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B. List of Acronyms

ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
AADT	Average Annual Daily Traffic
ACEC	American Council of Engineering Companies
ACHP	Advisory Council of Historic Preservation
ADT	Average Daily Traffic
APE	Area of Potential Effect
ASTM	American Society for Testing and Materials
BA	Biological Assessment
BO	Biological Opinion
BMP	Best Management Practices
BTU	British Thermal Unit
CAA	Clean Air Act
CAAA	Clean Air Act Amended
CAC	Community Advisory Committee
CAPA	Critical Aquifer Protection Area
CE	Categorical Exclusion
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIA	Community Impact Assessment
CMAQ	Congestion & Air Quality Improvement Program
CMS	Congestion Management System
CO	Carbon Monoxide
COE/ ACOE/ ACE	U.S. Army Corps. of Engineers
CRS	Cultural Resources Section
CSR	Conceptual Stage Relocation Plan
CSS	Context Sensitive Solutions
dBA	Decibel (A-weighted)
DEIS	Draft Environmental Impact Statement
DGWIA	Detailed Ground Water Impact Assessment
DHPA	Division of Historic Preservation and Archaeology
DHV	Design Hourly Volume
DMMPC	Delaware-Muncie Metropolitan Plan Commission
DOT	Department of Transportation
DPA	District Planning Administrator
EA	Environmental Assessment
EIS	Environmental Impact Statements
EJ	Environmental Justice
EO	Executive Order
ER	Emergency Relief
ESA	Environmental Site Assessment
ESM	Environmental Scoping Manager
EUTS	Evansville Urban Transportation Study

FCIR	Farmland Conversion Impact Rating
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FHWA-IN	Federal Highway Administration, Indiana Division
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FS	Feasibility Study
FTA	Federal Transit Administration
FWPCA	Federal Water Pollution Control Act (1972 – See Section 404)
GIS	Geographical Information Systems
GWIA	Groundwater Impact Assessment
HC	Hydrocarbons
HGM	Hydrogeomorphic
HHEI	Headwaters Habitat Evaluation Index
HUD	United States Department of Housing and Urban Development
IAC	Indiana Administrative Code
IBI	Index of Biological Integrity
IC	Indiana Code
ICI	Invertebrate Community Index
IDEM	Indiana Department of Environmental Management
IDNR	Indiana Department of Natural Resources
IJS	Interchange Justification Study
IMPO	Indianapolis Metropolitan Planning Organization
IMS	Interchange Modification Study
INDOT	Indiana Department of Transportation
INSTIP	Indiana State Transportation Improvement Program
INWRAP	Indiana Wetlands Rapid Assessment Protocol
IP	USACE Section 404 Individual Permit
IR	Indiana Register
ISA	Initial Site Assessments
ISTEA	Intermodal Surface Transportation Efficiency Act
JD	Jurisdictional Determination
KIPDA	Kentuckiana Regional Planning and Development Agency
LEDPA	Least Environmentally Damaging Practicable Alternative
Leq(h)	Equivalent Hourly Sound Level
LOS	Level of Service
LPA	Local Public Agency
LWCF	Land and Water Conservation Fund Act
MACOG	Michiana Area Council of Governments
MIS	Major Investment Study
MOA	Memorandum of Agreement (Agreement with agency outside DOT)
MOT	Maintenance of Traffic

MOU	Memorandum of Understanding (Agreement with another DOT agency)
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NIRCC	Northeastern Indiana Regional Coordinating Council
NIRPC	Northwestern Indiana Regional Planning Commission
NO_2	Nitrogen Dioxide
NOI	Notice of Intent
NO_x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRIS	National Register Information System
NWI	National Wetland Inventory
NWP	USACE Section 404 Nationwide Permit
O_3	Ozone
OES	Office of Environmental Services
OHWM	Ordinary High Water Mark
OKI	Ohio-Kentucky-Indiana Regional Council of Governments
PA	Programmatic Agreement
Pb	Lead
PCN	USACE Section 404 Permit Pre-Construction Notification
PD	Permit Determination
PDP	Project Development Process
PIP	Public Involvement Plan
$PM_{2.5}$ and PM_{10}	Particulate Matter
P&N	Purpose & Need
PS&E	Plans, Specifications & Estimates
PSI	Preliminary Site Investigation
QHEI	Quality Habitat Evaluation Index
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RGP	USACE Section 404 Regional General Permit
ROD	Record of Decision
R/W/ or ROW	Right-of-Way
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy of Users
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SEIS	Supplemental EIS
SHPO	Indiana State Historic Preservation Officer
SIP	State Implementation Plan

SO_2	Sulfur Dioxide
SSA	Sole Source Aquifer
TA	FHWA Technical Advisory
TCM	Transportation Control Measures
TIP	Transportation Improvement Program
TNM	Traffic Noise Model
TP	Transportation Plan
TSM	Transportation Systems Management
UA	Urbanized Area
USACE/ US ACOE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDOI	United States Department of Interior
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey
UTM	Universal Transmercator Grid
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VPD	Vehicles per Day
VPH	Vehicles per Hour
WCIEDD	West Central Indiana Economic Development District
WHPA	Wellhead Protection Area
WQC	Section 401 Water Quality Certificate

C. Web Links

Web Links

General:

FHWA Policies and Procedures Website: http://www.fhwa.dot.gov/indiv/procedur.htm

FHWA Planning, Environment, and Realty Website: http://www.fhwa.dot.gov/environment/index.htm

CE Manual/ CE forms (electronic version): http://www.in.gov/indot/3295.htm

FHWA Environmental Guidebook: http://environment.fhwa.dot.gov/guidebook/index.asp

INDOT Cultural Resources Manual: http://www.in.gov/indot/files/INDOTCulturalResourcesManual08.pdf

FHWA CE Guidance: http://environment.fhwa.dot.gov/projdev/docuce.asp

FHWA EIS Guidance: http://environment.fhwa.dot.gov/projdev/docueis.asp

FHWA Technical Advisory (TA) Appendix B - Notice of Intent:
http://environment.fhwa.dot.gov/projdev/impTA6640.asp#ab

FHWA EA Guidance: http://environment.fhwa.dot.gov/projdev/docuea.asp

FONSI: http://environment.fhwa.dot.gov/projdev/docuFONSI.asp

FHWA NEPA Guidance: http://environment.fhwa.dot.gov/projdev/tdmpdo.asp,
http://www.trb.org/NotesDocs/25-25(1)_FR.pdf

FHWA Guidance on SAFETEA-LU Section 6002: http://www.fhwa.dot.gov/hep/section6002/
http://www.fhwa.dot.gov/hep/section6002/section6002.pdf

Improving the Quality of Environmental Documents:
http://environment.transportation.org/pdf/IQED-1_for_CEE.pdf

Indiana Streamlined EIS Procedures: http://www.fhwa.dot.gov/indiv/eisproc.htm

INDOT Publications: http://www.in.gov/dot/pubs/

AASHTO Practitioner's Handbook, Tracking Compliance with Environmental Commitments/Use of Environmental Monitors: http://www.environment.transportation.org/pdf/PG04.pdf

AASHTO Practitioner's Handbook, Maintaining a Project File and Preparing an Administrative Record for a NEPA Study: http://www.environment.transportation.org/pdf/PG01.pdf

Alternatives:

FHWA's NEPA and Transportation Decisionmaking, Development and Evaluation of Alternatives:
http://environment.fhwa.dot.gov/projdev/tdmalts.asp

FHWA's Development and Evaluation of Alternatives: http://www.fhwa.dot.gov/environment/alts.htm

Questionnaires/ Forms:

NRCS form: http://policy.nrcs.usda.gov/scripts/lpsiis.dll/M/M_440_523_F_CPA-106.pdf

INDOT Aeronautics: www.in.gov/dot/div/envassess/manuals/studies/46_aeronautics.pdf

Coast Guard: www.in.gov/dot/div/envassess/manuals/studies/50_coastguard.pdf

Indiana Geological Survey: www.in.gov/dot/div/envassess/manuals/studies/48_igs.pdf

Forest Service: www.in.gov/dot/div/envassess/manuals/studies/49_forestservice.pdf

IDEM: http://www.in.gov/idem/enviroreview/hwy_earlyenviroreview.html

Environmental Impacts:

FPPA:

http://policy.nrcs.usda.gov/scripts/lpsiis.dll/M/M_440_523.htm

Community Impact Assessment:

http://www.ciatrans.net/

http://www.ciatrans.net/CIA_Quick_Reference/Purpose.html

Environmental Justice:

www.whitehouse.gov/omb/fedreg/ombdir15.html

http://www.fhwa.dot.gov/environment/ejustice/facts/index.htm

http://www.fhwa.dot.gov/environment/ej2.htm

www.archives.gov/federal-register/executive-orders

www.census.gov

Wildlife:

http://www.fhwa.dot.gov/environment/natural.htm

Federal-Aid Eligibility of Wetland & Natural Habitat Mitigation:

http://www.fhwa.dot.gov/environment/wetland/wethabmitmem.htm

Executive Order 13112: http://www.fhwa.dot.gov/environment/020399em.htm

Guidance to Implementing EO 13112:http://www.fhwa.dot.gov/environment/em_inv.htm

EO 13186: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2001_register&docid=fr17ja01-142.pdf

Guidance to Implementing EO 13186: http://www.fhwa.dot.gov/environment/migbird.htm

Federally Threatened/ Endangered Species: http://www.access.gpo.gov/nara/cfr/waisidx_05/50cfr17c_05.html

Wetlands:

33 CFR 328.3(b): http://www.access.gpo.gov/nara/cfr/waisidx_08/33cfr328_08.html

Executive Order (EO) 11990: http://www.epa.gov/owow/wetlands/regs/eo11990.html

DOT Order 5660.1A:

http://nepa.fhwa.dot.gov/ReNEPA/ReNepa.nsf/docs/6749292D98E3C0CD85256FE400731ADF?opendocument&Group=Natural%20Environment&tab=REFERENCE

FHWA: http://www.fhwa.dot.gov/environment/wetland/index.htm

NWI website: http://www.nwi.fws.gov/

Mitigation of Impacts to Wetlands and Natural Habitat:

http://www.access.gpo.gov/nara/cfr/waisidx_08/23cfr777_08.html

Classification of Wetlands and Deepwater Habitat in the United States:

http://www.charttiff.com/pub/WetlandMaps/Cowardin.pdf

Water Body Modification:

http://www.fhwa.dot.gov/environment/natural.htm

Fish and Wildlife Coordination Act of 1958: http://www.fws.gov/laws/laws_digest/FWCOORD.HTML

Section 404: http://www.epa.gov/owow/wetlands/regs/sec404.html

Wild & Scenic Rivers:

IDNR List of Outstanding Rivers: http://www.in.gov/legislative/register/20070530-IR-312070287NRA.xml.pdf

Indirect & Cumulative Impacts: http://ceq.hss.doe.gov/nepa/ccenepa/ccenepa.htm

Section 106/ Section 4(f)

National Register of Historic Places Information System: http://www.nr.nps.gov/

National Register Evaluation Criteria: http://www.achp.gov/nrcriteria.html

Sec. 106 User's Guide: http://www.achp.gov/usersguide.html

36 CFR Part 800: www.achp.gov/regs-rev04.pdf

HABS/HAER documentation: www.memory.loc.gov/ammem/awhhtml/awpnp6/habshaer.html

Section 4 (f) of the USDOT Act of 1966: http://environment.fhwa.dot.gov/projdev/4fregs.asp

FHWA (IN) Section 106 Consultation Procedures: http://www.fhwa.dot.gov/indiv/106proc.htm

Programmatic Agreement regarding the Federal Aid Highway Program in Indiana:

http://www.in.gov/dot/div/pubs/July20MinorProjectsPA.pdf

Qualified Professionals List: http://www.in.gov/dnr/historic/bin/nrqp.pdf

National Park Service:www.cr.nps.gov/local-law/arch_stnds_9.htm

National Register of Historic Places: http://www.cr.nps.gov/nr/about.htm

National Register Information System: http://www.cr.nps.gov/NR/research/nris.htm

Listing of Indiana Counties and Municipalities: http://www.in.gov/dnr/historic/surveymap.html

Sample APE & Preliminary Finding: http://www.sampleAPE&preliminaryfinding.pdf

Historic Landmarks Foundation of IN: http://www.historiclandmarks.org/aboutus/offices.html

County Historian: http://www.indianahistory.org/lhs/historianlist.html

Historical Societies: http://www.indianahistory.org/lhs/societylist.html

Regional Local Preservation Organizations: http://www.historiclandmarks.org/help/IPD/ipdstate.html

Federally Recognized Native American Tribes: http://www.fhwa.dot.gov/indiv/nalist.htm

No Historic Properties Affected: http://www.fhwa.dot.gov/indiv/nhpafndg.htm

No Adverse/ Adverse Effect: http://www.fhwa.dot.gov/indiv/hpafndg.htm

FHWA 4(f) Guidance: http://environment.fhwa.dot.gov/guidebook/chapters/v2ch15.htm

FHWA's Section 4(f) Policy Paper: http://environment.fhwa.dot.gov/projdev/4fpolicy.asp

D. INDOT Districts

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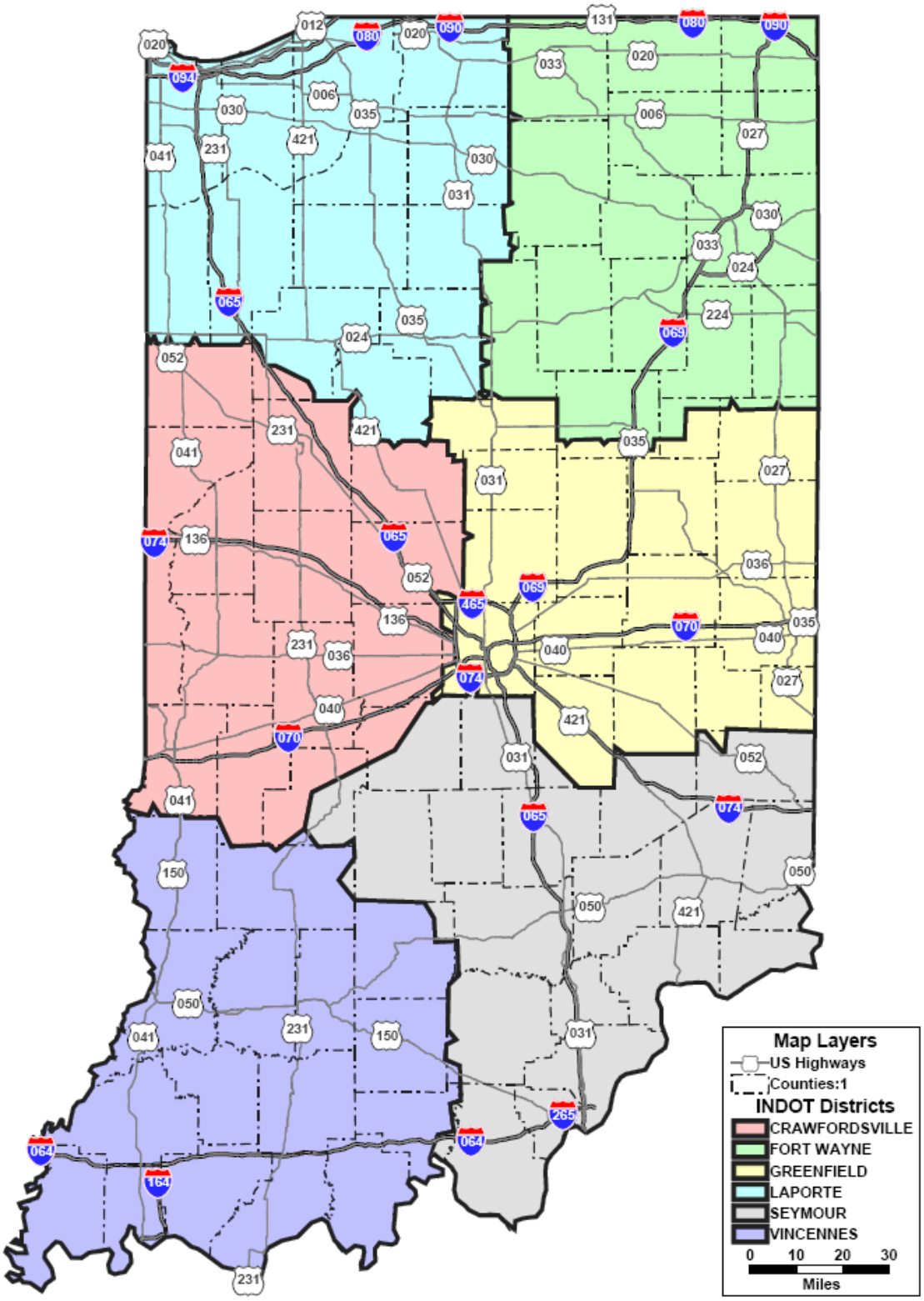
Email: wdittelberger@indot.in.gov

INDOT DISTRICT MAP



E. Project Development Process Flowcharts

Indiana Department of Transportation (TOP DOT)

Project Development Process (PDP) for Minor Projects

START

Maintenance

Stakeholder/Public Involvement

Step 1

Develop Purpose and Need
-Kick-off meeting
-Technical Analysis
-Property Owner Notification
-Prepare Purpose and Need
-Collect Data and Analyze
65 days

Step 2

Determine Scope, Schedule and Budget
-Develop Project scope
-Update Estimated Project cost
-District Concurrence
-Develop Public Involvement Plan
62 days

Step 3

Perform Environmental Analysis and Begin Preliminary Engineering
-Ground or Aerial Survey
-Preliminary Engineering
-Environmental Field Studies
-Utility/Railroad coordination
-Public Information meetings
-Evaluate Consultant
1037 days

Step 4

Prepare Environmental Clearance and Develop Stage 1 Design
-Environmental Field Studies
-Develop Stage 1 Detailed Design
-Design Field Check Review
-Utility Coordination Begins
-Detailed Design Review
148 days

Step 5

Develop Stage 2 Detailed Design
-Public Utility prepares relocation plans
-INDOT Review of plans
-Prepare Preliminary Right-of-Way plans
-Public Information meetings
-Stage 2 Design Review
195 days

Step 6

Prepare Final Right-Of-Way Plans
-Prepare plans
-Review final plans
-Prepare Utility agreements
-Agreement Approval
120 days

Step 7

Begin Land Acquisition
-Verify Right-of-Way Activities
-Submit Funding authorization to FHWA
-Prepare Appraisals
-Purchase Right-of-Ways
-Relocation Assistance
-Condemnation
-R/W Clearance and Certification
Record Deeds
455 days

Step 8

Develop State 3 Design
-Prepare Stage 3 design plans
-Stage 3 design review
-Final Field Check
-Public Information meeting
120 days

Step 9

Prepare Final Plan Package
-Prepare Final Construction Cost Est.
-Final special provisions
-Final tracings
-Final Document review
-Project Float Time Reservoir
-Submit documents to Contracts Division
116 days

Indiana Department of Transportation (TOP DOT)

Project Development Process (PDP) for Major Projects

START

Step 0
System Planning Analysis
Project Identification
Draft Purpose and Need

To STEP 14
CONTRACTS DIVISION
BID LETTING

Step 1

PROFESSIONAL SERVICES
Advertise RFP
Review and Evaluate RFP Responses
Recommend/Approval RFP Selections
Contract Negotiations
Agreement Preparation
Agreement Approval and Signatures
PO Number Assigned
Issue Notice to Proceed
(135 DAYS)

Step 2

CONDUCT RESEARCH AND TECHNICAL STUDIES
Initial Technical Analysis
Confirm Study Area and Project Termini
Conduct Red Flag Summary
Develop Draft Purpose and Need Statement
Contact Resource Agencies
Initiate NEPA with FHWA
GIS Research
Collect Traffic Data and Analyze
(120 DAYS)

Step 3

Identify and Evaluate Conceptual Solutions
Develop Conceptual Solutions
Analyze Conceptual Solutions
Perform Screening & Eliminate Solutions
Develop Feasible Conceptual Solutions
Hold Public Information Meetings
Initiate Resource Agency Consultation
Revise Purpose and Need Statement
IPOC Concurrence
(97 Days)

Step 4

Develop Preliminary Alternatives
Perform Engineering Studies
Perform Environmental Field Studies
Analyze and Screen Preliminary Alternatives
Hold Public Information Meetings
Resource Agency Consultation
Select Feasible Alternatives
(126 Days)

Step 5

Refine Feasible Alternatives
Develop Design Elements
Environmental Assessment
Prepare Draft Environmental Document
Hold Constructability / Operations Review
Analyze and Screen Feasible Alternatives
Select Preferred Alternative
Publish and Distribute Draft Environmental Document
Hold Public Hearing
IPOC Concurrence
(241 Days)

Step 6

Develop Preferred Alternative – Stage 1 Design (0-30%)
Ground or Aerial Survey
Perform Subsurface Investigation
Pavement Design Requested and Received
Complete Environmental Activities
Complete 404/401 Permit Determination
Design Exception Approval
Detailed Value Engineering
Detailed Constructability Review
(339 Days)

Step 7

Develop Stage 2 Design (30-60%)
Develop Stage 2 Design Plans
Complete Draft Waterway Permit Applications
Complete Phase 2 Environmental Assessment
Prepare Final Environmental Document
Hold Public Information Meeting
Utility Relocation Plans Prepared
(194 Days)

Step 8

Environmental Approval
Publish and Distribute Final Environmental Document
Obtain FONSI or Record of Decision (ROD)
Publish and Distribute FONSI or ROD in Federal Register
(187 Days)

Step 9

Prepare Final Right-of-Way Plans
Prepare Final Right-of-Way Plans
Prepare Utility Agreements
Utility Agreements Approved
(105 Days)

Step 10

Begin Land Acquisition
Submit Funding Authorization to FHWA
Appraisal Problem Analysis
Prepare Appraisals
Purchase Right-of-Way
Relocation Assistance
Condemnation
Right-of-Way Clearance
Record Deeds
(454 Days)

Step 11

Develop Stage 3 Design (60-90%)
Prepare Stage 3 Design Plans
Complete Final Waterway Permit Applications
Final Field Review
Hold Public Information Meeting
(150 Days)

Step 12

Prepare Final Plan Package
Prepare Final Construction Cost Estimate
Prepare Final Special Provisions
Prepare Final Tracings
Project Submitted To Contracts Division
(101 Days)

Stakeholder/Public Involvement

STEP 3
Public Information Meeting
Purpose and Need

IPOC Concurrence Point 1
Purpose and Need

STEP 4
Public Information Meeting
Feasible Alternatives

IPOC Concurrence Point 2
Preferred Alternative

STEP 5
Public Hearing
Draft Environment Document

Stakeholder/Public Involvement

STEP 7
Public Information Meeting
45% Design Plans / Context Sensitive Solutions

STEP 11
Public Information Meeting
85% Design Plans / Context Sensitive Solutions

F. CE-EA Document Form

Please see the *Indiana Categorical Exclusion Manual* on the INDOT web site (http://www.in.gov/indot/3295.htm) for the current version of the CE/EA Form.

G. Commitments Summary Form

SUMMARY OF COMMITMENTS

Des. No.	
Project No.	
County	
Description	

Committed Items to be Implemented

Committed Items Not to be Implemented	Reason for Not Implementing

Office of Environmental Services Commitments by	
Production Mgmt. Evaluation or Modification/Update by	
Real Estate Evaluation or Modification/Update by	
Final Design Evaluation and Preparation for Construction by	
All Commitments Incorporated into the Project (PS & E)	

H. Sample Commitments Summary Form

SUMMARY OF COMMITMENTS

Des. No.	0301159
Project No.	STP-9929 (042)
County	Hamilton
Description	New trial construction along Monon and Midland Trace abandoned rail corridors

Committed Items to be Implemented
1. Avoid and minimize impacts to the forested wetlands and riparian corridors within the proposed project area. (Firm)
2. Implement temporary erosion and siltation control devices such as placement of silt fence, rock check dams in drainage ways and ditches, and covering exposed areas with erosion control materials. (Firm)
3. Use native trees and shrubs in the plantings along the proposed trail to compensate for impacts to upland forest. Re-vegetate all disturbed soil areas immediately upon project completion. (Firm)
4. Disturb as narrow an area as possible to help minimize negative impacts to fish, wildlife, and botanical resources. (Firm)
5. An archaeological field reconnaissance was completed for the project by a professional archaeologist, and revealed no significant archaeological sites. Therefore, no additional investigations are required. 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 all work must immediately stop and the discovery must be reported to the Department of Natural Resources within two (2) business days. (Firm)
6. The project should be designed to minimize any impact on ambient air quality in or near the project area. The project must comply with all federal and state air pollution regulations. (Firm)
7. Reasonable precautions must be taken to minimize fugitive dust emissions from construction activities. (Firm)
8. The designers shall coordinate with the Local Flood Plain Administrator during the design phase to ensure consistency with the local flood plain planning. (Firm)
9. Post DO NOT DISTURB signs at the construction zone boundaries and do not clear trees or understory vegetation outside the boundaries. (For further consideration)
10. Consider an alternative alignment that will require only one bridge across the Anna Kendall Drain at a less environmentally sensitive site. (For further consideration)
11. Do not focus only on the direct impact of the trail's width; also consider the trail's impact to the surrounding habitat. (For further consideration)
12. Align a trail along or near an existing man-made edge rather than routing a trail through a larger undisturbed area. (For further consideration)
13. Make use of previously disturbed or degraded areas that have potential to be restored or enhanced by trail construction, rather than impacting a previously undisturbed area. (For further consideration)

Committed Items to be Implemented
14. Avoid unnecessary stream crossings and perpendicular fragmentation of riparian areas. (For further consideration)
15. Avoid or screen sensitive wildlife habitat and ecological resources that could be altered as a result of trail construction. (For further consideration)
16. Pathway lighting should be the lowest wattage available in environmentally sensitive areas and should be turned down or off during low use or no use periods. (For further consideration)
17. Any plantings in environmentally sensitive areas should be locally native species, no exotic or horticultural varieties. (For further consideration)
18. All solid waste generated by the project or removed from the project site should be taken to a properly permitted solid waste processing or disposal facility. (For further consideration)

Office of Environmental Services Commitments by	
Production Mgmt. Evaluation or Modification/Update by	
Real Estate Evaluation or Modification/Update by	
Final Design Evaluation and Preparation for Construction by	
All Commitments Incorporated into the Project (PS & E)	

I. State EA Form

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Indianapolis, Indiana 46204

Predicted Dates:
Commencement:
Completion:

Projected Cost:

Preparing Body (i.e. Agency, Grantee, Contractor):

I. Background Information

1. Give a brief description of the proposed actions(s) and describe how your agency is involved in the action.

2. Describe the geographical area or areas which will be affected by the action(s), including distinguishing natural and man-made characteristics and a brief description of the present use of the area or areas.

II. Assessment of Environmental Impact

Answer the following questions by placing a check in the appropriate space; consider both short and long term impact. Wherever "yes" is checked, indicate on the lines below the question the nature of the effect.

	Short Term		Long Term	
	Yes	No	Yes	No
1. Could the action(s) adversely affect the use of a recreational area or area of important aesthetic value?				

_____
_____
_____

	Short Term		Long Term	
	Yes	No	Yes	No
2. Are any of the natural or man-made features which may be affected in the area(s) unique; that is, not found in other parts of the state or nation?				

_____
_____
_____

	Short Term		Long Term	
	Yes	No	Yes	No
3. Could the action(s) adversely affect an historical or archaeological structure or site?				

4. Could the action(s) adversely affect fish, wildlife, or plant life?

Short Term		Long Term	
Yes	No	Yes	No

5a. Have any fish, mammals or plant species on the rare or endangered list been sited (*sic*) in the affected area(s)?

Short Term		Long Term	
Yes	No	Yes	No

5b. Will those sighted (*sic*) be adversely affected?

Short Term		Long Term	
Yes	No	Yes	No

6. Could the actions(s) change existing features of any of the state's fresh waters or wetlands?

Short Term		Long Term	
Yes	No	Yes	No

	Short Term		Long Term	
	Yes	No	Yes	No
7. Could the action(s) change existing features of any of the state's beaches?				

	Short Term		Long Term	
	Yes	No	Yes	No
8. Could the action(s) result in the elimination of significant acreage of land presently utilized for agricultural or forestry purposes?				

	Short Term		Long Term	
	Yes	No	Yes	No
9. Will the action(s) require certification, authorization or issuance of a permit by any local, state or federal environmental control agency?				

	Short Term		Long Term	
	Yes	No	Yes	No
10. Will the action(s) involve the application, use or disposal of potentially hazardous materials?				

11. Will the action(s) involve construction of facilities in a flood plain?	Short Term		Long Term	
	Yes	No	Yes	No

12. Could the action(s) result in the generation of a significant level of noise?	Short Term		Long Term	
	Yes	No	Yes	No

13. Could the action(s) result in the generation of significant amounts of dust?	Short Term		Long Term	
	Yes	No	Yes	No

14. Could the action(s) result in a deleterious effect on the quality of the air?	Short Term		Long Term	
	Yes	No	Yes	No

	Short Term		Long Term	
	Yes	No	Yes	No
15. Could the action(s) result in a deleterious effect on the quality or quantity of any portion of the state's water resources? (If yes, indicate whether surface, ground water, offshore.)				

_____

_____

_____

	Short Term		Long Term	
	Yes	No	Yes	No
16. Could the action(s) affect an area of important scenic value?				

_____

_____

_____

	Short Term		Long Term	
	Yes	No	Yes	No
17. Could the action(s) result in increased congestion and/or traffic in an already congested area or in an area incapable of absorbing increase?				

_____

_____

_____

	Short Term		Long Term	
	Yes	No	Yes	No
18. Could the action(s) require a variance from or result in a violation of any statute, ordinance, by-law, regulation or standard, the major purpose of which is to prevent or minimize damage to the environment?				

_____

_____

_____

	Short Term		Long Term	
	Yes	No	Yes	No
19. Could the action(s) result in any form of adverse environmental impact not included in the above questions? (If yes, identify the impacted resource or area)				

_____
_____
_____

III. Statement of No Significant Environmental Effects

A "Yes" answer in the "Long Term" column in section II indicates that the action may cause significant environmental impact, and that an EIA will probably be required. If you have answered "Yes" to any of the questions, the effect of which is not clearly beneficial, but still think the action will cause no significant adverse environmental impact indicate your reasons below.

IV. Conclusions

Place a check in the appropriate box.

1. ( ) It has been determined that the action will not cause a significant adverse environmental impact. No EIS will be prepared.
2. ( ) It has been determined that the action may cause a significant adverse environmental impact. An EIS will be prepared by_____ (approx. date)

Signature of Preparing Officer _____

Title _____

Address _____

Telephone _____

J. EIS Distribution List

Distribution of various documents in the Environmental Impact Statement (EIS) development process

Last Updated November 16, 2006

IMPORTANT NOTES

The EIS development process includes the publication of various reports in order to seek public and agency feedback. This document provides guidance on the process that consultants are to use in distributing these reports.

Mailing to the Washing D.C. area – All mailings to addresses in the Washington, D.C. area must be sent by UPS or FedEx. The U.S. Postal Service must conduct anti-biological attack screenings and irradiate packages sent to Federal offices in the Washington D.C. area. UPS and FedEx are not required to conduct this screening, and are therefore more timely carriers. In addition, the irradiation process can potentially damage CD-ROMs and make mailing labels unreadable.

Assembling and mailing packages – The INDOT consultant is responsible for assembling the EIS packages and arranging for delivery.

Final Distribution List – The INDOT EIS consultant will use the distribution table below and addresses that follow in developing the distribution list for each respective report. Before mailing, INDOT will review the final distribution list to verify accuracy. Once INDOT approves the distribution list, the consultant will ensure that both INDOT and FHWA receive an electronic version of the final distribution list for their records. The distribution list will include:

(1) complete addresses to whom reports will be mailed, including those not shown below in the list of addresses (such as libraries);
(2) number of copies of the report to be sent; and
(3) form(s) that will be sent to them (link to document on the web, CD-ROM, Summary, and/or Hardcopy).

Updating distribution table and addresses – INDOT and FHWA will periodically contact the listed agencies to verify:

(1) the address to send packages,
(2) the number of copies generally needed of each package,
(3) what form(s) of the document would be acceptable, and
(4) individual's name and contact information to verify (1) - (3).

Transmittal Correspondence – Generally, INDOT will provide the transmittal letter for the reports, with a few exceptions. The FHWA Indiana Division will supply the transmittal correspondence for all DEISs, FEISs, and RODs sent to the EPA Office of Federal Activities (in letter format) and FHWA offices outside Indiana (in memorandum format). INDOT's Office of Environmental Services (and the Indiana Division, if DEIS, FEIS, or ROD) will prepare the transmittal correspondence and provide them electronically to the consultant.

Draft EISs and Final EISs

Distribution list in DEIS and FEIS – Although distribution is made in accordance with this guidance, please do not include the FHWA Indiana Division office in the distribution lists in DEISs and FEISs.

Federal Notice Process – The EPA Office of Federal Activities will publish a "Notice of Availability" in the Federal Register upon receipt of a DEIS or FEIS. The date that this notice appears in the Federal register is the beginning of the period that an EIS must be available for review. (This day can be considered as Day 1.) EPA publishes notices in the Federal Register on Fridays. In order for a notice to be published on a particular Friday, the EPA Office of Federal Activities must receive their EISs by the previous Friday.

All distribution at same time – EIS distribution to all parties must be made when the EPA Office of Federal Activities are sent their copies. They periodically check with recipients listed in the distribution list in the EIS to verify that they actually received their EIS. If not, the EPA will not publish the notice. This delay in publishing the notice could require an extension in the comment period deadline. This extension would require another Federal Register notice.

Assemble EPA copies of EISs – The EPA Office of Federal Activities requires that all hardcopies of EISs that are sent to them to be completely assembled and ready for reading in bindings (i.e., if report is in a binder, then contents should be completely assembled and NOT shrink-wrapped). EPA told FHWA that this is required because the Office of Federal Activities receives so many EISs each day that it would be a staffing burden for them to have to do the assembly. On one occasion, EPA threatened to not publish the notice until someone came to their office to assemble the reports that had each been shrink-wrapped.

FEIS Distribution – FHWA NEPA regulations require that "the FEIS shall be transmitted to any persons, organizations, or agencies that made substantive comments on the DEIS or requested a copy". See 23 CFR 171.125(g). Agencies and organizations should receive a CD-ROM or hardcopy, as noted in table below, however it is appropriate to provide to individuals a website link where the report can be found and to offer a CD-ROM, if requested.

Distribution of various reports in EIS Development Process

Agency/Organization/Party	ECL	P&N	ALT. SCR.	DEIS	PAMP	FEIS	ROD
Federal Agencies							
FHWA – Indiana Division Office	1H	2H	2H	2H 2C	2H	2H 2C	2H 2C
FHWA – Legal				1H		1H 1C	1H 1C
FHWA – Resource Center				1C		1C	1H 1C
FHWA – Office of NEPA Facilitation				1C		1C	1H 1C
USEPA – Office of Federal Activities				5H		5H 5C	1H 1C
USEPA – Chief of NEPA Implementation Section				3H		3H 3C	1H 1C
USDOI – Office of Environmental Policy and Compliance				1H 11C L		1H 5C L	1H 1C L
USDOI/NPS – Regional Director				1C		1C	1C
USDOI/FWS – Field Supervisor Bloomington Field Office				1H		1C	1C
USDOI/FWS – Field Supervisor Northeast Field Office						1C	1C
ACOE – Chief, Environmental Branch				1H		1H 1C	1C
ACHP – Director				1H		1H 1C	1H 1C
USDA – Under Secretary Natural Resources and Environment				2H		2H 2C	1H 1C
USDA – State Conservationist, Natural Resources Conservation Service				1H		1C	1C
USDA – District Conservationist, County Field Office(s) Natural Resources Conservation Service				1H		1H1 C	1H 1C
USDOE – Office of NEPA Policy & Compliance				1H		1C	1H
USDOC – Director, Office of Policy and Strategic Planning				1H		1H 1C	1H 1C
USDOC- National Oceanic & Atmospheric Administration						2C	1C
FEMA – Region 5 Director				1H		1C	1C
USHUD – Area Director *(Local Field Office)*				1H		1C	1C
USHUD – Chicago Regional Director				1H		1H 1C	1H 1C
UCCG – Coast Guard							

CDC – Director Center for Environmental Health & Injury Control				1H		1H 1C	1H
FAA – Environmental Specialist , Great Lakes Region	1H	na	na	1C	1C	1C	1C
FRA – Office of Economic Analysis				1H		1C	1C
US Coast Guard						1C	1C
State Agencies							
INDOT – Manager Public Hearings Section				3H		3H 3C	1H 1C
INDOT – Mgr. Structural Services				2H		1H 1C	1H 1C
INDOT- Mgr. Roadway Services						1H 1C	1H 1C
INDOT – Administrator of Environmental Policy Section				5H 5C		20 H 50 C	10 H 10 C
INDOT – Manager, Office of Aviation Division				1C		1H 1C	1H 1C
INDOT – District Deputy Commissioner				1H		1C	1C
INDOT- Dist. System Assessment Mgr.						1H 1C	1H 1C
INDOT- Dist. Director of Planning & Programming						1C	1C
IDEM – Legislative Liaison				1H		1H 1C	1H 1C
IDEM- Office of Water Quality						1H 1C	1H 1C
Indiana AG – Deputy Attorney General				1H		2C	2C
IDOH – Commissioner				1H		1C	1C
IDNR – Commissioner				1H		1H 1C	1H 1C
IDNR – Environmental Coordinator Division of Fish and Wildlife				1H		1H 1C	1H 1C
IDNR – Division of Historic Preservation and Archaeology				1H		1C 1C	1C
IGS – Environmental Section Head				1C		1H 1C	1H 1C
Federal, State and Local Officials							
Federal Elected Representatives				1C		1C	
State Elected Representatives				1C		1C	
County Elected Officials (Commissioners)				1C		1C	1C
Township Elected Officials				1C		1C	
County Health Department Administrator				1C		1C	
County Plan Commission				1H		1H	
County Highway Engineer				1H		1H	1H 1C
Area Chamber of Commerce				1C		1C	
Area Fire Chief(s)				1C		1C	
County Emergency Management				1C		1C	

County Sheriff				1C		1C	
Area Airports				1C		1C	
City Department of Development				1H		1H	
City Elected Official(s)				1C		1C	1C
City Police Chief				1C		1C	
Study Area Public Libraries (each)				2H		2H 2C	1H 1C
City Parks				1C		1C	
MPO'S						1H 1C	1H 1C
Other							
CAC Members				1C		1C	
SECTION 106 Consulting Parties				1C		1C	1C
Schools (potentially impacted)						1H 1C	

Legend

L - Link to Document on the Web
C – CD-ROM
S – Summary
H – Hard Copy
na – not applicable, ie., no review desired

CONTACT INFORMATION

Listed below are addresses to whom to send reports. Also listed is contact information to verify mailing address, number of copies of each report, and what form of each report to send. Please note that for some recipients, only certain listed offices need to receive reports, (eg., only applicable Army Corps of Engineers District office).

Federal Agencies

FHWA – Federal Highway Administration

To confirm address, number of copies and form for all FHWA mailings: Robert Dirks, 317-226-7492 or robert.dirks@fhwa.dot.gov. Although distribution is made in accordance with this guidance, please do not include the FHWA Indiana Division office in the distribution lists in DEISs and FEISs.

Federal Highway Administration
Indiana Division Office
575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204
I-69 Tier 2 EISs – Attn: Mr. Tony DeSimone
All other EISs – Attn: Mr. Larry Heil

Federal Highway Administration
Legal Division
19900 Governor's Dr., Suite 301
Olympia Fields, IL 60461
Attn: Mr. Ron Moses

Federal Highway Administration
Resource Center
19900 Governor's Dr., Suite 301
Olympia Fields, IL 60461
Attn: Mr. Paul Tufts

Federal Highway Administration
Office of NEPA Facilitation, HEPE-1
400, 7th Street Southwest
Washington, D.C. 20590
Attn: Mr. Kreig Larson

USEPA – US Environmental Protection Agency

US Environmental Protection Agency
Office of Federal Activities
Ariel Rios Building (South Oval Library)
Mail Code 2251-A, Room 7220
1200 Pennsylvania Avenue, Northwest
Washington, D.C. 20460
Attn: Ms. Pearl Young

US Environment Protection Agency, Region 5
77 West Jackson, Boulevard B-19J
Chicago, Illinois 60604-3590
Attn: Mr. Ken Westlake Chief of NEPA Implementation Section

USDOI – US Department of the Interior

US Department of the Interior
Office of Environmental Policy and Compliance
Main Interior Building, MS 2342
1849 C Street, Northwest
Washington, D.C. 20240
Attn: Mr. Willie R. Taylor

US Department of Interior
National Parks Service
1709 Jackson Street
Omaha, Nebraska 68102
Attn: Mr. Ernest Quintana, Regional Director

US Department of Interior
Fish & Wildlife Service
Bloomington Field Office
620 South Walker Street
Bloomington, Indiana 47403
Attn: Mr. Scott Pruitt, Field Supervisor

US Department of the Interior
Fish & Wildlife Service
Northeast Field Office
P.O. Box 2616
Chesterton, IN 46304
Attn: Elizabeth McCloskey

USACOE – US Army Corps of Engineers

Only send reports for to the applicable district office. See map of the Great Lakes and Ohio River Division (http://www.lrd.usace.army.mil/) for applicable office.

US Army Corps of Engineers
Louisville District
600 Dr. Martin Luther King Jr. Place
Louisville, Kentucky 40202
Attn: Col. Raymond G. Midkiff, District Engineer

US Army Corps of Engineers
Chicago District
111 N. Canal St, Suite 600
Chicago, IL 60606-7206
Attn: Col. Gary E. Johnston, District Engineer

US Army Corps of Engineers
Detroit District
477 Michigan Avenue
Detroit, MI 48231
Attn: Mr. Les Weigum, Chief, Environmental Branch

* Regional Field Office may become involved

ACHP – Advisory Council on Historic Preservation

Advisory Council on Historic Preservation
1100 Pennsylvania Avenue, NW, Rm. 809
Washington, D.C. 20004
Attn: Ms. Carol Legard, FHWA Liaison

USDOA – US Department of Agriculture

US Department of Agriculture
Natural Resources and Environment
1400 Independence Avenue
Whitten Building, Room 217E
Washington, D.C. 20250-0108
Attn: Mr. Mark Rey, Under Secretary

US Department of Agriculture
Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, Indiana 46278
Attn: Ms. Jane Hardisty, State Conservationist

USDOE – US Department of Energy

US Department of Energy
Office of NEPA Policy & Compliance, Room 4G-064
EH 42
1000 Independence Avenue, SW
Washington, D.C. 20585
Attn: Ms. Carol Borgstrom, Director

USDOC – US Department of Commerce

US Department of Commerce
Office of Policy and Strategic Planning
HCHB, Room 6121
14th and Constitution Avenue, NW
Washington, D.C. 20230
Attn: Director

US Department of Commerce
National Oceanic and Atmospheric Administration
1315 East West Highway SSMC3, Rm. 15723 (PPI/SP)
Silver Spring, MD 20910
Attn: Mr. Steve Kokkinakis, NEPA Coordination & Compliance
To confirm address, number of copies and form for all USDOC-NOAA mailings: (301)713-1622

FEMA – Federal Emergency Management Agency

Federal Emergency Management Agency
Region 5
536 South Clark Street, 6th Floor
Chicago, Illinois 60605
Attn: Mr. Edward Buikema, Regional Director
To confirm address, number of copies and form for all FEMA mailings: (312)408-5504

USHUD – US Department of Housing & Urban Development

US Department of Housing & Urban Development
Indiana Field Office
151 North Delaware Street
Indianapolis, Indiana 46204
Attn: Mr. John Hall, Field Office Director
To confirm address, number of copies and form for all USHUD-Indianapolis mailings: (317)226-6303, ext. 7043

US Department of Housing & Urban Development
Chicago Regional Office
Ralph Metcalfe Federal Building
77 West Jackson Boulevard, Ste. 2608
Chicago, Illinois 60604-3507
Attn: Mr. Joseph Galvan, Regional Director
To confirm address, number of copies and form for all USHUD-Chicago mailings: (312)353-5680

US Coast Guard

US Coast Guard
1222 Spruce Street
St. Louis, MO 63103
Attn: Commander OBR

CDC – Center for Disease Control

Center for Disease Control
Center for Environmental Health & Injury Control
Special Programs Group
1600 Clifton Road, MS D-14
Atlanta, Georgia 30333
Attn: Ms. Julie Gerberding, Director

FAA - Federal Aviation Administration

Federal Aviation Administration
Great Lakes Region
2300 East Devon Avenue
Des Plaines, Illinois 60018
Attn: Christopher R. Blum, Regional Administrator, AGL-1

FRA – Federal Railroad Administration

Federal Railroad Administration
Office of Railroad Development (RDV-13)
1120 Vermont Avenue, NW 7th Floor
Washington, D.C. 20005
Attn: Mr. Paul Montague, Passenger Programs Division Chief

State Agencies

INDOT – Indiana Department of Transportation

Central Office:

Indiana Department of Transportation
Public Hearings Section
100 North Senate Avenue, Rm. N955
Indianapolis, Indiana 46204
Attn: Mr. Rickie Clark, Manager

Indiana Department of Transportation
Office of Aviation
100 North Senate Avenue
Room N955, IGC North
Indianapolis, Indiana 46204
Attn: Mr. James Keefer, Manager

Indiana Department of Transportation
Office of Environmental Services
100 North Senate Avenue, Room N642
Indianapolis, Indiana 46204
Attn: Mr. Ben Lawrence, Administrator

Indiana Department of Transportation
Division of Production Management
100 N. Senate Avenue, Room N642
Indianapolis, IN 46214
Attn: Ms. Anne Rearick, Manager
Structural Services

Indiana Department of Transportation
Division of Production Management
100 N. Senate Ave, Rm N642
Indianapolis, IN 46214
Attn: Mr. John Wright, Manager, Roadway Services

District Office:

Provide a copy of each report to the following individuals in each appropriate district office:
District Director of Planning & Programming
District Deputy Commissioner
District System Assessment Manager

IDEM – Indiana Department of Environmental Management

Indiana Department of Environmental Management
100 North Senate Avenue, MC 50-02
IGCN Rm. 1342
Indianapolis, Indiana 46204
Attn: Mr. Eric Levenhagen, Legislative Liaison
To confirm address, number of copies and form for all IDEM mailings: (317)232-8603

IAG – Office of Attorney General

Office of Attorney General
302 West Washington Street, IGC South, 5th Floor
Indianapolis, Indiana 46204
Attn: Mr. Dick Melfi and Mr. Tim Junk, Deputy Attorney Generals (1C each)
To confirm address, number of copies and form for all IAG mailings: (317)232-6201

IDOH – Indiana State Department of Health

Indiana State Department of Health
2 North Meridian Street, 3rd Floor
Indianapolis, Indiana 46204
Attn: Ms. Judith Monroe, Commissioner
To confirm address, number of copies and form for all IDOH mailings: (317)233-1325

IDNR – Indiana Department of Natural Resources

Indiana Department of Natural Resources
402 West Washington Street
Room W256, IGC South
Indianapolis, Indiana 46204
Attn: Mr. Kyle Hupfer, Commissioner

Indiana Department of Natural Resources
Division of Fish and Wildlife
402 West Washington Street
Room W273
Indianapolis, Indiana 46204
Attn: Ms. Christie Stanifer, Environmental Coordinator

Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology
402 West Washington Street, Room W274
Indianapolis, Indiana 46204
Attn: Ms. Karie Brudis, Senior Structures Reviewer

IGS – Indiana Geological Survey

Indiana Geological Survey
611 North Walnut Grove
Bloomington, Indiana 47405
Attn: Nancy Hasenmueller, Environmental Section Head

Federal, State and Local officials

Copies should also be sent to Federal and State legislators (house and senate) representing the project area. Current legislative maps should be reviewed to determine the appropriate offices to receive the document.

Other

All Substantive Commenters on DEIS get copy of FEIS on CD.
All Substantive Commenter on FEIS get copy of ROD on CD.

K. List of MPOs

Indiana Metropolitan Planning Organizations (MPOs)

Madison County Council of Governments (MCCOG)

Anderson --
Madison County

Jerrold Bridges--Executive Director; Pete Mitchell--Chief Transportation Planner
Madison County Council of Governments
County Government Center
16 East 9th Street, Room 100
Anderson, IN 46016
765-641-9482 Fax: 765-641-9486
Email: jbridges@mccog.net
www.mccog.net

Bloomington Area Transportation Study (BATS)

Bloomington --
Monroe County

Tom Micuda--Planning Director; Josh Desmond--Assistant Director
Patrick Martin--Senior Transportation Planner
City of Bloomington Area Planning Department
P.O. Box 100
Bloomington, IN 47401-0100
812-349-3423 Fax: 812-349-3535
Email: micudata@bloomington.in.gov
www.bloomington.in.gov/planning

Evansville MPO

Evansville--
Vanderburgh County, Warrick County, Posey County, Gibson County, Henderson County (Kentucky)

Brad Mills--Executive Director, Seyed Shokouhzadeh--Chief Transportation Planner
1 Northwest Martin Luther King Boulevard
Civic Center Complex, Room 316
Evansville, IN 47708
812-436-7833 Fax: 812-436-7834
Email: bmills@evansvillempo.com; sshokouhzadeh@evansvillempo.com
www.evansvillempo.com

Columbus Area Metropolitan Planning Organization (CAMPO)

Columbus--
Bartholomew County

Kent Anderson--Director

123 Washington St.
Columbus, IN 47201
812-376-2502 Fax: 812-376-2643
Email: kanderson@campo.in.gov
www.campo.in.gov

Northeastern Indiana Regional Coordinating Council (NIRCC)

Fort Wayne--
Allen County, DeKalb County, Wells County, Adams County

Dan Avery--Executive Director
Room 630 City – County Building
1 Main Street
Fort Wayne, IN 46802
260-449-7309 Fax: 260-449-7682
Email: dan.avery@co.allen.in.us

Indianapolis Metropolitan Planning Organization (IMPO)

Indianapolis--
Marion County, Hamilton County, Hendricks County, Johnson County, Boone County, Hancock County, Morgan County, Shelby County

Mike Dearing--Manager; Philip Roth--Assistant Manager
Suite 1821, City County Building
200 East Washington Street
Indianapolis, IN 46204-3310
Dearing: 317-327-5139 Email: mdearing@indygov.org
Roth: 317-327-5149 Email: proth@indygov.org
Fax: 317-327-5103
www.indygov.org/indympo

Kokomo-Howard County Governmental Coordinating Council (KHCGCC)

Kokomo--
Howard County

Larry Ives--Director; Gene Ferguson--Transportation Planner
120 E. Mulberry Street, Suite 116
Kokomo, IN 46901
765-456-2336 Fax: 765-456-2339
Email: khcgcc@aol.com
www.kokomompo.com

Layfayette (TCAPC)

Lafayette--
Tippecanoe County

Sallie Dell Fahey--Executive Director
Area Plan Commission of Tippecanoe County
20 North Third Street
Lafayette, IN 47901-1209
765-423-9242 Fax: 765-423-9154
Email sfahey@tippecanoe.in.gov
http://www.tippecanoe.in.gov/apc/

Kentuckiana Regional Planning and Development Agency (KIPDA)

Louisville--
Clark County, Floyd County (Indiana)
Bullitt County, Oldham County, Jefferson County (Kentucky)

Jack Scriber--Executive Director; Harold Tull--Transportation Director;
Mary Lou Hauber--Transportation Planner
11520 Commonwealth Drive
Louisville, KY 40299
502-266-6084 Fax: 502-266-5047
Email: jack.scriber@ky.gov; harold.tull@ky.gov; Marylou.hauber@ky.gov
www.kipda.org

Delaware-Muncie Metropolitan Plan Commission (DMMPC)

Muncie--
Delaware County

Marta Moody--Executive Director; Hugh Smith--Principal Transportation Planner
Delaware County Building, Room 206
100 West Main Street
Muncie, IN 47305-2827
765-747-7740 Fax: 765-747-7744
Email: mmoody@co.delaware.in.us; hsmith@co.delaware.in.us
http://www.co.delaware.in.us/Departments/PlanCommission2/INDEX.HTM

Northwest Indiana Regional Planning Commission (NIPRC)

Northwest--
Lake County, Porter County, LaPorte County

John A. Swanson--Executive Director; Ken Dallmeyer--Director of Transportation Planning; Steve Strains--Director of Transportation Development
6100 Southport Road
Portage, IN 46368-6409
219-763-6060 Fax: 219-762-1653
Email: jswanson@nirpc.org; sstrains@nirpc.org; kdallmeyer@nirpc.com
www.nirpc.org

Michiana Area Council of Governments (MACOG)

South Bend, Elkhart--
Elkhart County, St. Joseph County, Marshall County

Sandi Seanor--Executive Director
1120 County-City Building
227 West Jefferson Boulevard
South Bend, IN 46601
574-287-1829 Fax: 574-287-1840
Email: macogdir@macog.com
http://www.macog.com

Terre Haute (WCIEDD)

Terre Haute--
Vigo County, Vermillion County, Parke County, Putnam County, Clay County, Sullivan County

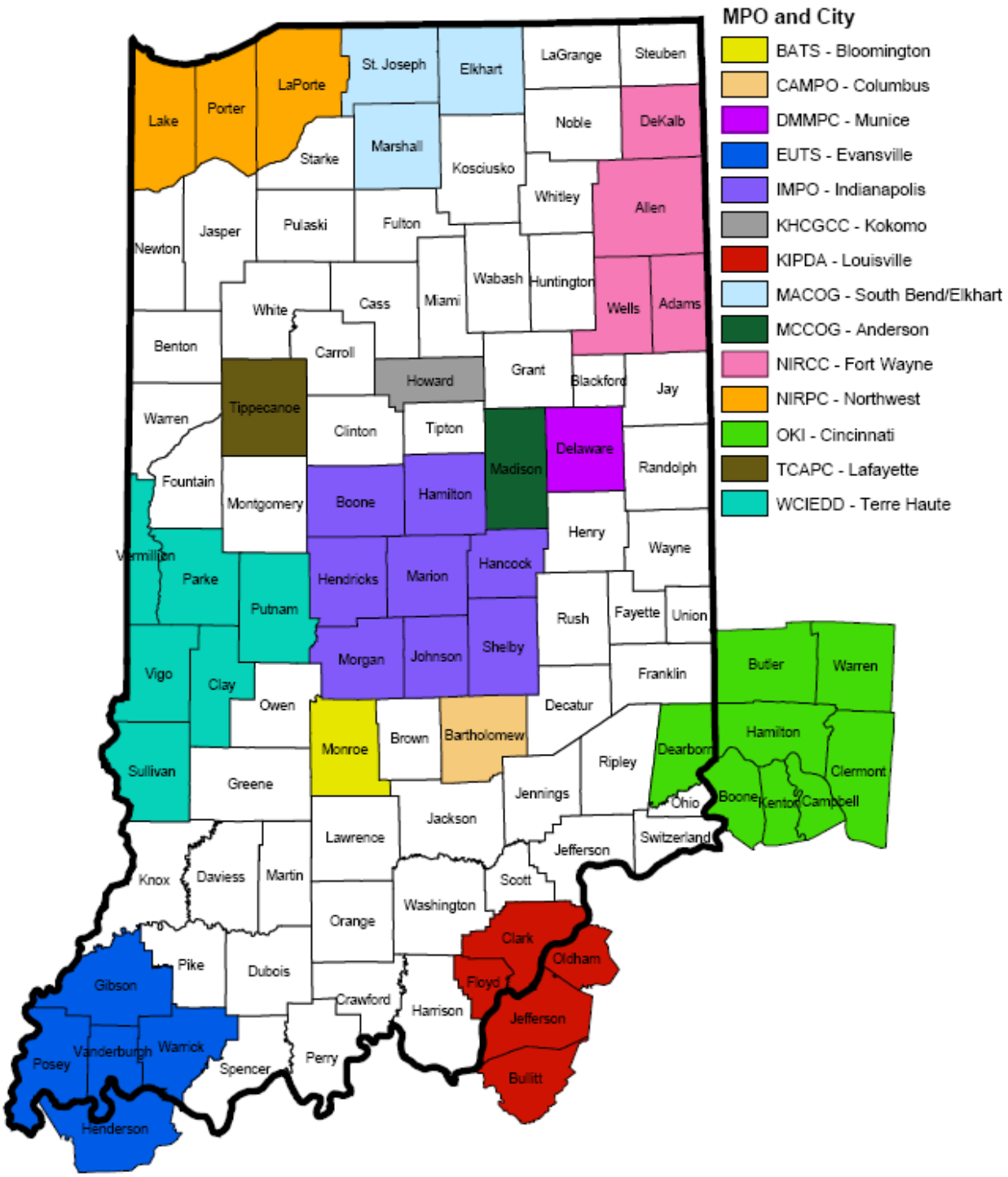
Merv Nolot--Executive Director; Tim Patrick--Chief Transportation Planner;
Jackie Mitchell--Transportation Planner
West Central Indiana Economic Development District, Inc.
1718 Wabash Avenue, P.O. Box 359
Terre Haute, IN 47808-0359
812-238-1561 Fax: 812-238-1564
Email: mnolot@westcentralin.com; tpatrick@westcentralin.com;
jmitchell@westcentralin.com
www.westcentralin.com

Ohio-Kentucky-Indiana Regional Council of Governments (OKI)

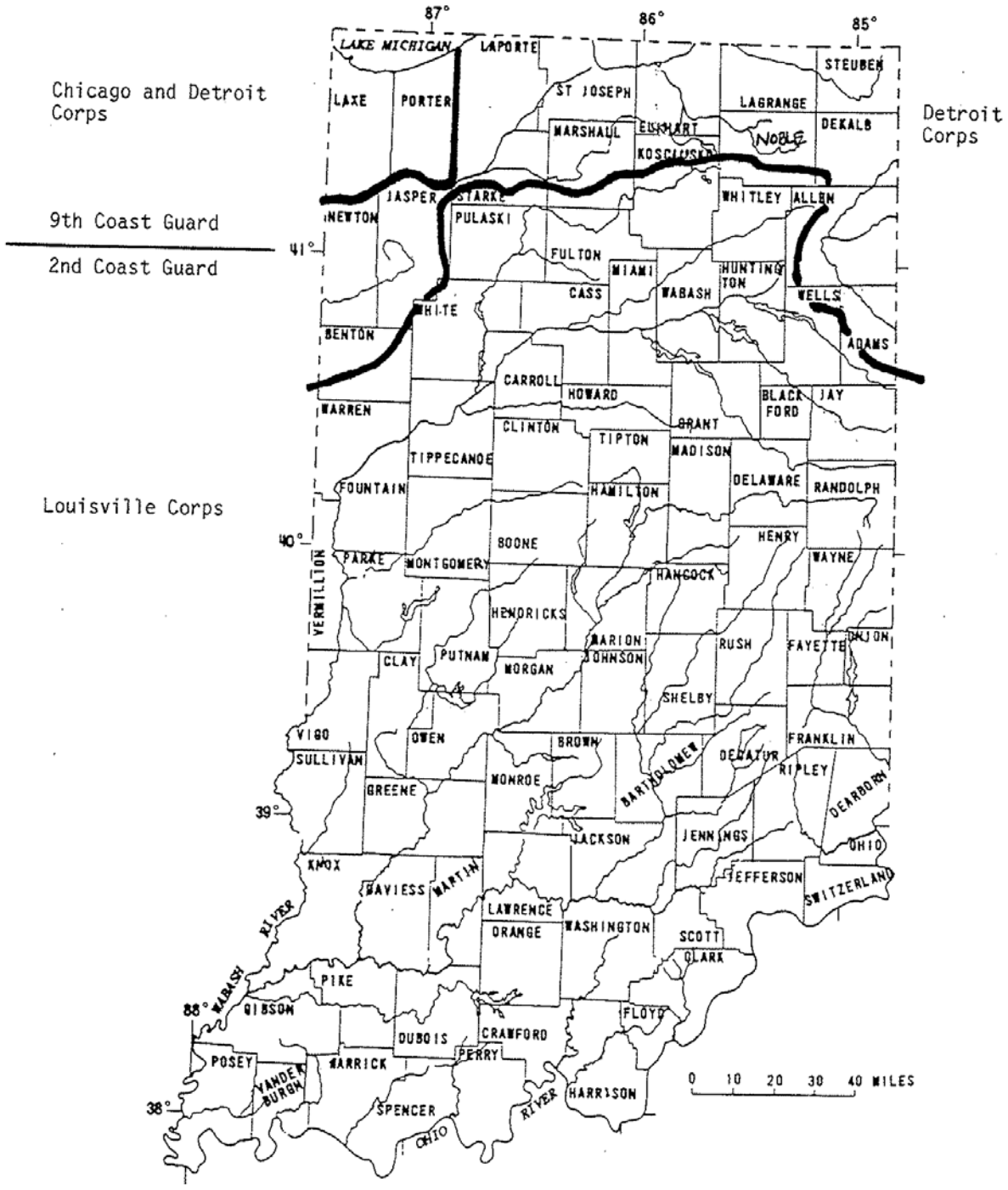
Cincinnati--
Dearborn County (Indiana)
Butler County, Warren County, Hamilton County, Clermont County (Ohio)
Boone County, Kenton County, Campbell County (Kentucky)

Mark Policinski--Executive Director; Bob Koehler--Deputy Executive Director
720 East Pete Rose Way, Suite 420
Cincinnati, OH 45202
513-621-6300 or 513-621-7060 Fax: 513-621-9325
Email: mpolicinski@oki.org; rkoehler@oki.org
www.oki.org

Indiana Metropolitation Planning Organizations



L. Corps of Engineers Districts



COAST GUARD AND CORPS OF ENGINEERS DISTRICT JURISDICTIONAL MAP


Great Lakes
& Ohio River
Division
MN
WI
MI
Detroit
Chicago
Buffalo
NY
PA
Pittsburgh
Division
Office
IN
OH
Cincinnati
WV
Huntington
Louisville
KY
VA
Nashville
TN
NC
AL
GA
Districts
Buffalo
Chicago
Detroit
Huntington
Louisville
Nashville
Pittsburgh

M. Coast Guard Districts


DISTRICT 17
Alaska
Juneau
PACIFIC AREA
ATLANTIC AREA
WASH.
Seattle
MONT.
IO.
DISTRICT 13
OREG.
N. DAK.
WYO.
S. DAK.
MINN.
NEBR.
IOWA
COLO.
KANSAS
MO.
CALIF.
NEV.
UTAH
DISTRICT 11
Alameda
ARIZ.
N. MEX.
TEX.
OKLA.
ARK.
LA.
DISTRICT 8
New Orleans
MINN.
WIS.
MICH.
ILL.
IND.
OHIO
PA.
W. VA.
KY.
TENN.
MISS.
ALA.
GA.
FLA.
N.Y.
Cleveland
DISTRICT 9
ME.
VT.
N.H.
MASS.
Boston
N.Y.
CONN.
N.J.
PA.
MD.
DEL.
VA.
Portsmouth
N.C.
DISTRICT 5
S.C.
GA.
FLA.
Miami
DISTRICT 7
Honolulu
Hawaii
DISTRICT 14
Legend
Washington D.C. Headquarters
District Offices
Area and District Offices

N. Sample Early Coordination Letter

INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216 (317) 232-5348 FAX: (317) 233-4929

Mitchell E. Daniels, Jr., Governor
Karl B. Browning, Commissioner

December 24, 2008

Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
Room W273, IGC South
402 West Washington Street
Indianapolis, Indiana 46204

Re: Des. Nos.: 9999999, Small Structure Replacement over Tributary to Sample Creek on SR 00, 1.5 Miles South of US 99, Benton County.

Dear Sir:

The Indiana Department of Transportation intends to proceed with a project involving the aforementioned small structure in Benton County. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project is located on SR 00, 1.5 miles south of US 99, in Benton County. This section of SR 00 is a two lane *Rural Major Collector*. The existing SR 00 approach cross section consists of two 11' lanes bordered by 2' gravel, usable shoulders. V-ditches exist in the vicinity of the structure. The existing small structure is an 8.5' span by 3.5' rise reinforced concrete encased I-beam culvert, under shallow fill (<2'). I-beams are severely rusted, there are areas of significant leaching, and there is substantial cracking of the deck. No guardrail or other standard safety features exist at the structure. The approximate existing right-of-way is 30' each side of centerline throughout the project.

The proposed project will replace the small structure over a tributary to Sample Creek and include an estimated 482' of guardrail installation. The project requires the acquisition of 0.64 acres of permanent right-of-way. Proposed right-of-way widths along SR 00 are 50' from centerline. The project will be approximately 700' in length. The preferred method of traffic maintenance is an official state detour; a temporary runaround will not be used.

Land use in the vicinity of the project is primarily agricultural and includes one residence. The INDOT Ecology Section will perform waters and wetlands determinations and a Biological Assessment to identify any ecological resources that may be present. The INDOT Cultural Resources Section will investigate the areas of additional right-of-way for archaeological and historic resources for compliance

with Section 106 compliance. The results of this investigation will be forwarded to the State Historic Preservation Officer for review and concurrence.

Should we not receive your response **within thirty (30) calendar days** from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary; a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact (Preparer's Name), of the Environmental Policy Section, at (XXX) XXX-XXXX. Thank you in advance for your input.

Sincerely,

Ben T. Lawrence, PE, Administrator
Environmental Policy Section
Office of Environmental Services
Indiana Department of Transportation

BTL/XXX
Attachment

INDIANA DEPARTMENT OF TRANSPORTATION
Environmental Assessment Section
100 North Senate Avenue
Room N848
Indianapolis, Indiana 46204-2216
(317) 232-5303 *FAX: (317) 232-5478*
An Equal Opportunity Employer ● http://www.in.gov/dot

MITCHELL E. DANIELS, JR., Governor
THOMAS O. SHARP, Commissioner

Writer's Direct Line
(713) 323-1000

January 27, 2003

«Title1» «First_Name» «Last_Name»
«Title»
«Company_Name»
«Address_Line_1»
«Address_Line_2»
«City», «State» «ZIP_Code»

Re: Project: STP-800-5 ( )
Des. No.: 7800434
Road: SR 77
Description: Bridge Replacement on SR 77 over Sand Dollar Creek, Jones County

Dear «Title1» «Last_Name»,

The Indiana Department of Transportation (INDOT) plans to proceed with the above project. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible effects associated with this project. Please use the above designation number and description in your reply. We will incorporate your comments into a study of the project's environmental impacts.

This bridge replacement project is located on SR 77 over Sand Dollar Creek, northwest of the town of Smithville in Jones County. SR 77 bears east-west in the project area, although its general alignment throughout the rest of Jones County is northwest-southeast. SR 77 is a two lane Rural Minor Arterial. It is not on the National Highway System. It is on the National Truck Network and Indiana's 3R Network. The existing clear roadway width of the SR 77 Bridge over Sand Dollar Creek is below Indiana's 3R Road Network Standards. Due to deterioration and the inability to economically widen the existing bridge, the preferred alternative for the SR 77 Bridge over Sand Dollar is replacement. The purpose of the project is to replace the deteriorating structure with a new structure and improve the operation of the site by installing standard design features.

Through the project area, SR 77 has a posted speed limit of 45 mph. The bridge lies within a tangent section of highway and is on a 0.0% grade. While outlying terrain is gently rolling, the terrain within the project limits is relatively level. In the project area, SR 77 consists of two 12 foot lanes flanked by 3 foot shoulders, two feet of which are paved. The existing half-width, non-symmetrical right-of-way varies from 40 feet minimum to 140 maximum near the bridge. Shallow drainage ditches exist within

sections of the project area. No cross-culverts are located within the project limits, but driveway culvert pipes exist along the ditchline. SR 77 through the project area was last resurfaced in 2000.

Jones Road "T"s into SR 77 at the immediate northeast corner of the bridge. It is a Rural Local Road with two 10 foot travel lanes flanked by 2 foot gravel shoulders. The posted speed limit is 35 mph. The vertical alignment of Jones Road is at an ascending grade of 7.6% approaching SR 77. The right-turn turning radius is substandard and the intersection sight distance (ISD) to the west is partially blocked by the bridge railing. ISD to the east is limited by the crest vertical curve. The intersecting angle, 55˚ from perpendicular, is below the 60˚ minimum.

The proposed project includes replacing the current bridge on a new horizontal alignment. The proposed new structure is a 420', 4 span, continuous composite, prestressed concrete, bulb-tee beam bridge with 2:1 spill through end slopes. The proposed horizontal alignment will shift to the south approximately 60 feet in order to maintain traffic on the existing alignment during construction. A lowered proposed vertical alignment will improve sight distance at Jones Road and will help reduce the amount of required fill. The proposed clear roadway width of SR 77 will consist of three 12 foot lanes, one 9 foot-8inch shoulder and one 3 feet-8 inch shoulder. Standard concrete barrier railing will be utilized along with W-Beam guardrail. In addition, the project proposes the realignment of Jones Road to intersect SR 77 at 70˚. A right-hand passing lane along SR 77 will also be constructed at this intersection.

Additional permanent right-of-way in the amount of 2.64 acres will be required for this project. It is estimated that 7 parcels will be affected, including 3 residential parcels and 4 agricultural or wooded parcels. Temporary right-of-way will be required in the amount of .22 acres of residential property from one parcel. The project length is approximately 2,900 feet. The preferred option for traffic maintenance during construction is to utilize the existing structure for traffic during most of the project duration. No relocations are anticipated as a result of this project.

Land use in the vicinity of the project includes a mixture of agricultural and residential properties, but is mostly rural in nature. Five residential properties are located along SR 77 in the project area, and one residential property is located within the project area on Jones Road. No nature preserves or other sensitive natural areas are located within or near the project area. During on-site field inspection, the lid of a drum barrel was observed in Sand Dollar Creek south of the bridge. An Initial Site Assessment (ISA) for hazardous waste was performed for the area. The report concluded there were no environmental concerns which would require sampling from any of the proposed right-of-way areas. As evidenced through USF&WS National Wetland Inventory mapping, Sand Dollar Creek is a *Riverine Lower Perennial Unconsolidated Bottom Permanently Flooded* wetland. No other wetlands are located in the project area.

As per historical aspects of this project, it is INDOT's preliminary finding that the "Area of Potential Effect" (APE) includes the proposed right-of-way and the area immediately surrounding it. The proposed project involves the replacement of a 1941 steel deck truss bridge, an infrequent truss type on Indiana's roads. It is INDOT's preliminary finding that the structure is eligible for the National Register of Historic Places and that this project will result in "Historic Properties Adversely Affected." One other property in the APE has been recommended as National Register eligible. This property, the Jacab Blasdell Farm, will not be affected by the proposed project. An *Archeological Field Reconnaissance* was performed and the report will be forwarded to the Indiana State Historic Preservation Officer (SHPO) for review and approval. The report did not recommend any archaeological sites as National Register eligible.

Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties. In accordance with 26 CFR800.2(c), you are hereby requested to be a consulting party to participate in efforts to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. The following agencies have been invited to be consulting parties: Alexander Hamilton—Jones County Historian, Jones County Historical Society, Surveyors Historical Society, and Historic Landmarks Foundation of Indiana (Veraestau—Southeast Field Office). Per 36CFR800.3(f), we hereby request that the State Historic Preservation Officer (SHPO) notify this office, **within 30 days of the receipt of this letter, under separate cover**, if the SHPO is aware of any other parties that may be entitled to be consulting parties for the subject project.

Please respond with your comments on any historical impacts incurred as a result of this project so that an environmental report can be prepared. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If we do not receive your response within thirty (30) days, it will then be assumed that your agency or organization feels that there will be no significant effects as a result of this project or that you wish to offer no opinions concerning this project. However, should you find that an extension to respond is required, a reasonable amount will be granted upon request. If you have any questions regarding this matter, please feel free to contact Ms. Jane Doe of this section at (713) 323-1000. Thank you in advance for your input.

Sincerely,

John Jonesington, Manager
Environmental Assessment Section
Division of Environment, Planning & Engineering

JJ/JD/jd
Attachments

O. Sample Notice of Survey Letter

INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216
(317) 232-5348 FAX: (317) 233-4929

Mitchell E. Daniels, Jr., Governor
Karl B. Browning, Commissioner

«owner_name»
«owner_address»
«owner_city», «owner_state_id» «owner_zip»

RE: Des. No. xxxxxxx, <Project Name>

Notice of Entry for Survey or Investigation
<DATE>

Dear Property Owner:

Our information indicates that you own property near the above proposed transportation project. Representatives of the Indiana Department of Transportation will be conducting environmental surveys of the project area in the near future. It may be necessary for them to enter onto your property to complete this work. This is permitted under Indiana Code § 8-23-7-26. Anyone performing this type of work has been instructed to identify him or herself to you, if you are available, before they enter your property. If you no longer own this property or it is currently occupied by someone else, please let us know the name of the new owner or occupant so that we can contact them about the survey.

Please read the attached notice to inform you of what the "Notice of Entry for Survey or Investigation" means. The survey work may include the identification and mapping of wetlands, archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites), and various other environmental studies. The information we obtain from such studies is necessary for the proper planning and design of this highway project. It is our sincere desire to cause you as little inconvenience as possible during this survey.

If any problems do occur, please contact the field crew or contact < contact name> at xxx-xxx-xxxx or xxxx@indot.in.gov. You may also call or write to Christopher Koeppel (317-232-5161), Shaun Miller (317-233-6795), or Curtis Tomak (317-232-5210) at INDOT. Their address is: Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation, Indiana Government Center North, Room N642, 100 North Senate Avenue, Indianapolis, IN, 46204.

Please be aware that IC 8-23-7-27 and 28 provides that you may seek compensation from INDOT for damages occurring to your property (land or water) that result from INDOT's entry for the purposes mentioned above in IC 8-23-7-26. In this case, a basic procedure that may be followed is for you and/or an INDOT employee or representative to present an account of the damages to one of the three above named INDOT staff. They will check the information and forward it to the appropriate person at INDOT who will contact you to discuss the situation and compensation.

In addition, you may contact, xxx xxxx, the xxxx District Real Estate Manager (xxx-xxx-xxxx). His/her address is: xxxxxx. The District Real Estate Manager (DREM) can provide you with a form to request compensation for damages. After filling out the form, you can return it to the DREM for consideration, and the DREM may be contacted if you have questions regarding the matter, rights, and procedures.

If you are not satisfied with the compensation that INDOT determines is owed to you, Indiana Code 8-23-7-8 provides the following:

> The amount of damages shall be assessed by the county agricultural extension educator of the county in which the land or water is located and two (2) disinterested residents of the county, one (1) appointed by the aggrieved party and one (1) appointed by the department. A written report of the assessment of damages shall be mailed to the aggrieved party and the department by first class United States mail. If either the department or the aggrieved party is not satisfied with the assessment of damages, either or both may file a petition, not later than fifteen (15) days after receiving the report, in the circuit or superior court of the county in which the land or water is located.

It is our sincere desire to cause as little inconvenience as possible during our work, and we thank you in advance for your cooperation.

Sincerely,

Ben Lawrence, P.E., Administrator
Environmental Policy Section
Office of Environmental Services

Attachment

INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216 (317) 232-5348 FAX: (317) 233-4929

Mitchell E. Daniels, Jr., Governor
Karl B. Browning, Commissioner

Indiana Department of Transportation
Notice of Entry for Survey or Investigation
Indiana Department of Transportation

If you have received a "Notice of Entry for Survey or Investigation" from INDOT or an INDOT representative, you may be wondering what it means. In the early stages of a project's development, INDOT must collect as much information as possible to ensure that sound decisions are made in designing the proposed project. Before entering onto private property to collect that data, INDOT is required to notify landowners that personnel will be in the area and may need to enter onto their property. Indiana Code, Title 8, Article 23, Chapter 7, Section 26 deals with the department's authority to enter onto any property within Indiana.

Receipt of a Notice of Entry for Survey or Investigation does not necessarily mean that INDOT will be buying property from you. It doesn't even necessarily mean that the project will involve your property at all. Since the Notice of Entry for Survey or Investigation is sent out in the very early stages and since we want to collect data within AND surrounding the project's limits more landowners are contacted than will actually fall within the eventual project limits. It may also be that your property falls within the project limits but we will not need to purchase property from you to make improvements to the roadway. Another thing to keep in mind is that when you receive a Notice of Entry for Survey or Investigation, very few specifics have been worked out and actual construction of the project may be several years in the future.

Before INDOT begins a project that requires them to purchase property from landowners, they must first offer the opportunity for a public hearing. If you were on the list of people who received a Notice of Entry for Survey or Investigation, you should also receive a notice informing you of your opportunity to request a public hearing. These notices will also be published in your local newspaper so interested individuals who are not adjacent to the project will also have the opportunity to request a public hearing. If a public hearing is to be held, INDOT will publicize the date, location, and time. INDOT will present detailed project information at the public hearing, comments will be taken from the public in spoken and written form, and question and answer sessions will be offered. Based on the feedback INDOT receives from the public, a project can be modified and improved to better serve the public.

So, if you have received a "Notice of Entry for Survey or Investigation", remember:

1. You do not need to take any action at this time. It is merely letting you know that people in orange/lime vests are going to be in your neighborhood.
2. The project is still in its very early planning stages.
3. You will be notified of your opportunity to comment on the project at a later date.

P. Sample Section 106 Early Coordination Letter

INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216 (317) 232-5348 FAX: (317) 233-4929

Mitchell E. Daniels, Jr., Governor
Karl B. Browning, Commissioner

December 24, 2008

«Title1» «First_Name» «Last_Name»
«Title»
«Company_Name»
«Address_Line_1»
«Address_Line_2»
«City», «State» «ZIP_Code»

Re: DES. No. 0400446, Small Structure Replacement, SR 56, 3.85 miles east of west junction SR 61, East of Petersburg, Washington Township, Pike County

Dear «Title1» «Last_Name»:

The Indiana Department of Transportation (INDOT) intends to proceed with the above project in Pike County. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above description number and description in your reply. We will incorporate your comments into a study of the project's environmental impacts.

Des. No. 0400446 is located in Pike County on SR 56, 3.85 miles east of west junction SR 61, east of Petersburg, in the Vincennes District. This section of SR 56 is functionally classified as a "Rural Major Collector" route, with a posted speed limit of 55 mph. SR 56 is included in the National Truck Network.

As per historical aspects of this project, it is INDOT's preliminary finding that the "area of potential effect" (APE) for the project includes existing and proposed right-of-way (R/W), incidental construction and the area immediately surrounding it, and that the project will result in "no historic properties affected." (See enclosed maps.) The State and National Registers of Historic Places listings for Pike County were checked. No listed resources are present in the proposed project area. No interim report has been published for Pike County. An historic property report (short form) was prepared for this project and is enclosed with this mailing. It is INDOT's preliminary finding that the APE for the proposed project does not contain any above-ground resources either listed in or considered eligible for listing in the National Register of Historic Places.

An archaeological assessment and report has been prepared (Greenlee, July 5, 2007) and is being forwarded to the SHPO for review.

Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties. In accordance with 36CFR800.2(c), you are hereby requested to be a consulting party to identify historic properties potentially affected by the undertaking, assess its effect and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. The following agencies have been invited to be consulting parties: SHPO; Historic Landmarks Foundation of Indiana Southwestern Field Office; Pike County Historian; Pike County Historical Society, Inc. Mayor of Petersburg; Pike County Commissioners. Per

INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216 (317) 232-5348 FAX: (317) 233-4929

Mitchell E. Daniels, Jr., Governor
Karl B. Browning, Commissioner

36CFR800.3(f), we hereby request that the SHPO notify this Office of any other parties that may be entitled to be consulting parties for the subject project **within thirty (30) days** by separate letter if necessary.

Please respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be prepared. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If we do not receive your response within thirty (30) days, it will then be assumed that your agency or organization feels that there will be no significant effects as a result of this project or that you wish to offer no opinions concerning this project. However, should you find that an extension to respond is required, a reasonable amount will be granted upon request. If we do not receive your response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes. If you have any questions regarding this matter, please feel free to contact Ms. Susan Branigin of this section at (317) 234-0142. Thank you in advance for your input.

Sincerely,

Christopher D. Koeppel, Administrator
Cultural Resources Section
Office of Environmental Services

CDK/SRB/srb
Enclosures

CC: Mr. Wayne Dittelberger, INDOT Vincennes District Environmental Scoping Manager
Mr. Steve Hughes, INDOT Vincennes Environmental Scientist
OES Project File; Attachment

Q. INDOT Aeronautics Questionnaire

Des. #:
Project #:
Project Description:
Name of organization requesting early coordination:

Questionnaire for INDOT Aeronautics

Are there any existing or proposed airports located within or near the project limits? If so, describe any potential conflicts with air traffic during or after construction of this project.

_____

_____

_____

_____

_____

This information was furnished by:

Name:_____ Title: _____

Address: _____

Phone: _____ Date: _____

R. Indiana Geological Survey Questionnaire

Des. #:
Project #:
Project Description:

Name of organization requesting early coordination:

Questionnaire for the Indiana Geological Survey

1) Do unusual and/ or problem ( ) geographic, ( ) geological, ( ) geophysical, or ( ), or ( ) topographic features exist within the project limits? Describe:
_____
_____
_____

2) Have existing or potential mineral resources been identified in this area? Describe:
_____
_____

3) Are there any active or abandoned mineral resource extraction sites located nearby? Describe:
_____
_____

This information was furnished by:

Name:_____ Title: _____

Address: _____

Phone: _____ Date: _____

S. US Forest Service Questionnaire

Des. #:
Project #:
Project Description:
Name of organization requesting early coordination:

Questionnaire for the U.S. Forest Service

1) Does the project area support populations of unusual ( ) small game birds, ( ) small game mammals, or ( ) other wildlife species? Describe:

---

2) Do large numbers of unusual species of migrating birds or waterfowl ( ) nest, ( ) rest and feed, or ( ) winter in the area? Describe:

---

3) Does the area support rare or endangered wildlife species? Identify and describe:

---

4) Are the streams in the area high quality sport fisheries (spawning, nursery or complete habitat)? Describe:

---

5) Are there intensive or experimental management programs in the project area? Describe:

---

6) Does the project pass through areas of unique ( ) trees, ( ) shrubs, or ( ) other vegetation? Identify and describe:

---

7) Does the project pass through or adversely affect public ( ) parks, ( ) recreation areas, ( ) wildlife refuges or hunting areas, or ( ) fishing areas? Identify and describe:

Questionnaire for the U.S. Forest Service (continued)

8) Does the project provide potential multiple use of joint development programs for ( ) public access to streams or lakes, ( ) bicycle trails, ( ) scenic overlooks, or ( ) new or improved access to public wildlife or recreation areas? Identify and describe the proposal and suggest a contact point for sources of additional information:

This information was furnished by:

Name:_____ Title: _____

Address: _____

Phone: _____ Date: _____

T. US Coast Guard Questionnaire

Des. #:
Project #:
Project Description:
Name of organization requesting early coordination:

Questionnaire for the U.S. Coast Guard

1) Will the proposed improvement cross waterways under your jurisdiction? Identify:

2) Are there any current or future plans to develop these waterways? Describe:

3) Are any Coast Guard projects or studies located within the project area? Describe:

This information was furnished by:

Name:_____ Title: _____

Address: _____

Phone: _____ Date: _____

U. Flood Risk Assessment Questionnaire

Flood Risk Assessment

Project No. _____ Date _____

Structure No. _____ County _____

Location _____

Stream Evaluator _____

1. Risks

A.	ADT (Construction Year)	<1000	1000-5000	>5000
B.	Homes in Base Floodplain			
	Upstream to 1000′	0	1-5	5
	Downstream to 1000′	0	1-5	5
C.	Adjacent Property Value	low	medium	high
D.	Height of Fill	<10′	10′-25′	>25′
E.	Structure Type			
	Box/pipe culvert			
	Single span bridge			
	Three span bridge			
	Multiple span bridge			
F.	The encroachment is:	Transverse	Longitudinal	

		Yes	No
G.	Is stream unstable?	—	—
H.	Is this the only route for emergency access?	—	—
I.	Practicable detour?	—	—
J.	Known drainage problems?	—	—
	(if yes, describe)		

2. What are the impacts on natural and beneficial floodplain values? _____

_____

3. Will this project support probable incompatible floodplain development? If so, to what extent?

_____

4. Possible measures to minimize the floodplain impacts, and/or restore and preserve the natural floodplain values impacted by this project. _____

_____

5. Determination of significance: _____

_____

V. NRCS-CPA-106 Farmland Impacts Form

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request	4. Sheet 1 of _____
1. Name of Project	5. Federal Agency Involved	
2. Type of Project	6. County and State	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☐ NO ☐		4. Acres Irrigated | Average Farm Size
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: %	7. Amount of Farmland As Defined in FPPA Acres: %
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment _____			
	Corridor A	**Corridor B**	**Corridor C**	**Corridor D**
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	0	0	0	0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*				
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — **Maximum Points**				
1. Area in Nonurban Use — 15				
2. Perimeter in Nonurban Use — 10				
3. Percent Of Corridor Being Farmed — 20				
4. Protection Provided By State And Local Government — 20				
5. Size of Present Farm Unit Compared To Average — 10				
6. Creation Of Nonfarmable Farmland — 25				
7. Availablility Of Farm Support Services — 5				
8. On-Farm Investments — 20				
9. Effects Of Conversion On Farm Support Services — 25				
10. Compatibility With Existing Agricultural Use — 10				
TOTAL CORRIDOR ASSESSMENT POINTS — 160	0	0	0	0
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100				
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)* — 260	0	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

Clear Form

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

W. Sample Business Information Survey

Sample Business Information Survey

<Project Name, Route, and County>
<Des. Number>

(This sample is intended to provide the questions that should be asked of businesses during planning. The preparer should use a suitable format that allows sufficient space for the respondent to answer each question.)

You have received this survey because a transportation project is being considered for your area that may affect your business. The purpose of this Business Information Survey is to identify issues and concerns of business owners. The information collected in this survey will be incorporated into the analysis of the impacts of this project on the human and natural environment. You may receive additional requests for information about how the proposed project will affect your business in the future.

Please respond to each question as completely as possible. You may contact us at the number below if you have any questions about the project or would like more information about how to respond to this survey. Please return the form to the address below no later than (*insert date)*.

Business Location

1. Provide the full name and address of your business.
    a. If your business is affiliated with others in the area, please provide the headquarters address if different from the above.
    b. Please provide contact information for future correspondence on this project
2. On the enclosed map, please mark the location of your business and label the routes of your incoming and outgoing deliveries.

General Information

3. Describe the nature of your business, such as the service provided, the type of office, and the type of products sold or manufactured.
4. How many years has your business been at this location?
5. How many full time employees do you have?
6. How many part time employees do you have?
7. What are your hours and days of operation?
8. Do you lease or own your business site?

Transportation and Market Information

9. From where do most of your customers come? *(provide a set of possible answers)*
10. From where do most of your employees come? *(provide a set of possible answers)*
11. Does your business serve a specialized clientele?

12. Does your business have specialized site requirements, such as rail access, acreage, underground storage areas, city water or sewer, permits, etc? If yes, please describe.
13. Which of the following types of vehicles regularly access your business? Check all that apply and provide a general estimate of the number per day.
    a. Passenger vehicles for employees
    b. Passenger vehicles for customers
    c. Delivery trucks
    d. Rail cars
    e. Buses
    f. Other (specify)

Project Impacts

14. Do you currently have plans to expand your business? If yes, describe (add employees, add shifts, expand or build new facility at current site) and be as specific as possible.
15. Do you believe that your business will be directly or indirectly affected by the project? If yes, how do you believe you will be affected?
    a. Do you expect to gain or lose customers?
    b. Will access to the site be improved or impeded?
    c. Will access to or from your market or service area be improved or impeded?
    d. Will you lose or gain parking spaces?
    e. Please describe the effects of any adverse impacts on your ability to continue to conduct business at your current location.
16. *(Surveyor should add any project-specific questions here, such as questions about the impacts of specific new access points, road closures, or other features of the project)*

Other Information

17. Please provide any additional information or comments that you would like us to address *(free response lines here)*.

<Contact information for questions>
<Return information for survey>

<Attach description of project and map of area for location and route markup>

X. Minor Projects Programmatic Agreement

Programmatic Agreement (PA)
Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana

WHEREAS, the Federal Highway Administration (FHWA) administers the Federal Aid Highway Program in Indiana authorized by 23 U.S.C. §§ 101 et seq., through the Indiana Department of Transportation (INDOT) (23 U.S.C. § 315); and

WHEREAS, INDOT undertakes Federal minor highway projects that would qualify as Categorical Exclusions (CEs), including Local Public Agency Federal aid projects, as defined in 23 CFR 771, that do not individually or cumulatively have a significant impact on the environment, and therefore may not require the preparation of an environmental document; and

WHEREAS, FHWA has determined that certain types of minor highway projects typically have no effect upon historic properties included in or eligible for inclusion in the National Register and has consulted with the Advisory Council on Historic Preservation (Council), and the Indiana State Historic Preservation Officer (SHPO) pursuant to Section 800.14(b) of the regulations (36 CFR Part 800 Subpart C) implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f); and

WHEREAS, INDOT participated in the consultation and has been invited to be a signatory to this PA; and

WHEREAS, INDOT maintains cultural resource staff and consultants meeting the Secretary of Interior's Professional Qualification standards (48 Federal Register (FR) 44716) and State of Indiana standards (Indiana Code 14-21-1 and 312 IAC 21) in the fields of archaeology, history and architectural history;

NOW, THEREFORE, FHWA, INDOT, the Council, and SHPO agree that the Federal Aid Highway Program shall be administered in accordance with the following stipulations to satisfy the FHWA Section 106 responsibility for all individual undertakings of the program.

STIPULATIONS

FHWA shall ensure that the following measures are carried out:

1. **Purpose and Scope**

A. This PA sets forth the process by which FHWA; with the assistance of INDOT; will meet its responsibilities for undertakings pursuant to Sections 106 and 110 of the National Historic Preservation Act (NHPA) (16 U.S.C. § 470f).

B. FHWA Responsibilities - In compliance with its responsibilities under the NHPA, and as a condition of its award to INDOT of any assistance under the Federal Aid Highway Program, FHWA will ensure that INDOT carries out the requirements of this agreement and Council policies and guidelines for undertakings subject to this agreement.

C. INDOT Responsibilities

1. Pursuant to this agreement, INDOT will ensure that all cultural resource staff and/or consultants, employed under its contract to conduct work in the field of cultural resources, meet the qualifications set forth in the Secretary of Interior's Professional Qualification standards (48 FR 44716) and State of Indiana standards (IC 14-21-1 and 312 IAC 21) for such work. These qualified INDOT cultural resources personnel shall have the primary responsibility for implementing this PA.

2. Prior to December 31, 2007, and in consultation with SHPO and FHWA, INDOT will prepare a Cultural Resources Manual detailing the procedures for implementing this agreement. Upon approval of the Cultural Resources Manual by INDOT, SHPO, and FHWA, this programmatic agreement will be appended to the INDOT Cultural Resources Manual and be fully explained therein.

2. Minor Projects

The following types of undertakings, listed in Appendices A and B, are activities in which INDOT routinely utilizes Federal Aid highway funds and consist of minor projects that generally do not affect historic properties. None of the minor projects listed below will require consultation with or review by the SHPO, provided the undertaking:

- is limited to the activities specified
- is not part of a larger project
- is on an existing transportation facility
- if ground disturbance in previously disturbed soils is specified, occurs in soils previously disturbed by vertical and horizontal highway construction activities
- has no known public controversy based on historic preservation issues

Such minor projects fall into two categories: minor projects that do not require review by INDOT Cultural Resources staff (Category A; Appendix A), and minor projects that do require documentation and review by INDOT Cultural Resources staff to assess the likelihood that historic properties exist in the area of potential effects or determine the degree of existing soil disturbance within the project area (Category B; Appendix B).

For undertakings in Category B, or where questions arise about the need for review of an undertaking in Category A, INDOT Cultural Resources staff shall determine whether a

particular project should be exempt from SHPO review. If the SHPO specifically requests a copy of the documentation for a particular undertaking covered by this stipulation, INDOT will provide SHPO with the requested documentation and, if the project has not already been approved, will review the project in accordance with Stipulation 4 of this Agreement. All of the minor projects listed in Appendices A and B will be subject to regular internal audit by INDOT.

3. Documentation of Minor Projects

A. Any minor project listed in Appendices A or B shall be documented in the National Environmental Policy Act documentation. The documentation shall reference and include the description of the specific stipulation in the PA that qualifies the project as exempt from further Section 106 review.

B. INDOT Cultural Resources staff will utilize the County Interim Reports, most current Bridge Inventory, as well as additional documentation to assure projects are not adjacent to a National Register eligible property or district. Documentation may include construction plans, project area descriptions, soil survey data, photographs, and archaeological documentation.

4. Section 106 Consultation for FHWA Undertakings Not Exempt from Review

For those projects not exempt from review under terms of Stipulation 2, INDOT and FHWA shall review the undertakings in accordance with the procedures found in 36 CFR Part 800. Upon completion of the Cultural Resources Manual required in Stipulation 1, INDOT, using staff and/or consultants meeting the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44738-9), may independently perform the work and consultation described in the following sections of 36 CFR Part 800 (including any succeeding revisions to the regulations) on behalf of FHWA as follows:

36 CFR § 800.3

(1) Establish undertaking
(2) Coordinate with other reviews
(3) Identify the appropriate SHPO and/or THPO
(4) Plan to involve the public
(5) Identify other consulting parties
(6) Expediting consultation

36 CFR § 800.4

(1) Determine scope of identification
(2) Identify historic properties
(3) Evaluate historic significance

(4) Results of identification and evaluation

36 CFR § 800.5

(1) Apply criteria of adverse effect
(2) Finding of no adverse effect
(3) Consulting party review
(4) Results of assessment

In recognition of the unique government-to-government relationship between the Federal government and Indian tribes, FHWA shall take the lead in identifying and establishing consultation with the Indian tribes and Tribal Historic Preservation Officers (THPO) consistent with 36 CFR § 800.3(c) - (f). If the tribe is agreeable, further consultation may be conducted among the tribe and INDOT.

A. Finding of "No Historic Properties Affected"

If INDOT determines, in consultation with the SHPO and consulting parties, that no historic properties will be affected by the undertaking, INDOT will make a finding of "no historic properties affected," and documentation (800.11[d]) will be forwarded to the SHPO for concurrence. Copies of this documentation will be provided to all consulting parties and will be made available for public inspection. INDOT may proceed with the project if the SHPO has agreed, in writing, with the finding or if within 30 days of receipt neither SHPO nor another consulting party has objected to the finding. If the SHPO or any consulting party objects, in writing, to INDOT's finding within 30 days of receipt of an adequately documented finding, the documentation will be submitted to FHWA for resolution. If, through consultation, consensus can be reached, the process will move forward in accordance with this agreement. If consensus is not achieved, the undertaking will not be developed under this agreement, but instead will proceed in accordance with 36 CFR Part 800.3 through 800.6. If INDOT determines, in consultation with the SHPO and consulting parties, that historic properties may be affected by the undertaking, INDOT shall apply the Criteria of Adverse Effect, 36 CFR Part 800.5(a)(1).

B. Finding of "No Adverse Effect"

If INDOT determines, in consultation with the SHPO and consulting parties, that the undertaking will have no adverse effect on historic properties, it will make a finding of "no adverse effect," and documentation (800.11[e]) will be forwarded to the SHPO for concurrence. Copies of this documentation will be provided to all consulting parties and will be made available for public comment. INDOT may proceed with the project if the SHPO has agreed, in writing, with the finding or if within 30 days of receipt neither the SHPO nor another consulting party objects to the finding. If SHPO or any consulting party objects within 30 days of receipt of

adequate documentation, in writing, to INDOT's finding, the documentation will be submitted to FHWA for resolution. If, through consultation, consensus can be reached, the process will move forward in accordance with this agreement. If consensus is not achieved, the undertaking will not be developed under this agreement, but instead will proceed in accordance with 36 CFR Part 800.3 through 800.6.

C. Finding of "Adverse Effect"

If INDOT determines, in consultation with the SHPO and consulting parties, that the undertaking will have an adverse effect on historic properties, it will notify FHWA and FHWA will ensure the Section 106 process is completed in accordance with 36 CFR 800.6. FHWA will be responsible for making a finding of "adverse effect" and the resolution of those effects.

5. Unanticipated Discovery

If any unanticipated discoveries of historic properties, sites, artifacts, or objects are encountered during the implementation of any project exempted under this PA, INDOT and FHWA shall comply with 36 CFR 800.13 and IC 14-21-1-27 and 14-21-1-29 by stopping work in the immediate area and informing the SHPO, housed in the Indiana Department of Natural Resources ("DNR") of such unanticipated discoveries or effects within two (2) business days. Any necessary archaeological investigations will be conducted according to the provisions of IC 14-21-1 and 312 IAC 21.

If any unanticipated effects on historic properties are found to be occurring during the implementation of any project exempted under this PA, INDOT and FHWA shall comply with 36 CFR 800.13 and inform the SHPO immediately.

If any human remains are encountered during the implementation of any project exempted under this PA, work shall cease in the immediate area and the human remains left undisturbed. INDOT and FHWA will contact the county coroner and law enforcement officials immediately, and the discovery must be reported to the SHPO within two (2) business days. The discovery must be treated in accordance with IC 14-21-1 and 312 IAC 22. If the remains are determined to be Native American, FHWA will notify the appropriate federally recognized Indian Tribes.

Work at the site shall not resume until a plan for the treatment of the human remains is developed and approved in consultation with the SHPO and any appropriate consulting parties. The plan will comply with IC 14-21-1, 312 IAC 22, the current Guidebook for Indiana Historic Sites and Structures Inventory--Archaeological Sites, and all other appropriate federal and state guidelines, statutes, rules, and regulations.

6. Monitoring

A. INDOT, FHWA and the SHPO will consult as needed to review implementation of the terms of the PA.

B. FHWA and INDOT may monitor activities carried out pursuant with this agreement, and the SHPO will be invited to participate. INDOT shall cooperate in carrying out the monitoring effort. Should monitoring or other activities result in evidence that the requirements of this PA need modification or are not being met, FHWA, the SHPO, and INDOT will meet to develop and implement corrective measures.

7. Dispute Resolution

A. If the Indiana SHPO, INDOT, the Council, or a consulting party for an individual undertaking carried out under the terms of this agreement objects in writing to the FHWA regarding any action carried out or proposed with respect to the implementation of this PA, then FHWA shall consult with the objecting party to resolve this objection. If after such consultation FHWA determines that the objection cannot be resolved through consultation, then FHWA shall forward all documentation relevant to the objection to the Council, including FHWA's proposed response to the objection. Within fifteen (15) days after receipt of all pertinent documentation, the Council shall exercise one of the following options:

1) Advise FHWA that the Council concurs in FHWA's proposed response to the objection, whereupon FHWA will respond to the objection accordingly; or

2) Provide FHWA with recommendations, which FHWA shall take into account in reaching a final decision regarding its response to the objection.

B. Should the Council not exercise one of the above options within fifteen (15) days after receipt of all pertinent documentation, FHWA may assume the Council's concurrence with the proposed response to the objection.

8. Terminate, Modify, and Amend

A. Any party to this PA may terminate it by providing thirty (30) days written notice to the other parties, provided that the parties shall consult during the period prior to termination to seek agreement on amendments or other action that would avoid termination. In the event of termination, FHWA shall conduct individual project review pursuant to 36 CFR Part 800.

B. FHWA, INDOT, and the SHPO will review this PA every ten (10) years from the date of execution for modifications or termination. If no changes are proposed and no party objects, the term of the PA will be extended automatically for another ten years without re-execution.

C. Any party to this agreement may request that it be amended, whereupon the parties shall consult to consider such amendment. The amendment will be effective on the date a copy is signed by all of the original signatories. The lists of minor projects in Appendices A and B may be modified by the mutual written agreement of FHWA, INDOT, and the SHPO, and shall not require a formal amendment to this agreement.

Execution and implementation of this PA evidences that the Federal Highway Administration has satisfied its Section 106 responsibilities for all individual undertakings of highway projects covered under this agreement.

SIGNATORIES:

FEDERAL HIGHWAY ADMINISTRATION

By: Robert F Tally Jr Date: 10/3/06
Robert F. Tally, Jr., P.E.
Division Administrator

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: John M. Fowler Date: 10/12/06
John M. Fowler
Executive Director

INDIANA STATE HISTORIC PRESERVATION OFFICER

By: Date: 9/26/06
Kyle Hupfer
Director, Indiana Department of Natural Resources

INDIANA DEPARTMENT OF TRANSPORTATION

By: Date: 9/20/2006
Thomas O. Sharp
Commissioner

APPENDIX A

Category A (Minor Projects Requiring No Review by INDOT Cultural Resources Staff)

Category A consists of projects that, by their nature, have little to no potential to cause effect to historic properties and do not require review by INDOT Cultural Resources Staff.

1. All work to be done on bridges (in previously disturbed soils) if the bridge is less than 45 years old, or if the bridge is over 45 years old, the bridge was determined not National Register eligible in the latest bridge inventory.

2. All work within interchanges and within medians of divided highways in previously disturbed soils.

3. Replacement, repair, lining, or extension of culverts and other drainage structures which do not extend beyond or deeper than previous construction limits, and do not exhibit stone or brick structures or parts therein.

4. Roadway surface replacement, rehabilitation, resurfacing, or reconstruction, overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking within areas previously disturbed by construction where replacement, repair, or installation of curbs or sidewalks will not be required.

5. Repair or replacement of existing lighting, signals, and other traffic control devices in previously disturbed soils.

6. Repair or replacement of existing safety appurtenances such as guardrails, barriers, glare screens, and crash attenuators in previously disturbed soils.

7. Fencing and landscaping in previously disturbed soils.

8. Railway crossing signs and signal installation or modification and surface improvement in previously disturbed areas.

9. Erosion control within previously disturbed soils to prevent erosion of roadways, waterways and bridge piers.

10. Routine roadside maintenance activities necessary to preserve existing infrastructure and maintain roadway safety in previously disturbed areas.

11. Rehabilitation of existing rest areas and truck weigh stations within previously disturbed soils.

12. Hazardous waste removal and disposal constituting a public hazard and which require immediate removal.

APPENDIX B

Category B (Minor Projects Requiring Submittal of Documentation and Review by INDOT Cultural Resources Staff)

Category B consists of projects that do require documentation and review by INDOT Cultural Resources staff to assess the likelihood that historic properties exist in the area of potential effects or determine the degree of existing soil disturbance within the project area.

1. Roadway surface replacement, rehabilitation, resurfacing, or reconstruction, overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking within areas previously disturbed by construction where replacement, repair, or installation of curbs or sidewalks will be required when such activities do not take place adjacent to or within a National Register listed or eligible bridge, property or historic district.

2. Installation of new lighting, signals and other traffic control devices in previously disturbed soils when such activities do not take place adjacent to or within a National Register listed or eligible bridge, property or historic district.

3. Construction of turning and auxiliary lanes (e.g., truck climbing, acceleration and deceleration lanes) and shoulder widening in areas previously disturbed by vertical and horizontal construction activities except when adjacent to or within a National Register listed or eligible bridge, property or historic district.

4. Installation of new safety appurtenances such as guardrails, barriers, glare screens, and crash attenuators, when such activities do not take place adjacent to or within a National Register listed or eligible bridge, property or historic district.

5. Emergency repairs to maintain the integrity of bridges (except National Register listed or eligible bridges) and roadways.

6. Other minor actions if deemed appropriate for coverage under this PA, by consultation and mutual agreement between INDOT, FHWA, and the SHPO.

7. Roadway surface replacement, rehabilitation, resurfacing, or reconstruction, overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking within areas previously disturbed by construction where replacement, repair, or installation of curbs or sidewalks will be required when such activities take place adjacent to or within a National Register listed or eligible bridge, property or historic district, but where the National Register listed or eligible bridge, property or historic district does not possess any unusual features such as brick or stone sidewalks, curbs or sidewalks/curb ramps; stepped or elevated sidewalks, curbs or sidewalks/curb ramps; or any other feature whose replacement or modification might constitute an adverse effect to nearby properties. All projects proposed

to fall under this stipulation must be reviewed by INDOT Cultural Resources Staff (both archaeologists and historians) as outlined in Stipulations 2 and 3 of this agreement. They also must be field checked by an INDOT Cultural Resources' staff historian. The Cultural Resources staff historian shall survey the project area for any unusual features. If no unusual features are observed adjacent to or within a National Register listed or eligible bridge, property or historic district, documentation will be gathered to this effect for the project files. If unusual features are observed, full Section 106 review will be required.

8. For the purposes of this programmatic agreement, certain recreational trail projects are considered *minor projects*,

   IF ONE OF THE FOLLOWING TWO CONDITIONS IS MET:

   Condition 1

   Construction of a trail would occur within an existing roadway, sidewalk, or rail bed where replacement, repair, or installation of a trail feature occurs within areas previously disturbed by vertical and horizontal construction activities, and not on, within, or adjacent to a National Register listed or eligible site, bridge, property or historic district. In such a case, the project may be reviewed as a *minor project*, according to Stipulation 2 of this agreement, as long as the project is not otherwise disqualified from treatment of a *minor project*. If the trail construction occurs on, within, or adjacent to a National Register listed or eligible archaeological site, bridge, property or historic district, then the project must complete full Section 106 review consultation pursuant to Stipulation 4 of this agreement. Any archeological resources uncovered accidentally during construction must be treated according to Stipulation 5 of this agreement.

   OR

   Condition 2

   Construction of a trail would occur within previously undisturbed soils and such trail construction would not occur on, within or adjacent to National Register eligible or listed archaeological resources, as determined by an archaeological investigation (archaeological records check up to a Phase Ia reconnaissance, as determined by the INDOT Cultural Resources Section) of the project area, submitted to the INDOT Cultural Resources Section by the applicant. If the archaeological investigation determines that no National Register eligible or listed archaeological resources are present within the project area, then the project may be reviewed as a *minor project*, according to Stipulation 2 of this agreement, as long as the project is not otherwise disqualified from treatment as a *minor project*. If the archaeological investigation locates National Register eligible or listed archaeological

resources, then the project must complete full Section 106 review consultation pursuant to Stipulation 4 of this agreement. Any archaeological resources uncovered accidentally during construction must be treated according to Stipulation 5 of this agreement. Copies of any reports will be provided to the DHPA from the INDOT Cultural Resources Section and the archaeological site form information will be entered directly into SHAARD.

In addition, trail construction must not occur on, within, or adjacent to an above-ground National Register listed or eligible site, bridge, property or historic district. If the trail construction occurs on, within, or adjacent to an above-ground National Register listed or eligible site, bridge, property or historic district, then the project must complete full Section 106 review consultation pursuant to Stipulation 4 of this agreement.

Activities related to trail projects that are considered minor in nature may include the following:

- roadway surface replacement; rehabilitation, resurfacing, or reconstruction; overlays; laying down of crushed stone or gravel
- shoulder treatments; pavement repair; seal coating; pavement grinding
- pavement marking
- installation of new signals and other traffic control devices
- installation of new safety appurtenances such as guardrails and barriers
- installation of trees, bike racks, benches, trash cans, and other amenities, excluding lighting
- the installation of directional signage
- trail heads that do not involve rehabilitation or alteration of National Register eligible, potentially eligible, or listed structures and occur within areas previously disturbed by vertical and horizontal construction activities but do not involve rehabilitation or alteration of National Register eligible, potentially eligible, or listed structures
- parking lots that occur within areas previously disturbed by vertical and horizontal construction activities

Any activities NOT included in the above list are NOT considered minor in nature, are not covered under this agreement, and require a full Section 106 review consultation pursuant to Stipulation 4 of this agreement.

9. Replacement, repair, lining, or extension of culverts and other drainage structures in undisturbed soils, under the conditions listed below. If both conditions of this stipulation cannot be met, full Section 106 review will be required pursuant to Stipulation 4 of this agreement.

- The structure does not exhibit non-modern wood, stone, or brick structures or parts therein, or a context that suggests it might have engineering or historical significance.
- The project does not take place on, adjacent to, or within a National Register listed or eligible bridge, property or historic district.

Additionally, an archaeological investigation (archaeological records check up to a Phase Ia reconnaissance, as determined by the INDOT Cultural Resources Section) must be conducted by the applicant to assure that no National Register-eligible sites are within the undisturbed project area. If the archaeological investigation determines that no National Register eligible or listed archaeological resources are present within the project area, then the project may be reviewed as a minor project, according to Stipulation 2 of this agreement. If the archaeological investigation locates National Register eligible or listed archaeological resources, then the project must complete full Section 106 review consultation pursuant to Stipulation 4 of this agreement. Any archaeological resources uncovered accidentally during construction must be treated according to Stipulation 5 of this agreement. Copies of any reports will be provided to the DHPA from the INDOT Cultural Resources Section and the archaeological site form information will be entered directly into SHAARD.

Y. Historic Bridges Programmatic Agreement

PROGRAMMATIC AGREEMENT
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
THE INDIANA DEPARTMENT OF TRANSPORTATION,
THE INDIANA STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING
MANAGEMENT AND PRESERVATION OF INDIANA'S HISTORIC BRIDGES

WHEREAS, the Federal Highway Administration (FHWA) has determined that the construction and improvement of highways and bridges with Federal Aid Highway funds (Federal-aid) may have an effect on bridges that are listed in the National Register of Historic Places (NRHP), or may be determined to be eligible for listing, hereafter referred to as "historic bridges"; and

WHEREAS, historic bridges may be rehabilitated through several Federal-aid programs, such as the Transportation Enhancement Program, the Surface Transportation Program, and the Highway Bridge Replacement and Rehabilitation Program provided the appropriate eligibility criteria are satisfied; and

WHEREAS, this Programmatic Agreement (Agreement) is applicable to Federal-aid projects that result in the rehabilitation or replacement of historic bridges in Indiana; and

WHEREAS, FHWA has consulted with the Advisory Council on Historic Preservation (Council) and the Indiana State Historic Preservation Officer (Indiana SHPO) pursuant to 36 CFR 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act of 1966 (Section 106) (16 U.S.C. 470f); and

WHEREAS, FHWA formed a Historic Bridge Task Group (Task Group), including representatives from the Council, Indiana SHPO, Indiana Department of Transportation (INDOT), Indiana Local Technical Assistance Program (LTAP), Historic Landmarks Foundation of Indiana (HLFI), Historic Spans Task Force, Indiana Association of County Highway Engineers and Supervisors (IACHES), Indiana Association of County Commissioners (IACC), and Senator Richard Lugar's Office, to assist in the development of this Agreement and monitor its success upon implementation of the Agreement; and

WHEREAS, this Agreement defines a process to identify historic bridges that are most suitable for preservation and are excellent examples of a given type of historic bridge, hereafter referred to as "Select Bridges" and also identify those historic bridges that are not considered excellent examples of a given type of historic bridge or are not suitable candidates for preservation, hereafter referred to as "Non-Select Bridges"; and

WHEREAS, FHWA will not consider demolition to be a "prudent" alternative for any Federal-aid project involving a Select Bridge and FHWA will not participate in a project that would result in the demolition of a Select Bridge; and

WHEREAS, FHWA may participate in the demolition of a Non-Select Bridge provided there are no feasible and prudent alternatives to demolition of the Non-Select Bridge; and

WHEREAS, the Task Group recognizes that historic bridges are an important part of the history, culture and surface transportation system of the State of Indiana and its local units of government; and

WHEREAS, economic development and tourism benefits have been recognized from preserving historic bridges; and

WHEREAS, the rehabilitation, reuse and preservation of historic bridges constructed of a wide variety of materials can be facilitated with good information and procedures that encourage consideration of context sensitive design solutions and address this public interest; and

WHEREAS, it is understood that new bridge construction and routes may ultimately be required to address local and state transportation needs; and

WHEREAS, FHWA, in consultation with the Council and the Indiana SHPO, have invited INDOT to be a signatory to this Agreement; and

WHEREAS, FHWA in consultation with the Council and the Indiana SHPO have invited the LTAP, HLFI, Historic Spans Task Force, IACHES, and IACC to be concurring parties to this Agreement;

NOW, THEREFORE, FHWA, INDOT, the Indiana SHPO, and the Council agree that the following stipulations will be implemented for FHWA undertakings in the State of Indiana that involve historic bridges.

STIPULATIONS

FHWA shall ensure that the following stipulations are carried out:

I. INDOT will implement the following actions or program updates within one (1) year of executing this Agreement:

A. INDOT will develop and include "Standards for Rehabilitation of Bridges on Low-Volume Roads" in the INDOT design manual, which will be utilized to evaluate if rehabilitation of a given historic bridge for vehicular use is feasible and prudent. Standards that define "feasibility" relate to the ability of an alternative to meet certain engineering requirements, such as structural capacity. Standards that define "prudent" relate to cost effectiveness of an alternative. The Task Group will be provided an opportunity to review and comment on the Standards before they are finalized and prior to any updates.

B. INDOT will inform the applicants for Federal-aid funds for any bridge project in the award letter that the scope of the bridge project (rehabilitation or replacement) will be determined by FHWA through the National Environmental Policy Act (NEPA) process and Section 4(f) of the Department of Transportation Act. The award letter will state that laws, regulations and design standards may ultimately dictate that the bridge be rehabilitated if the bridge is determined to be historic and FHWA concludes that rehabilitation is feasible and prudent.

C. INDOT will classify and label all historic bridge projects as "Bridge Project – Scope Undetermined" until after FHWA has identified a preferred alternative for the project. The classification and labeling will apply to award letters to federal-aid applicants, the Indiana Statewide Transportation Improvement Program and in electronic tracking systems maintained by INDOT. This generic classification for bridge projects will ensure that federal-aid applicants and the public do not have false expectations that the bridge will be replaced before the NEPA process is completed. The classification or label for the bridge project may be updated to reflect the scope identified in the approved NEPA document.

D. INDOT will work with the Transportation Enhancement Committee to develop and implement a scoring system that gives funding priority to Select Bridges within the historic projects category.

II. BRIDGE SURVEY

INDOT will complete a statewide survey of bridges on public roads and on public right-of-way (Bridge Survey) that were built in or before 1965. INDOT will gather the appropriate data to develop a historic context for bridges in Indiana, make NRHP eligibility recommendations, and recommend preservation priorities for historic bridges in accordance with "Attachment A - Scope of Services for the Development of a Historic Bridge Inventory (Appendix A of Consultant Contract)" of this Agreement. INDOT will collect data on all types of bridges (metal truss, concrete, masonry and timber), and will provide adequate opportunities for input to the Task Group and the public in completing the requirements of Attachment A and Stipulations II.A and II.B. Key points where INDOT will seek public comment include: NRHP eligibility, draft Select and Non-Select prioritization criteria, and the draft list of Select and Non-Select Bridges. Each notice requesting public comment will be mailed directly to the County Commissioners so bridge owners will be able to comment at each stage of the process.

A. NRHP Eligibility Determinations:

1. INDOT will provide NRHP eligibility recommendations to the Task Group, County Commissioners, and the public for a 60 day comment period. INDOT's recommendations will include the NRHP criterion, or criteria, that qualify the bridge for listing in the NRHP. INDOT will also list the bridges that are determined not to be eligible for the NRHP. INDOT will forward their final recommendations, along with any Task Group and public comments to FHWA and the Indiana SHPO for an eligibility determination.

2. FHWA, in consultation with the Indiana SHPO, will issue NRHP eligibility determinations for each bridge surveyed by INDOT. Bridges determined not to be NRHP eligible require no further consideration by INDOT and FHWA, unless later determined eligible for the NRHP in response to a nomination, or based on additional information or changed circumstances.

3. INDOT will make available to the public the NRHP eligibility determinations made by FHWA. The list will also include those bridges that FHWA determines not to be eligible for the NRHP.

B. Prioritization:

1. INDOT will develop criteria to identify each historic bridge as either Select or Non-Select in accordance with the process outlined in "Attachment A - Scope of Services for the Development of a Historic Bridge Inventory (Appendix A of Consultant Contract)."

2. INDOT will seek input from the Task Group and the public on the evaluation criteria for classifying historic bridges as Select and Non-Select. The Task Group, County Commissioners, and the public will have thirty (30) days to provide comments to INDOT on the criteria.

3. FHWA, in consultation with the Indiana SHPO, will review the comments from the Task Group and the public, modify the criteria as appropriate, and approve the criteria in cooperation with INDOT.

4. INDOT will apply the Select and Non-Select Bridge criteria to each historic bridge identified in the Bridge Survey. INDOT will seek comments from the Task Group and the public on the draft list of Select and Non-Select Bridges. For each bridge, the rationale for including the bridge on the Select list or Non-Select list will be described. The Task Group, County Commissioners, and the public will have sixty (60) days to provide comments to INDOT on the Select and Non-Select Bridges list.

5. INDOT will provide FHWA and the Indiana SHPO with the list of Select and Non-Select Bridges and the comments received from the Task Group and the public. FHWA, in consultation with the Indiana SHPO, will review the comments received and make appropriate changes to the list, if any. FHWA, in consultation with the Indiana SHPO, will ultimately approve the list of Select and Non-Select Bridges when both parties are satisfied with the classification of each bridge.

6. INDOT will make available to the Task Group and the public the final list of Select and Non-Select Bridges, the final criteria used to evaluate bridges as Select or Non-Select, and the rationale for the classification of each bridge.

C. Re-Evaluation of Historic Bridges

1. In unusual circumstances, a Select Bridge may no longer meet the Select Bridge criteria. Examples of unusual circumstances may include, but are not limited to, the bridge collapsing due to a flood or an overweight vehicle. A bridge owner may request that FHWA and the Indiana SHPO re-evaluate the Select Bridge determination if an unusual circumstance occurs. The following process will be followed to determine if re-classification of the Select Bridge is appropriate:

   a. The bridge owner must submit the request in writing to INDOT. The bridge owner should describe the unusual circumstance that has occurred and explain why the Select Bridge criteria no longer apply to the bridge.

   b. If INDOT determines the request has merit, then INDOT will notify FHWA, the Indiana SHPO, the Task Group, and the public of the request to re-classify the Select Bridge. INDOT will accept comments from the Task Group and the public for thirty (30) days.

   c. INDOT will provide a copy of all comments received to FHWA and the Indiana SHPO. FHWA and the Indiana SHPO will consult to evaluate the request and consider the comments received from the Task Group and the public.

   d. If FHWA and the Indiana SHPO agree on the classification of the bridge, then FHWA will notify INDOT of the decision within 30 days after receiving the documentation from INDOT. INDOT will notify the bridge owner, the Task Group and all individuals that provided comments on the bridge of the decision. If FHWA and the Indiana SHPO do not agree on the classification of the bridge, then the parties will invoke the Dispute Resolution provision, Stipulation IV.B. If necessary, INDOT will update the Select/Non-Select list by removing the Select Bridge from the list.

2. At least every ten (10) years, FHWA, INDOT, and the Indiana SHPO will consult to determine if conditions have changed that would require updating the list of bridges eligible for the NRHP, the criteria for identifying Select and Non-Select Bridges, and the list of Select and Non-Select Bridges. Any signatory may request that an update be completed more frequently if there have been substantial changes to the population of bridges identified in the Bridge Survey. If FHWA, INDOT and the Indiana SHPO agree that conditions have changed and an update is required, then the survey will be completed as described in Stipulation II of this Agreement. The FHWA, INDOT and the Indiana SHPO will consult to determine if the survey should be expanded to include bridges built after 1965. If FHWA, INDOT and the Indiana SHPO determine the existing survey is still valid, then INDOT will notify the Task Group, County Commissioners, and the public of the decision.

III. PROJECT DEVELOPMENT PROCESS FOR HISTORIC BRIDGES

FHWA will satisfy its Section 106 responsibilities for undertakings involving Select and Non-Select Bridges by completing the following processes. FHWA recognizes that additional historic properties, other than the historic bridge, may exist within the project's Area of Potential Effect (APE). To satisfy FHWA's Section 106 responsibilities for other historic resources that may be in the APE, FHWA will comply with the requirements of 36 CFR Parts 800.3-800.6.

Consulting parties shall be invited to consult pursuant to 36 CFR Part 800.3 and be notified that consultation with respect to the historic bridge will be completed in accordance with the Programmatic Agreement for the Management and Preservation of Indiana's Historic Bridges.

A. Project Development Process for Select Bridges

1. FHWA will work with INDOT, and the bridge owner if the historic bridge does not belong to INDOT, to develop a draft purpose and need statement (P&N) and alternatives analysis. Rehabilitation for vehicular use must be thoroughly evaluated before other alternatives are considered. Rehabilitation alternatives must include a one-way pair alternative that involves rehabilitating the existing bridge and constructing a new parallel bridge. If rehabilitation is not feasible and prudent, then the Select Bridge must be bypassed or relocated for another use. FHWA will not participate in a project that involves demolition of a Select Bridge.

2. If the bypass alternative is not feasible and prudent, relocation of the bridge will be required. INDOT will work with the bridge owner, if the bridge does not belong to INDOT, to identify a new location for the Select Bridge. Preference will be given to locations closest to the original location of the bridge. The NEPA document must include the proposed new location, description of how the new bridge will be utilized, and evaluate the associated impacts, in addition to those resulting from the bridge replacement.

3. Upon completion of the draft P&N and alternatives analysis, INDOT will forward to the consulting parties a copy of the draft P&N and alternatives analysis (including relocation proposal, if applicable) and give the consulting parties at least thirty (30) days to provide comments before the P&N and alternatives analysis are finalized.

4. FHWA will work with INDOT, and the bridge owner if the historic bridge does not belong to INDOT, to revise the P&N and alternatives analysis based on comments received. FHWA will identify a preferred alternative based on the P&N and alternatives analysis. INDOT will provide the revised P&N, alternatives analysis (including updated relocation proposal, if applicable), and preferred alternative to all consulting parties. The submittal to the Indiana SHPO will request concurrence with the FHWA preferred alternative.

5. If the Indiana SHPO objects to the preferred alternative within thirty (30) days of receiving the request for concurrence, FHWA will continue to consult with the

Indiana SHPO, INDOT, the bridge owner if the historic bridge does not belong to INDOT, and the consulting parties. If the Indiana SHPO and FHWA cannot reach agreement with respect to the preferred alternative, then FHWA will comply with the dispute resolution stipulation of this Agreement.

6. If the Indiana SHPO concurs with FHWA's preferred alternative, then the standard treatment approach, described in Attachment B (Standard Treatment Approach for Historic Bridges) will be initiated. The Indiana SHPO, the Council, and FHWA agree that implementation of the standard treatment approach for rehabilitation (rehabilitation is required for the Select Bridge) includes all possible planning to minimize harm to the historic bridge and fulfills all consultation requirements under Section 106.

7. The bridge owner will hold a public hearing prior to completion of NEPA. The bridge over will notify consulting parties by letter or e-mail (if available) of the public hearing and the availability of the environmental documentation. The environmental document, Section 106 documentation for other resources in the APE, and preliminary Section 4(f) evaluation, if one is required, will be made available prior to and at the public hearing for public review and comment.

8. If the preferred alternative includes transferring ownership of the historic bridge, then INDOT will initiate an agreement between INDOT, the bridge owner if the bridge does not belong to INDOT, the Indiana SHPO, and the proposed new bridge owner. The agreement shall include all applicable commitments required in Attachment B. INDOT will execute the agreement prior to NEPA approval.

9. FHWA and INDOT will work jointly so that all measures to minimize harm to the historic bridge are incorporated into the project as part of the environmental commitments made in documentation required pursuant to NEPA.

10. If there is no agreement ultimately regarding the preferred alternative, FHWA will comply with the dispute resolution stipulation of the Agreement.

B. Project Development Process for Non-Select Bridges

1. FHWA will work with INDOT, and the bridge owner if the bridge does not belong to INDOT, to develop a draft P&N and alternatives analysis. Rehabilitation for vehicular use must be thoroughly evaluated before other alternatives are considered. Rehabilitation alternatives must include a one-way pair alternative that involves rehabilitating the existing bridge and constructing a new parallel bridge.

2. If rehabilitation alternatives are not feasible and prudent, the bridge owner shall market the historic bridge for re-use. Proposals will be accepted for the immediate rehabilitation and reuse or for it's storage for future reuse. Proposals will also be accepted for the salvage of elements that may be stored for future repair of similar historic bridges. At a minimum, the following activities will be completed:

a. The bridge owner shall place a legal notice in a local newspaper and a statewide newspaper at a minimum six (6) months in advance of the public hearing to notify interested parties of the historic bridge availability for re-use. The advertisement should describe, at a minimum, the historic bridge length, width, height, condition, and availability.
b. The bridge owner shall place signs at both approaches to the historic bridge at a minimum six (6) months in advance of the public hearing to notify users that the historic bridge will be replaced. The signs will remain in place until completion of NEPA.
c. The bridge owner shall provide INDOT and HLFI with the information needed to post the historic bridge on INDOT's historic bridge marketing website and HLFI website, respectively, at a minimum six (6) months prior to the public hearing.

3. If no responsible party steps forward either prior to or during the public hearing to assume ownership of the Non-Select Bridge, then the bypass and relocation alternatives will be deemed not prudent and, therefore, Indiana SHPO, the Council, and FHWA agree that the bridge may be demolished.

4. FHWA will identify a preferred alternative based on the P&N and alternatives analysis. The standard treatment approach, described in Attachment B (Standard Treatment Approach for Historic Bridges) will be initiated. The Indiana SHPO, the Council, and FHWA agree that implementation of the standard treatment approach includes all possible planning to minimize harm to the historic bridge and implementation of the standard treatment approach fulfills all consultation requirements under Section 106.

5. The bridge owner will hold a public hearing for the project, prior to completion of NEPA. The bridge owner will notify consulting parties by letter or e-mail (if available) of the public hearing and the availability of the environmental documentation. The environmental document, Section 106 documentation for other resources in the APE, and preliminary Section 4(f) evaluation, if one is required, will be made available prior to and at the public hearing for public review and comment.

6. If the preferred alternative includes transferring ownership of the historic bridge, then INDOT will execute an agreement between INDOT, the bridge owner if the bridge does not belong to INDOT, the Indiana SHPO, and the proposed new bridge owner. The agreement shall include all applicable commitments required in Attachment B. INDOT will execute the agreement prior to NEPA approval.

7. FHWA will ensure all measures to minimize harm to the historic bridge are incorporated into the project as part of the environmental commitments made in documentation required pursuant to NEPA.

IV. ADMINISTRATIVE STIPULATIONS

A. Review – The Council and Indiana SHPO may monitor activities carried out pursuant to this Agreement and will review such activities, if so requested. FHWA and INDOT will cooperate with the Council and the Indiana SHPO in carrying out their review responsibilities.

B. Dispute Resolution – Should any signatory or invited signatory to this Agreement object at any time to any actions proposed or the manner in which the terms of this Agreement are implemented, FHWA shall consult with the objecting party(ies) to resolve the objection. If FHWA determines that such objection(s) cannot be resolved, FHWA will:

1. Forward all documentation relevant to the dispute to the Council in accordance with 36 CFR Section 800.2(b)(2). Upon receipt of adequate documentation, the Council shall review and advise FHWA on the resolution of the objection within thirty (30) days. Any comment provided by the Council, and all comments from the parties to the Agreement, will be taken into account by FHWA in reaching a final decision regarding the dispute.

2. If the Council does not provide comments regarding the dispute within thirty (30) days after receipt of adequate documentation, FHWA may render a decision regarding the dispute. In reaching the decision, FHWA will take into account all comments regarding the dispute from the parties to the Agreement.

3. FHWA's responsibilities to carry out all other actions subject to the terms of this Agreement that are not the subject of the dispute remain unchanged. FHWA will notify all parties of its decision in writing before implementing that portion of the undertaking subject to dispute under this stipulation. FHWA's decision will be final.

C. Annual Reporting – INDOT will maintain the list of bridges evaluated under Stipulation II and include at least the current status of eligibility, priority (Select or Non-Select), current owner, and scope of Federal-aid projects processed under this Agreement. INDOT will prepare an annual report that will include a list of Select and Non-Select Bridges that have been processed during the previous calendar year pursuant to this Agreement and the scope of each project. INDOT will submit this report on or before January 31 of each year to the Task Group.

D. Amendments and Noncompliance – If any signatory to this Agreement, including any invited signatory, determines that its terms will not or cannot be carried out or that an amendment to its terms must be made, that party shall immediately consult with the other parties, as well as the Task Group, to develop an amendment. The amendment will be effective on the date a copy is signed by all of the original signatories. If the signatories cannot agree to appropriate terms to amend the Agreement, any signatory may terminate the Agreement in accordance with the Termination stipulation. In the event FHWA does not carry out the terms of this Agreement, FHWA will comply with 36 CFR Part 800 with regard to individual undertakings covered by this Agreement.

E. Termination – The Council, Indiana SHPO, INDOT, or FHWA may propose to terminate this Agreement by providing thirty (30) calendar days notice to the other parties and explaining the reason(s) for the proposed termination. The Council, Indiana SHPO, FHWA, and INDOT will consult during this period to seek agreement on amendments or other actions that would avoid termination. In the event of termination, FHWA will comply with 36 CFR Part 800 with regard to individual undertakings covered by this Agreement.

F. National Historic Landmarks – National Historic Landmarks shall be treated in accordance with 36 CFR 800.3–800.6, and 800.10 rather than the terms of this agreement.

G. Anticipatory Demolition – If FHWA or Indiana SHPO determine a bridge owner intentionally demolishes or otherwise diminishes the historic integrity of a Select Bridge under the bridge owner's jurisdiction with non-Federal-aid funds, then FHWA will comply with 36 CFR Part 800 for any future federal-aid bridge project proposed by that bridge owner. After the next Bridge Survey update is completed in accordance with Stipulation II.C.2, FHWA may process federal-aid projects in accordance with this Agreement for that bridge owner.

Section 110(k) of the National Historic Preservation Act prohibits FHWA from providing Federal-aid funds for a given project, where the bridge owner, with the intent to avoid the requirements of Section 106, has intentionally adversely affected the historic bridge prior to completion of NEPA (see 36 CFR 800.9(c)).

H. Transition of existing projects – Until such time as the initial survey and prioritization of historic bridges called for in Stipulation II.B has been carried out, or for those projects that fall outside the scope of this agreement, projects must comply with the requirements of 36 CFR Part 800. Projects that have completed compliance with 36 CFR Part 800 shall not be reevaluated, provided the scope of work of the project and the mitigation measures, if any, are fully implemented as they were identified during the NEPA evaluation.

I. Duration – This Agreement shall become effective upon execution by FHWA, Indiana SHPO, INDOT, and the Council and shall remain in effect until December 31, 2030.

J. Option to Renew – No later than December 31, 2029, FHWA will consult with the Indiana SHPO, INDOT and the Council to determine interest in renewing this Agreement. The Agreement may be extended for an additional term upon the written agreement of the signatories.

Execution of this Agreement and implementation of its terms evidences that FHWA has considered the effects of its Federal-aid program on Indiana's historic bridges and afforded the Council a reasonable opportunity to comment.

SIGNATORIES

FEDERAL HIGHWAY ADMINISTRATION

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

8/2/06
Date

INDIANA HISTORIC PRESERVATION OFFICER

Kyle Hupfer
Director, Indiana Department of Natural Resources
Indiana State Historic Preservation Officer

7/26/06
Date

ADVISORY COUNCIL ON HISTORIC PRESERVATION

John M. Fowler
Executive Director

8/4/06
Date

INVITED SIGNATORY

INDIANA DEPARTMENT OF TRANSPORTATION

Thomas O. Sharp
Commissioner

7/21/06
Date

CONCURRING PARTY

HISTORIC SPANS TASK FORCE

Paul Brandenburg
Chair

22-Aug-2006
Date

CONCURRING PARTY

HISTORIC LANDMARKS FOUNDATION OF INDIANA

October 23, 2006

Marsh Davis
President

Date

ATTACHMENT A

Scope of Services for the Development of a Historic Bridge Inventory

(Appendix A of Consultant Contract)

Appendix "A"

Information and Services to be furnished by the CONSULTANT:

The CONSULTANT will be responsible for the study of publicly owned bridges that exist in the National Bridge Inventory (NBI) and were built through 1965 in the State. The work will be accomplished following all of the relevant Federal Highway Administration regulations and guidance documents, as well as other federal and state requirements and Indiana Department of Transportation (INDOT) Procedural Manual for Preparing Environmental Studies. The work will be assigned and reviewed by the Office of Environmental Services (OES) Administrator. The completed study along with the appropriate number of copies will be transmitted for distribution to the OES.

HISTORIC BRIDGES INVENTORY:

The study will be divided into two phases. Phase I of the study will focus on bridges (approximately 3,443 bridges) constructed through 1942. Phase II of the study will focus on bridges (approximately 3,856 bridges) constructed from 1943 through 1965. The Phase I and Phase II evaluations will be completed concurrently. The Phase I evaluations are more critical given that many of these bridges are eligible for the National Register of Historic Places (National Register) and many of these structures have been lost in recent years.

Part 1 of the Agreement will extend through Task 4.2 and will include bridges built through 1965. Tasks 8, 9, and 10 will be completed concurrently with Tasks 1 through 4.2, as appropriate. The scope of work for succeeding tasks, beginning with Task 4.3, will be finalized as Part 2 of the Agreement after the number of bridges requiring inventory has been determined.

The CONSULTANT will provide the following scope of services for the development of a historic bridge inventory:

Task 1. Develop Contextual Study of Historic Bridges in Indiana – This task involves developing a historic context report for bridges in Indiana. The report will include a history of settlement and transportation in Indiana with an emphasis on nineteenth-century wagon routes, automobile transportation, and bridge engineering and design. Early road development, significant named highways, the interstate system, and important public works campaigns related to transportation will be addressed. The report will include a context for the historical development of transportation networks and systems at the local, regional, and state levels, as described in secondary literature, historic maps, county historical surveys, and INDOT annual progress reports. The report will also include a history of the evolution of the Indiana State Highway Commission into INDOT.

Task 1.1 Conduct historical research

The CONSULTANT will conduct research into periods of bridge construction and general events and trends in transportation history in the United States and Indiana to prepare a historic context to assist in the evaluation of bridges through 1965.

Sources to be consulted are expected to include:

a. Secondary literature related to Indiana transportation history
b. INDOT's annual progress reports, major planning studies for bridges, and bridge design manuals for the period
c. Histories of construction and design firms actively working on Indiana bridges during this period
d. Engineering journals of the period covering the subject bridges, such as *Engineering News-Record* and *Public Roads*
e. Standard plans and construction drawings for the subject bridges, as needed
f. INDOT's Bridge Inventory Database
g. Indiana State Historic Preservation Office's (INSHPO) bridge database
h. Indiana county atlases and highway maps from the period, including the 1876 atlas of Indiana
i. Historic contexts for bridges of the period completed by other state departments of transportation and the National Cooperative Highway Research Program
j. Thematic surveys in the collection of INSHPO, including: *Iron Monuments to Distant Prosperity, Indiana's Metal Bridges*; *Artistry and Ingenuity in Artificial Stone, Indiana's Concrete Bridges*; *Indiana's Covered Bridges*; and *WPA Recreational Projects in the Hoosier State*
k. Transportation contexts provided in county and municipal surveys in the collection of INSHPO
l. Nominations and determinations of eligibility for bridges in the collection of INSHPO
m. Materials previously gathered by Professor James Cooper for statewide bridge studies and publications
n. Bridge information collected by the Local Technical Assistance Program (LTAP) in 2003

Research for this task will be conducted in Indianapolis; West Lafayette; and Madison, Wisconsin. Repositories to be visited are expected to include:

a. INDOT
b. INSHPO
c. Indiana State Archives, Indianapolis
d. Indiana State Library, Indianapolis
e. Indiana Historical Society, Indianapolis
f. Stewart Center Libraries, Purdue University, West Lafayette
g. Online sources
h. University of Wisconsin Engineering Library (for national journals)
i. Wisconsin Historical Society Library (collection on U.S. history)

No research for this task is expected to be conducted at the local level of Indiana counties or cities.

Task 1.2 Conduct oral history interviews
The CONSULTANT will conduct interviews with up to 10 bridge engineers and transportation historians. The CONSULTANT will select interview subjects based on discussions with INDOT. Selected subjects are expected to include agency and consulting engineers, Purdue University and extension civil engineers, and transportation historians knowledgeable on the period of study. The results of the interviews will be incorporated into the historic context report.

Task 1.3 Prepare historic context outline
The CONSULTANT will prepare an outline for the historic context report for concurrent INDOT and INSHPO review. Within 10 days of receipt, INDOT will approve or provide written comments on the outline. If the draft outline requires extensive revision, INDOT and the CONSULTANT will have a teleconference to discuss comments and a revised draft will be submitted for review. The approved outline will be the basis for the draft historic context report.

Task 1.4 Prepare draft historic context report
Based on the results of research and interview efforts, the CONSULTANT will prepare the historic context report. The purpose of the report is to define relevant historic contexts that will be used in assessing historical significance and establishing periods of significance for bridges built in Indiana through 1965. These historic contexts will inform the stratification methodology (Task 2) and the Evaluation Criteria (Task 3). The primary historic contexts to be developed are expected to include:

a. Transportation history (specific to bridges) – Provides a narrative history of transportation in Indiana, including federal, inter-state, county, and municipal public works construction campaigns from the late nineteenth century to 1965. Transportation networks include early roads (as indicated on 1876 atlas), named highways, state-aid highways, and interstate highways. The history of the evolution of the Indiana State Highway Commission into INDOT will be included. In addition, attention will be given to the development of various inter-state highway associations with routes in Indiana, including the National Road, Lincoln Highway, and Dixie Highway. Information on county and municipal public works will be limited to that identified through secondary sources identified as Source k in Task 1.1.

b. Bridge engineering, innovations, and developments – Includes a history of bridge technology, understanding of bridge typology, including structural configurations and building materials, and identifies bridge types utilized in Indiana, as well as innovations in design, materials, and construction methods found in the state.

c. Significant engineers, designers, and builders – Identifies important private- and public-sector bridge designers and builders of Indiana bridges constructed in or before 1965. The context for notable people and firms will focus on Indiana. For nationally known figures whose careers are well documented, research will be limited to that necessary to understand the potential significance of their work in Indiana.

Other historic contexts are expected to play a lesser role in the evaluation of the eligibility of subject bridges. Relevant information for these contexts in relationship to bridges of the subject period may be limited. These secondary contexts are expected to include:

a. Economic development (specific to bridges as components of road networks) – Includes bridges whose construction stimulated economic development of a region or city, if any.
b. Community planning and development – Includes bridges designed and constructed as part of a comprehensive plan for a community, if any.
c. Social history – Includes bridges directly associated with significant social programs, if any.
d. Politics/government – Includes bridges associated with the enactment and administration of state laws, if applicable.
e. Aesthetics – Considers how bridges reflect design principles of the period.

The CONSULTANT will submit a draft version of the report to INDOT for review. INDOT will complete a quality review of the draft report within 5 days of receipt. If the draft appears satisfactory, it will be submitted for concurrent review by INDOT, INSHPO, and the Federal Highway Administration, Indiana Division (FHWA Indiana). If INDOT provides written comments, the CONSULTANT will revise the report to address and incorporate INDOT's comments and submit a revised draft. INDOT, INSHPO, and the FHWA Indiana will review the CONSULTANT's revised draft within 30 days of receipt. Based on that review, INDOT will compile INDOT, INSHPO, and FHWA Indiana comments and provide the CONSULTANT with one set of comments.

Task 1.5 Complete preliminary analysis of NBI

The CONSULTANT will obtain NBI databases for state and county bridges from INDOT. The CONSULTANT will consolidate the databases and conduct a preliminary analysis of relevant data. As addenda to the draft historic context report, the CONSULTANT will prepare a list of bridge types represented in Indiana during the subject period and a list of historic contexts that may be associated with the subject bridges. For each type, the CONSULTANT will present years in use, heyday of use, typical span length, and longest span, based on preliminary analysis of the NBI.

Task 1.6 Prepare final historic context report

Based on written comments and the review meeting (see Task 10.2), the CONSULTANT will prepare the report in final form to address and incorporate all comments provided by INDOT. The CONSULTANT will submit the final report to INDOT for review and approval. The final historic context report will be available to the public for review on the INDOT project website (see Task 9.2). INDOT will advise the CONSULTANT regarding which public comments will be addressed in the final historic context. A maximum of 40 hours are budgeted for addressing public comments. The CONSULTANT will work with INDOT to address the comments and not delay subsequent tasks. If this is not feasible, the CONSULTANT will work with INDOT to revise the schedule.

Project Deliverable: Historic context report for historic bridges in Indiana. Final report will be provided in hard copy (5 copies) and on CD in PDF format (10 copies).

Task 2. Develop Methodology for Bridge Inventory – Because it is not feasible or practical to field survey all of the bridges built through 1965, the CONSULTANT will develop a method for separating the bridge population into subgroups based upon type/level of data needed for their evaluation.

Task 2.1 Develop methodology for stratifying bridge population
After consulting with INDOT and other entities (see Task 10.3), the CONSULTANT will develop a methodology to separate INDOT's pre-1966 bridge population into bridge subgroups. Bridges that have previously been determined eligible or listed in the State and/or National Register will not require further data and will be eliminated from further study. Extant eligible and listed bridges will be reintroduced in Task 7 (to be scoped in the future). Bridges with superstructures replaced after 1965 and any non-bridge structures in the NBI will also be eliminated from further study. Remaining bridges will be separated into subgroups based on type/level of data needed for their evaluation.

Task 2.2 Test assumptions of methodology
The CONSULTANT will test assumptions regarding the proposed methodology for stratifying the bridge population by reviewing photographs, maintenance, and inspection files, and construction drawings for up to 100 bridges. These materials will be reviewed to confirm assumptions concerning data needed for evaluation of bridge subgroups.

Task 2.3 Prepare draft bridge stratification report with list of subgroups and data needs
The CONSULTANT will identify and present rationale for what type of data will be needed for the evaluation of each subgroup. The CONSULTANT will develop procedures for how the data will be collected and documented for each subgroup.

The CONSULTANT will prepare and submit a bridge stratification report that includes a list of bridge subgroups, data needs for evaluating subgroups, and written procedures for collecting and synthesizing data for each subgroup to INDOT for review. As an appendix, the CONSULTANT will prepare a preliminary list of bridges in each subgroup. INDOT will complete a quality review of the draft bridge stratification report within 5 days of receipt. If the draft appears satisfactory, it will be submitted for concurrent review by INDOT, INSHPO, and FHWA Indiana. If INDOT provides written comments, the CONSULTANT will revise the bridge stratification report to address and incorporate INDOT's comments. INDOT, INSHPO, and FHWA Indiana will review the CONSULTANT's revised draft within 30 days of receipt.

Based on that review, INDOT will compile INDOT, INSHPO, and FHWA Indiana comments and provide the CONSULTANT with one set of comments.

Task 2.4 Develop final bridge stratification report
The CONSULTANT will prepare the bridge stratification report in final form to address and incorporate all comments provided by INDOT. The CONSULTANT will revise the list of

bridges in each subgroup to address and incorporate comments. The CONSULTANT will submit the final report to INDOT for review and approval.

Project Deliverables: Final lists and procedures will be provided in hard copy (5 copies) and on CD in PDF format (10 copies).

Task 3. Develop Evaluation Criteria for National Register Eligibility – The evaluation criteria will be based on the Historic Context and National Register Criteria for Evaluation. The criteria and considerations will follow the guidelines of *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* and *National Register Bulletin 16A: How to Complete the National Register Registration Form.* INSHPO's *Guidelines for Assessing the Cultural Significance of Indiana's Extant Metal Truss Bridges (1872-1942)* will also be consulted.

Task 3.1 Prepare evaluation criteria
Based on the results of the historic context report and the meeting (see Task 10.4), the CONSULTANT will develop bridge evaluation criteria and implementation procedures for determining which bridges are National Register eligible. These criteria will focus on significance at the state level but will also identify significant local trends and developments found during research. If Indiana played a national role in any innovations affecting the subject structures, possible national levels of significance will also be identified.

Criterion A will be developed to recognize structures that have an important association with significant events, trends or patterns in transportation history. Some structures that are primarily significant for their transportation function may also be associated with secondary themes. Significant secondary themes will be identified as appropriate to clarify the possible significance of structures. Secondary themes may include:

- Community planning and development
- Industry and commerce
- Social history
- Politics/government

Criterion C will be developed to identify structures that are significant representations of:

- Features common to its type, period, or method of construction
- Technological advances
- A variation, evolution, or transition that reflects an important phase in bridge construction
- High artistic value
- The work of a master

It is not anticipated that structures will be evaluated for eligibility under Criteria B or D. The Criteria for Evaluation will explain in detail why Criteria B and D are not expected to apply.

Task 3.2 Develop integrity considerations
Based on the results of the historic context report and the meeting (see Task 10.4), the CONSULTANT will develop integrity considerations that may apply to the subject structures. Integrity considerations, especially when inconsistent with the original design, may include:

- Widening the superstructure
- Replacing the superstructure after 1965
- Changing or removing a railing or parapet that is integral to the superstructure
- Replacing or adding main structural member

The CONSULTANT will review the work history field in the NBI database to determine types of alterations that will inform development of integrity considerations. These considerations will be incorporated into the draft and final evaluation criteria report.

Task 3.3 Prepare Draft evaluation criteria and implementation procedures
The CONSULTANT will submit a Draft Evaluation Criteria and Implementation Procedures report to INDOT for review. INDOT will complete a quality review of the draft report within 5 days of receipt. If the draft appears satisfactory, it will be submitted for concurrent review by INDOT, INSHPO, and FHWA Indiana. If INDOT provides written comments, the CONSULTANT will revise the evaluation criteria and implementation procedures to address and incorporate INDOT's comments. INDOT, INSHPO, and FHWA Indiana will review the CONSULTANT's revised draft within 30 days of receipt. Based on that review, INDOT will compile INDOT, INSHPO, and FHWA Indiana comments and provide the CONSULTANT with one set of comments.

Task 3.4 Final evaluation criteria and implementation procedures
Based upon that review, INDOT will compile INDOT, INSHPO, and FHWA Indiana comments and provide the CONSULTANT with any additional written comments, and the CONSULTANT will incorporate the comments. The CONSULTANT will submit the final report to INDOT for review and approval.

> Project Deliverables: Bridge evaluation criteria and implementation procedures. Final criteria and procedures will be provided in hard copy (5 copies) and on CD in PDF format (10 copies).

Task 4. Conduct Bridge Inventory

Task 4.1 Develop a historic bridge inventory database template
The CONSULTANT will work with INDOT System's Technology staff to develop a historic bridge inventory database template for all bridges built prior to and in the year 1965. The Database will be developed in Access and will include relevant NBI data elements (approximately 60 item numbers are expected to be included) and additional relevant fields not included in the NBI. The database will be separate from NBI, but compatible with NBI. Additional relevant fields not in NBI are expected to include:

- Historic bridge name (if known)
- Bridge number (County Bridge # or State Bridge #)

- Bridge located in park or on private property
- Bridge type details (especially for trusses not distinguished in NBI)
- Unique bridge number
- Unique design features
- Structural features
- Integrity problems
- Bridge designer and builder (if known)
- Aesthetic treatments
- Historical association
- Indiana Historic Sites and Structures (IHSS) inventory numbers
- National Register eligibility determinations
- "Select/Non-Select" status (this field will be filled after Task 7 is completed)
- Data to back up the "Select/Non-Select" decision (to be determined during Task 6)
- NBI Item 37 for historic significance (with corrected data)

Identification of selected NBI data elements and new data elements not presently in the NBI will be coordinated with INDOT, FHWA Indiana, and INSHPO. The CONSULTANT will submit the draft database template to INDOT. INDOT, INSHPO, and FHWA Indiana will review the draft database template with proposed fields based on NBI elements and other relevant information before any data is collected. Based upon that review, INDOT will provide the CONSULTANT with written comments. The CONSULTANT will incorporate the comments and INDOT will review and approve the final database template.

> Project Deliverable: Historic bridge inventory database template recorded electronically in Access with Excel spreadsheet export capability, provided on CD (10 copies)

Task 4.2 Populate database
The CONSULTANT will populate the database with NBI data and LTAP data for approximately 7,300 bridges. This task includes quality review of data to identify and address errors, omissions, and inconsistencies.

Task 4.3 Incorporate non-NBI bridges into the database
The CONSULTANT, in consultation with INDOT, will incorporate up to 50 non-NBI bridges identified by the public and interest groups during Tasks 8.4 and 9.1 into the database. Not all NBI database fields will be available.

Task 4.4 Determine project approach for Part 2
The CONSULTANT, in consultation with INDOT (see Task 10.5), will determine the proposed approach for succeeding tasks. INDOT will receive a memo of understanding outlining the proposed approach for review and comment.

Subsequent items under this task will be completed under a separate work scope.

Task 4.5 Collect bridge inventory data for all subgroups – Reserved (a detailed scope and cost proposal will be developed at a later date).

Task 5. Analyze Inventory Data to Make Eligibility Determinations – Reserved (a detailed scope and cost proposal will be developed at a later date).

Task 6. Develop Criteria for Identification of "Select" and "Non-Select" Bridges – Reserved (a detailed scope and cost proposal will be developed at a later date).

Task 7. Analyze Inventory Data to Make "Select" and "Non-Select" Determinations – Reserved (a detailed scope and cost proposal will be developed at a later date).

Task 8. Public Involvement – This task will be undertaken concurrently with Tasks 1 through 4.1, as appropriate. Three public presentations will be made to share information regarding the bridge inventory project, including the proposed methodology and evaluation criteria.

Task 8.1 Prepare presentation materials
The CONSULTANT will prepare a PowerPoint presentation and handouts. The CONSULTANT will submit presentation materials and handouts to INDOT for review prior to the meeting. The CONSULTANT will incorporate INDOT comments into the final version of the presentation materials and handouts prior to distribution. The final version will be used for the three presentations.

Task 8.2 County Bridge Conference presentation
If invited, the CONSULTANT will make a presentation at the County Bridge Conference, sponsored by the LTAP and Purdue University, to be held in January 2007 in West Lafayette. The CONSULTANT will work with INDOT to obtain an invitation.

Task 8.3 Road School presentation
If invited, the CONSULTANT will make a presentation at Purdue Road School, to be held in spring 2007 in West Lafayette. The CONSULTANT will work with INDOT to obtain an invitation.

Task 8.4 Public presentation
The CONSULTANT will make three presentations at locations selected in consultation with INDOT. The locations will include Indianapolis, the northern part of the state, and the southern part of the state. The CONSULTANT, in consultation with INDOT and INSHPO, will identify and invite groups, including County Historians, Historic Landmarks Foundation of Indiana and its affiliates, and the Historic Spans Task Force, and individuals with an interest in historic bridges to the meeting. The presentation will be open to the public and advertised through a public notice in the newspaper. The CONSULTANT will solicit information from attendees on bridges not included in the NBI. Such bridges may include bypassed bridges and bridges in parks.

Task 9. Supply Information for Creation of a Project Website – This task will be undertaken concurrently with Tasks 1 through 4.1, as appropriate. As part of the public involvement campaign, the CONSULTANT will assist INDOT's Systems Technology staff, as directed, with

content and format recommendations and provide copy content drafts for INDOT approval. Development, maintenance, and technical management of the project website will be the responsibility of INDOT.

Task 9.1 Project information available on project website
On a quarterly basis, the CONSULTANT will provide information on project methodology, milestones, and public meetings to INDOT's Systems Technology staff for posting on the project website. The website will also include a form for the public to identify non-NBI bridges. This form can be printed, completed, and returned. INDOT will review all web information prepared by the CONSULTANT prior to posting and provide written comments. The CONSULTANT will incorporate INDOT comments prior to submittal to INDOT's Systems Technology staff for posting.

Task 9.2 Final historic context report available on project website
The CONSULTANT will provide the final historic context report to INDOT's Systems Technology staff in PDF format for posting on the project website.

> Project Deliverables: Electronic files containing project information and report in PDF format for public outreach.

Task 10. Meetings and Project Milestones – This task will be undertaken concurrently with Tasks 1 through 4.1, as appropriate. The CONSULTANT will meet with INDOT, and any other entities (such as FHWA Indiana) as decided by INDOT, to review the scope of services, schedule, and deliverables for the project. The CONSULTANT will develop a refined schedule with meetings and project milestones outlined. Meetings may be waived by INDOT or reallocated to occur in conjunction with a different task. Additional meetings would be considered extra services. The CONSULTANT will provide INDOT with weekly progress reports via e-mail.

Task 10.1 Kick-off meeting
The CONSULTANT will meet with INDOT and other invited entities to gather historical research materials, review the project schedule, discuss the public involvement campaign, and establish the communication protocol between project participants. INDOT's Systems Technology staff will be present to discuss content and format recommendations for the project website. Minutes will be prepared and distributed to participants.

Task 10.2 Draft historic context report meeting
The CONSULTANT will meet with INDOT and other invited entities to review and discuss written comments, as provided by INDOT, on the CONSULTANT's revised draft historic context report. Minutes will be prepared and distributed to participants.

Task 10.3 Methodology meeting
The CONSULTANT will consult with INDOT and other invited entities at a meeting to discuss a methodology to separate INDOT's pre-1966 bridge population into bridge subgroups. Minutes

that document the decisions on the stratification methodology will be prepared and distributed to participants.

Task 10.4 Evaluation criteria meeting
The CONSULTANT will meet with INDOT, and other entities as decided by INDOT, to discuss how the historic context report will influence the development of criteria for evaluation and integrity considerations. Minutes will be prepared and distributed to participants.

Task 10.5 Project approach meeting
The CONSULTANT will meet with INDOT, and other entities as decided by INDOT, to discuss the proposed approach for succeeding tasks. Minutes will be prepared and distributed to participants.

Task 11. Development of the Programmatic Agreement – Reserved (a detailed scope and cost proposal will be developed at a later date).

ATTACHMENT B

Standard Treatment Approach for Historic Bridges

REHABILITATION

The following standard treatment approach applies to all Select Bridges and when the selected alternative includes preservation of a Non-Select Bridge[1]:

1. The bridge owner will develop plans to rehabilitate the bridge in accordance with the Secretary of the Interior's Standards for Rehabilitation, or as close to the Standards as is practicable.

2. The bridge owner will provide rehabilitation plans to the Indiana SHPO when the design is approximately 30% complete, 60% complete, and when final design plans are complete. If the project involves a bypass of the historic bridge, then the plan submittals will include a site plan and design of the new bridge and the historic bridge. The purpose of these reviews is to evaluate the design and proximity of the new bridge in relationship to the historic bridge (if historic bridge is bypassed), ensure compliance with the Secretary of Interior's Standards for Rehabilitation, and to incorporate context sensitive design features, where practicable.

3. The Indiana SHPO will have thirty (30) days to review and provide comments to the bridge owner and notify them of any photo documentation requirements. If comments are not received within thirty (30) days, the bridge owner may assume agreement from the Indiana SHPO on the plans submitted.

4. The bridge owner will provide a written response to Indiana SHPO comments before the design is advanced to the next phase. The Indiana SHPO comments must be addressed.

5. The bridge owner will ensure that the historic bridge will be maintained for a minimum period of 25 years.

6. If the bridge is currently listed on the NRHP, then INDOT will seek approval of the Department of Interior to keep it on the Register.

7. The bridge owner will complete any photo documentation in accordance with the specifications provided by the Indiana SHPO.

[1] Applicable whether rehabilitated at existing location or relocated, whether rehabilitated for vehicular or non-vehicular use.

8. The bridge owner will ensure that the above requirements are implemented before INDOT requests construction authorization from FHWA.

9. If there is any disagreement between the Indiana SHPO and the bridge owner in carrying out this standard approach, then FHWA will consult with the Indiana SHPO and the bridge owner to resolve the disagreement. If the disagreement cannot be resolved by FHWA, then FHWA will comply with the dispute resolution stipulation of the Agreement.

DEMOLITION

The following standard treatment approach applies to Non-Select Bridges when the selected alternative includes demolition of the Non-Select Bridge:

1. The bridge owner will consult with the Indiana SHPO to determine if photo-documentation of the bridge is needed. If needed, the Indiana SHPO will specify the photo documentation standards and distribution requirements. If the Indiana SHPO does not respond within thirty (30) days, the bridge owner may assume the Indiana SHPO does not require any photo documentation.

2. The bridge owner will complete any required photo documentation in accordance with the specifications provided by the Indiana SHPO.

3. The bridge owner will ensure that the above requirements are implemented before INDOT requests construction authorization from FHWA.

4. If there is any disagreement between the Indiana SHPO and the bridge owner in carrying out this standard approach, then FHWA will consult with the Indiana SHPO and the bridge owner to resolve the disagreement. If the disagreement cannot be resolved by FHWA, then the dispute resolution process identified in the Agreement will be followed.

5. Salvage of elements that may be stored and used for future repair of similar historic bridges, if a party was identified during the bridge marketing phase of project development (see Stipulation III.B.2).

Z. Section 106 Legal Notice Template

Public Notice

The Indiana Department of Transportation is planning to undertake a (type of project), funded in part by the Federal Highway Administration. The project is (add in details of project). The project is located (add in location of project).

Describe the project in more detail, indicate impacts, (i.e. R/W acquired, relocations, etc.).

The proposed action (impacts) (does not impact) items listed on or eligible for the National Register of Historic Places. The Federal Highway Administration has issued an (type of effect finding) for the project, due to the (reason for finding). In accordance with the National Historic Preservation Act, the views of the public are being sought regarding the effect of the proposed project on the historic elements as per 36 CFR 800.2(d), 800.3(e) and 800.6(a)(4). Pursuant to 36 CFR 800.6(a) (4), the documentation specified in 36 CFR 800. 11 (d) or (e) (choose which impact) is available for inspection in the (list office name). This documentation serves as the basis for the Federal Highway Administration's "(type of effect finding)" finding. The views of the public on this finding are being sought.

Please reply no later than (date to respond- set 30 days after the notice is published in the paper) to the contact information below:

Mr. Contact Name
Environmental Section
ABC Consultants
100 N. Main Avenue, Room 5
Indianapolis, IN 46218
Phone: (713) 332-1000
Fax: (713) 332-2000

AA. Section 106 MOA Template

FHWA Indiana Division
Section 106
Memorandum of Agreement Template

Updated April, 2007

MEMORANDUM OF AGREEMENT

BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION AND

THE INDIANA STATE HISTORIC PRESERVATION OFFICER

SUBMITTED TO THE ADVISORY COUNCIL ON HISTORIC PRESERVATION

PURSUANT TO 36 C.F.R. Section 800.6(b)(iv)

REGARDING THE **(UNDERTAKING)**

IN **(CITY), **(NAME) TOWNSHIP, **(NAME)** COUNTY, INDIANA**

WHEREAS the Federal Highway Administration ("FHWA") proposes to **(action)** for **(undertaking)** in **(City)**, **(name)** Township, **(name)** County, Indiana; and

WHEREAS the FHWA, in consultation with the Indiana State Historic Preservation Officer ("SHPO"), has defined this **(undertaking)**'s area of potential effects, as the term defined in 36 C.F.R. Section 800.16(d), to be the area within **(boundaries)**; and

WHEREAS the FHWA, in consultation with the Indiana SHPO, has found that **(name of historic property or properties)** is/are within the area of potential effects; and

WHEREAS the FHWA, in consultation with the Indiana SHPO, has determined, pursuant to 36 C.F.R. Section 800.4(c), that **(name of historic property or properties)** is/are eligible for inclusion in the National Register of Historic Places;

Or, **WHEREAS** the FHWA and the Indiana SHPO both recognize that **(name of historic property or properties)** is/are listed on the National Register of Historic Places; and

WHEREAS the FHWA, in consultation with the Indiana SHPO, has determined pursuant to 36 C.F.R. Section 800.5(a) that the **(undertaking)** will/may have an adverse effect on **(name of historic property or properties)**; and

WHEREAS the FHWA has consulted with the Indiana SHPO in accordance with Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and its implementing regulations (36 C.F.R. Section 800) to resolve the adverse effect on **(name of historic property or properties)**; and

WHEREAS the public was given an opportunity to comment on the undertaking's adverse effect in a notice published on **((give date(s) of publication))** in the **((give name of publication))**; and

WHEREAS the FHWA has notified the Advisory Council on Historic Preservation of the adverse effect and invited the Council's participation in the project, pursuant to 36 CFR Section 800.6(a)(1), in a letter dated **(date of letter)**; and

WHEREAS the Advisory Council on Historic Preservation declined to participate in consultation; and

Optional: **WHEREAS** the FHWA, in consultation with the Indiana SHPO, has invited **(name or names)** to participate in the consultation and to become a signatory/signatories to this memorandum of agreement; and

Optional: **WHEREAS** the FHWA, in consultation with the Indiana SHPO, has invited **(name or names)** to participate in the consultation and to concur in this memorandum of agreement: and

Optional: **WHEREAS** the FHWA has determined that this project has a *net benefit* on the 4(f) resource, and SHPO signature serves as a concurrence in the use the Net Benefit Programmatic 4(f) for this resource: and

WHEREAS the FHWA has consulted with the Indiana SHPO in accordance with Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and its implementing regulations (36 C.F.R. Part 800) concerning the scope of work as presented in the materials and plans dated **(date)**, and agreed to proceed with the project as proposed (optional: with the recommendations provided by the Indiana SHPO by letter dated **(date)**); and

NOW, THEREFORE, the FHWA and the Indiana SHPO agree that, upon the submission of a copy of this executed memorandum of agreement, as well as the documentation specified in 36 C.F.R. Section 800.11(e) and (f) to the Advisory Council on Historic Preservation ("Council" pursuant to 36 C.F.R. Section 800.6[b][1][iv]) and upon the FHWA's approval of the **(undertaking)**, the FHWA shall ensure that the following stipulations are implemented in order to take into account the effect of the **(undertaking)** on historic properties.

Stipulations

I. Mitigation stipulation or stipulations here...

   A. …

   B. …

   C. …

II. OBJECTION RESOLUTION PROVISION

Disagreement and misunderstanding about how this memorandum of agreement is or is not being implemented shall be resolved in the following manner:

A. If the Indiana SHPO or any invited signatory to this memorandum of agreement should object in writing to the FHWA regarding any action carried out or proposed with respect to the **(undertaking)** or implementation of this memorandum of agreement, then the FHWA shall consult with the objecting party to resolve this objection. If after such consultation the FHWA determines that the objection cannot be resolved through consultation, then the FHWA shall forward all documentation relevant to the objection to the Council, including the FHWA's proposed response to the objection. Within 45 days after receipt of all pertinent documentation, the Council shall exercise one of the following options:

i. Provide the FHWA with a staff-level recommendation, which the FHWA shall take into account in reaching a final decision regarding its response to the objection; or

ii. Notify the FHWA that the objection will be referred for formal comment pursuant to 36 C.F.R. Section 800.7(c), and proceed to refer the objection and comment. The FHWA shall take into account the Council's comments in reaching a final decision regarding its response to the objection.

B. If comments or recommendations from the Council are provided in accordance with this stipulation, then the FHWA shall take into account any Council comment or recommendations provided in accordance with this stipulation with reference only to the subject of the objection. The FHWA's responsibility to carry out all actions under the memorandum of agreement that are not the subjects of the objection shall remain unchanged.

III. POST REVIEW DISCOVERY

In the event that one or more historic properties--other than **(name or names of historic property or properties)**-- are discovered or that unanticipated effects on historic properties are found during the implementation of this memorandum of agreement, the FHWA shall follow the procedure specified in 36 C.F.R. Section 800.13, as well as and IC 14-21-1-27 and IC 14-21-1-29, by stopping work in the immediate area and informing the Indiana SHPO and the INDOT Cultural Resources Section of such unanticipated discoveries or effects within two (2) business days. Any necessary archaeological investigations will be conducted according to the provisions of IC 14-21-1 and 312 IAC 21, and the most current *Guidebook for Indiana Historic Sites and Structures Inventory – Archaeological Sites*.

IV. AMENDMENT

Any signatory to this memorandum of agreement may request that it be amended, whereupon the parties shall consult to consider the proposed amendment. 36 C.F.R. 800.6(c)(7) shall govern the execution of any such amendment.

V. TERMINATION

a. If the terms of this memorandum of agreement have not been implemented by **(Month)** **(Number of Day)**, 20**, then this memorandum of agreement shall be considered null and void. In such an event, the FHWA shall so notify the parties to this memorandum of agreement and, if it chooses to continue with the **(undertaking)**, then it shall reinitiate review of the **(undertaking)** in accordance with 36 C.F.R. Sections 800.3 through 800.7.

b. Any signatory to the memorandum of agreement may terminate it by providing thirty (30) days notice to the other parties, provided that the parties shall consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the FHWA shall comply with 36 C.F.R. Sections 800.3 through 800.7 with regard to the review of the **(undertaking)**.

c. In the event that the FHWA does not carry out the terms of this memorandum of agreement, the FHWA shall comply with 36 C.F.R. Sections 800.3 through 800.7 with regard to the review of the **(undertaking)**.

The execution of this memorandum of agreement by the FWHA, **(name or name of any invited signatory)**, and the Indiana SHPO, the submission of it to the Council with the appropriate documentation specified in 36 C.F.R. Section 800.11(e) and (f), and the implementation of its terms

evidence that the FHWA has afforded the Council an opportunity to comment on the **(undertaking)** and its effect on historic properties and that the FHWA has taken into account the effects of the **(undertaking)** on historic properties.

SIGNATORIES (required):

FEDERAL HIGHWAY ADMINISTRATION

Signed by: _____ Date: _____

Name and Title: _____

(Typed or printed)

INDIANA STATE HISTORIC PRESERVATION OFFICER

Signed by: _____ Date: _____

Name and Title: _____

(Typed or printed)

INVITED SIGNATORIES

INDIANA DEPARTMENT OF TRANSPORTATION

Signed by: _____ Date: _____

Name and Title: _____

(IF the applicant is an entity other than INDOT, include that entity's name here)

Signed by: _____ Date: _____

Name and Title: _____

(Typed or printed)

(IF an entity has responsibilities under the MOA, include that entity's name here)

Signed by: _____ Date: _____

Name and Title: _____

(Typed or printed)

BB. Hazardous Materials Site Visit Form

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project _____
Description of area (either general location or exact location of parcel)_____
_____
Person completing this Field Check _____

1. **Has a Red Flag Investigation been completed?** □ Yes □ No

Notes:

2. **Right-of-Way Requirements:**
   □ No New ROW □ Strip ROW □ Minor Take □ Whole Parcel Take □ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

   Setting (rural or urban):

   Current Land Uses:

   Previous Land Uses:

   Adjacent Land Uses:

   Describe any structures on the property:

4. **Visual Inspection:**

	Property	Adjoining Property		Property	Adjoining Property
Storage Structures:			**Evidence of Contamination:**		
Underground Tanks	_____	_____	Junkyard	_____	_____
Surface Tanks	_____	_____	Auto Graveyard	_____	_____
Transformers	_____	_____	Surface Staining	_____	_____
Sumps	_____	_____	Oil Sheen	_____	_____
Ponds/Lagoons	_____	_____	Odors	_____	_____
Drums	_____	_____	Vegetation Damage	_____	_____
Basins	_____	_____	Dumps	_____	_____
Landfills	_____	_____	Fill Dirt Evidence	_____	_____
Other	_____	_____	Vent pipes or fill pipes	_____	_____
			Other	_____	_____

5. **Is a Phase I, Initial Site Assessment required?** □ Yes □ No

   (Write additional notes on back)

CC. Ecological Assessment Form

ECOLOGICAL ASSESSMENT FORM

Road: _____ Des. No: _____ Project No: _____ County: _____
Project Description: _____
Project Location: _____

Natural Region and Section: _____
8-Digit Watershed: _____ USGS Quadrangle: _____ Soil Survey Map Sheet _____

RIGHT-OF-WAY BY LAND USE TYPE

Permanent Right-of-way

Land Use Type	R/W (ha)	R/W (ac)
Commercial		
Industrial		
Residential		
Agricultural		
Wooded		
Total Perm R/W		

Temporary Right-of-way

Land Use Type	R/W (ha)	R/W (ac)
Commercial		
Industrial		
Residential		
Agricultural		
Wooded		
Total Temp R/W		

Is the project located in an urban or a rural setting? _____
Is land use in the project changing? Yes No If yes, explain: _____
_____
_____

QUADRANT DESCRIPTION

Northeast _____
Northwest _____
Southeast _____
Southwest _____

STREAM INFORMATION

Channel Width:_____ Channel Depth:_____ Maximum Water Depth in Channel: _____
Substrate Material: (circle one) silt sand gravel loose rock bedrock
Flow Velocity: (circle one) stagnant slow moderate swift rapid
Does the stream contain riffle/pool complexes? Yes No
Does the stream contain meanders within the proposed right-of-way? Yes No
Is channel work proposed as part of this project? Yes No If yes, describe: _____
_____
Is aquatic flora present? Yes No If yes, please list: _____
_____
Is aquatic fauna present? Yes No If yes, please list: _____
_____
Comments: _____
_____
_____
_____

TERRAIN

Immediate Area:	Depressed	Flat	Gently Rolling	Rolling	Hilly
Extended Area:	Depressed	Flat	Gently Rolling	Rolling	Hilly

TERRESTRIAL WILDLIFE

Fauna Observed or Indicated

Class[1]	Common Name	Scientific Name	Indication[2]

[1]Mammal, Bird, Reptile, or Amphibian
[2]Observed Animal, Tracks, Scat, Homes, and/or Markings

Dominant Flora Observed

Strata[1]	Common Name	Scientific Name	Wetland Indicator[2]	Location[3]

[1]Overstory, Understory, Vine, or Herbaceous
[2]UPL, FACU-, FACU, FACU+, FAC-, FAC, FAC+, FACW-, FACW, FACW+, or OBL
[3]Floodplain, Depression, or Upland

SOILS INFORMATION

Abbreviation	Soil Name	Soil Texture	Drainage Class[1]	Hydric Soil Status[2]	Location[3]

[1]ED-Excessively Drained, WD-Well Drained, MWD-Moderately Well Drained, SWPD-Somewhat Poorly Drained, PD-Poorly Drained, VPD-Very Poorly Drained
[2]H-Hydric Soil, HI-Contains Hydric Inclusions, NH-Non-Hydric
[3]Floodplain, Depression, or Upland

ENDANGERED AND THREATENED SPECIES

Is this project located within the range of any Federally Endangered or Threatened Species? Yes No
If yes, please list below.

Common Name	Scientific Name	Status	Suitable Habitat Present
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No

Will any of the above listed species be impacted by the planned improvements? Yes No

NATURAL AREAS

Are there any natural areas located within 5 miles of the project area? Yes No
If yes, please list below.

Property Name	Ownership	Proximity to Project

Will any of the above listed properties be impacted by the planned improvements? Yes No

WETLAND INFORMATION

Are wetlands mapped within or adjacent to project limits? Yes No
If yes, please list below.

Wetland Type	Abbreviation	Location within Project	Confirmed in Field?
			Yes No Undetermined
			Yes No Undetermined
			Yes No Undetermined
			Yes No Undetermined
			Yes No Undetermined
			Yes No Undetermined
			Yes No Undetermined
			Yes No Undetermined

Were any of the following wetland indicators observed in or adjacent to project limits?

	Yes	No	Location within Project
Standing Water	___	___	_____
Saturated Soil	___	___	_____
Depressional Areas	___	___	_____
Water Marks on Trees	___	___	_____
Drift Lines	___	___	_____
Fluted Tree Trunks/Roots	___	___	_____
Sediment Deposits	___	___	_____
Water Stained Leaves	___	___	_____
Other_____	___	___	_____

Is there a potential for impacts to jurisdictional wetlands as a result of the planned improvements? Yes No
Comments: _____
_____
_____
_____

GENERAL PROJECT COMMENTS

Performed by: _____
Date: _____

DD. USFWS Coordination MOU

United States Department of the Interior

FISH AND WILDLIFE SERVICE
BLOOMINGTON FIELD OFFICE (ES)
620 South Walker Street
Bloomington, Indiana 47403-2121
(812) 334-4261 FAX 334-4273

IN REPLY REFER TO:

TAKE PRIDE IN AMERICA

September 8, 1993

Mr. James E. Juricic
Environmental Assessment Section
Department of Transportation
100 North Senate Avenue, Room N808
Indiana Government Center North
Indianapolis, Indiana 46204-2249

Dear Mr. Juricic:

The U.S. Fish and Wildlife Service (FWS) has determined that certain projects subject to Federal Highway Administration funding result in minimal impacts to fish and wildlife resources. Our review of such projects typically results in a response letter with a standard set of conditions to mitigate environmental impacts. To expedite the early coordination process, the FWS is providing a programmatic review for all such projects, as defined in this letter. The programmtic response applies only to projects with minimal impacts to fish and wildlife resources and no adverse effects on federally endangered or threatened species, as defined in this document.

For all projects to which this programmatic response applies, the following standard set of conditions will be in effect, and the FWS will not send an individual response to early coordination letters. For all projects in the "Programmatic Coordination" category of the accompanying Memorandum of Understanding (MOU), we request to be sent an early coordination letter; for projects in the "No Coordination Required" category, no letter will be sent.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

Standard Conditions

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

2. Restrict below low-water work to placement of piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap.

3. Restrict channel work and vegetation clearing to within the width of the normal approach road right-of-way. In rural areas this should be feasible under current Indiana Natural Resources Commission policy, whereby it is not necessary

for a new bridge in a rural area to reduce the amount of headup compared to the existing bridge (when replaced on essentially the same alignment).

4. Minimize the extent of artificial bank stabilization.

5. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.

6. Implement temporary erosion and siltation control devices such as placement of straw bales in drainage ways and ditches, covering exposed areas with burlap, jute matting or straw, and grading slopes to retain runoff in basins.

7. Revegetate all disturbed soil areas immediately upon project completion.

8. Avoid all work within the inundated part of the stream channel during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season.

Projects for which Programmatic Coordination Applies

This programmatic coordination letter applies to all projects which are within the criteria described in the "Programmatic Coordination" section of the attached MOU. In general, it applies to all projects for which coordination is required, but which are not in any of the prohibited categories described in the MOU.

If information becomes available concerning federally endangered/threatened species, or other significant fish and wildlife resources, which might preclude the programmatic response for a specific project, it will be the responsibility of the FWS to inform INDOT within 60 days of receiving the early coordination letter that additional consultation will be necessary. If new endangered species information which would affect the project becomes available between early coordination and construction, the FWS will inform INDOT as soon as possible.

A permit under Section 404 of the Clean Water Act may be needed for the proposed project. We would probably not object to issuance of such a permit if the applicable aforementioned recommendations are incorporated into final project plans as currently proposed.

If you have any questions about our recommendations, please call (812) 334-4261.

Sincerely yours,

David C. Hudak,
Supervisor

A. D. 114

INDIANA DEPARTMENT OF TRANSPORTATION

INDIANAPOLIS, INDIANA 46204-2249

INTER-DEPARTMENT COMMUNICATION

October 5, 1993

MEMORANDUM

To: All preparers of environmental documents

From: Mr. James E. Juricic, Manager
Environmental Assessment Section

Re: Memorandum of Understanding, Streamlining and reducing the flow of early coordination letters/responses with the U.S. Fish and Wildlife Service

Attached is a Memorandum of Understanding between the Indiana Department of Transportation and the U.S. Fish and Wildlife Service concerning early coordination. This MOU supersedes the information in the current "Procedural Manual for Preparing Environmental Studies" with reference to early coordination with the U.S. Fish and Wildlife Service. On all future projects, please follow the guidelines that are laid out in the MOU. If you should have any further questions, do not hesitate to contact this office.

JEJ/BJO

September, 1993

MEMORANDUM OF UNDERSTANDING

Re: Streamlining and reducing the flow of early coordination letters/responses with the U.S. Fish and Wildlife Service

The goal for these revisions is the streamlining and reduction of early coordination responses needed from the USFWS for both INDOT and local public agency transportation projects. The potential to impact natural areas will be the guiding criteria on when and how coordination is to be done for USFWS. Any revisions to the current early coordination method must meet U.S. Fish and Wildlife's as well as the Indiana Department of Transportation's regulatory and legal needs, such as permitting, the Endangered Species Act, and various federal regulations and review authority.

There will be three types of coordination with the U.S. Fish and Wildlife Service - no coordination needed based upon the potential impacts of the project, programmatic coordination, and standard early coordination. As additional information becomes available concerning endangered species and other significant resources, the following data is subject to revision.

No Coordination Required

1. Bridge rehabilitation, widening and reconstruction projects within existing right-of-way. *

2. Improving railroad grade crossings. *

3. Small structure replacements. *

4. Access control (consolidation or elimination of access points). *

5. Road resurfacing, restoration, rehabilitation, reconstruction added shoulders, or added auxiliary lanes (e.g. parking, weaving, turning, climbing) within existing permanent right-of-way. *

6. Intersection improvements. *

7. Erosion control projects. *

8. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes that requires additional right-of-way if all of the right-of-way is currently in urban land usage. *

9. Highway safety or traffic operations improvement projects including installation of ramp metering control devices as long as within existing right-of-way. *

10. Acquisition of land for hardship or protective purposes. *

*All criteria discussed below in the programmatic coordination section must also be satisfied for no coordination to be necessary.

Programmatic Coordination

Certain types of impacts would allow a project to fall under a programmatic coordination where programmatic early coordination would occur, but the coordination would normally elicit no individual response. The programmatic response would be included in the Procedural Manual for Preparing Environmental Studies. This programmatic response from the U.S. Fish and Wildlife Service would supply generalized conditions, etc. required for the project as well as Section 7 clearance (see attached programmatic response). Should special, unforeseen circumstances occur requiring a response from the U.S. Fish and Wildlife Service, they will respond within 60 days. The following permit projects would be one criteria or "red button". The following list of criteria would disallow a project being programmatically coordinated and thus would require standard early coordination:

Projects requiring a Section 404 Permit (individual or nationwide) with jurisdictional wetlands contiguous to the roadway.
-The disturbance of natural areas in certain geographical regions (see attached list) - possible rare, threatened, and endangered species habitat.
-Any project that is located in the Karst region (see attached map)
-Any channel work below low water beyond that actually necessary for the installation of the structure.
Any channel work above low water greater than 70' from the edge of the structure.
-Any new road alignment affecting more than one acre of natural habitat.
-Any project requiring a Section 4(f) (except for historic or archaeological 4(f)'s).

These criteria would apply only to those types of projects that fall under a regular categorical exclusion or require an Environmental Assessment/Finding of No Significant Impacts. Projects requiring a DEIS/FEIS would require standard early coordination.

INFORMATION NEEDED IN THE EARLY COORDINATION BY USFWS

Early coordination often includes too much of the wrong information and too little of the right information. To rectify this the following guidelines should be met:

-do not include engineer's reports or unnecessary engineering details.
-do include a biological report that minimally includes:
description of the habitats of the project area.
Dominant species for each habitat type.
any possible rare or endangered species habitat.
photographs of the project site.
aerial photography of the site at such a scale that existing and proposed right-of-way and natural features can be shown.
any unique, sensitive or unusual biological features or conditions that exist at the site.
describe any water features present.

do include a basic description of the proposed project:
type of project.
length of project
existing and proposed right-of-way width.
maintenance of traffic
any impacts to surface waters or drainage of the project - work in or near streams, lakes, ditches, etc.

do include past, current and proposed land uses in the proximity of the project.

do include adequate graphics - U.S.G.S. quadrangle maps, aerial photographs, well labeled photographs of the site and NWI and County Soil maps if available.

David C. Hudak 9/17/93

Mr. David C.Hudak, Field Supervisor
U.S. Fish and Wildlife Service

James E. Juricic 9/28/93

Mr. James E. Juricic, Manager
Environmental Assessment Section
Indiana Department of Transportation

List of Geographic Locations Excluded from Programmatic Coordination Between the Indiana Department of Transportation and the U.S. Fish and Wildlife Service

County Locations

Lake, Porter, LaPorte (all locations within Lake Michigan watershed)
Clark (all locations within Silver Creek watershed)
Ohio, Ripley, Switzerland (bottomland meadows)

Streams and Rivers

Bear Creek and tributaries (Fountain County)
Big Walnut Creek (Putnam, Hendricks Counties)
Big Creek (Jefferson County)
Big Pine Creek (Warren County)
Big Blue River (Johnson, Rush, Shelby Counties)
Black River (Posey County)
Blue River, including South Fork (Crawford, Harrison, Washington Counties)
Buck Creek (Harrison County)
Cedar Creek (Allen, Dekalb Counties)
Clifty Creek (Montgomery County)
Cypress Slough Creek (Posey County)
Deep River (Lake, Porter Counties)
Driftwood River (Bartholomew County)
Eel River (Miami, Wabash Counties)
Elkhart River (Elkhart, Noble Counties)
Fall Creek (Warren County)
Fawn Creek (Lagrange, Steuben Counties)
Fish Creek (Dekalb, Steuben Counties)
Flatrock River (Shelby County)
Graham Creek (Jefferson, Jennins, Ripley County)
Grand Calumet River (Lake County)
Indian Creek (Harrison County)
Indian Creek (Montgomery County)
Indian-Kentuck Creek (Jefferson, Ripley Counties)
Iroquois River (Newton County)
Kankakee River
Kilmore Creek (Clinton County)
Laughery Creek (Dearborn, Ohio, Ripley Counties)
Little Blue River (Crawford County)
Little River (Allen, Huntington Counties)
Little Mosquito Creek (Harrison County)
Little Pine Creek (Warren County)
Little Indian Creek (Harrison County)
Little Calumet River East Fork (Porter County)
Little Creek (Jefferson County)
Lost River (Martin, Orange Counties)
Mississinewa River
Mosquito Creek, including West Branch (Harrison County)

Mud Pine Creek (Warren County)
Muscatatuck River, including Vernon Fork
Ohio River
Oil Creek (Perry County)
Otter Creek (Jennings, Ripley County)
Patoka River (Gibson, Pike Counties)
Pigeon River (Lagrange County)
Rattlesnake Creek (Fountain County)
Rattlesnake Creek (Parke County)
Roaring Creek (Parke County)
Sand Creek (Barrtholomew, Decatur, Jackson, Jennings Counties)
South Branch Elkhart River (Noble County)
St. Joseph River (Elkhart, St. Joseph County)
Stinking Fork (Crawford County)
Sugar Mill Creek (Fountain, Parke Counties)
Sugar Creek (Montgomery, Parke Counties)
Sugar Creek (Johnson, Shelby Counties)
Tippecanoe River
Turkey Fork (Crawford County)
Wabash River
White River Mainstem (Gibson, Pike, Knox Counties)
White River West Fork
White River East Fork
Whitewater River (Fayette, Franklin Counties)
Wildcat Creek, all branches (Carroll, Clinton, Tippecanoe Counties)

Karst areas

See accompanying map

Potential Karst Area of Indiana

1. Approximate Boundaries:

   North: southern boundary of Wisconsin glaciation
   East: Spickert Knob Formation (Borden group)
   South: Ohio River
   West: Western edge of Mw (West Baden and Stephensport Groups and upper Chesterian rocks) outcrop area

2. Counties Included: (13)

Putnam	Greene	Dubois	Crawford
Morgan	Martin	Washington	
Owen	Lawrence	Floyd	
Monroe	Orange	Harrison	

Note: Four (4) counties (Clay, Jackson, Spencer and Perry) which have either Ms or Mw mapped within their borders are not included in the potential karst are for mainly two (2) reasons. The first is that no caves are listed in them in the 1961, Caves of Indiana by Richard Powell. The second is that Clay, Jackson and Spencer counties also had but very small intrusions of these rocks at the bedrock surface.

Although the Mw rocks do not contain the massive limestones in which karst features typically develop, it was selected as the western map boundary because it matched up very well with the cave location map included in the Caves of Indiana report.

EE. Wetlands Memorandum of Understanding

MEMO OF UNDERSTANDING

This memorandum of understanding is made and entered into this 28th day of January, 1991 between the Indiana Department of Transportation (INDOT), the Indiana Department of Natural Resources (IDNR), and the U. S. Fish and Wildlife Service (USFWS) for the purpose of improving the regulatory programs process.

Whereas, INDOT, IDNR and USFWS wish to cooperate with each other to facilitate state and federal permitting requirements in the determination of the type and level of wetland mitigation required and,

Whereas, the INDOT will accomplish wetland mitigation through sequencing, i.e. avoiding impacts, minimizing impacts, rectifying impacts, reducing impacts over time and compensating impacts,

Therefore, in consideration of the terms and conditions set forth herein the INDOT, IDNR and USFWS agree as follows:

1. INDOT in cooperation with the IDNR and USFWS shall determine the quality and quantity of wetland habitat to be impacted by INDOT projects. INDOT will utilize the Federal Manual for Identifying and Delineating Jurisdictional Wetlands. The IDNR and USFWS will be requested to review and comment on INDOT's findings at the early coordination phase of project development.

2. INDOT, using the input from IDNR and USFWS, will formulate appropriate and practicable measures to offset unavoidable impacts to wetlands.

3. INDOT will send a summary or copy of the approved environmental document containing the measures to offset unavoidable impacts to wetlands to IDNR's Division of Fish and Wildlife and the USFWS.

4. If IDNR or the USFWS feel other appropriate and practicable measures are required for regulatory purposes they will notify INDOT in writing so INDOT can arrange a field review. The field review, which will include representatives from INDOT, IDNR and USFWS, will identify additional unavoidable impacts to wetlands and final compensation to the extent appropriate and practicable will be noted.

5. As a result of the field review, if all agencies agree, a mitigation agreement will be prepared. This agreement will be signed by the Department Director of IDNR, the Commissioner of INDOT and the supervisor of the USFWS Bloomington Indiana Field Office. The mitigation agreement will accompany all permit requests so the permitting agency has written documentation that agreement on wetland mitigation has been reached, by the three agencies.

6. Mitigation ratios acceptable to INDOT, IDNR and USFWS will be:

Wetland Type		Ratio
A)	farmed	1 to 1
B)	scrub-shrub and palustrine/ lacustrine emergent	2-3 to 1 depending upon quality
C)	bottomland hardwood forest	3-4 to 1 depending upon quality
D)	exceptional, unique, critical (i.e. cypress swamp)	4 and above to 1 depending upon quality

Acceptable mitigation shall be restoration or creation. The mitigation ratios take into consideration the initial loss plus a time factor to achieve in kind or greater value wetland habitat. The goal is to achieve no net loss of the wetland resource. Wetland mitigation ratios for violations or unpermitted activities shall be determined on a case by case basis.

7. The INDOT, IDNR and USFWS agree that due to conditions at certain project sites, wetland mitigation such as restoration or creation may not be available or may otherwise be impracticable. All parties further realize that in some cases agreement on appropriate and practicable wetland mitigation will not be attained by the three agencies. In those cases, the INDOT agrees to monetary compensation at the rate of $1500/acre, to be dedicated to a designated wetland restoration or wetland creation project(s) at the aforementioned specified mitigation ratios.

8. Reimbursement to IDNR and/or USFWS for personnel costs will be made by INDOT for formally requested work associated with wetland design, construction or monitoring for compliance and/or achievement of the intended purpose(s).

9. All parties agree that INDOT, not being a resource agency, will transfer title of lands acquired for wetland mitigation to an agreed upon recipient in lieu of INDOT holding such lands in perpetuity.

10. This document will be reviewed annually or more frequently at the request of any of the foregoing agencies.

Signatures

Commissioner
Indiana Department of Transportation

Director
Indiana Department of Natural Resources

January 28, 1991
Supervisor
U. S. Fish and Wildlife Service
Bloomington, Indiana Field Office

FF. Karst Memorandum of Understanding (retyped)

Memorandum of Understanding

(Retyped of original text 3/14/2007)

This Memorandum of Understanding is made and entered into this thirteenth day of October, 1993, between the Indiana Department of Transportation (INDOT), the Indiana Department of Natural Resources (IDNR), the Indiana Department of Environmental Management (IDEM) and the U.S. Fish and Wildlife Service (USFWS) for the purpose of delineating guidelines for construction of transportation projects in karst regions of the State.

Whereas, INDOT, IDNR, IDEM and the USFWS wish to cooperate in the identification, study and treatment of drainage in karst regions related to the construction of transportation projects and

Whereas, INDOT, IDNR, IDEM and the USFWS accept responsibility to ensure the transportation needs of Indiana are met in an environmentally sensitive manner that protects the habitat of all species and

Whereas, design and construction practices must protect ground water quality, public health and safety, and the environment.

Whereas, the Indiana Department of Natural Resources will conform to the terms and conditions within this MOU for their transportation projects. Likewise, it will be IDNR's responsibility to provide standard biological review for projects in the karst region.

Therefore, in consideration of the terms and conditions set forth herein the INDOT, IDNR, IDEM and USFWS agree as follows:

1. INDOT in cooperation with the IDNR, IDEM and USFWS shall determine the location of sinkholes, caves, underground streams, and other related karst features and their relationship prior to proposed alterations or construction in karst regions of the state, a consultant with expertise in karst geology/hydrology may assist in the identification and characterization of the karst features. The choice of the consultant retained by INDOT will be subject to the review of IDNR, USFWS and IDEM.

2. Tasks to accomplish this work will include:

   Research public and private information sources for information relative to karst features.

   Conduct field check karst and cave features that appear from the first task and identify any additional karst features.

   Prepare a draft report, with photographs and maps, drainage areas, and land use of that drainage area for each sinkhole or karst feature, dye-tracing and/or other geotechnical information to determine subsurface flow of water in the project area

and surface water drainage patterns of the area. Calculations of estimates of annual pollutant loads from the highway and drainage with the right-of-way will be made, including prior to, during and post construction estimates. The design of the treatment of the karst features will take into consideration treatments necessary to meet the standards of the monitoring and maintenance plan.

That report will be used as a tool to assist in determining the proposed highway alignment. The intent of INDOT is to avoid karst areas and use alternate drainage where possible.

3. IDNR, IDEM and USFWS will be requested to review and comment on the findings at the early coordination phase of project development.

4. INDOT, using the input from IDNR, IDEM and USFWS will begin to formulate appropriate measures to offset unavoidable impacts to the karst features. It is understood by all parties that some of the methods proposed at this time will be generic and could be applied throughout the length of the corridor. Other methods may be specific to a particular cave or karst feature. Some of the approaches may require additional investigations to determine their necessity and/or their feasibility. A revised draft report will be prepared by INDOT's consultant and provided to the IDNR, IDEM and the USFWS as part of the design review process.

5. Drainage entering from beyond the right-of-way will be treated according to the same process as drainage generated by the project.

6. As the project progresses further into the design phase, the IDNR, IDEM and USFWS will be invited and will attend field checks and meetings dealing with efforts to negate or minimize adverse impacts.

7. Hazardous materials traps (HMT's) will be constructed at storm water outfalls and other locations that will protect karst features from spill contamination.

8. INDOT agrees to develop a monitoring and maintenance plan for the affected karst features. IDNR, IDEM and USFWS will be provided an opportunity to review this plan. The establishment of water quality and a point at which a standard is established for remediation will be a part of each monitoring plan. The results of the monitoring will be submitted to IDNR, USFWS and IDEM on a regular basis.

9. A low salt and no spray strategy will be developed for each future project. A signing strategy for these items will also be developed for each project.

10. Prior to acceptance of the final design plans an agreement will be developed which will set out t6he appropriate and practicable measures to offset unavoidable impacts to karst features. This agreement will be signed by the Department Director of IDNR, the Commissioner of the IDEM, the Commissioner of INDOT and the Supervisor of the USFWS Bloomington, Indiana Field Office. The agreement will become a part of

the contract documents for the project, will be discussed at the pre-construction conference and will be on file at the office of the project administrator.

11. INDOT will assure that the terms of the agreement will be completed with all safeguards given to the karst area. Special provisions, which are binding provisions that are a part of the contract, will be included outlining the precautions to be taken. Construction and design strategies for handling karst features will be discussed with the contractor(s) and project administrator during the pre-construction conference. Project administrator shall ensure that the contractor is following the new erosion control standards that meet Rule 5 of 327 IAC 13 and any special precautions outlined in the design plans that the sinkhole treatment is being handled correctly. The erosion control plan must be available at the project administrator's office. An emergency response plan will be made a part of the contract documents. In addition, the contract documents will contain a strategy for signing to alert the public to the fact that all types of spills are potentially hazardous to the karst environment. For INDOT, this plan would be procedure 20 of the Field Operations Manual dated 6/24/1992. [Currently in the Construction Activities Environmental Manual].

12. The location and nature of the sinkholes and drainage schematic will be provided to the IDEM. They will provide the information to the appropriate local authorities and the Hazmat teams. An emergency response plan will be followed. This constitutes procedure 20. Included in this information is an understanding that all types of spills are potentially hazardous to karst regions.

13. IDNR, IDEM and USFWS personnel will monitor construction and maintenance to the agreed upon terms, as deemed necessary.

14. If during construction it is found that the mitigation agreement must be altered, all of the agencies will be contacted and agreement reached prior to work continuing in that specific area of the project. In order to not unduly delay projects, a two working days response time is needed from the resource agencies.

15. Treatments will be maintained during construction by means of a visual inspection on a weekly basis or after every rain. Corrective action will be taken as needed.

16. If after the above procedure is followed and a state/federal endangered/threatened species is found during construction, work in that area of the project will stop. The IDNR and USFWS will be immediately notified. The IDNR and USFWS will promptly investigate the situation, advise the project administrator and assume responsibility for protecting the endangered species and taking the appropriate action.

17. This document will be reviewed annually or more frequently at the request of any of the foregoing agencies.

MR. FREDERICK C. P'POOL, COMMISSIONER
INDIANA DEPARTMENT OF TRANSPORTATION

MR. PATRICK R. RALSTON, DIRECTOR
INDIANA DEPARTMENT OF NATURAL RESOURCES

MS. KATHY PROSSER, COMMISSIONER
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

MR. DAVID C HUDAK, FIELD SUPERVISOR, BLOOMINGTON FIELD OFFICE
U. S. FISH AND WILDLIFE SERVICE

GG. Potential Karst Features Map


St Joseph
Elkhart
Lagrange
Steuben
Lake
Porter
La Porte
Noble
Dekalb
Marshall
Kosciusko
Starke
Whitley
Allen
Jasper
Pulaski
Fulton
Newton
Wabash
Huntington
Adams
Cass
White
Wells
Carroll
Miami
Benton
Grant
Howard
Blackford
Jay
Warren
Tippecanoe
Tipton
Delaware
Clinton
Randolph
Fountain
Madison
Boone
Hamilton
Montgomery
Henry
Vermillion
Wayne
Hancock
Putnam
Marion
Parke
Hendricks
Fayette
Rush
Union
Morgan
Shelby
Vigo
Johnson
Franklin
Clay
Decatur
Owen
Bartholomew
Brown
Dearborn
Sullivan
Monroe
Ripley
Jennings
Greene
Ohio
Jackson
Switzerland
Lawrence
Jefferson
Davies
Martin
Scott
Knox
Washington
Orange
Clark
Pike
Floyd
Gibson
Dubois
Crawford
Harrison
Warrick
Perry
Vanderburgh
Posey
Spencer
Potential Karst Features Region

HH. Sole Source Aquifer MOU

File 423.324

JET

U.S. Department of Transportation
Federal Highway Administration

Region 5
Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

May 9, 1989
HPR-IN

CRS CM LMH LMH
R/W DEC
BRIDGE PH
CNJ

Mrs. Christine W. Letts, Director
Indiana Department of Highways
Indianapolis, Indiana

Attention: Mr. Clay Whitmire

Dear Mrs. Letts:

Subject: Memorandum of Understanding (MOU) with the U.S. Environmental Protection Agency Region V on Sole Source Aquifer Review

Enclosed is one copy of the subject MOU between the Regional Office of the Environmental Protection Agency and our Region Office concerning the review of Projects for which Federal assistance is sought and that may affect a sole source aquifer (SSA) designated under Section 1424(e) (copy enclosed) of the Safe Drinking Water Act (P. L. 93-523). The goal of the MOU is to ensure that Federal-aid highway projects located in designated SSAs are designed, constructed, and maintained in a manner that will prevent the introduction of contaminants into the aquifer in quantities that may create a significant hazard to public health.

The MOU has four attachments that are explained in the MOU. The first attachment is to include the maps and descriptive text for each designated SSA. At the present time, there is only one designated SSA located in Indiana. For those states without a designated SSA, Attachment 1 will be blank. As new areas are designated, EPA will furnish us with copies of the maps and descriptive text to be included in Attachment 1.

We are also enclosing one copy of 40 CFR Part 149 and a ground water bibliography for your information. The regulation covers EPA procedures for reviewing Federal assisted projects located within a designated SSA. While subpart B of the regulation refers to the Edwards Underground Reservoir in Texas, the regulation will be used by EPA for all designated SSA reviews. The ground water bibliography provides a list of publications available as reference material for the assessment and protection of ground water resources.

It is anticipated that the IDOH will be performing the necessary studies and coordination with the EPA. All proposed projects located within the limits of the St. Joseph Aquifer System must comply with the requirements of the subject MOU, regardless of the status of the environmental study, before the FHWA may authorize construction on the project.

Sincerely yours,

Arthur A. Fendrick
Division Administrator

By J. W. Breitwieser
Planning and Research Engineer

Enclosures

cc:
Mr. Linville R. Sadler
File 423.324
Districts A & B
R/F
JWBreitwieser:vr

U.S. Department of Transportation
Federal Highway Administration

Memorandum

Subject:	Memorandum of Understanding (MOU) with the U. S. Environmental Protection Agency Region V on Sole Source Aquifer Review	Date:	May 2, 1989
From:	Regional Administrator Homewood, Illinois	Reply to Attn. of:	HPP-05
To:	Division Administrators - Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin		

A I
DA
ADA
AEC
SS
RDM
PR
BR
RW
DIST A
DIST B
OMCS
ARL R&B

Attached are two copies of the subject MOU between the Regional Office of the Environmental Protection Agency and this office concerning the review of projects for which Federal assistance is sought and that may affect a sole source aquifer (SSA) designated under Section 1424(e) (copy attached) of the Safe Drinking Water Act (P. L. 93-523). The goal of the MOU is to ensure that Federal-aid highway projects located in designated SSA's are designed, constructed, and maintained in a manner that will prevent the introduction of contaminants into the aquifer in quantities that may create a significant hazard to public health.

The MOU has four attachments that are explained in the MOU. The first attachment is to include the maps and descriptive text for each of the designated SSA's. At the present time, there are only five designated SSA's located in Ohio and one is located in Indiana. For those states without a designated SSA, Attachment 1 will be blank. As new areas are designated, EPA will furnish us with copies of the maps and descriptive text to be included in Attachment 1.

We are also attaching to this memorandum two copies of 40 CFR Part 149 and a ground water bibliography for your information. The regulation covers EPA procedures for reviewing Federal assisted projects located within a designated SSA. While subpart B of the regulation refers to the Edwards Underground Reservoir in Texas, the regulation used by EPA for all designated SSA reviews. The ground water bibliography provides a list of publications available as reference material for the assessment and protection of ground water resources.

-more-

RECEIVED FHWA
MAY -5 1989
INDIANA DIVISION

Since the State highway agency will be performing the necessary studies and coordination with EPA, one copy of the MOU and attachments to this memorandum should be furnished to them for their use.

If you should have any questions on the MOU, please contact Mr. Paul Quinn at FTS 370-9148.

Herbert R. Teets

E V Heathcock

By: E. V. Heathcock, Director
Ofc. of Planning & Program Development

Attachment

MEMORANDUM OF UNDERSTANDING
Between
FEDERAL HIGHWAY ADMINISTRATION, REGION 5
and the
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION V

This memorandum represents an agreement between the Regional Offices of the Environmental Protection Agency (EPA) and the Federal Highway Administration (FHWA) concerning the review of projects for which Federal financial assistance is sought and that may affect a sole source aquifer (SSA) designated under Section 1424(e) of the Safe Drinking Water Act (P.L. 93-523). This memorandum serves two primary purposes: (1) to set forth the types of projects that will require review, and (2) to describe the notification and review procedures that will be employed.

Under section 1424(e), EPA has determined that the aquifer systems listed on Attachment 1 are the principal sources of drinking water for their residents. Notice of these determinations was published in 52 FR 32342, 8/27/87, 52 FR 37009, 10/2/87, 53 FR 15876, 5/4/88, 53 FR 23682, 6/23/88, and 53 FR 25670, 8/7/88.

AGREEMENT

FHWA agrees not to commit Federal financial assistance to any project which EPA determines may contaminate a sole source aquifer through its recharge zone so as to create a significant hazard to public health.

SOLE SOURCE AQUIFER DESIGNATION

EPA will furnish the FHWA Regional Office with three copies of maps and descriptive text for all existing Section 1424(e) sole source aquifers in Region V. This information, and additional coordination with EPA as necessary, will permit FHWA and the State Highway Agency to determine whether or not a proposed project is within a sole source aquifer designated area.

The EPA will furnish the FHWA Region V Office with three copies of similar material for future sole source aquifer areas within 30 days after they are designated.

GOALS AND DEFINITIONS

The goal of this memorandum is to ensure that projects in the designated area that receive Federal financial assistance are designed in a manner that will prevent the introduction of contaminants into the aquifer in quantities that may create a significant hazard to public health including, but not limited to, those contaminants listed in Attachment 2.

A significant hazard to public health could occur if the level of contaminants in an aquifer were to:

(a) exceed any maximum contaminant level set forth in any promulgated National Primary Drinking Water Standard at any point where the water may be used for drinking purposes; or

(b) exceed public health advisory levels for currently unregulated contaminants; or

(c) otherwise threaten public health.

In determining whether a level of contaminant would threaten public health, the following factors at a minimum shall be considered:

(1) the toxicity of the contaminants involved;
(2) the volume of contaminants which may enter the aquifer; and
(3) aquifer characteristics, i.e., geochemical, hydrological, geological, etc., and attenuation capability of the aquifer.

APPLICATION

The requirements of this agreement apply to any Federal aid highway project determined to be wholly or in part within a sole source aquifer designated area and to which one or more of the following criteria apply:

(1) Construction of additional through-traffic lanes or interchanges, on existing roadways.

(2) Construction of a two or more lane highway on new alignment.

(3) Construction of rest areas or scenic overlooks with on-site sewerage disposal facilities.

(4) Any project involving a new or existing well within a designated sole source aquifer area.

(5) Any other project that FHWA, in consultation with EPA, believes may have a potential to affect the designated aquifer through its recharge zone so as to create a significant hazard to public health. Under this criterion, FHWA will be guided by material included as Attachment 3.

EXEMPT PROJECTS

EPA will not review projects classified as categorical exclusions under 23 CFR 771.117 unless specifically requested to do so.

REVIEW PROCEDURES

For any project in a SSA designated area requiring preparation of an Evironmental Assessment (EA) or Environmental Impact Statement (EIS) under NEPA, FHWA and EPA will coordinate at the earliest possible time so that information necessary to make a ground water impact assessment (GWIA) can be acquired, and so that EPA's 1424 (e) comments can be incorporated into the draft EIS. EPA agrees to provide FmHA a written determination for each project submitted.

FHWA agrees to provide a location map of the project relative to the designated area, and information described in Attachment 3.

EPA may determine that: 1) the project does not require further review; 2) a GWIA is necessary to determine the potential of the project to adversely affect the Aquifer, or; 3) the project has a significant potential to contaminate the Aquifer and requires modification to eliminate that potential before Federal funds can be committed.

EPA agrees to provide a preliminary determination with respect to project eligibility not later than 10 working days after receipt of this information. If EPA determines that a GWIA is necessary, it will so notify FHWA in writing. After notification in writing that a GWIA is necessary, FHWA agrees to provide information responding to the items listed in Attachment 4.

EPA agrees to provide a determination to FHWA with respect to the eligibility of a project for which a GWIA has been submitted no later than 30 calendar days after receipt of such submission.

EPA's determination of the eligibility of a project may be revised under the following conditions:

(1) FHWA receives information (together with substantiating data) indicating adverse impacts from the project on a sole source aquifer. FHWA agrees to provide such information to EPA immediately. EPA agrees to provide a final determination to FHWA no later than 30 days after receipt of such additional information.

(2) EPA receives a citizen's petition, with information not previously considered that indicates a potential to impact ground water, prior to FHWA approval of a project. EPA agrees to immediately notify (by telephone, confirmed in writing) FHWA of such petition. EPA agrees to provide a final determination to FHWA no later than 30 days after receipt of the petition, or any additional information relevant thereto, whichever is later.

(3) FHWA submits information to EPA demonstrating the modification of a project which had earlier been determined to be ineligible. EPA agrees to provide a final determination to FHWA no later than 30 days after receipt of the information.

Any of the above deadlines may be extended by mutual agreement of EPA and FHWA in writing for reasons which include, but are not limited by, the following: (a) additional review time is necessary; (b) additional information necessary to make a determination is necessary; (c) the public interest in a project requires a public hearing; and (d) the public interest justifies a delay in the final determination.

GENERAL ADMINISTRATIVE PROCEDURES

Materials furnished to EPA BY FHWA under this Memorandum of Understanding shall be addressed to the attention of:

Environmental Review Branch, 5ME-14, U.S. Environmental Protection Agency, 230 South Dearborn, Chicago, Illinois 60604

The FHWA and EPA will each assign a representative to act as liaison. The liaison officers are:

FHWA Region 5 - Director, Office of Planning and Program Development U.S. Department of Transportation, Federal Highway Administration, 18209 Dixie Highway, Homewood, IL 60430 (312) 799-6300 ext. 135 or FTS 370-9135

U.S. EPA Region V - Chief, Office of Ground Water, U.S. Environmental Protection Agency, 230 South Dearborn, Chicago, IL 60604 (312) 886-2504 or FTS 886-2504

Representatives will meet as needed to update this memorandum. This memorandum is subject to revision upon agreement of both parties. Either party may terminate this agreement upon giving six months notice to the other.

Federal Highway Administration

Herbert W. Peets
Regional Administrator

Date: 4-21-89

U.S. Environmental Protection Agency

Valdas V. Adamkus
Regional Administrator

Date: 4/18/89

ATTACHMENT 1

LOCATION MAPS OF REGION V SOLE SOURCE AQUIFERS

ATTACHMENT 2

LIST OF 126 CLEAN WATER ACT

PRIORITY POLLUTANTS

EPA PRIORITY POLLUTANTS

COMPOUND NAME

1. acenapthene
2. acrolein
3. acrylonitrile
4. benzene
5. benzidine
6. carbon tetrachloride (tetrachloromethane)

*Chlorinated benzenes (other than dichlorobenzenes)

7. chlorobenzene
8. 1,2,4, trichlorobenzene
9. hexachlorobenzene

*Chlorinated ethanes (including 1,2 dichloroethane, & hexachloroethane)

10. 1.2-dichloroethane
11. 1.1.1- tricholoroethane
12. hexachloroethane
13. 1.1-dichloroethane
14. 1.1.2- trichloroethane
15. 1.1,2,2-tetrachloroethane
16. chloroethane

*Chloroalkyl ethers (chloromethyl, chloroethyl and mixed ethers)

17. bis(2-chloroethyl) ether
18. 2-chloroethyl vinyl ether (mixed)
19. 2-chloronaphthalene

*Chlorinated phenols (other than those listed elsewhere, includes trichlorophenols and chlorinated cresols)

20. 2,4,6-trichlorophenol
21. parachlorometa cresol
22. chloroform (trichloromethane)
23. 2-chlorophenol

*Dichlorobenzenes

24. 1,2-dichlorobenzene
25. 1,3-dichlorobenzene
26. 1,4-dichlorobenzene
27. 3,3-dichlorobenzidine

*Dichloroethylenes (1,1-dichloroethylene and 1,2-dichloroethylene

28. 1.1-dichloroethylene
29. 1,2-trans-dichloroethylene
30. 2.4-dichlorophenol

*Dichloropropane and dichloropropene

31. 1,2-dichloropropane
32. 1,2-dichloropropylene (1,3-dichloropropene)
33. 2,4-dimethylphenol

*Dinitrotoluene

34. 2,4-dinitrotoluene
35. 2,6-dinitrotoluene
36. 1,2-diphenythydrazine
37. ethylbenzene
38. fluoranthene

*Haloethers (others than those listed elsewhere)

39. 4-chlorophenyl phenyl ether
40. 4-bromophenyl phenyl ether
41. bis(2-chloropropyl) ether
42. bis(2-chloroethoxyl) methane

*Halomethanes (other than those listed elsewhere)

43. methylene chloride (dichloromethane)
44. methyl chloride (chloromethane)
45. methyl bromide (bromomethane)

46. bromoform (tribromomethane)
47. dichlorobromomethane
48. chlorodibromomethane

49. hexachlorobutadiene
50. hexachlorocyclopentadiene
51. isophorone
52. naphthalene
53. nitrobenzene

*Nitrophenols (including 2,4-dinitrophenol and dinitrocresol)

54. 2-nitrophenol
55. 4-nitrophenol
56. 2,4-dinitrophenol
57. 4,6-dinitro-o-cresol

*Nitrosamines

58. N-nitrosodimethylamine
59. N-nitrosodiphenylamine
60. N-nitrosodi-n-propylamine

61. pentachlorophenol
62. phenol

*Phthalate esters

63. bis(2-ethylhexyl)phthalate
64. butyl benzyl phthalate
65. di-n-butyl phthalate
66. di-n-octyl phthalate
67. diethyl phthalate
68. dimethyl phthalate

*Polynuclear aromatic hydrocarbons

69. benzo(a)anthracene (1,2-benzanthracene)
70. benzo(a)pyrene (3,4-benzopyrene)
71. 3,4-benzofluoranthene
72. benzo(k)fluoranthane (11,12-benzofluoranthene)
73. chrysene
74. acenaphthylene
75. anthracene
76. benzo(ghi)perylene (1,12-benzoperylene)
77. fluorene
78. phenanthrene

79. dibenzo(a,h)anthracene (1,2,5,6-dibenzanthracene)
80. indeno (1,2,3-cd)pyrene (2,3-o-phenylenepyrene)
81. pyrene
82. tetrachloroethylene
83. toluene
84. trichloroethylene
85. vinyl chloride (chloroethylene)

*Pesticides and metabolites

86. aldrin
87. dieldrin
88. chlordane (technical mixture & metabolites)

*DDT and metabolites

89. 4,4'-DDT
90. 4,4'-DDE (pp'-DDX)
91. 4,4'-DDD (pp'-TDE)

*Endosulfan and metabolites

92. a-endosulfan-Alpha
93. b-endosulfan-Beta
94. endosulfan sulfate

*Endrin and metabolites

95. endrin
96. endrin aldehyde

*Heptachlor and metabolites

97. heptachlor
98. heptachlor epoxide

*Hexachlorocyclohexane (all isomers)

99. a-BHC-Alpha
100. b-BHC-Beta
101. r-BHC (lindane)-Gamma
102. g-BHC-Delta

99. a-BHC-Alpha
100. b-BHC-Beta
101. r-BHC (lindane)-Gamma
102. g-BHC-Delta

*Polychlorinated biphenyls (PCB's)

103. PCB-1242 (Arochlor 1242)
104. PCB-1254 (Arochlor 1254)
105. PCB-1221 (Arochlor 1221)
106. PCB-1232 (Arochlor 1232)
107. PCB-1248 (Arochlor 1248)
108. PCB-1016 (Arochlor 1016)
109. PCB-1260 (Arochlor 1260)
110. toxaphene
111. antimony (total)
112. arsenic (total)
113. asbestos (total)
114. beryllium (total)
115. cadmium (total)
116. chromium (total)
117. copper (total)
118. cyanide (total)
119. lead (total)
120. mercury (total)
121. nickel (total)
122. selenium (total)
123. silver (total)
124. thallium (total)
125. zinc (total)

126. 2,3,7,8 tetrachloro-dibenzo-p-dioxin (TCDD)

In addition to the contaminants listed above, EPA will review projects that may introduce excessive amounts of the following contaminants into a sole source aquifer:

Chlorides (road salting, salt storage, etc.)
Bacteria (septic drainfields, land application, etc.)
Nitrates (feedlots, fertilizer storage and application, etc.)
Pesticides normally used for landscape maintenance.

ATTACHMENT 3

SOLE SOURCE AQUIFER PROGRAM

Information Needed for a Preliminary Screening

To perform a preliminary screening for the potential impacts a project may have on ground water, the following information should be included in a detailed project summary.

1. Project description - A summary of the project; its scope, purpose, construction details (if available) and Federal funding source with identifying project number.

2. Project location - A map and narrative explaining the location of the project relative to the designated area boundaries, with a brief description of the hydrogeology at the site.

3. Contaminants - A discussion of the potential contaminants that may be used, transported, stored, etc., which could be introduced into the aquifer during construction and/or operation and maintenance. If quantitative data are available, please include them.

4. Secondary impacts - A discussion of potential contamination resulting from secondary impacts (e.g., increased industrial, commercial, or residential activities) devolving from the project.

5. Any other available information pertinent to a determination of the potential impacts the project may have on ground water.

ATTACHMENT 4

Detailed Guidelines for a 1424(e) Ground Water Impact Assessment

Ground water impact assessments (GWIA) are not required under Section 1424(e), but are an integral part of the responsibilities imposed on federal agencies under the National Environmental Policy Act (NEPA). EPA intends to review an Environmental Impact Statement (EIS) with a GWIA, or a separate GWIA, for every potentially significant project.

I. Description of the proposed project

Show the location (map), delineation of project site, type of construction, materials used in construction, influent to and effluent from product storage areas, earth moving (including removal of soils, emplacement of fill and rearrangement of surface drainage), operation and maintenance procedures. Also appropriate detailed plans and specifications. (If design and construction details, as requested herein, are not available during environmental studies, FHWA agrees to provide EPA with a copy of the contract plans and specifications when they are available).

II. Delineation of geographic sphere of influence

Delineate the geographic sphere of influence of the proposed project and the reasons for the selection of those boundaries. Use USGS topographic or similar map(s) of appropriate scale; overlay associated land use, population density, public water and sewer service areas, wells, discharge basins; table of population and projected population.

III. Data on ground water characteristics in the sphere of influence

a) Map the elevation of water the table, specify date. The map should be at a reasonable scale and show the location of observation wells for construction of the map. A table of well depths should accompany the map.

b) Describe the surficial and bedrock geology of the area.

c) Estimate the hydraulic conductivity or permeability, thickness, and other hydrogeologic characteristics for each drinking water aquifer and confining bed.

d) Show source of water in each aquifer, the location of all recharge to the aquifers underlying the project site with the estimated annual recharge. For example, precipitation on outcrop areas, flow from other aquifer(s), or artificial recharge.

e) Show interconnection of ground and surface waters. For example, rivers, streams and lakes either discharge to, or are augmented by, ground water surrounding them.

f) Describe the ground water flow system(s), showing direction of the natural gradient and influence on the system(s) of any major pumping wells.

g) Sample ground water using one of the following options, as appropriate:

1) Test for contaminants listed in the National Primary Drinking Water Regulation, and as appropriate, other contaminants which may have an adverse health or esthetics effect (to be determined on a case by case basis by local health/environmental agency and EPA). Sampling and analytical techniques are referenced in the "National Primary Drinking Water Regulations", 40 CFR Part 141, Subpart C.

2) Test for all of the above plus ammonia, chloride, carbonates, bicarbonates, sulfate, magnesium, sodium, calcium, potassium, total trihalomethanes, purgeable organic scan (including benzene, carbon tetrachloride, chlorobenzene, 1,2, dichloroethane, 1,1,1 trichloroethane, 1,1, dichloroethane, 1,1,2 trichloromethane, 1,1,2,2 tetrachloroethane, chloromethane, bis (chloromethyl) ether 2-chloroethyl vinyl ether, chloroform, 1,1 dichloroethylene 1,2 trans-dichloroethylene, 1,2 dichloropropylene, ethylbenzene, methylene chloride, methyl chloride, 1,2 dichloropropane, methyl bromide, bromoform, dichlorobromomethane, trichlorofluoromethane, dichlorodifluoromethane, chlorodibromomethane, tetrachloroethylene, toluene, trichloroethylene, vinyl chloride). Sampling and analytical techniques are referenced in 40 CFR Part 141, Subpart C.

3) Test for all of the above plus all other priority pollutants.

IV. <u>Descriptions of project impacts to the ground water</u>

a) Discuss all impacts due to direct (construction) or indirect (induced) changes in groundwater chemistry including but not limited to salt-water intrusion, road salt, septic tank effluent, recharge basin effluent, fertilizers, leakage from effluent and product storage areas, leachates, and the handling and disposal of all residuals.

b) Discuss all impacts due to direct or indirect changes in groundwater biology including but not limited to leachates

from septic tanks and all possible sources of pathological bacteria, viruses and protozoa.

c) Discuss all impacts due to direct or indirect changes in ground water storage including all changes in water levels resulting from an increase or decrease in recharge or storage.

d) Discuss all impacts due to direct or indirect changes in ground water flow including but not limited to flow from one aquifer to another, flow from river to aquifer or from aquifer to river, change in ground water gradient, breaks in confining beds during construction, "piping' of flows due to trenching.

V. Description of Mitigative Measures

If an impact is identified as serious, describe measures which will be taken to mitigate impact, including any project changes, site or design alternatives.

ministrator. Notice shall be sent to the applicant, the person requesting the review, appropriate persons on the Osage County mailing list and to newspapers of general circulation in the county. Included in the notice shall be a briefing schedule for the appeal and a statement that any interested person may file an amicus brief. Notice of denial of the review petition will be sent only to the person(s) requesting the review.

(7) A petition to the Administrator, under paragraphs (j) (1) and (2) of this section is a prerequisite to the seeking of judicial review of the final agency action. For purposes of judicial review, final agency action occurs when a final UIC permit is issued or denied by the Regional Administrator and agency review procedures are exhausted. A final permit decision shall be issued by the Regional Administrator:

(i) When the Administrator issues notice to the parties involved that review has been denied;

(ii) When the Administrator issues a decision on the merits of the appeal and the decision does not include a remand of the proceedings; or

(iii) Upon the completion of the remand proceedings if the proceedings are remanded, unless the Administrator's remand order specifically provides that the appeal of the remand decision will be required to exhaust the administrative remedies.

(The information collection requirements contained in paragraph (a)(3) were approved by the Office of Management and Budget under control number 2040-0042)

PART 149—SOLE SOURCE AQUIFERS

Subpart A—Criteria for Identifying Critical Aquifer Protection Areas

Subpart B—Review of Projects Affecting the Edwards Underground Reservoir, A Designated Sole Source Aquifer in the San Antonio, Texas Area

AUTHORITY: Sec. 1424(e), Safe Drinking Water Act (42 U.S.C. 300h-3(e); sec. 1427 of the Safe Drinking Water Act, (42 U.S.C. 300h-6).

Subpart A—Criteria for Identifying Critical Aquifer Protection Areas

SOURCE: 52 FR 23986, June 26, 1987, unless otherwise noted.

§ 149.1 Purpose.

The purpose of this subpart is to provide criteria for identifying critical aquifer protection areas, pursuant to section 1427 of the Safe Drinking Water Act (SDWA).

§ 149.2 Definitions.

Aquifer means a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

Aquifer Service Area means an area above the aquifer and including the area where the entire population served by the aquifer lives.

Recharge means a process, natural or artificial, by which water is added to the saturated zone of an aquifer.

Recharge Area means an area in which water reaches the zone of saturation (ground water) by surface infiltration; in addition, a "major recharge area" is the area where the major part of the recharge to an aquifer occurs through infiltration of precipitation or surface water.

Sole or Principal Source Aquifer (SSA) means an aquifer which is designated as an SSA under section 1424(e) of the SDWA.

§ 149.3 Critical aquifer protection areas.

A critical aquifer protection area (CAPA) is either:

(a) All or part of a major recharge area of a sole or principal source aquifer, designated pursuant to section 1424(e) of the SDWA by June 19, 1988, for which:

(1) The sole source aquifer is particularly vulnerable to contamination due to the hydrogeologic characteristics of the unsaturated or saturated zone within the suggested critical aquifer protection area;

(2) The sole source aquifer is the source of drinking water for at least 75% of the persons in the aquifer service area; and

(3) The cost of replacing the water supply from the sole source aquifer would cause water supply costs to exceed 0.7 percent of mean annual household income.

In addition, although not a minimum requirement, evidence that ground water in the suggested critical aquifer protection area discharges into an area containing valuable ecological systems, ecological areas protected by Federal or State laws, which are dependent on ground water, or that there would be significant environmental or social costs, or health risks, if the area were contaminated may be used as a factor in evaluating whether an area is a critical aquifer protection area; or

(b) All or part of an area designated as a sole or principal source aquifer, pursuant to section 1424(e), by June 19, 1986, for which an areawide ground-water quality protection plan was approved, under section 208 of the Clean Water Act, by that date.

Subpart B—Review of Projects Affecting the Edwards Underground Reservoir, A Designated Sole Source Aquifer in the San Antonio, Texas Area

SOURCE: 42 FR 51574, Sept. 29, 1977, unless otherwise noted. Redesignated at 52 FR 23986, June 26, 1987.

§ 149.100 Applicability.

This subpart sets forth, pursuant to sections 1424(e) and 1450 of the Public Health Service Act, as amended by the Safe Drinking Water Act, Pub. L. 93-523, regulations relating the Edwards Underground Reservoir which is the sole or principal drinking water source for the San Antonio area and which, if contaminated, would create a significant hazard to public health.

[42 FR 51574, Sept. 29, 1977. Redesignated and amended at 52 FR 23986, June 26, 1987]

§ 149.101 Definitions.

As used in this subpart and except as otherwise specifically provided, the term(s):

(a) "Act" means the Public Health Service Act, as amended by the Safe Drinking Water Act, Pub. L. 93-523.

(b) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.

(c) "Recharge zone" means the area through which water enters the Edwards Underground Reservoir as defined in the December 16, 1975, Notice of Determination.

(d) "Administrator" (Regional Administrator) means the Administrator (Regional Administrator) of the United States Environmental Protection Agency.

(e) "Person" means an individual, corporation, company, association, partnership, State, or municipality.

(f) "Project" means a program or action for which an application for Federal financial assistance has been made.

(g) "Federal financial assistance" means any financial benefits provided directly as aid to a project by a department, agency, or instrumentality of the Federal government in any form including contracts, grants, and loan guarantees. Actions or programs carried out by the Federal government itself such as dredging performed by the Army Corps of Engineers do not involve Federal financial assistance. Actions performed for the Federal government by contractors, such as construction of roads on Federal lands by a contractor under the supervision of the Bureau of Land Management, should be distinguished from contracts entered into specifically for the purpose of providing financial assistance, and will not be considered programs or actions receiving Federal financial assistance. Federal financial assistance is limited to benefits earmarked for a specific program or action and directly awarded to the program or action. In-

direct assistance, e.g., in the form of a loan to a developer by a lending institution which in turn receives Federal assistance not specifically related to the project in question is not Federal financial assistance under section 1424(e).

(h) "Commitment of Federal financial assistance" means a written agreement entered into by a department, agency, or instrumentality of the Federal Government to provide financial assistance as defined in paragraph (g) of this section. Renewal of a commitment which the issuing agency determines has lapsed shall not constitute a new commitment unless the Regional Administrator determines that the project's impact on the aquifer has not been previously reviewed under section 1424(e). The determination of a Federal agency that a certain written agreement constitutes a commitment shall be conclusive with respect to the existence of such a commitment.

(i) "Streamflow source zone" means the upstream headwaters area which drains into the recharge zone as defined in the December 16, 1975, Notice of Determination.

(j) "Significant hazard to public health" means any level of contaminant which causes or may cause the aquifer to exceed any maximum contaminant level set forth in any promulgated National Primary Drinking Water Standard at any point where the water may be used for drinking purposes or which may otherwise adversely affect the health of persons, or which may require a public water system to install additional treatment to prevent such adverse effect.

(k) "Aquifer" means the Edwards Underground Reservoir.

[42 FR 51574, Sept. 29, 1977. Redesignated and amended at 52 FR 23986, June 26, 1987]

§ 149.102 Project review authority.

(a) Once an area is designated, no subsequent commitments of Federal financial assistance may be made to projects which the Administrator determines may contaminate the aquifer so as to create a significant hazard to public health.

(b) The Regional Administrator is hereby delegated the authority and assigned responsibility for carrying out the project review process assigned to the Administrator under section 1424(e) of the Act, except the final determination that a project may contaminate the aquifer through its recharge zone so as to create a significant hazard to public health.

(c) The Regional Administrator may review any project which he considers may potentially contaminate the aquifer through its recharge zone so as to create a significant hazard to public health.

[42 FR 51574, Sept. 29, 1977. Redesignated at 52 FR 23986, June 26, 1987]

§ 149.103 Public information.

After the area is designated under section 1424(e), Federal agencies, for projects, located in the recharge zone and streamflow source zones, are required to:

(a) Maintain a list of projects for which environmental impact statements will be prepared in accordance with the National Environmental Policy Act (NEPA);

(b) Revise the list at regular intervals and submit to EPA; and

(c) Make the list available to the public upon request.

[42 FR 51574, Sept. 29, 1977. Redesignated at 52 FR 23986, June 26, 1987]

§ 149.104 Submission of petitions.

Any person may submit a petition requesting the Regional Administrator to review a project to determine if such project may contaminate the aquifer through its recharge zone so as to create a significant hazard to public health. Any such petition shall identify:

(a) The name, address, and telephone number of the individual, organization, or other entity submitting the petition;

(b) A brief statement of the requesting person's interest in the Regional Administrator's determination;

(c) The name of the project and Federal agency involved;

In addition, the petitioner is requested to submit to EPA available information on:

(d) Applicable action already taken by State and local agencies including

establishment of regulations to prevent contamination of the aquifer and why, in the petitioner's judgment, the action was inadequate.

(e) Any actions taken under the National Environmental Policy Act and why, in the petitioner's judgment, that action was inadequate in regard to evaluation of potential effect on the aquifer.

(f) The potential contaminants involved;

(g) The means by which the contaminant might enter the aquifer; and

(h) The potential impact of the proposed project.

[42 FR 51574, Sept. 29, 1977. Redesignated at 52 FR 23986, June 26, 1987]

§ 149.105 Decision to review.

(a) The Regional Administrator shall review under section 1424(e) all projects located in the recharge or streamflow source zone of the aquifer for which a draft or final EIS is submitted which may have an impact on ground water quality and which involve Federal financial assistance as defined in these regulations.

(b) Upon receipt of a public petition, the Regional Administrator shall decide whether the project which is the subject of the petition should be reviewed under section 1424(e).

(c) The Regional Administrator may decide to review a project upon his own motion.

(d) In determining whether to review a project upon receipt of a public petition or upon his own motion, the Regional Administrator shall consider whether the project is likely to directly or indirectly cause contamination of the aquifer through its recharge zone, taking into account any factors he deems relevant, including:

(1) The location of the project, and

(2) The nature of the project.

(e) In determining whether to review a project upon receipt of a public petition or upon his own motion, the Regional Administrator may consult with, or request information from, the Federal agency to which the project application has been made, the applicant seeking Federal assistance, appropriate State and local agencies, and other appropriate persons or entities.

(f) In determining whether to review a project which is the subject of a public petition, the Regional Administrator may request such additional information from the petitioner as he deems necessary.

[42 FR 51574, Sept. 29, 1977. Redesignated at 52 FR 23986, June 26, 1987]

§ 149.106 Notice of review.

(a) *Notice to Federal agency.* If the Regional Administrator decides upon receipt of a public petition or upon his own motion to review a project under section 1424(e), he shall give written notification of the decision to the Federal agency from which financial assistance is sought. The notification shall include a description and identification of the project.

(b) *Notice to public.* When the Regional Administrator undertakes to review a project pursuant to § 149.13 above, he shall provide public notice of project review by such means as he deems appropriate. The notice shall set forth the availability for public review of all data and information available, and shall solicit comments, data and information with respect to the determination of impact under section 1424(e). The period for public comment shall be 30 days after public notice unless the Regional Administrator extends the period at his discretion or a public hearing is held under § 149.16.

[42 FR 51574, Sept. 29, 1977. Redesignated at 52 FR 23986, June 26, 1987]

§ 149.107 Request for information.

In reviewing a project under section 1424(e), the Regional Administrator may request any additional information from the funding Federal agency which is pertinent to reaching a decision. If full evaluation of the groundwater impact of a project has not been submitted in accordance with the agency's NEPA procedures, the Regional Administrator may specifically request that the Federal agency submit a groundwater impact evaluation of whether the proposed project may contaminate the aquifer through its recharge zone so as to create a significant hazard to public health.

[42 FR 51574, Sept. 29, 1977. Redesignated at 52 FR 23986, June 26, 1987]

§ 149.108 Public hearing.

If there is significant public interest, the Regional Administrator may hold a public hearing with respect to any project or projects to be reviewed if he finds that such a hearing is necessary and would be helpful in clarifying the issues. Public hearings held under this section should be coordinated, if possible, with other Federal public hearings held pursuant to applicable laws and regulations. Any such hearing shall be conducted by the Regional Administrator or designee in an informal, orderly and expeditious manner. Where appropriate, limits may be placed upon the time allowed for oral statements, and statements may be required to be submitted in writing. The record will be held open for further public comment for seven (7) days following the close of the public hearing.

[42 FR 51574, Sept. 29, 1977. Redesignated at 52 FR 23986, June 26, 1987]

§ 149.109 Decision under section 1424(e).

(a) As soon as practicable after the submission of public comments under section 1424(e) and information requested by the Environmental Protection Agency from the originating Federal agency, on the basis of such information as is available to him, the Regional Administrator shall review the project taking all relevant factors into account including:

(1) The extent of possible public health hazard presented by the project;

(2) Planning, design, construction, operation, maintenance and monitoring measures included in the project which would prevent or mitigate the possible health hazard;

(3) The extent and effectiveness of State or local control over possible contaminant releases to the aquifer;

(4) The cumulative and secondary impacts of the proposed project; and

(5) The expected environmental benefits of the proposed project.

(b) After reviewing the available information, the Regional Administrator shall:

(1) Determine that the risk of contamination of the aquifer through the recharge zone so as to create a significant hazard to public health is not sufficiently great so as to prevent commitment of Federal funding to the project; or

(2) Forward the information to the Administrator with his recommendation that the project may contaminate the aquifer through the recharge zone so as to create a significant hazard to public health.

(c) After receiving the available information forwarded by the Regional Administrator, the Administrator shall:

(1) Determine that the risk of contamination of the aquifer through the recharge zone so as to create a significant hazard to public health is not sufficiently great so as to prevent commitment of Federal funding to the project; or

(2) Determine that the project may contaminate the aquifer through the recharge zone so as to create a significant hazard to public health.

(d) Notice of any decisions by the Regional Administrator under paragraph (b)(1) of this section or by the Administrator under paragraphs (c)(1) and (2) of this section to prevent a commitment of Federal funding shall be published in the FEDERAL REGISTER. Such notices shall include a description of the propsed project, and a statement of decision with an accompanying statement of facts and reasons.

[42 FR 51574, Sept. 29, 1977. Redesignated at 52 FR 23986, June 26, 1987]

§ 149.110 Resubmittal of redesigned projects.

If a project is redesigned in response to EPA's objections, the applicant for Federal financial assistance or the grantor agency may file a petition with the Regional Administrator for withdrawal of the determination that the project may contaminate the aquifer through the recharge zone so as to create a significant hazard to public health. Any such petition shall demonstrate how the project has been redesigned so as to justify the withdrawal of EPA's objections. If appropriate, the Regional Administrator may request public comments or hold an informal public hearing to consider the petition. After review of pertinent information, the Regional Administrator shall either deny the petition or recommend to the Administrator that the initial determination that a project may contaminate the aquifer be vacated. Upon receipt of a recommendation from the Regional Administrator that a determination be vacated, the Administrator shall either deny the petition or order that the initial determination be vacated. The final decision regarding a petition shall be published in the FEDERAL REGISTER with an accompanying statement of reasons.

[42 FR 51574, Sept. 29, 1977. Redesignated at 52 FR 23986, June 26, 1987]

§ 149.111 Funding to redesigned projects.

After publication of a decision that a proposed project may contaminate a sole or principal source aquifer in a designated area through its recharge zone so as to create a significant hazard to public health, a commitment for Federal financial assistance may be entered into, if authorized under another provision of law, to plan or redesign such project to assure that it will not so contaminate the aquifer.

[42 FR 51574, Sept. 29, 1977. Redesignated at 52 FR 23986, June 26, 1987]

Section 1424(e) of the Safe Drinking Water Act, (P.L. 93-523) states:

"If the Administrator determines, on his own initiative or upon petition, that an area has an aquifer which is the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health, he shall publish notice of that determination in the Federal Register. After the publication of any such notice, no commitment for Federal financial assistance (through a grant, contract, loan guarantee, or otherwise) may be entered into for any project which the Administrator determines may contaminate such aquifer through a recharge zone so as to create a significant hazard to public health, but a commitment for Federal financial assistance may, if authorized under another provision of law, be entered into to plan or design the project to assure that it will not so contaminate the aquifer."

provide advice and counsel to the Administrator of the Environmental Protection Agency (EPA) on technology transfer issues associated with the management of environmental problems. The Advisory Council is a part of EPA's efforts to expand cooperative working relationships and to broaden the national environmental technology base. The Advisory Council will address itself to such specific technology transfer needs and issues as: Identifying the barriers impeding environmental technology transfer and training efforts and possible approaches for reducing these barriers; creating a positive institutional climate within EPA with respect to technology transfer and training activities; promoting cooperative, mutually-supportive EPA-State relationships aimed at establishing more effective environmental management at Federal, State and local levels; increasing and institutionalizing communication among all levels of government, the business community, the academic, educational and training community and the international environmental community; developing and applying an appropriate array of existing and new delivery mechanisms for meeting technology transfer and training needs; implementing the FTTA, Executive Order 12591, and other related or associated authorities; reviewing any periodic EPA reports describing the Agency's progress in implementing statutes, executive orders and regulations on technology transfer; and assessing alternative approaches for measuring the environmental benefits of technology transfer activities.

The Advisory Council meets at least twice each year, plus such meetings of subcommittees as the Council deems necessary. No honoraria or salaries are contemplated in association with membership on the Advisory Council, but compensation for travel and nominal daily expenses while attending meetings may be provided.

The Advisory Council's initial meeting will be held in the early fall of 1988.

Suggestions for the list of candidates should be submitted no later than (July 25, 1988).

Date: June 17, 1988.

Robert S. Cahill,

Associate Administrator for Regional Operations.

[FR Doc. 88-14154 Filed 6-22-88; 8:45 am]

BILLING CODE 6560-50-M

[OPTS-00093; FRL-3403-3]

Biotechnology Science Advisory Committee; Subcommittee on Considerations in Evaluating Small-Scale Field Trials; Open Meeting

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of open meeting.

SUMMARY: There will be a 1-day meeting of the Biotechnology Science Advisory Committee's Subcommittee on Considerations in Evaluating Small-Scale Field Trials. The meeting will be open to the public.

DATES: The meeting will be held on Friday, July 15, 1988, starting at 9 a.m. and ending at approximately 5 p.m.

ADDRESS: The meeting will be held at: 1921 Jefferson Davis Highway, Crystal Mall #2, Room 1112, Arlington, VA.

FOR FURTHER INFORMATION CONTACT: Environmental Protection Agency, TSCA Assistance Office, Office of Pesticides and Toxic Substances (TS-799), 401 M Street, SW., Washington, DC 20460, (202-554-1404), TDD: (202-554-0551).

SUPPLEMENTARY INFORMATION: Attendance by the public will be limited to available space. The TSCA Assistance Office will provide summaries of the meeting at a later date.

Dated: June 15, 1988.

John A. Moore,

Assistant Administrator for Pesticides and Toxic Substances.

[FR Doc. 88-14152 Filed 6-22-88; 8:45 am]

BILLING CODE 6560-50-M

[FRL-3403-2]

Southern Lumber Site; Notice of Proposed Settlement

AGENCY: Environmental Protection Agency.

ACTION: Notice of proposed settlement.

SUMMARY: Under section 122(h) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), The Environmental Protection Agency (EPA) has agreed to settle claims for response costs at the Southern Lumber Site, Crosby, Mississippi, with the Southern Lumber Company, the Champion International Corporation and the Masonite Corporation. EPA will consider public comments on the proposed settlement for thirty days. EPA may withdraw from or modify the proposed settlement should such comments disclose facts or considerations which indicate the proposed settlement is inappropriate, improper or inadequate. Copies of the proposed settlement are available from: Ms. Thu Kim Dao, Environmental Engineer, Investigation and Cost Recovery Unit, Site Investigation and Support Branch, Waste Management Division, U.S. EPA, Region IV, 345 Courtland Street, NE., Atlanta, GA 30365, 404-347-5059.

Written comments may be submitted to the person above by July 25, 1988.

Date: June 14, 1988.

Lee A. DeHihns III,

Acting Regional Administrator.

[FR Doc. 88-14153 Filed 6-22-88; 8:45 am]

BILLING CODE 6560-50-M

[FRL-3401-2]

St. Joseph Aquifer System, Indiana, Sole Source Aquifer Petition; Final Determination

AGENCY: Environmental Protection Agency.

ACTION: Notice of final determination.

SUMMARY: Notice is hereby given that, under section 1424(e) of the Safe Drinking Water Act, the U.S. Environmental Protection Agency (EPA) Region V Administrator has determined that the petitioned portion of the St. Joseph Aquifer System and Tributary Valleys of the St. Joseph River Basin of Northern Indiana, hereafter called the St. Joseph Aquifer System (SJAS), is the sole or principal source of drinking water in the petitioned area, and that this aquifer, if contaminated, would create a significant hazard to public health. As a result of this action, all Federally financially assisted projects constructed in the BVAS area and its principal recharge zone will be subject to EPA's review to insure that these projects are designed and constructed so that do not create a significant hazard to public health.

DATES: Because the economic and regulatory impact of this action will be minimal, this determination will be effective as of the date it is signed by the Regional Administrator.

ADDRESSES: The data on which these findings are based are available to the public and may be inspected during normal business hours at the U.S. Environmental Protection Agency, Office of Ground Water 5WG-TUBB, 230 S. Dearborn Street, Chicago, Illinois 60604.

FOR FURTHER INFORMATION CONTACT: Wm. Turpin Ballard, Office of Ground Water, U.S. Environmental Protection Agency, Region V, at 312-353-1435.

SUPPLEMENTARY INFORMATION:

I. Background

Section 1424(e) of the Safe Drinking Water Act (42 U.S.C. 300f, 300h–3(e), Pub. L. 93–523) states:

(e) If the Administrator determines on his own initiative or upon petition, that an area has an aquifer which is the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health, he shall publish notice of that determination in the Federal Register. After the publication of any such notice, no commitment for Federal financial assistance (through a grant, contract, loan guarantee, or otherwise) may be entered into for any project which the Administrator determines may contaminate such aquifer through a recharge zone so as to create a significant hazard to public health, but a commitment for Federal financial assistance may, if authorized under another provision of law, be entered into to plan or design the project to assure that it will not so contaminate the aquifer.

Effective March 9, 1987, authority to make a Sole Source Aquifer Designation Determination was delegated to the U.S. EPA Regional Administrators.

On December 11, 1987, EPA received a complete petition from the Elkhart County Health Department (ECHD), which petitioned EPA to designate the SJAS as a Sole Source Aquifer. On January 19, 1988, EPA published notice to announce a public comment period regarding the petition. The public was permitted to submit comments and information on the petition until March 16, 1988. A public meeting on the petition was held on March 9, 1988.

II. Basis for Determination

Among the factors to be considered by the U.S. EPA in connection with the designation of an area under section 1424(e) are: (1) Whether the SJAS is the area's sole or principal source of drinking water, and (2) whether contamination of the aquifer would create a significant hazard to public health. On the basis of technical information available to this Agency, the Regional Administrator has made the following findings, which are the bases for the determintion noted above:

1. The SJAS currently serves as the "sole or principal source" of drinking water for approximately 290,000 residents, of Elkhart, St. Joseph, LaGrange, Noble, and Kosciusko Counties.

2. There is no existing alternative drinking water source or combination of sources which provides 50 percent or more of the drinking water to the designated area, nor is there any available, cost-effective potential source or combination of sources capable of replacing the drinking water needs of the communities and individuals that presently rely on the aquifer.

3. The St. Joseph Aquifer system is composed of interconnected aquifers that may be unconfined or semi-confined. Water is transmitted through primary pore space of unconsolidated glacial deposits. The highly porosity and permeability of the majority of these deposits, coupled with thin overlying soils and shallow depth of water, make the SJAS very vulnerable to contamination. Instances of contamination have already occurred, especially in the Elkhart and South Bend areas. Over 44 cases of ground water contamination have been identified in Elkhart County, alone. Potential sources for contamination include, but are not limited to: (A) Leaking chemical storage tanks, both above and below ground, (B) industrial wastewater discharges, (C) accidental release of hazardous materials, (D) use and improper storage of agricultural materials, (D) use and improper storage of agricultural chemicals, and (E) salting of roads for ice control. Should any of the above sources of contamination enter the public water supply, there could be a significant negative effect on drinking water quality, with a consequent adverse effect on public health.

III. Description of the St. Joseph Aquifer System and Tributary Valleys: Hydrogeology; Use; Recharge; Boundaries

The St. Joseph Aquifer System (SJAS), associated with the St. Joseph River Basin, lies in an area of northern Indiana that experienced multiple glacial events from three separate ice lobes. Floodplain areas of the St. Joseph River and its tributaries are relatively flat, and upland areas are hilly, rolling countryside. Major population centers in the area are located over the aquifer, and include the cities of South Bend, Elkhart, Mishawaka, and Goshen.

The juxtaposition of glacial events in time and space in this area produced extemely complex and heterogeneous sedimentary deposits. The St. Joseph Aquifer System itself appears to have originated as a major sluiceway for glacial outwash of the last Wisconsian glaciation. Outwash flowed to the southwest from Michigan through Indiana and Illinois.

Tributary Valleys along the Little Elkhart and Elkhart Rivers probably drained northwest to the main flow off of stagnating ice further south. These channelized flows left behind thick, regionally extensive deposits of sand and gravel. There appear to have been two main periods of high flow which deposited the coarse materials, and a low-flow period that sandwiched a clay layer in between. This clay layer is regionally extensive in the Tributary Valleys, but is discontinuous in the main aquifer along the St. Joseph River. The unconsolidated deposits are underlain by shale bedrock.

The sands and gravels of the SJAS and Tributary Valleys create an aquifer system capable of delivering significant quantities of good quality water to both public and private water supply wells. The deposits vary from 20 to 400 feet thick, with typical thicknesses from 40 to 120 feet. Ground water occurs in most areas at between 15 and 20 feet from the surface, and is so abundant at shallow depths that few water supply wells penetrate to bedrock. Properly listed and constructed wells will yield over 1,000 gallons per minute.

Most of the approximately 290,000 users in the aquifer service area rely on public water systems. These systems draw better than 62 million gallons per day (MGD) from the aquifer. An estimated 2 MGD is drawn from private wells. Total use of the SJAS supplies approximately 75 percent of the drinking water to the aquifer service area.

Regional ground water flow is toward the St. Joseph River from both north and south. The primary recharge mechanism that sustains this flow is the infiltration of rain and snow through the permeable soils. Infiltration rates can be as high as 20 inches per hour, making the aquifer highly vulnerable to contamination. With the water table only 15 to 20 feet down, an accidental spill could reach it within 9 hours and start migrating down gradient. There are, in fact, over 40 instances of ground water contamination in Elkhart County alone.

The project review area is the area over the aquifer and its recharge area. Streamflow source area is not relevant because streams in the area are not naturally classified as "losing streams", i.e. streams that contribute part of their flow to recharge the aquifer. The project review area is the area designated as the St. Joseph Aquifer System and Tributary Valleys by the Indiana Department of Natural Resources Aquifers Designation Map for the St. Joseph River Basin (IDNR Study, 1988).

The northern boundary is the Indiana-Michigan State line. Although a scientific boundary is preferable, there is precedent for political boundaries among previous and pending SSA designation decisions. The western boundary at South Bend, Indiana, is a hydrologic divide between the Kankakee and St. Joseph River basins. The southernmost boundary is the

divide between the St. Joseph and Tippecanoe River Basins. All other boundaries represent gradational changes in porosity, permeability, or sediment distribution.

IV. Alternative Sources

The Petitioner considered surface water and bedrock aquifers as the only potential alternatives to the SJAS to supply drinking water. The only surface water available in the event of widespread contamination of the aquifer would be the St. Joseph and Elkhart Rivers. No public water systems currently use this source because of the abundant supply of generally good quality ground water. To replace the ground water supply from the aquifer with surface water and still maintain the base flow required for NPDES permits would require construction of surface impoundments, treatment plants, and interconnections between communities.

The Petitioner conducted a cost analysis for construction, operation, and maintenance of surface impoundments on the two rivers. Based on total capital costs borrowed over 20 years at 6% interest, the annual debt service cost, plus operation maintenance, and treatment costs, show that construction of impoundments is not economically feasible. In fact, the cost of impoundments, chemicals, and operation and maintenance alone turned out to be greater than the quantitative guidance thresholds. This does not include construction of treatment plants and interconnections.

There are no bedrock aquifers in the area. The Ellsworth, Antrim and Coldwater shales underlie the glacial deposits, and more porous formations at depth contain saline water.

V. Information Utilized in Determination

The information utilized in this determination includes the petition, published State and Federal reports on the area, and various technical publications. The petition file is available to the public and may be inspected during normal business hours at the U.S. Environmental Protection Agency, Region V, Office of Ground Water, 111 W. Jackson, 10th Floor, Chicago, Illinois 60604.

VI. Project Review

EPA Region V is working with the Federal agencies that may in the future provide financial assistance to projects in the area of concern. Interagency procedures and Memoranda of Understanding will be developed through which EPA will be notifed of proposed commitments of funding by Federal agencies for projects which could contaminate the designated area of the SJAS. EPA will evaluate such projects and, where necessary, conduct an in-depth review, including solicitation of public comments where appropriate. Should the Administrator determine that a project may contaminate the aquifer through its recharge zone so as to create a significant hazard to public health, no commitment for Federal financial assistance may be made. However, a commitment for Federal financial assistance may, if authorized under another provision of law, be made to plan or design the project to assure that it will not contaminate the aquifer.

Although the project review process cannot be delegated, the U.S. Environmental Protection Agency will rely to the maximum extent possible on existing or future State and local control mechanisms in protecting the ground water quality of the SJAS. Included in the review of any Federal financially assisted project will be coordination with State and local agencies. There comments will be given full consideration, and the Federal review process will attempt to complement and support State and local ground water protection mechanisms.

VII. Summary of Public Comments

The petition was open for public comment from January 19, 1988, to March 16, 1988. A public meeting was held on March 9, 1988, at the Elkhart City Council Chambers. Written comments received expressed support for designation. The petition was endorsed by the City of Elkhart, South Bend and Mishawaka, the Health Department of Kosciusko and St. Joseph Counties, the Department of Environmental Mangement, and The Honorable John Hiler, 3rd Congressional District Representative.

The Kosciusko County Health Department (HCHD) requested that an area adjacent to the portion of the SJAS in Kosciusko County be included in the designated area on the strength that, even though it is not in the St. Joseph River Basin, it is part of the same geologic deposit as the SJAS. The Indiana Departments of Natural Resources and Environmental management both supported this request. However, the same argument could be made for the entire Kankakee River Basin west of South Bend, so the KCHD was requested to submit a separate petition if it so desired.

Approximately 45 people attended the public meeting. There was no challenge to the eligibility of the aquifer for designation. Many of the above endorsers read letters of support into the record. The U.S. EPA representative explained the Sole Source Aquifer Program and answered questions about what it means in terms of Federal funding and project review, which were the main concerns of the questioners.

No substantial issues, other than the request by Kosciusko County, were raised during either the written comment period or at the meeting.

VIII. Economic and Regulatory Impact

Under the provisions of the Regulatory Flexibility Act (RFA), 5 U.S.C. 605(b), I hereby cerfity that the attached rule will not have a significant impact on a substantial number of small entities. For purposes of this Certification, the "small entity" shall have the same meaning as given in section 601 of the RFA. This action is only applicable to the designated Area of the SJAS. The only affected entities will be those area-based businesses, organizations, or governmental jurisdictions that request Federal financial assistance for projects which have the potential to contaminate the aquifer so as to create a significant hazard to public health. EPA does not expect to be reviewing small isolated commitments of financial assistance on an individual basis, unless a cumulative impact on the aquifer is anticipated; accordingly, the number of affected small entitites will be minimal.

For those small entities which are subject to review, the impact of today's action will not be significant. Most projects subject to this review will be preceded by a ground water impact assessment required under other Federal laws, such as the National Environmental Policy Act (NEPA) as amended, 42 U.S.C. 4321, *et seq.* Integration of those related review procedures with Sole Source Aquifer review will allow EPA and other Federal agencies to avoid delay or duplication of effort in approving financial assistance, thus minimizing any adverse effect on those small entities which are affected. Finally, today's action does not prevent grants of Federal financial assistance which may be available to any affected small entity in order to pay for the redesign of the project to assure protection of the aquifer.

Under Executive Order 12291, EPA must judge whether a regulation is "major" and, therefore, subject to the requirement of a Regulatory Impact Analysis. This regulation is not major because it will not have an annual effect of $100 million or more on the economy, will not cause any major increase in costs or prices, and will not have signficant adverse effects on

competition, employment, investment, productivity, innovation, or the ability of United States enterprises to compete in domestic or export markets. Today's action only provides for an in-depth review of ground water protection measures, incorporating State and local measures whenever possible, for only these projects which request Federal financial assistance.

Dated: June 1, 1988.

Valdas V. Adamkus,

Regional Administrator.

[FR Doc. 88-14050 Filed 6-22-88; 8:45 am]

BILLING CODE 6560-50-M

[FRL-34029]

Sole Source Aquifer Determination for Fifteen Basin Aquifer Systems of New Jersey et al.

AGENCY: Environmental Protection Agency.

ACTION: Notice.

SUMMARY: In response to a petition from the New Jersey Department of Environmental Protection (NJDEP), notice is hereby given that the Region II Regional Administrator of the U.S. Environmental Protection Agency (EPA) has determined that the 15 basin aquifer systems of northwest NJ, including the Delawanna Creek, Flat Brook, Lopatcong Creek, Millstone River, Musconetcong River, North Branch Raritan River, Papakating Creek, Paulins Kill, Pequest River, Pochuck Creek, Pohatcong Creek, South Branch Raritan River, Shimmers Brook, Van Campens Brook and Wallkill River Basin Aquifer Systems, underlying all of Warren County, NJ; and portions of Sussex, Passaic, Morris, Middlesex, Hunterdon, Mercer and Somerset Counties, NJ, and Orange County, NY, satisfy all determination criteria as a Sole Source Aquifer (SSA), pursuant to section 1424(e) of the Safe Drinking Water Act. The basin aquifer systems of northwest NJ are the sole source of drinking water for their aquifer service area; there are no viable alternative drinking water sources of sufficient supply; and, if contamination were to occur, it would pose a significant hazard to the public health.

As a result of this action, all Federal financially-assisted projects proposed for the area will be subject to EPA review to ensure that these projects are designed and constructed such that they do not bring about, or in any way contribute to, conditions creating a significant hazard to public health.

DATES: This determination shall be promulgated for purposes of judicial review at 1:00 p.m. Eastern time on July 7, 1988.

ADDRESSES: The data upon which these findings are based are available to the public and may be inspected during normal business hours at the U.S. Environmental Protection Agency, Region II, Office of Ground Water Management, Room 842, 26 Federal Plaza, New York, NY 10278.

FOR FURTHER INFORMATION CONTACT: John S. Malleck, Chief, Office of Ground Water Management, EPA Region II, 26 Federal Plaza, Room 842, New York, NY 10278, (212) 264-5635.

SUPPLEMENTARY INFORMATION:

I. Background

Section 1424(e) of the Safe Drinking Water Act (SDWA) (42 U.S.C. 300h-3(e), Pub. L. 93-523) states:

> If the Administrator determines, on his own initiative or upon petition, that an area has an aquifer which is the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health, he shall publish notice of the determination in the **Federal Register**. After the publication of any such notice, no commitment for Federal financial assistance (through a grant, contract, loan guarantee, or otherwise) may be entered into for any project which the Administrator determines may contaminate such aquifer through a recharge zone so as to create a significant hazard to public health, but a commitment may, if authorized under another provision of law, be entered into to plan or design the project to assure that it will not so contaminate the aquifer.

In November 1985, NJDEP petitioned EPA to declare the aquifer systems of the Coastal Plain, Piedmont, Highland, and Valley and Ridge Physiographic Provinces, as defined in the petition, a SSA under the provisions of the SDWA. The area specified in the petition submitted by NJDEP included the entire State of New Jersey except for the City of Trenton within the Coastal Plain and Piedmont Provinces in west-central New Jersey, and 69 communities within the Piedmont Province in northeast New Jersey.

In June 1987, NJDEP began to revise their petition to include only areas which were not designated previously, or petitioned for designation prior to their original petition. The revised petition uses a surface water drainage basin approach to define aquifer systems.

Initially 21 basin aquifer systems were to be included in the revised petition. However, the NJDEP determined that four of these were not eligible for SSA designation because of an insufficient ground water dependency. NJDEP developed the necessary documentation for the remaining 17. Subsequently, EPA determined that the NJDEP's ground water use methodology did not consider the entire aquifer service area populations. NJDEP revised the ground water use characterization to consider the entire aquifer service area, and another basin aquifer system was determined to be ineligible for SSA designation because of an insufficient ground water dependency. This reduced the number of basin aquifer systems under consideration to 16.

EPA determined that the Whippany River Basin, one of the 16, was already designated as part of the Buried Valley Sole Source Aquifer (45 FR 30537, May 8, 1980). Therefore, the area recommended for designation corresponds to the 15 basin aquifer systems of northwest New Jersey.

Public hearings were held on March 23, 1988 at the Sussex County Community College, Sparta, NJ, and on March 24, 1988 at the Hunterdon County Cooperative Extension Center, Flemington, NJ, in accordance with all applicable notification and procedural requirements. Most comments received during the comment period were in favor of designation.

II. Basis for Determination

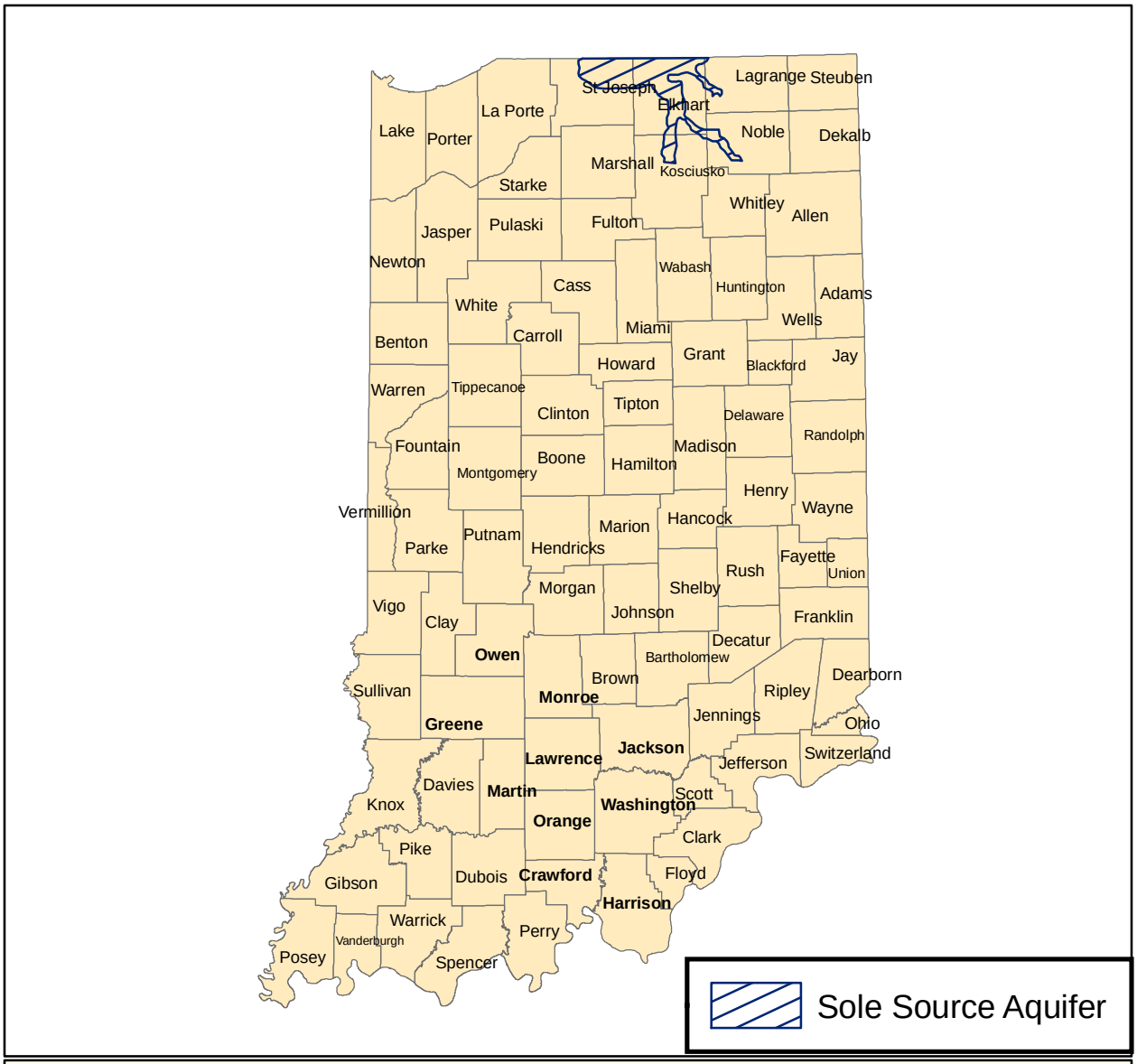
Among the factors considered by the Regional Administrator as part of the technical review process for designating an area under section 1424(e) were: (1) Whether the aquifer is the sole or principal source (more than 50%) of drinking water for the defined aquifer service area, and that the volume of water available from all alternate sources is insufficient to replace the petitioned aquifer; and (2) whether contamination of the aquifer would create a significant hazard to public health. On the basis of technical information available to EPA at this time, the Regional Administrator has made the following findings in favor of designating the 15 basin aquifer systems of northwest NJ as a sole source aquifer:

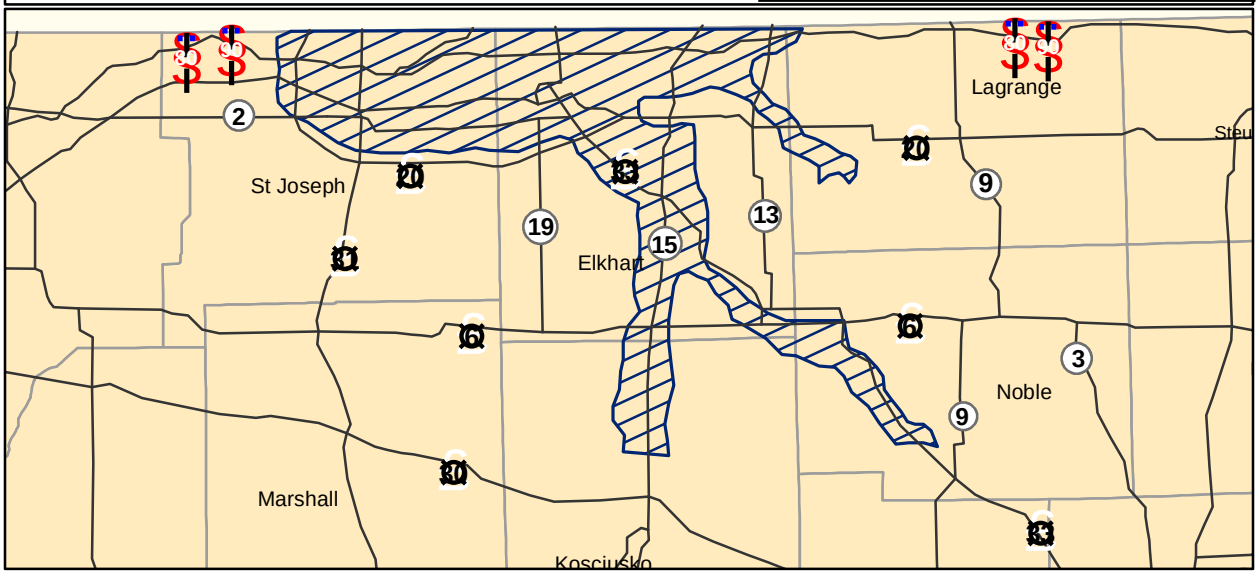
1. The 15 basin aquifer systems supply more than 50 percent of the drinking water to their defined aquifer service area, and therefore, are the sole or principal source of drinking water for the residents of that area.

2. There are no reasonable alternative sources capable of supplying a sufficient quantity of drinking water to the population served by the petitioned aquifer systems.

3. The basin aquifer systems of northwest New Jersey are considered to be highly vulnerable to contamination, due to the thinness of the soils over much of the area, the shallow depth to

II. Sole Source Aquifer Map


Lagrange
Steuben
St Joseph
Elkhart
La Porte
Lake
Porter
Noble
Dekalb
Marshall
Kosciusko
Starke
Whitley
Allen
Jasper
Pulaski
Fulton
Newton
Wabash
Cass
Huntington
Adams
White
Wells
Miami
Carroll
Benton
Howard
Grant
Blackford
Jay
Warren
Tippecanoe
Clinton
Tipton
Delaware
Randolph
Fountain
Boone
Madison
Montgomery
Hamilton
Henry
Wayne
Vermillion
Hancock
Marion
Putnam
Parke
Hendricks
Fayette
Union
Rush
Morgan
Shelby
Vigo
Johnson
Franklin
Clay
Decatur
Owen
Bartholomew
Dearborn
Brown
Ripley
Sullivan
Monroe
Jennings
Ohio
Greene
Lawrence
Jackson
Switzerland
Jefferson
Davies
Martin
Scott
Knox
Washington
Orange
Clark
Pike
Floyd
Dubois
Crawford
Gibson
Harrison
Warrick
Perry
Vanderburgh
Posey
Spencer
Sole Source Aquifer


Lagrange
St Joseph
Elkhart
Noble
Marshall
Kosciusko

JJ. List of Navigable Waters

ROSTER OF INDIANA WATERS DECLARED NAVIGABLE OR NONNAVIGABLE
(LISTED BY WATERWAY NAME)

Anderson River (including Middle Fork): Navigable in Spencer County from its junction with the Ohio River for 28.4 river miles to the Perry-Spencer County Line. The Middle Fork is navigable from its junction with the Anderson River for 3.3 river miles.
Armuth Ditch: See Black Creek.
Arnold Creek: Navigable in Ohio County from its junction with the Ohio River for 4.4 river miles.
Baker Creek: Navigable in Spencer County from its junction with Little Pigeon Creek 1.8 river miles.
Bald Knob Creek: Navigable in Perry County from its junction with Oil Creek for 0.5 river miles.
Banbango Creek: See Baugo Creek.
Baugo Creek: Navigable from its junction with the St. Joseph River in South Bend for 15.2 river miles to the main forks (near Wakarusa).
Bayou Creek: Navigable in Vanderburgh County from its junction with the Ohio River for 1.5 river miles.
Beanblossom Creek: Navigable in Monroe County from its junction with the West Fork of the White River for 17.7 river miles to Griffy Creek.
Bear Creek: Navigable in Perry County from its junction with the Ohio River for 1.6 river miles.
Big Blue River: Navigable from its junction with Sugar Creek (to form the Driftwood River) for 55.46 river miles to the Henry-Rush County Line.
Big Blue River: See, also, Blue River.
Big Creek: Navigable in Posey County from its junction with the Wabash River for 25.4 river miles (near Cynthiana). See, also, Little Fork of Big Creek.
Big Deer Creek: See Deer Creek.
Big Indian Creek: See Indian Creek (Morgan County).
Big Oil Creek: Navigable in Perry County from its junction with the Ohio River for 10.6 river miles.
Big Poison Creek: Navigable in Perry County from its junction with the Ohio River for 6.3 river miles.
Big Raccoon Creek: Navigable from its junction with the Wabash River for 42.35 river miles to the Parke-Putnam County Line (now Cecil M. Harden Lake). The dam for Harden Lake is located at river mile 33.7.
Big Saluda Creek: Navigable in Jefferson County from its junction with the Ohio River for 1.0 river miles.
Big Sandy Creek: See Sandy Creek.
Big Vermillion River: Navigable from its junction with the Wabash River for 10.8 river miles to the Illinois State Line. (This river is navigable to Carmargo, Illinois.)
Black Creek: Navigable from its junction with the West Fork of the White River (near Edwardsport) for 11.8 river miles (near Marco).

Blue River: Navigable from its junction with the Ohio River for 57.15 river miles to Fredricksburg.
Blue River: See, also, Big Blue River.
Bryant Creek: Navigable in Switzerland County from its junction with the Ohio River for 2.6 river miles.
Buck Creek: Navigable in Harrison County from its junction with the Ohio River for 5.8 river miles.
Buck Creek: Navigable in Perry County from its junction with the Ohio River for 0.7 river miles.
Buck Run: Navigable in Ohio County from its junction with the Ohio River for 1.1 river miles.
Bull Creek: Navigable in Clark County from its junction with the Ohio River for 1.1 river miles.
Bull Hollow: Navigable in Perry County from its junction with Big Oil Creek for 0.7 river miles.
Burns Ditch: Navigable as a channelization of the Little Calumet River.
Burns Waterway Harbor: Navigable as an extension of Lake Michigan for 1.3 river miles to the Little Calumet River.
Busseron Creek: Navigable from its junction with the Wabash River in Knox County for 20.96 river miles. A channelization and relocation of Busseron Creek is navigable from its junction with the Wabash River in Sullivan County (near Rogers Ditch) for 2.85 river miles to its junction with the original channel.
Busserou Creek: See Busseron Creek.
Cagles Mill Lake: See Eel River, and see Mill Creek.
Calumet River: See Grand Calumet River; also Little Calumet River.
Calumet River Canal: See Indiana Harbor Canal.
Cammie Thomas Ditch: Navigable for 7.45 river miles as a channelization of the Muscatatuck River.
Camp Creek: Navigable in Clark County from its junction with the Ohio River for 1.7 river miles.
Caney Branch: Navigable in Perry County from its junction with Big Poison Creek for 0.2 river miles.
Caney Branch: Navigable in Perry County from its junction with Little Deer Creek for 0.8 river miles.
Caney Creek: Navigable in Spencer County from its junction with the Ohio River for 2.8 river miles.
Carman's Creek: See Turman Creek.
Cecil M. Harden Lake: See Big Raccoon Creek.
Clear Creek: Navigable in Monroe County from its junction with Salt Creek for 2.55 river miles (near Harrodsburg).
Clear Creek: Navigable from its junction with Little Pigeon Creek for 2.4 river miles.
Clover Lick Creek: Navigable in Perry County from its junction with Big Oil Creek for 0.7 river miles.

Conns Creek: Navigable (although with private ownership of the creek bed) from its junction with the Flatrock River for 11.5 river miles to the Rush-Shelby County Line.
Crooked Creek: Navigable in Spencer County from its junction with the Ohio River for 7.7 river miles.
Cypress Creek (including Cypress Creek Diversion Channel): Navigable in Warrick County from its junction with the Ohio River for 6.6 river miles. (The original bed of Cypress Creek is also navigable west of Cypress Creek Diversion Channel for 1.95 river miles, except where the creek bed has emerged and is no longer inundated.)
Deer Creek: Navigable in Perry County from its junction with the Ohio River for 5.9 river miles.
Driftwood River: Navigable from its junction with the East Fork of the White River (near Columbus) 15 river miles to its junction with the Big Blue River (near Edinburgh).
Dry Run Creek: Navigable in Crawford County from its junction with the Big Blue River for 1.4 river miles.
East Calumuck River: See Little Calumet River.
East Deer Creek: Navigable in Perry County from its junction with Deer Creek for 0.6 river miles.
East Fork of the White River: Navigable from its junction with the White River 189 river miles to its junction with the Flatrock and Driftwood Rivers (near Columbus).
East Fork of the Whitewater River: Navigable from its junction with the Whitewater River for 26.25 river miles to the Union-Wayne County Line.
Eel River: Navigable from its junction with the West Fork of the White River for 51.2 river miles to its junction with Mill Creek (now within Cagles Mill Lake).
Elk Creek: Navigable in Washington County from its junction with the Cammie Thomas Ditch for 3.0 river miles.
Fanny Creek: Navigable in Perry County from its junction with the Ohio River for 0.8 river miles.
Fawn River: Navigable for 13.45 river miles within Indiana. The Fawn River has two navigable segments in Indiana, separated by segments in Michigan. Navigability commences at the Indiana-Michigan state line (near Gilmore Lake and two miles south of Sturgis, Michigan) and continues downstream.
Flat Creek: Navigable from its junction with the Patoka River for 12.0 river miles (near Otwell).
Flatrock River: Navigable from its junction with the East Fork of the White River (Columbus) 93 river miles to its uppermost point in Henry County (near Mooreland).
Fourteen Mile Creek: Navigable in Clark County from its junction with the Ohio River for 2.9 river miles.
Garrett Creek: Navigable in Spencer County from its junction with the Ohio River for 2.2 river miles.
Goose Creek: Navigable in Switzerland County from its junction with the Ohio River for 1.5 river miles.
Grand Calumet River: Navigable from the Illinois State Line (near Hammond) for 15.4 river miles to Marquette Park. (The river is also navigable in Illinois.)

Grants Creek: Navigable in Switzerland County from its junction with the Ohio River for 2.5 river miles.
Great Miami River: Navigable for 1.4 river miles in Dearborn County. (Most of this river lies within Ohio; and the Great Miami River has been determined to be navigable from its junction with the Ohio River for 117 river miles. The waterway enters Indiana at two locations.)
Harden Lake: See Big Raccoon Creek.
Harris Ditch: Navigable in Posey County from its junction with the Ohio River for 0.9 river miles to Little Pitcher Lake.
Hogan Creek (including North Fork and South Fork): (The Main Stem of) Hogan Creek is navigable in Dearborn County from the junction on the Ohio River for its entire length of 0.4 river miles. The North Fork is navigable from the junction with Hogan Creek for 4.9 river miles. The South Fork is navigable from the junction with Hogan Creek for 5.0 river miles.
Honey Creek: Navigable in Spencer County from its junction with the Ohio River for 1.8 river miles.
Houchins Ditch: See Patoka River.
Hurricane Fork: See Little Fork of Big Creek.
Independence Creek: See Indian Creek (Harrison County).
Indian Creek: Navigable in Harrison County from its junction with the Ohio River for 4.8 river miles.
Indian Creek: Navigable in Martin County from its junction with the East Fork of the White River for 15.0 river miles to the Lawrence-Martin County Line.
Indian Creek: Navigable in Morgan County from its junction with the West Fork of the White River for 3.3 river miles (near Martinsville).
Indian Creek: Navigable in Switzerland County from its junction with the Ohio River for 4.1 river miles.
Indian Fork: Navigable in Perry County from its junction with Big Oil Creek for 1.4 river miles.
Indian-Kentuck Creek: Navigable in Jefferson County from its mouth on the Ohio River for 3.8 river miles.
Indiana Harbor: Navigable as an extension of Lake Michigan.
Indiana Harbor Canal (including Calumet River Branch and Lake George Branch): The (Main Stem of the) Indiana Harbor Canal is navigable in Lake County for 3.0 river miles from the Indiana Harbor to where it branches into the Calumet River Canal and the Lake George Canal. The Calumet River Canal is navigable in Lake County from the Indiana Harbor Canal for 1.95 river miles to the Grand Calumet River. The Lake George Canal is navigable in Lake County from the Indiana Harbor Canal for 0.85 river miles (near White Oak Avenue if extended southerly).
Iroquios River: Navigable from the Indiana-Illinois State Line for 39 river miles to the Dexter Ditch (near Parr).
Island Branch: Navigable in Ohio County from its junction with the Ohio River for 1.0 river miles.

Jackson Creek: Navigable in Spencer County from its junction with the Ohio River for 1.8 river miles.
Kankakee River: Navigable from the Indiana-Illinois State Line for 86.3 river miles to the Indiana-Michigan State Line. (This river is also navigable downstream in Illinois.)
Kelly Bayou: Navigable in Sullivan County from its downstream junction with an oxbow of the Wabash River for 5.8 river miles to its upstream junction with the Wabash River.
Kelly Hollow: Navigable in Perry County from its junction with Millstone Creek for 1.0 river miles.
Kemper Ditch: See Little Calumet River.
Kingly Creek: Navigable in Perry County from its junction with the Ohio River for 0.2 river miles.
Knob Creek: Navigable in Perry County from its junction with the Ohio River for 0.2 river miles.
Lake Drain: Navigable in Spencer County from its junction with the Ohio River for 1.6 river miles.
Lake George Canal: See Indiana Harbor Canal.
Lake Michigan: Navigable throughout Indiana.
Lancassange Creek: Navigable in Clark County from its junction with the Ohio River for 0.3 river miles.
Laughery Creek: Navigable from its junction with the Ohio River for 10.8 river miles (near Milton).
Lick Creek: Navigable in Orange County from its junction with the Lost River for 19.5 river miles to Old Spring Mill (near Paoli).
Little Blue River: Navigable in Crawford County from its junction with the Ohio River (near Alton) for 10.6 river miles.
Little Blue River: Navigable from its junction with the Big Blue River (Shelbyville) for 25.6 river miles to its junction with Ball Run.
Little Calumet River: Navigable from the Indiana-Illinois State Line for 21.24 river miles to Burns Waterway Harbor; and navigable for an additional 17.75 river miles to its junction (as Kemper Ditch) with Interstate 94. (The river is also navigable in Illinois.)
Little Creek: See Little Fork of Big Creek.
Little Deer Creek: Navigable from its junction with Deer Creek for 3.9 river miles.
Little Fork of Big Creek: Navigable in Posey County from its junction with Big Creek for 5.1 river miles.
Little Oil Creek: Navigable from its junction with Big Oil Creek for 4.4 river miles.
Little Pigeon Creek: Navigable from its junction with the Ohio River for 15.8 river miles.
Little Pitcher Lake: Navigable in Posey County as an extension of Harris Ditch.
Little Raccoon Creek: Navigable in Parke County from its junction with Big Raccoon Creek for 5.3 river miles (Nevins Covered Bridge).
Little River: Navigable from its junction with the Wabash River 20.2 river miles to Ellison Road (near Fort Wayne).

Little Sandy Creek: Navigable in Spencer County from its junction with the Ohio River for 2.0 river miles.
Little Wabash River: See Little River.
Locust Creek: Navigable in Vanderburgh County from its junction with Pigeon Creek for 1.5 river miles.
Log Lick Creek: Navigable in Switzerland County from its junction with the Ohio River for 2.3 river miles.
Lost River: Navigable from its junction with the East Fork of the White River for 48.87 river miles (near Orangeville).
McFadden Creek: Navigable in Posey County from its junction with the Ohio River for 2.3 river miles.
Marble Powers Ditch: See Kankakee River.
Maumee River: Navigable from the Indiana-Ohio State Line 27.05 river miles to the Hosey Dam, Fort Wayne. (The river is also navigable in Ohio; and the river may be alternatively described as navigable to total river mile 134.9. The Indiana-Ohio State Line is located at total river mile 107.85.)
Mill Creek: Navigable from its junction with the Eel River (now Cagles Mill Lake) for 32.45 river miles to the Hendricks-Morgan County Line. See, also, Mill Creek Ditch.
Mill Creek: Navigable in Crawford County from its junction with the Little Blue River for 1.4 river miles.
Mill Creek Ditch: Navigable from its junction with Mill Creek upstream for 1.35 river miles to the Hendricks-Morgan County Line.
Millstone Creek: Navigable in Perry County from its junction with the Ohio River for 1.4 river miles.
Mississinewa River: Navigable from its junction with the Wabash River for 109.75 river miles to the Indiana-Ohio State Line.
Monroe Lake: See Salt Creek.
Mosquito Creek: Navigable in Harrison County from its junction with the Ohio River for 2.8 river miles.
Mud Creek: Navigable from its junction with Mill Creek (near Little Point) for 5.6 river miles to Tudor Road (near Hazelwood).
Muscatatuck River: Navigable from its junction with the East Fork of the White River for 24.25 river miles to the main forks. See, also, Vernon Fork of Muscatatuck River and South Fork of Muscatatuck River.
Neglie Creek: Navigable in Perry County from its junction with Little Deer Creek for 0.5 river miles.
North Fork of Muscatatuck River: See Vernon Fork of Muscatatuck River.
Ohio River: Navigable throughout the state (from total river mile 491.34 to total river mile 848.0).
Oil Creek: See Big Oil Creek.
Patoka River: Navigable from its junction with the Wabash River for 146.6 river miles (within Greenfield Township, Orange County).

Pickamink River: See Iroquois River.
Pigeon Creek: Navigable from its junction with the Ohio River for 5.9 river miles.
Plum Creek: Navigable in Switzerland County from its junction with the Ohio River for 2.9 river miles.
Poison Creek: See Big Poison Creek.
Potato Run: Navigable in Harrison County from its junction with the Ohio River for 0.4 river miles.
Raccoon Creek: See Big Raccoon Creek.
Rock River: See Sugar Creek.
Rider Ditch: Navigable in Jackson County as a channelization of the Vernon Fork of the Muscatatuck River.
St. Joseph River: Navigable throughout Indiana (Elkhart and St. Joseph Counties) for 39.57 river miles. The river enters Indiana from Michigan and returns to Michigan. (The river is also navigable downstream in Michigan; and the river may be alternatively described as navigable from total river mile 49.93 to total river mile 89.5.)
Salt Creek: Navigable from its junction with the East Fork of the White River for 63.6 river miles to the upstream boundary of Monroe Lake along the North Fork.
Sample Run: Navigable in Perry County from its junction with the Ohio River for 0.2 river miles.
Sand Creek: Navigable in Switzerland County from its junction with Bryant Creek for 0.9 river miles.
Sand Run: See Sand Creek.
Sandy Creek: Navigable in Spencer County from its junction with the Ohio River for 2.6 river miles.
Silver Creek: Navigable in Clark County from its junction with the Ohio River for 3.0 river miles.
Smart Ditch: Navigable in Jackson County as a channelization of the Muscatatuck River (and the Vernon Fork of the Muscatatuck River).
South Fork of Big Creek: See Little Fork of Big Creek.
South Fork of Muscatatuck River: Navigable from its junction with the Muscatatuck River 28.1 river miles to its junction with Graham Creek.
Sugar Creek: Navigable from its junction with the Big Blue River (to form the Driftwood River) for 24.4 river miles (near Boggstown).
Sugar Creek: Navigable from its junction on the Wabash River (near West Union) for 56.83 river miles to the Montgomery-Boone County Line.
Tanners Creek: Navigable from its junction with the Ohio River in Lawrenceburg for 10.6 river miles.
Tate's Hollow: Navigable in Perry County from its junction with the Ohio River for 0.3 river miles.
Thomas Ditch: See Cammie Thomas Ditch.
Trail Creek: Navigable in LaPorte County from its junction with Lake Michigan for 1.0 river miles.

Turman Creek: Navigable in Sullivan County from its junction with the Wabash River for 7.9 river miles (near Dodds Bridge).
Turtle Creek: Navigable in Switzerland County from its junction with the Ohio River for 1.3 river miles.
Twin Creek: Navigable in Washington County from its junction with the East Fork of the White River for 7.98 river miles to the Cox Ferry Road Bridge near the Jefferson-Brown Township Line.
Vermillion River: See Big Vermillion River.
Vernon Fork of Muscatatuck River: Navigable from its junction with the Muscatatuck River for 39.3 river miles to Vernon (S.R. 7).
Wabash River: Navigable from its junction with the Ohio River for 441.9 river miles to the Wells-Adams County Line.
Webb Branch: Navigable in Perry County from its junction with Big Oil Creek for 0.9 river miles.
West Fork of the White River: Navigable from its junction with the White River 277 river miles to Smithfield, Delaware County.
West Fork of the Whitewater River: Navigable from its junction with the Whitewater River for 64.3 river miles to the three forks (near Connersville).
White River: Navigable from its junction with the Wabash River for 49.5 river miles to where it branches into the East Fork of the White River and the West Fork of the White River.
Whitewater River: Navigable from the Ohio State Line for 29.65 river miles to where it branches into the East Fork of the Whitewater River and the West Fork of the Whitewater River. (The river is also navigable downstream in Ohio; and the river may be alternatively described as navigable from total river mile 7.9 to total river mile 96.9.)
Wilson Creek: Navigable in Dearborn County from its junction with the Ohio River for 1.9 river miles.
Yellow River: Navigable from its junction with the Kankakee River for 41.0 river miles to Plymouth.

KK. FHWA MSAT Guidance

U.S. Department of Transportation
Federal Highway Administration

Memorandum

Subject: **INFORMATION**: Interim Guidance on Air Toxic Analysis in NEPA Documents

Date: February 3, 2006

From: Cynthia J. Burbank
Associate Administrator for Planning, Environment and Realty

Reply to
Attn. of: HEPN-10

To: Division Administrators

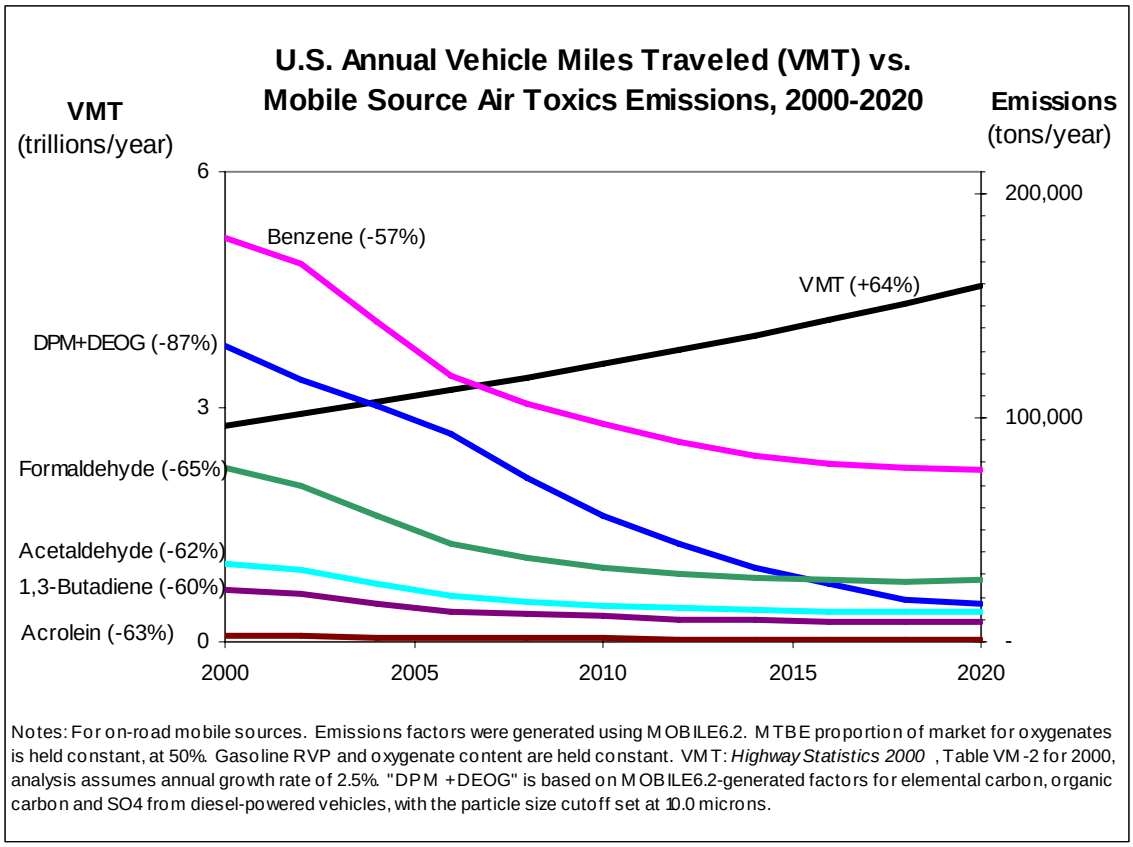
PURPOSE

The purpose of this guidance is to advise FHWA Division offices on when and how to analyze Mobile Source Air Toxics (MSAT) in the NEPA process for highways. This guidance is interim, because MSAT science is still evolving. As the science progresses, FHWA will update the guidance**.**

BACKGROUND

The Clean Air Act identified 188 air toxics, also known as hazardous air pollutants. The Environmental Protection Agency (EPA) has assessed this expansive list of toxics and identified a group of 21 as mobile source air toxics, which are set forth in an EPA final rule, *Control of Emissions of Hazardous Air Pollutants from Mobile Sources (66 FR 17235).* The EPA also extracted a subset of this list of 21 that it now labels as the six priority MSATs. These are *benzene, formaldehyde, acetaldehyde, diesel particulate matter/diesel exhaust organic gases, acrolein, and 1,3-butadiene.* While these MSATs are considered the priority transportation toxics, the EPA stresses that the lists are subject to change and may be adjusted in future rules.

The EPA has issued a number of regulations that will dramatically decrease MSATs through cleaner fuels and cleaner engines. According to an FHWA analysis, even if VMT increases by 64 percent, reductions of 57 percent to 87 percent in MSATs are projected from 2000 to 2020, as shown in the following graph:



*

National trend information is provided as background. For specific locations, the trend lines may be different, depending on local parameters defining vehicle mix, fuels, meteorology and other factors.

Air toxics analysis is a continuing area of research. While much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. In particular, the tools and techniques for assessing project-specific health impacts from MSATs are limited, as discussed in Appendix C. These limitations impede FHWA's ability to evaluate how mobile source health risks should factor into project-level decision-making under the National Environmental Policy Act (NEPA). In addition, EPA has not established regulatory concentration targets for the six relevant MSAT pollutants appropriate for use in the project development process.

Nonetheless, air toxics are being raised more frequently on transportation projects during the NEPA process. As the science emerges, we are increasingly expected by the public and other agencies to address MSAT impacts in our environmental documents. We have several research projects underway to try to more clearly define potential risks from MSAT emissions associated with transportation projects. However, while this research is ongoing, we are issuing this interim guidance on how MSATs should be addressed in NEPA documents for highway projects. The FHWA will continue to monitor the developing research in this emerging field.

ANALYSIS OF MSATs IN NEPA DOCUMENTS

Given the emerging state of the science and of project-level analysis techniques, there are no established criteria for determining when MSAT emissions should be considered a significant issue in the NEPA context. Therefore, a range of responses may be appropriate for addressing this issue in NEPA documentation. The response may involve quantitative analysis of emissions to compare or differentiate among proposed project alternatives, qualitative analysis to explore the general nature of the project and inform interested parties, or no analysis depending on the circumstances as set out in this interim guidance. For projects warranting MSAT analysis, the six priority MSATs should be analyzed.

The FHWA has developed a tiered approach for analyzing MSATs in NEPA documents. Depending on the specific project circumstances, FHWA has identified three levels of analysis:

- No analysis for projects with no potential for meaningful MSAT effects;
- Qualitative analysis for projects with low potential MSAT effects; or
- Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects.

(1) Exempt Projects or Projects with No Meaningful Potential MSAT Effects.

The types of projects included in this category are:

- Projects qualifying as a categorical exclusion under 23 CFR 771.117(c);
- Projects exempt under the Clean Air Act conformity rule under 40 CFR 93.126; or
- Other projects with no meaningful impacts on traffic volumes or vehicle mix

For projects that are categorically excluded under 23 CFR 771.117(c), or are exempt under the Clean Air Act pursuant to 40 CFR 93.126, no analysis or discussion of MSATs is necessary. Documentation sufficient to demonstrate that the project qualifies as a categorical exclusion and/or exempt project will suffice. For other projects with no or negligible traffic impacts, regardless of the class of NEPA environmental document, no MSAT analysis is required.[1] However, the project record should document the basis for the determination of "no meaningful potential impacts" with a brief description of the factors considered. Prototype language that could be included in the record is attached as Appendix A.

(2) Projects with Low Potential MSAT Effects

The types of projects included in this category are those that serve to improve operations of highway, transit or freight without adding substantial new capacity or without creating a facility that is likely to meaningfully increase emissions. This category covers a broad range of projects.

[1] The types of projects categorically excluded under 23 CFR 771.117(d) or exempt from conformity under 40 CFR 93.127 do not warrant an automatic exemption from an MSAT analysis, but they usually will have no meaningful impact.

We anticipate that most highway projects will fall into this category. Any projects not meeting the threshold criteria for higher potential effects set forth in subsection (3) below and not meeting the criteria in subsection (1) should be included in this category. Examples of these types of projects are minor widening projects and new interchanges, such as those that replace a signalized intersection on a surface street or where design year traffic is not projected to meet the 140,000 to 150,000 AADT criterion. [2]

For these projects, a qualitative assessment of emissions projections should be conducted. This qualitative assessment would compare, in narrative form, the expected effect of the project on traffic volumes, vehicle mix, or routing of traffic, and the associated changes in MSATs for the project alternatives, based on VMT, vehicle mix, and speed. It would also discuss national trend data projecting substantial overall reductions in emissions due to stricter engine and fuel regulations issued by EPA. Because the emission effects of these projects are low, we expect there would be no appreciable difference in overall MSAT emissions among the various alternatives. In addition, quantitative emissions analysis of these types of projects will not yield credible results that are useful to project-level decision-making due to the limited capabilities of the transportation and emissions forecasting tools.

Appendix B includes prototype language for a qualitative assessment, with specific examples for four types of projects: (a) a minor widening project; (b) an interchange with a new connector road; (c) an interchange without a new connector road; and (d) minor improvements or expansions to intermodal centers or other projects that affect truck traffic.

In addition to the qualitative assessment, a NEPA document for this category of projects must include a discussion of information that is incomplete or unavailable for a project specific assessment of MSAT impacts, in compliance with CEQ regulations (40 CFR 1502.22(b)) regarding incomplete or unavailable information. This discussion would explain how air toxics analysis is an emerging field and current scientific techniques, tools, and data are not sufficient to accurately estimate human health impacts that would result from a transportation project in a way that would be useful to decision-makers. Also in compliance with 40 CFR 150.22(b), it should contain a summary of current studies regarding the health impacts of MSATs. Prototype language for this discussion is contained in Appendix C.

(3) Projects with Higher Potential MSAT Effects

This category includes projects that have the potential for meaningful differences among project alternatives. We expect only a limited number of projects to meet this two-pronged test. To fall into this category, projects must:

[2] This guidance does not specifically address the analysis of construction-related emissions because of their relatively short duration. We will be considering whether more guidance is needed on construction activities in future versions of this guidance. We have also included a discussion of mitigation strategies for construction related activities in Appendix E.

- Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of diesel particulate matter in a single location; or

- Create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the AADT is projected to be in the range of 140,000 to 150,000[3], or greater, by the design year;

And also

- be proposed to be located in proximity to populated areas or in rural areas, in proximity to concentrations of vulnerable populations (i.e., schools, nursing homes, hospitals).

Projects falling within this category should be more rigorously assessed for impacts. If a project falls within this category, you should contact Michael Koontz or Pamela Stephenson in the Office of Planning, Environment, and Realty in FHWA for assistance in developing a specific approach for assessing impacts. This approach would include a quantitative analysis that would attempt to measure the level of emissions for the six priority MSATs for each alternative, to use as a basis of comparison. This analysis also may address the potential for cumulative impacts, where appropriate, based on local conditions. How and when cumulative impacts should be considered would be addressed as part of the assistance outlined above. The NEPA document for this project would also include relevant prototype language on unavailable information included in Appendix C.

If the analysis for a project in this category indicates meaningful differences in levels of MSAT emissions, mitigation options should identified and considered. See Appendix E for information on mitigation strategies.

You should also consult with the Office of Planning, Environment and Realty if you have a project that does not fall within any of the types of projects listed above, but you think has the potential to substantially increase future MSAT emissions. Although not required, projects with high potential for litigation on air toxics issues may also benefit from a more rigorous quantitative analysis to enhance their defensibility in court.

CONCLUSION

The guidance presented in this memorandum is interim. The guidance will be revised when FHWA completes studies underway to develop and evaluate better analytical tools for MSAT analysis and to better assess the health impacts of MSATs. The FHWA will continue to revise and update this guidance as the science on air toxic analysis continues to evolve. Additional background information on MSATs is attached to this memorandum as Appendix D.

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[3] Using EPA's MOBILE6.2 emissions model, FHWA technical staff determined that this range of AADT would be roughly equivalent to the CAA definition of a major HAP source, i.e. 25 tons per year (tpy) for all HAPs or 10 tpy for any single HAP. Significant variations in conditions such as congestion or vehicle mix could warrant a different range for AADT; if this range does not seem appropriate for your project please consult with the contacts from the Office of Planning, Environment and Realty identified in this memorandum.

The FHWA recognizes that some projects already are moving through the environmental analysis process and that immediate application of this interim guidance would be impractical. All future approvals of projects in "Category 1" (no meaningful MSAT effects) should include the information in Appendix A, commencing as soon as practicable after the date of this guidance. For projects already underway that would require qualitative or quantitative analysis of MSAT emissions (categories 2 and 3), the FHWA Division Offices should work to incorporate the appropriate analysis into the NEPA document if practicable, given the amount of resources already invested, the need for the project, and the stage of completion of the document. We expect that this guidance can be incorporated into any NEPA documents for which the completion of the DEIS, FEIS, or EA is more than 6 months from the date of this guidance. We recognize that in some cases this may not be possible for a variety of reasons (e.g., lack of necessary traffic data or emissions modeling expertise) and will rely on the judgment of the individual division offices to determine whether this guideline is reasonable for any given project. The FHWA Headquarters and Resource Center staff is available to provide guidance and technical assistance during this phase-in period to support any necessary analysis and limit project delays.

5 Attachments

LL. MSAT Standard Language

Exempt Projects or Projects with No Meaningful Potential MSAT Effects:

For project types qualifying as a categorical exclusion (Group I), under 23 CFR 771.117 (c), or for projects that are exempt under the Clean Air Act conformity rule under 40 CFR 93.126, include the following certifying paragraph in the NEPA document:

> *This project is of a type qualifying as a categorical exclusion (Group 1) under 23 CFR 771.117(c), or exempt under the Clean Air Act conformity rule under 40 CFR 93.116, and as such, a Mobile Source Air Toxics analysis is not required.*

For projects with no meaningful impacts on traffic volumes or vehicle mix such as found in 23 CFR 771.117(d) or 40 CFR 93.127, include the following text in the associated Environmental Document:

> *This project will not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in emissions relative to the no-build alternative. As such, FHWA has determine that this project will generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special Mobile Source Air Toxic concerns. Consequently, this effort is exempt from analysis for MSATs.*
>
> *Moreover, EPA regulations for vehicle engines and fuels will cause overall MSATs to decline significantly over the next 20 years. Even after accounting for a 64% increase in VMT, FHWA predicts MSATs will decline in the range of 57-87% from 2000 to 2020, based on regulations now in effect. This will both reduce the background level of MSATs as well as the possibility of even minor MSAT emissions from this project.*

Projects with Low Potential MSAT Effects:

Language for qualitative assessments for all projects:

The following language can be used for a majority of qualitative assessments for projects with low potential MSAT effects. The wording should be catered to the actual project.

Introduction for both Low Potential and Higher Potential MSAT Projects:

> *In addition to the criteria air pollutants for which there are National Ambient Air Quality Standards (NAAQS), EPA also regulates air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g. airplanes), area sources (e.g. dry cleaners), and stationary sources (e.g. factories or refineries).*
>
> *Mobile Source Air Toxics (MSATs) are a subset of the 188 air toxics defined by the Clean Air Act. The MSATs are compounds emitted from highway vehicles and*

non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

The EPA is the lead Federal Agency for administering the Clean Air Act and has certain responsibilities regarding the health effects of MSATs. The EPA has issued a Final Rule on Controlling Emissions of Hazardous Air Pollutants from Mobile Sources (66 FR 17229 – March 29, 2001). This rule was issued under the authority in Section 202 of the Clean Air Act. In its rule, the EPA examined the impacts of existing and newly promulgated mobile source control programs, including it reformulated gasoline (RFG) program, its national low emission vehicle (NLEV) standards, its Tier 2 motor vehicle emissions standards and gasoline sulfur control requirements, and it proposed heavy duty engine and vehicle standards and on-highway diesel fuel sulfur control requirements. Between 2000 and 2020, FHWA projects that even with a 64 percent increase in VMT, these programs will reduce on-highway emissions of benzene, formaldehyde, 1, 3-butadiene and acetaldehyde by 57 to 65 percent, and will reduce on-highway diesel PM emissions by 87 percent.

As a result, EPA concluded that no further motor vehicle emissions standards or fuel standards were necessary to further control MSATs. The agency is preparing another rule under authority of CAA Section 202(l) that will address these issues and could make adjustments to the full 21 and the primary seven MSATs.

Language to be used in the Low Potential MSAT Analysis:

Technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects prevent meaningful or reliable estimates of MSAT emissions and effects of this project. However, even though reliable methods do not exist to accurately estimate the health impacts of MSATs at the project level, it is possible to qualitatively assess the levels of future MSAT emissions under the project. Although a qualitative analysis cannot identify and measure health impacts from MSATs, it can give a basis for identifying and comparing the potential differences among MSAT emissions – if any – from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by the FHWA entitled "A Methodology for Evaluating Mobile Source Air Toxic Emissions among Transportation Project Alternatives" found at:
www.fhwa.dot.gov/environmental/airtoxic/msatcompare/msatemissions.htm

For each build alternative carried forward in this (identify NEPA document), the amount of MSATs emitted would be proportional to the vehicle miles traveled (VMT) assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for each of the Build Alternatives carried

forward is slightly higher than that for the No Build Alternative, because the additional capacity increases the efficiency of the roadway and attracts rerouted trips or new trips in the transportation network. This increase in VMT means MSATs under the Build Alternatives carried forward would probably be higher than the No Build Alternative in the study area. On a regional scale, this emission increase would be offset somewhat by reduced travel to other destinations.

Because the estimated VMT under each of the Build Alternatives carried forward are nearly the same, varying by less than _____ percent, it is expected there would be no appreciable difference in overall MSAT emissions among the various alternatives. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce MSAT emissions by 57 to 87 percent between 2000 and 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

In this document, the FHWA has provided a quantitative analysis of MSAT emissions relative to the various alternatives carried forward, and has acknowledged that the project alternatives may result in increased exposure to MSAT emissions in certain locations, although the concentrations and duration of exposures are uncertain, and because of this uncertainty, the health effects from these emissions cannot be estimated.

If a roadway is moving closer to receptors, the following language can be added:

The additional travel lanes contemplated as part of the project alternatives will have the effect of moving some traffic closer to nearby homes, schools, and businesses; therefore, under each Build Alternative carried forward there may be localized areas where ambient concentrations of MSATs could be higher under certain Build Alternatives than the No Build Alternative. The localized increases in MSAT concentrations would likely be most pronounced along the expanded roadway sections that would be built at _____, under Alternatives _____, and along _____ under Alternatives _____. However, as discussed before, the magnitude and the duration of these potential increases compared to the No Build Alternative cannot be accurately quantified due to the inherent deficiencies of current models.

Projects with Higher Potential MSAT Effects:

Prototype Language:

Use the introduction that was mentioned above for the Low Potential Projects.

Include the following prototype language for quantitative MSAT analysis:

Evaluating the environmental and health impacts from MSATs on a proposed highway project would involve several key elements, including emissions modeling, dispersion modeling in order to estimate ambient concentrations resulting from the estimated emissions, exposure modeling in order to estimate human exposure to the estimated concentrations, and then final determination of health impacts based on the estimated exposure. Each of these steps is encumbered by technical shortcomings or uncertain science that prevents a more complete determination of the MSAT health impacts of this project.

1. *Emissions: The EPA tool to estimate MSAT emissions from motor vehicles is not sensitive to key variables determining emissions of MSATs in the context of highway projects. While MOBILE 6.2 is used to predict emissions at a regional level, it has limited applicability at the project level. MOBILE 6.2 is a trip based model – emission factors are projected based on a typical trip of 7.5 miles, and on average speeds for this typical trip. This means that MOBILE 6.2 does not have the ability to predict emission factors for a specific vehicle operating condition at a specific location at a specific time. Because of this limitation, MOBILE 6.2 can only approximate the operating speeds and levels of congestion likely to be present on the largest scale projects, and cannot adequately capture emissions effects of smaller projects. For particulate matter, the model results are not sensitive to average trip speed, although the other MSAT emission rates do change with changes in trip speed. Also, the emissions rates used in MOBILE 6.2 for both particulate matter and MSATs are based on a limited number of tests of mostly older-technology vehicles. Lastly, in its discussions of PM under the conformity rule, EPA has identified problems with MOBILE 6.2 as an obstacle to quantitative analysis.*

   These deficiencies compromise the capability of MOBILE 6.2 to estimate MSAT emissions. MOBILE 6.2 is an adequate tool for projecting emissions trends and performing relative analyses between alternatives for very large projects, but it is not sensitive enough to capture the effects of travel changes tied to smaller projects or to predict emissions near specific roadside locations.

2. *Dispersion: The tools to predict how MSATs disperse are also limited. The EPA's current regulatory models, CALINE3 and CAL3QHC, were developed and validated more than a decade ago for the purpose of predicting episodic concentrations of carbon monoxide to determine compliance with the NAAQS. The performance of dispersion models is more accurate for predicting maximum concentrations that can occur at some time at some location within a geographic area. This limitation makes it difficult to predict accurate exposure patterns at specific times at*

specific highway project locations across an urban area to assess potential health risks. The NCHRP is conducting research on best practices in applying models and other technical methods in the analysis of MSATs. This work also will focus on identifying appropriate methods of documenting and communicating MSAT impacts in the NEPA process and to the general public. Along with these general limitations of dispersion models, FHWA is also faced with a lack of monitoring data in most areas for use in establishing project-specific MSAT background concentrations.

3. *Exposure Levels and Health Effects: Finally, even if emission levels and concentrations of MSATs could be accurately predicted, shortcomings in current techniques for exposure assessment and risk analysis preclude us from reaching meaningful conclusions about project-specific health impacts. Exposure assessments are difficult because it is difficult to accurately calculate annual concentrations of MSATs near roadways, and to determine the portion of a year that people are actually exposed to those concentrations at a specific location. These difficulties are magnified for 70-year cancer assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emission rates) over a 70-year period. There are also considerable uncertainties associated with the existing estimates of toxicity of the various MSATs, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population. Because of these shortcomings, any calculated difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with calculating the impacts. Consequently, the result of such assessments would not be useful to decision makers, who would need to weigh this information against other project impacts that are better suited for quantitative analysis.*

Include wording similar to the following summarizing scientific evidence of evaluating MSATs:

Research into the health impacts of MSATs is ongoing. For different emission types, there are a variety of studies that show that some either are statistically associated with adverse health outcomes through epidemiological studies (frequently based on emissions levels found in occupational settings) or that animals demonstrate adverse health outcomes when exposed to large doses.

Exposure to toxics has been a focus of a number of EPA efforts. Most notably, the agency conducted the National Air Toxics Assessment (NATA) in 1996 to evaluate modeled estimates of human exposure applicable to the county level. While not intended for use as a measure of or benchmark for local exposure, the modeled estimates in the NATA database best illustrate the levels of various toxics when aggregated to a national or state level.

The EPA is in the process of assessing the risks of various kinds of exposures to these pollutants. The EPA Integrate Risk Information System (IRIS) is a database of human health effects that may result from exposure to various substances found in the environment. The IRIS database is located at www.epa.gov/iris . The following toxicity information for the six prioritized MSATs was taken from the IRIS database Weight of Evidence Characterization summaries. This information is taken verbatim from EPA's IRIS database and represents the Agency's most current evaluations of the potential hazards and toxicology of these chemicals or mixtures.

- *Benzene is characterized as a known human carcinogen.*

- *The potential carcinogenicity of acrolein cannot be determined because the existing data are inadequate for an assessment of human carcinogenic potential for either the oral or inhalation route of exposure.*

- *Formaldehyde is a probable human carcinogen, based on limited evidence in humans, and sufficient evidence in animals. 1, 3-butadiene is characterized as carcinogenic to humans by inhalation.*

- *Acetaldehyde is a probable human carcinogen based on increased incidence of nasal tumors in male and female rats and laryngeal tumors in male and female hamsters after inhalation exposure.*

- *Diesel exhaust (DE) is likely to be carcinogenic to humans by inhalation from environmental exposures. Diesel exhaust as reviewed in this document is the combination of diesel particulate matter and diesel exhaust organic gases.*

- *Diesel exhaust also represents chronic respiratory effects, possibly the primary non-cancer hazard from MSATs. Prolonged exposures may impair pulmonary function and could produce symptoms, such as cough, phlegm, and chronic bronchitis. Exposure relationships have not been developed from these studies.*

There have been other studies that address MSAT health impacts in proximity to roadways. The Health Effects Institute, a non-profit organization funded by EPA, FHWA, and industry, has undertaken a major series of studies to research near-roadway MSAT hot spots, the health implications of the entire mix of mobile source pollutants, and other topics. The final summary of the series is not expected for several years.

Some recent studies have reported that proximity to roadways is related to adverse health outcomes – particularly respiratory problems. Much of this research is not specific to MSATs, instead surveying the full spectrum of both criteria and other pollutants. The FHWA cannot evaluate the validity of these studies, but more importantly, they do not provide information that would be

useful to alleviate the uncertainties listed above and enable us to perform a more comprehensive evaluation of the health impacts specific to this project.

Because of the uncertainties outlined above, a quantitative assessment of the effects of air toxic emissions impacts on human health cannot be made at the project level. While available tools do allow us to reasonably predict relative emissions changes between alternatives for larger projects, the amount of MSAT emissions from each of the project alternatives and MSAT concentrations or exposures created by each of the project alternatives cannot be predicted with enough accuracy to be useful in estimating health impacts. Therefore, the relevance of the unavailable or incomplete information is that it is not possible to make a determination of whether any of the alternatives carried forward would have "significant adverse impacts on the human environment."

In this document, the FHWA has provided a quantitative analysis of MSAT emissions relative to the various alternatives carried forward, and has acknowledged that the project alternatives may result in increased exposure to MSAT emissions in certain locations, although the concentrations and duration of exposures are uncertain, and because of this uncertainty, the health effects from these emissions cannot be estimated.

MM. Criteria Pollutants Information

Additional Information on Criteria Pollutants

Carbon Monoxide (CO): CO is a colorless, odorless gas whose principal manmade source is the incomplete combustion of organic fuels and is found in the emissions of smoke stacks and automotive tailpipes. CO binds to hemoglobin in the blood, reducing the blood's ability to carry oxygen. Observed health effects of CO include headaches, dizziness, impaired vision, and slower reaction times.

Some important points to note about CO:

1. CO emissions are primarily from motor vehicles.
2. CO emissions from automobiles are sensitive to both temperature and speed.
3. CO emissions are roughly twice as high in winter months as in summer months.
4. Emissions decrease with increases in speed (up to 30 miles per hour (mph)) and then increase again at high speeds.
5. Idling and low speeds (less than 15 mph) can produce high CO emissions.
6. CO is readily modeled for highway projects. CO modeling is required by federal guidelines.

Lead (Pb): Lead is highly toxic, especially to children. Major sources of airborne lead have historically been leaded gasoline and industrial sources, such as battery recyclers and smelters. Lead is no longer allowed as a gasoline additive for use in highway vehicles and it is no longer considered to be a transportation-related air pollutant. Lead is still allowed in fuels for non-road vehicles, such as racing fuels, marine and aviation fuels, and small engine fuels. Phase-out of lead in fuels for some of these uses is expected in the next few years.

Nitrogen Dioxide (NO_2): Nitrogen dioxide is a brownish, highly reactive gas that is part of a group of gaseous air pollutants (NOx) produced as a result of fossil fuel combustion processes. NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO).

Ozone (O_3): Ozone, an altered form of oxygen, is one of the major components of smog. Because ozone itself is a very pale blue gas, the air can look clear even when high ozone concentrations are present. However, it has a pungent odor that is often noticed during electrical storms and in the vicinity of electrical equipment. Since ozone tends to be a warm weather pollutant, most NAAQS exceedances occur between May and October. Ozone concentrations tend to peak during the afternoons and then decline rapidly after dark.

Ozone has different health implications depending upon where it is located. In the stratosphere, or ozone layer, between six and 30 miles above the earth, ozone forms naturally and provides a critical barrier to solar ultraviolet radiation, serving as a protective barrier against skin cancers and cataracts. Ground level ozone is an environmental and health hazard. High concentrations can cause shortness of breath, coughing, wheezing, headaches, nausea, eye and throat irritation, and lung damage. Ten to 20 percent of all summertime respiratory-related hospital visits in the northeastern U.S. are associated with ozone pollution.

Ground-level ozone has no direct emission source. It is formed in the air over several hours by complex photochemical reactions involving heat, direct sun light, volatile organic compounds (VOCs) and nitrogen oxides (NOx). VOCs and NOx are considered precursor pollutants and are regulated under the CAA. NOx is emitted from motor vehicles, power plants and other sources of combustion. VOCs are emitted from a variety of sources, including motor vehicles, chemical plants, refineries, factories, consumer and commercial products, and other industrial sources.

Particulate Matter (PM): Particulate matter is the general term used for a mixture of solid particles (e.g., soot or ash) and liquid droplets found in the air. These particles, which come in a wide range of sizes, originate from many different stationary and mobile sources as well as from natural sources. They may be emitted directly by a source or formed in the atmosphere by the transformation of gaseous emissions such as sulfur dioxide (SO2), NOx, and VOCs into particles (including ammonium sulfates and nitrates). Their chemical and physical compositions vary depending on location, time of year, and meteorology.

PM may be present either as larger particles that settle out of the air quickly, as small particles that can remain suspended for extended periods of time, or as aerosols. PM is the main source of haze. PM less than 10 microns in size is referred to as PM_{10} and can be composed of suspended particles from smoke stacks, automotive tailpipe emissions, wind blown dust and other sources of ground disturbance, such as construction activities. Fine PM, which is less than 2.5 microns in size, results from fuel combustion and the transformation of gaseous emissions.

Exposure to PM can cause eye, nose, and throat irritation; wheezing; irritation and damage to the respiratory system; and other symptoms. It has been linked to increased hospital admissions and emergency room visits for respiratory problems and to an increase in premature deaths. Particulates can aggravate breathing difficulties, damage lung tissue, and alter the body's defense against foreign materials.

Sulfur Dioxide (SO_2): Sulfur dioxide is created when sulfur-containing fuel (mainly coal and oil) is burned, primarily in power plants and diesel engines, and/or during metal smelting and other industrial processes. Although catalytic converters on automobile exhaust systems produce small quantities of SO_2, it is not considered a transportation-related air pollutant.

NN. INDOT Traffic Noise Policy

Indiana Department of Transportation
Traffic Noise Policy

Office of Environmental Services
Division of Production Management
January 2007

Approved: _____ 2/1/07
Karl B. Browning — Date
Commissioner
Indiana Department of Transportation

Approved: _____ 2/26/07
Robert F. Tally, Jr., PE — Date
Indiana Division Administrator
Federal Highway Administration

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I. Introduction

The Federal-Aid Highway Act of 1970 mandated that the Federal Highway Administration (FHWA) develop highway traffic noise standards. Title 23, Code of Federal Regulation, Part 772, entitled "Procedures for Abatement of Highway Traffic Noise and Construction Noise", are these noise standards and describe highway traffic noise prediction requirements, noise analyses, noise abatement criteria, and requirements for informing local officials. Also, FHWA policy requires each State Department of Transportation to adopt a State-specific noise policy, approved by FHWA, and which defines specific terms and describes how the State implements the noise standard.

These noise standards describe that if a "Type I" project includes a Federal action (use of Federal-aid funds or a Federal approval of any kind), then traffic noise impacts must be evaluated (a traffic noise impact may already exist under current conditions or may be caused by a transportation project). Noise abatement must be evaluated for any noise impacts, and any abatement measures that are determined to be "reasonable" and "feasible" must be included as a part of the project. This assessment, if applicable, is conducted during the National Environmental Policy Act (NEPA) process during project development, and the final NEPA evaluation will identify for Type I projects any noise impacts and include commitments to implement any reasonable and feasible noise abatement measures.

This policy is applicable to Type I projects. This policy is not applicable to Type II projects. For more information, see http://www.fhwa.dot.gov/environment/noise/mem_nois.htm .

II. Noise Analysis

Noise analyses are conducted on Type I projects, as required by FHWA noise standards. If a project is not a Type I project, a noise analysis will not be conducted. Therefore, the process begins by determining if a proposed project is a Type I project. Type I projects are generally projects to construct roadways on new location, or projects for existing roadways that will substantially change its location or add a through lane. (See the definition of Type I project for more clarification.) This decision is made by the Office of Environmental Services in Central Office early in the NEPA evaluation stage.

A. Identification of Receivers and Applicable Noise Abatement Criteria

If a project is identified as Type I, the next step is to identify the area(s) with potential for noise impacts, the associated land uses in each area, the "receivers" of noise in each area, and the applicable Noise Abatement Criteria (NAC) for each receiver identified. All receivers must be identified within 500 feet from each reasonable alternative (edge of the outside travel lane) identified in the NEPA evaluation. Once identified, receivers are classified by land use and the appropriate Activity Category identified in the NAC (see Table 1 below).

Under most situations, a single structure is considered a single receiver. However, structures that contain multiple residential units (e.g. hotels, apartment buildings) are

considered to contain one receiver per unit. For "Special Use Properties" (see definition of Special Use Property), the number of receivers should be equal to the percentage of the property's acreage that is within 500 feet of the roadway, multiplied by the average number of daily visitors. For example, if 1 acre of a 10 acre park is within 500 feet of the roadway, the number of receivers for that property is 1/10, or 10% of the park's daily number of visitors. If more specific data is available for the property in question, then it may be used but the rationale must be documented.

FHWA regulations require that the noise analysis include undeveloped land that is "planned, designed, and programmed". INDOT has defined undeveloped lots to be planned, designed and programmed if building permits have been issued for construction by local authorities. If no zoning or building permit process is in place then land is considered undeveloped unless foundations for new construction are in place. For land where construction is not visible, those who build adjacent to a highway are presumed to understand and accept the possibility of traffic noise.

FHWA also requires INDOT to identify the date when the public is officially notified of the adoption of the location of a proposed highway project. This date establishes the "date of public knowledge" and determines the date when the FHWA and INDOT are no longer responsible for providing highway traffic noise abatement for new development, which occurs adjacent to the proposed highway project. INDOT has defined this as the date that the final NEPA approval is made (approval of Categorical Exclusion, Finding of No Significant Impact or Record of Decision). FHWA and INDOT are not responsible for providing highway traffic noise abatement for development that has been determined to be "planned, designed and programmed" (building permits have been issued) after the "date of public knowledge" (NEPA approval).

B. The Traffic Noise Model (FHWA TNM) and FHWA TNM Lookup

If future noise levels are not anticipated to be 60 dBA or higher, then the FHWA Traffic Noise Model (FHWA TNM) Lookup program may be used. The FHWA TNM Lookup program is a simplified version of the full FHWA TNM program. If the FHWA TNM Lookup program indicates that existing or future traffic noise levels for all "build" alternatives are below 60 dBA, then no further analysis is needed. The use of the FHWA TNM Lookup program may also be an appropriate approach when noise barriers cannot be constructed due to lack of access control, but there is a requirement to disclose expected noise levels to the public and local officials. Note that certain assumptions are built into the FHWA TNM Lookup program. The FHWA guidance should be checked (http://www.fhwa.dot.gov/environment/noise/tnmtbl_m.htm) to verify that any particular project can reasonably be approximated with the simplified model.

If existing and/or future noise levels are shown to be 60 dBA or higher, then a full analysis described below is necessary.

C. Determination of Existing Noise Levels

The next step is to determine the existing noise levels, which is started by measuring the noise at each receiver or representative set of receivers (for very large numbers of receivers). These measurements must be taken at a time of day that reflects the loudest hourly highway traffic noise levels occurring on a regular basis under normal traffic conditions. It is possible that the period with the loudest sound levels is not at the peak traffic hour, but instead, during some period when traffic volumes are lower but the truck mix or vehicle speeds are higher. Measurement should be in units of decibel Leq (dBA) and be according to FHWA Report No. FHWA-PD-96-046, "Measurement of Highway-Related Noise".

Receivers should be located at a location where frequent human activity occurs. This may be a swing set, patio or other area of frequent use depending on the particular location. The choice of receiver location must be documented for later verification, if needed.

If on-site noise meter measurements are not possible, then estimates must be made according to the full FHWA Traffic Noise Model (FHWA TNM). The most current version of the FHWA TNM computer model must be used in the noise analysis, and if appropriate should be validated and calibrated with noise measurements taken at noise receivers.

D. Prediction of Future Noise Levels

Predicted noise levels should be derived according to the most current version of FHWA TNM. Input data such as current and future traffic volumes, traffic speed, and mix of vehicle types should reflect the traffic characteristics which yield the loudest hourly traffic noise levels on a regular basis under normal conditions. The period with the loudest traffic noise levels may not be at the peak traffic hour. Additional traffic measurements may need to be acquired. Noise analyses are conducted for all build alternatives and the "do nothing" alternative, and for the current year and the design year (generally 20 years in the future).

E. Identification of Impacted Receivers

Traffic noise receivers are identified as "impacted" under either of two conditions:

1.) The predicted noise levels approach (INDOT defines as 1 dBA) or exceed the NAC (see Table 1).

2.) The predicted traffic noise levels substantially exceed the existing noise levels (INDOT defines this as 15 dBA).

The next step is to compare the predicted noise levels for each project alternative with the NAC and existing noise levels.

The exterior NAC is to be used in all cases except where no exterior activities are affected by traffic noise, such as with some hotels. If no exterior activities at a location would be affected by traffic noise, then interior NAC are used, based on exterior measurements, modified as described in Table 7 of section 772.11 of the FHWA guidance dated June 1995 and entitled "FHWA's Highway Traffic Noise Analysis and Abatement Policy and Guidance".

If no present or future traffic noise impacts are identified, then the analysis is complete.

FHWA regulations require that noise levels of undeveloped land that is not planned, designed, and programmed be communicated to local officials to facilitate noise-compatible development in these areas. This information will specifically be communicated directly by providing a copy of the noise study to local officials near the end of NEPA.

If appropriate, an additional noise analysis will be conducted in the final design phase of project development to confirm the findings of the analysis done in the NEPA phase. This analysis will be based on final alignments and grades that may not be known at the NEPA stage of the project, particularly for entirely new roadways on new location. The assessment will also verify the best choice of height, length and location of any previously-recommended barriers. Walls confirmed to be reasonable and feasible at the design stage will be incorporated into the construction contract.

F. Consideration of Abatement

If traffic noise impacts are projected to occur at a receiver, INDOT must consider measures to mitigate/abate the traffic noise impacts. Once traffic noise impacted receivers have been identified, an assessment must be conducted to evaluate how to abate the noise impacts and determine whether the abatement is both "reasonable" and "feasible". This ensures that sound engineering judgment is used, and that mitigation makes wise use of public funds.

If noise levels at a receiver indicate a noise impact, then noise abatement must be evaluated. The goal of abatement is to provide a substantial reduction of at least seven (7) dBA in the design year, compared to average non-abatement levels. The resulting noise level may or may not be at or below the NAC levels. There can be no guarantee of complete quiet, as noise sources beyond the control of INDOT (factories, concert venues, neighborhood lawn mowers, etc.) may be present in the area. "Spikes" in noise levels are also possible from poorly-maintained vehicles, engine braking, or other short-duration events.

Traffic noise abatement measures can be in many forms and may include traffic control measures (TCM), alteration of vertical or horizontal alignment, acquisition of buffering land, noise insulation of public use or non-profit institutional structures, and/or construction of traffic noise barriers. Due to limitations on INDOT's ability to acquire property for mitigation or to mitigate sites off of State Right-of-Way, the most common form of abatement is the construction of noise barriers. Other forms of abatement will be

evaluated on a case-by-case basis. INDOT will choose the most feasible and reasonable form of abatement. Noise abatement measures will be evaluated using FHWA TNM to determine their effect on noise levels.

All noise abatement incorporated into a Type I project must be feasible and reasonable. Conversely, all feasible and reasonable noise abatement must be incorporated into a Type I project. The final NEPA evaluation will include a summary of this analysis and must include commitments to incorporate any reasonable and feasible noise abatement into the project.

1. Feasibility

Feasibility analysis deals with engineering considerations to determine if a particular form of abatement can actually have an effect on the traffic noise levels at a receiver. It takes into account such considerations as topography, drainage, safety, and access/maintenance needs (which may include right-of-way considerations). FHWA requires that traffic noise abatement achieve a "substantial noise reduction". INDOT's goal for substantial noise reduction is to provide at least 7 dBA reduction for impacted first row receivers in the design year. However, conflicts with adjacent property uses may result in shorter walls that produce lower levels of protection for some receivers. In these situations, INDOT will consider noise abatement to be feasible if a majority (50% +1) of first row receivers will experience at least a 7 dBA reduction in the design year.

Feasibility needs to be evaluated regardless of the type of highway (i.e. full access control, uncontrolled access, etc). If controlling access along a roadway is not a practical alternative, then noise barriers may not be considered feasible, depending on the number and distance between breaks in the barrier to allow for driveways.

2. Reasonableness

Reasonableness is a more subjective criterion than feasibility. INDOT has identified multiple factors to consider in determining whether noise abatement is reasonable. A determination of reasonableness for abatement measures will include consideration of the following range of factors:

a.) Cost Effectiveness

To determine cost effectiveness, the estimated cost of constructing a noise barrier (including installation and additional necessary construction such as foundations or guardrail) will be divided among the number of benefited receivers (those who would receive a reduction of at least 5 dBA). A cost of $25,000 or less per benefited receiver is considered to be "cost effective". Based on the increased cost of noise barriers in excess of twenty (20) feet in height, no wall taller than twenty (20) feet will be considered to be cost-effective.

Development in which a majority (50% + 1) of the receivers were in place prior to construction of the highway will receive additional consideration for abatement. The cost-effectiveness criteria to be used for these cases will be 20% higher ($30,000).

Severe noise impacts may warrant special consideration of highway traffic noise abatement measures beyond what would normally be considered. Severe noise impacts are defined as exceeding the NAC by greater than 15 dBA. These may merit abatement beyond the standard cost criteria and could include measures that are not normally considered, such as purchase of buffer land or impacted properties, or noise insulation of public use or non-profit institutional buildings.

b.) Views of Impacted and/or Benefited Receivers

If noise abatement is determined to be feasible and cost effective, then potentially affected property owners will be surveyed to determine whether they do or do not want noise abatement. This survey will preferably be by prestamped/preaddressed return postcards, and will include a package of material that describes the noise barrier under consideration and the noise effects with and without the barrier. It will also describe the decisionmaking process that INDOT will follow to assess the survey results and make a decision on whether to build the barrier. The survey may also be after a public meeting where noise impacts and abatement is discussed. If the total respondents to the survey do not total a majority (50% + 1) of the impacted and/or benefited receivers, then a second attempt will be made to solicit the views of those who did not respond. No third attempt is required if a majority (50% + 1) did not respond.

A majority (50% + 1) of the total impacted and/or benefited receivers must state that they want a barrier constructed for it to be considered reasonable. All such opinions must be expressed in writing to INDOT, either by letter or by response postcard. If a majority (50%+1) of the total impacted and/or benefited receivers do not respond affirmatively or do not respond after the second attempt, then INDOT will base their decision on the survey responses they received even though a majority of responses was not received. Note that for apartment complexes and hotels, the decision as to whether a barrier is desired rests with property owners rather than occupants.

Generally, residential property owners prefer protection by barriers, while commercial property owners prefer to maintain visibility for their business from adjacent roadways. This can cause conflicts in mixed-use developments, as walls to protect residences may block line of sight to adjacent businesses. When a mutually satisfactory compromise cannot be reached between businesses and residences, barriers may be terminated at

the property line dividing the two areas. Whether this arrangement may render barriers entirely infeasible must be evaluated. These conflicts can be minimized by Noise-Compatible Planning. See Coordination with Local Government Officials, below.

III. Public Involvement

Property owners in areas where noise barriers are being considered will be contacted early in project development and given an opportunity to provide input on their desire to have a barrier. Formal hearings and/or information meetings will also be conducted to discuss the results of noise studies and solicit input from the public on barriers that are likely to be included in the final design. If a barrier is to be constructed, property owners will also be given an opportunity to express a preference as to the type and style of barrier facing away from the roadway. INDOT will select the color and texture of the barrier surface facing the roadway.

Barriers proposed early in project development may change due to other revisions to the project scope or alignment. If a barrier's status (reasonableness and/or feasibleness) changes, additional notification will be made to affected property owners to discuss the changes.

IV. Coordination with Local Government Officials

A. Information Sharing

INDOT will furnish the results of all highway traffic noise analyses to local government officials who have jurisdiction over land use in the project area. Local coordination will specifically be accomplished through the distribution of highway project environmental documents and noise study reports to these selected officials. The following information, specified by 23 CFR 772.15, will be furnished to the local officials:

1.) Estimated future noise levels at various distances for developed and undeveloped lands in the immediate vicinity of the proposed highway project. In areas with undeveloped land that is not planned, designed and programmed, one should use noise contours to indicate anticipated future traffic noise levels.

2.) Locations nearby that in the future are susceptible to noise impacts if anticipated projects for existing and proposed highways were to be built.

If noise abatement to protect residences is determined to be reasonable and feasible, local governments may object to the construction of barriers. The reasons for this objection should be clearly outlined in writing to INDOT.

B. Noise Compatible Planning

Highway traffic noise should be reduced through a program of shared responsibility. Local governments should use their power to regulate land development in such a way

that noise sensitive land uses are either prohibited from being located adjacent to a highway or that the developments are planned, designed and constructed in such a way that noise impacts are minimized for the areas developed.

If a local government allows noise-sensitive development to occur on undeveloped lands where highway traffic noise impacts were predicted by INDOT to occur, then any future desired mitigation will be the responsibility of the local government and/or property owner. In these locations, traffic noise abatement will only be provided by INDOT when proposed roadway improvements would impact pre-existing noise abatement measures. For example, a shoulder-widening project might require barriers to be relocated. In these cases INDOT will replace the abatement measures with equivalently protective measures. INDOT is only responsible for determining noise impacts and considering abatement during a Federally-funded Type I project.

Beyond zoning, municipalities with noise concerns may have other tools at their disposal to control traffic noise, such as ordinances prohibiting engine braking. A commitment to diligent enforcement of laws and ordinances will be required to make these measures effective.

V. Consideration of Construction Noise

Efforts to minimize construction noise are effected by local ordinances that may require the contractor to make every reasonable effort to minimize noise impacts. In all cases contractors shall be required to comply with local ordinances unless waivers are obtained. Also, if permanent noise walls are included in the project, then a commitment could be made to require the contractor to construct them early during construction in order to provide mitigation for construction noise.

VI. Additional Design Considerations

A. Construction off of Right of Way

Noise barriers will only be constructed or maintained on property that is owned by the State of Indiana. Also, INDOT will not construct or maintain a noise barrier on an INDOT easement.

B. Barrier Termination

Where adjacent property use is compatible for noise barrier protection, a “rule-of-thumb” is to extend walls beyond the last protected receiver a distance four (4) times the distance between the wall and that receiver to ensure adequate protection. For example, a wall twenty (20) feet from a house may extend eighty (80) feet beyond the end of that home. FHWA TNM will be used to determine the optimal barrier design, including the height and length of a barrier beyond the last receiver. Compromises may be necessary to accommodate the needs of adjacent development. See Section II.F.2.B.

Additionally, walls will be stepped down in regular intervals at each end for aesthetics as space allows. If the adjacent property owner does not want a noise wall, barriers may be designed and constructed to end at the dividing property line without stepping down.

VII. Third-Party Cost Sharing

When desired, government entities may contribute toward the cost of noise barriers if special aesthetic treatments or functional enhancements are desired beyond the basic textures/colors offered by INDOT. Private-party funding may be used for aesthetic improvements but must be directed through governmental entities. Third-party funding *cannot* be used to determine feasibility and cost-effectiveness of noise barriers.

VIII. Removal of Barriers

If a party wishes to have existing noise barriers removed, they must demonstrate that protection of receivers will not be compromised by removal of the barrier or barrier segment. This demonstration may either be through conducting a noise study (coordinated with INDOT, at the requestor's cost) or by demonstrating that noise-sensitive receivers are no longer present in the area that is being protected. Removal of any barriers shall also be at the cost of the requestor. If barriers are to be removed, then INDOT and the affected party must coordinate to ensure that removal is conducted in a safe manner.

IX. Model Validation and Updates

FHWA routinely evaluates and updates the TMN software, to ensure that it represents the State-of-the-Art in noise analysis. INDOT does not generally conduct separate validation of the noise model, but field validation may be warranted when significant non-highway sources of noise may be in the area that are not adequately represented by the model.

X. Definitions

Access Control: Restrictions on driveways and cross-street connections along a roadway.

Added Capacity Project: A project which adds at least 1.5 miles of additional through-lane capacity to the highway system. The addition of an auxiliary lane between interchanges to improve operational efficiency is a Type I project if the lane is at least 1.5 miles long or if the lane is made continuous through a series of interchanges.

Approaching Noise Abatement Criteria: Within one decibel (1 dBA) of the set FHWA Noise Abatement Criteria.

A-Weighted Sound Level (dBA): A measurement of noise energy weighted to give greater importance to sounds within the range of human hearing.

Benefited Receiver: A receiver for whom a five decibel (5 dBA) reduction would be achieved by construction of a noise barrier.

Cost-Effective: A barrier is determined to be cost-effective if a five decibel (5 dBA) reduction can be achieved at a cost of no more than $25,000 per receiver.

Date of Public Knowledge: The date of public knowledge is the date that a project's environmental analysis and documentation is approved, i.e., the date of approval of Categorical Exclusions (CE), Findings of No Significant Impact (FONSI), or Record of Decision (ROD).

Feasible: This term means that a barrier can be constructed using standard engineering practices to produce a substantial noise reduction in the design year. Although the goal is to achieve a substantial noise reduction at all first row receivers, noise abatement is considered to be feasible if it reduces the noise level by seven decibel (7 dBA) in the design year at a majority (50% +1) of first row receivers.

Impacted Receiver: A receiver who experiences predicted noise levels that approach or exceed the FHWA Noise Abatement Criteria, or when the predicted noise levels substantially exceed the existing noise levels.

Leq: Equivalent (Noise) Level. This is the total noise energy averaged over a period of time.

Level of Service: A measure of congestion along a highway. Level of Service (LOS) ranges from A (congestion-free) to F (severely congested).

Noise Abatement Criteria: A numerical impact criteria issued by the Federal Highway Administration, published in 23 CFR 772 and included below as Table 1.

Table 1. FHWA Noise Abatement Criteria in dBA (hourly A-weighted sound level)

Activity Category	NAC, Leq(h)	Description of Activity Category
A	57 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (exterior)	Developed lands, properties, or activities not included in Categories A or B above
D	-------	Undeveloped lands.

E	52 (interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: (Federal Highway Administration)(23 CFR 772)
Note: These sound levels are only to be used to determine impact. These are the absolute levels where abatement must be considered. Noise abatement should be designed to achieve a substantial noise reduction – not the noise abatement criteria.

Noise Barrier: A solid wall or earthen hill constructed to reduce noise to receivers.

Noise-Compatible Planning: Control of development by ordinance or zoning that discourages noise-sensitive development adjacent to known, existing sources of objectionable noise.

Planned, Designed and Programmed: An undeveloped lot is considered to be Planned, Designed and Programmed if a building permit has been issued by the local authorities prior to the Date of Public Knowledge for the relevant project. If no zoning or building permit process is in place then land is considered undeveloped unless foundations for new buildings are in place.

Reasonable: This term means that a barrier can be built in a cost-effective manner and can be fit into surrounding land uses. This criteria considers the views of the affected public and ensures that any proposed abatement will be a wise use of public funds.

Receiver: A receiver is a point where noise impacts are measured or modeled. Single family residences are considered one receiver. Each unit within a hotel or apartment building shall be considered as a receiver.

Severe Noise Impacts: Circumstances in which noise impacts are so severe as to merit special consideration for abatement. Such situations occur when the noise levels in the design year are expected to be 15 dBA or more over the NAC.

Significant Horizontal/Vertical Alignment Changes: Raising or lowering a roadway, or changing its horizontal alignment such that noise patterns change in the area. INDOT defines this as a vertical change of greater than thirty (30) feet, or a horizontal change of one half of the distance between the roadway and any receiver.

Special Use Property: Cemeteries, parks, picnic areas, campgrounds, recreational areas, playgrounds and active sports areas.

Substantially Exceeds: Future noise levels are defined as substantially exceeding existing noise levels when the difference between current and future levels is fifteen decibels (15 dBA) or greater.

Substantial Noise Reduction: FHWA requires that noise abatement substantially reduce traffic noise. INDOT defines this to mean a reduction of seven decibels (7 dBA) or greater. Note that noise abatement may result in noise levels that are still above the NAC, or in some cases may result in noise levels below the NAC.

Type I Projects: Proposed Federal-aid highway projects that include one or more of the following:

1) construction of a highway on a new location, or
2) physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or
3) an increase in the number of through-traffic lanes.
4) construction of a new interchange or ramps
5) construction of a High-Occupancy Vehicle (HOV) or truck-climbing lane

Type I projects with potential receivers nearby will be considered for noise abatement.

Type II Project: Stand-alone projects solely for the abatement of noise on existing highways. The implementation of Type II projects is not required by Federal law or FHWA regulations. If INDOT were to implement a Type II program, Federal regulations specify that funding would only be available for Type II projects which:

1) Are designed to abate noise for areas that were developed prior to the existence of any highway, or
2) Were approved prior to November 28, 1995.

No Type II projects were approved in Indiana prior to November 28, 1995.

OO. Outstanding Rivers List for Indiana

NATURAL RESOURCES COMMISSION
Information Bulletin #4
(Second Amendment)

SUBJECT: Outstanding Rivers List for Indiana

I. INTRODUCTION

To help identify the rivers and streams that have particular environmental or aesthetic interest, a special listing has been prepared by the Division of Outdoor Recreation of the Department of Natural Resources. The listing is a corrected and condensed version of a listing compiled by American Rivers and dated October 1990. There are about 2,000 river miles included on the listing, a figure that represents less than 9% of the estimated 24,000 total river miles in Indiana. The Natural Resources Commission has adopted the listing as an official recognition of the resource values of these waters.

A river included in the listing qualifies under one or more of the following 22 categories. An asterisk indicates that all or part of the river segment was also included in the "Roster of Indiana Waterways Declared Navigable", 15 IR 2385 (July 1992). In 2006, the commission updated this citation, and Information Bulletin #3 (Second Amendment) was posted in the Indiana Register at 20061011-IR-312060440NRA. A river designated "EUW" is an exceptional use water. A river designated "HQW" is a high quality water, and a river designated "SS" is a salmonoid stream.

1. Designated national Wild and Scenic Rivers. Rivers that Congress has included in the National Wild and Scenic System pursuant to the National Wild and Scenic River Act, Public Law 90-452.
2. National Wild and Scenic Study Rivers. Rivers that Congress has determined should be studied for possible inclusion in the National Wild and Scenic Rivers System.
3. Federally Protected Rivers other than Wild and Scenic. Rivers subject to federal legal protection other than pursuant to the National Wild and Scenic Rivers Act, such as National Rivers and Waterways and National Recreation Areas.
4. State designated Scenic Rivers. Rivers included in state river conservation systems or otherwise protected pursuant to an act of the state legislature.
5. Nationwide Rivers Inventory Rivers. The 1,524 river segments identified by the National Park Service in its 1982 "Nationwide Rivers Inventory" as qualified for consideration for inclusion in the National Wild and Scenic Rivers System.
6. Hydro Ban Rivers. Rivers on which Congress has prohibited future hydropower development.
7. Rivers Identified in State Inventories or Assessments. Outstanding rivers from state inventories or assessments, i.e., rivers identified as having statewide or greater significance.
8. Atlantic Salmon Restoration Rivers. Rivers undergoing active Atlantic salmon restoration efforts and identified by the U.S. Fish and Wildlife Service for planned restoration.
9. Federal Public Lands Rivers. Rivers identified in U.S. Forest Service and Bureau of Land Management resource planning as potential additions to the National Wild and Scenic Rivers System.
10. State Fishing Rivers. Rivers identified by states as having outstanding fishing values, such as Blue Ribbon Trout Streams.
11. State Heritage Program Sites. Rivers identified by state natural heritage programs or similar state programs as having outstanding ecological importance.
12. Priority Aquatic Sites. Rivers identified in "Priority Aquatic Sites for Biological Diversity Conservation", published by the Nature Conservancy in 1985.
13. Canoe Trails. State-designated canoe/boating routes.
14. Outstanding Whitewater Streams. Rivers listed in the American Whitewater Affiliation's 1990 Inventory of American Whitewater.
15. Locally Protected Rivers. Rivers protected through local and private protection strategies.
16. State Park Rivers. Rivers protected by inclusion in a state park or state preserve.
17. Other Rivers. Miscellaneous rivers identified as having outstanding ecological, recreational, or scenic importance.
18. High Water Quality Rivers. "Outstanding Resources Waters" designated by states and other rivers identified by states as having outstanding water quality.
19. National Natural Landmark Rivers. Rivers designated as, or included within, National Natural Landmarks.
20. State Study Rivers. Rivers that have been formally proposed for state protection or designation.
21. BOR Western Rivers. Rivers listed in the Bureau of Outdoor Recreation's 1982 "Western U.S. Water Plan" proposal as exhibiting identified free-flowing values.
22. State legislated Wabash River Heritage Corridor.

II. LISTING OF OUTSTANDING RIVERS AND STREAMS

River	Significance	County	Segment
Bear Creek River	11, 18, EUW	Fountain	C.R. 250W to confluence with the Wabash
Big Blue*	5, 11	Johnson, Rush, Shelby	Flatrock River to Carthage
Big Creek	17	Jefferson	East side of Jefferson Military Reservation boundary to Graham Creek
Big Pine Creek	7, 11, 13, 18, 20, EUW	Warren	S.R. 18 to confluence with Wabash River
Big Walnut Creek	5, 7, 11, 13, 19, 20	Putnam	Hendricks/Putnam Co. Line to Greencastle
Black River	11	Posey	Confluence with Higginbotham Ditch to confluence with Wabash River
Blue*	4, 5, 7, 11, 13	Crawford, Harrison, Washington	Confluence of Middle Fork Blue to confluence with Ohio River
Blue, South Fork	11, EUW	Washington	S.R. 135 to confluence with Blue River
Buck Creek*	11	Harrison	Headwaters to confluence with Ohio River
Cedar Creek	4, 7, 11, 18, HQW	Allen, Dekalb	Dekalb C.R. 68 to St. Joseph River
Clifty Creek	11, 18, EUW	Montgomery	Headwaters to confluence with Indian Creek
Cypress Slough Creek	11	Posey	Confluence with Castleberry Creek to Southwind Maritime Center
Deep	13, 17	Lake, Porter	1 mile south of U.S. 30 to Little Calumet River
Driftwood	11, 13	Bartholomew	Atterbury Fish and Wildlife Area to Columbus
Eel, North	13	Miami, Wabash	South Whitley to Logansport
Elkhart	13	Elkhart, Noble	S.R. 13 to Island Park in Elkhart
Elkhart, South Branch	7, 11, 13, 20	Noble	C.R. 100N to U.S. 6
Fall Creek	11, 18, EUW	Warren	U.S. 41 to confluence with Big Pine Creek
Fawn*	11, 13	LaGrange, Steuben	Nevada Mills to Indiana/Michigan Line and Indiana/Michigan to Indiana/Michigan line
Fish Creek	11	Dekalb, Steuben	Ohio/Indiana line to Indiana/Ohio Line
Flatrock*	13	Bartholomew, Shelby	S.R. 9 to East Fork White River
Fourteen-Mile Creek*	11	Clark	Confluence of East and West Forks to confluence with Ohio River
Graham Creek	17	Jefferson, Jennings, Ripley	New Marion to confluence with Big Creek
Indian Creek*	11	Harrison	Floyd/Harrison Co. Line to confluence with Ohio River
Indian Creek	11, 18, EUW	Montgomery	C.R. 475W to confluence with Sugar Creek
Indian-Kentuck Creek*	17	Jefferson, Ripley	Confluence with Vestal Branch to confluence with Ohio River
Iroquois*	13	Newton	S.R. 16 to Indiana/Illinois line
Kankakee*	11, 13	LaPorte, Newton, Porter	Upstream boundary of Kingsbury Fish and Wildlife Area through LaSalle State Fish and Wildlife Area to Indiana/Illinois line
Kilmore Creek	17	Clinton	U.S. 421 to confluence with South Fork Wildcat Creek
Laughery Creek*	5, 9, 11	Dearborn, Ohio, Ripley	Source just east of Morris in Ripley Co. to confluence with Ohio River
Little Blue*	5, 11	Crawford	Town of English to confluence with Ohio
Little Calumet East Fork	10, 13, SS	Porter	C.R. 600E to S.R. 249
Little Creek	17	Jefferson	Kent to Big Creek
Little Indian Creek	11	Harrison	Pfrimmer Church to confluence with Indian Creek
Little Mosquito	11	Harrison	Headwaters to confluence with Mosquito Creek

Little Pine Creek	11	Warren	Bridge SW of Green Hill to confluence with Wabash River
Little River*	22	Allen, Huntington	Source to confluence with the Wabash River
Lost River*	9, 11, 19, EUW	Martin, Orange	Potato Road to confluence with East Fork White River
Mosquito Creek*	11	Harrison	Buena Vista to confluence with East Fork White River
Mississinewa*	17	Miami	Mississinewa Reservoir to confluence with Wabash River
Mud Pine Creek	11, 18, EUW	Warren	S.R. 352 to confluence with Big Pine Creek
Muscatatuck*	5	Jackson, Jennings, Scott	Confluence of Graham Creek and Big Washington Creek to confluence with East Fork White River
Muscatatuck, Vernon	11, 13	Jackson, Jennings	Zenas to confluence with Muscatatuck Fork*
Oil Creek*	11	Perry	St. Croix to confluence with Ohio River
Otter Creek	17	Jennings, Ripley	Covered Bridge North of Holton to confluence with Vernon Fork Muscatatuck
Patoka River	17	Dubois, Gibson, Pike	Patoka Reservoir to confluence with Wabash River
Pigeon	11, 13	LaGrange	S.R. 327 to Indiana/Michigan Line
Rattlesnake Creek	18, EUW	Fountain	C.R. 350W to confluence with Bear Creek
Rattlesnake Creek	11	Parke	C.R. 400/450S to confluence with Sugar Creek
Roaring Creek	11	Parke	1 mile upstream of S.R. 41 to confluence with Sugar Creek
Sand Creek	17, 20	Bartholomew, Decatur, Jackson, Jennings	Confluence with Cobbs Fork to confluence East Fork of White River
Stinking Fork	11	Crawford	Headwaters to confluence with Little Blue River
Sugar Creek	5, 7, 11, 13, 16, 20	Montgomery, Parke	Darlington Covered Bridge to confluence with Wabash River
Sugar Creek*	11	Johnson, Shelby	Inclusive within Johnson and Shelby counties
Sugar Mill Creek	17	Fountain, Parke	Wallace to confluence with Sugar Creek
Tippecanoe	5, 13, 16	Carroll, Fulton, Kosciusko, Marshall, Pulaski, Tippecanoe, White	Source (Lake Tippecanoe) to Norway and from Oakdale Dam to the confluence with Wabash River
Turkey Fork	11	Crawford	I-64 to confluence with Little Blue River
Wabash*	22	Adams, Allen, Carroll, Cass, Fountain, Gibson, Huntington, Jay, Knox, Miami, Parke, Posey, Sullivan, Tippecanoe, Vermillion, Vigo, Wabash, Warren, Wells	Indiana/Ohio Line to confluence with the Ohio River including the Little River and the portage between the Little River and the Maumee River
West Branch Mosquito	11	Harrison	Headwaters to confluence with Mosquito Creek
White, East Fork	5, 11, 13	Bartholomew, Daviess, Dubois, Jackson, Lawrence, Martin, Pike	Columbus to confluence with West Fork White River
White, West Fork*	5, 11, 13	Daviess, Delaware, Gibson, Knox, Greene, Hamilton, Madison, Marion, Morgan, Owen, Randolph	Farmland to confluence with Wabash River
Whitewater*	7, 11, 13, 20	Dearborn, Fayette, Franklin	Cambridge City to Indiana/Ohio line Wayne (West Harrison, OH)
Wildcat Creek	4, 7, 13, 17, 18, HQW	Carroll, Tippecanoe	S.R. 29 to confluence with Wabash River
Wildcat Creek, Middle	17	Clinton, Tippecanoe	S.R. 26 (Edna Mills) to confluence with Fork Wildcat, South Fork
Wildcat Creek,	4, 7, 11, 13, 17,	Clinton, Tippecanoe	U.S. 421 to confluence with Wildcat Creek Fork

South	18, HQW		

III. HISTORY

In 1993, the Natural Resources Commission adopted its "Outstanding Rivers List for Indiana". The listing was published in the Indiana Register on March 1 of that year as Information Bulletin #4 (16 IR 1677). The listing has also been specifically incorporated by reference into statutes and rules. Notably, the listing is referenced in the standards for utility line crossings within floodways, at 312 IAC 10-5-0.3, 312 IAC 10-5-0.6, and 312 IAC 10-5-2 through 312 IAC 10-5-4. See, also, the general permit for logjam removals at 312 IAC 10-5-6 and 312 IAC 10-5-7. Except where incorporated into a statute or rule, the listing is intended to provide guidance rather than to have regulatory application.

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