

## **APPENDIX A**

### **Ivory-billed woodpecker Surveys**

**Site Assessment**  
**Grand Prairie Area Demonstration Project Work Item 1**  
**Prairie County, Arkansas**

Date: 9 May 2005

Participants: M. Smith (USACE Memphis)  
J. Krystofik (USFWS White River Basin Sub-Office)  
B. Leonard (AGFC)

On 9 May 2005, representatives of USACE, USFWS, and AGFC conducted a site assessment in the area designated as Work Item 1 of the Grand Prairie Area Demonstration Project (GPADP). Figure 1 shows the location of the work associated with Item 1. The objective of the visit was to determine whether suitable habitat for the federally endangered ivory-billed woodpecker was present.

The ivory-billed woodpecker was recently discovered living in the Cache River National Wildlife Refuge approximately 15 linear miles from the location of the intake canal and pump station.

Agency representatives met with the contractor and USACE field inspectors on site for a briefing on the project and proposed work schedule. The contractor was told that no work was to be initiated on the forested portion of the area, which he indicated would delay the overall schedule due to his work plan. USFWS indicated that it would be acceptable to work in the cleared field while the biological assessment was being prepared (AGFC and USACE personnel concurred), however the contractor indicated that that would not be feasible and that the delay would likely cost money to have his equipment sitting idle.

Agency representatives then began to inspect the forested areas that would be impacted by the work item. A survey of the approximately 2 acres of forest adjacent to the White River (intake canal location) showed that the majority of the trees to be impacted were willows, cottonwoods (some large individuals), locust, maples, and pecan.

The inter-agency team then drove to the western end of the area to survey the forest located in the right-of-way behind the pump station. Approximately 2.5 acres of this forest will be negatively impacted by the construction, and consisted of an upland assemblage of tree species which included post oak (dominant species) with some having a dbh of 16-20 inches. Also present in this tract were northern red oaks, and white oaks. The understory included species such as elm, viburnum, hickory, and buckeye. This tract is contiguous with the AGFC Wattensaw WMA which lies to the northwest of work area.

The inter-agency team concluded the site assessment by conducting a windshield survey of the forest on the southwestern edge of the work area. The forested area that would be impacted by the construction of the entrance road was approximately 1.0 acre in size and appeared to be a stand of bottomland hardwoods.

The inter-agency team then met with the USACE inspectors (Loy Hamilton, Gene Mcalvoy, and Jimmy Faulkner) in one of the office trailers. We discussed the size of the impacted forest at each location, the need to conduct a biological assessment of potential impacts, and the absolute need for the contractor to hold off on any clearing of the forests.

## **Ivory-billed Woodpecker Survey: Grand Prairie Area Demonstration Project Pipeline Right-of-Way, March 6 – 15 2006.**

### Project participants:

Mark R. Smith (USACE Memphis)  
Edward Lambert (USACE Memphis)  
Kevin Pigott (USACE Memphis)  
Mike Thron (USACE Memphis)  
John Rumancik (USACE Memphis)  
Allan Mueller (TNC)  
Tom Foti (ANHC)  
Bob Price (WRID)

Craig Uyeda (AGFC)  
Bob Leonard (AGFC)  
Jason Phillips (USFWS)  
Joe Krystofik (USFWS)  
Kenneth Colbert (ANRC)  
Mike Radford (ANRC)  
David Heffington (NRCS)

### **Background**

The Grand Prairie Area Demonstration Project (GPADP) is located in eastern Arkansas approximately 15 linear miles from the location of the initial sighting of the ivory-billed woodpecker. The project area includes significant portions of Arkansas and Prairie counties and small portions of Monroe and Lonoke counties (Figure 1). The GPADP provides agricultural water supply, water conservation, aquifer protection, waterfowl management, and prairie grass restoration. A general reevaluation report (GRR) and final environmental impact statement (EIS) were prepared by the U.S. Army Corps of Engineers (Corps), Memphis District, and circulated for public review in December 1999. The record of decision was signed in February 2000.

The portion of the GPADP that was of interest during this survey effort was an area that extended one mile on either side of the main pipeline right-of-way that moves the irrigation water from the pump station to the retention reservoir (widened canal section). The pipeline will pass through the lower portion of the Wattensaw Wildlife Management Area north of DeValls Bluff, AR (see figure 1).

### **Surveys**

From 6 - 15 March 2006, representatives of the USACE - Memphis District, Environmental Branch, United State Fish and Wildlife Service (USFWS), Arkansas Game and Fish Commission, Arkansas Natural Resources Commission, Arkansas Natural Heritage Commission, Natural Resources Conservation Service, The Nature Conservancy, and White River Irrigation District (local sponsor) conducted a survey of forest lands adjacent to the major pipeline that distributes irrigation water from the main pumping station to a series of smaller pipelines and canals. All personnel participating had been trained by Cornell University staff or briefed by USFWS personnel. The boundaries of the survey were set during informal consultation with the USFWS after the rediscovery of the endangered ivory-billed woodpecker in an area approximately 15 miles from the pump station, and generally consisted of the area within one-mile of the pipeline right-of-way. Areas within 1/8 mile of an existing structure were not surveyed.

Survey transects were set up at 50 meter intervals along the pipeline ROW, and the surveys proceeded either north or south from the pipeline until they reached either the one mile limit or the end of suitable habitat. A significant portion of the wooded area south of the pipeline was determined to be unsuitable habitat by the interagency team, and was therefore not surveyed. Figure 1 below illustrates the GPS tracking of some surveyor's routes through the forest. Generally, two people conducted the survey along each transect, which ensured full coverage while maintaining the course. Cavities and foraging sign were observed and if they met the conditions listed in the USFWS criteria, they were recorded on a survey data sheet. Information collected included lat./long., type of cavity (A or B), side of tree, height of cavity or sign, and type of tree.

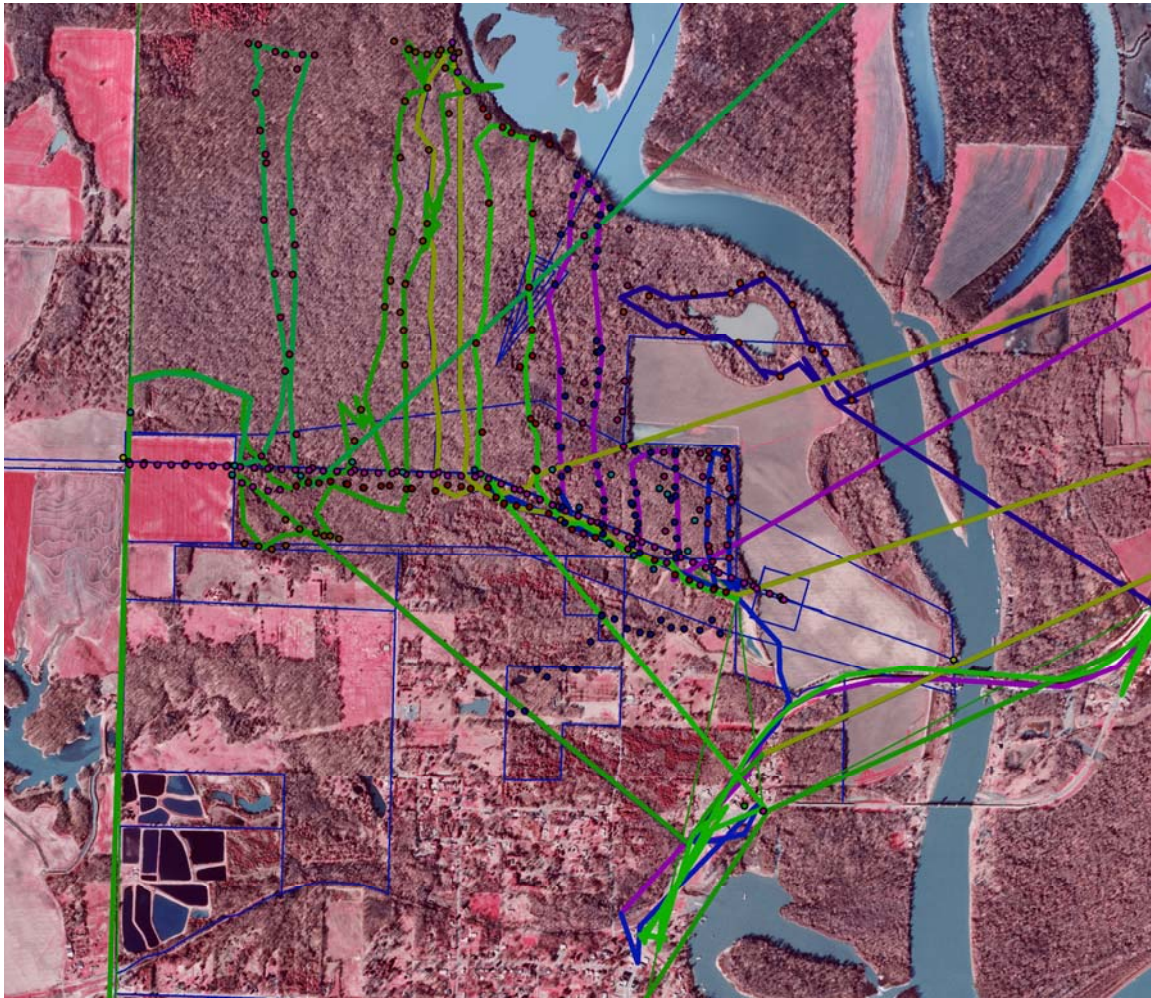


Figure 1. Example of transects taken by surveyors in the Wattensaw Wildlife Management area surrounding the main pipeline Right-of-way west of the proposed GPADP pumping station.

Three cavities were found in a cypress swamp area adjacent to the White River and identified as requiring inspection by an expert. A follow up site visit by USACE, USFWS, and the Cornell University IBW field supervisor was conducted on 28 March 2006. Following inspection, the Cornell expert determined that the cavities were the

product of another large bird, the pileated woodpecker. No other sign of IBW or presence was found during this survey effort.

## **Ivory-billed Woodpecker Survey: Sabatini Property West of Grand Prairie Area Demonstration Project Pipeline Right-of-Way.**

### Project participants:

Mark R. Smith (USACE Memphis)  
Danny Ward (USACE Memphis)  
Kevin Pigott (USACE Memphis)  
Mike Thron (USACE Memphis)  
Mike Radford (ANRC)

Craig Uyeda (AGFC)  
Bob Leonard (AGFC)  
Jason Phillips (USFWS)  
Joe Krystofik (USFWS)  
Bob Price (WRID)

### **Background**

The Grand Prairie Area Demonstration Project (GPADP) is located in eastern Arkansas approximately 15 linear miles from the location of the initial sighting of the ivory-billed woodpecker (IBW). The project area includes significant portions of Arkansas and Prairie counties and small portions of Monroe and Lonoke counties (Figure 1). The GPADP provides agricultural water supply, water conservation, aquifer protection, waterfowl management, and prairie grass restoration. A general reevaluation report (GRR) and final environmental impact statement (EIS) were prepared by the U.S. Army Corps of Engineers (Corps), Memphis District, and circulated for public review in December 1999. The record of decision was signed in February 2000.

The portion of the GPADP that was of interest during this survey effort were two blocks of woods on the western end of the main pipeline right-of-way. This pipeline will move the irrigation water from the pump station to the retention reservoir (widened canal section) and will pass through the lower portion of the Wattensaw Wildlife Management Area north of DeValls Bluff, AR (see figure 1).

### **Surveys**

On 15 February 2007, representatives of the USACE - Memphis District, Environmental Branch, United State Fish and Wildlife Service (USFWS), Arkansas Game and Fish Commission, Arkansas Natural Resources Commission, and White River Irrigation District (local sponsor) conducted surveys of these two blocks forest northwest and southwest of the west end of the major pipeline that will distribute irrigation water from the main pumping station to a series of smaller pipelines and canals. These two areas were surveyed to ensure that they did not harbor the IBW.

Survey transects were set up at a maximum of 50 meter intervals in the larger wooded block (figure 2), while the wooded areas surrounding the reservoir (figure 1) were shaped in such a way that 50 meter transects would not have been feasible. In this instance, the teams spaced themselves to ensure all trees 16 inches or greater in diameter could be thoroughly observed. The spacing between transects never exceeded 50 meters, and was generally less due to the increase in leaf coverage.



In the larger wooded block, in most instances two people conducted the survey along each transect, which ensured full coverage while maintaining the course. Cavities and foraging sign were observed and if they met the conditions listed in the USFWS criteria, they were recorded on a survey data sheet. Information to be collected included lat./long. and type (A or B) of cavity.

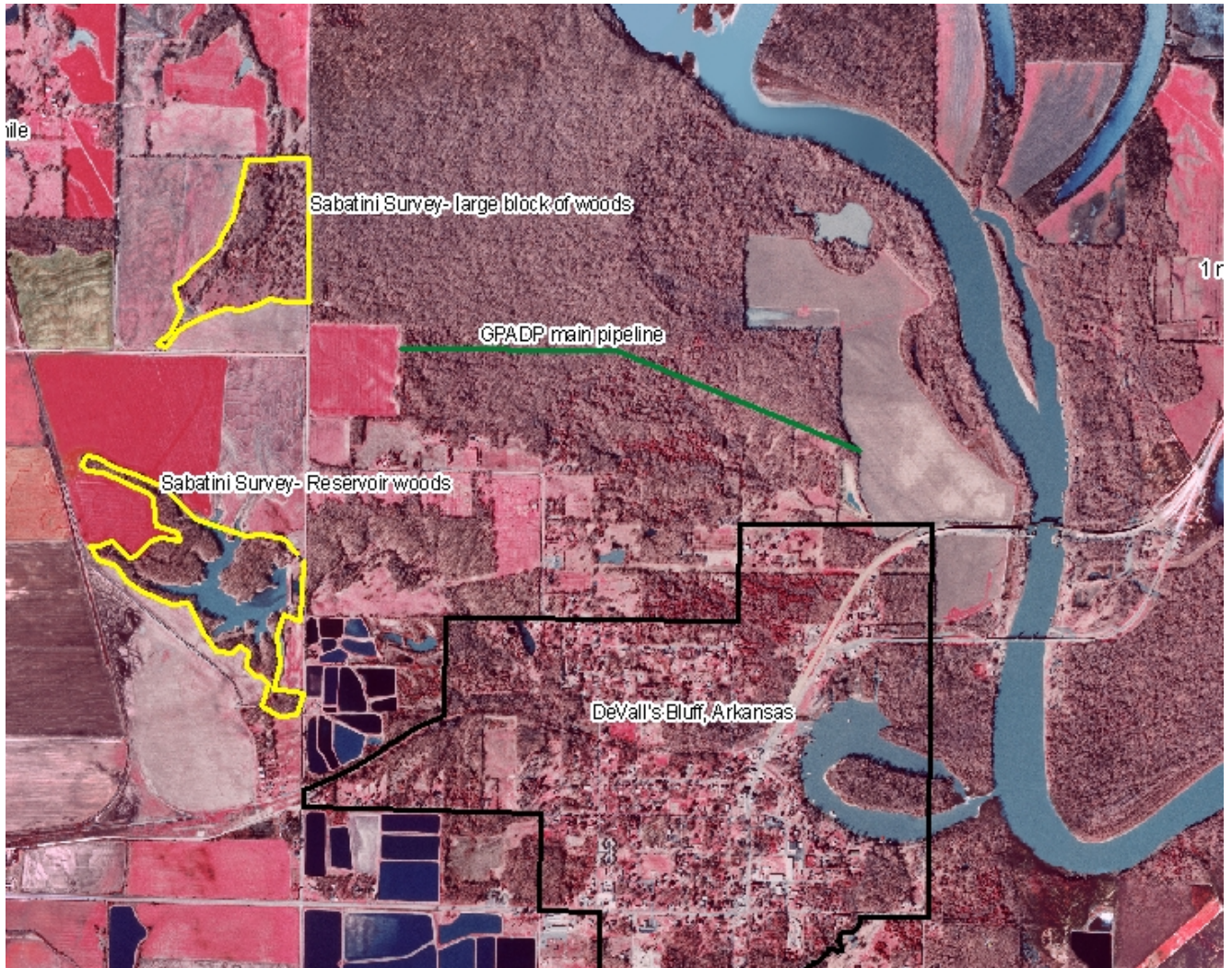


Figure 1. Area surveyed during the "Sabatini" survey effort.

No evidence of IBW was found during this survey effort.

**Ivory-billed Woodpecker Survey: Cache River Refuge Area and Private Properties  
Within the 1 Mile Radius; East Sector.  
Grand Prairie Area Demonstration Project.**

Project participants:

Mark R. Smith (USACE Memphis)  
Danny Ward (USACE Memphis)  
Kevin Pigott (USACE Memphis)  
Joe Krystofik (USFWS)  
Kenneth Colbert (ANRC)  
Josh Seagraves (AHTD)

Craig Uyeda (AGFC)  
Bob Leonard (AGFC)  
Jason Phillips (USFWS)  
David Heffington (NRCS)  
Bob Price (WRID)  
Clint Hutcheson (AHTD)

**Background**

The Grand Prairie Area Demonstration Project (GPADP) is located in eastern Arkansas approximately 15 linear miles from the location of the initial sighting of the ivory-billed woodpecker (IBW). The project area includes significant portions of Arkansas and Prairie counties and small portions of Monroe and Lonoke counties (Figure 1). The GPADP provides agricultural water supply, water conservation, aquifer protection, waterfowl management, and prairie grass restoration. A general reevaluation report (GRR) and final environmental impact statement (EIS) were prepared by the U.S. Army Corps of Engineers (Corps), Memphis District, and circulated for public review in December 1999. The record of decision was signed in February 2000.

The portion of the GPADP that was of interest during this survey effort was a portion of the Cache River Refuge located immediately south of Arkansas Highway 70 on the east side of the White River. Although this portion of bottomland hardwood forest will not be impacted by the project, it was decided that a survey of the area within one mile of the east end of the main pipeline would help ensure that the project would have no impact on the IBW. This pipeline will move the irrigation water from the pump station to the retention reservoir (widened canal section) and will pass through the lower portion of the Wattensaw Wildlife Management Area north of DeValls Bluff, AR.

**Survey**

Beginning 1 March 2007, representatives of the USACE, United State Fish and Wildlife Service (USFWS), Arkansas Game and Fish Commission, Arkansas Natural Resources Commission, White River Irrigation District (local sponsor), Natural Resources Conservation and Arkansas Highway and Transportation Department conducted various surveys within a 1 mile radius of the main project pipeline, as recommended in the final survey criteria developed by the USFWS. A multi-day effort was needed due to the large area needing surveys, inclement weather, and the high water levels in the adjacent White River. The final survey conducted during this effort was completed on 1 April 2007.



Survey transects were set up at 50 meter intervals or closer to ensure all trees 16 inches or greater in diameter could be thoroughly observed. The spacing between transects never exceeded 50 meters, and was generally less due to the leaf out conditions. Areas surveyed during this effort included a portion of the Cache River Refuge (figure 1) and wooded properties on the east and west sides of the White River (figure 2).

Cavities and foraging sign were observed and if they met the conditions listed in the USFWS criteria, they were to be recorded on a survey data sheet. Information to be collected included lat./long. and type (A or B) of cavity.

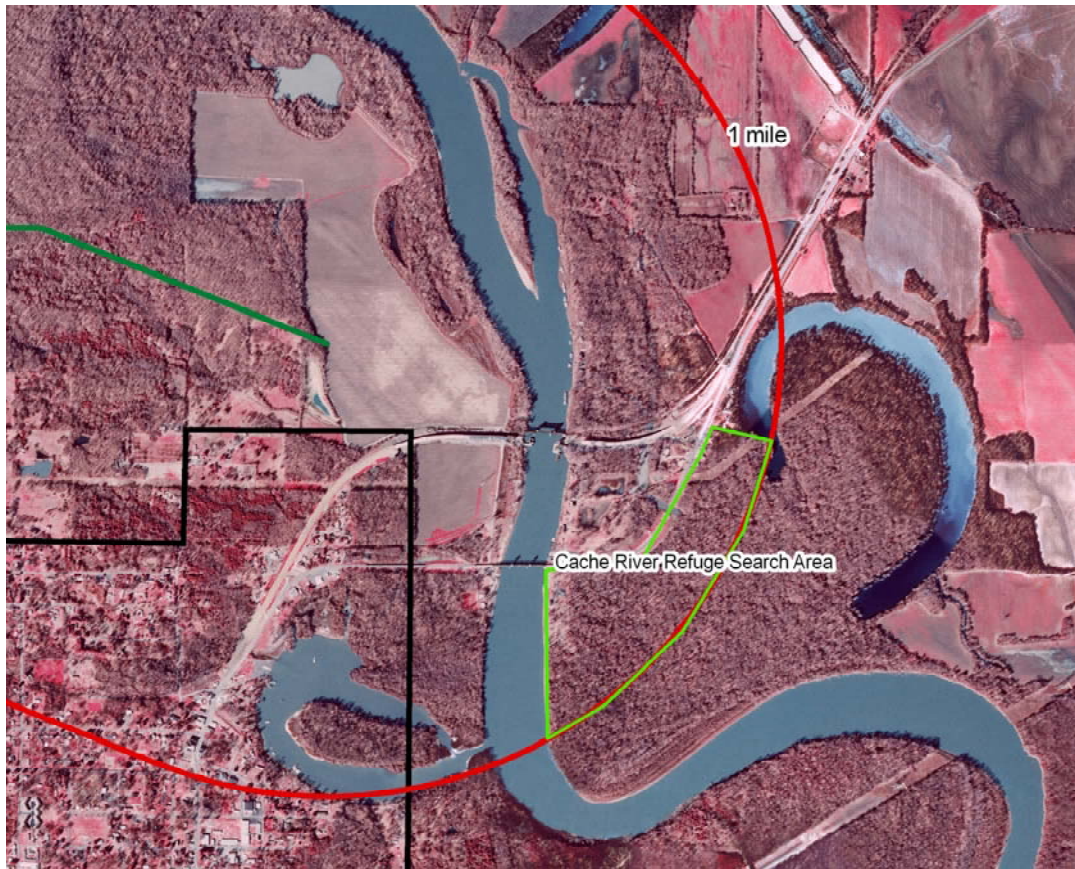


Figure 1. Area of the Cache River Refuge that was surveyed during the March 1 to April 19 2007 survey effort.

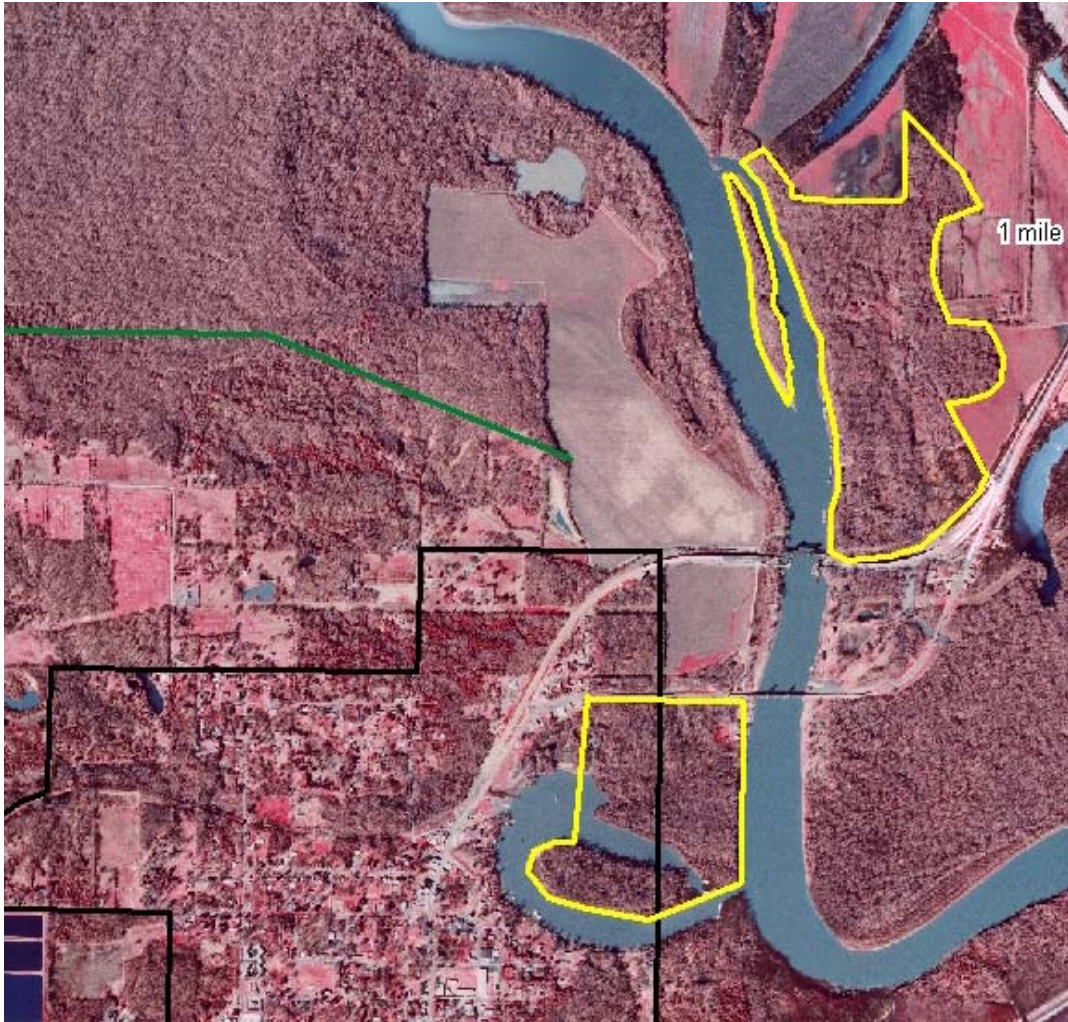


Figure 2. Private properties surveyed during the effort that began March 1, 2007 and concluded April 19, 2007.

During these surveys, one cavity was discovered on private property on the south side of Highway 70 that was considered to be an “A” cavity. This cavity was part of a cluster of four cavities, which indicated a potential roosting cavity (Allan Mueller, The Nature Conservancy, Avian Conservation Project Manager, personal communication April 2007); therefore representatives of the Memphis District conducted surveillance on two non-consecutive nights in April 2007, as recommended in the final survey criteria. No sign of habitation by any bird was detected during these monitoring events.