Incidental Take Submittal
For the State Threatened Species
Blanding's Turtle (*Emydoidea blandingii*)

CONSERVATION PLAN

1) Description of the Impact

A) Introduction and legal description

On October 30, 2006 the Illinois Department of Natural Resources responded to the IDOT's Biological Resource Review memorandum and in their response indicated that the information on the Blanding's turtle surveys was insufficient to conclude that an incidental take of the Blanding's turtle is likely from this project, but neither can it be determined that an incidental take is unlikely for this project. The Incidental Take Authorization (ITA) Committee recommended additional surveys for the Blanding's turtle to better support a recommendation on this issue, however IDOT decided to seek an ITA without additional surveys (See Appendix B, Biological Resources Review (BRR) IDNR Response-October 30, 2006).

The subject project is the reconfiguration of the Interstate 55 (FAI 55) at Arsenal Road (CH 17) interchange and relocation approximately one mile south. Arsenal Road will also be widened and extended approximately one mile south along the east side of Interstate 55 to the relocated interchange. The constructing agency is the Illinois Department of Transportation (IDOT). The project is in an unincorporated section of western Will County (See Appendix A, Figure 1, Location Map and Figure 2, Preferred Alternative). There were three areas of interest as it related to habitat for the Blanding's turtle. The first location is Wetland INHS-42, classified as *potential suitable habitat* by the INHS Survey of October 13, 2005 (See Appendix B for Memorandum). Wetland INHS-42 is located on ExxonMobil Refinery Company property, legally described as NW ¼ Sec 27, R9E, T34N. The second location is Wetland B-13, classified as *marginally suitable habitat*. Wetland B-13 is located on Dow Chemical Company property, legally described as SE ¼ Sec 28, R9E, T34N and NE ¼ Sec 28, R9E, T34N. The third area is an impounded area of Grant Creek, classified as *marginally suitable habitat*. This area is south and east of the project limits and will not be impacted by the project. See Figure 2, Preferred Alternative, for the locations of these three areas.

An Environmental Assessment (EA) following NEPA procedures is being prepared for this project. There have been three NEPA/404 Merger Coordination Meetings. A draft of the EA has been completed and the EA is targeted for completion in Fall, 2007. The EA should be referred to for the detailed alternative analysis, social and economic studies, and environmental studies.

Input from many federal, state, and local agencies was considered in the alternatives analysis. A Public Informational Meeting was held in the project area on November 3, 2003. A Public Hearing is tentatively scheduled for May, 2007. A draft of the EA was submitted to IDOT District 1 in September, 2006 and has since been forwarded to the FHWA. Through these various studies along with public, local, and resource/regulatory agency input, an alignment was recommended. The location of the recommended alignment is the result of efforts to minimize impacts to wetlands and sensitive habitats. See Figure 12, Preferred Alternative.

B) Biological data on the species

(The source of the following information is the INHS Survey Memorandum, October 13, 2005. See Appendix B.)

Natural History

John Edwards Holbrook first described the Blanding's turtle in 1838 using a specimen from the Fox River in Illinois. It is a medium-sized, semi-aquatic turtle with a helmet-shaped shell and it possesses a long neck with a bright yellow throat and chin. A prairie species, the Blanding's turtle prefers open, grassy marshes, mesic prairies, backwater sloughs, prairie potholes, shallow slow-moving rivers, and shallow lakes (Vogt 1981). It is rarely found in forested regions, fast-moving rivers, or northern bogs (Vogt 1981). Minton (2001) observed Blanding's turtles in small prairie ponds and grassy marshes as well as sluggish streams, drainage ditches, and shallow inlets of lakes. Pope (1964) described the habitat of Blanding's turtle as shallow, plant-grown water of ponds, swamps, sloughs, ditches, low fields, sluggish streams, and lake or river bays. Blanding's turtles in Chain of Lakes State Park in northeastern Illinois were primarily carnivorous and mainly ingested snails and aquatic insects (Rowe 1992). According to Pope (1964), mating occurs in the Chicago area in both Spring and Fall. Smith (1961) reported copulation in October and November in Illinois. Nesting was observed in northeastern Illinois between May 26 and June 22 (Rowe and Moll 1991). Clutch size varies from 6 to 21 eggs (Harding 1997). Blanding's turtles exhibit delayed sexual maturity, with females maturing between the ages of 14 and 20 years (Congdon et al 1993). Blanding's turtle is a long-lived species, with a longevity record of a 77 year old female, which may have been reproductive for approximately 60 of those years. The Blanding's turtle occurs in scattered colonies and it was probably more abundant on the central prairie prior to the drainage of the extensive marshes (Smith 1961). Habitat destruction has been the greatest threat to the Blanding's turtle (Phillips et al 1999) and it was listed in Illinois as state-threatened in 1999. Many of the Blanding's turtle colonies occur in the expanding Chicago region. Several articles have focused on movements of Blanding's turtle populations in northeastern Illinois including Rowe and Moll (1991) and Rubin et al (2001). In an Illinois Issues (2002) article focusing on Blanding's turtles at Midewin National Tallgrass Prairie, Michael Redmer of the U.S. Fish and Wildlife Service stated that Blanding's turtles could move a kilometer or two in the span of a couple weeks.

Review of Turtle Records

Redmer and Anton (1993) found an adult male Blanding's turtle on the Joliet Training Area (JTA) on May 17, 1993. It was found between the eastern two rails of the railroad track along the southwest perimeter of the JTA (T34N, R9E, Sec 22, SE ¼, Channahon topographic quadrangle). Redmer and Anton (1993) observed four individuals in 1993 on the Joliet Army Ammunition Plant (JAAP) property and four additional individuals on private property adjacent to the JAAP. Seven of the observations occurred at T34N, R9E, Sec 34, SE ¼, one record is approximately in the center of Sec 34, Channahon topographic quadrangle. The Blanding's turtle is known from other localities in Will County such as Lockport Prairie Nature Preserve, Braidwood Dunes and Savanna Nature Preserve, Keepataw Nature Preserve, and Crest Hill Community Park. It is also known from Goose Lake Prairie State Natural Area in adjacent Grundy County.

Final Survey Results

The herpetology studies for the Interstate 55 at Arsenal Road interchange were conducted on July 13, 14, 27, 28 and August 24, 2005 and July 14, 15, and 16, 2006 (See INHS Memorandums in Appendix B). The area was experiencing a severe to extreme drought during the 2005 study. The Dow Chemical property was visited on July 13 and August 24. Wetland B-13 on the Dow Chemical property was dry and overgrown with vegetation during both visits. This wetland is marginally suitable for Blanding's turtle. An adult Blanding's turtle was observed on the Dow Chemical property on July 13, approximately 1.1 miles west of the proposed interchange location. It was observed on a gravel road near a storm water detention pond, heading in the direction of the nearby Des Plaines River. The ExxonMobil property was visited on July 14, 27, and 28, 2005. All wetlands in the vicinity of the proposed interchange were dry during the July 14 visit, except for an impounded portion of Grant Creek. Grant Creek was trapped for turtles on July 27 and 28, 2005. Turtles were captured in the three trap-nights, but none of them were Blanding's turtles. Wetland INHS-42 was reduced to two small puddles. This cattail-dominated wetland is adjacent to the proposed interchange and it appears to be suitable habitat (See October 13, 2005 INHS Memorandum in Appendix B). The 2006 survey consisted of 14 trap-nights in wetland INHS-42 but only three eastern snapping turtles and a painted turtle were captured. Immediately east of the main wetland is an extensive cattail marsh that is also suitable habitat for Blanding's turtles but did not have water deep enough for setting traps. This area was visually searched for one man-hour, but no Blanding's turtles were encountered. Although 14 trap-nights of effort did not result in any Blanding's turtle captures, this is not conclusive evidence that Blanding's turtles are not present in this wetland as trapping in May and June is the best way to determine if Blanding's turtles are present in a wetland (See September 14, 2006 INHS Memorandum in Appendix B).

Additional Survey Activities
Because the initial surveys conducted in 2005 were during severe to extreme drought conditions and the 2006 survey was done in July while the best time to trap Blanding's turtles is May and June, additional surveys are scheduled for the Spring of 2007. As the surveys are completed and supplemental data is available, this *Incidental Take Submittal* will be updated and revised.

C) Description of the activities that will result in taking
The take from Wetland INHS-42, (classified as potential suitable habitat), would come from activities associated with the construction of the extension of Arsenal Road along the east side of Interstate 55. These activities consist of placement of permanent fill in the wetland for roadway embankment and construction of a retaining wall to minimize impacts to Wetland INHS-42.

The take from Wetland B-13, (classified as marginally suitable habitat), would come from activities associated with the construction of the southbound exit ramp and realignment of the West Frontage Road. These activities consist of permanent fill in the wetland for roadway embankment, roadside ditches, and a potential detention pond.

The impounded area of Grant Creek will not be impacted by this project.

D) Explanation of the anticipated adverse effects
The anticipated adverse effects include:

1) Blanding's turtles may be crushed or entombed by equipment or vehicles.

2) Wetland INHS-42: Permanent loss of habitat associated with retaining wall and fill for roadway embankment.

3) Wetland B-13: Permanent loss of habitat associated with fill for roadway embankment, cut for drainage ditches, and a detention pond.

4) Potential degradation of habitat associated with salt spray from the roadway.

2) Measures to Minimize and Mitigate Take (Including Funding Commitments)

A) Plans to minimize the area, estimated number of take and the amount of habitat affected
Throughout the EA preparation and the NEPA/404 process, extensive resource and regulatory agency coordination took place. The findings of the NEPA studies concluded that no adverse impact would occur to the species as a result of the construction of the relocated Interstate 55 at Arsenal Road interchange. These

findings were based upon existing knowledge at the time and the sequencing efforts (avoidance, minimization, and compensatory mitigation) of the alternative analysis. However, since the species was known to inhabit the vicinity along with other sensitive plant and animal species, and in the interest of minimizing wetland impacts, a retaining wall will be constructed adjacent to Arsenal Road where it goes through Wetland INHS-42. Arsenal Road will also be located as far west as possible away from the wetland, while still providing the minimum separation from the northbound entrance ramp. Maximum side slopes will be used in the area of Wetland B-13 to minimize the project footprint.

In all, there are 0.21 acres (0.5 percent loss) of impacts to Wetland INHS-42 and 0.88 acres (6.9 percent loss) of impacts to Wetland B-13.

After completion of the additional surveys (as mentioned in Section 1B above), the alternative analysis sequencing efforts will be revisited and the preferred alignment revised as needed to minimize the impacts.

B) Plans for management of the area affected that will enable the continued use

The land and habitat of the areas in question are under private ownership. The ExxonMobil Refinery Company owns and manages the property where Wetland INHS-42 is located and Dow Chemical Company owns and manages the property where Wetland B-13 is located. The existing land use in these areas is open space. Both areas are secured and fenced-in with no public access to them. Due to the nature of these areas, it is not anticipated that the existing land use will change and therefore the properties are not in danger of secondary impacts due to redevelopment. The level of quality of the habitats in these areas has been allowed to improve because they have been mostly undisturbed and fenced off from public access. It is anticipated that the continued isolation provided by the private property owners will only serve to maintain the habitat areas and enable the continued use of the habitats.

C) Description of all measures to be implemented to minimize or mitigate the effects

1) Avoidance and minimization efforts were described in Section 2A above, as well as in the EA. The affected wetlands will be mitigated by using wetland banks. The existing hydrologic conditions of the remaining wetlands will be maintained.

2) Disturbed areas within the construction limits will be restored to the pre-construction contours and vegetation type. Native species of plants shall be used in the restoration.

3) Super silt fencing will be installed and diligently maintained along the construction perimeter to minimize undue encroachment into and disturbance

of the habitat area. To further minimize construction impacts, the IDOT's Erosion and Sediment Control, Landscape Design Criteria Manual will be used. This Manual utilizes the latest techniques in sediment and erosion control design and implementation.

4) Pre-construction awareness training will be provided for all contractors. The contractors and their employees will be made aware of the possibility that these turtles may be present and that **NO turtles should be killed**. A picture of the Blanding's turtle will be provided to the workers so they can be informed of the particular turtle in need of protection. If a turtle is found in the project area, a contact phone number will be made available so proper identification and handling of the turtle is afforded. This will be a qualified person from IDNR, INHS or an environmental consultant.

D) Plans for monitoring the effects of measures implemented
IDOT could team with the Illinois Natural History Survey to supply Blanding's Turtle monitoring and research one year prior to construction, during construction, and one year after the construction of the Interstate 55 at Arsenal Road interchange within the areas of the Blanding's turtle habitats. IDOT District One shall be responsible for notifying the BDE one year prior to the start of construction. BDE shall task the INHS to monitor the project site. A reporting schedule would be developed which provides a summary of the efforts on a regular basis.

E) Verification that adequate funding exists to support and implement all Mitigation activities described in the conservation plan.
The design, construction, permitting and mitigation measure for the project are being funded by IDOT. Project funding has been programmed in the IDOT FY 2007-2012 program, but specific funding levels and specific Program Fiscal Year will be determined by IDOT at a later date.

3) A Description of Alternative Actions the Applicant Considered that Would Not Result In Take and the Reasons that Each of Those Alternatives Was Not Selected. A "No-Action" Alternative Shall Be Included in this Description of Alternatives.
The proposed project is undergoing the Environmental Assessment (EA) process following NEPA procedures. The EA should be referred to for the detailed alternative analysis (including a no-action analysis), social and economic studies, and environmental studies. The studies also included other threatened and endangered species investigations. It was determined that the proposed project will not jeopardize the continued existence of any plant or animal species currently listed.

Input from many federal, state, and local agencies was considered in the alternatives analysis. A Public Informational Meeting was held in the project area on November 3, 2003. A Public Hearing is tentatively scheduled for May, 2007. A draft of the EA was

submitted to IDOT District 1 in September, 2006 and has since been forwarded to the FHWA. Through these various studies along with public, local, and resource/regulatory agency input, the Build Alternative with an alignment was recommended. The location of the recommended alignment is the result of efforts to minimize impacts to wetlands and sensitive habitats. See Figure 12, Preferred Alternative.

4) Data and Information to Indicate that the Proposed Taking Will Not Reduce the Likelihood of the Survival in the Wild, The Biotic Community of Which the Species is Part of or The Habitat Essential to the Existence in Illinois.

This data and conclusion will be contained in all of the INHS and NEPA documents for the Environmental Assessment for the project. Many of the Blanding's turtle colonies occur in the expanding Chicago region. Several articles have focused on movements of Blanding's turtle populations in northeastern Illinois including Rowe and Moll (1991) and Rubin et al (2001). The Blanding's turtle is known from other localities in Will County such as Lockport Prairie Nature Preserve, Braidwood Dunes and Savanna Nature Preserve, Keepataw Nature Preserve, and Crest Hill Community Park. It is also known from Goose Lake Prairie State Natural Area in adjacent Grundy County. The proposed project will only impact approximately less than seven percent of the total area of Wetland B-13 and 0.5 percent of Wetland INHS-42. As a percentage of the whole the impacts are very small. The habitat restoration, management and monitoring efforts which will be committed to by IDOT should provide more than adequate conservation measures to facilitate the continued existence of the Blanding's turtle. Therefore, it is unlikely that the temporary and permanent corridor impacts to the wetland habitats will jeopardize the continued existence of the species in Illinois.

IDOT will only have jurisdiction within their right-of-way. However, they can work with the private property owners to educate and make them aware to help in the conservation efforts.

5) An Implementing Agreement, Which Shall Include, But not be Limited to:

A) Avoidance and minimization efforts were described in Section 2A above, as well as in the EA. The affected wetlands will be mitigated by using wetland banks. The existing hydrologic conditions of the remaining wetlands will be maintained.

B) Disturbed areas within the construction limits will be restored to the pre-construction contours and vegetation type. Native species of plants shall be used in the restoration.

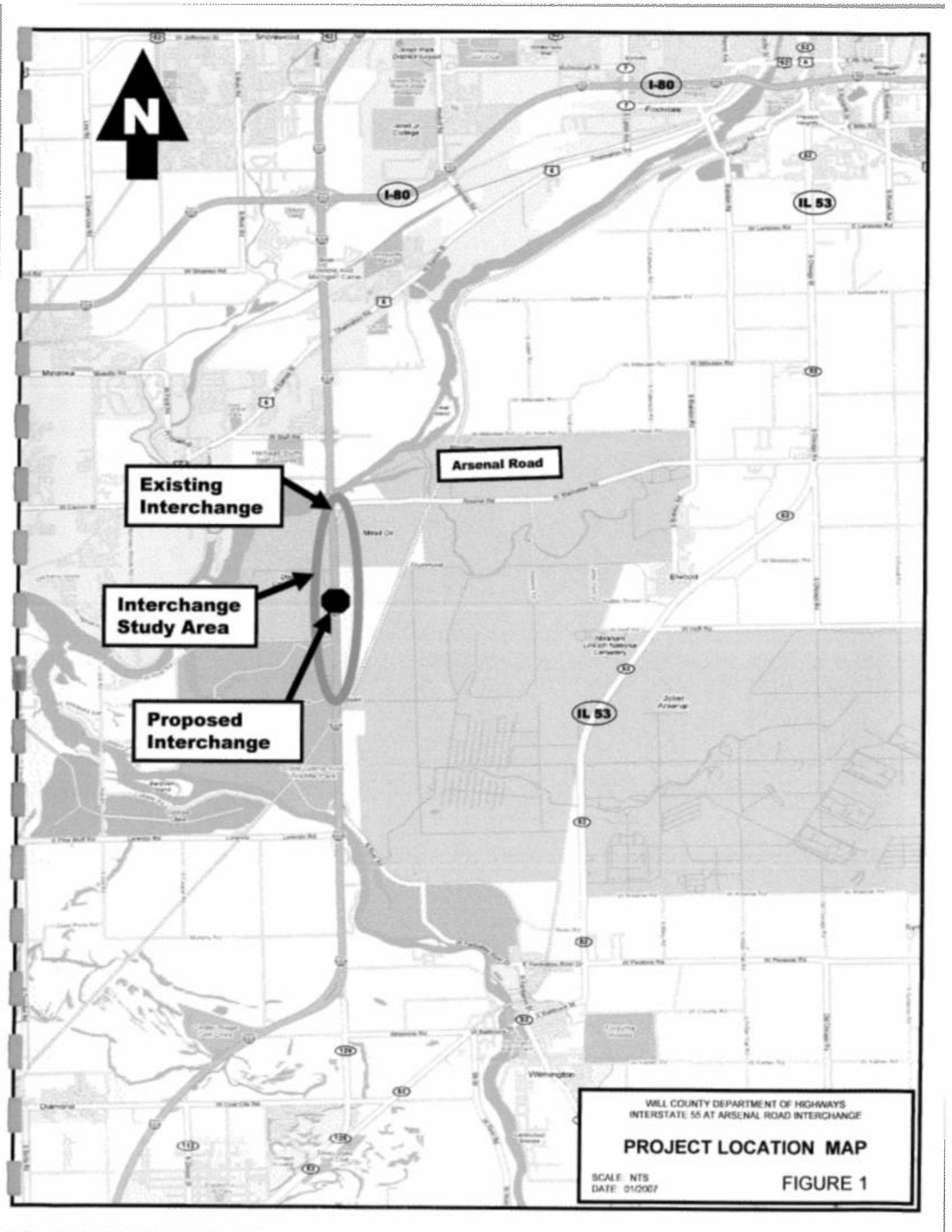
C) Super silt fencing will be installed and diligently maintained along the construction perimeter to minimize undue encroachment into and disturbance of the habitat area.

D) Pre-construction awareness training will be provided for all contractors. The contractors and their employees will be made aware of the possibility that these turtles may be present and that **NO turtles should be killed**. A picture of the Blanding's turtle will be provided to the workers so they can be informed of the particular turtle in need of protection. If a turtle is found in the project area, a contact phone number will be made available so proper identification and handling of the turtle is afforded. This will be a qualified person from IDNR, INHS or an environmental consultant.

E) IDOT through its contract with the INHS will monitor the job site before, during, and after construction. Any turtles located during construction will be taken out of harms way.

F) IDOT can work with the private property owners to educate and make them aware to help in the conservation efforts.

APPENDIX A
Figures


N
I-80
I-80
IL 53
Arsenal Road
Existing Interchange
Interchange Study Area
Proposed Interchange
IL 53
Wilmington
WILL COUNTY DEPARTMENT OF HIGHWAYS
INTERSTATE 55 AT ARSENAL ROAD INTERCHANGE
PROJECT LOCATION MAP
SCALE: NTS
DATE: 01/2007
FIGURE 1

APPENDIX B
INHS Memorandum – September 14, 2006
INHS Memorandum – October 13, 2005
Biological Resources Review (BRR) IDNR Response – October 30, 2006

MEMORANDUM

TO: Michael Hine
Illinois Department of Transportation (IDOT)
Bureau of Design and Environment, Room 330
2300 S. Dirksen Parkway, Springfield, IL 62764

ATTN: Susan Dees

FROM: John E. Petzing, Herpetologist
Christopher A. Phillips, Herpetologist/Coordinator
Illinois Natural History Survey, Center for Biodiversity
172 Natural Resources Building
607 East Peabody Drive, Champaign, IL 61820

DATE: Friday, 14 September 2006

SUBJECT: Blanding's turtle (*Emydoidea blandingii*) follow-up surveys
I-55 (FAI 55) at Arsenal Road
Will County, Illinois
Job No. P-91-035-02
Sequence Number: 10581

INTRODUCTION

In a transmittal dated 3 August 2006, the Illinois Department of Transportation's Bureau of Design and Environment tasked the Illinois Natural History Survey to conduct surveys for the state-threatened Blanding's turtle (*Emydoidea blandingii*) in a wetland identified as suitable during the 2005 surveys (Wetland INHS 42; see memo from Petzing and Phillips to IDOT dated 13 October 2005). This memorandum presents the results of trapping conducted in July 2006 at this wetland.

PROJECT AREA

The proposed project corridor occurs between Arsenal Road to the north and Blodgett Road to the south. The proposed new Arsenal Rd. interchange will occur primarily on the Dow Chemical property along the west side of I-55 (Township 34 North; Range 9 East; Section 28; Channahon topographic quadrangle) and the ExxonMobil property

along the east side of I-55 (Township 34 North; Range 9 East; Section 27; Channahon topographic quadrangle). The proposed project will also occur on sections 21, 22, 33, and 34 (Township 34 North; Range 9 East; Channahon topographic quadrangle). In 2005, wetland habitat suitable for the Blanding's turtle was identified on the ExxonMobil property just south of Drummond Road (ComEd power line) and just east of the East Frontage Road of I-55. This wetland was labeled INHS 42 in the Wetland Report for FAI 55 and Arsenal Road (Kurylo et al 2004) and is located at NAD 83 UTM Zone 16: E400501m, N4584125m; Township 34 North; Range 9 East; Section 27; NW 1/4; Channahon topographic quadrangle (Fig. 1). Because of drought conditions, this wetland was dry during the 2005 surveys.

BLANDING'S TURTLE RECORDS IN THE VICINITY OF THE PROJECT

An adult Blanding's turtle was captured and released on 13 July 2005 near a storm water detention pond on the Dow Chemical property (NAD 83 UTM Zone 16: E398295m, N4583907m; Township 34 North; Range 9 East; Section 29; NE 1/4; Channahon topographic quadrangle). The turtle was crossing a gravel road heading in the direction of the nearby Des Plaines River. The detention pond is approximately 1.9 km west of I-55.

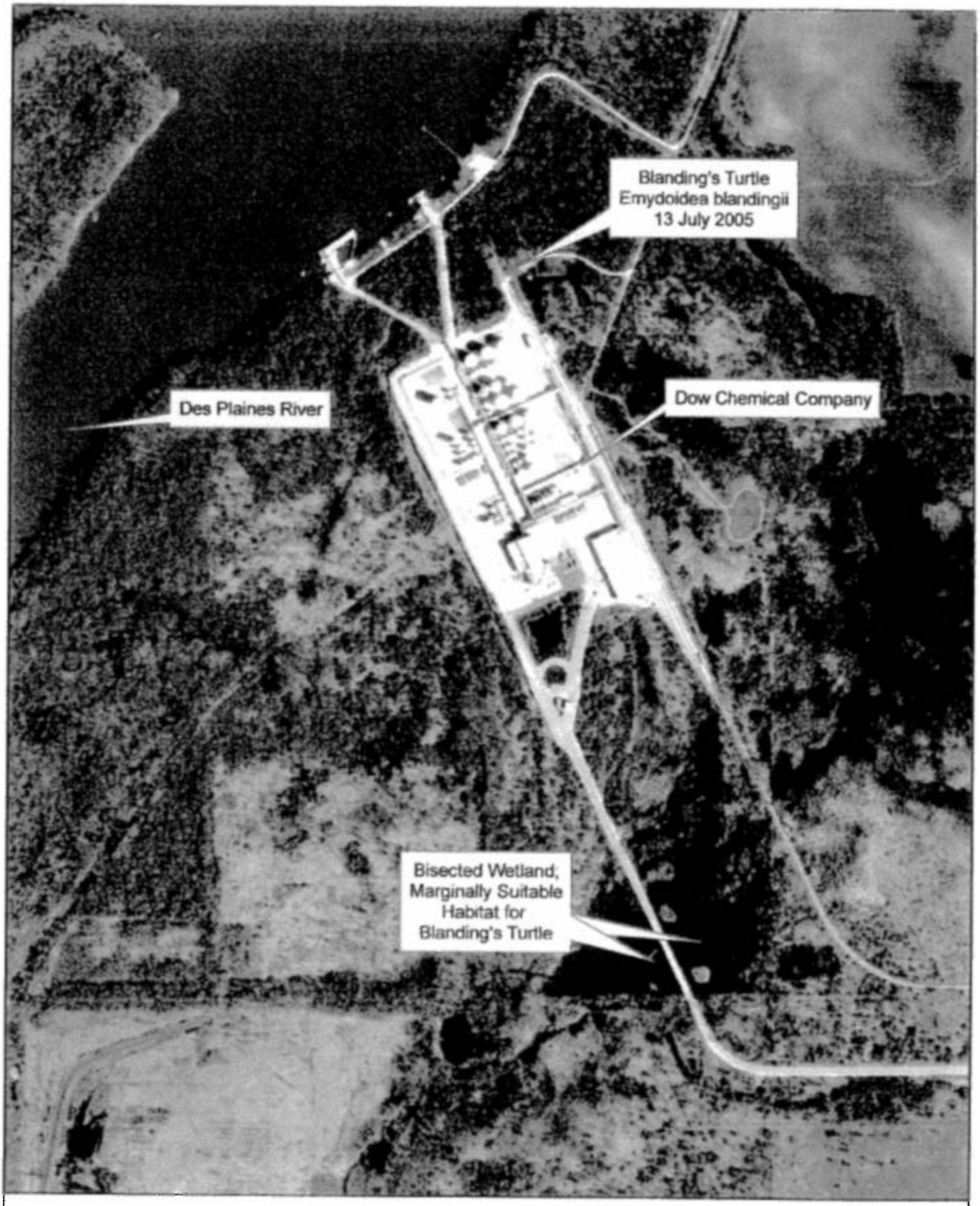
Redmer and Anton (1993) found an adult male Blanding's turtle on the Joliet Training Area (JTA) on 17 May 1993. It was found between the eastern two rails of the RR track along the southwest perimeter of the Joliet Training Area (Township 34 North; Range 9 East; Section 22; SE 1/4; Channahon topographic quadrangle), approximately 1 km ENE of Wetland INHS 42. Redmer and Anton (1993) observed four individuals in 1993 on the Joliet Army Ammunition Plant (JAAP) property and four additional individuals on private property adjacent to the JAAP. Seven of the observations occurred at Township 34 North; Range 9 East; Section 34; SE 1/4; one record is approximately in the center of Section 34; Channahon topographic quadrangle.

METHODS

Turtle trapping was conducted with Legler-style hoop traps. Turtle trapping effort is expressed as trap-night. Incidental encounter is another method used during surveys. An incidental encounter is one where an observation is made when no structured survey (i.e. a time-constrained or area-constrained survey) is being conducted.

RESULTS

The ExxonMobil property was visited on 27 July 2005 and Wetland INHS 42 (NAD 83 UTM Zone 16: E400501m, N4584125m; Township 34 North; Range 9 East; Section 27;



Locations of Blanding's Turtle Observation and Bisected Wetland on Dow Chemical Company Property, Will County, Il.

Figure 1. Adult Blanding's turtle captured and released at the Dow Chemical property.

Figure 2. Profile of adult Blanding's turtle captured and released at the Dow Chemical property.

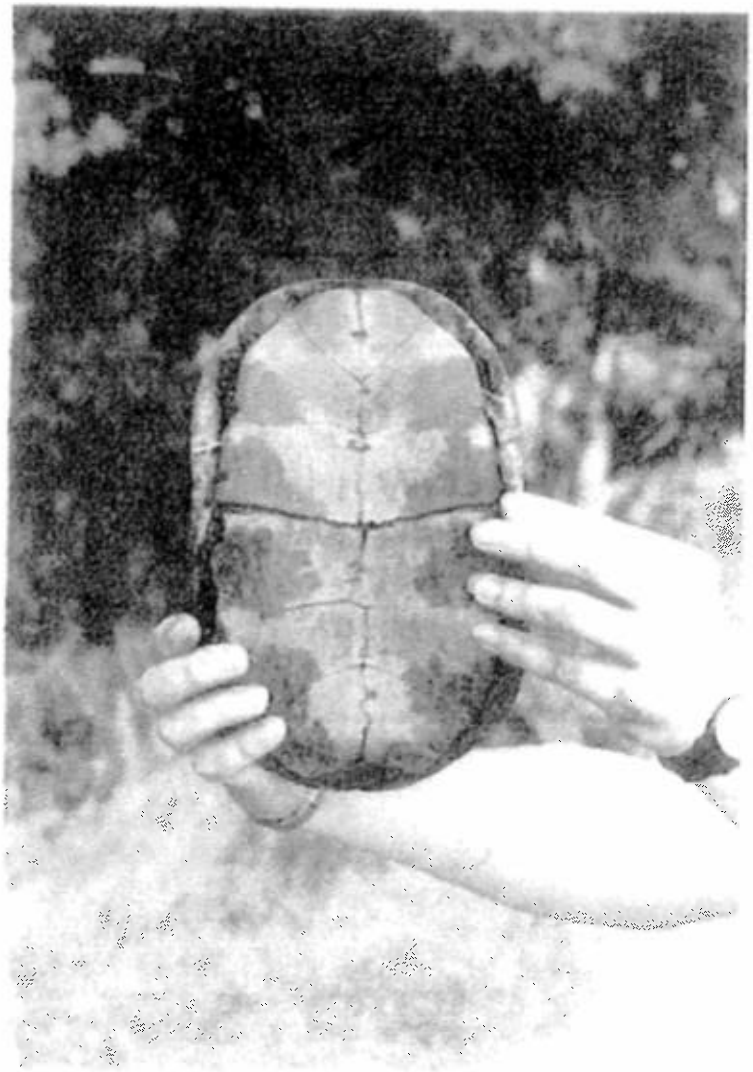


Figure 3. Plastral view of adult Blanding's turtle.

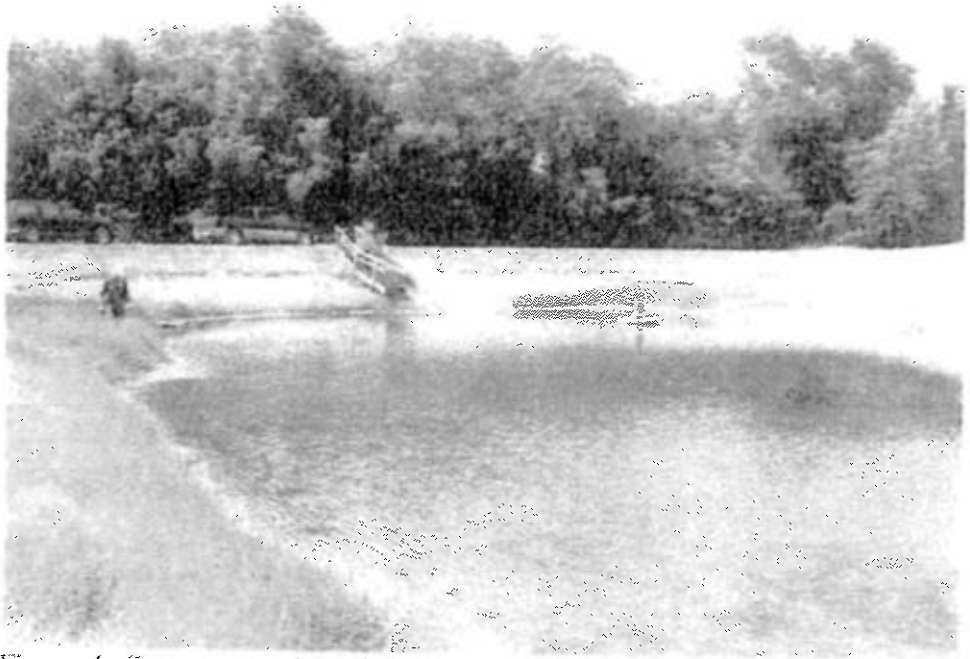


Figure 4. Storm water detention pond on the Dow Chemical property. An adult Blanding's turtle was found on a gravel road where the trucks are parked in the background.

Figure 5. Wetland B-13 on the Dow Chemical property (near access road).

Figure 6. Wetland B-13 on the Dow Chemical property (near access road).

Figure 7. Wetland B-13 on the Dow Chemical property (NAD 83 UTM Zone 16: E400013m, N4583774m.

Figure 8. Impounded portion of Grant Creek on the ExxonMobil property.

Figure 9. Impounded portion of Grant Creek on the ExxonMobil property.

Figure 10. Cattail-dominated wetland (INHS 42) on the ExxonMobil property (NAD 83 UTM Zone 16: E400482m, N4584119m +/- 3.0 meters).

Illinois
Department of
Natural Resources
One Natural Resources Way • Springfield, Illinois 62702-1271

DEPARTMENT OF
NATURAL RESOURCES
OCT 19 2006

http://dnr.state.il.us
Rod R. Blagojevich, Governor

CONSULTATION AGENCY ACTION REPORT

(Illinois Administrative Code Title 17 Part 1075)

Division of Resource Review and Coordination

Date Submitted: October 18, 2006
If this is a re-submittal, include previous IDNR response if available.

FOR DEPARTMENT USE ONLY
PROJCODE: 0702058 DUE DATE:

Applicant: Illinois Department of Transportation
Contact Person: Susan Dees
Applicant Address: Bureau of Design and Environment, Room 330
2300 S. Dirksen Parkway, Springfield, IL 62764

Phone: (217) 785-0150
Fax: (217) 524-9356
Email: Susan.Dees@illinois.gov

LOCATION OF PROPOSED ACTION

A MAP SHOWING LOCATION OF PROPOSED ACTION IS REQUIRED

Project Name: FAI 55 (I-55) & Add. A, B, &C; Job No. P-91-035-02 County: Will
Project Address (if available):
City,State,Zip: BDE Seq. No. 10581
Township/Range/Section (e.g. T45N,R9E,S2): T34N-R9E-Sec. 21-23, 26-28, 33-34
Brief Description of Proposed Action: New interchange for I-55 @ Arsenal Rd; ECAD: listed spp., INAI, NPs; surveys conducted & coord. via kBRR dated 8/17/06 plus ongoing meetings. Updated AAR requested by Hamer incl. updated Blanding's turtle report (2006 survey, attached) plus updated NRRT map.
Projected Start Date and End Date of Proposed Action:

Will state funds or technical assistance support this action? [Yes | No] If Yes, the Interagency Wetland Policy Act may apply. Contact funding agency or this Division for details.

Local/State Agency with Project Jurisdiction:
Contact:
Address:
Phone:
Fax:

FOR DEPARTMENT USE ONLY

Are endangered/threatened species or Natural Areas present in the vicinity of the action? [Yes | No]
Could the proposed action adversely affect the endangered/threatened species or Natural Area? [Yes | No]
Is consultation terminated? [Yes | No]
Comments: No new resource occurrences that would be impacted were found. BRR addressed previous concerns with no adverse impacts
Evaluated by:

Division of Resource Review & Coordination (217) 785-5500

10-30-06
Date