Appendix E
Historical and Cultural Resources

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1 GENERAL CULTURAL AND HISTORICAL SETTING

Documentation of the Mississippi River Valley prehistoric and historical sequence is extensive and only a brief outline is presented here. Prehistoric human occupation of the area is generally broken into four inclusive periods: Paleo-Indian, Archaic, Woodland, and Mississippian. Each period is characterized by differing degrees of social complexity and by changes in subsistence technologies and pursuits. The Paleo-Indian period represents the first populating of North America. The earliest evidence for the occupation of the mid-continental United States appears as fluted points made around 13,500 to 12,700 years ago (Morrow 2014; Fiedel 1999). Paleo-Indians are generally characterized as smaller groups of hunters and gatherers following migrating herds of large game. The period lasted until the end of the Wisconsin glaciation around 8000 B.P. when the stabilizing climate promoted the different ecological adaptations of the Archaic period. While hunting and gathering continued, people began to cultivate native plants. Larger communities formed as increasingly sedentary culture developed. The subsequent Woodland culture (1000 B.C. to 900 A.D.) is characterized by the widespread use of pottery, ever increasing reliance on agriculture, and development of long-distance trade. The socioeconomic traits generally ascribed to the following Mississippian period (900 to 1400 A.D.) include intensive agricultural adaptations, the appearance of large fortified towns, construction of pyramidal mounds, increased interregional trade, and a highly stratified sociopolitical organization. The most elaborate and famous expression of the culture is the extensive settlement of Cahokia Mounds located on the American Bottom near modern Collinsville, Illinois.

The historical period begins with European exploration of the Middle Mississippi and the voyage of Jacques Marquette and Louis Joliet down the river in 1673. A trading establishment and mission were built at “Grand Village of the Illinois” in 1675. Cahokia was established as a mission in 1699, Kaskaskia was founded in 1703, Sainte Genevieve around 1750, and St. Louis in 1764. For much of the 18th and 19th centuries, commerce on the river was driven by the fur trade, and there was some limited traffic in salt and lead. Along with increasing development of the region, the introduction of steamboats in the early 19th century greatly expanded both the volume of trade in general commodities and transportation for people. The number of vessels engaged increased yearly along with their size and the number of round trips each took (Haites and Mak 1971).

2 SPECIFIC STUDY AREA HISTORY

2.1 Geomorphological History

The study area is located between the Mississippi and the Big Muddy Rivers. It is considered to be predominantly a backswamp. Backswamp deposits are typically fine grained sediments found in low elevation basins on the edge of floodplains. Water deposited over the natural river levees in these areas are slow to drain and the fine sediments drop out of suspension. The landform consists of older surfaces (e.g., old abandoned river meanders of the Mississippi and Big Muddy Rivers) and are relatively flat with complex drainage systems that serve as the Mississippi River’s tributary or

distribution system during high water events (Heitmeyer 2008: 9).

Historically, the area has been described as consisting of seasonally "drowned" woodlands, "wet prairies" or marshes and swamps. For example the General Land Office surveyor's notes from the early 19th century described Section 33, T9S, R3W (within the study area) as "slashy lands" meaning it was wet and swampy containing a poor grade of timber (Carey 2018). In the late 19th century, the area is described as such:

> It has no large ponds or lakes, but many swamps, and large open places called "glades." These glades run in a north-west and south-east direction nearly, and they are parallel to each other. These glades are swampy, and destitute of trees. The swells between them are of very rich soil and well timbered. Much of the land is devoid of under-brush but covered with long grass, making an excellent natural pasture. ("Historical Sketches…" 1894: 14).

2.2 Prehistoric Land Use

There are no recorded prehistoric sites located within the study area. Given the geomorphological nature of the area (e.g., seasonally inundated with saturated ground for much of the year), it was probably lightly, if at all, inhabited in prehistoric times.

2.3 Historic Land Use

The study area is situated in the Big Hill (as originally defined) and Sand Ridge Townships of Jackson County (Figure 1). Big Hill Township was later incorporated into the current Grand Tower Township. The townships were first laid off by William Record in 1806 and sectionized by John Messinger in 1810 (Easterly 1878: 118) (Figures 2 and 3).

The townships were first permanently settled by Euro-American in the early 1800s. Among the first to relocate to Big Hill Township was Jacob Lonzadder who arrived in 1805 or 1806 and built a mill in the SE ¼ of Section 6. Others include Thomas and John Morrow who located on what became known as "Henson place" in Section 18 in 1807, or 1808. These individuals generally settled directly to the east or north of "Big Hill" (now known as Fountain Bluff) in an area that was described as being "as fine a quality of farming land as exists in the entire valley of the Mississippi" (Easterly 1879: 118). To a lesser degree the land to the east of the Big Muddy River was also a focus of early settlement.

Sand Ridge Township was settled by Euro-Americans around the same time as Big Hill. Captain Boon arrived in 1808. He settled on the sand ridge in the central part of the township that gives it its name. The sand ridge was described as being "… anciently a burial place of the Aboriginal tribes, and skeletons and Indian relics are frequently exhumed" (Hopkins 1878: 110). Sizeable villages of Kaskaskia Indians were reported near the crossing on Kinkaid River. The 1876 Illinois State Atlas also depicts an "Old Indian Reserve" in the central part of the township approximately a mile north of the

study area.

A search of the General Land Office patent records support the settlement pattern described above. Generally, the earliest patents for the two townships date to the 1830s and 1840s. The sections corresponding with the study area, however, are almost completely devoid of patents from that period. The sole exception is in the western half of Section 32 of Sand Ridge Township, which the study area overlaps by a few acres. Much of the study area was purchased relatively late, ca. 1890 due, almost certainly, to the areas unsuitability to agriculture or habitation (Carey 2018).

By 1878, Big Hill Township had a population of around 400 inhabitants (Easterly 1878: 119). An 1876 atlas of Jackson County shows a few residences located to the west of the study area (Figure 4). The population of Sand Ridge is unknown, but it is noted that there were “no village or town” (Hopkins 1878: 110).

The 1924 USGS Alto Pass 1:62,500 map shows four structures at the corner of the study area at the intersection of the Missouri Pacific Railroad and what is now Oakwood Bottom Road (Figure 5). The area is identified as “Johns Spur” so the structures are likely to be related to the railroad. Other structures within the study area are two located in Section 21, T10S, R3W and two structures located in Section 33, T9S, R3W. One of the latter is identified as Miller School and has been identified as archaeological site 11JI463.

An examination of aerial photos taken in 1938 reveals structures at four general locations within the study area (Figure 6). The first is near Johns Spur, but located further away from the railroad than on the 1924 map. The structures are likely associated with archaeological site 11JO1355, which consists of multiple concrete foundations and three standing grain silos. The second location is near some agricultural fields in Section 21, T10S, R3W. The third in, Section 17, T10S, R3W, has two possibly related structures. The fourth is a single structure in Section 32, T9S, R3W.

As indicated by the aerial photographs, in 1938 the study area was only cultivated in a few isolated areas. Many of the existing built environment landscape features are visible on the imagery and may represent attempts to expand agricultural areas.

The only structures remaining on the 1947 USGS Gorham 1:24,000 quad map within the study area are located near Johns Spur (Figure 7). These, again, doubtlessly represent the remains currently identified as site 11JO1355.

Because of the areas marginal agricultural productivity, the land within the study area was gradually acquired by the Forest Service and the Oakwood Bottoms Green Tree Reservoir was established within the forest in 1964 in order to provide habitat for migrating waterfowl. Table 1 indicates the years in which property was acquired. Since then, Oakwood Bottoms has been managed as a Green Tree Reservoir with the requisite features (e.g., berms and ditches) needed to seasonally flood and drain the bottomland study area, most of which were constructed prior to 1964. The levee along the east side of the study area was in place by at least 1953, and the Hay Glade Ditch was constructed prior to 1907 (Carey 2018).

Table 1. Forest Service Acquisitions for Oakwood Bottoms (data courtesy of U. S. Forest Service).

Section	**Name**	**Acres**	**Date**
T9S, R3W (Sand Ridge Township)			
32	Wm Brent	120	6-3-39
	Charles Huthmacher	202	2-2-97
33	Wm Brent	80	6-1-39
	Donald Winters	560	5-23-51
T10S, R3W (former Big Hill Township)			
4	Clarence Olson	732	5-25-38
5	Charles Huthmacher	30	3-6-97
8	Charles Olson	219	5-25-38
	OJ Tretter	160	8-3-66
16	Clarence Olson	480	5-25-38
17	Clarence Olson	520	5-25-38
20	OJ Tretter	80	8-3-66
	Lawrence Glenn	132	7-27-37
	D. W. Winters	160	5-16-49
21	D. W. Winters	240	5-16-49
	O. D. Leach	108	3-21-48

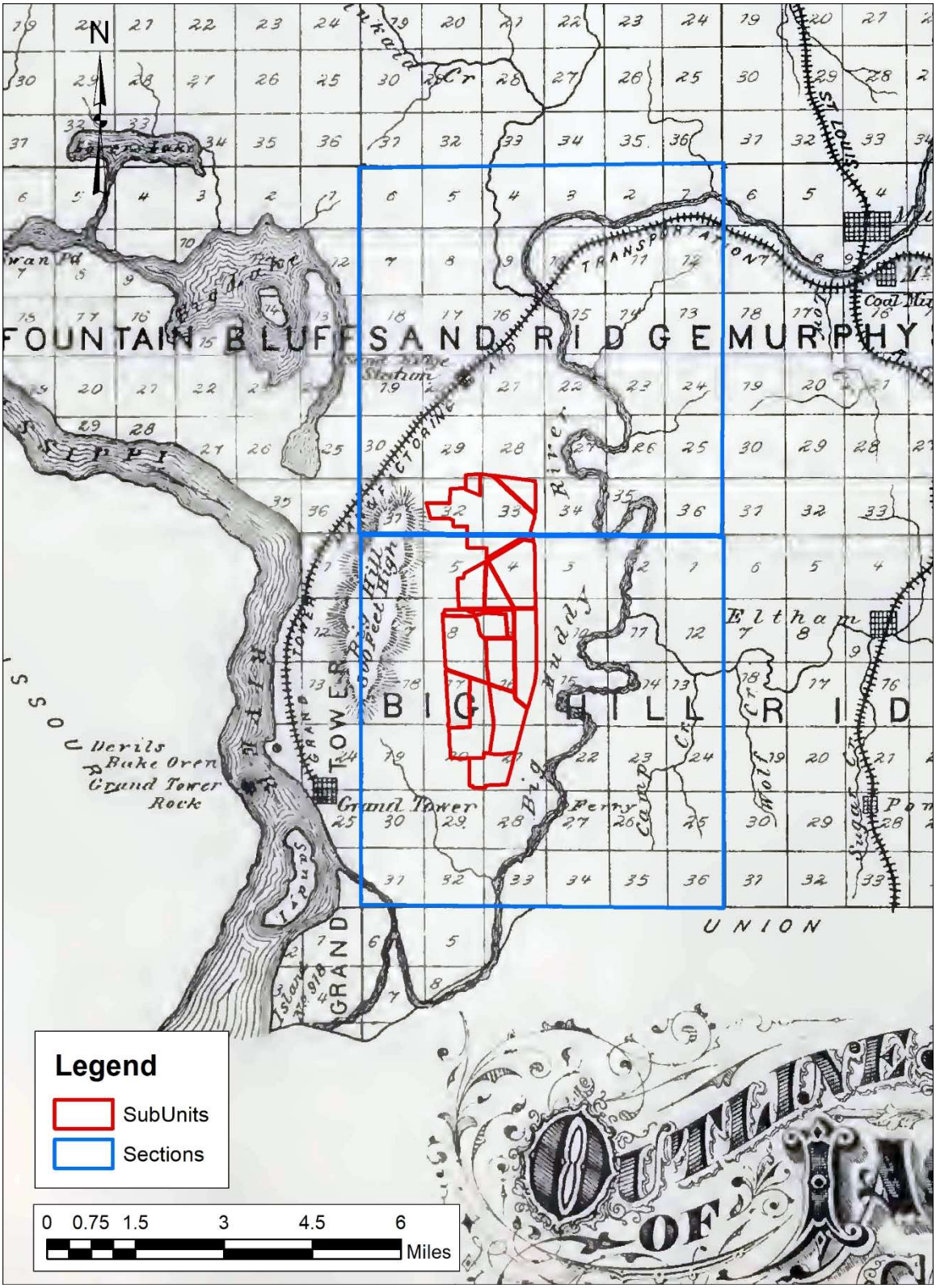

Figure 1. Townships depicted in 1879 (History of Jackson County Illinois. Brink, McDonough & Co., Philadelphia).

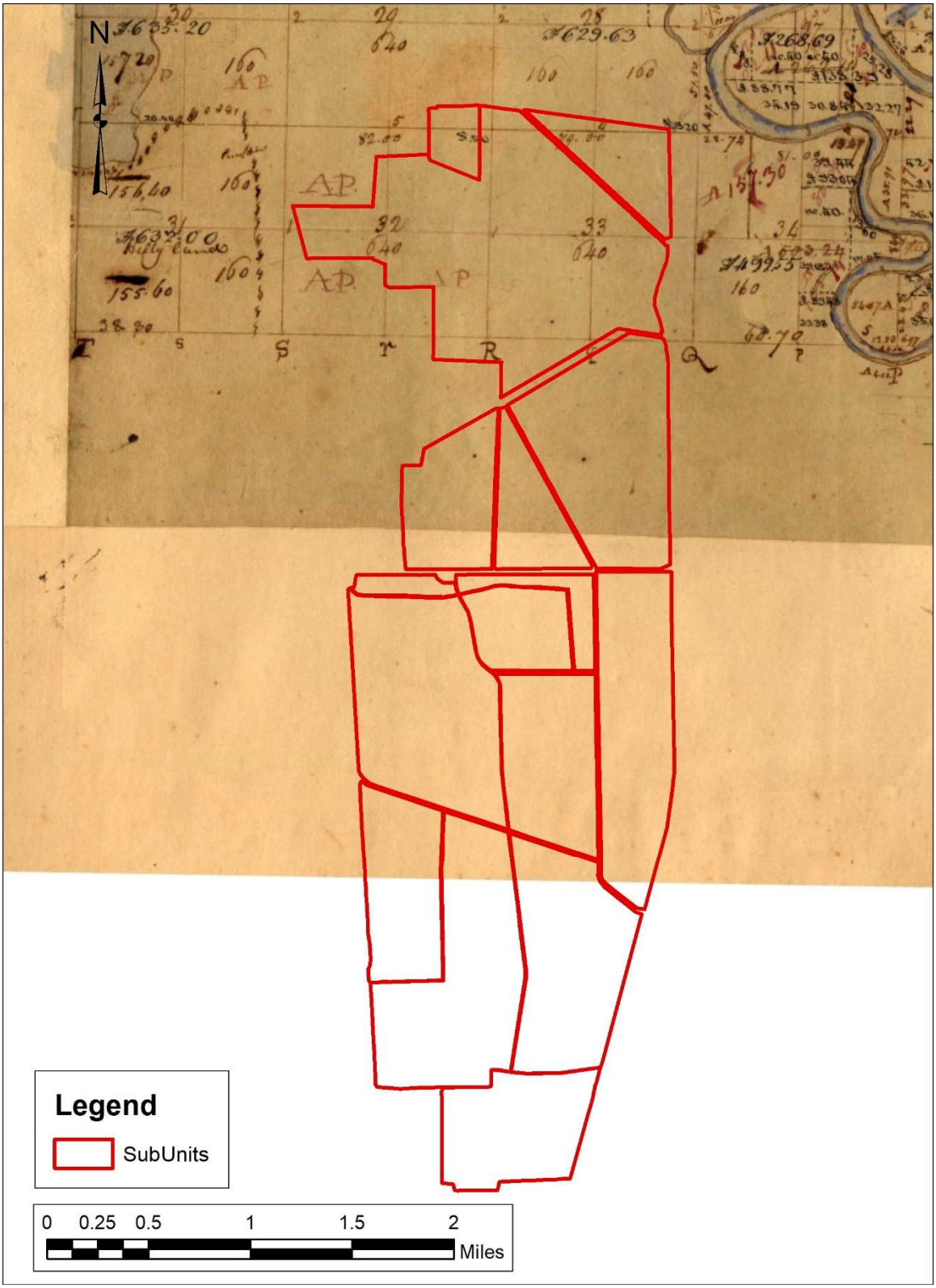

Figure 2. 1817 GLO map of Sand Hill Township

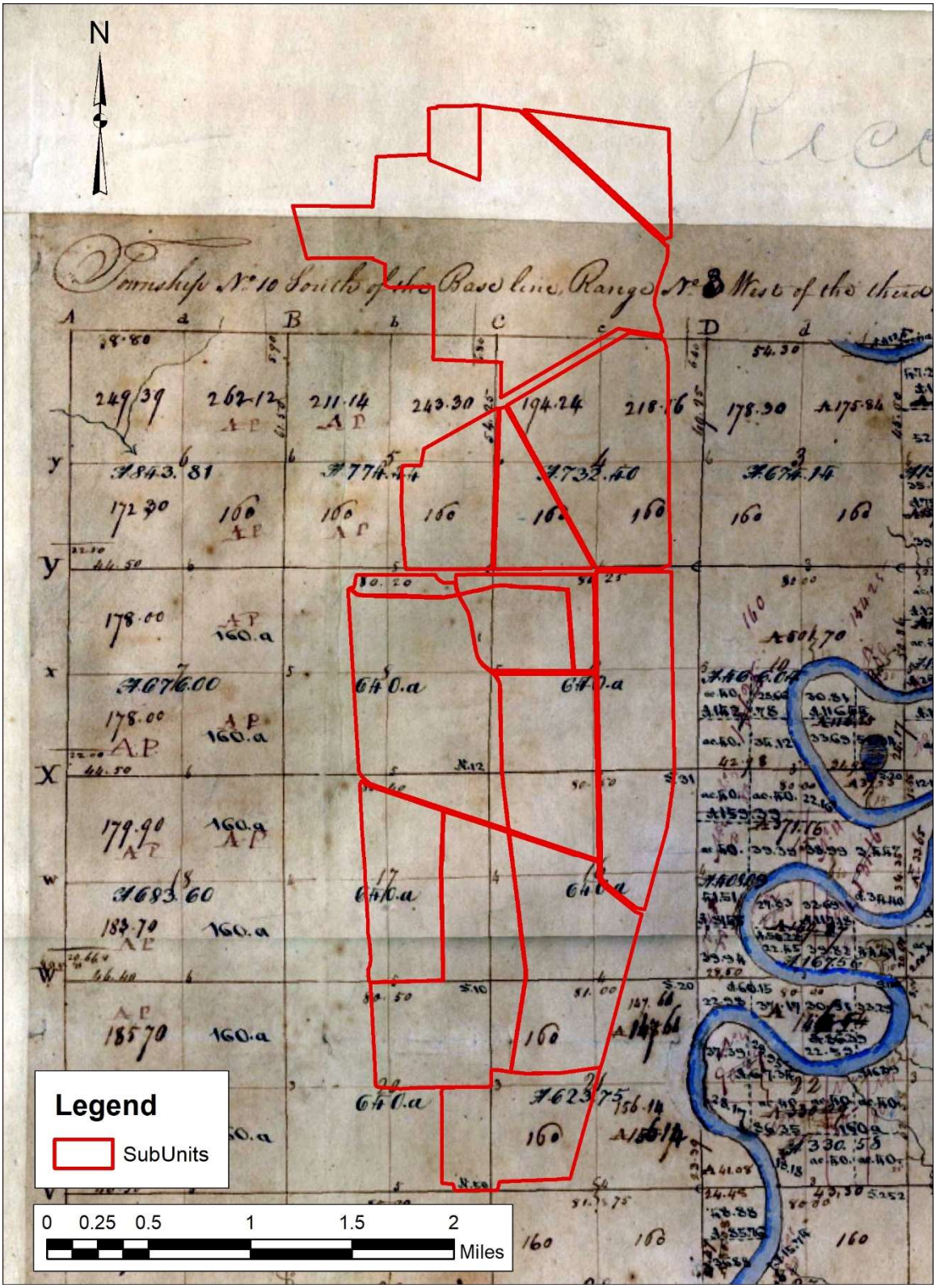

Figure 3. 1817 GLO map of Big Hill Township

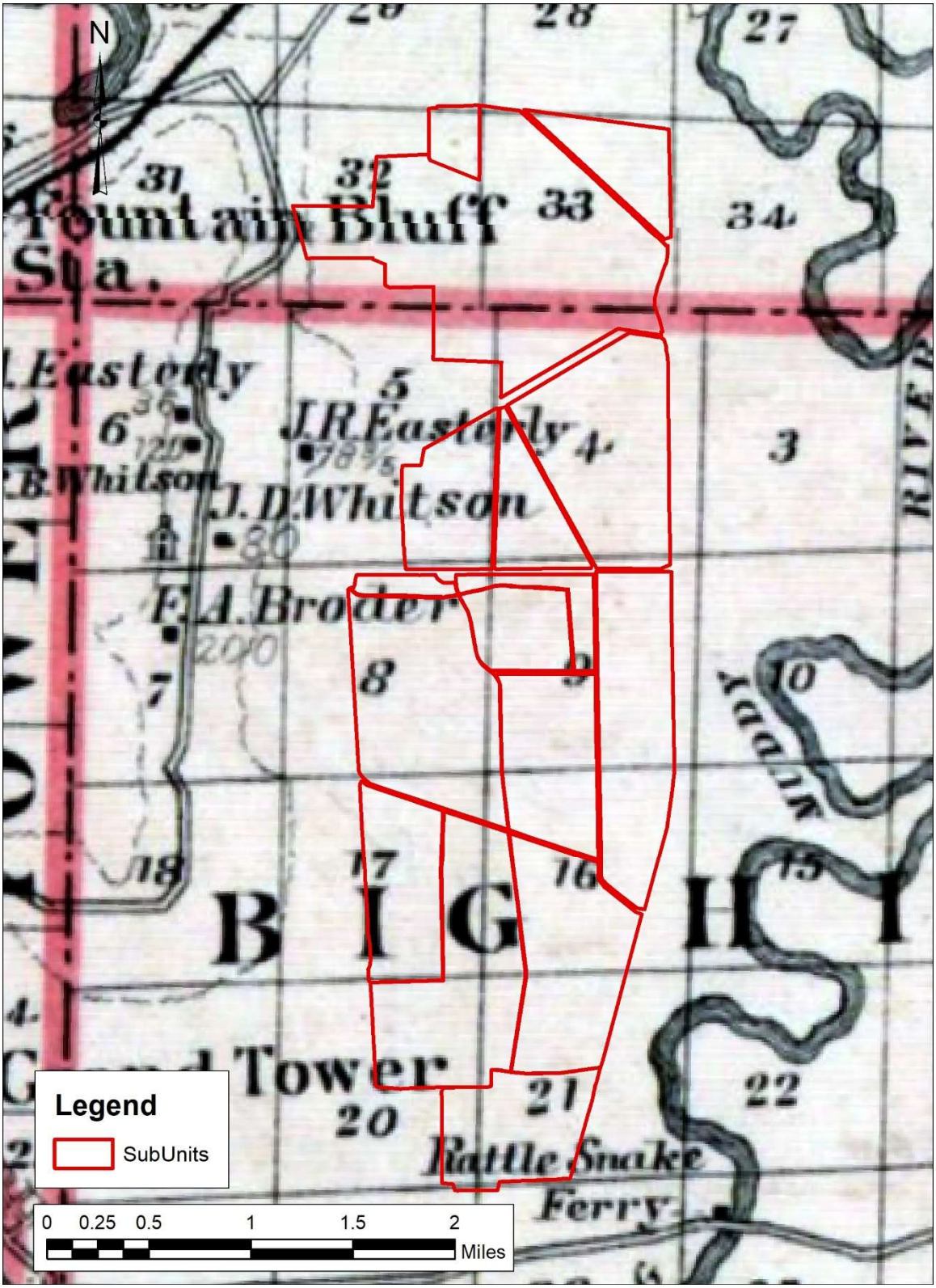

Figure 4. 1876 map of study area (1876 Illinois State Atlas, Lakeside Building Cor. Of Clark and Adams Sts).

Figure 5. 1924 map of study area (USGS Alto Pass 1:62,500 quad map).

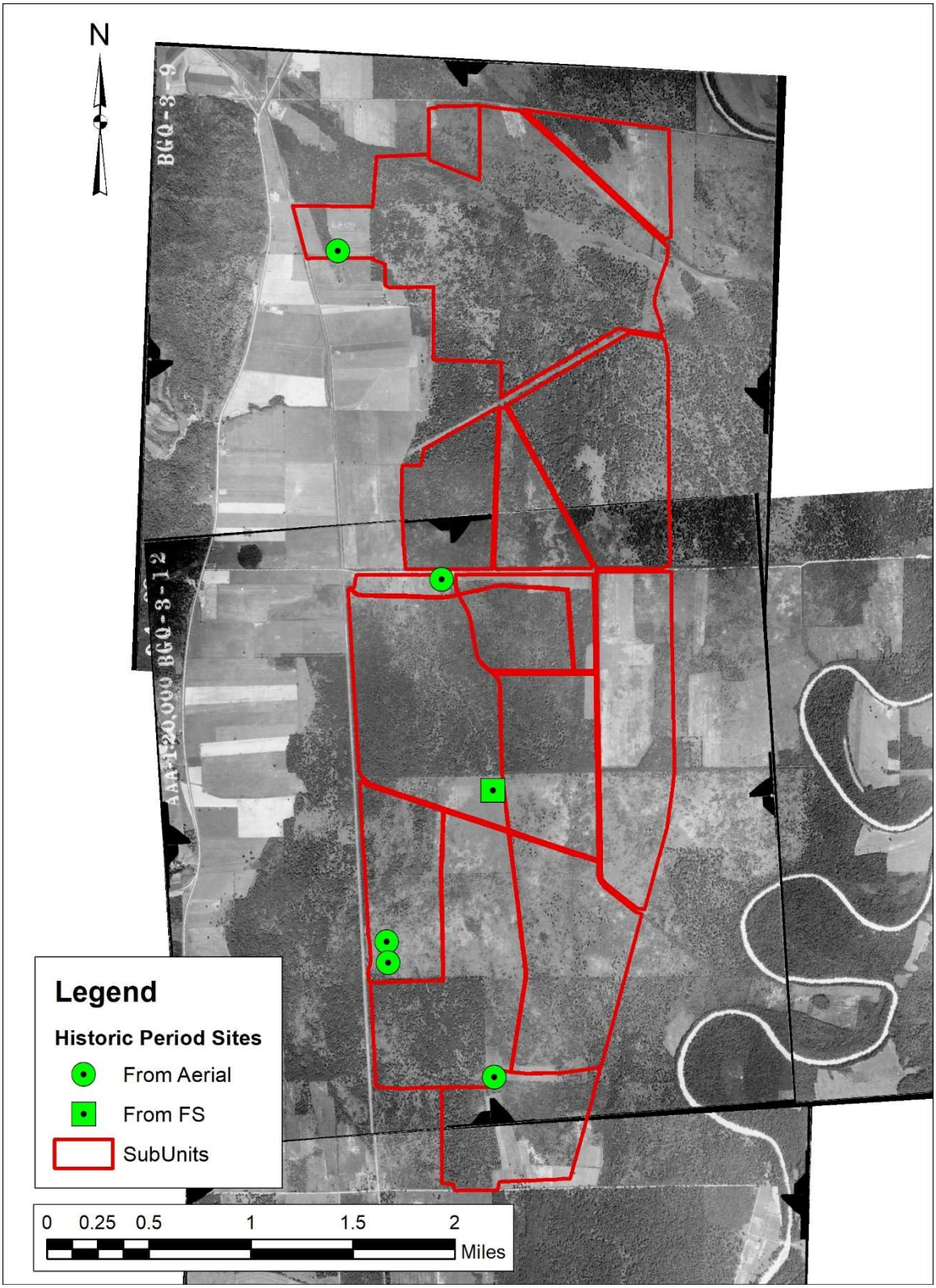

Figure 6. 1938 aerials photos of study area.

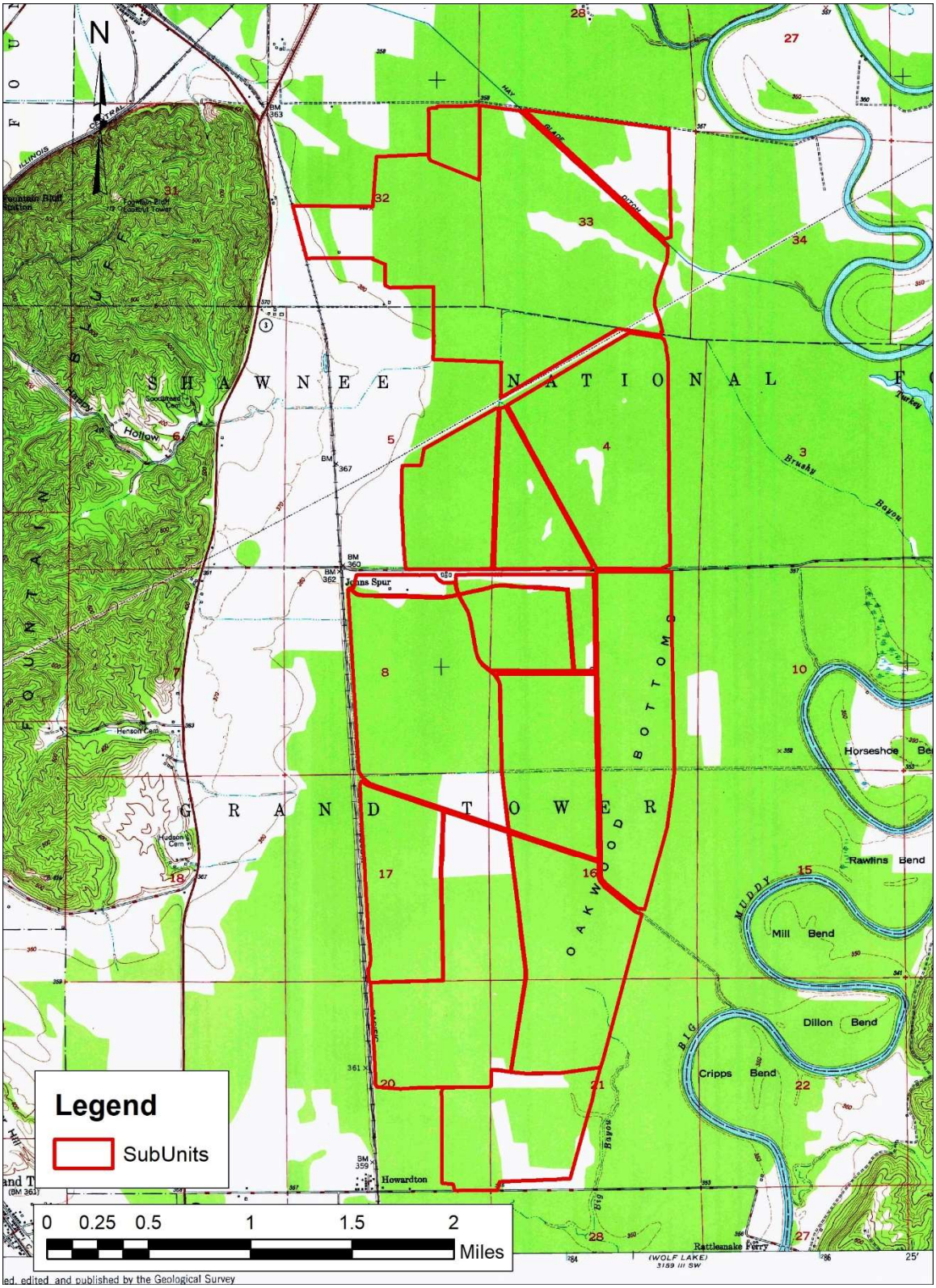

Figure 7. 1947 map of study area (USGS Gorham 1:24,000 quad map).

3 POTENTIAL EFFECTS ON CULTURAL RESOURCES

3.1 Known sites and previous archaeological surveys

There are no known prehistoric sites within the study area. There are three known historical sites (Table 2). However, there are other probable sites as indicated from maps and aerial photographs, as outlined in Section 2.3.

Table 2. Known Archaeological Sites

Site Number	Name	Period	Description	Eligible for the NRHP
11J1355	None	Early 20th century	Farmstead	Undetermined
11J1463	Miller School	Early 20th century	School	Ineligible
None	None	Unknown	Farmstead	Undetermined

Within one mile of the study area, there are 61 known archaeological sites. Fifty seven of these are located to the west along the base of Fountain Bluff. This settlement pattern mirrors the one described in Section 2.3.

Only three archaeological surveys are recorded as being within the study area in the Illinois Inventory of Archaeological Sites (Figure 8; Table 3).

Table 3. Previous archaeological Surveys

Survey ID	Date	Name	Institute
1613	1981	Drainage Ditch to Hay Glade Ditch: Cultural Resource Reconnaissance Report	Forestry Service
20662	2014	Phase 1 Archaeological Survey for Ameren Grand Tower – Makanda Power Line Replacement Project	Forestry Service
91463	2018	Phase 1 Archaeological Survey of Oakwood Green Tree Reservoir Unit 28	Forestry Service

3.2 Prehistoric Cultural Resources

The study area has a low sensitivity for prehistoric cultural resources given its geomorphological and environmental situation. The area was largely unsuitable for habitation or agricultural exploitation and is likely to have been unoccupied on any long term basis and only seasonally visited during prehistoric periods.

Additionally, most of the project features (e.g., berm degrades, berm raises), do not involve excavation of undisturbed sediment. Where excavation is involved, however any prehistoric sites or features, if present, might be adversely effected.

3.3 Historic Cultural Resources

The study area also has a low sensitivity for historic cultural resources given its geomorphological and environmental situation. Based on historical records, the area was very lightly settled in the historic period and only a small portion was ever cultivated. There are known historic structures within the boundaries, but they are either ineligible for the National Register of Historic Places (NRHP) (i.e., Miller School), or will be avoided. Other potential historic properties have been identified in the maps and aerial photos referenced above.

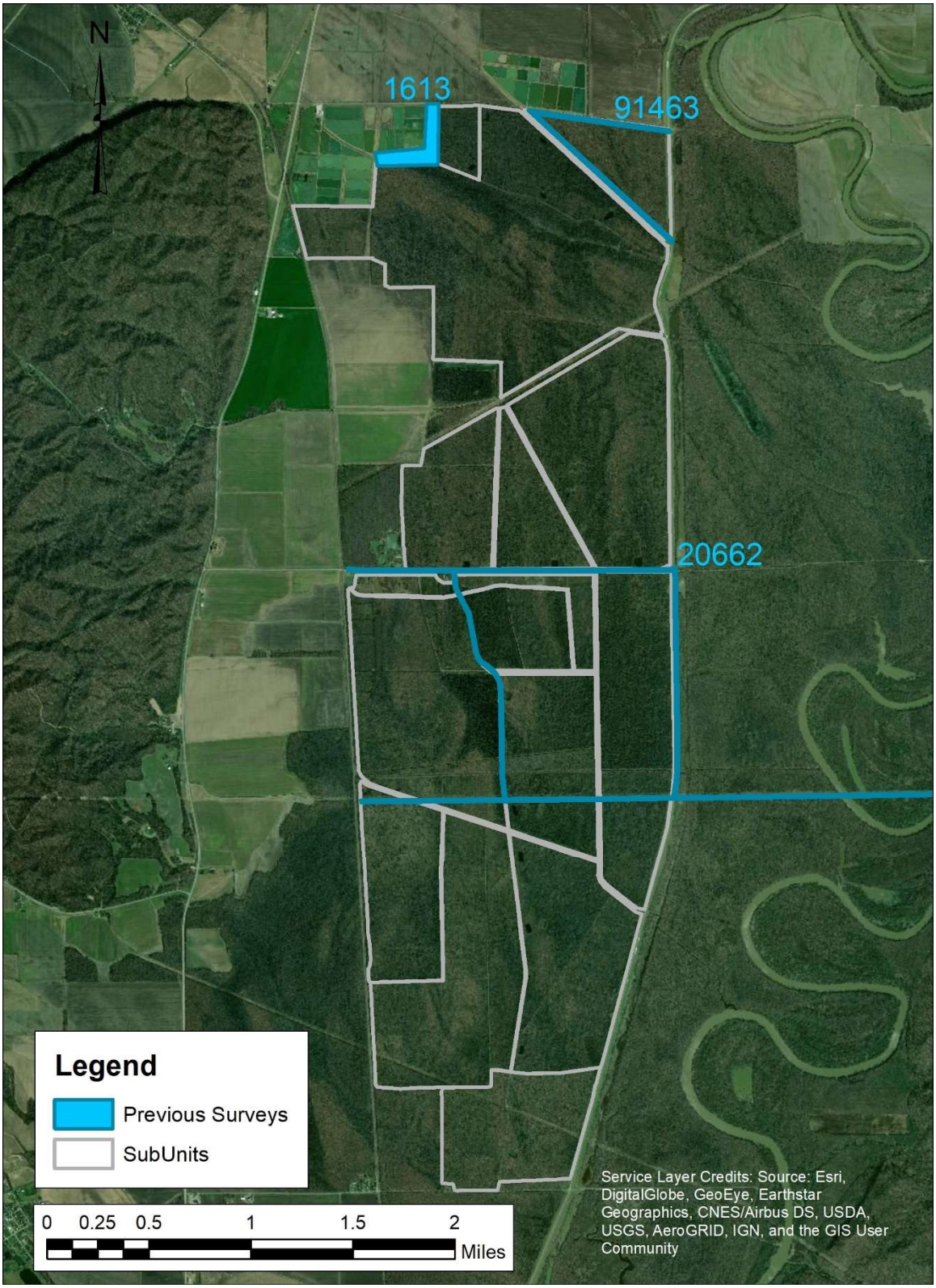

Figure 8. Previous Cultural Surveys

As noted above most of the project features (e.g., berm degrades, berm raises), do not involve excavation of undisturbed sediments. Where excavation is involved, however any historic resources, if present, might be adversely effected.

3.4 Archaeological Survey

3.4.1 Direct effects

Direct effects are impacts caused by the proposed undertakings or overall project. These generally include all earthmoving activities.

In August 2020 USACE conducted an archaeological survey on the project's Area of Potential Effect (APE). These include any area where excavation in undisturbed sediments will be conducted in relationship to project features (Table 4).

Table 4. Project Feature Types

Feature	Potential for Adverse Impact to Historic Properties	106 Compliance Action
Berm Degrades	None	N/A
Structure Replacement	None	N/A
Moist Soil Unit Enhancement	Minor	Phase 1 Survey of APE
Pump Installation	Minor	Phase 1 Survey of APE
Berm Creation	Minor	Phase 1 Survey of APE
New Ditches	Minor	Phase 1 Survey of APE
Berm Raises	None	N/A

USACE also conducted a Phase 2 National Register of Historic Places (NRHP) evaluation of the one previously identified historic site (11J1355) within the project APE. Both studies were conducted by Commonwealth Heritage Group. During the survey one site, a mid-20th century historic site (Commonwealth site no. W1847-PAB-01), was identified, but recommended as ineligible to the NRHP. No other prehistoric or historic sites were identified within the APE.

The Phase 2 NRHP evaluation of site 11J1355 determined that the site was the remnants of a 20th century commercial farming operation owned by Cave Valley Land and Cattle Company. Three loci within the site boundaries were determined to be intact and the site was recommended as eligible to the NRHP under Criterion D.

USACE is planning to avoid any earth moving activity within the three site loci of 11J1355 and mapped boundary of W1847-PAB-01. Given the negative results of the

survey and the USACE decision to avoid the known historic properties it is the District's option that the project will have no adverse effects to historic properties.

3.4.2 Indirect effects

Indirect effects are impacts caused by the implementation of the project and are often removed from the footprint of the project. Examples include visual and audible changes resulting from the project implementation.

The proposed features will have a minimal visual impact on the landscape as none have significant vertical dimensions. Moreover, the feature types (e.g., ditches and berms) are consistent with the existing surrounding land use and character. It is expected that there will be negligible long term viewshed impacts from the implementation of the project.

3.5 Consultations

Initial consultations with the Illinois State Historic Preservation Office (SHPO) were undertaken by phone on 25 February 2020. USACE described the project and indicated that some ground disturbance would be undertaken within the boundaries of site 11JO1355, but that the site's existing features (e.g., foundations) would be avoided. SHPO expressed no concerns. A project update letter dated 23 May 2020 was sent to the SHPO. Consultation initiation letters dated 26 May 2020 were also sent to the 26 tribes that consult on the St. Louis District undertakings.

Subsequent to the completion of the Phase 1 survey and Phase 2 evaluation of 11JO1355, on 15 September 2020 an interim report (Beecher et al. 2020) and cover letter was sent to the Illinois SHPO. The letter indicated that it was USACE's opinion that the undertaking would have no adverse effect on historic properties as defined under Section 106 of the NHPA. Consultation letters were also sent to the 26 consulting tribes describing the results of the archaeological testing.

USACE is the lead federal agency for the study in regard to Section 106 of the National Historic preservation Act (NHPA). After discussion with U.S. Fish and Wildlife staff including the Heritage Program Manager of Shawnee National Forest, it was agreed that the proposed archaeological investigation would be carried out by "persons carrying out official agency duties under the Federal land manager's direction" as described in 36 CFR 296.5 (C). Therefore no Archaeological Resources Protection Act (ARPA) permit would be required.

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