicle miles traveled is expected to increase across the board with a new interstate through a region, this will lead to more accidents. The rationale that traffic will be diverted off local roads to the interstate is true to some extent but it will also put more traffic on local roads. This complex of changes is not well explained.

I-69 is being built to different standards than typical interstate highway to save money. The safety impacts of these differing standards must be addressed. For example, how does increasing the allowable grade impact safety? Since I-69 is planned to be a major international truck corridor this change should be significant.

Also, in the FEIS it was revealed that the interchange at SR-37 and I-69 will not be built until Section 5 is built. In the interim, a stoplight will be placed at that intersection. The impact of this change on Level Of Service and accident rates has apparently not been studied. Since there is currently no time schedule for completing Section 5 the stoplight will be in place for years.

These are significant changes in information and the project design that bear directly on human safety and must be addressed in a SEIS. There was simply not enough time for the public to study the safety issues more carefully after the FEIS was released.

From <clarkeskj@yahoo.com>
Subject: I-69 Website Contact Form Submission
Sent date: 07/26/2011 02:03:45 PM
To: <i-69.section_4@i69indyevn.org>

Contact Information and Request from Design & Construction for Section 4

Name:

Scott Clarke

Email:

clarkeskj@yahoo.com

Street Address:

7545 S Mt. Zion Rd

City/State:

Bloomington, IN

Zip Code:

47403

Comments:

Has a decision been reached on the bridge for Harmony Road? Also what bridges will be going across I-69 in southern Monroe County?



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



August 15, 2011

Laura Hilden, Director
Environmental Services Division
Indiana Department of Transportation
100 North Senate Avenue, Room N642
Indianapolis, Indiana 46204

Federal Agency: Federal Highway Administration ("FHWA")

Re: Final Environmental Impact Statement (Tier 2) for the I-69 Evansville to Indianapolis project for Section 4, between Crane NSWC and Bloomington, Indiana (FHWA-IN-EIS-11-01-F; Des. No. 0300380; DHPA No. 1016)

Dear Ms. Hilden:

Pursuant to the National Environmental Policy Act of 1969, as amended (42 U.S.C. § 4321, *et seq.*) and Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. § 470f) and implementing regulations at 36 C.F.R. Part 800, the staff of the Indiana State Historic Preservation Officer has selectively reviewed the final environmental impact statement ("FEIS") submitted under your cover letter, which was received on July 14, 2011 for the aforementioned project in Greene and Monroe counties in Indiana.

We have no comments on impacts to archaeological resources and above-ground historic properties beyond those we have offered previously.

If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations.

If you have questions about archaeological issues, please contact Dr. Rick Jones at (317) 233-0953 or rjones@dnr.IN.gov. Questions about buildings or structures should be directed to John Carr at (317) 233-1949 or jcarr@dnr.IN.gov.

Very truly yours,

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

JAG:JLC:JRJ:jj

- cc: Robert F. Tally, Jr., P.E., Federal Highway Administration, Indiana Division
- emc: Michelle Allen, Indiana Division, Federal Highway Administration
- Laura Hilden, Indiana Department of Transportation
- Ben Lawrence, P.E., Indiana Department of Transportation
- Staffan Peterson, Ph.D., Indiana Department of Transportation
- Mary Kennedy, Cultural Resources Section, Indiana Department of Transportation
- Shaun Miller, Cultural Resources Section, Indiana Department of Transportation
- Jason DuPont, P.E., Bernardin, Lochmueller & Associates, Inc.
- Linda Weintraut, Ph.D., Weintraut & Associates, Inc.
- Beth McCord, Gray & Pape, Inc.
- Jason Stone, DLZ Indiana, LLC

From: <keith.dunlap@juno.com>
Subject: I-69 Website Contact Form Submission
Sent date: 07/27/2011 09:42:14 PM
To: <i-69.section_4@i69indyevn.org>
Contact Information and Request from Tier 2 Studies for Section 4

Name:

Keith Dunlap

Email:

keith.dunlap@juno.com

Street Address:

32 Troon Ct

City/State:

Greenwood, IN

Zip Code:

46143

Comments:

On the FEIS, links to Appendices A & B are broken on the website. Also, there is no Appendix NN (website or DVDs), yet it is referred to multiple times in the Comments/Response section.

From: <keith.dunlap@juno.com>
Subject: Re: I-69 Website Contact Form Submission
Sent date: 07/28/2011 09:49:53 PM
To: <section4pm@i69indyevn.org>
Steve,

What about Apeendix NN which is supposedly an analysis and response to Pat Munson and the IKC's suggestion for a different alignment?

From <keith.dunlap@juno.com>
Subject: Fw: Re: I-69 Website Contact Form Submission
Sent date: 08/02/2011 06:40:25 PM
To: <section4pm@i69indyevn.org>
Cc: <TCervone@BLAinc.com>, <munson@indiana.edu>

Steve,

I have not gotten a response about the availability of Appendix NN. Do I need to file a FOI request to obtain this document?

Keith Dunlap

From: keith.dunlap@juno.com [mailto:keith.dunlap@juno.com]
Sent: Monday, August 15, 2011 7:23 PM
To: DuPont, Jason
Subject: Level Two Design Exception for Critical Length of Grade

Jason,

I'm not sure if you are the correct person to be e-mailing this inquiry to, but you were the contact I came across as the PMC for Section 4. I have questions and concerns over the revised analysis performed to justify the Level 2 Design Exception related to the Critical Length of Grade documented in Appendix GG of the Section 4 FEIS. I had previously submitted extensive comments on this subject for the DEIS (see comment letter PI580). While some of the previous errors were corrected, many of my other comments were dismissed and it is still my personal and professional opinion that the evaluation is incomplete, flawed, and do not adequately protect the safety or financial interests of the citizens of Indiana.

If you could please explain to me, what is the process used to review and approve Design Exceptions. Are they independently reviewed? Does the FHWA review them? How are deviation decisions documented beyond the original deviation request. Also what are my options to submit comments and/or ask for addition review of this analysis.

Sincerely,

Keith Dunlap PE

32 Troon Ct
Greenwood, IN 46143
August 16, 2011

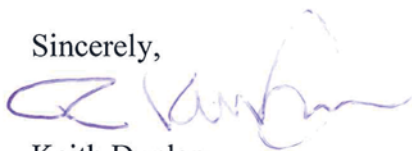
Laura Hilden
Director, Environmental Services Division
100 North Senate Ave
Room N642
Indianapolis, IN 46204

Dear Ms Hilden:

I received your letter today dated August 15th, 2011 detailing the changes made to the “corrected copy” of the re-distributed Volume III DVD. Your letter states that the “only” changes made to the DVD were to remove the three references to “Appendix NN”. However, if you compare the original response to the “corrected” response for PO007-03, it appears significant additional information was removed from the original disk, specifically that the IKC’s suggested alignment would cost \$37 million less to construct, an important fact to consider. As far as I can tell, this detail is not documented any place else in the FEIS.

I don’t know if this discrepancy was your fault, or that you were simply misinformed by someone else at INDOT or one of your contractors, but regardless, I think your letter was misleading and untruthful, and further erodes any credibility that your agency has with the public.

Sincerely,



Keith Dunlap

Original PO007-03 Response:

See response to Comment PC007-02, which determined that the lack of a significant reduction in karst impacts precluded consideration on this alternative. The potential cost reduction noted in this comment is a secondary issue which would not be considered unless there was a significant reduction in karst impacts. In that context, the suggested alignment would cost about \$37 million less to construct in Year 2010 dollars (see Appendix NN). INDOT weighs any cost savings for this portion of the project against the risk of increased total project costs for all of Section 4. Recently, INDOT has found the bid environment for construction projects to be favorable. Bringing projects to bid in an expedited manner takes full advantage of this environment. If additional time to bring the Section 4 project to construction results in increases in construction bid prices, it could negate much or most of this cost difference. For example, were the time taken to fully consider the Munson Alignment result in an increase of 3 – 4 % in total project cost, the Section 4 project cost would increase by \$16 to \$29 million.

Corrected Response:

Please see response to Comment PI322-01.



INDIANAPOLIS IN 46204
NOV 14 2015

Laura Hilden
Director, Environmental Services Division
100 North Senate Ave
Room N642
Indianapolis, IN 46204

4620492215

From: keith.dunlap@juno.com [mailto:keith.dunlap@juno.com]
Sent: Tuesday, August 16, 2011 5:57 PM
To: DuPont, Jason
Subject: Fw: RE: Level Two Design Exception for Critical Length of Grade

Jason,

Please re-read my original e-mail as I asked some specific questions that I would like a legitimate reply. If you are not the responsible person or can not answer my questions, then please inform me who I should contact concerning my questions.

Keith Dunlap PE

Robert Tally
Division Administrator
Federal Highway Administration
575 N. Pennsylvania
Indianapolis, IN 46204

August 21, 2011

RE: I-69 Tier 2 Section 4 FEIS, Appendix GG, comments related to “Level 2 Deviation for Length of Critical Grade”

Dear Mr. Tally:

As a Professional Engineer who works in the commercial transportation industry, where productivity, costs, and safety are paramount, I was quite interested in the original DEIS Appendix GG, *Low Cost Design Memorandum*. While there are certainly design criteria that can be implemented to save construction costs, reduce the project’s environmental footprint, and have little long-term impact to the user’s safety and operational costs, the proposal by InDOT and their contractor DLZ to change the Critical Length of Grade (from 10 mph to 20 mph allowed speed reduction of heavy vehicles) immediately put up a red flag for me. And as I read the original details and studied the justifications provided in the deviation request, it became apparent that the analysis had major issues and omissions. As a result, I submitted numerous comments (ref comments PI580 in Volume 3, Part A of the FEIS) in hopes that these errors, issues, and omissions would be considered and corrected. However, for the most part (although they did submit a revised deviation request), it appears that the engineers doing the deviation analysis disagreed with most of my substantive comments, have a significantly different interpretation of when a deviation is acceptable, and are under considerable pressure to reduce initial construction costs even at the expense of safety to met the directive given by Governor Daniel (“Don’t be prisoners to the way things have always been done.” – obviously the Governor is not an engineer when it comes to understanding and appreciating design standards). The discussion to follow is apparently in conflict with the DLZ engineers who submitted the Critical Length of Grade deviation request, so as the responsible agency to review and approve the requested deviation, I ask at a minimum that the FHWA have an independent entity review my comments (both in this letter and my original DEIS submission) and DLZ’s revised analysis.

I’d like to start with the discussion of if this deviation should even be a consideration under the circumstances. In researching the FHWA deviation process (I ask for an expansion from the Section 4 PMC, but was rebuffed), the overall philosophy is that for the most part, and particularly for new construction projects where constraints are less of an issue, highway designs should follow accepted design criteria. However, it is acknowledged that there will be situations where physical constraints make it impossible to meet the design standards, or the costs would be exceptionally high, but in all cases safety should be the guiding criteria and deviations that compromise safety should be avoided. I will argue that

the design environment in Section 4 related to vertical profiles is not at all extraordinary, the costs to meet the standard design guidelines is not exceptional or unanticipated (and in fact budgeted and accepted during Tier 1), and that the compromise to safety is significant. ***It is completely inappropriate to be considering deviating from the Critical Length of Grade design standard simply on the basis of lowering constructions costs, but especially where safety is clearly being compromised, and therefore the deviation should be rejected.***

I would also like to dispute the implication in response PI580-02 that the Indiana Design Manual (IDM) suggests a general grade deviation is acceptable as long as truck-climbing lanes are evaluated (“*If the critical length of grade is exceeded, the grade should be flatted, if practical, or the need a truck-climbing lane should be evaluated.*”). This directive does not imply that a general design philosophy should be altered or ignored, especially when it ***is practical*** to design within the accepted criteria.

Beyond my argument that the proposed deviation request does not meet the criteria to be considered, there are still a number of technical issues that appear to be in dispute between the DLZ engineers and myself.

First and foremost is the understanding of what will be the true speed differential under the “20 mph” allowed speed reduction grade criteria. The DLZ engineers claim this is 20 mph using the facility design speed of 70 mph for all vehicles. However, in Indiana, the operations speed for large truck is 65 mph, so a grade length physically designed for a 20 mph maximum slowdown would have a truck running 45 mph at the top of the grade which would make the true differential speed 25 mph between the truck and approaching light vehicles. To argue that a truck starting at 65 mph at the bottom of the grade will only slow down to 15 mph on a grade designed with a critical length of 20 mph reduction defines logic and physics. It is fine to argue semantics of facility design speeds verses reality, but that does not negate the true implications on safety. Indiana is already at a safety disadvantage even with the 10 mph Critical Length of Grade design criteria, so considering a further deviation is beyond comprehension. ***Ignoring in the deviation analysis that in Indiana, large trucks on interstate highways have a maximum speed limit slower than the light vehicles is simply wrong and irresponsible.***

Next I have questions about the “Crash Involvement Rate” charts used in the analysis. In the original analysis published in the DEIS, the analysis used the AASHTO Exhibit 3-58 chart because it was considered “conservative”, although the “revised” chart from a 2007 Brazil study by Melo and Setti was acknowledged. In the revised deviation analysis published with the FEIS, it was determined that the “less conservative” Brazil study was now okay with the explanation that this chart was more appropriate for multi-lane highways. While I concur that the new study on face value appears to be more appropriate, it is not clear that the AASHTO has fully vetted and accepted this new study, based on very limited data

(nine data points), and in fact the authors of the Brazil paper state, “*The decision to modify the speed difference in the current geometric design standards, however, must be supported by additional data to be obtained with further research, which should be based a larger and more representative database than the one used in this study.*” So in other words, even the authors are suggesting the use of this revised chart is premature at best and it is certainly questionable that InDOT would use this chart to justify \$100 million decisions that significantly impact safety. This is an indefensible position.

Ironically, while the crash involvement rates were significantly lower in the Brazil revised chart, the *ratios* of those rates (used in the deviation analysis) are actually more pronounced using the Brazil chart compared to the AASHTO charts at the larger differential speeds due to the exponential nature of the revised curve. For the 15 mph to 25 mph condition, crash rates are **7.8** times greater using the revised chart compare to **6.2** times using the traditional AASHTO chart. Either way, the ratios are clear indications that this deviation request is unacceptable, regardless of how much savings there might be. ***The safety of the citizens of Indiana should not be compromised by constructing a sub-standard design.***

My final criticisms have to do with the benefit-to-cost ratio calculations, even though I feel this methodology is inappropriate in the context of a deviation request that does not met the justifications previously discussed:

- 1) The original analysis in the DEIS used a 20 year “recovery period” which I criticized as being arbitrary and did not reflect the period of time the design decision would impact the users. In the revised analysis, this recovery period was increased to 30 years, but this still appears to be arbitrary and the IDM indicates the recovery period should be, “...*the time period that the improvement can reasonably be expected to impact accident experience.*” Since the highway elevation profile is unlikely to ever change, its impact on accidents is likely to be very long, easily 50 years and more likely 100 years and the recovery period should reflect that fact.
- 2) I still do not understand the cost numbers used in the B/C analysis compared to the numbers published in Table 5.5-4 and used in numerous places in the DEIS and FEIS. The aggregate costs for F/I in Table 5.5-4 are approximately 4 times greater than the numbers used in the *Appendix GG* B/C calculations. The PI580-04 response indicated the B/C values excluded “non-monetary” costs. I find it difficult to understand how the “non-monetary” costs are nearly 3 times that of the “monetary” costs and why the B/C should not include all the costs to society, just not the direct costs. Why should a design decision that is supposed to protect the safety of the uses exclude “lost earnings, lost household income, pain and suffering, and lost of quality of life”? So is InDOT saying none of those factors should be considered when deciding to constructing a less safe highway? Either Table 5.5-4 is correct and the deviation analysis needs to

be revised, or the numbers used in the deviation analysis are correct and Table 5.5-4 and all the analysis in the FEIS needs to be revised. InDOT can't have it both ways.

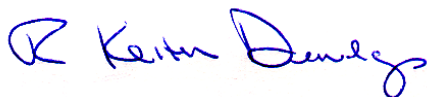
- 3) I still do not understand why definable user operational costs should not be included in the B/C analysis. It also seems arbitrary for the IDM to indicate these costs should be considered if the B/C ratio is near 1.0, but not otherwise. The reduced construction cost savings is a benefit for the citizens paying for the project and should be appropriately balanced against the safety costs *and* added users costs of the same citizens over the lifetime of decision. It is illogical and inappropriate to selectively look at only part of the citizen's "costs" in performing the B/C analysis.

After considering all of the above factors, and as I previously demonstrated in my DEIS comments, the B/C values in the deviation analysis would be significantly greater than zero and thus the deviation should be rejected (but I still stand by my position that the deviation should not even be a consideration).

A closing thought or two... While researching the design standard deviation process, I found an interesting discussion on the FHWA website that described tort liability related to design decisions. All I can say is that I would not want to be on the State's side of a wrongful-death suit defending the design decisions and justification calculations made by InDOT and its contractors in this deviation request. ***Lives will be lost as a result of this deviation decision.***

Finally, as a Professional Engineer, I find it very troublesome that the agency that is responsible for designing and constructing safe highways in Indiana would pursue a design deviation that intuitively should not be considered and will clearly and significantly decrease the safety of those who will use this new highway. ***I hope that FHWA will have the insight to reject this deviation request as part of the Record of Decision (ROD).***

Sincerely,



Keith Dunlap PE
32 Troon Ct
Greenwood IN 46143
317.882.5420

Robert Tally
Division Administrator
Federal Highway Administration
575 N. Pennsylvania
Indianapolis, IN 46204

August 21, 2011

RE: I-69 Tier 2 Section 4 FEIS, Comment on Design Criteria

Dear Mr. Tally:

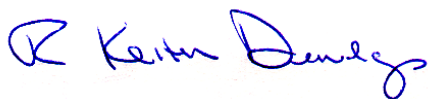
I continue to be dismayed by blatantly misleading statements in the Section 4 NEPA documents (both the DEIS and the FEIS). The following statements in the FEIS are clearly false, regardless of how many times it is repeated:

“As outlined in the DEIS, INDOT is considering a range of design criteria for I-69, Section 4. Detailed information about the low-cost design criteria is included in Appendix GG, Low-Cost Design Memorandum. These criteria satisfy INDOT’s Design Manual and there is no evidence that the road will be less safe. The decision regarding which criteria will be used for I-69 will be finalized during design.”

The Critical Length of Grade criteria being considered in the Appendix GG does not satisfy the Indiana Design Manual or FHWA Green Book standards, and is the reason why InDOT and its contractors are requesting a deviation to allow the standard to be ignored. Furthermore the justification for the deviation is based looking at the *increased* number of deaths, incapacitating injuries, non-incapacitating injuries, and property damages and comparing those “costs” to the saving that would be gained by constructing the highway using the sub-standard criteria. Clearing if you are counting “dead bodies” in your analyses, this is “evidence” that the Low-Cost Design Criteria are less safe.

It is also intuitive that many of the other Low-cost Design criteria reduce safety when compared to the traditional criteria used by InDOT in the past (and on other sections of I-69). It is only because these criteria are still within standard guidelines that InDOT does not have to do through the trade-off exercise of calculating the “costs” of reduced safety to the savings in construction costs.

Sincerely,



Keith Dunlap PE
32 Troon Ct
Greenwood IN 46143
317.882.5420

From: Steven Meyer [mailto:smeyer@hecweb.org]
Sent: Monday, August 22, 2011 09:05 PM
To: Robert.Tally@dot.gov <Robert.Tally@dot.gov>
Cc: Cline, Michael B (INDOT); Tim Maloney <maloneyt@hecweb.org>; Jesse Kharbanda <jkharbanda@hecweb.org>
Subject: I-69 Section 4 FEIS Comments

Mr. Tally,

Attached are comments on the I-69 Section 4 FEIS submitted by the Hoosier Environmental Council.

Regards,

Steven A. Meyer, Esq.
Land Use Policy Coordinator
Hoosier Environmental Council
3951 N. Meridian Street, Suite 100
Indianapolis, IN 46208
Office: 317.685.8800 ext. 105
Fax: 317.686.4794
smeyer@hecweb.org



3951 N. Meridian, Ste. 100, Indianapolis, IN 46208
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WWW.HECWEB.ORG

August 22, 2011

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

RE: Comments on Final Environmental Impact Statement for the I-69 Evansville to Indianapolis project - Section 4 (FHWA-IN-EIS-10-01-F)

Dear Mr. Tally:

The Hoosier Environmental Council ("HEC") formally submits the following comments on the Final Environmental Impact Statement ("FEIS") for Section 4 of the I-69 Project.

Incorporation of comments on Tier 2 Section 4 DEIS

HEC incorporates by reference its comments on the Tier 2 Section 4 DEIS.

Supplemental Comments specific to Section 4 FEIS

Process

The process of releasing and announcing the FEIS for Section 4 was flawed and inadequate. The first notice of availability was published July 22, 2011, and announced a 24 day review period ending August 15, 2011. A corrected notice of availability was published on July 29, 2011, announcing that the review period would end August 22, 2011. However, the corrected FEIS information for Section 4 was not distributed until August 1, 2011, after the date of the corrected Federal Register notice. Given the foregoing, and the requirements of FHWA's NEPA regulations, we believe that the review period should extend for at least 30 days, and run from August 1, 2011 until August 31, 2011.

Chapter 3 – Alternatives

In completing the FEIS, and in its response to comments, INDOT improperly discounted the recommendation of several commenters (Pat Munson and Indiana Karst Conservancy) who requested for INDOT to examine an alternative alignment in part of Section 4 that would have avoided a substantial amount of impacts to the area's karst features. INDOT stated that, because these impacts were not "unanticipated" or "unexpected", it had no obligation to seriously consider in Tier 2 an alignment outside the approved Tier 1 corridor. However, the criteria for consideration of alternatives outside the selected corridor do not require that the impacts be "unanticipated" or "unexpected", but merely that they be "significant". See Section 2.3.5 of I-69 Tier 1 Record of Decision, quoted below.

“2.3.5 Potential to Consider Alternatives Outside Selected Corridor. In general, the range of alternatives considered in a Tier 2 study will be confined to the selected Alternative 3C corridor. However, the flexibility will exist to consider alternatives outside the selected corridor to avoid significant impacts within the selected corridor.”

Clearly, the impacts to karst are not just significant, but dramatic. They are also more significant than described or identified in the Tier 1 FEIS. For example, in the **Comparison of Tier 1 and Tier 2 Impacts to Key Resources, Appendix KK of the Section 4 FEIS**, the number of karst features identified as affected in Tier 1 is 50, compared the Tier 2 finding of 632 to 652 karst features affected. This is an increase of over 1,100 percent. INDOT's failure to consider this recommendation to examine an alternative alignment in Section 4 is contrary to law, the Tier 1 Record of Decision, and the commitment made in the interagency Karst MOU to “avoid karst areas” in determining a proposed highway alignment.

INDOT's selection of interchange option 1, including the Greene-Monroe County line interchange, is another instance of the project's failure to avoid karst compacts, despite INDOT's commitment in the Karst MOU to do so. On page 11-20, the FEIS states, “While the FWS preference is that there would be no interchanges developed within the karst area, the project purposes are much better satisfied with one interchange in a karst area.” With this statement, INDOT ignores the recommendations of the U.S. FWS and U.S. EPA to limit I-69's impacts to karst. INDOT also selected the south alignment for the connector road, while acknowledging that this alignment has greater impacts: “The South Connector Road generally has higher impacts and costs than the North Connector Road, since it is longer.” (page 11-21). Moreover, despite the FEIS claim that the limited access character of the connector road will limit induced development in karst, this development will simply move to the intersection of the connector road with SR 45 and SR 445.

Chapter 5 – Environmental Consequences

Wildlife Impacts - Federally Endangered Species

The FEIS, the Amendment to the Revised Tier 1 Biological Opinion, and the Section 4 Biological Opinion are incomplete in their analysis of the I-69 project's impacts on the endangered Indiana bat and its habitats. The Section 4 alignment passes through and nearby extensive Indiana bat habitats – mature forest, wooded streams, and important hibernacula. This area includes 4 maternity colonies, and at least 15 caves and their associated swarming areas where Indiana bats have been found.

Specifically, the FEIS and BOs have not adequately analyzed the full and cumulative impacts of the highway's route on this complex of hibernacula and surrounding habitats. Besides Ray's Cave, which is designated as critical habitat for the bat, Coon's Cave and Grotto Cave will be affected by I-69 and have experienced significant increases recently in their Indiana bat populations. Collectively, this is an extremely important region for Indiana bats but we do not believe that the studies to date sufficiently analyze the project's effects, such as fragmentation of summer habitat and swarming areas, interference with migratory patterns, or changes to cave conditions and climates. These impacts affect the quality and integrity of both the individual maternity colonies and caves as well as the entire complex of habitats.

Further, we do not believe that the Indiana bat mitigation requirements are sufficient to offset impacts to the Indiana bat, even more so now that White-nose Syndrome is present in Indiana.

The BO focuses on Ray's Cave because it is a critical habitat for the Indiana bat. However, in addition to going very close to Ray's Cave winter use areas, the planned route goes directly through several foraging/swarming areas around other hibernacula caves in Section 4. The project's impact on this complex of hibernacula caves has not been analyzed thoroughly either in the FEIS or the BO. The Indiana bat population at these locations is not as high as at Ray's Cave, but still numbers in the hundreds and may increase in the future given the stresses at other locations. The route will fragment these winter use areas individually and as a complex. The impact of fragmentation has not been analyzed and the importance of the cave use areas as a group/complex is not well understood. We do know, however, that the relative importance of individual caves for the bats can change over time (e.g., the recent dramatic increase in numbers of bats using Coon/Grotto). The impact from habitat fragmentation is more than the simple loss of forest habitat acreage. Fragmentation goes to the integrity and quality of the hibernacula areas for the bats at critical times in fall and spring. Without further study of habitat fragmentation, the true impact of this project on the Indiana bat can not be known.

Moreover, although the BO suggests a conservation easement be placed on at least one cave, there is no indication that INDOT has the money or expertise to hold and manage such easements in perpetuity. There is no identified plan for passing these easements off to an organization that can hold and manage them in perpetuity. Most importantly, there is no indication that conservation easements alone can actually compensate for the fragmentation and potential loss of integrity and quality discussed above.

Chapter 7 -- Mitigation and Commitments

Karst Mitigation

INDOT's response to our concerns about implementation of and compliance with the Karst MOU does not provide acceptable assurances that compliance with the MOU will be adequately monitored and enforced. ("INDOT and FHWA-IN are committed to fulfilling the requirements of the Karst MOU. This commitment includes assisting other signatory agencies.") It is not sufficient that INDOT and FHWA commit to assisting the other agencies in implementing the MOU, which in other words states that if the other agencies cannot assure compliance, INDOT will police itself. Successful implementation of the requirements of the Karst MOU requires that the resource agencies – US FWS, IDEM and IDNR – provide independent oversight of the project and compliance with the MOU. If these resource agencies are unable to provide this oversight, then the assertion by INDOT and FHWA that the Karst MOU will provide suitable protection for karst features, which is made repeatedly in the FEIS, is unreliable.

In addition, INDOT's responses to DEIS comments completely ignored the MOU's "avoidance first" policy. The FEIS states: "The project is being developed in accordance with the Karst MOU. Potential effects upon features that are hydrologically linked to impacted features will be ***minimized through the implementation of Best Management Practices (BMPs) such as natural vegetative treatment or an engineered treatment measure.***" Volume III, Part A, Page 365 [emphasis added]. For INDOT to demonstrate that it is truly "committed to fulfilling the requirements of the Karst MOU," it should reexamine the route alignments that would result in avoiding a significant proportion of the karst impacts in Section 4.

Forest mitigation

The proposed mitigation is inadequate to replace the lost habitats. Forest habitats will be “replaced” at only a 1:1 ratio, with another 2:1 ratio for “preserving” existing forest through purchase. Purchasing existing forest provides no net gain of forest land; it just prevents additional future loss. The proposed mitigation practice does not represent a true 3:1 replacement ratio, which should require that 3 acres of forest be re-created through plantings for every 1 acre destroyed. Even at a 3:1 ratio, the function of a mature forest will take 100 years or more to replace.

Cost

The FEIS justifies the increase in part by noting that three items (utility relocation, mitigation costs, and construction administration costs) were not included in the Tier 1 estimates. INDOT claims that the “three costs ... (utility relocation, mitigation, and construction administration) were not included in the Tier 1 cost estimates for any Tier 1 alternative. The Tier 1 cost estimation methodology was appropriate for comparing alternatives at a Tier 1 level of analysis.” Volume III, Part A, Page 369. This cost estimation methodology ignores the fact that existing roadways have inherently lower costs with regards to these three factors. Only one of the Tier 1 alternatives, U.S. 41/I-70, entirely followed existing roadways, so the cost savings from the three factors listed above were not properly accounted for in the Tier 1 analysis. Therefore, it was not appropriate to use the chosen methodology for Tier 1 since it was biased against one of the alternatives.

I-69/U.S. 37 Interchange

The FEIS states that the “only proposed deferral in Section 4 is the construction of the full interchange at SR 37. It would be an unsound use of INDOT’s funds to build the full interchange before the construction of the Section 5 project.” Volume III, Part A, Page 369. Appendix PP indicates that this decision was made because the current alignment of U.S. 37 does not match the proposed alignment of Section 5 of I-69. “In addition, the technical memo shows that at least 10 years into the future, this ‘T’ intersection design operates at Level of Service (LOS) A or B for all traffic movements.” Appendix PP, pg 2.

The technical memo does not address how the “T” intersection will affect the capacity of Section 4 to achieve the core goals outlined in the Purpose and Need section – particularly the accessibility to Bloomington and Indianapolis – should Sections 5 and 6 fail to be completed. In addition to reexamining these issues with regard to Section 4, INDOT should also study how the “T” intersection will affect the accessibility, travel time, economic development, and congestion between Southern locations along U.S. 37, such as Bedford and Paoli, and Northern locations like Bloomington, Martinsville, and Indianapolis.

Conclusion

Because of the I-69 highway’s significant environmental impact, high cost, and questionable benefits, Section 4 as well as the entire Alternative 3C route for the new-terrain I-69 should be reevaluated, and instead INDOT should pursue the U.S. 41/I-70 route alternative.

Submitted by:

Tim Maloney
Senior Policy Director
Hoosier Environmental Council

Steven Meyer, Esq.
Land Use Policy Coordinator
Hoosier Environmental Council

cc
Michael B. Cline, Commissioner
Indiana Department of Transportation

From: <eddie.higgins@us.army.mil>
Subject: I-69 Website Contact Form Submission
Sent date: 07/28/2011 10:20:53 AM
To: <i-69.section_4@i69indyevn.org>
Contact Information and Request from Tier 2 Studies for Section 4

Name:

Eddie Higgins

Email:

eddie.higgins@us.army.mil

Street Address:

7170 South Harmony Road

City/State:

Bloomington, IN

Zip Code:

47403

Comments:

I live at 7170 South Harmony Road Bloomington. i have looked at so many maps and seen so many different ways that I69 is being built. No one has contact or anything and I was wanting to make sure that if my house is going to be taken out or what. Can anyone tell yay or nay if it will be?



August 18, 2011

Robert Tally
Division Administrator
Federal Highway Administration
575 N. Pennsylvania
Indianapolis, IN 46204

RE: I-69 Tier 2 Section 4 FEIS comments

Dear Mr. Tally:

The Indiana Karst Conservancy is a non-profit environmental organization focused on cave and karst protection in Indiana, so as you can imagine, our organization is quite interested in Section 4 of the I-69 project. We previously reviewed the entire Section 4 Draft Environmental Impact Statement and the unredacted *Survey of Karst Features Report* (Appendix AA) and submitted substantive comments (see comment PO007 in Volume 3, Part A, of the FEIS) that focused on two specific topics, as it was our opinion that there were some major flaws in the Draft and not the Final EIS documents.

Principally, the IKC submitted a proposal for an alternative alignment that could avoid a significant area of karst (see page 5). We had estimated the proposal would save \$17-40 million dollar in construction costs, but more importantly would significantly reduce the number of known (and especially unknown) karst features impacts, would essentially reduce every other environmental and economic impact, *and* significantly improve safety and highway performance metrics. These later benefits are all the result of shortening the length of the alignment by more than a mile by removing the "big bend" in sub-Sections 4F and 4G within the Monroe County portion of the interstate.

After submitting this alternative alignment proposal during the DEIS comment period, there were indications (e.g., InDOT extended a contract with BLA) that this new alignment would be legitimately evaluated as required under the NEPA process, but in the main FEIS and appendices documents, no substantive mention of the alternative alignment or the study was made. There were a few details disclosed in the original comment/response section of the FEIS (e.g., the construction cost saving of the IKC alignment would save \$37 million) and indications more details of the analysis were included in *Appendix NN*, but InDOT later stated these references were in error and no *Appendix NN* existed. Subsequently, InDOT revised the comment/response section to retract those references and other material details of the proposed alignment evaluation. So if the study was performed, it should have been a part of the FEIS with its merits acknowledged for all to see, and if the study was not performed, then InDOT failed to do its duty to explore this valid and viable proposal.

Regardless of what obligations InDOT has to study this proposal under the NEPA process (although we would say it is very rare there are opportunities to consider a proposal that has only positive aspects, saves money, and essentially has no negative environmental/economic tradeoffs), InDOT definitely has an obligation to seriously evaluate this proposal under the

1993 Karst MOU agreement. Throughout the DEIS and the FEIS, InDOT repeatedly states that the Karst MOU is a cornerstone of their design philosophy when designing in karst topography regions and InDOT was committed to adhering to the agreement. However it appears the level of commitment is only at their convenience. While InDOT expended significant resources to investigate and document the “thousands” of karst features (caves, sinkholes, springs, etc) in their proposed alignments and the defined corridor, they failed to capitalize on that wealth of information to make appropriate decisions. As they indicated in the FEIS, from their perspective, the karst impacts in their proposed alignments (and corridor) are “unavoidable” and therefore they will simply “mitigate” those impacts during the details design and build stages. However, the fundamental mandate in the Karst MOU is upfront avoidance, and at the point InDOT determined the existing alignments within the corridor could not meet the directives of the MOU, they should have looked at potential alignments outside of the corridor to see if the “avoidance” criteria could be met. Only after an exhaustive examination of alternatives should InDOT have determined that it was not “practical” to avoid the karst features and then focused on mitigating their impacts.

In the comment/response section (ref comment PI322), InDOT did acknowledge that the IKC proposed alignment could avoid impacting up to 22 known karst features (and untold unknown features), out of a total of 106 karst features along the preferred Section 4 alignment. This is potentially 20% of the total, previously labeled as “unavoidable”. InDOT dismissed this as not being significant (a criteria they state as necessary to invoke the “flexibility” to look outside the Tier 1 corridor), but the need to comply with the Karst MOU should have demonstrated that the level of significance had been met. Both USFWS (a party to the MOU) and the USEPA were critical in their DEIS comments pertaining to the apparent impacts to the karst. Again, meeting the obligations under the Karst MOU would seem to elevate the impact “significance” criteria to look outside the original corridor as allowed under the Tier 1 Record of Decision (ROD).

Also, rather than argue on the merits of the IKC proposed alignment, InDOT dismissed them with two invalid arguments: First, InDOT indicated the cost of delaying the highway would exceed any estimated cost savings, focusing only on the cost aspect of the proposed alignment. This argument seems to completely discount the reduction of environmental impacts gained by the proposal and thus violates the NEPA process. If this argument was valid, then InDOT should have bypassed the entire NEPA process since the delay to perform this study surely unnecessarily delayed the project by years and the project could have been built much cheaper by ignoring the environmental studies. Second, InDOT provided a circular argument that the IKC proposal was basically suggested too late in the NEPA process to be considered. As we understand it, InDOT’s logic is that the Tier 1 corridor was selected without significant detailed environmental study with the understanding that there would be risk areas, but this was understood and accepted by the participating resource agencies and the public. During the Tier 2 study, InDOT did the best they could within the prescribed corridor to mitigate impacts, but looking outside of the corridor was really unnecessary because “everyone” had already agreed during Tier 1 that a certain level of impacts was likely and the “threshold of significance” was much higher than just having a viable alternative that would greatly outperform those within the corridor. While we do understand that the IKC proposal is being introduced “late in the game”, the necessity of the

alternative was not obvious until the DEIS was published. This does not excuse InDOT's inaction for looking into alternatives to avoid the "unavoidable" karst when they first recognized the problem when the karst fieldwork was performed several years prior to it being made public. The timing of our proposal was dictated by the public release of the information that necessitated the alternative, and to discount it completely on the basis that it was introduced near the end of Tier 2 rather than in Tier 1 makes a mockery of the entire NEPA process.

The bottom line, the ROD pertaining to sub-Sections 4F and 4G should not be approved until a full evaluation of the IKC alignment proposal is completed and the USEPA and those agencies involved in the Karst MOU have had an opportunity to review and comment. The substantive merits of the proposal including:

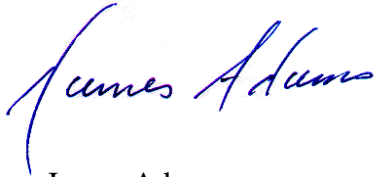
- Elimination of over a mile of alignment/right-of-way/roadway.
- Reduced construction costs (\$37 million per InDOT's estimates)
- Reduced impact on known karst features and the need to mitigate those features.
- Reduced impact on unknown karst features that will be discovered during the build process, which will require field decisions that likely will compromise the ability to mitigate those features properly.
- Reduced forest impact, which also eliminates 3:1 mitigation of those acres.
- Reduction in the number of stream crossing of Indian Creek from 3 to 1 and other smaller tributaries, reducing water quality impacts and corresponding mitigation.
- Reduction in the number of grade inclines/declines and the cut/fills needed (the IKC proposal has a single grade).
- Reduction in the number of miles of highway within the Coon and Grotto Winter User Area. These caves jointly host nearly as many Indiana bats as Ray's Cave and may become critical habitat for the species.
- Reduced impact from roads that are closed since the proposed alignment is shorter, runs through less populated areas, and is further away from SR 45, the primary artery for those who live south of the FEIS preferred alignment.
- Reduction in mobility/user costs over the lifetime of the highway due to the shorter travel length of the highway.
- Reduction in auto/truck emissions due to the shorter travel distance and on-grade operations.
- Improved safety metrics due to the shorter travel distance and the elimination of grades resulting in speed differential accidents.
- Improvement in the overall Evansville-to-Indiana travel times and other performance metrics due to the shorter travel length.

Please see the IKC's DEIS for more specifics of the merits of its proposed alignment.

Finally, we would also like to again voice our disappointment in the inclusion of the Monroe/Greene County Line interchange in the FEIS. For an interchange that wasn't even a consideration in the Tier 1 study, it is most curious that InDOT has determined that this interchange be considered "essential" even though the mobility performance is only slightly better than option 3, the justification is at best suspect and biased, and it is the worst option

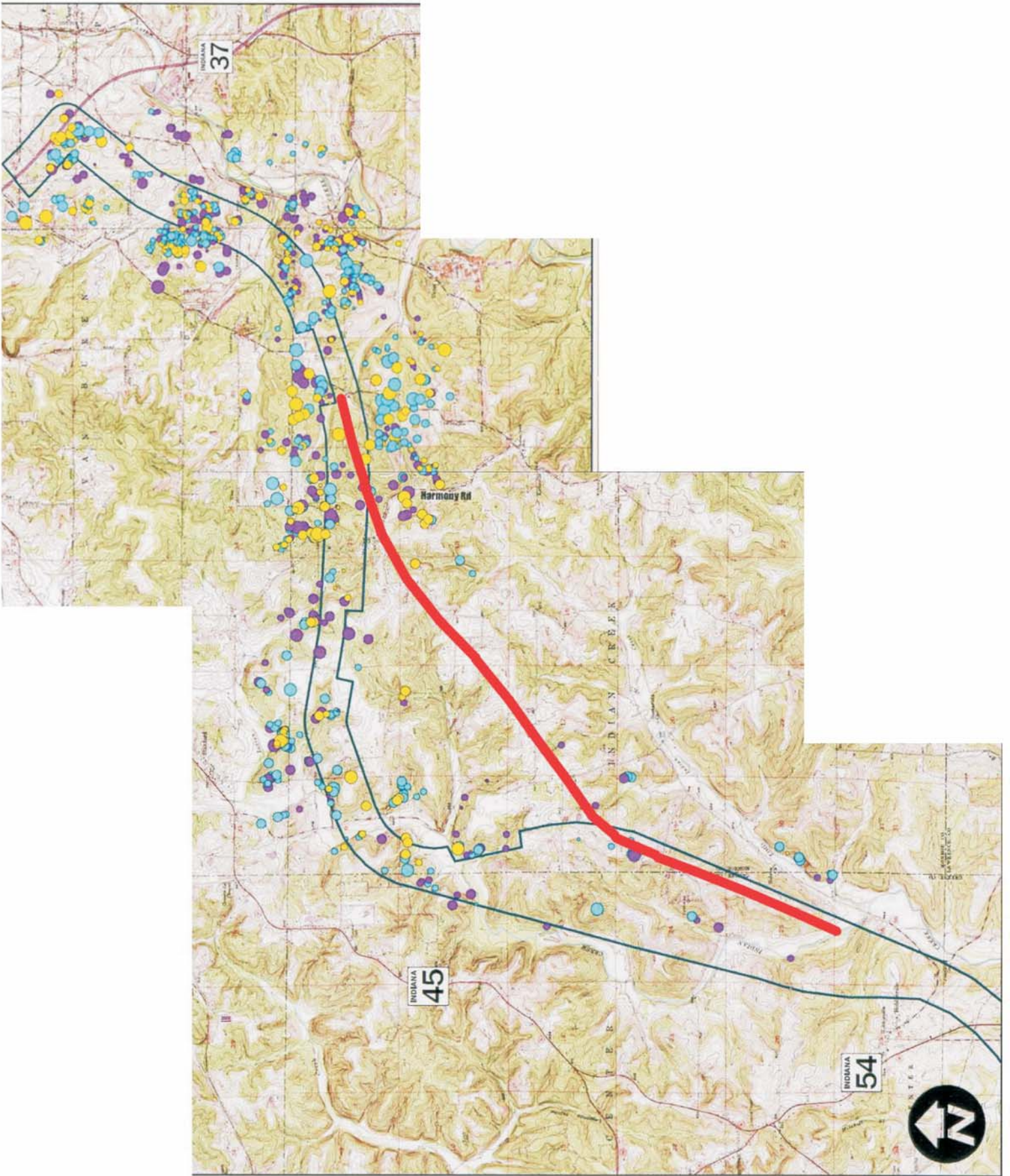
environmentally (including intrusion into the Ray's Cave Winter Use Area). It is also telling that the both the USFWS and USEPA were critical of the interchange for many reasons, but that InDOT seemed to completely dismiss their concerns in the FEIS concerning the final configuration.

Sincerely



James Adams
Secretary
Indiana Karst Conservancy

cc: USFWS, EPA



From: Jim Kirk [mailto:jim@captainjimsauces.com]
Sent: Wednesday, August 10, 2011 8:21 PM
To: FHWA, ExecSecretariat (FHWA)
Cc: Home
Subject: I 69 Alternative

I urge you to to increase financial oversight of new-terrain I-69 in light of its growing financial cost and environmental footprint. We so many roads and bridges in need of repair. It seems ridiculous to spend this kind of money on a highway system when a perfectly good one is almost completely built and in place. Not to mention wasting of some of Indiana's natural scenic beauty and resources.

Thanks,
Jim Kirk
Indianapolis IN

From: <madrrterminal@yahoo.com>

Subject: I-69 Website Contact Form Submission

Sent date: 07/22/2011 11:57:18 AM

To: <i-69.section_4@i69indyevn.org>

Contact Information and Request from Design & Construction for Section 4

Name:

John Licht

Email:

madrrterminal@yahoo.com

Street Address:

1021 Madison

City/State:

Beaver Dam, KY

Zip Code:

42320

Comments:

We are seeking information on all I-69 and railroad intersections, active and inactive for all sectors.

Subscribe:

YES

From: Lynn Long [llondontown@gmail.com]

Sent: Saturday, August 20, 2011 11:12 AM

To: Kirk Roth

Subject: Noise at 4850 W. Evans

Hi Kirk - Don't know if you remember us, but Gary and I stopped by your office on Monday afternoon asking about information on I-69 near a house we are considering purchasing. I used to work in noise analysis including highway noise, and am wondering if you could provide us with results for the house at 4850 Evans Rd. I have seen a software package that calculates the highway noise as a line source and, using ray tracing, calculate noise levels at various receiver points along the road, taking into account distance of source to receiver, nearby reflective structures, density of trees, and absorption of reflective ground surfaces. I am wondering if you have access to such a study and if you could give us the noise maps or at least some loudness numbers for the house (which is somewhat blocked from the highway view by a two-car garage).

I left a message on your cell phone too.

Thanks - Lynn Long

From: Richard Martin [mailto:richardm@tinwisle.com]
Sent: Wednesday, August 31, 2011 11:45 AM
To: Tally, Robert (FHWA)
Subject: Comment period extension request

Bob,

Thank you for the prompt reply to my last inquiry. Below are two more questions and a request.

1) I have been going over Appendix GG in an attempt to understand the manner in which State and Federal engineers evaluate opportunities and risks. In that Appendix, several references are made to a Brazil 2007 study in regards a Critical Length of Grade assessment. This study is used in part to justify a request for a Level Two Design Exception. I obtained a copy of that study and have communicated with its author Professor Setti. As clearly stated in the paper and confirmed by him, "The decision to modify the speed difference in the current geometric design standards, however, must be supported by additional data to be obtained with further research, which should be based on(sic) a larger and more representative database than the one used in this study." He stated that no further research has been conducted by him or anyone else to his knowledge. He also stated that "the speed difference curve would very likely be different for different countries, as it is directly related to accident rates." Is it common practice in transportation engineering studies to use preliminary results from other countries to justify major changes to design standards on Federal projects?

2) In late July the Tier 2 was released to the public. Until that time and despite repeated requests, no one from local government was given access to preliminary engineering studies, environmental assessments, or other contents of the Tier 2 material except in a very general way. We did have limited discussions at two local meetings and Bill Williams did attend some of the weekly sessions in Indianapolis. But to say that we, as a local government entity were full 3C participants would be incorrect. While State and Federal agencies have been working to prepare the Tier 2 study, local government has not been allowed to participate except to ask questions regarding very general statements made a limited meeting presentations. Had we been given the requested access, such questions as, "What is the impact on air quality from increased grade standards for this project?" or "What is the increase erosion load expected from changes in embankment?" might have been asked. Is it the position of FHWA that parity of partnership in the 3C process is possible when one of the parties has only 30 days to review the work of the other two that was accomplished over 3 years?"

And now my request is: a) since the BMCMPPO and the State of Indiana have not reached agreement on a satisfactory TIP that includes funding for I69 construction within the jurisdiction, and b) since Monroe County has consistently expressed a desire to be a full participant in the 3C process, and c) since full participation has been limited by INDOT and contractor failure to produce requested information, I request that you extend the Tier 2 EIS comment period to be a full 90 days. We may not get through all of the material in a satisfactory manner in that time but I know we have not had sufficient time to date.

Thank you for your consideration and I appreciate your willingness to respond to my inquiries.

Cheers,

Richard

From: Jerry Merriman <jmerrima@indiana.edu>

Date: July 26, 2011 5:20:00 PM EDT

To: William Sampson <bsampson@dlzcorp.com>

Subject: Message Sent From DLZ.com Contact Form

I have just received duplicate mailings of three DVD's (six total) covering the I-69 Tier 2 Section 4 Final Environmental Impact Statement (FEIS). I did not request these DVD's and I would

have preferred to view the information online or at my local public library. Please remove my name and address from your mailing list, and please reply by e-mail to let me know I have been removed.

Jerry Merriman

3201 Snoddy Rd

Bloomington, IN 47401

From: "Merriman, Jerry S" <jmerrima@indiana.edu>
Subject: RE: I69 Section 4 Mail List
Sent date: 08/18/2011 06:43:07 PM
To: "section4pm@i69indyevn.org"<section4pm@i69indyevn.org>
Tom,

Thanks for letting me know. I did receive the letter--in fact I received two copies of the same letter, mailed in separate envelopes to my name and address. The same thing happened with previous mailings, so please check to make sure that my information is completely removed.

Thanks,
Jerry

From: Clark Sorensen [mailto:clarksorensen1234@gmail.com]
Sent: Tuesday, August 16, 2011 12:03 PM
To: Dave Pluckebaum
Cc: hotline@oig.dot.gov <hotline@oig.dot.gov>
Subject: INDOT's I-69 Section 4 FEIS revised Volume III and ROD

Dave Pluckebaum and Office of the US Department of Transportation Inspector General,

You may recall at last Tuesday's Section 4 CAC meeting at Eastern Heights HS, Greene County Indiana I asked the question about the earliest possible Record of Decision (ROD) response for Section 4 from Federal Highway Administration.

Since the I-69 Section 4 FEIS issued by INDOT on July 20, 2011 was NOT "final" (due to subsequent release of revised Volume III without any explanation of what was changed), the earliest ROD from FHA possible should be approximately September 6, 2011.

Please follow up with Steve Walls at INDOT Section 4 Office as Steve said he'd investigate and reply to my question.

Please note I'm copying DOT Inspector General on this email.

Clark Sorensen

--

25 Year Resident
Indian Creek Township
Monroe County
Indiana, USA

From: Clark Sorensen <clarksorensen1234@gmail.com>
Date: Wed, Aug 17, 2011 at 1:06 PM
Subject: (IT'S THE MONEY, STUPID!) Re: *
To: "Grovak, Mike" <MGrovak@blainc.com>
Cc: hotline@oig.dot.gov

Mr Grovak,

Please consider what you refer to as my I-69 Section 4 "Comment" as a very serious question I made in public is on the record and deserves an accurate and immediate answer.

To think INDOT (you) can wait until a ROD is issued flies in the face of honest public scrutiny of the I-69 project.

Steve Walls? and Dave Pluckebaum of INDOT took my question seriously as well as my email address which seems was passed along to you.

My question was serious at I-69 Section 4 CAC meeting Aug 10, 2011 in front of many many witnesses.

It will be a serious mistake if I don't receive an official answer immediately about timing when the ROD can legally be issued after Volume III of FEIS was revised/reissued after three weeks had passed from initial issuing of FEIS on July 20, 2011.

Something smells....

Sincerely

Clark Sorensen

From: Clark Sorensen [mailto:clarksorensen1234@gmail.com]
Sent: Friday, August 19, 2011 1:11 PM
To: Grovak, Mike
Cc: hotline@oig.dot.gov
Subject: INDOT's Revised FEIS Volume III - removed Appendix NN

Mr Grovak,

To date, I have not had a reply to my question about the timing of Federal Highway Administration's Record of Decision Section 4 of proposed I-69. My formal question is based on INDOT's issuing of a "corrected" Volume III which I received on August 10, via USPS. The FEIS was released on July 20, 2011.

Recently, I received a letter from INDOT in a DLZ marked return address envelope. The letter explained the corrected/revised FEIS Volume III had eliminated Appendix NN.

However, there is still no explanation of why this specific Appendix NN was removed from FEIS. Will INDOT explain why Appendix NN was removed from FEIS?

Please correct me if I'm wrong, but I believe Appendix NN dealt with sensitive local karst environmental issues and also contained details of a potential significant construction cost reduction if the current FEIS alignment was moved slightly in Monroe County Indiana. Is this correct?

I request an immediate answer to the above questions.

Sincerely yours,

Clark Sorensen

From:Clark Sorensen [mailto:clarksorensen1234@gmail.com]
Sent:Wednesday, August 24, 2011 9:10 AM
To:Grovak, Mike
Cc:president@whitehouse.gov
Subject:Re: INDOT's Revised FEIS Volume III - removed Appendix NN

Mr. Grovak,

To not answer my question demanding the extension of the public response period to I-69 Section 4 FEIS Record of Decision is clearly an attempt by INDOT to deny changes were made to the "Final" EIS after it was published on July 20, 2011.

Changes were made by INDOT approximately ten days after FEIS was orginally issued to remove the important hide Appendix NN in the FEIS document.

The removal of Appendix NN SUBSTANTIALLY changes the entirety of the complete original Section 4 "Final" EIS issued by INDOT.

To wait until AFTER the Section 4 Federal Highway Administration Record of Decision (ROD) is issued to address my concerns about a proper delay of the ROD for changes made by INDOT is patently dis-ingenuous at the least and very likely illegal under Federal Law.

I strongly suggest you escalate my concerns to appropriate levels of your superiors at BLA and INDOT immediately and delay the ROD to reflect changes made to the "Final" EIS in August of 2011.

By copy to President Obama I implore his staff to request Ray LaHood Secretary of Transportation immediately investigate my concerns and weigh in on the legality of issuing the Federal Record of Decision with out regard to substantial and substantive changes made after the document was published. This MUST be done BEFORE the Federal Highway Administration issues a Record of Decision.

I'm happy to talk with Federal Highway Officials and/or US DOT staff about my concerns. My phone number is 812-825-5013.

Sincerely,

Clark Sorensen



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

AUG 22 2011

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

Michael B. Cline, 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 (FEIS) for Section 4: Crane NSWC to Bloomington, Indiana. CEQ No.: 20110228

Dear Mr. Tally and Mr. Cline:

The U.S. Environmental Protection Agency Region 5 (EPA) has reviewed the Tier 2 Final Environmental Impact Statement (FEIS) for Section 4 of the I-69 Indianapolis to Evansville, Indiana project. We offer our comments under the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act.

The Section 4 Tier 2 FEIS is the fourth of six Tier 2 FEISs EPA reviewed for the Federal Highway Administration (FHWA) and Indiana Department of Transportation's (INDOT) proposed 142-mile-long I-69 Indianapolis to Evansville Project. I-69 is currently proposed as a freeway facility that utilizes interchanges for access control. Section 4 extends for approximately 26.7 miles from just east of US 231 to State Road 37 (SR 37). The proposed Section 4 new terrain roadway would cross numerous streams (many assessed as moderate or high quality), numerous karst features of high importance, steep slopes, and large tracts of intact forest land in substantially rural areas of Greene and Monroe Counties.

The Section 4 FEIS Refined Preferred Alternative 2 is a refined version of the Section 4 DEIS Preferred Alternative 2. The refinements are identified as minor changes in profile grade and local access design, and shifts in the proposed right-of-way. Refined Preferred Alternative 2 is comprised of subsection alignments Refined 4A-2, Refined 4B-1, Refined 4C-2, Refined 4D-1, Refined Hybrid 4E-1/4E-2, Refined 4F-3, 4G-2 and Refined 4H-2 and includes three proposed interchanges (Option 1) at SR 45, the Greene/Monroe County Line (with a South Connector Road), and SR 37. Impacts

associated with the FEIS Refined Preferred Alternative 2 are not substantially different from those identified for the DEIS Preferred Alternative 2. However, the estimate of linear feet of stream relocations has substantially increased for all DEIS alternatives. Stream relocations for the Refined Preferred Alternative 2 has increased from 22,658 linear feet (initial design criteria) / 16,315 linear feet (low-cost design criteria) in the DEIS to 37,325 linear feet (initial design criteria) / 30,861 linear feet (low-cost design criteria) in the FEIS.

EPA reviewed and commented on the Tier 2 Section 4 DEIS and rated the DEIS Preferred Alternative 2 as “EC-2, Environmental Concerns-Insufficient Information” in our letter dated October 28, 2010. EPA concerns related primarily to the project having the potential for direct and indirect adverse impacts to surface and groundwater quality and quantity in relation to streams/ponds/wetlands, drinking water supplies (wells and springs) and associated public health risks, particularly in karst areas and other challenging environments. We specified that, in order to fully assess environmental impacts, additional analysis regarding the vulnerability of water resources should be undertaken and additional mitigation measures identified in the FEIS. We also provided comments and recommendations regarding EPA Class V permits under the Safe Drinking Water Act, and air quality conformity. EPA concurs with FHWA’s air conformity determination.

We find the FEIS is informative and generally responsive to most of our DEIS concerns and recommendations regarding the proposal. For example, the FEIS text has been modified to more accurately reflect the assessment of stream quality in Section 4. Table 3 of Appendix A of the Stream Evaluation Report (FEIS Appendix M) provides stream identification numbers and identifies whether a bridge or a particular culvert size is being proposed for a particular stream stretch for Refined Preferred Alternative 2 (initial design criteria). While the text of the FEIS does not elaborate on stream riffle-pool complexes the FEIS states that realignment of surface streams or impacts to riffle-pool complexes, and natural stream geomorphology will be avoided where reasonable. A firm commitment (page 7-30) is made that wetlands and other water resources will be actively avoided throughout the final design of the Section 4 roadway. The FEIS incorporates EPA’s recommended language regarding EPA Class V permits. It includes new Tables 5.24-2a and 7-1a *Best Management Practices in Karst Terrain*. A firm commitment is made that if active groundwater flow paths are discovered, measures will be taken to perpetuate the flow and protect water quality (page 7-55). The FEIS includes an update on the status of potential mitigation sites for Section 4. It also includes the air quality conformity finding and supporting documentation.

The FEIS provides additional information with the addition of Figures 5.24-4 (Land Use Changes by 2030 for the No-Build Scenario), 5.24-5 (Karst Features Identified within Karst Study Area), and 5.24-6 (Impacts of I-59 Section 4 and Other Major Projects Within the Section’s Geographic Scope) to spatially identify areas where surface and groundwater resources are vulnerable as a result of potential induced growth associated with Section 4. However, the FEIS provides minimal analysis of the information presented. In addition, regarding karst environments. A single, spatial overlay map of the Traffic Analysis Zone (TAZ) Induced Growth data included in Figure 5.24-1, the soil septic absorption data included in Figure 5.24-4, and the karst feature densities included

in Figure 5.25-5 would provide a better understanding of potential stressors to karst resources and water supplies stemming from potential induced development. Additionally, this analysis would be strengthened by including the location of specific known karst features, the location of existing private water wells (previously included in Figure 4.3-4), and springs used for individual potable water supplies.

Throughout the FEIS and Survey of Karst Resources Report, FHWA/INDOT have committed to developing mitigation measures for karst features consistent with the 1993 Karst MOU signed by INDOT, Indiana Department of Natural Resources (IDNR), Indiana Department of Environmental Management (IDEM) and U.S. Fish and Wildlife Service (USFWS). The 1993 MOU established the framework for ensuring that INDOT's transportation projects are constructed in an environmentally sensitive manner that protects groundwater quality, public health and safety, and the environment. The terms and conditions included in the MOU are adequate, provided karst resources, impacts, and Best Management Practices (BMPs) and mitigation alternatives are considered during the preliminary design phase of the project. Rigorous implementation of the MOU is critical to prevent potential irreparable impacts to karst resources and adverse effects on public safety. According to the FEIS most of this work will take place after the Section 4 Record of Decision is issued.

The FEIS is not clear regarding when and what specific steps will be taken during preliminary design phase to further identify karst features and explain how that information will be used to identify committed mitigation measures for incorporation in the final design, construction and operation of the Section 4 Preferred Refined Alternative 2.

We provide detailed comments in the enclosure to this letter regarding EPA's outstanding concerns and make additional recommendations regarding measures the FHWA/INDOT could take to help ensure the environment, public health and safety are adequately protected.

Appendix KK of the Section 4 FEIS provides an updated running tally of the direct impacts to resources of concern of the overall I-69 Indianapolis to Evansville project, as we requested. The resources being tallied and tracked are new acres of right-of-way, farmland impacts, forest impacts, wetland impacts, floodplain impacts, residential impacts, business impacts, and now includes karst feature impacts. The tally does not include stream impacts or cumulative impacts. We recommend stream impacts be tracked as well.

We appreciate the additional information regarding INDOT's tracking system. We reiterate our request that all future Tier 2 EISs for I-69 (Sections 5 and 6) include a detailed explanation of the tracking system and any updates made to the system. INDOT is using the tracking system to help ensure that the overall I-69 project's impacts are identified and all Tier 1 and Tier 2 NEPA mitigation commitments. EPA understands that the tracking system will track three types of mitigation: 1) mitigation commitments required by regulation or permit conditions; 2) other mitigation commitments made in the EIS in response to public or agency comments; and 3) other mitigation measures that will get "further consideration." To date, EPA has received only the February 22, 2010

annual monitoring report. Please send us the second I-69 annual monitoring report as soon as it is available.

If you have any questions about EPA's comments, please contact me at 312-886-2910 or westlake.kenneth@epa.gov or Virginia Laszewski at 312-886-7501 or at laszewski.virginia@epa.gov. Please send EPA a copy of the Record of Decision for Section 4 when it is available.

Sincerely,



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

Enclosure: 1

cc: U.S. Army Corps of Engineers – Louisville District, Attention: CELRL-OP-F,
P.O. Box 59, Louisville, KY 40401-0059 (Greg McKay)
U.S. Fish and Wildlife Service, Region 3, Bloomington Ecological Services
Office, 620 S. Walker Street, Bloomington, IN 47403-2121 (Scott Pruitt)
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 (Randy Braun)
Indiana Department of Natural Resources, 402 W. Washington St., Rm W264,
Indianapolis, IN 46204 (Matt Buffington)

**EPA Comments Concerning the I-69 Evansville to Indianapolis,
Tier 2 Final Environmental Impact Statement (FEIS)
Section 4 – Crane NSWC to Bloomington, Indiana
CEQ No. 20110228**

Review of the FEIS indicates that most of EPA's DEIS concerns and recommendations are addressed in the FEIS. The FEIS provides additional information with the addition of Figures 5.24-4 (Land Use Changes by 2030 for the No-Build Scenario), 5.24-5 (Karst Features Identified within Karst Study Area), and 5.24-6 (Impacts of I-59 Section 4 and Other Major Projects Within the Section's Geographic Scope) to spatially identify areas where surface and groundwater resources are vulnerable as a result of potential induced growth associated with Section 4. However, the FEIS provides minimal analysis of the information presented.

Throughout the FEIS and Survey of Karst Resources Report, FHWA/INDOT have committed to developing mitigation measures for karst features consistent with the 1993 Karst MOU signed by INDOT, Indiana Department of Natural Resources (IDNR), Indiana Department of Environmental Management (IDEM) and U.S. Fish and Wildlife Service (USFWS). The 1993 MOU established the framework for ensuring that INDOT's transportation projects are constructed in an environmentally sensitive manner that protects groundwater quality, public health and safety, and the environment. The terms and conditions included in the MOU are adequate, provided karst resources, impacts, and Best Management Practices (BMPs) and mitigation alternatives are considered during the preliminary design phase of the project. According to the FEIS most of this work will take place after the Section 4 Record of Decision is issued.

The FEIS is not clear regarding when and what specific steps will be taken during preliminary design phase to further identify karst features and explain how that information will be used to identify committed mitigation measures for incorporation into the final design, construction and operation of the Section 4 Preferred Refined Alternative 2 to help insure that environmental resources such as surface water and groundwater, drinking water supply wells and karst resources will not be adversely impacted.

The following comments, for the most part, identify EPA's outstanding concerns in more detail and make additional recommendations regarding measures the FHWA/INDOT could take to further help insure environmental resources, public health and safety are adequately protected.

Please note that the date of EPA's response letter to FHWA/INDOT's responses to EPA DEIS comments is March 9, 2011 and not March 8, 2011, as stated frequently stated in the FEIS.

WATER RESOURCES

Streams: Stream impacts are the major aquatic issue for Section 4 of the proposed I-69 highway. The FEIS includes additional attention to overall stream quality. Stream impact discussions have been revised in the FEIS to include a habitat quality weighting of stream impacts in order to incorporate additional information regarding stream quality. Tentative structures (bridges or culverts) for each potential stream crossing are identified on Appendix A - Tables 3 and 4 of the Stream Evaluation Report found in Appendix M. The FEIS acknowledges the need to identify adequate sedimentation control for construction impacts, including steep terrain. Potential Best Management Practices (BMPs) are identified and it is recognized that INDOT will work with IDEM to further identify suitable measures for erosion control. Stream inventory numbers appear to be shown on several FEIS maps; however, the numbers are for the most part illegible and stream inventory identification numbers are not included in the stream discussions in the FEIS, as we requested. We continue to recommend that all streams with riffle-pool structures be bridged and that the bridges span a stream's 100-year floodplain whenever feasible.

Compensatory Mitigation: The FEIS provides an update on the development of compensatory mitigation for wetland and stream impacts. The FEIS Biological Assessment includes an updated compensation mitigation plan since the DEIS. The FEIS acknowledges that wetland and forest mitigation requirements will be calculated in acres and stream mitigation requirements will be calculated in linear feet in consultation with IDEM and the Corps during permitting for Section 4. The FEIS currently identifies that mitigation for Preferred Refined Alternative 2 would be between 15.79 and 29.14 acres for wetland impacts between 5.26 to 13.09 acres. Assuming 1:1 mitigation ratio, the FEIS identified required mitigation for stream impacts would range from 93,196 linear feet to 111,247 linear feet (page 7-62).

We continue to recommend that riparian buffers in specified minimum widths need to be used to protect stream stability and quality. The FEIS identifies that if the mitigation site(s) are turned over from INDOT to another long-term management agency or land steward, the receiving agency or land steward would be taking the responsibility to cover this cost. This will need to be included in the land transfer documentation from INDOT to the long-term manager.

Clean Water Act (CWA) Section 404: EPA reserves its right to provide additional review and comment regarding wetlands and streams during the U.S. Army Corps of Engineers Clean Water Act (CWA) Section 404 permitting process.

EPA reiterates its position that the quantity and quality of stream resources proposed to be relocated or permanently lost in this project, will need formal compensatory mitigation in CWA 404 permitting, no matter what permitting tool is chosen by the Louisville District of the Corps of Engineers. Any of these streams that prove to be outside of current Federal jurisdiction should be mitigated under any applicable State jurisdiction and/or under NEPA.

KARST RESOURCES

Analysis of Karst Impacts as part of the Alternatives Consideration Process

Table 6-17 in the FEIS presents the *Comparative Impact Summary* for the Section 4 Alternatives. It unclear exactly how the "Areas of Importance" factored into the overall comparative impacts summary. The karst-related information presented in Table 6-17 includes only the number of karst features to be impacted by each alternative. It would be helpful to see how the "Areas of Importance" factored into the karst impacts component of the *Comparative Impact Summary*.

Section 5.21.3.7 of the FEIS justifies not sampling flora and fauna in all the potentially impacted caves, in part, by stating that some [karst] features such as those in "cut sections" would not be hydrologically impacted since the highway drainage will be below the feature. However, EPA understands that the exposure of the karst feature during construction (excavation and blasting) could have significant impacts on the biota since many are "cave obligate species," which exist only within a very narrow range of temperature and humidity.

Potential Impacts to Unknown Subsurface Karst Features

FHWA/INDOT have committed to minimizing impacts to unknown karst features through stipulations included in the 1993 Karst Memorandum of Understanding (MOU) signed by INDOT, IDNR, IDEM, and USFWS. However, EPA understands that early identification of karst feature locations and extents could advance the selection of potential mitigation measures and thus minimize potential impacts associated with construction activities. We recommend that INDOT consider that the geophysical surveys be conducted during the preliminary engineering phase of the design, prior to earth-disturbing activities. We recommend that a commitment be made by FHWA/INDOT to use "non-invasive ground disturbance" geophysical survey means in the identified "Areas of Importance" or other high-density karst feature areas along Refined Preferred Alternative 2. We recommend that the geophysical surveys be conducted during the preliminary engineering phase of the design, prior to earth-disturbing activities.

Potential Impacts on Drinking Water Quantity and Quality and Induced Growth

The addition of Tables 5.21-2a and 7-1 provides a list of potential Best Management Practices (BMPs) in Karst Terrain. In addition, FHWA/INDOT commit to perpetuate flow and protect water quality if active groundwater flow paths are discovered. Figures 5.24-4, 5.24-5, and 5.24-6 have been added to the FEIS to spatially identify areas where surface and groundwater resources are vulnerable as a result of potential induced growth associated with Section 4.

With regards to karst environments, a single, spatial overlay map of the Traffic Analysis Zone (TAZ) Induced Growth data included in Figure 5.24-1, the soil septic absorption data included in Figure 5.24-4, and the karst feature densities included in Figure 5.25-5 would provide a better understanding of potential stressors to karst resources and water supplies stemming from potential induced development. Additionally, this analysis would be strengthened by including the location of specific known karst features, the

location of existing private water wells (previously included in Figure 4.3-4), and springs used for individual potable water supplies.

Baseline water quality sampling data is not included in the FEIS as EPA recommended. Baseline water quality sampling of karst features is anticipated as part of the monitoring and maintenance plan that will be developed in accordance with Item #8 of the Karst MOU. The timing for implementing Item #8 of the Karst MOU is unknown and thus it is unclear at which point within project delivery the baseline sampling will occur. EPA recommends that FHWA/INDOT commit to complete the requested baseline water quality sampling prior to the start of construction activity.

No analysis or discussion is included in the FEIS on the adequacy of currently in-place local, county, and state provisions that address residential and commercial development and long-term on-site wastewater treatment.

Karst Fauna Study Methodology

Chapter 5.21 of the FEIS was revised to include further explanation on how caves were selected for fauna studies. However, response to comment AF002-64 states, ". . . Dr. Lewis did not have the connectivity data to determine the appropriate scope for cave surveys in the context of the Section 4 project." The FEIS is unclear as to who specifically was responsible for developing the karst fauna survey scope and why a recognized cave fauna/flora expert, such as Dr. Lewis, was not consulted during the scoping phase of the project.

The *Tier 2 Studies, Survey of Karst Features Report Addendum No. 1, Section 4, US 231 to SR 37* includes information on a new cave that was identified through the project's public outreach effort. This new cave has been added to the impact summary for all alternatives considered. The FEIS indicates that a site visit was conducted to this new feature on March 8, 2011. FHWA/INDOT subsequently determined, "no insects, invertebrates, or other fauna were observed inside the cave during the March 8, 2011 field review." The FEIS is, however, unclear as to whether or not a recognized cave biologist was consulted and what methodology/protocol was used to make this determination.

Variability in Flow Conditions as Part of the Pollutant Loading Analysis

As recommended in USEPA's October 28, 2010 comment letter, FHWA/INDOT revised the pollutant loading analysis to include the analysis of a typical versus extreme runoff event. The revised scenario presents a result more representative of natural conditions. The results of this analysis are included in the *Tier 2 Studies, Survey of Karst Features Report Addendum No. 1, Section 4, US 231 to SR 37*.

Construction Blasting

Efforts to minimize impacts to the Indiana bat and Winter Action Areas (WAAs) are acknowledged in the FEIS. However, it is unclear as to how specifications developed through consultation with the USFWS aimed at protecting Indiana bat hibernacula will also help minimize impacts to water wells [as noted in FHWA/INDOT comment response AF002-39] or the biological and structural integrity of other karst features.

We understand that there are statutes and regulatory limits that regulate construction blasting. These limits may be in the form of measured peak particle velocities (ppv) or horizontal distances from the blast site(s). There are established national and state regulatory threshold ppv limit values that, when exceeded, may cause damage to structures or wells. However, we are unaware of any threshold limit values for natural karst environments. The FEIS fails to specifically address how the project will approach, monitor, and mitigate the effects of construction blasting on the impacted karst features and/or wells.

Conducting geophysical surveys over known caves and/or concentrated karst features would provide data on the depth to a feature, size of a feature, the cap rock thickness above a feature, and the relative competency of the cap rock. Knowing these parameters would significantly decrease the probability of the construction blasting having a negative effect on karst features. Additionally, it could assist in delineating areas along the Preferred Alternative where construction blasting should be prohibited.

EPA recommends that a commitment be made by FHWA/INDOT to use "non-invasive ground disturbance" geophysical survey means in the identified "Areas of Importance" or other high-density karst feature areas along the Refined Preferred Alternative 2. It is recommended that the geophysical surveys be conducted during the preliminary engineering phase of the design, prior to earth-disturbing activities.

Identification of Mitigation Measures for Karst Areas

The FEIS acknowledges that the Design/Build method is not anticipated to be a major component of the Section 4 project delivery. However, FHWA/INDOT's response to comment AF002-3 states that the Design/Build delivery method could "potentially" be chosen. Due to the complexities of the karst environment and the unknown location and number of karst features, we recommend that within sections of the Refined Preferred Alternative 2 where significant karst features are present (e.g., areas of high density or designated "Areas of Concern") the Design/Bid/Build project delivery method be utilized. The Design/Bid/Build delivery method will provide opportunities to further identify the type and location of karst impacts in the Refined Preferred Alternative 2 project area, which will facilitate the selection of appropriate project-specific design elements/BMPs before construction begins. The FEIS is unclear as to when a decision will be made regarding the project delivery method.

Suggestions for Mitigation

Throughout the FEIS and Survey of Karst Resources Report, FHWA/INDOT have committed to developing mitigation measures for karst features consistent with the Karst MOU signed by INDOT, IDNR, IDEM, and USFWS. The MOU established the framework for ensuring that transportation projects are constructed in an environmentally sensitive manner that protects groundwater quality, public health and safety, and the environment. The terms and conditions included in the MOU are adequate, provided karst resources, impacts, and BMPs and mitigation alternatives are considered during the preliminary design phase of the project.

We understand that appropriate BMP selections will be made on a case-by-case basis and that the designer and contractor will not be limited to the measures included in Table

5.24-2a and Table 7-1a. EPA recommends that any additional BMPs and/or new technologies considered be implemented at the discretion of the resource agencies and in accordance with stipulations outlined in the Karst MOU.

Rigorous implementation of the MOU is critical to prevent potential irreparable impacts to karst resources and adverse effects on public safety. Based on a review of the Section 4 FEIS and the Section 4 Survey of Karst Features Report, the following items have been identified as potential irreparable resource and/or safety impacts associated with construction of the Section 4 FEIS Refined Preferred Alternative 2 and recommend this be addressed in the ROD.

Cave Collapse - Potential collapses or subsidence events pose a threat to both natural ecosystems and infrastructure in karst environments. Construction of Section 4 as proposed has the potential to increase the likelihood of such occurrences if appropriate design measures are not identified and implemented early in the project development process. Such events are typically irreparable as they can have detrimental effects on sensitive cave environments and biota. There is also an inherent public safety concern related to collapse and subsidence events in areas of high karst feature density. This inherent safety concern could potentially be compounded through highway construction activities and highway operation.

Backfilling of Caves - Backfilling of caves and karst voids can have negative impacts on sensitive cave ecosystems, water quality, and water quantity. Backfilling these areas eliminates essential habitats for cave biota and fauna, impacts animal migration, and impacts air flow, while also posing threats to water quality and quantity. The damming effect caused by backfilling could redirect water into other sensitive subsurface ecosystems that are currently dry, sever groundwater recharge flow paths, or cause a blow out on the ground surface or beneath a constructed roadway embankment section.

Hazardous Materials Spills - Karst recharge features provide a direct conduit to groundwater resources. This level of connectivity increases the likelihood that a hazardous material spill along the Section 4 corridor would have detrimental impacts to karst ecosystems and ground water resources. The potential for hazardous materials to reach the karst network untreated poses a serious health and safety concern to residents, land operators, and business owners who rely on groundwater for drinking water and production activities.

Construction Blasting - Construction blasting associated with constructing Section 4 has the potential to have direct impacts on groundwater flow, water availability for residential and commercial uses, and sensitive karst ecosystems and biota. Blasting in areas of high karst feature density can increase an area's susceptibility to future collapses and subsidence events; both of which pose safety concerns to the travelling public.

Water Quantity - Construction of Section 4 has the potential to result in irreversible impacts to water availability as a result of groundwater flow path severance. Construction activities, including cuts, fills, and blasting, have the potential to alter surface and subsurface features in such a way that recharge areas are reduced and new flow paths are established.

Water Quality Impacts Associated with Induced Development - Areas of anticipated induced growth have been identified in the FEIS. As acknowledged in the FEIS, there are areas within the anticipated induced growth areas where natural conditions make surface and groundwater particularly vulnerable. This includes known karst environments where individual karst features have not been inventoried. There is potential for Section 4 to spur induced development in these areas that poses a threat to sensitive karst environments, water quality, and safety. The potential for irreparable impacts is high if local review and design processes and local planning and development regulations are not considered as induced development activity occurs.

AIR QUALITY

Air Conformity: The FEIS includes the FHWA conformity determination, discussion and supporting documentation. EPA has reviewed this conformity determination and concurs.

Greenhouse Gases/Climate Change: The FEIS does not specifically identify and discuss any anticipated effects of climate change on the project. We continue to recommend that stormwater management systems be designed with extra capacity, given that the frequency and intensity of precipitation events is likely to increase due to climate change.

Air Quality Mitigation During Construction: The FEIS explains that INDOT's construction policies do not provide for specific emissions criteria for diesel-fueled construction equipment beyond those that are already federally mandated. The FEIS states that such policies may be considered in the future. We continue to recommend that clean diesel strategies be employed during construction.

UNDERGROUND INJECTION CONTROL (CLASS V PERMITS)

Permits (Section 5.23.8 EPA Class V Permits, and Chapter 7: The FEIS includes EPA's suggested changes regarding Class V permits. For additional information regarding EPA Class V permits and UIC program, contact Ross Micham, at 312/886-4237 or at micham.ross@epa.gov.

From <MarieYoung1967@comcast.net>
Subject: I-69 Website Contact Form Submission
Sent date: 07/27/2011 02:25:44 PM
To: <i-69.section_4@i69indyevn.org>

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Comments:

I am unable to find specifics regarding the Vernal Pike realignment. Will there be an entrance from I-69 directly onto Vernal Pike or will those wanting to visit businesses on Vernal Pike have to take 45/46 toward Ellettsville to Smith Road and then turn onto Vernal from there?