Lower Apple River INAI Mussel Site Protection and Restoration Project State Wildlife Grant #T-73-L-1 Final Report

Submitted by:

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STATE OF ILLINOIS
DEPARTMENT OF NATURAL RESOURCES
STATE WILDLIFE GRANT PROGRAM

FINAL PERFORMANCE REPORT

Project #: T-73-L-1

Project Title: Lower Apple River INAI Mussel Site Protection and Restoration Project

Reporting Period: July 11, 2011 – December 31, 2014

Report Due Date: February 28, 2014

Grantee Name: Jo Daviess Conservation Foundation

Grantee Contact Person: Jim Johannsen

Grantee Address/City/State/Zip: 126 N. Main St. P.O. Box 216, Elizabeth, IL 61028

Grantee Phone/E-Mail: 815-858-9100 (phone), landprotection@jdcf.org (email)

Introduction

The State Wildlife Grant (SWG) was awarded to the Jo Daviess Conservation Foundation (JDCF) to acquire the final portion of a 120-acre land acquisition project and to help restore the entire 120 acres. This property is now known as "Eagles Nest Land & Water Reserve." The property was registered as a Land & Water Reserve (LWR) with the Illinois Nature Preserves Commission (INPC) after the final 12 acres were acquired. JDCF has restored the property to bottomland hardwood forest, oak savanna, and prairie, and will continue to steward the property. JDCF has been in negotiations with the Illinois Department of Natural Resources (IDNR) to pursue the possibility of transferring ownership of the property to the IDNR.

This project preserves and creates habitat for the benefit of 34 species in greatest need of conservation (SGNC) as described in the Illinois Wildlife Action Plan (IWAP). This project implemented the management guidelines of two natural divisions (Wisconsin Driftless Forest Division and Upper Mississippi River and Illinois River Bottomlands Division), conservation philosophies for four conservation opportunity areas, and action items of the Stream and Forest Campaigns in the IWAP. This project also expanded upon the 1,293-acre Hanover Bluff Complex of conservation lands.

This project protected 1.8 miles (34%) of a 5.3-mile INAI site (#1647). The INAI site provides habitat for 29 mussel species, including 7 that are SGNC, and three that are state-threatened. The site is also used by 28 other SGNC: the state-endangered barn owl, the bald eagle, the American river otter, a piglet bug, 13 fish species, and 11 grassland bird species.

Site Location

The property is located in Hanover Township, Jo Daviess County, Illinois. The legal description is Township 26 North, Range 2 East, the East half of Section 21, the West half of Section 22, and the Southeast quarter of Section 16.

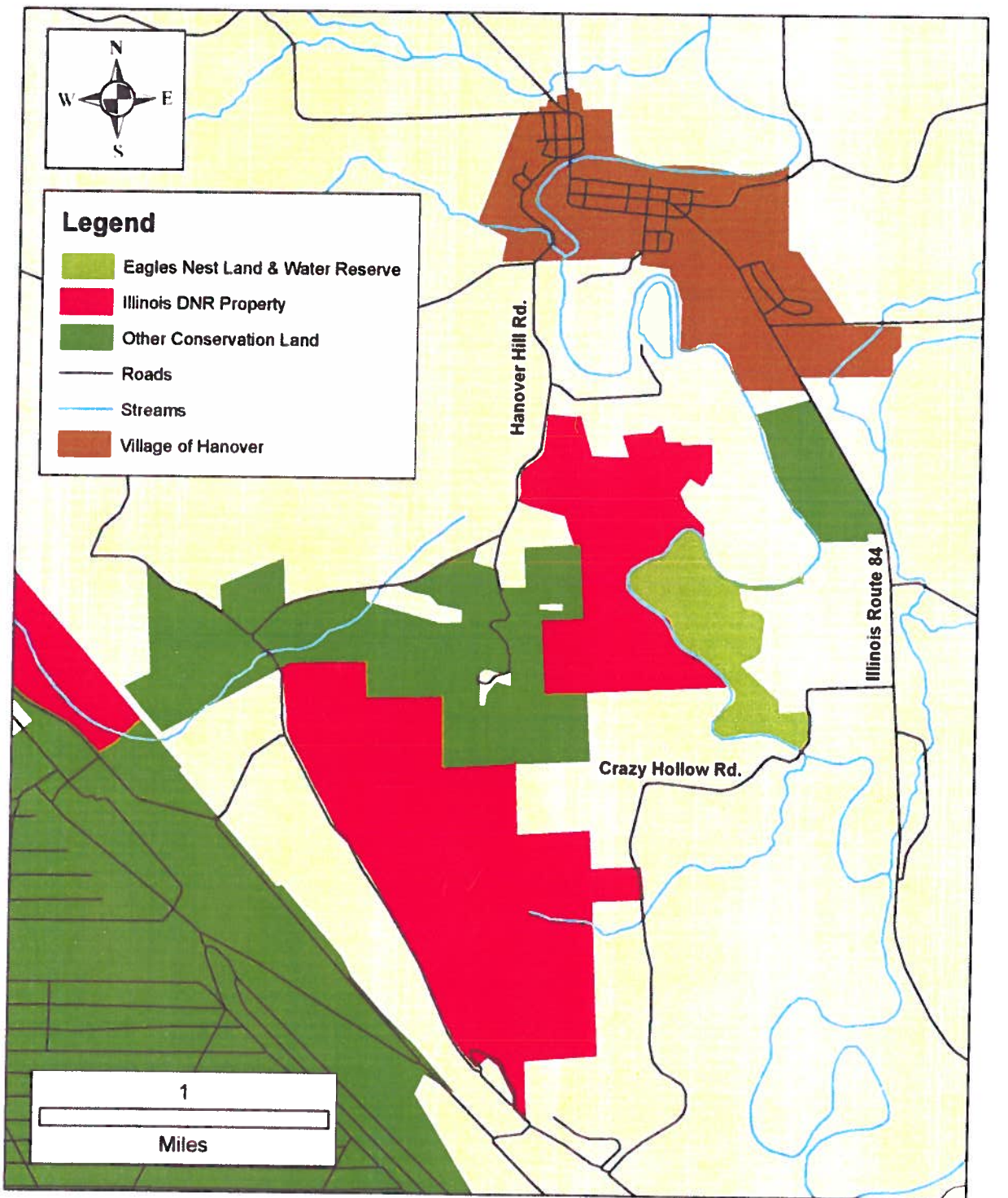

Figure 1: Location Map

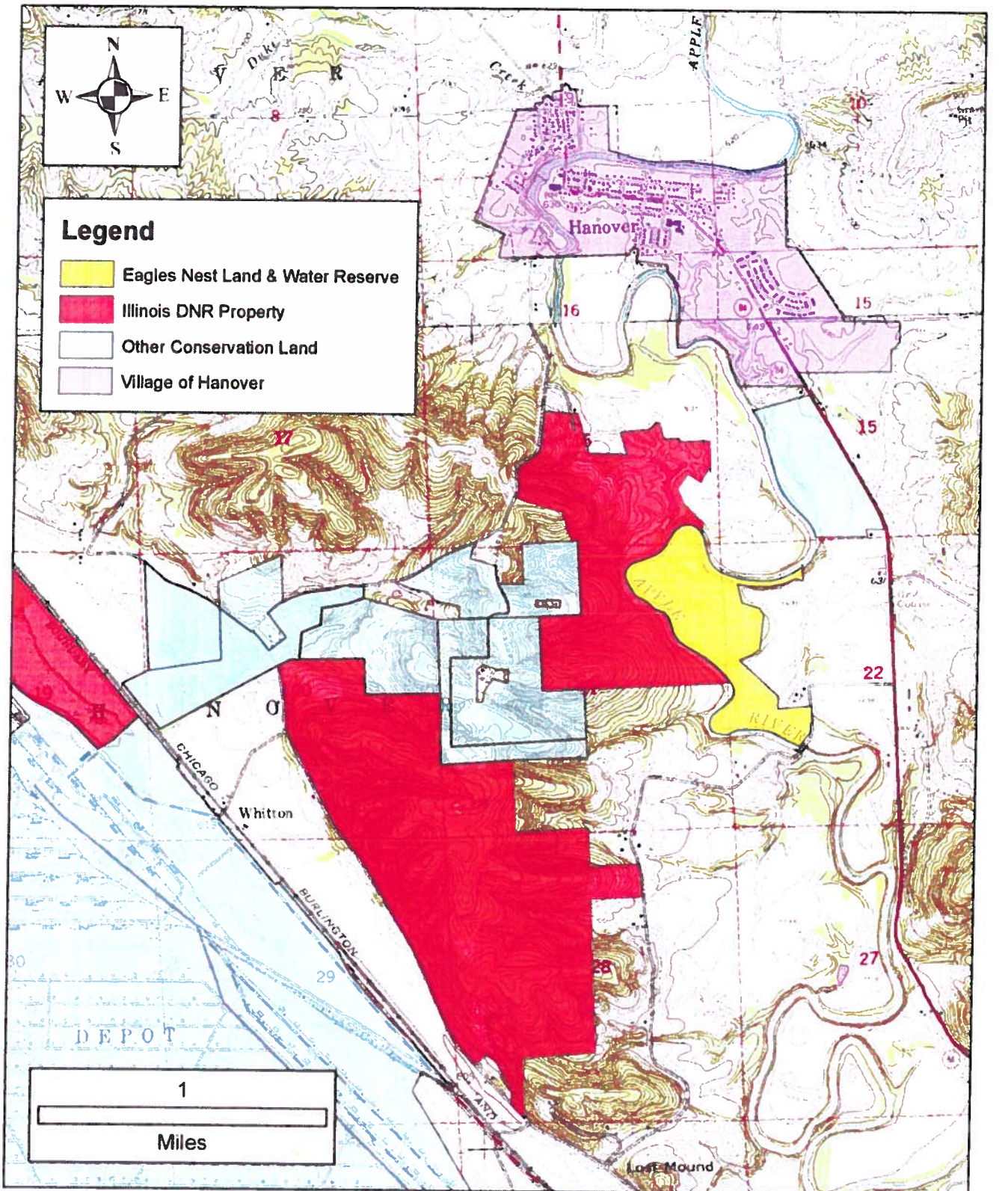

Figure 2: Location Map with USGS Topographic Imagery

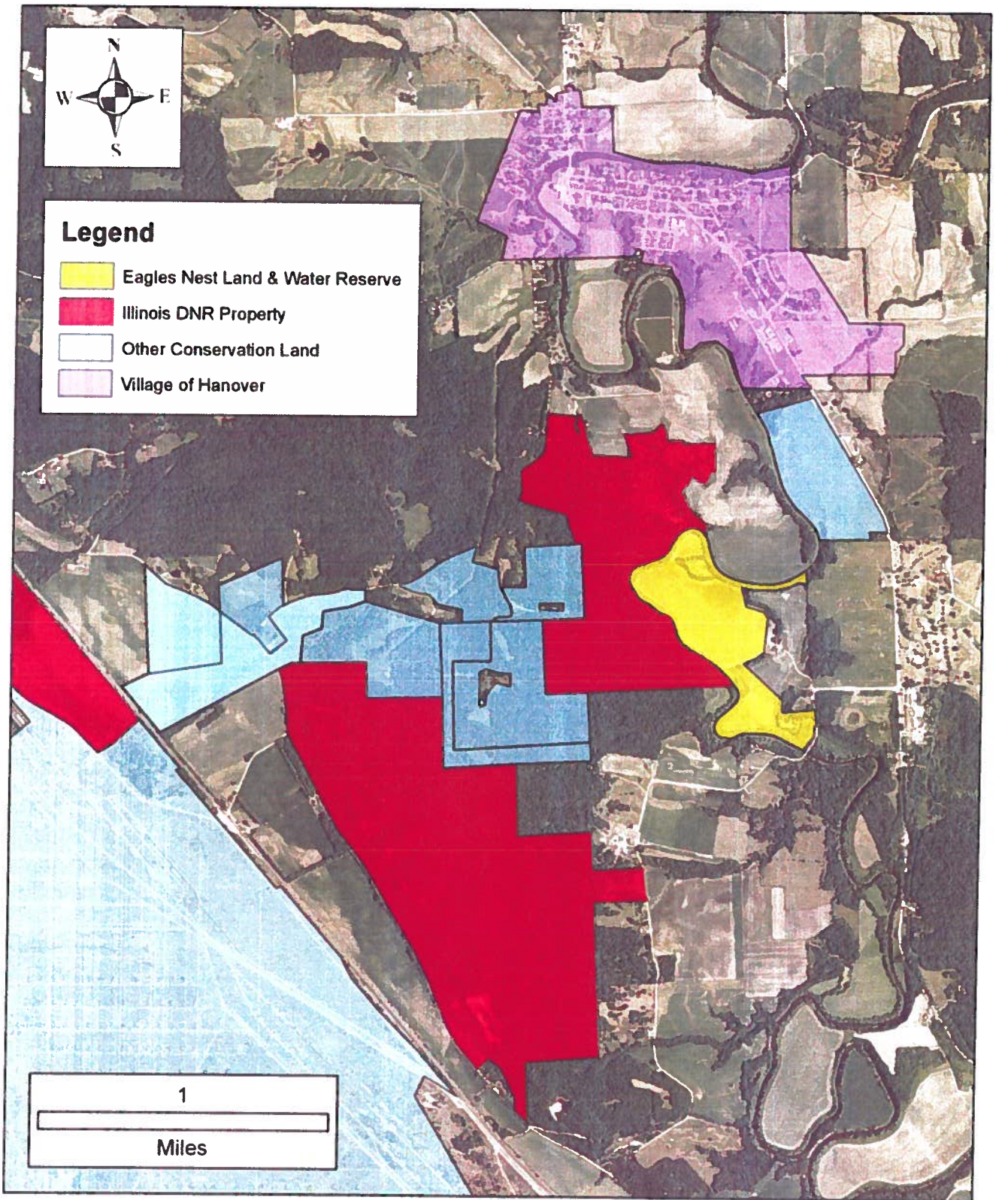

Figure 3: Location Map with 2012 Orthographic Imagery

Project Personnel

Steve Barg, Executive Director
Jim Johannsen, Land Protection Specialist
Jeff Horn, Director of Land Stewardship
Shauna McLane, Bookkeeper

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Project Objectives:

1) Acquire the final 12 acres of the Apple River Property.
2) Register the property as a Land & Water Reserve with the Illinois Nature Preserves Commission.
3) Conduct habitat restoration activities to restore bottomland hardwood forest, oak savanna, and prairie.
4) Pursue the transfer of the property to the Illinois DNR.

Narrative of Project Accomplishments

Objective 1: Acquire the final 12 acres of the Apple River Property.

Third Quarter 2011: JDCF staff ordered a survey of the property in July 2011 and the survey was produced on August 19, 2011. The total acreage of the parcel to be acquired was determined to be 12.33 acres by the survey. The appraisal of the 12.33-acre parcel was ordered in July 2011. JDCF staff ordered a title insurance commitment for the property in September 2011. These documents were submitted to IDNR for review and approval in September 2011.

Fourth Quarter 2011: IDNR reviewed and approved the appraisal, survey, and closing documents in December 2011. The final 12.33 acres of Eagles Nest Land & Water Reserve were purchased on December 30, 2011.

Objective 2: Register the property as a Land & Water Reserve with the Illinois Nature Preserves Commission (INPC)

First Quarter 2012: JDCF staff, INPC Field Representative John Nelson, and IDNR District Heritage Biologist Ed Anderson prepared a proposal to register the property as "Eagles Nest Land & Water Reserve."

Second Quarter 2012: The proposal to register the property was submitted to INPC in April 2012. This proposal was approved by the INPC at their May 5, 2012 meeting and the registration agreement was executed and recorded, ensuring that the property will forever be retained in its natural, open condition.

Objective 3: Conduct habitat restoration activities to restore bottomland hardwood forest, oak savanna, and prairie.

First Quarter 2012: JDCF contracted the Illinois State Archeological Survey (ISAS) to conduct a Phase 1 archeological survey of the property. This work commenced in March 2012.

Second Quarter 2012: The ISAS completed the Phase 1 archeological survey of the property.

Third Quarter 2012: The ISAS completed the Phase 1 archeological survey report on July 30, 2012. The restoration of the property was pushed back to the Fourth Quarter of 2012 due to the delayed completion of the archeological report and the severe drought in 2012, which would have reduced the survival rate of planted tree seedlings.

Fourth Quarter 2012: JDCF staff drafted a restoration plan for the property using the results of the archeological report so as to have minimal impact of the historic resources on the property. The first 3 acres of the property were restored to bottomland hardwood forest by planting 314 RPM trees ("root production method") donated by the Jo Daviess County Highway Department. The area was then seeded with grass to prevent soil erosion and help control the spread of invasive species.

Second Quarter 2013: The 3 acres of bottomland hardwood forest that were planted with RPM trees in the previous quarter were inter-planted with hardwood seedlings. JDCF staff and volunteers also restored the remaining 22 acres of bottomland hardwood forest by planting tree seedlings. 8200 trees were purchased with project funds and 2500 trees were donated by Living Lands & Waters, a non-profit organization based in East Moline, Illinois. IDNR District Forester Jeff Harris assisted in the tree planting. The area was then seeded with grass to prevent soil erosion and help control the spread of invasive species. A contractor was hired to spray herbicide along the tree rows to control invasive species and reduce competition for the tree seedlings.

Third Quarter 2013: The Northwest Illinois Invasive Species Strike Team treated the bottomland hardwood forest restoration areas for Japanese hops and poison hemlock. A contractor was hired to mow in between the tree rows to reduce competition for the tree seedlings.

Fourth Quarter 2013: A contractor continued to mow in between the tree rows to reduce competition for the tree seedlings throughout the growing season. Thirty-three RPM oak trees were planted in the savanna restoration areas (24 acres), followed by savanna seed

broadcasting. Prairie seed was broadcasted in the prairie restoration areas (26 acres). "Illinois Land & Water Reserve" boundary signs were posted on the property.

2014 and Onward: JDCF staff and volunteers will continue to maintain and steward the property by mowing, invasive species control, replacing dead tree seedlings, interseeding the prairie and savanna areas, and prescribed burning.

Objective 4: Pursue the transfer of the property to the Illinois DNR.

Third Quarter 2013: JDCF staff contacted Connie Waggoner with the Illinois DNR Division of Realty and Planning about the possibility of transferring ownership of the property to Illinois DNR. Tom Flattery, IDNR Director of the Office of Realty and Environmental Planning, sent JDCF a letter on March 2, 2009 stating IDNR's intention to purchase the property from JDCF at fair market value. JDCF will submit to IDNR a full proposal pertaining to the sale of the property.

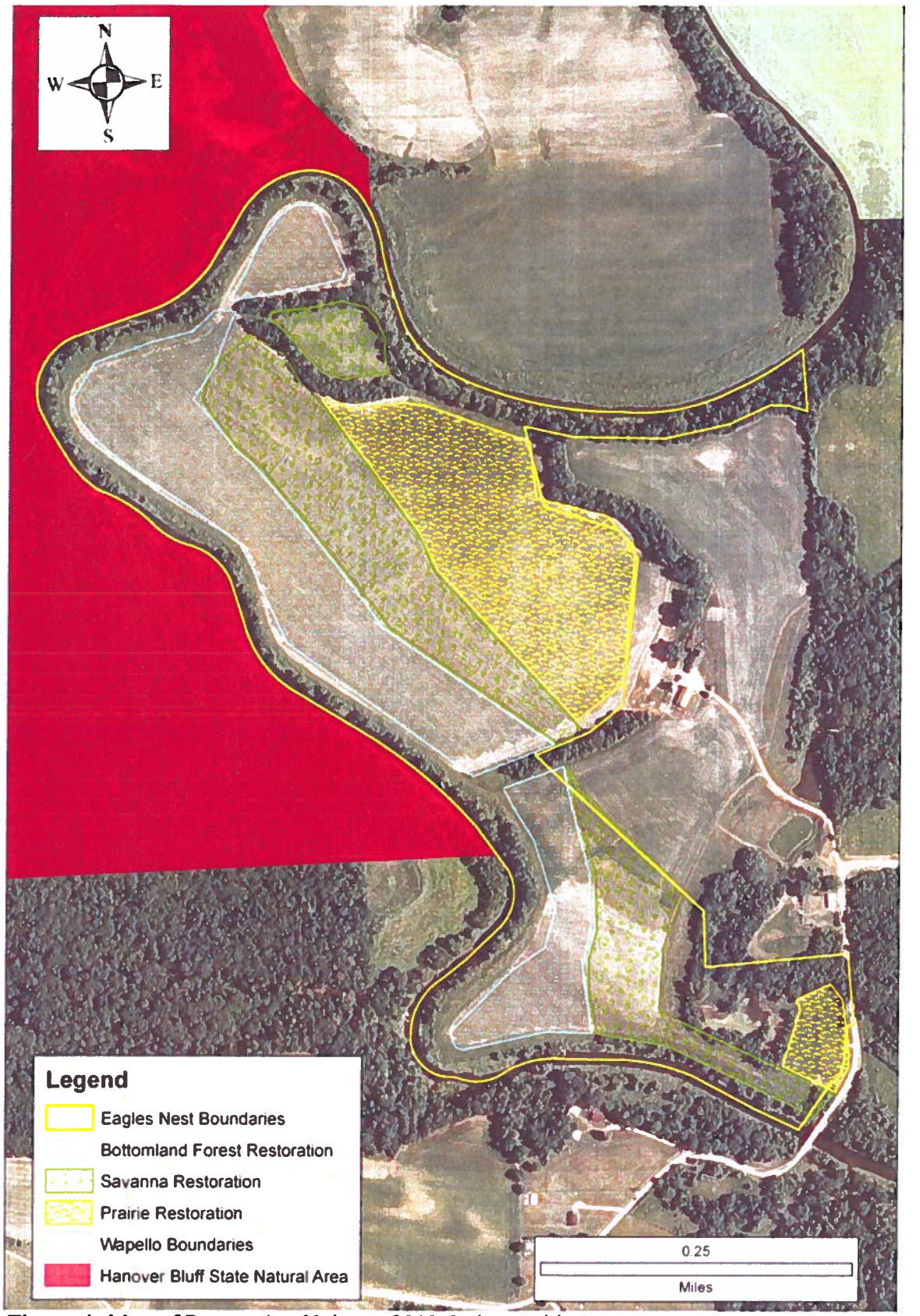

Figure 4: Map of Restoration Units on 2012 Orthographic Imagery

Figure 5: Archeological survey crew lining up to look for cultural material – April 2012

Figure 6: Cultural artifact found during archeological survey – April 2012

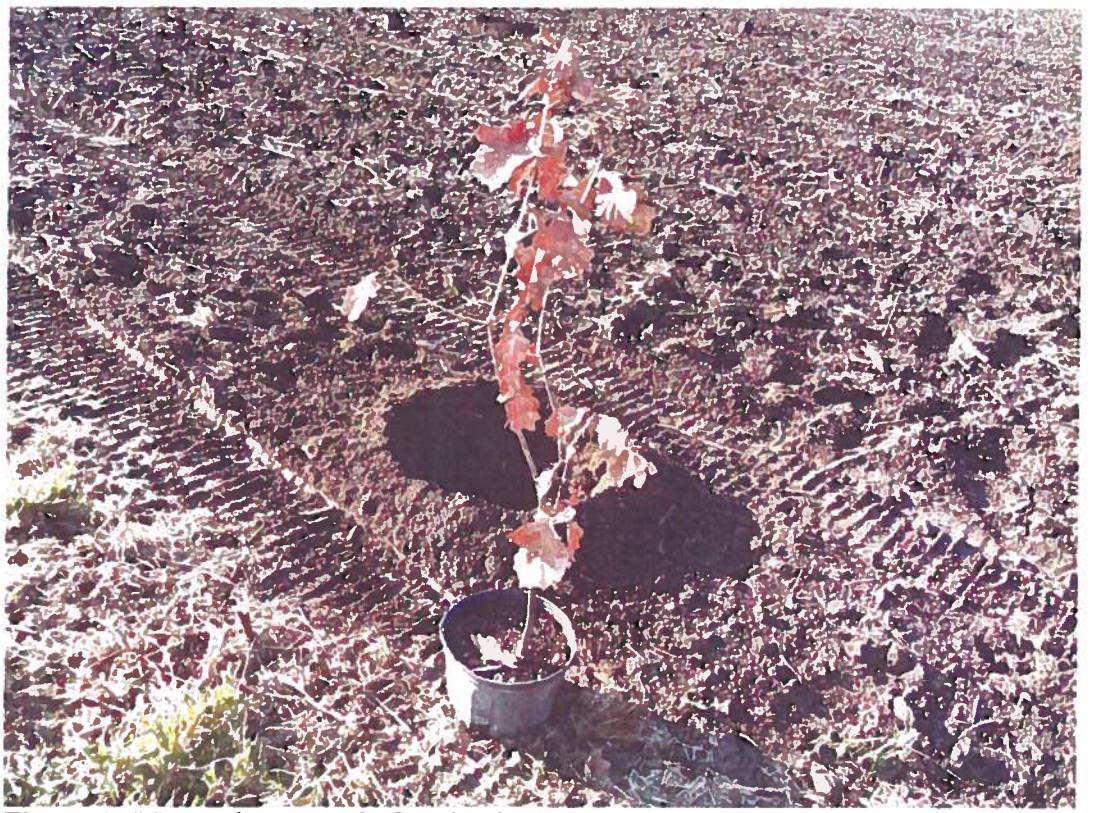

Figure 7: RPM oak tree ready for planting – November 2012

Figure 8: RPM oak trees being planted - November 2012

Figure 9: Volunteer preparing tree seedlings for planting – April 2013

Figure 10: Two volunteers hand-planting tree seedlings – April 2013

Figure 11: JDCF staff and volunteers planting tree seedlings – April 2013

Figure 12: Completed tree seedling rows – April 2013

Figure 13: Bald eagle nest in oak tree at sunset – October 2013

Figure 14: Students from the Northwest Academy preparing savanna restoration area for seed broadcasting – October 2013

Figure 15: JDCF staff and volunteers preparing to broadcast prairie seed – November 2013

Figure 16: Tractor broadcasting prairie seed – November 2013