

Appendix O
Summary of NHPA Section 106 Coordination, Cultural Resources
Near LRA Parcel 20, and Cultural Prehistory and History

O.1 Summary of National Historic Preservation Act Section 106 Coordination

In accordance with National Historic Preservation Act of 1966 (NHPA) (Title 16 of the United States Code [U.S.C.] § 470 *et seq.*, as amended), the Army invited federal, state, and tribal entities with potential interest in the project area to consult with the Army and comment on the Local Redevelopment Authority's (LRA's) reuse proposal for LRA Parcel 20. The invited entities include the U.S. Fish and Wildlife Service (USFWS) (Illinois-Iowa Ecological Services Field Office and Upper Mississippi River National Wildlife and Fish Refuge [UMRNWFR]), Savanna District); U.S. Army Corps of Engineers (USACE) (Rock Island District); U.S. Environmental Protection Agency Region 5; Illinois Environmental Protection Agency; Illinois Department of Natural Resources (Illinois Division of Natural Heritage, Lost Mound Unit, and Illinois Conservation Program); Illinois State Historic Preservation Office (IL SHPO); Advisory Council on Historic Preservation (ACHP); and 10 tribes—the Ho-Chunk Nation of Wisconsin, Kickapoo Tribe of Oklahoma, Little Traverse Bay Bands of Odawa Indians of Michigan, Menominee Indian Tribe of Wisconsin, Meskwaki Nation/Sac & Fox Tribe of the Mississippi in Iowa, Miami Tribe of Oklahoma, Osage Nation, Sac & Fox Nation of Missouri in Kansas and Nebraska, Sac and Fox Nation of Oklahoma, and Winnebago Tribe of Nebraska. This appendix discusses the correspondence that both directly and indirectly comments on the effects on cultural resources of the Proposed Action based on the 2023 (LRA) Reuse Plan for LRA Parcel 20 at Savanna Army Depot Activity (SVADA), IL.

The Army sent early consultation letters to stakeholders in February 2020, prior to publication of the 2023 LRA Reuse Plan. The letters included information known about the Proposed Action as of 2020 and requested feedback regarding any impacts it would have on known historic properties or properties of religious, traditional, or cultural significance. In a letter dated February 26, 2020, the IL SHPO responded that the project area had not been surveyed and might contain prehistoric or historic archaeological resources. The IL SHPO requested completion of a Phase I archaeological survey and provided guidance for conducting surveys. Following the completion of a 2020 Phase I survey by Brockington and Associates, Inc. (Brockington), the IL SHPO authored a letter of concurrence dated December 24, 2020, stating that the LRA reuse of land within LRA Parcel 20 would have no effect on potentially eligible cultural resources, specifically sites 11CA1 and 11CA142.

By email dated February 27, 2020, the Winnebago Tribe of Nebraska responded with corrected contact information and stated that the tribe had “no known sites in the area.” By letter dated March 18, 2020, the Miami Tribe of Oklahoma responded that the parcel is within the tribe's ancestral homelands and requested continued consultation during the NHPA Section 106 process. By email on July 6, 2020, the Osage Nation Historic Preservation Office requested a cultural resource report on LRA Parcel 20 to review the existence of potentially significant historic and prehistoric resources. No responses were received from the other seven tribes. Appendix G1 contains copies of the 2020 agency and tribal coordination letters and responses.

Following the LRA's publishing of its 2023 LRA Reuse Plan for LRA Parcel 20, the Army sent additional consultation letters to stakeholders in November 2023. In the letters, the Army invited the stakeholders to provide input on the LRA's proposed plan; confirmed consultation would proceed within the framework of the 2000 Programmatic Agreement (PA); and stated a preservation covenant in consultation with the IL SHPO would be enacted if any cultural resources were determined to be eligible for listing in the National Register of Historic Places (NRHP). On December 21, 2023, the ACHP confirmed receipt of the Section 106 letter and

provided no comment on the proposed undertaking. In a summary statement of the SVADA consultation letter, the ACHP stated SVADA “will be incorporating a preservation covenant in the transfer instrument as there are two identified [potentially eligible] archaeological sites [11CA1 and 11CA142] within the parcel.” This statement represented a discrepancy in SVADA’s and the ACHP’s understanding of the PA regarding the deployment of a preservation covenant. January 2023 correspondence with the USFWS UMRNWFR Savanna District Office and USACE indicated that the area of potential effects (APE) for the Proposed Action must be increased to include environmental resources outside LRA Parcel 20.

In response to the creation of an environmental assessment (EA) of the disposal and reuse of LRA Parcel 20, the Army sent consultation letters to stakeholders in August 2024 describing the existing proposal for the land; confirming the decision to move forward with an environmental impact statement (EIS) based on EA scoping statements; and asked stakeholders for input on separate interagency and public scoping meetings. The ACHP responded in a letter on August 8, 2024, stating they had no further comment at that time and had no input on a scoping meeting. The USFWS UMRNWFR Savanna District Office provided comments on the consultation letter explaining that USACE designated the shoreline south of Brickhouse Slough as an Environmentally Sensitive Area (13-E-4) because of archaeological resources and requested that the Army provide an assessment of effects on cultural resources in the area.

By letter on October 10, 2024, the USACE, Rock Island District provided further comments expressing concerns about additional navigation of the channel causing increased erosion of shorelines and requested an assessment of effects on the resources, including archaeological resources, in public trust on federal lands. The responses from the USFWS UMRNWFR Savanna District Office and USACE further demonstrate the need to expand the APE outside LRA Parcel 20.

In response to the USFWS UMRNWFR Savanna District Office and USACE comments received in 2023 and 2024, the Army expanded the APE for the Proposed Action to include all areas of development considered for each alternative and, therefore, to include cultural resources outside of LRA Parcel 20. The Army sent an additional consultation letter on February 26, 2025, informing all stakeholders of the newly extended APE and detailing the historic properties potentially affected by the Proposed Action. The USFWS UMRNWFR Savanna District Office responded to the letter on March 31, 2025, expressing the need for the EIS and/or the 2023 LRA Reuse Plan to identify a site protection plan for the cultural resources that would be affected by the disposal and reuse of LRA Parcel 20. The USFWS UMRNWFR Savanna District Office also informed the Army that the LRA would need to apply for a permit under the Archaeological Resources Protection Act of 1979 (16 U.S.C. § 470aa *et seq.*) before conducting work on USFWS lands.

The Army sent an additional letter to the ACHP on February 26, 2025, to determine if the 2000 PA requires an addendum to address the wording discrepancy. Following the 30-day response period to the ACHP letter, the Army spoke by phone to Jeff Kruchten, the Principal Archaeologist with the IL SHPO, on April 10, 2025. During that conversation, the IL SHPO officially determined that sites 11CA1 and 11CA142 are eligible for the NRHP. That determination confirms that the Army’s disposal and transfer of LRA Parcel 20 would result in the enactment of a preservation covenant for the protection of sites 11CA1 and 11CA142. Mr. Kruchten confirmed that the IL SHPO would require a Phase III archaeological survey to be conducted as a mitigation measure for the two sites before any proposed development of LRA

Parcel 20. He stated that it was the IL SHPO's preference that the Phase III survey occur before the Army's disposal of the parcel, but the IL SHPO also would accept the survey occurring after the disposal and before the reuse development. Additionally, Mr. Kruchten stated that the Illinois State Agency Historic Resources Preservation Act (20 Illinois Compiled Statutes 3420) would likely require the LRA (or other future property owner of LRA Parcel 20) to review and consult with the IL SHPO on the effect on cultural resources within and outside LRA Parcel 20 before starting any proposed development. Finally, he stated that, while the IL SHPO cannot require additional archaeological surveys on federal lands, the office will advocate for a Phase I archaeological survey to be completed for Site 11CA60, located on USFWS land, to determine eligibility for the NRHP (Kruchten 2025, personal communication).

In response to the LRA's expansion of their proposed dredging area in Brickhouse Slough and the main channel of the Mississippi River, the Army sent consultation letters to stakeholders on July 21, 2025, describing the change in the LRA's plan. The Army received responses from the USFWS UMRNWER Savanna District Office and the U.S. Department of Transportation Maritime Administration Office in St. Louis, MO. They did not express any concerns about cultural resources.

Table O-1. Cultural Resources within a 5-km (3.1-mile) Radius of LRA Parcel 20

Site number	Time period	Site type	NRHP eligible	Under HSPA	Survey date(s)
11CA1	Mississippian with smaller Woodland and 19th–20th century components	Habitation	Eligible	No	1932, 1997, 1998, and 2020
11CA2	Mississippian with smaller Woodland and 19th–20th century components	Habitation	Eligible	No	1932, 1997, 1998, 2020, and 2023
11CA3	Prehistoric	Mounds	Not assessed	Yes	1920s
11CA44	Late Woodland	Mounds and town	Potentially	Yes	1974, 1989, and 1994
11CA45	Archaic	Camp	Not assessed	No	1974
11CA46	Archaic	Camp	Not assessed	No	1974
11CA47	Archaic	Camp	Not assessed	No	1974
11CA48	Woodland	Habitation	Not assessed	No	1974
11CA49	Early Woodland and historic	Habitation	Not assessed	No	1974
11CA50	Prehistoric	Camp	Not assessed	No	1974
11CA51	Woodland	Unspecified	Not assessed	No	1974
11CA52	Archaic	Camp	Not assessed	No	1974
11CA53	Woodland	Habitation	Not assessed	No	1974
11CA54	Woodland	Habitation	Not assessed	No	1974
11CA55	Woodland and Mississippian	Unspecified	Not assessed	No	1974
11CA56	Late Woodland and Mississippian	Habitation	Not assessed	No	1974
11CA58	Late Archaic	Camp	Not assessed	No	1974
11CA60	Mississippian	Habitation	Not assessed	No	1974
11CA138	Late Woodland	Habitation	Not assessed	No	1996
11CA139	Late Woodland and Upper Mississippian	Habitation	Further review required	No	1997 and 2005
11CA140	Prehistoric	Scatter	Not eligible	No	1997
11CA141	Prehistoric	Scatter	Not eligible	No	1997
11CA142	Woodland with smaller Mississippian and historic components	Habitation	Eligible	No	1998 and 2020
11CA143	Late Woodland	Habitation	Further review required	No	1998
11CA144	Woodland	Scatter	Not eligible	No	1998
11CA145	Woodland	Habitation	Not eligible	No	1998
11CA146	Woodland	Habitation	Not eligible	No	1998
11CA147	Woodland	Habitation	Further review required	No	1998
11CA148	Woodland	Habitation	Further review required	No	1998
11CA149	Woodland	Habitation	Further review required	No	1998

Site number	Time period	Site type	NRHP eligible	Under HRP A	Survey date(s)
11CA150	Late 19th–20th century	Habitation	Further review required	No	1998
11CA151	Prehistoric	Scatter	Not eligible	No	1998
11CA152	Prehistoric	Scatter	Not eligible	No	1998
11CA153	Prehistoric	Scatter	Not eligible	No	1998
11CA161	19th–20th century	Habitation	Not eligible	No	2000
11CA162	Prehistoric	Habitation	Further review required	No	2000
11CA163	19th–20th century	Habitation	Not eligible	No	2000
11CA172	Late 19th–20th century	Unspecified	Not eligible	No	2005
11CA173	19th century	Habitation	Not eligible	No	2005
11CA174	19th–20th century	Unspecified	Not eligible	No	2005
11CA194	19th–20th century	Scatter	Not eligible	No	2020
11JD11	Upper Mississippian	Mounds and town	Not assessed	Yes	1945 and 1981
11JD40	Prehistoric	Mounds	Not assessed	Yes	1926 and 2020
11JD72	Prehistoric	Mounds	Not assessed	Yes	1927
11JD73	Prehistoric	Mounds	Not assessed	Yes	1927
11JD74	Prehistoric	Mounds	Not assessed	Yes	1927
11JD88	Late Woodland	Camp	Not assessed	No	1972
11JD89	Early Archaic and Late Woodland	Mounds and habitation	Not assessed	Yes	1972 and 2001
11JD90	Woodland	Mounds	Not assessed	Yes	1972
11JD97	Late Woodland and Mississippian	Habitation	Not assessed	No	1974 and 1979
11JD98	Mississippian	Camp	Not assessed	No	1974
11JD99	Mississippian	Habitation	Not assessed	No	1974
11JD111	Prehistoric	Mounds	Not eligible	Yes	1978, 1979, and 2015
11JD139	Prehistoric	Habitation	Not assessed	No	1981
11JD140	Mississippian	Habitation	Not eligible	No	1981
11JD162	Late Woodland	Camp	Not assessed	No	1983
11JD352	Late Woodland	Habitation	Not assessed	No	1986–1995
11JD356	Late Woodland	Habitation	Not assessed	No	1986–1995
11JD440	Prehistoric	Habitation	Not assessed	No	1986–1995
11JD825	Prehistoric	Mounds	Not assessed	Yes	N/A

Source: IAS 2025.

Notes: HRP A = Human Remains Protection Act; N/A = not applicable.

O.2 Cultural Setting – Prehistory and History

Human settlement of the northwestern Illinois region dates upwards of 16,000 years of occupation. Archaeologists have divided the millennium of occupation into theoretical periods based on changes in technologies and settlement behaviors throughout time, which represent developments in the region's cultural and physical environment. The evolution of the cultural resources associated with LRA Parcel 20 follows the general temporal trends of the Midwest region with some evidence of sub-regional variation. Archaeologists have identified four general time periods for the Midwest region: the Paleoindian, Archaic, Woodland, and Mississippian. The Archaic and Woodland periods can be further divided into early, middle, and late sub-periods. Following is a discussion of the general characteristics of these temporal categorizations and sub-regional deviations specific to the sites associated with LRA Parcel 20.

The Paleoindian Period in the Midwest dates between circa 14000 Before Contact (BC) and 8000 BC. During that period, communities primarily operated in small, kin-based egalitarian bands of highly mobile foragers who subsisted on a combination of megafauna, smaller game, and local flora. As the climate became more temperate throughout the period, deciduous forests replaced boreal-coniferous forests and megafauna largely became extinct. Local populations adapted to the changes by relying more heavily on local and seasonally available foodstuffs. The climatic changes of the region also resulted in a diagnostic shift in lithic tool production from large, fluted points to smaller points and unifacial and bifacial tools that more efficiently assisted later subsistence practices (McGowan 2005; Miller et al. 1999; Perash and Sweeny 2021). None of the sites within a 5-kilometers (km) (3.1-mile) radius of LRA Parcel 20 include a Paleoindian component.

Settlement and material trends that began to appear during the latter portion of the Paleoindian Period continued and intensified during the Early Archaic Period (8000 BC to 6000 BC). Researchers argue that Early Archaic Period populations were small, highly mobile, kin-based bands of foragers who subsisted on seasonally available foodstuffs within the local riverine and forested environments. Early Archaic populations also used a more diverse lithic toolkit reflecting more generalized subsistence strategies and site activities. Diagnostic lithic tools from the period include Dalton cluster, Agate Basin, Palmer corner-notched, Kirk stemmed and corner-notched clusters, LeCroy cluster, Hardin barbed, and Thebes cluster projectile points (McGowan 2005; Miller et al. 1999; Perash and Sweeny 2021; Whitman and Young 1998). Site 11JD89 is the only cultural resource within the 5-km (3.1-mile) radius of LRA Parcel 20 that has an Early Archaic component.

Cultural developments of the Middle Archaic Period (6000 BC to 3000 BC) largely evolved out of the Hypsithermal Climate Optimum (circa 7500 BC to 3500 BC), a warming period that resulted in the depletion of upland environments due to the expansion of savannas with scattered oak groups throughout the Midwest. While settlements during the period typically clustered near water resources, Miller et al. (1999) argued that the climatic shift was less extreme in northwest Illinois because of the evidence of some regional occupation of upland environments. Populations continued to diversify their subsistence strategies by intensifying seasonal resources exploitation; exploiting resources from both upland and riverine habitats; and improving hickory nut processing. These shifts supported regional population growth and ethnic, tribal, and kin-based communities occupying multi-seasonal base camps for longer durations. Many of the diagnostic side-notched lithic projectile points manufactured in this period, including Black Sand, Brannon, Faulkner, and Raddatz points, continued to be produced into the Late Archaic

Period, making it difficult to identify Middle Archaic Period sites (McGowan 2005; Miller et al. 1999; Perash and Sweeny 2021; Whitman and Young 1998). There are no sites with a Middle Archaic component within the 5-km (3.1-mile) study area.

By the Late Archaic Period (3000 BC to 1000 BC), the regional environment stabilized to more modern conditions, which resulted in deciduous forests reaching their maximum northern extent and water levels rising. These more predictable environmental conditions allowed populations to more heavily exploit mast and freshwater resources and begin cultivating native plants (i.e., sumpweed, maygrass, goosefoot, and sunflower) and squash. Archaeological evidence indicates that Late Archaic populations continued to grow and became more sedentary as communities began to practice a seasonal round method of settlement. Increased sedentism among communities resulted in an increase in regionalization of lithic practices. Diagnostic lithic projectile points for the period include Etley, Sedalia lanceolate, Merom expanding stem, and Trimble points. In addition, the first evidence of mound construction occurred during the period. While developing stronger connections to local landscapes, Late Archaic populations also established long-distance trade networks that extended to Yellowstone in Wyoming (obsidian), the Great Lakes (copper), and the Gulf of America (marine shell) (Bradbury et al. 2000; McGowan 2003; Miller 1999; Perash and Sweeney 2021). There is a single site with a Late Archaic component (Site 11CA58) within the 5-km (3.1-mile) study area for this project.

The Early Woodland Period (1000 BC to Anno Domini [AD] 100) is largely considered by researchers as an extension of the Late Archaic Period because there was a continuation of Late Archaic cultural trends, including population growth, increased sedentism, involvement in long-distance trade, and growing reliance on horticulture as a form of subsistence. Communities within the region continued to practice a seasonal round system of settlement. An increased investment in horticulture, however, resulted in populations settling into riverine environments where annual flooding and suitable drainage assisted in the success of plant cultivation and domestication. While lithic production continued to become more regionalized, lithic toolkits also reflected the growing need for food production and processing implements. Diagnostic lithic artifacts from the Early Woodland include Waubesa contracting stemmed points. Early Woodland populations also participated in long-distance trade networks and constructed conical mounds. A central difference between the Late Archaic and Early Woodland periods in the region was the introduction of ceramic manufacturing. Diagnostic ceramic types from the Early Woodland Period include grit-tempered, Marion type ceramics (Bradbury et al. 2000; McGowan 2003; Miller 1999; Perash and Sweeney 2021). There are no sites with an identifiable Early Woodland component within the 5-km (3.1-mile) study area for this project.

The Middle Woodland Period (AD 100 to AD 650) is largely defined as a series of cultural developments influenced by the Hopewellian Interaction Sphere. The local adaptations to Hopewellian influences are referred to as the “Nickerson Focus.” Evidence of regional participation in the Hopewellian Interaction Sphere includes the presence of exotic goods (e.g., marine shells, copper, and mica), exotic lithic materials (e.g., obsidian), and Hopewellian influence on locally produced artifacts such as ceramics. While populations participated in extended trade networks, their catchment areas decreased in size as an increased reliance in horticulture allowed larger populations to occupy less space. There are four archaeological site types associated with the Middle Woodland Period: regional centers with mounds and other earthworks, villages near tributaries, procurement/special activity sites in bottomlands, and singular burial mounds atop bluffs. Regionally diagnostic artifacts include Snyders, Gibson,

Manker, and Norton projectile points and Baehr, Havana, Hopewell, and Weaver series ceramics (Bradbury et al. 2000; McGowan 2003; Miller 1999; Perash and Sweeney 2021). None of the sites within 5 km (3.1-mile) of the project area have a Middle Woodland component.

The Late Woodland Period dates from circa AD 650 to AD 1050. As in earlier periods, Late Woodland populations continued to grow. Local communities practiced a horticultural subsistence strategy in which they increasingly relied on Three Sisters Agriculture (beans, maize, and squash). In addition, Late Woodland hunters became more efficient at capturing large game with the introduction of the bow and arrow. Decreasing catchment areas and increasing populations, however, resulted in pressures on the land that led to groups needing to splinter off into less and less suitable environments. During this period, there also is less evidence of trade of exotic goods. The local adaptations to the Late Woodland Period are characterized as the “Chapman Focus.” Chapman Focus sites are characterized as including effigy, linear, and/or conical mounds; triangular and small stemmed, notched projectile points; and grit-tempered ceramics. Diagnostic artifacts for the Late Woodland Period include Jack’s Reef, Chesser Notched, Madison, and Hamilton Incurvate projectile points and Madison and Grant cord-impressed ceramics (Bradbury et al. 2000; McGowan 2003; Miller 1999; Perash and Sweeney 2021). There are 11 sites within the 5-km (3.1-mile) study area—sites 11CA44, 11CA56, 11CA138, 11CA139, 11CA143, 11JD88, 11JD89, 11JD97, 11JD162, 11JD352, and 11JD356—that have a Late Woodland component.

The Apple River region during the Mississippian Period (AD 1050 to AD 1650) is an important case study in the regionalization of Mississippian culture. General trends during that period include the intensification of Three Sisters Agriculture; pressures on carrying capacity; and the development of large, complex multilineage villages. The Mississippian Period is separated into two phases within the Apple River region: the Bennett Phase (AD 1050 to AD 1200) and the Mills Phase (AD 1200 to AD 1300). Bennett Phase sites are characterized as having both local Late Woodland and Mississippian traits. Ceramics associated with these sites are shell tempered and include both Late Woodland and Mississippian traits. The earthworks associated with these sites, large conical and truncated pyramid mounds, plazas, and wall trenches, are indicative of the influence of Mississippian culture. Emerson (1991) argued that Bennett Phase communities in the region were likely a coalescent society made up of local Late Woodland groups and immigrant Middle Mississippian groups. Sites associated with the Mills Phase represent a period of localization, primarily represented through ceramic assemblages. The shell-tempered ceramics produced during the Mills Phase appear to demonstrate Late Woodland or Mississippian traits less often and rather increasingly demonstrate regional homogenization of ceramics. Emerson (1991) argued that communities associated with the Mills Phase became more insular. There is little evidence of occupation in the study area following the Mills Phase. Diagnostic artifacts for this period include unnotched triangle and Cahokia side-notched projectile points and shell-tempered ceramics, including Ramey Incised wares (Bradbury et al. 2000; Emerson 1991; McGowan 2003; Miller 1999; Perash and Sweeney 2021). There are 12 sites within the 5-km (3.1-mile) study area—sites 11CA1, 11CA2, 11CA55, 11CA56, 11CA60, 11CA139, 11CA142, 11JD11, 11JD97, 11JD98, 11JD99, and 11JD140.

The Historic Period (AD 1650 to present) associated with the study area is defined by a period of contact, colonization, agricultural development, industrialization, and finally the construction of the Savanna Army Depot. The first recorded interaction between Indigenous populations in the region and European travelers occurred in 1673 during the Marquette and Jolliet exploration of

the Illinois River. Sustained European-American settlement of the region did not begin until the early 19th century. Inhabitants of the region primarily engaged in agricultural activities or lead mining ventures. The proposed project area was used for agriculture and remained rural until the establishment and construction of the Savanna Army Depot from 1917 to 1918. The Depot remained open until its closure in 2000.