A. Name of Multiple Property Listing

Prehistoric Sites of Wildcat Creek Watershed, Riley County, Kansas

B. Associated Historic Contexts

(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

I. Culture History: Adaptations to Environmental and Social Change
   A. Paleoindian
   B. Archaic
   C. Woodland
   D. Late Prehistoric

C. Form Prepared by

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D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR 60 and the Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation.

Signature and title of certifying official | Date

State or Federal Agency or Tribal government

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

Signature of the Keeper | Date of Action
Table of Contents for Written Narrative

Provide the following information on continuation sheets. Cite the letter and title before each section of the narrative. Assign page numbers according to the instructions for continuation sheets in National Register Bulletin How to Complete the Multiple Property Documentation Form (formerly 16B). Fill in page numbers for each section in the space below.

E. Statement of Historic Contexts
(if more than one historic context is documented, present them in sequential order.)

I. Culture History: Adaptations to Environmental and Social Change
   A. Paleoindian (11,000 – 7000 BC)
   B. Archaic (7000 BC – AD 1)
   C. Woodland (AD 1 – 1000)
   D. Late Prehistoric (AD 1000 – 1500)

F. Associated Property Types
(Provide description, significance, and registration requirements.)

I. House Sites
II. Camp Sites
III. Kill and Butchery Sites
IV. Lithic Procurement Sites and Workshops
V. Burial Sites

G. Geographical Data

H. Summary of Identification and Evaluation Methods
(Discuss the methods used in developing the multiple property listing.)

I. Major Bibliographical References
(List major written works and primary location of additional documentation: State Historic Preservation Office, other State agency, Federal agency, local government, university, or other, specifying repository.)

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

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STATEMENT OF HISTORIC CONTEXTS

Wildcat Creek is a tributary of the Kansas River in Riley County, Kansas. This stream heads near the modern town of Riley, flows in part through a portion of the present Fort Riley Military Reservation before continuing across private lands in the western portion of the Manhattan Urban Area, to its mouth in the city of Manhattan. The area drained by Wildcat Creek, approximately 99.5 square miles (258 km²), offers archaeologists a laboratory in which to explore cultural adaptations in the northern Flint Hills region of the central Great Plains from at least 13,000 years ago to historic time. This physiographic province spans north to south the mixed-grass prairie of eastern Kansas. Several limestone members of its bedrock provided an abundant source of cherts, an essential raw material of stone-age peoples. Numerous other natural resources, such as water, varied wild plants and animals, clay, and arable lands, are also readily available. Previous archaeological surveys and evaluations have identified numerous archaeological sites in the Wildcat Creek watershed, demonstrating that many people made this their home over thousands of years. These resources hold potential for understanding cultural changes spanning the Late Pleistocene (Paleoindian) through the mid-Holocene episode of maximum post-glacial aridity called the Altithermal (Middle Archaic) to the Medieval Warm Period (Late Prehistoric). Significant sites within the watershed provide windows into the various periods of human occupation of this region and as a set allow understanding of the cultural dynamics of the native peoples of this region over thousands of years. For these reasons, discussed in more detail in the following narrative, significant prehistoric sites in Wildcat Creek watershed deserve placement in the National Register of Historic Places as part of this Multiple Property Nomination.

Background

Archaeologists have documented at least 13,000 years of human occupation in north-central Kansas through the discovery and analysis of remains assigned to the Paleoindian, Archaic, Woodland, Late Prehistoric, Protohistoric, and Historic periods (Adair 1996; Blackmar and Hofman 2006; Brown and Simmons 1987; Lees 1989; Logan 1996, 2006a, 2006b; O’Brien 1984; Reynolds and Lees 2004; Roper 2006a; Wedel 1959). All of these periods of human adaptation are represented at archaeological sites in Wildcat Creek valley or its general vicinity (Ritterbush 2009). Those significant resources provide insight into past human lifeways and adaptations to both physical and social factors that have yet to be fully revealed and understood.

I. Culture History: Adaptations to Environmental and Social Change

Various archaeological cultures have been defined for the Central Plains and several of these are represented at sites in the Wildcat Creek watershed. Many of the sites recorded to date are of ceramic-age, which reflects primarily their surface exposure or shallow burial. These have attracted the most intensive investigation providing insight into the local Woodland (AD 1-1000) and Late Prehistoric (AD 1000-1500) period occupation of Wildcat Creek valley. It is apparent in the following discussion that
much more is known about those periods than the longer time preceding them (Paleoindian and Archaic). Nonetheless, there are sites of Late Pleistocene and Early to Mid-Holocene age in the area that indicate the potential for more deeply buried sites as yet unrecorded. Relevant cultures and selected sites are described below with respect to their associated time periods.

A. Paleoindian (11,000-7,000 BC)

Evidence of Paleoindian (Late Pleistocene) activity in the Manhattan area, while limited, is significant and sufficient to demonstrate remains of that general period may be found in the Wildcat Creek watershed. There is a higher probability that they will be found in upland settings, where landforms have been subject more to net erosion or where deposition resulted in only shallow burial. However, these sites have also been documented in deeply buried contexts (see below). Secondarily deposited finds of Paleoindian artifacts may also be found in gravel deposits in the channel of the stream and those of its tributaries. Support for this potential comes from numerous finds of diagnostic Paleoindian artifacts in gravel bars along the Kansas River near Manhattan. These include Clovis, Folsom, and Plainview points (Brown and Logan 1987; Blackmar and Hofman 2006; Hofman 1996).

There is evidence of Paleoindian occupation in Riley County in the vicinity of Wildcat Creek valley, if not in the watershed itself. Excavations at the Mandel site (14RY6175) on a terrace along the Kansas River on the Ft. Riley Military Reservation discovered evidence of Paleoindian activity that included hunting of medium to large game. A unique example of this is a fragment of cancellous bone of a medium to large-sized mammal that contained an imbedded piece of light gray chert found at a depth of 2.9m. Radiocarbon dates from levels that bracket the find are 12,091±106 and 11,354±109 radiocarbon years before present (rcybp) (Sherman and Johnson 2006:22-23). The component that yielded this find also contained chipped stone tools and debitage.

Another site in the county that has provided information, albeit confined largely to surface collected material, is Diskau (14RY303), an upland occupation that also includes an Archaic and possible later components. It is located just west of Tuttle Creek Lake in Riley County on a minor tributary of the Big Blue River. A private collection donated to Kansas State University includes several fluted projectile points and other chipped stone tools, including spurred end scrapers, considered diagnostic of Clovis assemblages. Limited test excavations, not well reported, did not yield significant information (Schmits 1987; Schmits and Kost 1985). While Permian cherts from local sources are represented, most of the lithic material is exotic, including Smoky Hill silicified chalk, Flattop chalcedony, Knife River flint, Hartville Uplift quartzite, and Burlington chert, indicating a high degree of mobility by the site occupants, who ranged a wide area (Gottsfield 2009). The site has been interpreted as a short-term residential camp.
B. Archaic (7,000 BC-AD 1)

The longest temporal period of human prehistory in North America has been designated the Archaic and in the central Great Plains is often divided into three segments, Early, Middle, and Late. The first two were coincident with a post-glacial climatic regime of increasing aridity that peaked during the Middle Archaic and is called the Altithermal or Hypsithermal (Mandel 2006a:23-24). Throughout that time and the subsequent Late Archaic, cultural adaptations were marked by small, relatively mobile bands of hunter-gatherers whose settlement patterns were characterized by the occupation of seasonal camps. The locations and time of occupation were determined by the seasonal availability of various wild game and plant resources. While little is known about this period in the Central Plains, we are fortunate with regard to the Flint Hills in particular in having information from three well documented Middle Archaic sites that were occupied during the waning years of the Altithermal, Coffey, William Young, and Snyder. All of these, like many others of the period, are deeply buried due to valley aggradation and their discovery is often the result of lateral erosion of terrace fills that contain cultural horizons (Johnson and Logan 1990; Mandel 2006b).

The Coffey site (14PO1) is located in western Pottawatomi County on the eastern bank of the Big Blue River at Tuttle Creek Reservoir. A multi-component site with several buried cultural horizons, the most significant are III-5, III-7, and III-8, dated ca. 5270-5055 rcybp. Excavations there in the 1970s exposed 19 hearths and a single post mold; more recent investigations have reevaluated the chronostratigraphy and search for pre-Clovis deposits (McLean 2010). Studies of the soils and sediments that contain the horizons indicate the site was near an oxbow meander of the Blue River at the time of late Middle Archaic occupations. Plant and animal remains from the horizons point to a generalized subsistence economy by people who periodically camped there during the late summer and early autumn in order to exploit lowland and upland resources. Faunal remains include those of bison, deer, various aquatic animals (fish and waterfowl); plant remains include a variety of wild seeds and berries. Chipped stone tools consist of lanceolate bifaces, notched (both basal and corner) projectile point-knives, axes and gouges. In several regards these compare to the lithic assemblages from the William Young site, reflecting its affinity to the Munkers Creek phase. Ground stone tools include manos and metates. A unique find among Archaic sites in the central Great Plains is a fired clay bead, evidence of ceramic technology that did not then include pottery (Schmits 1978; Logan and Ritterbush 2001:424).

The William Young site (14MO304) is located near the confluence of Munkers Creek and its tributary Short Creek, both contributing to the Neosho River at Council Grove Reservoir in Morris County, Kansas. Of its Archaic horizons (2.1-6.1m in depth) Zone III yielded the most significant information about adaptations during the late Middle Archaic, specifically ca. 5400 rcybp (Witty 1982). Its 40 features included 16 hearths of burned limestone, burned earth, and charcoal; six pit hearths (shallow basins lacking burned limestone but with charcoal and oxidized soil), and six concentrations of charcoal. The molds of four posts were recognized though the kind of structure the posts supported could not be determined. Finally, eight areas of concentrated lithic debitage (tested pieces, cores, blanks, preforms, etc.) were found. Distinctive chipped stone axes, knives, and projectile points were recovered that are
now considered diagnostic of the Munkers Creek phase. Animal remains were dominated by deer and pronghorn, though as at Coffey they varied and reflect a similar generalized subsistence pattern. Knowledge of firing clay, noted above at Coffey, was exemplified at William Young by two human head effigies, the larger with a concave face, nose, eyes, and forehead with possibly a hairline or head band traced by incised lines and punctates. Here, too, mobility trumped the need for firing clay to make fragile containers, such as jars and bowls.

The Snyder site (14BU9) contained four buried horizons, the lower two at depths of 88-140cm and 140-190cm of Archaic age and assigned to the Eldorado and Chelsea phases respectively (Grosser 1977; Logan and Ritterbush 2001:428-429). It is located on the Walnut River in the Eldorado Reservoir, Butler County, Kansas. The Eldorado phase horizon, richer of the two, included a pit with burned limestone and earth, charcoal, bone, shell, discarded lithic tools, and debitage. As at Coffey and William Young, a few post molds were found but at Snyder they were associated with daub that suggested lodge remains albeit of indeterminable form. The horizon, dated ca. 3650 rcybp, included elongate, narrow stemmed projectile points, drills, scrapers, heavy duty bifacial tools, chipped stone axes, and ground stone tools. The more impoverished, featureless Chelsea phase horizon, dated 4900-4100 rcybp, yielded projectile points, heavy duty bifaces, a chopping tool, and grinding stones.

Although no Archaic sites have been studied in Wildcat Creek valley, their presence is suggested by surface finds of certain chipped stone tools For example, a Munkers Creek axe has been found eroding from a terrace scarp at the Allen site (14RY661) on Wildcat Creek (Ritterbush 2009:74).

C. Woodland (AD 1-1000)

Woodland period sites reflect the achievement of sedentism sufficient to leave, for the first time in the central Great Plains, evidence of houses, often associated with storage pits. Pottery also occurs frequently and abundantly, reflecting consistent use and prolonged settlement. While use of fragile ceramic containers had appeared in the earlier Late Archaic (Nebo Hill phase) in eastern Kansas, it was extremely limited because of continued seasonal mobility at that time (Reid 1980, 1983, 1984). During the Woodland period people were largely dependent on hunting and gathering of wild resources, though native domesticates were harvested in nearby areas. They continued to move between resources within a region establishing camps in or along stream valleys. Common use areas may have been marked by different families or bands with burial mounds or cairns on bluff tops overlooking stream valleys, including Wildcat Creek valley. Most of these features, more numerous in the northern Flint Hills than in other parts of Kansas, were vandalized during Euro-American settlement in the latter part of the nineteenth century and into the twentieth century. Relatively few of these ‘excavations’ were carefully documented, yet it is clear most of the ‘mounds’ were used as mortuary structures during the Woodland period (Failyer 1881; Griffing n.d., 1888, 1904; O’Brien 2004; Ritterbush and Logan 1991; Wedel 1959).
One of the most intact and well documented examples of a burial site in the northern Flint Hills is Younkin Mound (14GE6), excavated by Floyd Schultz, a self-taught amateur archaeologist of Clay Center. With help from Albert Spaulding of the University of Kansas, the first professional archaeologist on any university faculty in the state, Schultz's documented finds were professionally reported (Schultz and Spaulding 1948). The center of the 60ft (~18m) diameter mound, which had evidence of previous looting, contained broken and burned human skeletal remains (bundle burials), an extended burial, and associated artifacts including a miniature ceramic pot, other pottery sherds; modified animal bones, including perforated deer bones or “beads” of a presumed necklace; and a complete pipe. The pipe and ceramic vessel, like several of the other sherds with distinctive decorative treatment, are comparable to similar artifacts recovered from Hopewell sites in the lower Missouri River region. Younkin Mound is one of several mounds of Woodland age explored by Schultz and analyzed by Eyman (1966) and Phenice (1969), the former of whom relied exclusively on mortuary data from these features in the northern Flint Hills to define the Shultz phase of the Woodland period.

For many years what we knew of the Schultz phase was limited to treatment by native people of their dead rather than information about how they lived. Since 1970 archaeologists have explored a few habitation sites that provide some information about the latter, more critical aspects of this past culture. Evidence of these sites is well represented in Wildcat Creek valley and holds good potential for expanding our understanding of the daily lives of Woodland-era peoples in this region. These include Don Wells (14RY404), 14RY201, 14RY385, 14RY400, Young Buck (14RY402), 14RY405, 14RY406, 14RY427, 14RY428, 14RY431, 14RY432, and 14RY657. Two are discussed here, Don Wells and Young Buck, as they provide models for others known, but largely uninvestigated, or not yet discovered.

Don Wells (14RY404) was heavily damaged by construction of Wildcat Creek Golf Course in the 1990s. Prior to that a series of surveys from 1964 to 1966 by Michael Stanislawski noted burned limestone, chipped stone tools (points, scrapers, heavy duty chopping tools), a mano, and pottery sherds at the site when it was in a cultivated field. The site was surveyed again by Patricia J. O’Brien in 1970. That year she also led excavations in two areas of surface concentration. These exposed four possible post molds and recovered bison bone, a contracting-stemmed projectile point, bifaces, a drill, scrapers, retouched flakes, chipped stone debris, and pottery. The latter includes rocker-stamped sherds, a rim with cross-hatched incisions and punctates, and a miniature conical shaped pot. The latter are indicative of Hopewellian (Middle Woodland) ideals (O’Brien 1972). This material was all recovered from the plow zone.

Test excavations at Young Buck (14RY402), ~500m northeast of Don Wells, by KSU archaeologists in 2013 and 2014 yielded evidence of a buried (~25/30-50cm) Middle Woodland component that includes a corner-notched dart point and sherds of the same ware found at Don Wells. Present evidence is limited by the extent of excavations, but sufficient to infer a short-term camp that entailed cooking (pottery and hearthstones), chipped stone tool production (debitage), and use of tools associated with hunting (points) and butchering (a knife). (Interestingly, the latter is comparable in form to Late Archaic knives of the Munkers Creek phase, yet was found in direct association with Middle Woodland pottery.) This site is
listed in the National Register of Historic Places and promises with more extensive investigation to provide more evidence of Woodland period activity in Wildcat Creek valley.

Investigations of other Woodland habitation sites in the region also have been limited (e.g., Wedel 1959:198-200; Banks et al. 2001; Benison 2000; O’Brien and Parks-Mandel 2007). Of these, one has provided evidence of stratified components that reflect reoccupation and the processes of site burial, as well as radiocarbon dates that attest the timing of occupation. Macy (14RY38) is located near the mouth of a tributary of the Kansas River opposite modern downtown Manhattan. Archaeological mitigation for a highway bridge replacement uncovered five stratified components (1-5 from lowest to highest) of Woodland age, the uppermost also including Late Prehistoric and historic Euro-American material (Banks et al. 2001; Benison et al. 2000). The lower two components were 240-220cm and 220-200cm in depth and dated AD 2-258 (calibrated average of two radiocarbon dates) and AD 240-456 (one calibrated date), respectively, indicative of Middle Plains Woodland occupation. Two hearths were found in the less deeply buried cultural stratum. Both yielded chipped stone artifacts, but no ceramics or pit features, suggesting short-term encampments.

Additional evidence of other Woodland period occupations at the Macy site are present in components 3 and 4 at depths of 200-160cm and 140-100cm, respectively. The former lacks radiocarbon dates though its time of occupation is bracketed by those of the components below and above it at ~AD 240/456-531/654. It included two features, one a hearth and the other suggested to be either evidence of hearth cleaning or midden debris. A single body sherd was found in this stratum but its attributes were of such generic Woodland nature that it cannot be attributed to a specific archaeological culture. Component 4 was dated by a single radiocarbon assay to AD 531-654. It yielded a greater number of sherds and other artifacts and included a dense concentration of animal bone, lithic debris, and pottery suggested to be part of a midden. The greater variety of artifact types and higher ratio of tools to lithic debris from Components 3 and 4 were interpreted as evidence of more prolonged site occupation (Banks et al. 2001).

The inference of increased site activity and duration of occupation at Macy may reflect sample bias in that each component higher in the stratigraphic profile was represented by a greater area of excavation. Still, the site is significant as it reveals repeated occupations of one locale at different times through the Woodland period and that alluviation can bury such components beyond the reach of modern agricultural disturbance. Macy, like the Young Buck site, points to the potential for discovery of other buried components of Woodland age in the Manhattan area, including Wildcat Creek valley.

D. Late Prehistoric (AD 1000-1500)

In contrast to the limited evidence of earlier peoples in this region, there is abundant evidence of prolonged activity during the Late Prehistoric period. Two aspects facilitate discovery of evidence of these younger occupations: relatively shallow (often surface-exposed) burial of sites and increased sedentism that developed by AD 1000 throughout much of the central Great Plains. The former is both
blessing and curse, the shallow nature of sites aiding site discovery but also enabling undocumented artifact collection and increasing vulnerability to disturbance or destruction through agricultural practices, military activities, and commercial, industrial, and residential development. The latter are especially true along lower Wildcat Creek, much of which falls within the city limits or urban planning area of the Manhattan community (Ritterbush 2009; Logan 2014, 2015).

Farming of corn and other domesticated crops supported the increase in sedentary living during this period, manifested in the regional archaeological Central Plains tradition (CPt; ~AD 1000-1400) (Roper 2006a). What we know about the CPt comes primarily from lodge sites in northern Kansas, southern Nebraska, western Iowa, and northwestern Missouri. In general, families built individual homes in or near stream valleys analogous to modern farmsteads, with neighbors scattered along the same and nearby valleys. Houses were formed of wattle-and-daub over a wooden frame supported by four large center posts and a series of outer support posts arranged in a circular or subrectangular plan. These supported beams and stringers for the walls and roof that were plastered with a mixture of clay and grasses (daub). Cooking and other activities probably took place near the center of the lodge where a shallow hearth or fireplace was maintained. Occupants of the lodges relied on a generalized subsistence base that included a variety of wild plants and animals, as well as domestic plants including maize, beans, squash, and sunflowers. Although we have a general understanding of the basic settlement and subsistence pattern of the CPt and of some aspects of their technology, there are many unanswered questions about technology, social organization, beliefs and values, and other cultural aspects.

CPt material culture includes a variety of ground stone implements (metates or anvils, manos, paired sandstone abraders), chipped stone tools (side- and unnotched triangular arrow points, ovate and beveled knives, planoconvex end scrapers, drills), and tools of animal bone and shell (bison scapula or mussel shell hoes, shell scrapers or corn shellers, antler punches, bone shaft wrenches, bone awls), and ceramic vessels. The latter reflect a significant change from Woodland period ceramic technology. They include subconoidal to globular jars, commonly cord roughened, with direct or collared, straight or flaring (sometimes thickened) rims above the constricted neck. The lip and exterior part of the rim is sometimes decorated by pinching the outer edge of the lip or thickened collar or by impressing a stick, finger, or other tool into the lip or rim. This ware, referred to as Riley Cord Roughened, is generally tempered with sand or grog (crushed sherds) and may include small, plain bowls. The Smoky Hill phase of the CPt (see below) includes a shell-tempered, smooth-surfaced ware often with lower rolled rims and trailed lines that are commonly arranged as sets of opposed diagonals on the vessel shoulder.

Three sites in Wildcat Creek valley have provided substantial evidence of CPt occupation of the study area: Griffing (14RY21), Lonergan (14RY401), and Holidome (14RY442). The Griffing site was located west of Manhattan when excavated by archaeologists of the Smithsonian Institution in 1937. It was destroyed in the 1960s by highway construction and residential and commercial developments that continue to threaten archaeological sites in the watershed. The cultivated area explored at that time has
since been radically altered by construction of Highway 113 (Seth Child Road) and an adjacent strip mall (Logan 2014, 2015; Logan and Ritterbush 2013; Ritterbush 2009). The site had been known since the 1880s, particularly to William Griffing, an amateur archaeologist for whom it was named and who included it among a number of “lodge sites” on a map of a reach of Wildcat Creek published by Jacob V. Brower (1898). The map drew the attention of Waldo Wedel (1959:176-187) of the Smithsonian Institution, who directed the investigations that exposed the floor of a square house with rounded corners and an extended entryway. Outlined by 56 postmolds, it included those of four internal supports centered on a hearth, five cache pits, and a small “pocket cache”. The “surprisingly small” assemblage associated with it included pottery (62 rim and 225 body sherds) defined as Riley Cord-roughened ware, four projectile points, four knives, 17 scrapers, two celts, debitage, and six ground stone artifacts; no bone or shell was found (Wedel 1959:183-187). In the area where Brower had recognized a “kiln” Wedel found traces of what might have been another house or midden. Wedel found the overall information sufficient to offer Griffing as the type site of a particular archaeological culture of the CPt, the Smoky Hill focus, subsequently reclassified as a ‘phase’. This taxonomic distinction now has little utility other than geographic reference (see Ritterbush 2009:78-80 for a brief review of work at Griffing).

CPt lodge remains were found at the Lonergan site during excavations from 1965 to 1969 by Michael Stanislawski and Patricia J. O’Brien, the first two archaeologists on the anthropology faculty at KSU. (Though sometimes referred to as the Griffing site, the name more commonly is applied to 14RY21. 14RY401 has also been called Lonergan Trailer because it was located behind the Lonergan trailer factory in the 1960s.) The excavations have not been described in any technical report or publication, though faunal remains from the site were among three CPt site assemblages analyzed in the Master’s thesis by Marie Brown (1982). The site initially described a concentration of cultural material on a terrace near the center of a prominent bend of Wildcat Creek. It coincided with one of the “lodge” sites near the east end of the Griffing site on the map provided by William Griffing to J. V. Brower (1898:24).

Excavations at Lonergan uncovered abundant evidence of CPt activity, including remains of a lodge typical of the tradition. Artifacts include potsherds, arrow points, bifaces, end scrapers, drills, modified flakes, debitage, abraders, fire-cracked rock, bone tools (awls and scapula hoes), and daub curated by the KSU Archaeology Lab. The ceramics include sherds of Riley Cord Roughened ware, as well as smooth-surface, shell-tempered ceramics commonly associated with the Smoky Hill phase. Lodge features included a square floor, central hearth, four central support posts, several peripheral posts, and the trace of a southeastern oriented, extended entryway. The lodge embraced seven bell-shaped and two basin-shaped pits, and three concentrations of limestone slabs. Of eight radiocarbon dates obtained by O’Brien (1984:61; Brown 1982), five have been discounted as they were done by the Gakushuin radiocarbon facility in Japan, notorious for yielding ambiguous assays (Logan and Ritterbush 1994; cf. Blakeslee 1994). The calibrated average of three dates from the University of Georgia Radiocarbon Lab indicates lodge occupation ~AD 1207-1283. Excavation likely destroyed
much of the site, especially the lodge floor; subsequent commercial development destroyed whatever had survived that work (Ritterbush 2009: 82-83).

The Holidome site has also yielded evidence of CPt activity, albeit not including lodge remains. Excavations by students and volunteers under O’Brien’s direction in 1980, permitted by developers prior to construction of the motel for which it is named, did not result in a report or publication. Until the motel changed ownership early in this century, selected artifacts, photographs of the excavation, and accompanying text were on display in the motel lobby. Those and other remains from the site are curated at the KSU Archaeology Lab. According to the site form, excavations exposed a midden and cache pit. Of two radiocarbon dates obtained from the University of Georgia Radiocarbon Lab (250±440 and 660±165 rcybp), one is too recent and both are accompanied by large standard deviations that fail to support the time of Late Prehistoric activity indicated by the associated lithic and ceramic assemblages.

Not all CPt sites in Wildcat Creek valley have house remains, and some that have been explored through limited test excavations may provide evidence of camps of relatively short-term activities that did not entail construction and occupation of lodges. Among these is Young Buck, mentioned above with regard to its Woodland component. Recent NRHP investigation recovered evidence of use of ceramics (cooking) and chipped stone tool production, including that of numerous blades, and use of such implements during hunting, refitting, and hide preparation (Logan 2014, 2015; Logan and Ritterbush 2013). This NRHP site and others that have yet to be explored hold the potential to expand our understanding of Late Prehistoric occupation of the Central Plains.
PROPERTY TYPES

A variety of functional site types from several time periods may be subsumed under this National Register of Historic Places Multiple Property listing, including but not restricted to house sites, campsites, and special-activity sites such as lithic quarries and workshops and burial sites. Any given site in the designated area may have more than one component that represents the various culture-temporal periods recognized in the region. Likewise, it may include evidence of more than one functional property type. The following discussion is based on information about the periods and site types presented in Section E, as well as on information from known sites in Wildcat Creek Valley and its vicinity. Site significance may be determined from specific research problems for each of the time periods represented at these property types that are addressed in the supplement to the Kansas Prehistoric Archaeological Preservation Plan (Brown and Simmons 1987) entitled The Archaeology of Kansas: A Research Guide (Logan 1996). That supplement provides a series of hypotheses derived from current research problems under these domains: taxonomy, chronology, geography, settlement patterns, subsistence economy, cultural relations, and technology.

I. House Sites

This property type includes sites with remains of shelters, including daub scatters and postmolds that outline habitations and their internal features (hearth, storage pits, etc.). Paleoindian or Archaic sites that prove to have remains of shelters should be considered significant as no such site has yet been found in north-central Kansas. Based on information at hand about the settlement patterns of these periods in the central Great Plains, permanent structures are not expected. From late Pleistocene through mid-Holocene time hunter-gatherers practiced a mobile settlement pattern often entailing seasonal occupation of a series of camps throughout the year as resources in different habitats became available. Excavations at the Coffey, William Young, and Snyder sites in the Flint Hills exposed a few postmolds of no discernible pattern, perhaps indicative of temporary shelters, ramadas, drying racks, or other structures. A few shallow pit features were also found at William Young. However, these do not appear to indicate more than a seasonal stay, perhaps repeated visits by mobile bands (Grosser 1977; Schmits 1978; Witty 1982; cf. McLean 2010). Consequently, a pre-ceramic age site with house remains would be significant because it might alter our understanding of the relative sedentism of hunter-gatherers.

House sites are more characteristic of late Holocene, ceramic-age cultures. These include archaeological complexes of the Middle Woodland (Kansas City Hopewell variant and Schultz phase), Late/Plains Woodland, and Late Prehistoric periods. Woodland sites have been documented in Wildcat Creek valley and adjacent drainages though none has yielded recognizable house remains. In northeastern Kansas, the prolonged occupation of sites assigned to the Kansas City Hopewell variant of the Middle Woodland period is indicated by well-developed trash middens, wide variety of stone and bone tools, and varied faunal and floral remains that attest to year-round procurement of resources (Logan 1993, 2006a, 2006b, 2011). Given the appearance of Hopewellian decorative motifs on pottery
from Middle Woodland sites in the Manhattan area, future investigation of these sites may yield similar evidence of prolonged occupation, including traces of house structures. Sites that reveal them will be significant because they will give new insight to settlement patterns. However, it will not be necessary for a Middle Woodland or Late Woodland site to contain house remains in order to be considered significant. Those that lack them may still yield, or promise to yield, important evidence of other aspects of adaptation during those times (see Camp Sites below).

Late Woodland sites may have house remains. Post molds that outline oval structures of wattle-and-daub construction have been documented at sites of this period assigned to the Grasshopper Falls phase along tributaries of the lower Kansas River (Baugh 1991; Logan and Fosha 1991; Reynolds 1979). Though the Grasshopper Falls phase house form appears to be well known, it is based on less than a dozen structures and this small sample is characterized by considerable variation in size. Moreover, we know very little about Late Woodland house sites west of the Delaware River. Thus, the National Register of Historic Places should include house sites of this age that are in the Wildcat Creek watershed.

House remains are more common at Late Prehistoric sites than those of earlier periods. The best example for Wildcat Creek valley, indeed one of the most significant sites in the central Great Plains, is Griffing (14RY21), type site of a regional expression of the Central Plains tradition and described in the previous section. It is highly unlikely the site was an isolated CPt farmstead. Potential lodge sites were mapped by Brower as part of the extended Griffing site in the late 1800s. Many of these have been damaged or destroyed, preventing their evaluation. Test excavations at others suggest they were camps or had other functions. It is expected that additional CPt lodges sites, such as Lonergan (discussed in Section E), were once distributed along Wildcat Creek and should be identified. CPt lodges sites not only provide insight into household activities and family structure, but as a set are significant for the information they provide about community organization and interaction.

II. Camp Sites

Camps are probably the most common property type in Wildcat Creek valley, indeed, throughout the central Great Plains. As noted above, sites of this type are characteristic of the Paleoindian and Archaic periods, but examples are known from all others as well. Though a more sedentary settlement pattern characterized cultures after AD 1 (i.e., during the Woodland and Late Prehistoric periods), ceramic-age peoples continued to use short-term campsites during resource procurement and other activities.

Camp sites can yield significant information about variations through time and space in settlement-subistence patterns, spatial relations of various activity areas (e.g., flintknapping, hide scraping and preparation, game and other food processing, cooking, trash disposal, etc.), and preferences for and seasonal procurement of game and wild or domestic plant food resources. These are likely to provide the most significant information about Paleoindian and Archaic, as well as Woodland lifeways. Given the long-term archaeological focus on CPt lodges, a broader understanding of the activities of Late
Prehistoric peoples can be gained through careful analysis of CPt campsites. The National Register of Historic Places should include sites in the watershed of this type and of each major period that may provide such information, that is, those that contain artifacts, features, and activity areas in good context.

### III. Kill and Butchery Sites

At present no known sites in the Wildcat Creek watershed are identified as kill or butchery locales, though there is reason to expect them. Paleoindian sites are generally known from finds of distinctive projectile points or knives used to dispatch and butcher game. In some cases these are in association with the skeletal remains of those animals. As such points have been found in areas adjacent to the watershed, it is probable that Paleoindian people were familiar with Wildcat Creek valley and may have used it as a hunting ground. Given the age of these remains, Paleoindian sites may be buried in alluvium or exposed in areas subject to net erosion, such uplands bordering the valley. Geomorphological studies along Wildcat Creek and other drainages at Fort Riley have demonstrated that sites can be buried in uplands or, more often, deeply buried in valley alluvium and colluvium, providing predictive models for locating them in such contexts (Johnson 1994; Johnson et al. 2001). Sites of later periods characterized by projectile points or other stone tools used to kill or butcher game, especially those associated with animal remains, and the relative paucity of other kinds of tools may be interpreted as sites of this type. Because they provide significant information about aspects of past cultures that may not be represented at habitation sites, kill/butchery sites give a fuller picture of prehistoric lifeways and may be considered eligible for the National Register of Historic Places.

### IV. Lithic Procurement Sites and Workshops

Utilized sources of lithic raw materials, especially chert from abundant local sources of Permian-age bedrock members in the Wildcat Creek watershed, can provide important information about one of the most critical activities of early Native peoples. As noted in Section E, a variety of cherts formed in several limestone members are exposed on uplands throughout the aptly named Flint Hills. These were extensively used by prehistoric people to make a variety of chipped stone tools including projectile point and knives, drills, perforators, gravers, scrapers, adzes, axes, etc. One example, Dennis Quarry (14PO57), is included in the National Register of Historic Places (Banks 2003). The Dissected Till Plains, a short distance east of the Manhattan area in Pottawatomie County, includes deposits of quartzites, granites, diorites, and other metamorphic rock transported from northern sources by glacial ice. These were widely used for ground stone implements such as manos, metates, axes, celts, and mauls that appear at Wildcat Creek archaeological sites. Sites that reflect the exploitation of these sources inform us about the stone preferences of past peoples, their knowledge about those materials, their quality, and availability and how they collected or quarried these essential raw materials. Identification of utilized lithic source localities, especially when considered in relationship to other sites, allow researchers to investigate how lithic procurement activities functioned within broader settlement patterns. Workshop areas where stone tools were produced (when conducted away from more generalized living sites) also
provide insight into human decision-making relative to the spatial distribution of specific activities, such as stone tool production. In effect, lithic procurement and workshop sites reflect the “ethnogeology” of past peoples relative to their physical and social landscape.

The Harms-Rolley Ridge (14RY656) provides an example of a lithic collection site reflecting the chert procurement activity of prehistoric people of Wildcat Creek valley. Systematic survey of this ridge on the south side of Wildcat Creek valley where the upper bedrock includes an abundance of chert was initiated in June 2014 as part of the Kansas Archaeological Field School. Hundred’s of flakes, tested pieces of chert, and several bifaces were identified providing evidence of assessment of chert quality and initial reduction of chert nodules. Preliminary observations suggest differences in the quality of the chert and quantity of debitage on the east and west slopes of this ridge reflecting preferential selection of lithic materials, even within a single lithic procurement locality (Logan 2015; Logan and Ritterbush 2014). Source areas such as this provide insight into lithic selection and initial reduction decision-making and processes. Considered in relation to other sites, these special activity sites remind us of the broader use of the Wildcat Creek landscape. As such, these sites expand our understanding of past human lifeways in the region and deserve placement in the National Register of Historic Places.

Because lithic collection sites may not have subsurface deposits (unless quarry activities occurred or workshop remains became buried by colluvium or alluvium), may have been used at different times during the past and may be difficult to date, evaluation of significance may involve somewhat different considerations than other sites. For example, although it may be impossible to determine exactly when a lithic site was used, the information provided about the general prehistoric use of cherts and source areas in the Wildcat Creek area should be considered noteworthy. Future studies of subtle differences between chert samples have the potential for gaining more detailed understanding of prehistoric decision-making about quality of lithic materials for the production and use of ubiquitous stone tools. Likewise, geochemical signatures of tested lithic materials found at collection or quarry sites compared with those of lithic artifacts at camp or house sites, for instance, may provide knowledge about the movements and landscape perspectives of past peoples.

V. Burial Sites

Sites where the dead were interred are known primarily for the later periods of Kansas prehistory. Common in the Manhattan vicinity, including on ridges overlooking Wildcat Creek valley, were stone and earth burial ‘mounds’ typically dating to the Woodland period and assigned to the Schultz phase. The practice of interring the dead in mounds or cairns overlooking major stream valleys is characteristic of Woodland cultures throughout much of eastern North America. These features contained various forms of burials (extended, flexed, secondary or bundle, or cremated). Examples of such mounds that are earth covered and stone lined, some containing stone vaults, have been documented in the area, such as the aforementioned Younkin Mound (Section E) and many others excavated by Floyd Schultz for whom the local phase of the Woodland period is named (Eyman 1966; Phenice 1969). These mortuary sites compare in many respects to those of the Kansas City Hopewell culture that have been found in the lower Missouri River locality, an attribution first made by Wedel (1943). Several burial mounds are
known on prominent bluffs on the south side of lower Wildcat Creek. The location of some of these was noted on William Griffing’s 1888 “Archaeological Chart of Manhattan and Vicinity” (e.g., 14RY43, 14RY44) and Jacob Brower’s 1898 map of the “Griffing Village Site” (Brower 1898:24). Two other damaged ‘mound’ or cairn features that likely served as burial structures (14RY652, 14RY653) were recorded as part of the Manhattan Archaeological Survey (Ritterbush 2009:111-113). Presumably Griffing and others ‘excavated’ these features, although very little information is known about them. At least two have since been destroyed through modern residential development. The subtlety of many of these features sometimes makes their identification challenging.

Fewer Late Prehistoric mortuary sites are known, thus, their burial practices are not well studied. At least one extensive cemetery of the Smoky Hill phase of the CPt, the Salina Burial Pit or Whiteford site has been analyzed. Although not professionally excavated, amateur documentation and post-excavation analysis indicates that at least 151 individuals were interred at this site, most in flexed positions. Some included grave goods such as small ceramic jars and, in one case, several well-made bifaces of Smoky Hill silicified chalk (Roper 2006c). At least one mortuary site (14RY642) believed to be associated with this period is known in Wildcat Creek watershed, albeit only from contemporary newspaper accounts (O’Brien 2004; Ritterbush 2009:102-103, 2010). During construction in 1935 of the dam that impounds Fairman Lake, not far from the Young Buck and other sites, a prehistoric burial site was destroyed. Although very few remains appear to have been saved and little information is available to reconstruct the site, at least seven individuals are believed to have been buried here along with some artifacts including potsherds, projectile points, “long shell” and “tubular bone” beads, bone awls, and two grinding stones. Current interpretation of the site attributes it to the Central Plains tradition. If this is correct, the site enhances our perception of the CPt landscape along Wildcat Creek. Importantly sites such as this and other special use sites (e.g., lithic procurement localities) provide insight into the activities commonly carried out away from the house or lodge site (which has traditionally been the focus of most previous archaeological studies of this period).

Mortuary sites may be considered sacred to certain modern people, but also hold extremely valuable information about the past, including some that cannot be obtained from other archaeological materials. For example, studies of human remains can inform us about past dietary patterns, migrations (e.g., through isotopic analyses), demographics (e.g., infant mortality rates), family relations (e.g., genetic studies), social organization (e.g., status differentiation), and ideology (e.g., via symbols associated with grave goods and other artifacts). Likewise, the analysis of funerary objects, the placement of mortuary sites, and their location relative to other sites provide additional information. Through consultation with Native American groups and compliance with both the Native American Graves Protection and Repatriation Act (NAGPRA) and the Kansas Unmarked Burial Act, archaeologists can derive significant insight to past cultures from burial sites.
GEOGRAPHICAL DATA

Sites nominated under this MPN are in the Wildcat Creek Watershed, a natural geographic area. As noted in Section E, the watershed is entirely within Riley County, Kansas (Figure 1).

Environment: Adaptations to the Flint Hills

Wildcat Creek is a relatively small drainage system that presented a variety of natural resources to past peoples. Some of these were relatively stable (i.e., water, stone, clay, arable land) and others variable (plants and animals) through time. No doubt this diversity of resources helped account for past human use of Wildcat Creek valley resulting in a rich archaeological record. Thus, this drainage system is an ideal laboratory for tracking differences and changes in cultural adaptations in one locality through time. One avenue for exploring these dynamics is analysis of the environmental context of past human activities in the region. For example, the effects of the Altithermal climatic episode, a regime of maximum post-Pleistocene aridity, have been documented at Coffey, a late Middle Archaic site in the nearby Blue River Valley that serves as a model for adaptation to the Altithermal in the northern Flint Hills (Schmits 1978). Contemporaneous sites in Wildcat Creek valley would be useful for testing this model. There may have been significant differences in resource distribution between the valleys of the larger Blue River and smaller Wildcat Creek that might be reflected in seasonal camps in the two areas. Subsistence and settlement practices at late Middle Archaic sites in the latter might differ from those at ox-bow lakes in the former (Coffey was seasonal encampment near an ox-bow in the larger Blue River valley). Similarly, house sites like those at the Griffing site on Wildcat Creek and Budenbender in the Blue River valley present meaningful differences, despite broad similarities. For example, hundreds of chipped stone blades and scrapers made on them at the latter may have been produced and used in a regional exchange network that included such items as sandstone abraders that were made by other Central Plains Tradition (CPT) groups (Roper 2006b). No such evidence was found at Griffing (Wedel 1959). One explanation, yet untested, is that the contrast may reflect the relative availability of lithic raw materials, namely chert or flint, in each valley and/or differential quality of available cherts. Understanding climatic and environmental changes and variability in abundance, availability, and quality of resources will help understand the correlation between environmental and cultural factors.

The complex of climatic conditions that characterize this region influenced human occupation of the northern Flint Hills. The prevailing climate of the region today is continental with wide ranges in temperatures and seasonal extremes characterized by warm summers and cold winters. Riley County is in an area of prevalent westerlies “where transient low-pressure disturbances and invasions of cold polar air are common” (Brown 1975:67). Mean monthly temperatures can range from 43.5°F in March to 55°F in April and from 58°F in October to 44°F in November. In Manhattan (at the mouth of Wildcat Creek) the temperature extremes during the period of historic records have been -32° and 116°F (Brown 1975).

Just as there are seasonal differences in temperature, there are also variations in precipitation and its timing. The Central Plains receive a flow of moisture-rich air from the Gulf of Mexico, especially
during the spring and summer. Annual precipitation averages 31.6in, 75% of which falls during the half-year from April through September in the form of showers and thundershowers. The winter months during which snow and other forms of precipitation fall are generally drier than during the growing season. The average period of freeze-free weather is 178 days, which is beneficial for modern agriculture and was probably similar for farming during the Late Prehistoric period. While modern and historic climatic conditions appear favorable for Native peoples practicing farming and hunting and gathering at certain (relatively recent) times in the past, these conditions varied over the thousands of years during which humans occupied the Flint Hills, necessitating adaptation to changing conditions, such as long periods of drought or of generally cooler or wetter conditions. For example, the Medieval Warm period (~AD 800-1300) marks a time of notably increased aridity that probably affected the earliest farming adaptations of the region, assigned by archaeologists to the Late Woodland (AD 500-1000) and Late Prehistoric (AD 1000-1500) periods. Research by earth scientists in the Sand Hills of Nebraska has documented a significant wind shift in the Central Plains during this regime severe enough to have mobilized dunes 800 to 1000 years ago (Sridhar et al. 2006). This significant climatic change may have required some response in subsistence practices by people reliant on native domesticates and the cultivation of maize, beans, squash, and other cultigens. Climatic conditions such as that of the Medieval Warm period affected people not only through direct effects on their efforts to raise domesticated plants, but also on important wild resources such as flora (vegetation) and fauna (animals).

Today, Wildcat Creek drains an area of tall-grass prairie, the vegetation community that characterizes the eastern third of Kansas. Dominant plants are big bluestem, little bluestem, switch grass, and Indian grass with grama grasses more dominant a relatively short distance to the west in adjacent Clay County where the Republican River drains a mixed grass community. The boundary between these two communities is neither abrupt nor fixed, rather is a gradual transition from one native grass community to the other. The mixed prairie in particular is climatically sensitive to fluctuations of precipitation. Its boundaries have been dynamic, “oscillating eastward and westward with the alternating intense droughts and wet periods” (Kuchler 1974:588). Thus, during some periods of prehistoric human occupation (for example, during the Altithermal mentioned earlier) Wildcat Creek may have drained a mixed-grass community with somewhat different floral and faunal characteristics than in modern or historic times.

Oscillations in the general vegetation community of the region would have affected not just the dominant grasses, but also other significant plants associated therewith. This includes associated forbs that served as important browse for certain animals and as wild plant foods for people, as well as trees and other plants. In the semi-arid grasslands, trees grow most abundantly along intermittent or permanent streams that cross-cut the prairie such as Wildcat Creek. In eastern Kansas, the typical floodplain forest-savanna community had medium-tall to tall broadleaf deciduous forests with dense undergrowth. Dominant trees in the floodplain forest community are cottonwood, hackberry, peach-leaved willow, black willow, and American elm. These provided not only shade and habitat for certain useful animals, but also various kinds of construction materials, firewood, and, in some instance, food. In poorly drained areas within valleys like that of Wildcat Creek, the forest occasionally gave
way to freshwater marshes that offered another set of resources, including graminoid plants like prairie cord grass, and habitats for a wide range of plants and animals (Kuchler 1974).

Faunal remains recovered from prehistoric archaeological sites often reflect the diversity of animals available to past peoples, many of whom practiced diversified hunting-and-gathering. This is evident at the Coffey site in the nearby Blue River valley where pre-agrarian groups periodically harvested mammals, birds, and other aquatic resources at a nearby ox-bow and varied game in the adjacent prairies (Schmits 1978). Ceramic-age groups followed a similar pattern with those of Late Prehistoric times, augmenting their subsistence by farming domesticated plants. For example, people of the Central Plains tradition (CPT) practiced a diffuse economy that combined collection of wild foods with low-level food production (Roper 2006a:122). Animals utilized by these farmers included mussels, fish (gar, catfish, sunfish), turtles (snapping, mud, box, softshell), raptors and wildfowl (owl, hawk, grebe, duck, goose, prairie chicken, turkey), and mammals (cottontail, squirrel, beaver, raccoon, badger, canid, pronghorn, deer, wapiti, and bison) (Brown 1982).

The geology of the Flint Hills physiographic subprovince was also important to past peoples living along Wildcat Creek. As the name of this region suggests, it is rich in flint or chert, which was shaped through the flintknapping process by stone-age people into essential sharp-edged cutting and scraping implements. The exposed Permian-age geological units of the northern Flint Hills include several limestone formations or members (Florence, Wreford, Three Mile) that contain sizable nodules and tabular pieces of quality chert. These are exposed on ridgetops and slopes along Wildcat Creek valley where knappable material can be collected from surface or erosional features.
SUMMARY OF IDENTIFICATION AND EVALUATION METHODS

This Multiple Property nomination will embrace significant prehistoric archaeological sites in Wildcat Creek watershed. The development of this nomination started with the Manhattan Archaeological Survey completed for the City of Manhattan in 2009. That study inventoried known archaeological sites in the Manhattan Urban Area and completed limited pedestrian survey of selected parcels of land (Ritterbush 2009). Although this project was not limited to Wildcat Creek valley and only included the lower portion of that watershed, it demonstrated the archaeological richness of the area. This is further supported by archaeological surveys on the Fort Riley Military Reservation, which includes a significant reach of Wildcat Creek valley. Currently, only one prehistoric site in Wildcat Creek valley (Young Buck, 14RY402) is in the National Register of Historic Places. Its investigation, and that of another site found ineligible (Dreiling-1RY403), is summarized here as their identification and evaluation methods provide a model for many others yet to be investigated for NRHP eligibility. Note that certain special activities sites (e.g., lithic procurement sites, burials) may require other kinds of investigation, documentation, and evaluation to be considered eligible.

Both the Young Buck and Dreiling sites have been known to local artifact collectors since at least the late nineteenth century. As noted in Section E William Griffing collected extensively in the watershed and provided a map of site locations to Jacob V. Brower who published them in his 1898 monograph and also conducted surveys there. This map was used by Wedel (1959) as a guide to sites in the valley considered worthy of investigation during his work in 1937. He selected 14RY21, the Griffing site, for the first professional excavations in the area. Subsequently, surveys were carried out by various local collectors. One, Cletus J. Weygandt, donated his collection of artifacts and map of site locations to KSU. While his information has some utility, in some cases showing site locations that correspond to those documented professionally, he classified their function based on limited information, did not clearly delineate site boundaries, and curated artifacts by groups that did not correspond to individual sites (Ritterbush 2009).

Surface surveys of both sites by KSU archaeologists in the mid-1960s confirmed the sites and provided information about their horizontal extent and the nature of cultural material (Ritterbush 2009; Logan and Ritterbush 2013). Both contained chipped stone tools (points and scrapers), debitage, and a small amount of pottery. Young Buck yielded a few animal bones, at least one of which is bison. Just as Wedel used the map published by Brower, KSU archaeologists consulted it during a series of projects from 2008 to 2014 including for NRHP evaluation. The locations of both Young Buck and Dreiling appear to correspond to locations on the Brower-Griffing map identified as “lodge” sites. Systematic shovel testing (excavation of areas 30x30cm to a depth of 30cm and screening of fill through ¼” mesh hardware cloth) and topographic mapping (including test locations) of both in 2012 confirmed the horizontal extent of the latter but demonstrated a greater extent for Young Buck, which was subsequently the subject of test excavations to determine its vertical extent and the nature of subsurface cultural materials. Testing entailed excavation of 1x1m units in 10cm levels, screening of fill through ¼” mesh hardware cloth, and mapping of all excavation units. Recovery of abundant lithic
artifacts, some pottery, and a few pieces of animal bone from the upper 30cm in that part of the site undisturbed by agriculture supported the site’s nomination to the National Register (Logan 2014).

Test excavations at both sites by the Kansas Archaeological Field School in 2014, an educational and research program of KSU, provided additional evidence supporting NRHP nomination of Young Buck including presence of a more deeply buried (30-50cm) Woodland component but indicating Dreiling lacked the depth, integrity, and sufficient amount of cultural material to justify NRHP eligibility (Logan 2015). On the basis of the investigations at Young Buck, the site was nominated to the National Register in November 2014 (Ritterbush and Logan 2014) and listed February 2015 (National Park Service 2015).

Methods of evaluation at Young Buck and Dreiling included literature search of historic documents pertaining to local archaeological resources and State of Kansas Site Inventory forms and files, reconnaissance and systematic surface survey involving shovel testing and detailed mapping, test excavations, and associated analyses. These exemplify those that can been applied at many other prehistoric properties in the Wildcat Creek watershed. The property types defined in Section F are described according to functional characteristics that encompass much, though certainly not all, of the site variability for the prehistoric periods of occupation. Integrity requirements for the listing of individual sites to be subsumed by this MPN listing are those described by example in this section and Section F. These include relatively undisturbed cultural deposits and features. Significant sites also hold the potential for addressing relevant research questions that will lead to greater understanding of prehistoric cultural adaptations in this region.
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Figure 1. Wildcat Creek Watershed
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