ARCHEOLOGICAL SURVEY OF THE WAKARUSA WATERSHED (YANKEE TANK) PROJECT, AN NRCS PROJECT IN DOUGLAS COUNTY, KANSAS

Report submitted to the Natural Resources Conservation Service,
Salina, Kansas

by John Tomasic
Archeology Office, Cultural Resources Division
Kansas State Historical Society
December 1st, 2009

ARCHEOLOGICAL SURVEY OF THE WAKARUSA WATERSHED (YANKEE TANK) PROJECT, AN NRCS PROJECT IN DOUGLAS COUNTY, KANSAS

by John Tomasic
Archeology Office, Cultural Resources Division
Kansas State Historical Society
December 1st, 2009

INTRODUCTION

In accordance with the goals and procedures of the Cooperative Agreement between the Kansas State Historical Society (KSHS) and the Natural Resources Conservation Service (NRCS), the Kansas State Historical Society (KSHS, or "the Society") recently completed a Phase II archeological field survey investigation of an NRCS project known as the Wakarusa Watershed Site Number 24 Project, also known as the Yankee Tank Project. The purpose of the investigation was to determine whether any significant archeological resources would be affected by the proposed project. More specifically, the investigation was conducted to ensure compliance with various laws governing the treatment of cultural resources, particularly Section 106 of the National Historic Preservation Act and its implementing regulation, 36 CFR 800.

As required by the terms of the Cooperative Agreement, a Phase II survey must result in a report submitted to NRCS and the State Historic Preservation Officer (SHPO) wherein the investigation is described and recommendations are made for clearance or for further work to be done. This report was prepared to comply with that requirement. In accordance with the SHPO's request that site locational data be left out of the text of reports such as these, and to enable the easy removal of such data from copies of reports so as to guarantee confidentiality, all of the maps and figures pertaining to this investigation are contained within Appendix I.

As currently planned, the project may involve the repair or removal of an existing dam as well as borrow and waste activities associated with the dam repair and/or removal. The project is located on the western edge of the city of Lawrence in Douglas County, Kansas (Figure 1).

The Phase II investigation was initiated by earlier correspondence between the Society and NRCS relating to the potential impact of the project on cultural resources. A Phase I investigation (archival research) was requested by NRCS on November 4th, 2009. After reviewing the available documentation and consulting with the SHPO, the Society concurred that a Phase II field survey investigation be performed. Based on comments by the SHPO, the primary purpose of the investigation was to determine whether cultural resources would be affected by the proposed borrow removal and waste depositional activities associated with the dam project. The recommended fieldwork was thereby carried out by Society staff archeologist John Tomasic on November 19th, 2009.

ENVIRONMENTAL SETTING

In physiographic terms, the project area is located within the Osage Cuestas division of the Osage Plains section of the Central Lowland province of the Interior Plains division of North America (Schoewe 1949:283-286). The bedrock of the region consists of interbedded limestone, shale, and sandstone formations of Pennsylvanian age. Exposure and differential erosion of the unequally resistant, westward sloping strata at the ground surface has created a series of low parallel ridges. These "cuestas" have steep, rugged, east facing escarpments that front on broad, gently inclined, westward sloping vales. Thus, the topography consists of long, low rolling hills and wide, shallow valleys. In general, the escarpments exhibit an irregular northeast-southwest trend. The major stream courses, however, flow to the east and southeast, transverse to the direction of the escarpments and against the westward dip of the rock formations.

The prehistoric vegetation of the Osage Cuestas was open prairie penetrated by thin ribbons of riverine forest. Kuchler (1974) lists the Cuestas as part of the tall grass bluestem prairies, described more specifically as an area with extensive interspersion of forest and prairie. Soil survey data and early historical accounts indicate that the wooded areas were confined to the floodplains and valley edges of the major stream courses and their tributaries. The timber consisted of medium tall to tall broadleaf deciduous forests, often with dense undergrowth and many lianas. Oak, black walnut, hickory, hackberry, cottonwood, willow, and elm were common along with a variety of smaller species such as persimmon, papaw, elderberry, serviceberry, chokecherry, and wild grape. Forestation was apparently not pervasive even in bottomland locations, however, since many of the common stream course soils have characteristics indicating that they developed under a native vegetation of both tall grasses and hardwood trees. In any case the forest belts and nearby prairies of the Osage Plains provided shelter and food for plentiful mammalian fauna, including bison, elk, deer, antelope, and bear, while the streams yielded an abundance of edible fish and shellfish. Wild turkey, prairie chicken, ruffed grouse, and quail were also available, and ducks and geese were present on a seasonal basis (Wedel 1959:14).

The natural ecology of the region has been greatly altered by modern land-use practices. Today, most of the lands within this part of the state are used for agricultural purposes, primarily the pasturing of cattle and the cultivation of crops such as wheat, corn, milo, and soybeans.

In terms of ground conditions within the project area, large portions of the project area were disturbed by modern construction activities, located on steep slopes in excess of 25 degrees, and lay beneath the surface of the water in the Yankee Tank reservoir (Figures 2-3). Remaining portions of the survey area were sparsely covered in patches of short grass, and ground visibility within these semi-grassy areas ranged from 50-100%

CULTURAL-HISTORICAL SETTING

Archeologically, research in this region of Kansas has yielded evidence of prehistoric human occupation dating from around 11,000 years ago and extending up to the modern era, and certainly has the potential for yielding more such evidence. Sites in the region usually represent habitation areas or small workshops and more rarely occur as villages or burials. While the full

extent of the area's archeological resources has yet to be determined, it is clear that the region contains materials deriving from all of the major cultural periods thus far identified in Kansas, i.e.,

Paleoindian	circa 9,000 B.C. to 7,000 B.C.
Archaic	circa 7,000 B.C. to A.D. 1
Early Ceramic	circa A.D. 1 to A.D. 1000
Middle Ceramic	circa A.D. 1000 to A.D. 1500
Late Ceramic	circa A.D. 1500 to A.D. 1800
Historic	A.D. 1541 to present

The list consists of broad and somewhat artificial categories, and there is some temporal overlap between periods. As might be expected, more is known about the most recent inhabitants than is known about the earliest (Lees 1989; Brown and Simmons 1987; Thies 1987; Wedel 1959).

With regard to the project that is the subject of this report, documentation consulted during the Phase I investigation indicated that no archeological sites had been reported in or near the project area. The topographic setting, however, suggested that there was some potential for prehistoric sites to be present. Since the project area had never been professionally inspected for archeological remains, a Phase II field survey was recommended.

RESEARCH METHODOLOGY

The Phase II investigation consisted of a field inspection of the project area, including an intensive pedestrian survey of that area and a reconnaissance survey of the surrounding area. Following consultation with the SHPO, portions of the project area disturbed by modern construction activities and/or located on steep slopes in excess of 25 degrees were not surveyed, due to the low potential of these areas to contain surface archeological deposits. Areas beneath the surface of the water in the Yankee Tank reservoir were impossible to survey. Remaining portions of the survey area were sparsely covered in patches of short grass, and ground visibility within these semi-grassy areas ranged from 50-100%. These high potential areas were systematically surveyed by a series of pedestrian transects spaced 15 meters apart and oriented in a concentric pattern radiating outward from the edges of the Yankee Tank Reservoir. Areas of high topographic potential for the finding of prehistoric archeological remains were criss-crossed to ensure that no archeological remains would be overlooked. The amount of land covered in this survey amounted to approximately 20 acres (see Figures 2-3).

SURVEY FINDINGS AND CONCLUSIONS

Despite the intensity of the survey and the presumed potential of the area to contain cultural remains, no significant cultural resources were found within the project area. To use the language employed in 36 CFR 800.4, the investigation produced a finding of “no historic properties affected.” We therefore recommend that the project proceed as planned, with no additional investigations unless archeological discoveries are made during the course of the project.

It is always possible, of course, due to the nature of archeological manifestations, that buried cultural deposits could be encountered. If that occurs, the remains should be left in place and the State Archeologist contacted immediately so that appropriate mitigative actions can be carried out as soon as possible.

John Tomasic
Archeology Office, Cultural Resources Division
Kansas State Historical Society
December 1st, 2009

REFERENCES CITED

Brown, Kenneth L. and Alan H. Simmons, editors
1987 Kansas prehistoric archeological preservation plan. Unpublished report prepared for the Historic Preservation Department, Kansas State Historical Society, by the Office of Archeological Research, Museum of Anthropology, University of Kansas, Lawrence. Ms. on file, Kansas State Historical Society, Topeka.

Kansas Department of Transportation
2000 General Highway Map of Douglas County. Electronic version accessible at http://www.ksdot.org/burtransplan/maps/Mapscounties.asp

Kuchler, A. W.
1974 A new vegetation map of Kansas. Ecology 55(3):586-604.

Lees, William B.
1988 Kansas preservation plan, section on Historical Archeology. Unpublished report prepared for the Historic Preservation Department, Kansas State Historical Society, by the Archeology Department, Kansas State Historical Society. Ms. on file, Kansas State Historical Society, Topeka.

Schoewe, W. E.
1949 The geography of Kansas, part II, physical geography. Transactions of the Kansas Academy of Science 52(3): 261-333.

Thies, Randall M.
1987 Kansas Culture History. In Amateur Archeological handbook for Kansas, Kansas Anthropological Association Journal 7(1-9):35-51.

United States Geological Survey
1950 7.5 minute Topographic Map, Lawrence West Quadrangle.

Wedel, Waldo R.
1959 An introduction to Kansas archeology. Smithsonian Institution, Bureau of American Ethnology, Bulletin 174.

APPENDIX I.

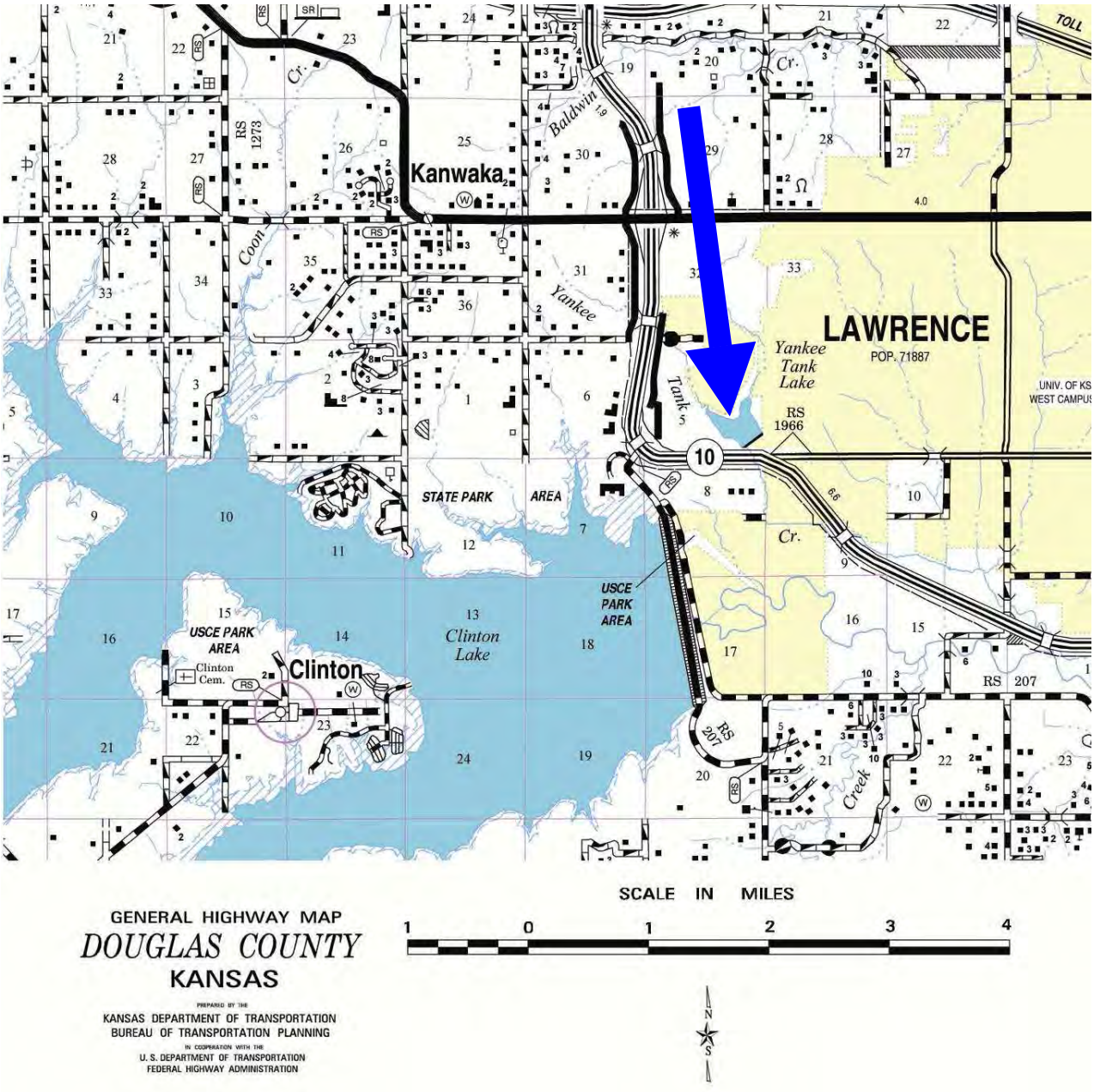

FIGURE 1. Section of Douglas County highway map, showing the general location of the NRCS Wakarusa Watershed project, as indicated by the blue arrow.

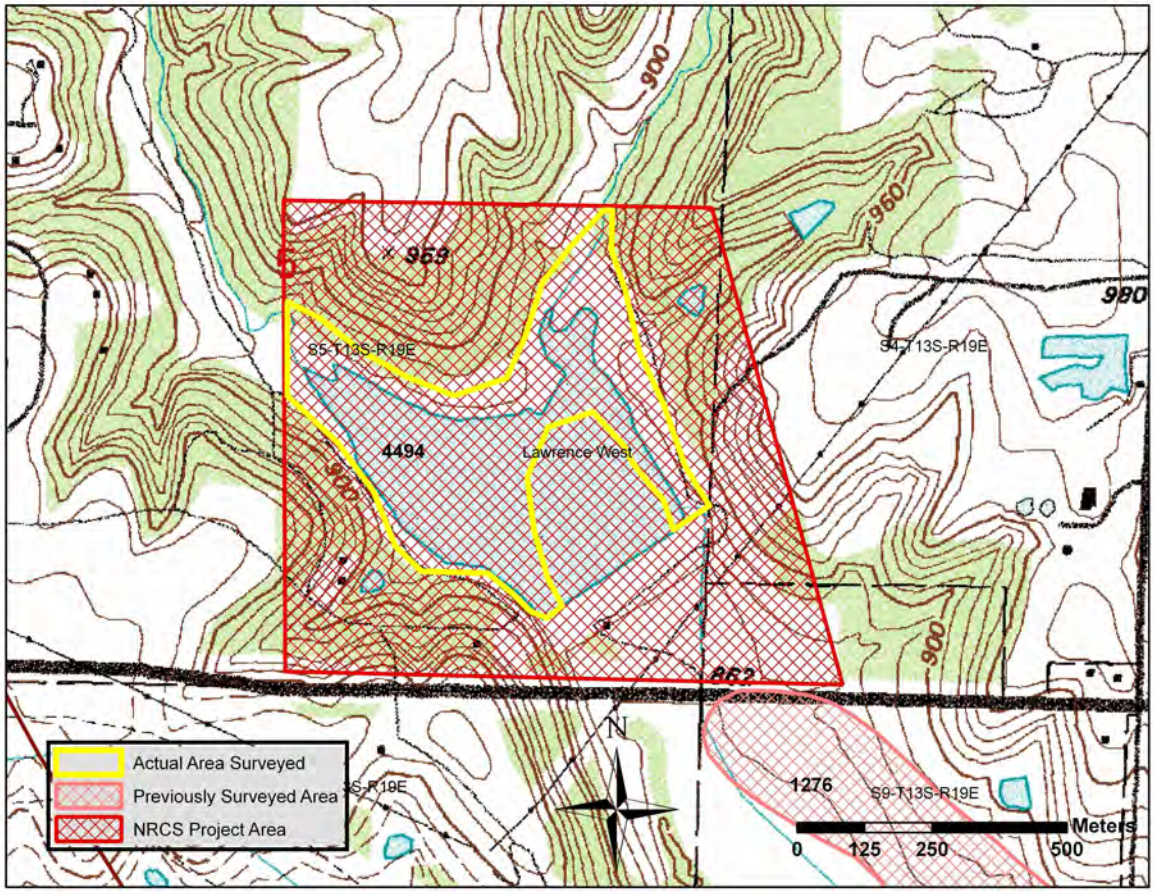

FIGURE 2. Section of U.S.G.S. topographic map (Lawrence West quadrangle, Section 4 and Section 5 Township 13S Range 19E), showing the location and general extent of the project and areas subjected to pedestrian inspection.

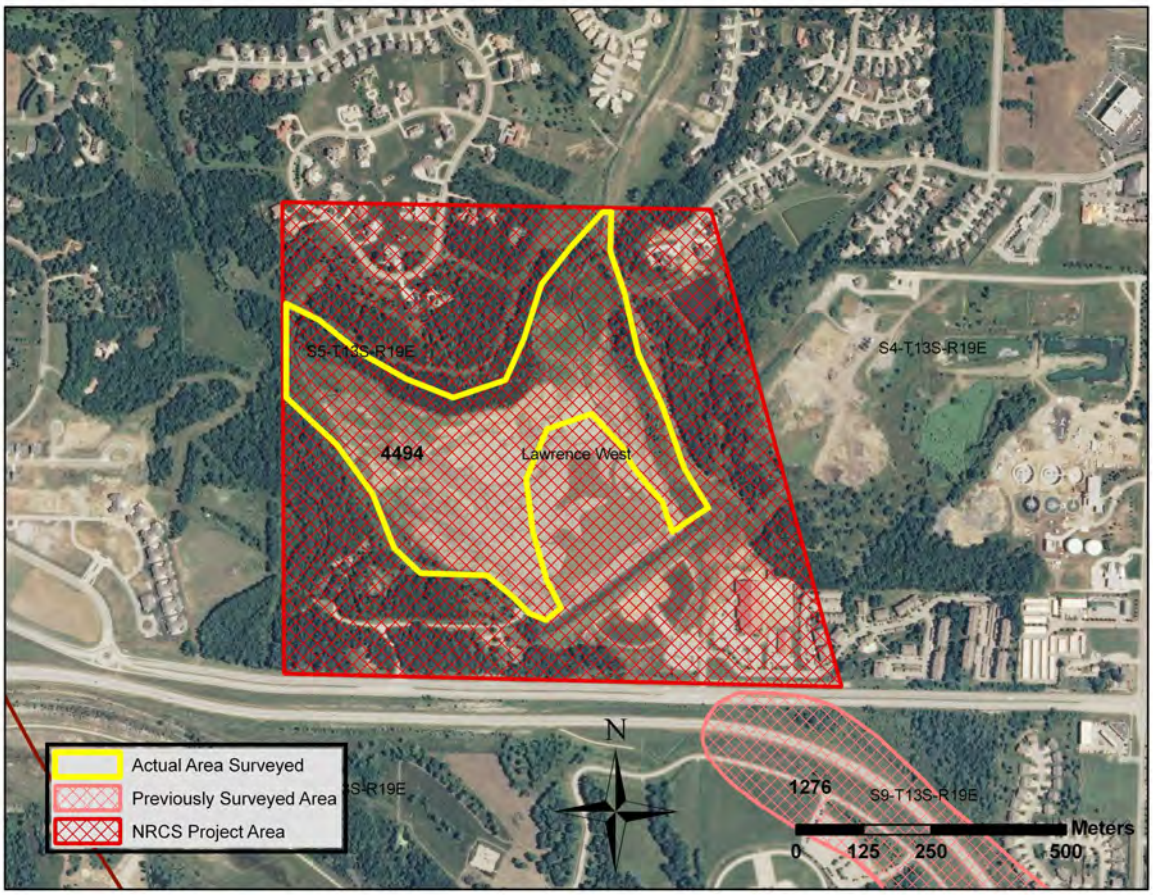

FIGURE 3. Satellite image showing the location and general extent of the project and the areas subjected to pedestrian inspection during the Phase II survey.

KANSAS

Kansas Historical Society
Cultural Resources Division

MARK PARKINSON, GOVERNOR

December 1st, 2009

Eric B. Banks, State Conservationist
Natural Resources Conservation Service
760 South Broadway
Salina, Kansas 67401

ATTN: Dean Krehbiel, Cultural Resources Coordinator

RE: Wakarusa Watershed (Yankee Tank) Project
Douglas County, KS

Dear Sir:

Staff review of the above referenced project has been completed. Pursuant to 36 CFR 800.4, we concur with the finding of no historic properties affected for the above referenced undertaking. We therefore have no objection to implementation of the project.

Sincerely yours,

Jennie Chinn
State Historic Preservation Officer

Patrick Zollner
Deputy State Historic Preservation Officer

jt

6425 SW Sixth Avenue • Topeka, KS 66615-1099
Phone 785-272-8681 Ext. 214 • Fax 785-272-8682 • Email wbanks@kshs.org • TTY 785-272-8683
www.kshs.org

KANSAS

Kansas Historical Society
Cultural Resources Division

MARK PARKINSON, GOVERNOR

December 1st, 2009

Eric B. Banks, State Conservationist
Natural Resources Conservation Service
760 South Broadway
Salina, Kansas 67401

ATTN: Dean Krehbiel, Cultural Resources Coordinator

RE: Wakarusa Watershed (Yankee Tank) Project, Douglas County

Dear Sir:

In accordance with the goals and procedures of the Cooperative Agreement between the Kansas State Historical Society (KSHS) and the Natural Resources Conservation Service (NRCS), the Society has completed a Phase II field survey investigation of the above referenced project. The fieldwork was conducted by Society staff archeologist John Tomasic on November 19th, 2009. Enclosed, you will find a report of that investigation.

In brief, no significant archeological sites were found in or adjacent to the specified project area. We therefore recommend that the project proceed as planned with no further archeological investigations. A copy of the enclosed report, containing this recommendation, has been sent to the State Historic Preservation Officer for review.

Of course, due to the nature of archeological manifestations, it is always possible that buried cultural deposits could be encountered during the course of the project. If that occurs the remains should be left in place and the State Archeologist contacted immediately so that the appropriate mitigative measures can be carried out as soon as possible.

Thank you for your cooperation in helping to preserve the State's archeological resources. The costs incurred during the course of our investigation are detailed below. The actual invoice will be presented in our regular billing.

Sincerely,

For the State Archeologist:

John Tomasic, Archeologist

6425 SW Sixth Avenue • Topeka, KS 66615-1099
Phone 785-272-8681 Ext. 267 • Fax 785-272-8682 • Email rthies@kshs.org • TTY 785-272-8683
www.kshs.org