

Blood Run National Historic Landmark



Master Plan



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Executive Summary

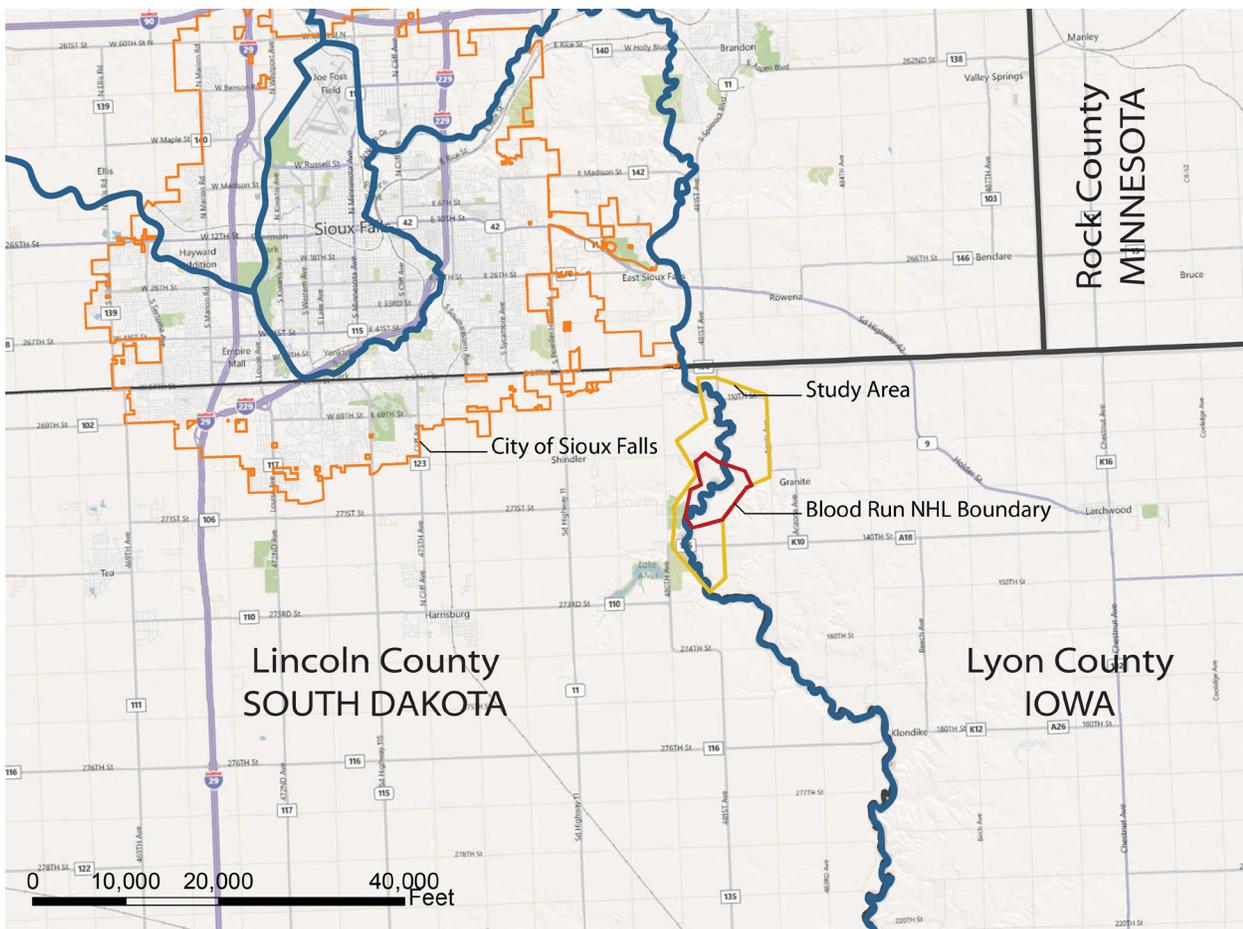


Figure 1, Blood Run site location in the context of the Sioux Falls metropolitan area.

Executive Summary

Straddling the Big Sioux River in Lyon County, Iowa, and Lincoln County, South Dakota, located about eight miles southeast of Downtown Sioux Falls, lies the remains of one of the most significant archaeological site complexes in North America: the Blood Run/Rock Island (13LO2/39LN2) archaeological sites, commonly referred to as the Blood Run National Historic Landmark (NHL). Although the NHL boundaries currently encompass 844 acres, the culturally significant area comprises an estimated 1,400 acres. The area, commonly referred to as Blood Run, is the largest known Oneota habitation documented to date. The core occupation of Blood Run spans a time frame of over two hundred years, ranging approximately from the year 1500 into the early 1700s. In addition to the cultural group known as Oneota, Blood Run was also occupied in historic times by the Omaha, Ponca, Ioway, Oto, and other Native American Tribes. It is now widely believed that many of these historic, Siouan speaking Tribes can directly trace their lineage to the Oneota peoples.

Blood Run has a special meaning within the Native American community. The site has a long and storied history and is seen as a very sacred site for Native Americans to reflect upon their ancestors and their spirits. Blood Run got its name from the stream that runs through the site and empties into the Big Sioux River. The rocks along the stream are rich in iron ore and at one time may have leached into the stream giving the water a reddish tint. The site was a peaceful gathering location where various Tribes came together. Based on various archaeological studies and historical documentation, the site contains countless burial mounds, cache pits, and other significant attributes. Not

only is this site important for these cultural aspects, but the natural beauty that is present in the area is second to none. The combination of the meandering river, the bluffs overlooking the river valley on the South Dakota side, and the rolling hills found on the Iowa side paint an impressive picture. A stand of old growth oak forest and remnant native prairies also exist within Blood Run. Preserving these important site assets is of the utmost importance so that future generations will be able to learn the impressive story of Blood Run.

Due to the close proximity of Sioux Falls and continued suburban development extending from the city center, the Blood Run site continues to be a threatened property. To minimize the degradation of Blood Run from continued expansion of housing subdivisions, sand and gravel extractions, and agricultural practices, preserving the remaining property needs to be top priority. The intent of this master planning document is to create a blueprint that accomplishes this goal of preserving the important aspects of Blood Run, while at the same time sharing the incredible history of the area, one that has been priceless to Native Americans for many generations.

To illustrate the importance of Blood Run on a statewide level, the State of South Dakota has recently designated Blood Run as one of their representatives for the America's Great Outdoors initiative, while the State of Iowa has included Blood Run in their America's Great Outdoor's Loess Hills and Big Sioux River Bottoms designation.

Project Understanding

Project Background

Blood Run Site History

Current Conditions

Project Background

The Blood Run site is a prehistoric and protohistoric Oneota cultural settlement adjacent to the Big Sioux River in Lincoln County, South Dakota and Lyon County, Iowa. Blood Run is the largest of the known Oneota cultural sites and was designated as a National Historic Landmark (NHL) by the National Park Service (NPS) in 1970. The site has been studied for over a hundred years by various researchers and archaeologists. Several relevant documents have been previously completed regarding the future potential of Blood Run, including:

- **Blood Run- Five Year Cultural Resource Development Plan (1990 – State of Iowa):** This document discusses the five-year cultural resource development plan for the Blood Run NHL and the commitment of the State of Iowa, landowners, local area residents, and other interested parties for the preservation and development of the Blood Run site as an educational resource.
- **Special Resource Study- Blood Run (2000 – NPS):** The NPS completed a study to determine the feasibility and suitability of the Blood Run NHL as an addition to the National Park System as a national historic site. The Blood Run NHL was determined to be suitable and feasible for inclusion in the National Park system.
- **Forest Stewardship Plan (2009):** Alvin “Buzz” and Lois Nelson committed their property as part of a Forest Stewardship Plan. Two objectives were outlined in the plan: placing the property into a forest legacy program, and managing the property for wildlife improvement.

Recently, the South Dakota Parks and Wildlife Foundation, in conjunction with

the South Dakota Department of Game, Fish & Parks (SD GF&P), has exercised a purchase option to acquire the strategic 324-acre property formerly owned by Buzz Nelson that will become a focal point in the future development of the property as a State Park.

The purpose of this master planning effort is to:

- Identify public issues and present options for the comprehensive preservation and development of the site, and identify interpretation and recreational opportunities for this site under the management of the SD GF&P as a State Park. This effort will also consider this acquisition as part of a larger vision inclusive under a comprehensive relationship with existing and future holdings in both South Dakota and Iowa.
- Solicit and conduct public participation methods and document, organize, and present public comments and issues for the public record. Public participation included input from Native American Tribes with historical and cultural ties to this site.
- This master plan will serve as the basis for immediate and future fundraising efforts, grant requests and other activities germane to the establishment of a nationally significant park.

The project was divided into three phases. The first phase included a kick-off meeting with the client and key stakeholders; touring and photo documentation of the project area; preliminary data collection, mapping, and analysis of existing and future conditions; and the creation of a preliminary development program to carry forward into the ensuing phases.

Phase two included a visioning process which involved holding one-on-one interviews with key stakeholders and three separate visioning workshops to further refine the development program, as well as obtain input from the Native American Tribal interests.

The third phase of the project was the development of a conceptual master plan that would lay the groundwork for how the property could develop over the long term. The public was involved during the conceptual master plan phase through an intense, three-day master planning charrette where all of the information gained throughout the previous phases was applied to the site and aided in the creation of the conceptual master plan for

the project area. Following the charrette, the master plan was refined to adjust for specific site conditions including topography, site access, and the exact location of important features.

Site History

The immense scope of Blood Run is difficult to comprehend. Previous research has documented literally hundreds of earthen mounds and stone circles as well as a boulder effigy mound, pitted boulders, and an earthen enclosure. Because of its extent, complexity, and splendor, Blood Run has received substantial attention from historians, archaeologists, ethnohistorians, surveyors, geologists, and the general public for many years. To varying degrees, researchers from a variety of backgrounds have been investigating Blood Run for the past 140 years. A brief summary of these studies, beginning in the early 1870s and continuing to the present day, is as follows:

The Earliest Efforts

Although the Blood Run village is likely depicted on Guillaume Delisle's map of Iowa as early as 1718, it was not until 1872 that the first description of the village was published following a field visit by S. C. Hyde. In his description, Hyde identified numerous "pyramidal" earthen mounds as well as stone circles and "amphitheaters." Following Hyde's description, visits to the site were made by Judge G. W. Wakefield and an early area settler, and Corson resident, A. G. Risty. It is likely that the accounts of these two individuals represent the last snapshot of Blood Run prior to the construction of the Burlington,



Figure 2, Blood Run National Historic Landmark and surrounding properties.

Cedar Rapids & Northern Railway through the site. Wakefield investigated only that portion of the site north of Blood Run Creek, but he also is the first to note a group of 13 mounds on the South Dakota side of the river. Risty was the first to note the presence of Man-in-the-Moon beads from the site. He also mentions observing metal bells, both indicative of Euroamerican trade presence during the early 1700s.



Man-in-the-Moon beads

In 1886, Frederick Starr visited the site and documented circular and oval mounds with stone circles on the surface. He also excavated two of the mounds. Starr describes the circular mounds as being 30 to 50 feet in diameter and from two to five feet in height. He reports that the excavated mounds were constructed of dense earth and gravel; one contained ash and an extended, primary interment, while the other contained bone, ceramics, and ash. Starr's account was probably the first of the site following the construction of the railroad.

Theodore H. Lewis visited Blood Run three years after Starr. During his visit, Lewis mapped and described a number of the stone circles and some 143 earthen mounds at the site (both on the Iowa and South Dakota sides). He also documented the earthen enclosure and circular mound

there. Blood Run was documented in 1889 by Frederick W. Pettigrew, who during his visit excavated five mounds, created sketches of several artifacts from the site, and generated a detailed map of one of the mound groups there. Pettigrew and Lewis each investigated mounds on both sides of the Big Sioux River.

Following the Pettigrew and Lewis visits, Blood Run was explored by H. J. Reynolds, assistant to Cyrus Thomas, the Bureau of Ethnology's head of Mound Exploration. Reynolds offers a detailed description of the Iowa portion of Blood Run wherein he notes the presence of 275 mounds, the earthen enclosure, and numerous stone circles. The presence of mounds on the South Dakota side of the river is noted, but not elaborated on.

During the 1920s and 1930s, Blood Run was visited on several occasions by Charles Keyes and Ellison Orr. An additional mound was excavated by Keyes during this time and Orr created a detailed map of the site. Keyes also notes the toll that four decades of cultivation had extracted on the site's earthen features when he indicates that less than half of the mounds documented by Lewis, as well as the earthen enclosure, are destroyed. In 1921, W. E. Myer conducted work at the village on the South Dakota side now identified as the Rock Island site.

The 1960s and 1970s

In 1963, Dale Henning visited Blood Run and, the following year, archaeologists from the University of Wisconsin excavated one of the mounds on the Iowa side north of Blood Run Creek. Excavations resulted in the discovery of five burials surrounding a bison cranium in a central pit. A portion of the site was also surface-collected at this time.



Pitted Boulder on the Iowa Blood Run Site

Dale Henning identified a 575-acre “core area,” where the primary mound groups and earthen enclosure were documented. Surveys of the area were also conducted during this time for a proposed Canton-area reservoir, both on the Iowa side and on the South Dakota side; however, the reservoir was never constructed.

In 1970, the 844-acre Blood Run/Rock Island complex was officially designated as a National Historic Landmark. The Association of Iowa Archaeologists recommended acquisition of land associated with the site for use as a preserve in 1978.

The 1980s and 1990s

In 1980, Dale Henning conducted a study of three NHL sites in northwestern Iowa, including Blood Run. This study resulted in an updated map of 77 mounds and five pitted boulders located north of the railroad tracks, and, in 1982, Henning made a recommendation to expand the National Landmark site boundaries.

The recommendation to expand the NHL site boundaries was officially approved in 1985, and in the same year, Blood Run was first listed in the biannual National Park Service Landmarks at Risk publication.

The remainder of the 1980s also saw several investigations in and around the Blood Run complex area, many of which were impact assessments and salvage excavations conducted in response to gravel mining operations within the site area north of Blood Run Creek. In 1985-1986, a gravel mining operation in a portion of the site was shut down by the Iowa Attorney General’s Office and intensive salvage excavations were conducted by the Iowa Office of the State Archaeologist and Luther College.



1985 Excavation Site

A feasibility study of the Blood Run complex was conducted in 1986, and in 1987 the Archeology Laboratory at Augustana College conducted a 1,000-acre survey of the Rock Island portion of the site to more clearly delineate the NHL boundaries. Also in 1987, the State Historical Society of Iowa, in cooperation with the Iowa Natural Heritage Foundation (INHF), purchased 230 acres of the Blood Run site from the Decker family for preservation purposes. In response to continuing preservation, a bi-state committee was formed in 1988 by the Governors of Iowa and South Dakota to identify preservation alternatives for the Blood Run site.

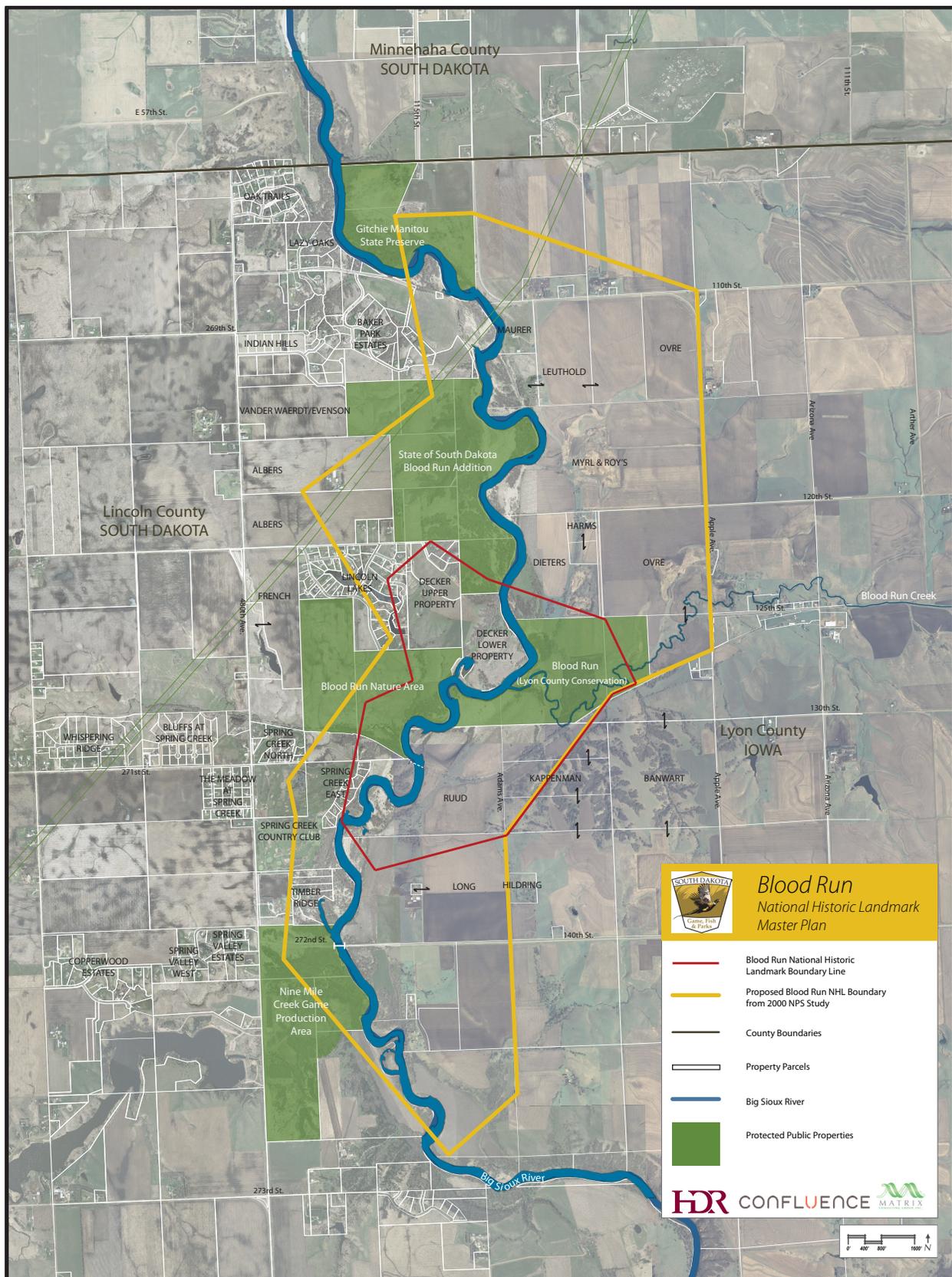


Figure 3, Blood Run National Historic Landmark and surrounding properties.

During the 1990s, ceramics and faunal studies from the 1985 excavations were completed and an annotated bibliography for Blood Run research was compiled. The "Iowa State Historic Sites Planning Project" report, which outlined directions for promotion of the NHL, was completed in 1990. During this time, a series of cultural resource management (CRM) surveys were also completed on the South Dakota side of the site complex, and an article was published that critiqued several earlier maps of the mound groups at the site.

In 1996, the State of South Dakota purchased 203 acres of land, 92 of which are within the current NHL boundaries, for preservation. In 1997, the National Park Service, Midwest Archeological Center, revisited Blood Run and prepared a review of ethnohistorical, archaeological, and ethnographic research pertaining to the site.

Recent Efforts

In 2000, a Special Resource Study of the Blood Run NHL was undertaken by the NPS to determine whether the site fit the criteria for designation as a National Park. Blood Run was found to meet such requirements, and the study also recommended further expansion of the Landmark boundaries to include all related Oneota components in the vicinity; a total of some 3,057 acres.

In 2004, a comprehensive overview and discussion of Blood Run was edited by Dale R. Henning and Thomas D. Thiessen in a Plains Anthropologist Memoir. Most recently, an article by Dale Henning was published in the Newsletter of the Iowa Archeological Society concerning the construction methods and placement of the mounds at Blood Run.

Current Conditions

Within the overall boundaries of the Blood Run study area there are a variety of land uses that currently exist. The predominant land use involves agricultural practices, but quarrying operations also exist.

On the South Dakota side, in addition to the agricultural land that still remains, there are several residential subdivisions, including Lincoln Lakes. Designated areas, such as the Lake Alvin State Recreation Area and the Nine Mile Creek Game Production Area, are controlled by the State of South Dakota. The South Dakota owned portion of the NHL is managed by the South Dakota Department of Game, Fish, and Parks. The Iowa Blood Run parcel, although owned by the State Historical Society of Iowa, is locally managed by the Lyon County Conservation Board. Both of these properties were acquired in order to help stop the spread of development and the threat of quarrying activities.

The Iowa Blood Run Site offers an abandoned farmstead, the Martin Johnson farm, which consists of two small barns, a small collapsed residential structure, and a house foundation. The house has been moved and now serves as a residence elsewhere in Lyon County.

North of the current NHL boundary, the 91-acre Gitchie Manitou State Preserve, which can be seen on the right in Figure 4, is located in the far northwest corner of Iowa and is known for the many outcroppings of Sioux Quartzite that exist there.

Blood Run NHL Boundaries

In 1970, 844-acres known as the Blood Run site was designated as a National Historic Landmark (NHL) by the NPS. This area consisted of the Blood Run (Iowa) and Rock Island (South Dakota) archaeological sites. The NHL designation indicates that the site has been determined to be nationally significant in American history and culture. Land within the boundaries of a NHL can be both privately or publicly owned. NHL designation of a private property does not prohibit any actions that may otherwise be taken by the property owner with respect to the property. The NPS may recommend to owners some of the various preservation actions that could be undertaken, but the owners are under no obligation to carry out the recommendations.

In the time that has passed since Blood Run received its initial NHL designation in 1970, various studies and reports have indicated that the area of significance may well expand beyond the current NHL boundaries. The 2000 Special Resource Study by the NPS recommended the expansion of the current NHL boundaries to encompass a greater area of 3,340 acres, with approximately 2,340 in Iowa and 1,000 in South Dakota. Ken Salazar, the Secretary of the Interior and South Dakota Governor Dennis Daugaard have made the preservation of Blood Run one of their highest priorities.

Any potential expansion of the current NHL boundaries would first require a considerable amount of field research on additional sites outside of the NHL boundaries. Some of these potential sites were identified in the 2000 NPS study, but they would still need to be evaluated for possible inclusion as contributing resources to the existing NHL. This evaluation process may take a considerable amount of time to gather the appropriate data, and then begin the process of writing a revised nomination that justifies the new boundary. When it is all said and done, any data collected may or may not support a change to the existing NHL boundary. As of June of 2012, a cooperative agreement has been reached between the University of Iowa and the NPS to perform preliminary research at the Blood Run site to determine if a formal boundary study would even be feasible.

The steps that are required to change a current NHL boundary follows the same process of a new nomination, which involves the review by NHL staff as well as the Advisory Board's National Landmarks Committee. This Committee meets prior to the Advisory Board meeting to review nominations in detail and provides a report to the Advisory Board on properties that meet the criteria. As part of the process, notices are put in the Federal Register prior to the Advisory Board meetings. Owners, local elected officials, State Historic Preservation Officers, and members of Congress representing the area of the potential Landmark may comment in writing to the NPS within a period of 60 days prior to the Advisory Board meeting. Any boundary change for an area as large as Blood Run would involve many landowners spread across two states. If a majority of private landowners within a potential landmark object to the expanded landmark designation, the Secretary of the Interior cannot designate the property.

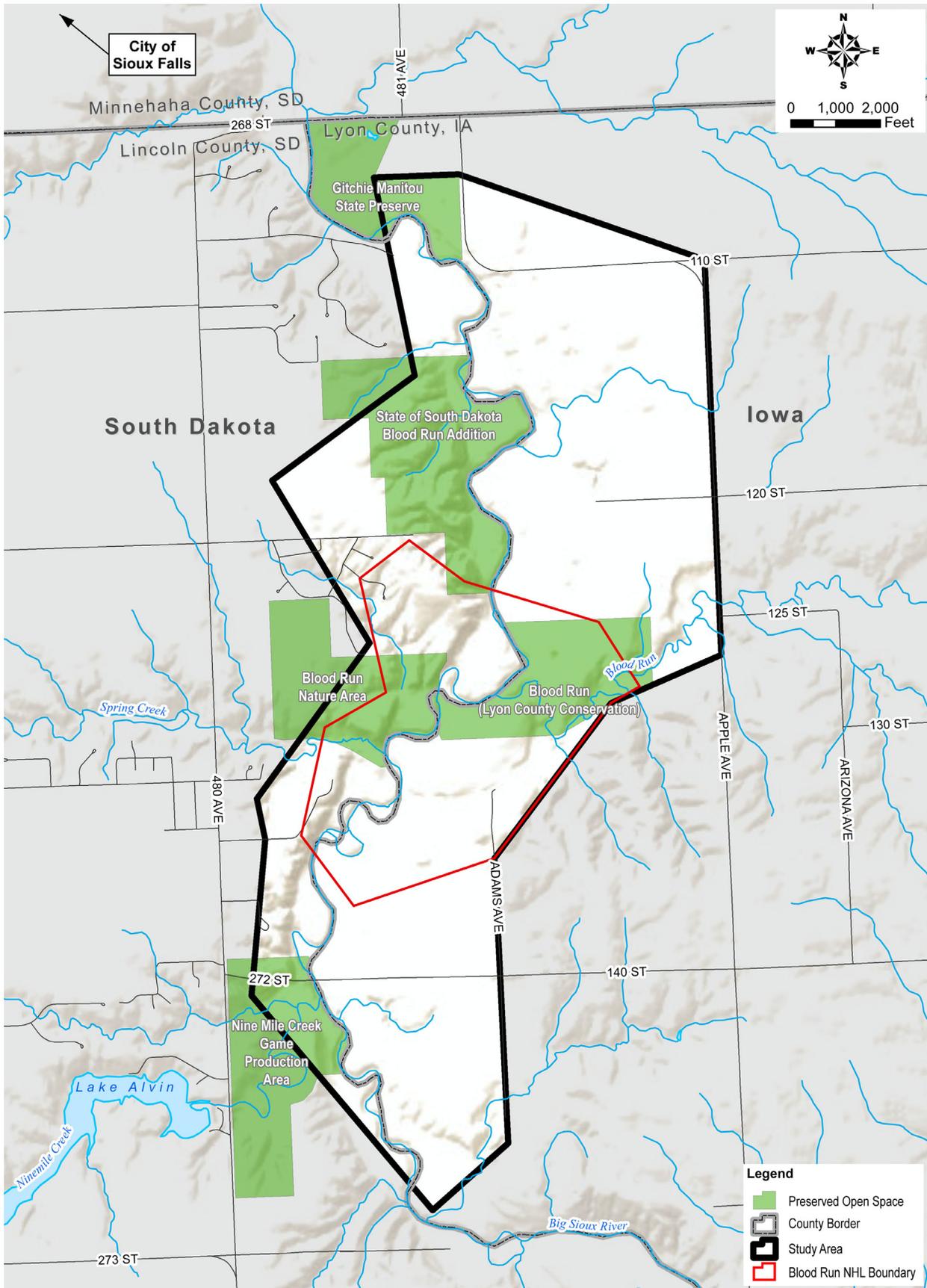


Figure 4, Project Study Area

Site Tour and Documentation

Site Tour

On May 25th and July 10th, 2011 the project team toured the South Dakota Blood Run Addition property and the Blood Run Nature Area in South Dakota as well as the Iowa Blood Run site and Gitche Manitou State Preserve in Iowa. Below and on the following pages are representative examples of what was documented within the study area:



1. View from Iowa Blood Run Site
2. Burial Mounds on the Iowa Blood Run Site
3. View of Blood Run Creek
4. Pitted Boulder on Iowa Blood Run Site
5. Remnants of former Martin Johnson Homestead
6. View from Blood Run Addition
7. Big Sioux River floodplain
8. Agricultural fields within Blood Run Addition





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- 9. Ridge line within Blood Run Addition
- 10. View of Big Sioux River from Iowa Blood Run Site
- 11. Remnants of former Martin Johnson Farmstead
- 12. View from Iowa Blood Run Site
- 13. View from Iowa Blood Run Site
- 14. View from Iowa Blood Run Site
- 15. Outcropping of Sioux Quartzite at Gitche Manitou
- 16. Shelter site within Gitche Manitou



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Data Analysis and Context Assessment Workshop

Park Development Program

Park Development Program

A meeting was held on May 24th, 2011 in Sioux Falls, South Dakota with various State of South Dakota and Iowa officials, during which time, a potential development program was discussed to determine which elements should be considered for inclusion in the Blood Run Master Plan. Potential master plan elements were not all-inclusive, but were rather seen as the starting point for the discussion as the master planning effort moved forward. These programmatic elements consisted of the following items:

Cultural Resource Preservation

Arguably, the most critical component of any programmatic element of the Blood Run Master Plan is the preservation of the vast amount of cultural resources that currently exist within the project boundaries. The Iowa side of the Big Sioux River contains many burial mounds and cache pits, and was the former location of a large-scale Native American village occupation with as many as 6,000 estimated inhabitants during the peak period. The preservation and protection of these resources is a major priority, as is sharing the cultural history of the site. As the park is developed, it is crucial that these locations are not further degraded.



View of Big Sioux River from the Blood Run Addition property

Natural Resource Preservation and Management

The land that is known as Blood Run is undoubtedly beautiful for many reasons. In addition to the flowing river border of the the Big Sioux River, the Iowa side offers gently rolling hills, while the high bluffs on the South Dakota side provide breathtaking vantage points of the river valley below. Some of the resources to highlight, manage, and take advantage of include:

- The forest that exists on the former Buzz Nelson property, which generally remains in its natural state. The stand of oak trees is a rarity for this part of South Dakota, because, unlike others, the trees have not been overrun by invasive species or underbrush. The species diversity and general health of the trees are strong characteristics of the forest. It will be important for the future regeneration of smaller trees to manage the forest and control invasive species. The Forest Stewardship Plan offers a blueprint on how to accomplish this goal.
- The Blood Run Addition property is also home to several stands of native prairie that could catalyze the future reestablishment of prairie land cover for the remainder of the property.
- The site also boasts the presence of rare and native plants that should be highlighted and managed. Some of these plants are noted later in this document.
- The Iowa Blood Run site has undergone a restoration process where the site has been turned back to a native prairie landscape. This example could be used as a model that could also be implemented in other parts of the study area.

Wildlife Management Plan

Another concern is the significant number of deer and wild turkeys that currently make their home within Blood Run. In order to properly manage the existing herd down to a manageable number, regulated hunting activities should be considered. Bow-hunting would be more appropriate than firearm hunting due to the proximity of the site to residential subdivisions. Some type of controlled deer and turkey hunting will be considered. The Iowa Blood Run property currently allows deer hunting.

Interpretation

With a documented site history dating back over 500 years, there is not a shortage of stories to share about the historic activities that have taken place within Blood Run. The many different story lines could become part of an overall interpretive package that teaches today's society the rich cultural history unique to the site. On the cultural resources side, the following aspects should be pursued:

- Story of the Native American village occupation, mostly the Oneota culture that occupied the site for several hundred years as a ceremonial and trading center.
- Martin Johnson's homestead location on the Iowa side, purchased by the State Historical Society of Iowa, was one of the first European settlements in the area after the Native Americans had moved on to other locations. Although the original buildings have been removed, or have fallen down, there are still remnants of a garden that exist on the site.
- A stone birth marker for Even Lommen, the first white child born in Lincoln County, still remains in the woods on the Blood Run Addition site.

- Story of the Burlington, Cedar Rapids, and Northern Railway that was constructed to cross the Big Sioux River between Iowa and South Dakota.



Birth Marker located on the former Buzz Nelson property.

In addition to the cultural items that were discussed above, there are also stories to be told regarding the natural resources found within Blood Run, including:

- Story of the meandering Big Sioux River changing its course over time.
- Sand and gravel deposits that have been quarried.
- The generally intact Oak forest found on the Blood Run Addition site.
- Story of the native plants and other botanicals that are found within the confines of the site, and how some of them were used for medicinal purposes by the Native Americans.



Forested area on former Nelson property.

Site Access

One of the primary concerns with the current Blood Run Nature Area property on the South Dakota side is that it is currently landlocked from publicly accessible roadways. The only current access to the property is through the private Lincoln Lakes subdivision to the north, or from the Big Sioux River. The access through the Lincoln Lakes subdivision would not be suitable for a future public entrance as the site develops over time. An ideal outcome, in order to control park traffic and usage of associated facilities, would be to have a single access point. One challenge of the master plan process was to find an alternate location to provide public access to the future park. Some potential options included:

- 270th Street, a county road that currently provides access to the former Nelson property.
- An access point between 270th Street and Springdale Lutheran Church, or just to the north of the church, which would require an additional property acquisition.

Acquisition Plan

A strategic plan should be developed that identifies the parcels of land that are seen as priority acquisitions that are critical to the future development of the Blood Run site as a park.

- The recently acquired Blood Run Addition property contains a significant amount of land that will be useful for a park property.
- The Decker property is a key link between the South Dakota Department of Game Fish & Parks site and the Blood Run Addition property. The Decker property is split into two sections, the “lower” section that mostly includes

floodplain of the Big Sioux River and the “upper” section that includes several homes and the old Decker farmstead.

- If additional properties are required in order to locate the future park entrance, they should be identified and considered.
- On the Iowa side, acquiring additional properties containing some of the valuable cultural resources, especially the Ruud property on the south and the Dieters property on the north. Other properties to consider acquiring may include the Hildring, Kappenman, Leuthold, Long, Myrl, and Roy, and Ovre properties.

Visitor’s Center

A Visitor’s Center facility will be the centerpiece of the future park improvements. The purpose of the building would be to share the historical activities that have occurred within Blood Run, and serve as a hub for a network of walking trails and interpretative routes that traverse throughout the property. Placing this facility within South Dakota would be the most logical due to the multitude of high ridges that exist on both the Blood Run Addition and Decker properties, allowing for panoramic views across the river valley. Associated parking requirements for the facility should be placed strategically within the existing topography so as to minimize disturbance to the site.



Example of a park visitor’s center

Shelters / Picnic Areas

Several locations should be set aside for the placement of picnic shelters that would provide locations for families or groups of people to congregate within the park boundaries. The architecture of these facilities should use similar materials to the Visitor's Center to create a consistent and cohesive aesthetic that would carry throughout the development.

Trail system

A variety of trail types should traverse the various points of interest within the future park development. These could range from mowed grass and woodchip, to crushed rock and paved trails, and all have merit to be applicable to specific parts of the development. A key point regarding the specific locations of the trails will be the thorough consultation with the various SHPO, OSA, and Tribes prior to implementation so as not to adversely affect areas of cultural significance.



Trail example

Roadway Network

The roadway system built within the park should be constructed as close to the existing grade as is possible in order to reduce the amount of negative impact. Roadways should have a rural feel to them with natural drainage system and the exclusion of curbs. Utilizing as many of

the existing road beds on the site will help minimize new areas of disturbance.

River Crossings / Bridge Between States

Because Blood Run spans both sides of the Big Sioux River, a successful plan connects them with a river crossing, or a bridge. In order to receive the highest level of site interpretation, it would be valuable to have access from the Visitor's Center through a series of pathways and eventually connect to the rich cultural sites on the Iowa side. Any bridge should be reserved for pedestrians only and be designed to be closed at key times to limit site access. Places where bridges could be applicable are in the following locations:

- Walking/hiking/biking bridge to connect the South Dakota side to the Iowa side, connecting the floodplain areas on both sides of the river.
- Former railroad bridge location, perhaps utilize parts of the structure that still remain within the river.
- A future extension of 57th Street to the east across the Big Sioux River is slated for construction in the 2014-2018 timeframe, and is located just north of the study area.
- 140th Street on the Iowa side/272nd Street on the South Dakota side is currently an existing crossing point of the river.



Example of a pedestrian bridge crossing in the Big Sioux Recreation Area.

Campground Facilities

Due to the close proximity to Sioux Falls, there has been some interest in including campsites as part of the master plan. However, some of the neighbors that surround the property are against camping as an element of the master plan due to the perceived noise and traffic that sometimes results from this particular use. If camping is to be part of the master plan, it would be appropriate to place this use outside of the proposed enlargement of the NHL boundaries, as shown in the 2000 NPS study.



Example of a campground facility.

Tribal access to Iowa side

Native Americans view the cultural resources on the Iowa side of Blood Run as a sacred site, and one of their collective desires is to have exclusive access to the property several times throughout the year to conduct ceremonial activities.

Canoe Access

The first phase of the Big Sioux Canoe Trail currently has eleven access points on the Big Sioux River that spans a length of 52 miles from the Big Sioux Recreation Area in the north to Oak Ridge in the south. Within the confines of the study area, there are currently access points for launching canoes just south of Gitchie

Manitou, as well as the Grandview Road access point. There is the potential to add an intermediate access point somewhere on the Decker property where it abuts the river.

Maintenance and Administration Area

As this site begins to develop into a park site, a maintenance facility will be required to store mowers and other maintenance equipment necessary for the upkeep of the property. Currently, the closest facility is located 20 miles away at Newton Hills. Associated with the maintenance area would be the requirement to have a full-time, staffed presence in a year-round basis to oversee the site. The existing home on the Blood Run Nature Area property is not sufficient as a long-term solution.

Recreation of Historical Dwellings and Gardens

There has been some interest in creating an example of what a typical Native American dwelling unit may have looked like at the time of occupation. Associated with the dwelling unit are the Native American gardens that would grow various plants useful in some of the historic medicines that are common to the culture. One note of caution is that these dwellings have a short lifespan and would require a great deal of time and effort to maintain them in their proper condition.

Ceremonial Support Structure

A structure should be considered that would be a support facility for Native American's before and after their Vision Quest ceremonies. This facility may include a kitchen/seating area, a shower/bathroom, and storage for firewood and trash. The facility could either be a permanent structure or a temporary structure that could be erected during

certain times of the year. The lowa side would be the most appropriate location to place this facility due to the ability to be located in a secluded area where access could be controlled.

Low-Impact Recreation – Other Possible Programmed Uses

Other programmed uses that may have a place within the future development of the property include winter activities such as snow-shoeing or cross country skiing, where trails could be groomed in the same locations as the walking/hiking trails in the summer months. The variety of vegetation types found within the property could provide wonderful prospects for bird watching activities. Recreational uses that are not desired within Blood Run include those that have negative impact on the sensitive cultural and natural resources.

Agricultural Usage

Some of the existing Blood Run Nature Area is currently cultivated. This usage would continue to be appropriate in certain locations. On the Blood Run Addition property, the goal would be to convert the cultivated fields back to a native prairie land cover with a mixture of prairie and forest, which is a three-year process, in order to establish the native plants and prevent invasive species from proliferating.

Restrooms

Restroom facilities should be located in the main gathering areas, such as the Visitor’s Center and several of the picnic areas or campgrounds. In some of the more remote areas, vault toilets could be acceptable provided there is an accessible route for equipment to reach them in order to pump out the contents of the vault.



Vault Toilet Prototype

Site Analysis and Existing Conditions

Infrastructure and Transportation

Environmental Review

Infrastructure and Transportation

In terms of transportation and utility infrastructure, the goal of the master planning process is to determine if what exists today will change, what might it look like, and if it will serve the needs of this specific site into the future. The Blood Run site is evolving from a sacred landmark that has been heard about by many but visited only by a few. The idea of preserving and enhancing the land in and around the Blood Run site and having it become part of either the State Park System or National Park System will allow future generations to come to learn about the Native American heritage that is ever present at Blood Run.

Existing Roadway Infrastructure

The Iowa Blood Run site lies just east of the Big Sioux River and has access via 120th Street, heading west from County K10 in Iowa. County K10 is currently a two-lane rural asphalt roadway serving a few hundred vehicles per day. The access to

Blood Run known locally as 120th Street is a standard gravel township roadway. Both roadways are certainly adequate in regards to capacity and surfacing for the volume of traffic that currently exists.

The vision for the Blood Run master plan is to create a park setting near this landmark for the purposes of preservation, education, and compatible recreation. When all phases of the Blood Run Master Plan come to fruition, it is likely that the park will span 3 to 4 miles from north to south from the existing Gitchie Manitou State Preserve south to nearly the Lake Alvin State Recreation Area. The park will also range from ¼ mile in width to nearly a mile in width in certain locations encompassing several hundred acres of land in both South Dakota and Iowa. The park vision really uses the Big Sioux River as a barrier between enhancement and preservation. On the South Dakota side of the river the vision of the park is to allow for visitors to have scenic walkways and overlook areas that they can

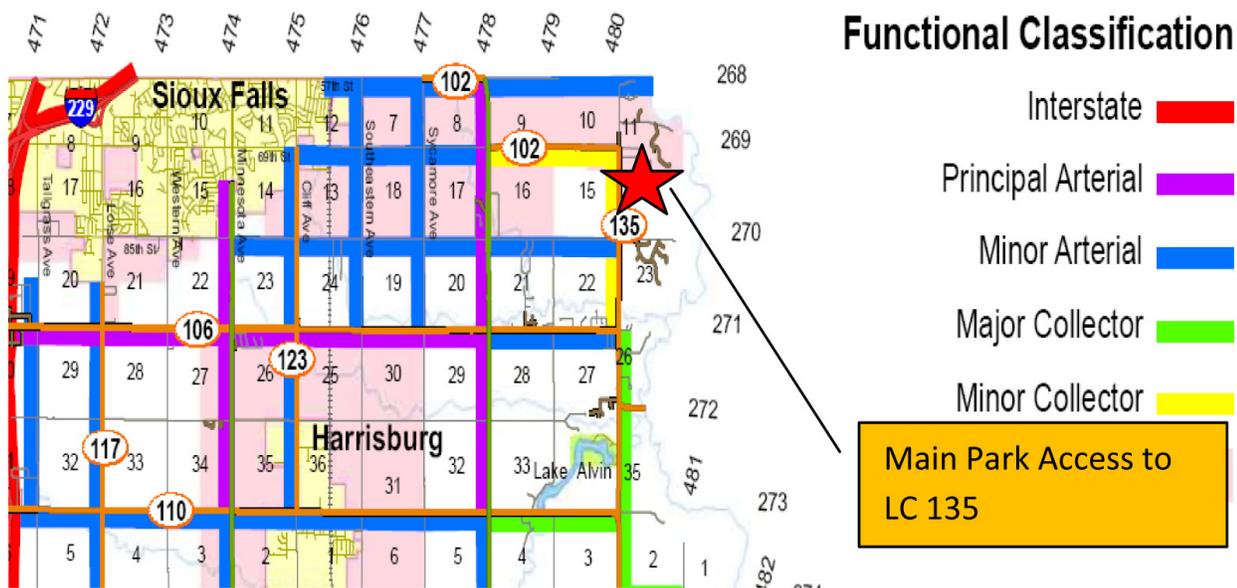


Figure 5, Roadway classifications and future park entrance

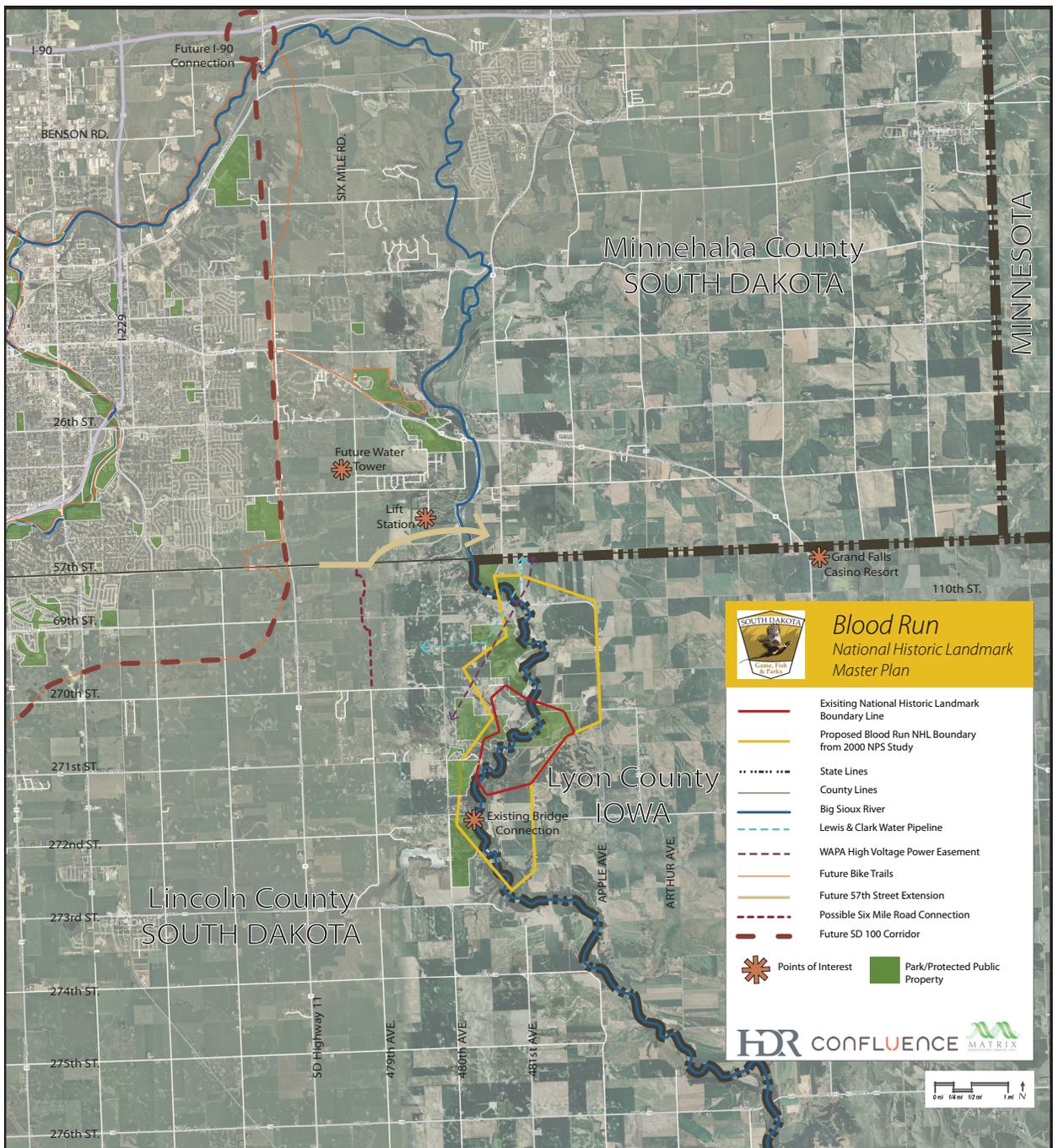


Figure 6, Future transportation improvements

access. To accomplish this goal, roadway infrastructure and utility infrastructure will be required. On the Iowa side of the river, preservation is a priority, so the need for roadway infrastructure enhancements will be minimal. As illustrated in Figure 5, access to the future park will come

directly off of 480th Avenue (Co Hwy 135). The proposed access is located ½ mile north of 270th Street and two miles east of South Dakota Highway 11. Currently, 480th Avenue (Co Hwy 135) is a two lane rural section asphalt roadway that serves several hundred vehicles per day with

a capacity to serve over five thousand. Figure 5 indicates that 480th Avenue (Co Hwy 135) is a designated minor collector street by Lincoln County. Access to the proposed park can easily be gained from Interstate 29 at Exit 73 by traveling 9.5 miles to the east utilizing CR 106, and then turning to the north on 480th Avenue. The site can be accessed by taking Exit 406, off Interstate 90, then proceeding south on SD Highway 11 to SD 42/11, then head west until SD 11 splits and proceeds south to the site. Figure 5 also indicates that CR 106 and SD Highway 11 are classified as arterial streets by Lincoln County in their major streets plan.

Future Roadway Infrastructure

As the conceptual Blood Run master plan goes from conception to reality, many improvements are already planned that will enhance access to both the South Dakota and Iowa sides of the river. To obtain access at the proposed park entrance over the course of the next 20-25 years, the following roadway projects are planned (Figure 6):

- SD 100 – A 45-50 mph beltway connecting I-90 to I-29
- 57th Street Extension – SD Highway 11 (Future SD 100) to Iowa Connection
- 69th Street – SD Highway 11 to LC 135
- Six Mile Road – Extension from 57th Street to 69th Street

All of these projects will improve the quality of access to this area and will certainly assist in the overall vision for the property. The proposed state or national park will not be a significant traffic generator when compared to the alternate development of the land as a residential or commercial land use, but it will be a landmark location that visitors will enjoy.

Connectivity to Regional Network

Along with roadway infrastructure comes the potential of providing better pedestrian and bicycle access to the regional network of trails. As each roadway gets extended towards the future park, amenities such as sidewalks and bike paths will also be constructed. The SD 100 corridor will have a 10' wide pathway adjacent to the roadway that will allow for bicycles and pedestrians to enter or exit the corridor in numerous locations on the east and south sides of Sioux Falls. A connection to the SD 100 path at 57th Street will allow for a direct connection to the north end of the future park land at the Gitchie Manitou State Preserve with the 57th Street Extension project which could serve as a backbone that allows other users rather than just passenger cars to visit this proposed park. The City of Sioux Falls has proposed future extensions to their trail system, and connections to the Arboretum and Arrowhead Park a few miles directly north of Blood Run are now being considered.

The Big Sioux Canoe Trail is another feature that will connect Blood Run to other elements within the Big Sioux River region. The first phase of the trail currently has eleven access points on the Big Sioux River spanning a length of 52 miles from the Big Sioux Recreation Area in the north, near Brandon, to Oak Ridge in the south. Within the confines of the study area, there are access points for launching canoes just south of Gitchie Manitou, as well as the Grandview Road access point.

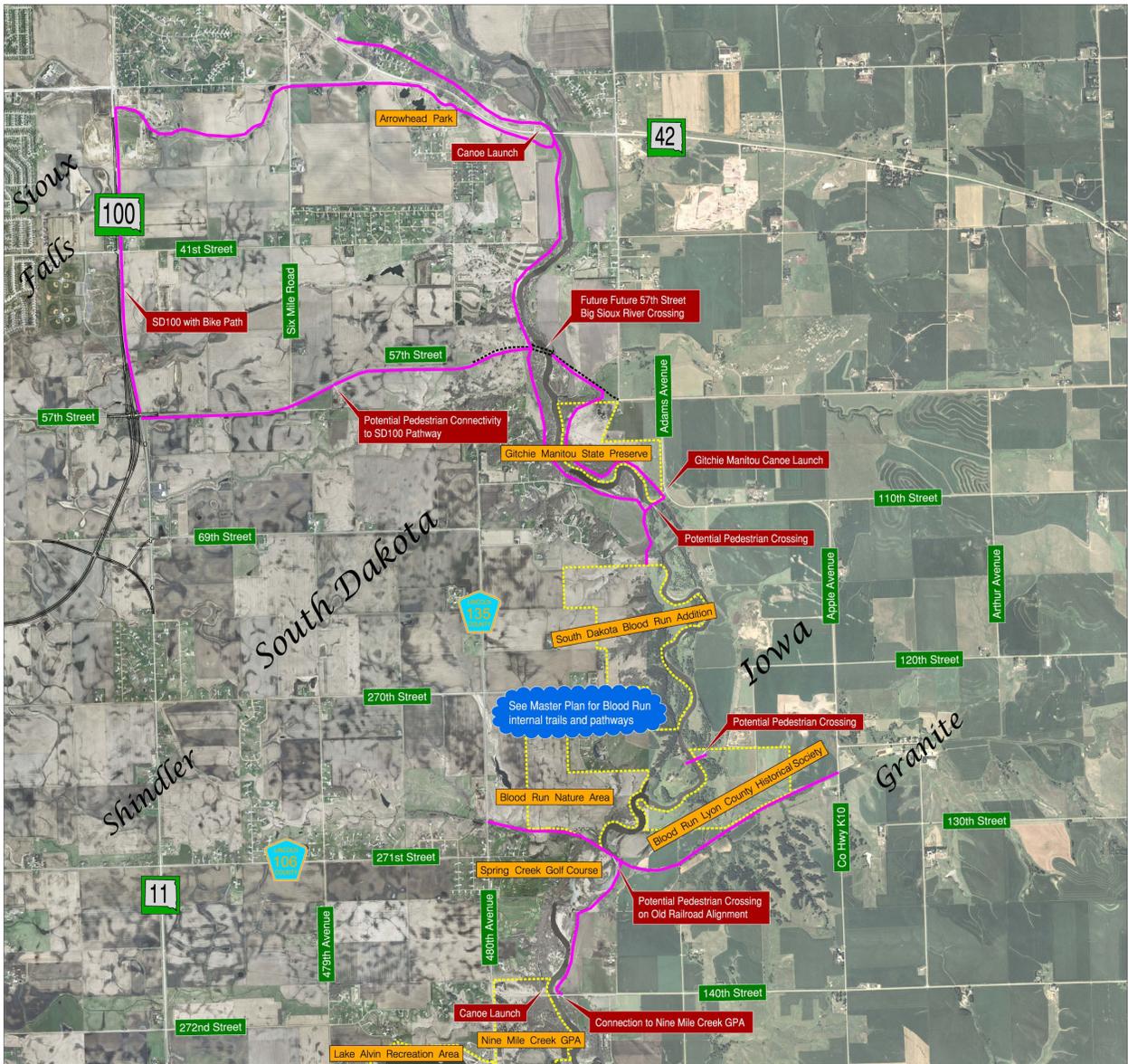


Figure 7, Graphic showing regional connections

Utility Infrastructure

In order to serve the development of the proposed park, utilities such as power, water, sewer, and communications will be required. Due to the rural residential developments in this area, private utilities such as power (Southeastern Electric) and communications (phone, internet, TV, etc. by various companies) already exist near the CR 135 corridor. The availability for

water near the site also exists via pipelines owned and operated by Lincoln County Rural Water. Due to this land being outside of the current growth boundary of the City of Sioux Falls, it is apparent at this time that connection to city utilities is unlikely at the point in time when the proposed park improvements are completed. In regards to sewer infrastructure requirements, Lincoln County would defer the requirements to the State of South



Figure 8, Graphic showing the sanitary sewer basins

Dakota since the land would be owned by a State or Federal agency. Possibilities that exist include portable bathrooms, septic system, holding tanks, or gravity sewers. Due to the vision of the site, portable bathrooms would not be considered a long term solution. The use of a septic system is also not recommended due to the nature of the underlying aquifers in this immediate area. Based on the projected number of visitors to the site on an annual basis, the placement of holding tanks should be given merit as they would minimize potential contamination to groundwater.

The City of Sioux Falls has reviewed watershed boundaries and identified sanitary sewer basins well into the future. Basin 29 is the nearest sewer-able basin and lies just north of the proposed future entrance to the park. Basin 29 is not currently serviced and it will likely be 20-40 years before infrastructure is in place that would allow development in this area to connect to a gravity system. Due to the projected timeline for this system to be

constructed, the park should establish a strategy for service that provides for the needed use but fits well with the vision of the land and environmental constraints that exist.

Infrastructure Summary

As the park progresses from Phase 1 to completion, the surrounding area will also experience many changes due to development. With planned infrastructure projects for the south and east side of the Sioux Falls metro area, access to the proposed park will only become more efficient through the expansion of the existing roadway system. The traffic thresholds generated by the proposed park will have minimal impacts to the metro area peak hour conditions and the overall traffic impacts will be favorable to standard residential land uses if the land was to develop differently.

With a majority of the planned improvements on the South Dakota side of the Big Sioux River, the Iowa side will continue to operate in a similar fashion

as it does today, therefore preserving the cultural resources. In regards to roadway and utility infrastructure, the Blood Run site appears to be in a location that can be served efficiently and safely. Because the development of the proposed park through to completion will take several years, it is likely the schedules of the planned roadway improvements will complement the schedule of the park improvements.

Environmental Review

A preliminary environmental review was conducted in order to support the future development of the Blood Run Master Plan. It considers current environmental resources and also future actions to be taken as the project moves forward. As the project continues to progress, the potential for federal funding or the requirement of one or more federal permits is a distinct possibility. An option is to develop a state park under jurisdiction

of both South Dakota and Iowa, with the future goal of eventually converting it as a unit of the National Park System. Therefore, the National Environmental Policy Act (NEPA) should be considered and interwoven into the future steps of the project. This review includes considering the environmental resources typically evaluated in a NPS NEPA document, with emphasis given to those resources that would be relevant to this particular project. Table 1 displays a list of resources that are typically considered during the NPS NEPA process. Based on a preliminary review of the resources, two groups were noted: resources to be considered further in this memo, and resources to be addressed during the future NEPA process. Although analysis of all resources is important, this review identified key resources for early consideration in order to avoid and minimize potential impacts. Even though “Environmental Justice” is identified for future consideration, the importance of Native American populations (which are considered to also be Environmental Justice populations) and their input to the Master Plan process have been initially

| Resources Considered in this Memo | | |
|---|----------------------------|--------------------------------------|
| Cultural Resources | Land Use | Wetlands and Waters of the U.S. |
| Threatened and Endangered Species | Water Quality | Floodplains |
| Farmlands | Habitat and Wildlife | |
| Resources for Future Consideration During the NEPA Process | | |
| Joint Development | Economics | Parklands and Recreational Resources |
| Transportation (including pedestrian facilities) | Geology | Geohazards (including mining) |
| Water Quantity | Soundscape | Visual |
| Lightscape Management | Energy Conservation | Regulated Materials |
| Utilities | Visitor Use and Experience | NPS Administration and Operations |
| Environmental Justice | | |

Table 1, Resources Likely to be Considered during the NPS NEPA Process

addressed through the Cultural Resources process, which includes Tribal consultation.

The following section is a description of each of the resource sections that were listed in the table below. For each section, the data sources available for analysis are described, the methodologies used to conduct environmental screening are discussed, and the findings of the analysis for each environmental issue are listed. Because cultural resources are the crucial resource for protection and enhancement under the future development of the proposed park, the description and analysis of this resource is provided first and is in more detail than the other resources that follow.

Cultural Resources

Compliance with the requirements of Section 106 of the National Historic Preservation Act (NHPA) may be necessary before any development occurs, depending on Federal involvement in the project. Adherence to the Future Actions presented here should provide a solid foundation for ensuring that Section 106 requirements are met.

Many of the unique features and other visible evidence of prehistoric and early historic occupations at the Blood Run NHL

have been damaged or destroyed due to neglect, modern development, and the ravages of time. Modern intrusions have encroached on the Blood Run NHL's integrity of setting and materials, and have altered its original sense of place. The destruction is attributable to agricultural practices that have gradually worn down the mounds that were once prominent within the viewshed. The construction of the railroad through its southern section removed several prehistoric earthen structures to provide fill for the railroad bed, which itself is gradually eroding and blending back into the landscape. Gravel quarrying operations on the Iowa side have left extensive scars that remain lightly masked by limited attempts to restore and re-plant the affected areas. Residential development threatens to encroach from the South Dakota side with large, stately country homes and rural residential developments that are within moderate commuting distances to Sioux Falls. That being said, despite the loss of resources that have occurred in the past, immense deposits of archaeological significance still remain within the confines of the Blood Run site.

The Big Sioux River flows within the Blood Run NHL boundaries, slowly meandering over time and changing its course with



Mix of traditional artifacts with European trade materials.



Oneota Pot found at Blood Run

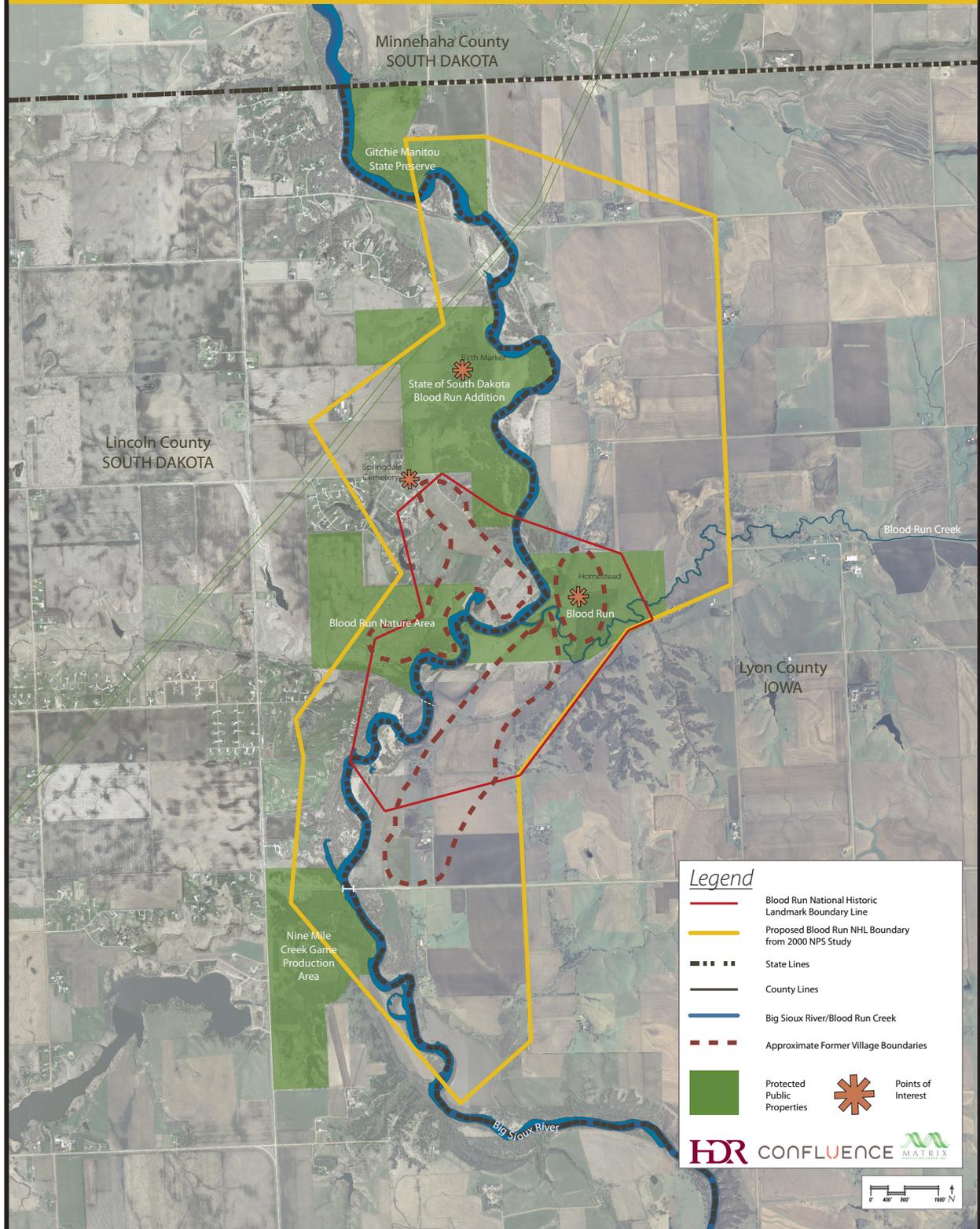


Figure 9, Graphic showing the cultural resources within the Blood Run Study Area (modified from Plains Anthropologist, Volume 49, Memoir 36, 2004)

the seasons and centuries. As it meanders and periodically floods, it erodes its banks and deposits river-born sediments atop existing surfaces, removing or obscuring cultural remains found in its path. Over the past 100 years, casual visitors to this remarkable place have removed artifacts left behind by its original inhabitants. Archaeologists, who on those few occasions when they have come to study at Blood Run to learn about the people who once lived here, have occasionally dug into it to collect artifacts and remains to be examined and written about. These professional archaeological investigations have been invaluable in understanding the historical nature of the site.

Invasive plant species have taken root in the eastward facing forests, and in the prairie on the east side of the river. Several of these species have become established and add to the changes that are incompatible with the native plant communities that historically existed at Blood Run.

Where once there were estimated to be 275 conical mounds, boulder circles, an earthen serpent effigy, and an earthen enclosure, there now remain only 80 or

so visible low-lying mounds. Agricultural fields, roads and bridges, an 18-hole golf course, electrical transmission lines, water lines, fence lines, and the sights and sounds of modern development all intrude within the viewshed and threaten the integrity and tranquility of this place that generations of Native Americans once called home and where they built mounds of earth constructed one basket of dirt and rock at a time to commemorate their family members and ancestors, in accordance with their time-honored beliefs.

The descendants of those who previously inhabited Blood Run note that it continues to be a spiritually powerful place. Individuals whose ancestors are buried here within the surviving low mounds of earth, still wish to come here to connect with their past and experience the spiritual power of this sacred resting place.

Future Actions to Protect Cultural Resources

First and foremost, Blood Run should be recognized as a historically sacred place that served as a community site, ceremonial and trade center, and burial site. It retains tremendous traditional



View towards Blood Run Creek showing the uninterupted viewshed. This could be compromised by the potential threats of housing and quarries if not protected.

religious and cultural importance. The people who are buried in the mounds are likely the ancestors of several Tribes in the region who assign cultural, historical and spiritual affinity to this place.

Tribal Advisory Group

Future actions must recognize the need to preserve and protect the physical archaeological remains as well as the spiritual and cultural values it retains. To that end, the development of the Blood Run NHL must include the Tribes in all deliberations about its development and use. A standing committee of Tribal representatives should be formed to actively collaborate on all planning and design efforts at Blood Run. This committee, or Tribal Advisory Group (TAG), should be established by the tribes to help integrate Tribal issues in park development, operations and maintenance. Primary members of the TAG should represent the Tribes that historically lived on the Blood Run site and participated in activities that once took place there. Archaeological evidence primarily indicates the presence of the Omaha, Ponca, Ioway and Oto Tribes.

Traditional Cultural Property Study

A Traditional Cultural Property (TCP) Study is needed to identify places of importance to the Tribes within Blood Run, and to help prioritize sensitive areas requiring immediate and long term management efforts. This study should be conducted through close coordination with Tribal representatives to recognize the traditional importance of the Blood Run NHL and the spiritual places within it that are rooted in their history, are important for maintaining their continuing cultural identity, and to ensure that any future developments and uses do not unnecessarily or inadvertently intrude or damage these special places. Arrangements should be made to

ensure that sensitive information which should not be shared outside traditional practitioner groups remains confidential.

Set-aside Tribal Ceremonial Location

The TCP study should provide, among other things, the basis for designating a Tribal Ceremonial Set-aside Location where Tribes may conduct ceremonial activities or traditional practices to affirm their continuing cultural identity, and in recognition of the importance of this place as a source of spiritual value. The Tribal Ceremonial Set-aside Location should be selected in consultation with the TAG, and should provide seclusion and controlled public access during times of traditional use.

Archaeological Investigations

Archaeological investigations should be conducted as a normal part of design and planning in park development. Such investigations should be designed as early in project planning stages as possible in consultation with the TAG, and should include Tribal involvement. When archaeological investigations of a targeted development area are warranted, they should be carried out with the lowest level of disturbance necessary to acquire the needed information regarding the presence of intact cultural deposits, weighing the sensitivity of those deposits to the scope and scale of the proposed disturbance activity.

Facilities development activities should be designed to avoid disturbance of significant cultural resources. When appropriate, and in consultation with the TAG, collections obtained from previous archaeological excavations may be borrowed from repositories to be displayed at the visitor center for educational and interpretive purposes.

Interpretation and Education

Visitor experience at the park should focus on interpretation and education. Park developments and facilities should be designed in a manner that promotes a clear understanding of the value of the park as a place where learning and recreation are mutually complimentary. Interpretive displays may be housed at the visitor center with signs conveying complementary information throughout the park area about the site's prehistoric use and its continuing traditional cultural importance to living Tribal communities. Living history programs should be developed to encourage participation of visitors in activities that inform about the culture, technology, and traditional folklore of the past occupants. Examples of ongoing living history projects include reconstructions of garden plots using crop species that were once grown on site prehistorically, reconstruction of an Oneota lodge using local materials, living history demonstrations of traditional crafts, subsistence practices, survival techniques, and perhaps a lecture series by Tribal elders, traditional practitioners and preservation professionals to provide the public with information and a better understanding of the area's past. Perhaps most importantly, interpretation and education programs should emphasize the relevance of the past to the present, and the need to acknowledge the past by honoring those who are buried at this site, and by respecting those who ascribe closest affinity to it.

Ecosystem Restoration and Interpretation

An important aspect of park management should be an on-going program to eradicate invasive plant species and to reestablish native species within the park for a more historically accurate natural community that would enhance the ability to interpret the park's environment. As

part of this program, an ethnobotanical study should be conducted with Tribal participation. This study would focus on identification of important native species that were used for traditional purposes. A park guide or brochure could be developed from the study to explain the broad range of traditional knowledge regarding the medicinal, religious, and economic uses of various native plants observed in the park. This study would also help guide the vegetative restoration efforts to ensure that appropriate native species are included.



Restored prairie on the Iowa Blood Run site

Land Use and Farmland

The Farmland Protection Policy Act of 1981 (7 CFR 658) requires that Federal programs, to the extent practicable, are compatible with state, local, and private programs and policies to protect farmland and minimize the conversion of farmland to non agricultural uses. Specially classified farmlands received particularly close scrutiny under this act. The Master Plan will consider current and projected future land uses, including agriculture, to ensure that Blood Run site development would create a cohesive environment with the adjacent land uses.

Land use in the Study Area is identified as agriculture, forest, grassland, open water, wetlands, urban, and roads surrounding the Big Sioux River. Figure 4, on page 13, displays the current land uses within the Study Area.

The following future actions are recommended to determine the impacts of the Project on land use and farmland:

- The current land use, including farmland, within the Study Area should be confirmed with a field survey of aerial images.
- The farmland that will be converted by the project should be calculated. The land use conversions should also be discussed in comparison to future land use plans in the area.



View of existing farmlands within the study area

If any farmland would be converted, the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) offices in South Dakota and Iowa would need to be coordinated with in the future to determine the project's impact to farmland. A Farmland and Conversion Impact Rating Form would need to be filled out for Lincoln County, South Dakota, and Lyon County, Iowa by the NPS, provided to NRCS offices for review, and then the NRCS offices would complete

Part II and Part IV of the form. If the score is 160 or more, the NPS would need to demonstrate measures to minimize farmland impacts.

Wetlands, Waters of the U.S., and Water Quality

Waters of the U.S. and wetlands are regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act, which requires a permit to authorize the discharge of dredged or fill material into waters of the US (33 USC 1344). The Study Area is within the boundaries of two USACE regulatory offices: South Dakota Regulatory Office in Pierre and Rock Island Regulatory Office in Illinois. The South Dakota Department of Environment and Natural Resources (SD DENR) and Iowa Department of Natural Resources (IA DNR) are responsible for Section 401 Water Quality Certification for any project requiring a federal permit or license that includes a discharge into a water of each respective state.

The National Wetland Inventory (NWI) wetlands within the Study Area are displayed in Figure 10 on page 46. The wetlands in the area are either riparian wetlands associated with Waters of the U.S. or are prairie pothole wetlands that are typical of this region.

The following are the water resources within or adjacent to the Study Area:

- Big Sioux River; the largest hydrological feature in the region
- Lake Alvin
- Spring Creek
- Blood Run Creek
- Nine Mile Creek
- Unnamed tributaries to the Big Sioux River
- Groundwater resources.



View of the Big Sioux River from the Iowa side

The segment of the Big Sioux River within the Study Area is designated by the SD DENR as River Segment 8 (R8), extending from above the City of Brandon to Nine Mile Creek. This segment of the Big Sioux River is currently not meeting the designated uses of immersion recreation and warm water semipermanent fish life due to E. coli, fecal coliform, and total suspended solids.

Lake Alvin is not meeting its designated use for warm water permanent fish life due to temperatures. This segment of Spring Creek is not meeting the designated use of limited contact recreation due to fecal coliform levels. The Iowa Draft 2010 Integrated Report was also reviewed and no waterbodies were listed within the Study Area.

The following future actions are recommended to determine the impacts of the Project on wetlands, Waters of U.S., and water quality:

- USACE coordination to determine the regulatory office, either South Dakota or Rock Island, that would take primacy for the Project.
- For the preliminary design layouts during the design of the park area, a formal delineation should be conducted in accordance with the Corps of Engineers

Wetlands Delineation Manual and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region to determine the extents of wetland areas and Waters of the U.S. The determined boundaries of the wetlands and Waters of the U.S. should be incorporated to ensure that the areas are being avoided, and if unable to avoid that impacts are being minimized.

- The impacts that are unavoidable will require a Section 404 permit through coordination with the USACE. If impacts are greater than 0.1 acre, mitigation would be required. The Section 404 permit requires a 401 certification which allows the SD DENR and IA DNR to review the water quality impacts of the Project. Any issuance of water quality permits or licenses will also trigger Section 106 of the National Historic Preservation Act that requires Federal agencies to review the potential impacts on historic properties.

Floodplains

Lincoln County, South Dakota is a National Flood Insurance Program participant. The Lincoln County Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS) became effective April 2, 2008. The updated digital format flood boundaries and elevations are part of the Federal Emergency Management Agency (FEMA) Map Modernization. The changes update the previous FIRM maps dated October 1, 1986.

Lyon County, Iowa is currently not a participant of the National Flood Insurance Program, therefore there is no designated floodplain on the Iowa side of the Blood Run site. Figure 10 on page 46, shows the designated floodplain for Lincoln County in the area near and including the Study Area.

The following future actions are recommended to determine the impacts of the Project on floodplains:

- During the design process, the designated floodplain in Lincoln County would be considered to determine if the layout encroaches on the floodplain. Both Lincoln County and Lyon County would be coordinated with to determine if any local floodplain provisions apply, and those provisions would be considered in the design process.
- If the designated floodplain is encroached upon, a hydraulic analysis would determine if a rise would occur to the base flood elevations.
- If no rise would occur, then a certificate would be coordinated with the local floodplain coordinators.
- If a rise would occur, a Conditional Letter of Map Revision (CLOMR) would need to be acquired if a water surface elevation rise is determined, or the design could be modified or mitigations implemented to preclude a no rise condition from occurring.

Threatened, Endangered, and Species of Concern

The U.S. Fish and Wildlife Service (USFWS) maintains a list of potential threatened and endangered (T&E) species located within each county. Within Lincoln County, South Dakota, the federally-listed T&E species are: Topeka shiner, pallid sturgeon, and western prairie fringed orchid. In Lyon County, Iowa, the federally-listed species are: Topeka shiner, prairie bush clover, and western prairie fringed orchid. The NPS Study from 2000 notes the Topeka shiner could be present within the Study Area.

In order to determine the potential state-listed T&E species within Lincoln County, the list of T&E species on the SD GF&P website was compared to the wildlife management plan. The species were identified through a review of the habitat found within the study area. Four state T&E species that are potentially found within the study area include: osprey, peregrine falcon, northern river otter, and lined snake. In the NPS Study, the Iowa Department of Natural Resources (IA DNR) noted several species potentially found at



View of the Big Sioux River floodplain from the lower portion of the South Dakota Blood Run Addition property



Biscuit Root



Prairie Ringlet



Prairie Sagewort

the Blood Run site:

- Biscuit root (*Lomatium foeniculaceum*): State-listed endangered species- Plant
- Plains cinquefoil (*Potentilla pennsylvanica*): State-listed threatened species-Plant
- Oregon woodsia (*Woodsia oregona*): State-listed threatened species-Plant
- Prairie sagewort (*Artemisia lympi*): Species of special concern-Plant
- White beardstongue (*Penstemon albidus*): Species of special concern- Plant
- Hairy golden aster (*Heterotheca villosa*): Species of special concern-Plant
- Rock spikemoss (*Selaginella rupestris*): Species of special concern-Plant
- Prairie ringlet (*Coenonympha tullia*): State-listed endangered species-Butterfly (currently found only in the Blood Run watershed)
- Mulberry wing (*Poanes massasoit*): State-listed threatened species- Butterfly
- Regal fritillary (*Speyeria idalia*): Species of special concern-Butterfly
- Beardgrass skipper (*Atrytone arogos*): Species of special concern- Butterfly
- Olympia white (*Euchloe lympia*): Species of special concern- Butterfly

- Edward's hairstreak (*Satyrion edwardsii*): Species of special concern- Butterfly

Bald eagles and other migratory birds could be found utilizing the Big Sioux River and the surrounding area within the Study Area for roosting and nesting. The bald eagle, although delisted, remains protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act. Migratory birds are protected under the Migratory Bird Treaty Act (16 USC 703-712, as amended). Migratory birds potentially use the study area for nesting, which occurs primarily between April 1 and July 15.

In addition to the consideration of the federal and state designated species, other species that may be of significance to the Tribes need to be considered. Cultural resources on the site are not limited to archeological sites but include the actual culture of the Native Americans that inhabited the area. Therefore, ethnobotany should be considered as part of this project. Ethnobotany is the scientific study of the relationships that exist between people and plants. Ethnobotany documents, describes, and explains the complex relationships between cultures and the uses of plants, focusing on how plants are used, managed, and perceived across human societies.

In relation to the Blood Run site, the Native American Tribes that inhabited the area have identified specific plants and vegetation communities for everyday and ceremonial use within the study area. For example, sage is held sacred by many Native American Tribes and is used in ceremonies.

The following future actions are recommended to determine the impacts of the project for threatened, endangered, and species of concern:

- Coordinate with the South Dakota and Iowa USFWS Field Offices to determine the federal T&E species for the Project. Coordinate with the IA DNR and SD GF&P to determine the state T&E list of species for the project. Also identify federal and state species of concern.
- A habitat assessment would need to be conducted to determine if suitable habitats are present within the study area and compare the list of species to the habitat present. The potential for the species to be located in the study area can then be determined and coordinated with the USFWS, IA DNR, and SD GF&P.
- If a species is determined to be located within the study area and could potentially be impacted by the project, further coordination (i.e. preparation of a biological evaluation or a biological assessment) would be required with the USFWS, IA DNR, and SD GF&P.
- As mentioned above in the Cultural Resources section, an ethnobotany survey would be conducted to determine the species of significance to the Tribes. Tribal members would be invited to conduct the surveys. Further consideration of these species would be incorporated into the design as interpretation and education displays, as well as potential programs.



Topeka Shiner



Hairy Golden Aster



Mulberry Wing



Western Prairie Fringed Orchid

Habitat and Wildlife

Habitat

The habitats and habitat features within the study area include:

- Cropland that is primarily row crops such as soybeans and corn.
- Riparian areas along waterbodies with vegetation such as cottonwoods, willows, elms, boxelders, prairie cordgrass, and cattails.
- Grasslands that consist of scattered stands of native and non-native communities. One area has been described as a dry mesic prairie with narrow bands of native grassland on the hill slopes; the area is dominated by little bluestem, big bluestem, and side-oats grama, and conservative plants like silky aster, prairie dropseed, and Ceanothus.
- Mature forested areas that include the following species: bur oak, American elm, eastern red cedar, hackberry, basswood, box elder, green ash, iron wood, silver maple, and Siberian elm. A SD GF&P Site Survey in 1997 also noted stands of huge cottonwood trees on one bend of the Big Sioux River with an understory of giant ragweed, stinging nettles, wood nettles, goldenglow, and reed canary grass. In the same site survey a bur oak woodland was noted that was located within the Big Sioux floodplain.
- Some areas that are dominated by buckthorn, plum, and sumac.
- Waterbodies such as perennial and intermittent streams, the Big Sioux River, Blood Run, Spring Creek, Nine Mile Creek, and unnamed tributaries of the Big Sioux River.
- The area also includes Sioux Quartzite outcrops, specifically in the Gitchee Manitou State Preserve.



Mature forest on the Blood Run Addition property

- Lake Alvin is an impoundment area formed by a dam on the lower end of Nine Mile Creek.

The Forest Stewardship Plan for the former Nelson property recommended improvements to the area for the purpose of improving wildlife habitat. Buckthorns and eastern red cedar were removed in order to create open grass areas. The area owned by the State of Iowa, noted as Blood Run on Figure 3 on page 10, has also been successful in converting from farmland back to native grasslands.



Sioux Quartzite outcroppings in Gitchee Manitou

Wildlife

The Forest Stewardship Plan for the former Nelson property notes the wildlife in the area includes, but is not limited to, wild turkeys, whitetail deer, squirrels, rabbits, and ringneck pheasants. In addition to these species, the NPS Study notes the following: coyote, red fox, raccoon, striped skunk, bullsnake, common gartersnake, red-tailed hawk, northern flicker, and common grackle.

The following future actions are recommended to determine the impacts of the project for habitat and wildlife:

- A habitat survey would be completed as part of the project, determining the habitat and wildlife found within the study area. A survey will establish a benchmark for the various species that currently exist within the confines of the study area. It will also allow for a quantified measurement of species populations and retention and how they are affected by future site impacts.
- Coordination should occur with USFWS, IA DNR, and SD GF&P to confirm the habitat areas and wildlife found.
- The project should consider restoration to habitat areas. One important aspect to the creation of a state or national park is restoration of the native species. As noted above in the Cultural Resources section, ecosystem restoration and interpretation is an important aspect of park management.



Natural Features within the Blood Run Study Area

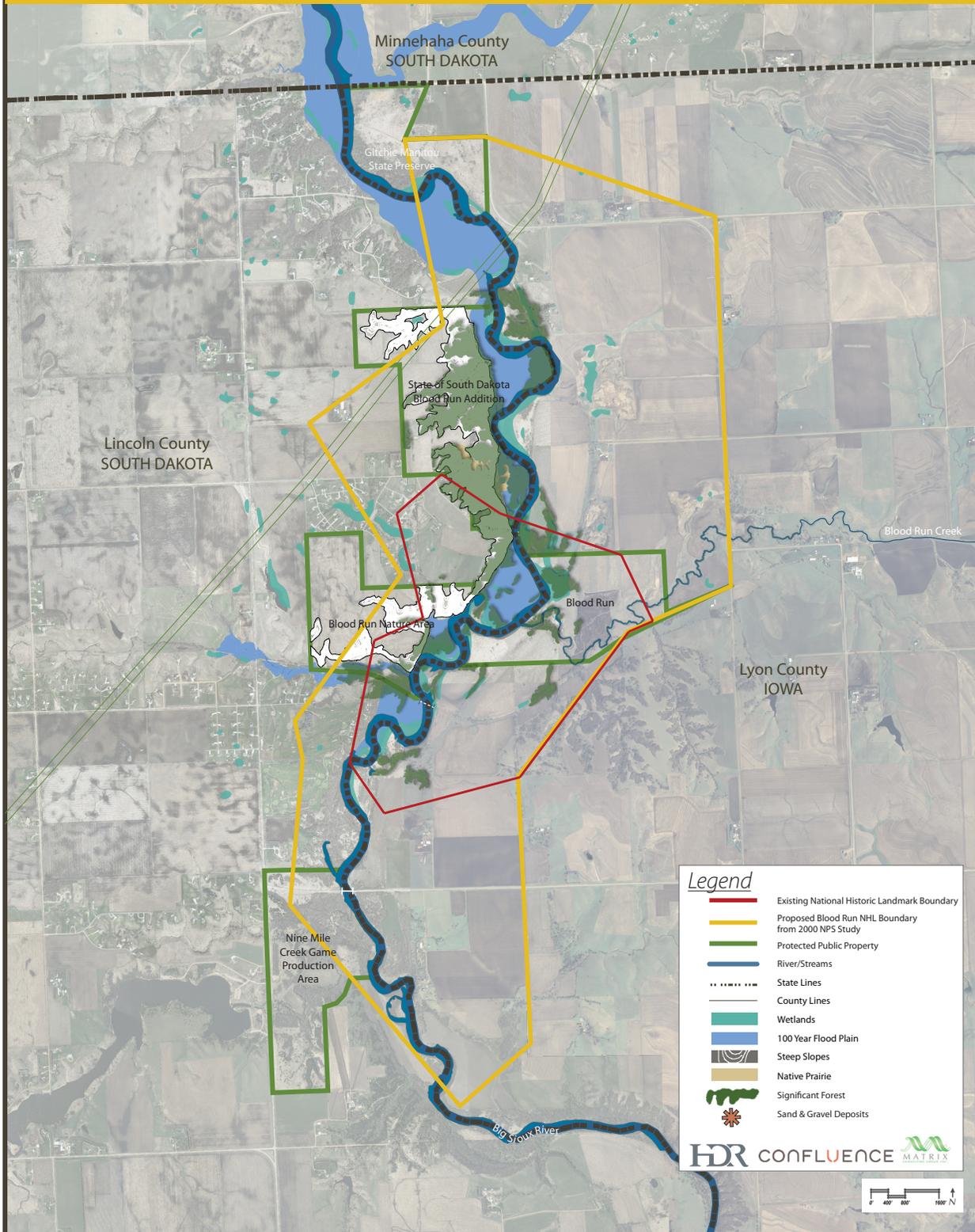


Figure 10, Graphic showing natural/environmental features

Tribal Coordination

Communication with Tribes

Meetings with Tribes

Summary of Key Issues

Recommendations

Communication with Tribes

Tribal communication provides a collaborative approach to the master plan and will help build the framework for future engagement, while enhancing the understanding of important issues for the Tribes. Several communication tools were used including development of a Tribal contact database, letters of invitation, Tribal meetings, follow-up phone contact, and handout materials. These are further described in the following subsections.

Tribes

As part of Tribal communications, the SD GF&P invited Tribal leaders from 40 federally recognized Tribes to participate in meetings to discuss the master planning process and Tribal involvement. The following list of Tribes was compiled using a combination of the Pipestone National Monument Tribal Consultation list, the U.S. Army Corps of Engineers (USACE) Missouri River Basin Tribal Consultation list, and the USACE Programmatic Agreement Tribal Contacts list. The Tribes invited to participate may have had an ancestral or current interest in the Blood Run National Historic Landmark. The list of Tribes include:

- Apsaalooke (Crow) Nation
- Assiniboine and Sioux Tribes of Fort Peck
- Blackfeet Tribe
- Cheyenne River Sioux Tribe
- Chippewa Cree Tribe of the Rocky Boys' Reservation
- Crow Creek Sioux Tribe
- Eastern Shoshone Tribe
- Flandreau Santee Sioux Tribe
- Gros Ventre and Assiniboine Tribes of Fort Belknap Indian Reservation
- Iowa Tribe of Nebraska and Kansas
- Iowa Tribe of Oklahoma
- Kaw Nation
- Kickapoo Tribe in Kansas
- Lower Brule Sioux Tribe
- Lower Sioux Indian Community
- Northern Arapaho Tribe
- Northern Cheyenne Tribe
- Oglala Sioux Tribe
- Omaha Tribe of Nebraska
- Osage Nation
- Otoe-Missouria of Oklahoma
- Pawnee of Oklahoma
- Ponca Tribe of Nebraska
- Ponca Tribe of Oklahoma
- Prairie Band of Potawatomi Nation
- Prairie Island Indian Community
- Quapaw Tribe of Oklahoma
- Rosebud Sioux Tribe
- Sac and Fox Nation of Missouri in Kansas and Nebraska
- Sac and Fox Nation of Oklahoma
- Santee Sioux Tribe of Nebraska
- Shakopee Mdewakanton Sioux Community
- Sisseton-Wahpeton Oyate Tribe
- Spirit Lake Sioux Tribe
- Standing Rock Sioux Tribe
- Three Affiliated Tribes
- Turtle Mountain Band of Chippewa
- Upper Sioux Community Pezihutazizi Oyate
- Winnebago Tribe of Nebraska
- Yankton Sioux Tribe

Tribal Contact Database

The Tribal contact database was developed as a tool to aid in organizing and maintaining points-of-contact within each of the 40 federally recognized Tribes. During the development of the database, calls were made to various Tribal offices for each Tribe to determine the initial points-of-contact for the Blood Run Master Plan. Throughout the master planning process, the Tribal contact database was updated as necessary, and additional Tribal contacts were added based on sign-in sheets from each meeting. The database contains Tribal contact information, such as:

- title of individual
- first name
- last name
- address
- phone number
- fax number
- email address

Tribal Notifications

Invitation letters were sent to Tribal Chairpersons and Tribal Historic Preservation Officers (if known) of each of the 40 Tribes. Letters included a brief description of the master planning process and offered each Tribe an opportunity to tour the Blood Run NHL site. Follow-up calls and emails were made verifying receipt of the letters and information. During this process, additional points-of-contact were collected and added to the Tribal contact database. Designated points-of-contact for the Blood Run master plan team were included in the correspondence to Tribes for the purpose of being available for follow-up discussions or questions concerning the project.

Materials for Tribes

Information and materials provided by request throughout the master planning process were as follows:

- “Blood Run: Premier State Park” handout
- “State Congressional Contacts” list
- List of Tribes invited to participate in the master planning process

After each meeting, packets of information were mailed to all Tribal contacts, which included meeting summaries, digital and hardcopies of the PowerPoint Presentations, and the handouts listed above.

Tribal Resolutions of Support

Tribal representatives at the initial Tribal meeting, held on April 28, 2011, requested that SD GF&P draft a template for a resolution of support for consideration by Tribes to support the Blood Run master planning process. The template was distributed at the next Tribal meeting. The purpose of a Tribal resolution of support template was to gain support from the Tribes. The template was included in the packets of information sent out after each meeting and was also emailed upon request. The “Blood Run—State Park and Master Planning Process Resolution of Support” template was distributed to Tribes listed on page 50.

The Ponca Tribe of Nebraska Council passed a resolution of support on June 25, 2011. The Ponca Tribe of Nebraska supports the SD GF&P in their efforts to acquire lands identified and available for purchase in order that the cultural resources and property involved with Blood Run can be properly protected and preserved in accordance with all governing sacred site protections.

Meetings with Tribes

As part of the communications with Tribes for the master planning process, three meetings were held, to which all 40 Tribes were invited. Two meetings were conducted in a workshop format; agendas, project goals, and driving directions were released before hand and a final meeting was conducted as a webinar (web conference).

A list of meetings held throughout the master planning process is as follows:

- April 28, 2011 — Initial Tribal Meeting, Sioux Falls, South Dakota
- June 8, 2011 — Planning Visioning Meeting, Sioux Falls, South Dakota
- July 20, 2011 — Tribal Update Webinar (web conference)
- January 17, 2012 — Tribal Update Webinar (web conference)

A brief description of each meeting is provided in the following subsections including purpose, format, participants, and key issues. Issues that were expressed at the meetings are briefly captured under each meeting and summarized on page 52 in the Summary of Key Issues, followed by the determined recommendations.

Initial Tribal Meeting

An initial Tribal meeting was held in Sioux Falls, South Dakota on April 28, 2011. The purpose of this meeting was to invite Tribes to participate in the Blood Run master planning process to inform and involve Tribes early on in the process. On April 27, 2011, prior to the initial Tribal meeting, a tour of the Blood Run NHL was hosted followed by a dinner sponsored by the SD GF&P and the South Dakota Parks and Wildlife Foundation. The

initial meeting included a background presentation on the National Historic Landmark and the master planning process, which addressed the current funding situation, potential management options, and the purpose and need of Tribal participation throughout the process.

Attendance at the initial meeting included representatives from the following Tribes, in addition to representatives from SD GF&P, Iowa and South Dakota State Historical Societies, South Dakota Secretary of Tribal Affairs, and United States congressional representative.

- Cheyenne River Sioux Tribe
- Crow Creek Sioux Tribe
- Flandreau Santee Sioux Tribe
- Lower Brule Sioux Tribe
- Omaha Tribe of Nebraska
- Ponca Tribe of Nebraska
- Sisseton-Wahpeton Oyate Tribe
- Winnebago Tribe of Nebraska

Several key issues were discussed during the initial Tribal meeting. Discussions included concern about the name of the site and how it is currently being interpreted in the media, such as a battle site. Tribal participants suggested a traditional indigenous name for the park, such as “Dhegiha”, which is the Tribal name for the people who historically came to the Blood Run geographic area. Although this was just one suggestion for the future name of the park, any change from the Blood Run name will warrant a discussion between the Tribal interests, park operators, and other pertinent parties. There was discussion on the role of Tribes in cultural interpretation at the

site, desire for a shared history based on Tribal experiences, the importance of maintaining Tribal partnerships and support, engagement, and participation protocols for Tribal members.

A suggestion was made by one of the participants to have a two-day period for Tribal elders/members to visit the site; followed by a one-day meeting to discuss vision for the park and important features.

Planning/Visioning Meeting

As recommended at the initial Tribal meeting, a two-day site visit was hosted at the Blood Run NHL on June 6 and 7, 2011, for Tribal elders and members to gather on the site.

On June 8, 2011, in Sioux Falls, South Dakota, a planning/visioning meeting was held to discuss the future state park. The purpose of the meeting was to provide an opportunity for Tribal members to share information, ideas, and insight about how they would like to see the site developed, which would assist in the development of the master plan for the Blood Run site. The meeting included reflections from Vine Marks of the Sisseton-Wahpeton Oyate Tribe on his experience at the Blood Run National Historic Landmark site and breakout sessions for Tribal representatives to share their vision for the site. Attendees at the visioning/planning meeting included representatives from SD GF&P, South Dakota State Historical Society, and representatives from the following Tribes:

- Lower Brule Sioux Tribe
- Omaha Tribe of Nebraska
- Ponca Tribe of Nebraska
- Flandreau Santee Sioux Tribe
- Sisseton-Wahpeton Oyate Tribe
- Yankton Sioux Tribe

Key issues discussed during the planning/visioning meeting included protection of the Blood Run National Historic Landmark site, including sacred sites, cultural resources, and medicinal plants. Also discussed was the importance of public education to provide history and the sacred nature of the site as well as to correct any misconceptions about the site. Other key issues included Tribal access



Working Session at the Planning/Visioning Meeting - Sioux Falls, SD

versus general public access, conducting a Traditional Cultural Property (TCP) survey, and continued Tribal involvement throughout the project and master planning process. There was discussion on developing a forum between Tribes and SD GF&P, and funding for the state park project.

First Webinar Tribal Update

On July 20, 2011, a webinar was hosted by SD GF&P to update Tribes on the master planning process, and information that was collected from Tribes and the general public. A presentation was given which displayed maps showing the location of the Blood Run NHL. The presentation stepped through each phase of the "revised concept plan".

Attendance at this webinar included representatives from SD GF&P, South Dakota and Iowa State Historical Societies, and representatives from the following Tribes:

- Cheyenne River Sioux Tribe
- Omaha Tribe of Nebraska
- Ponca Tribe of Nebraska
- Sisseton-Wahpeton Oyate Tribe

Key issues discussed during the Tribal webinar focused on protection and monitoring of the Blood Run National Historic Landmark site, Tribal representation in the TCP survey, and continued Tribal involvement throughout the project and master planning process. Comments were made concerning reintroduction of native ceremonial and medicinal plants for future Tribal uses. Concerns were expressed regarding the parking lot and overlooks.

Second Tribal Webinar

A second webinar was held on January 17, 2012 to present the updated master plan to the Tribes. A presentation was given that described the programmatic elements that were proposed for each phase of the master plan implementation.

Attendance at this webinar included representatives of SD GF&P, as well as representatives from the following Tribes:

- Cheyenne River Sioux Tribe
- Flandreau Santee Sioux Tribe
- Omaha Tribe of Nebraska
- Sisseton-Wahpeton Oyate Tribe
- Yankton Sioux Tribe

Key issues include the desire, from the Tribal perspective, to continue to be involved in the development of Blood Run. One way that this could be achieved is by

the establishment of a Tribal Blood Run Forum. Also, it was noted that the SD GP&P will be initiating a Traditional Cultural Property (TCP) Survey and the Tribes expressed their desire to be involved in that process. Other comments included the continued discussion on a possible name change for the area, and it was determined that future discussions would be required in order to come up with a consensus name to perhaps replace Blood Run.

Summary of Key Issues

Based on the comments and discussion from the three meetings (initial meeting, planning/visioning meeting, and the webinar), several key issues concerning the Blood Run NHL site emerged and are described below in five topic areas: cultural interpretation, protection and monitoring, public education, Tribal participation, and design issues.

Cultural Interpretation

Several comments were made concerning cultural interpretation at the Blood Run NHL site. Tribes want participation in the TCP survey and in the conceptualization of story boards. There was concern about the name of the site and how it is currently being interpreted in the media, such as a battle site. This portrayal could give people the idea that bullets and arrowheads could be found on the site. There was also discussion on a traditional name for the park. Finding a name for the site that has a traditional indigenous root seemed a key point of concern or desire. It was suggested that Tribes should provide input from their elders and community members. Cultural interpretation should

be a shared history based on Tribal experiences—ceremonial and spiritual foundations. There are ceremonial circles that need to be left alone and respected.

Protection and Monitoring of the Site

All participants noted that protection of the site is very important in addition to monitoring. Tribes would like to have a mutual agreement with the SD GF&P on protection for sacred sites. Hiring Tribal monitors was recommended. There was concern that mounds located on adjacent agricultural lands are currently being farmed. Plowing is occurring over the mounds, and there is concern whether cultural material coming to the surface is being collected, protected, archived, and managed. A policy to protect the cultural and medicinal plants is needed. Several comments were made concerning restricting access to the Iowa side for Tribal use only. Acquiring lands adjacent to the river and avoiding development on or near sacred areas was supported.

Public Education

There was discussion throughout the initial and visioning/planning meetings that the public needs to be informed about the history, background, and sacred nature of the site, and to correct any misconceptions about the site. It was noted that educating the public will enable them to see the landscape in a meaningful way.

Tribal Participation

Tribes in attendance agreed that involvement at the beginning and throughout the development of the potential state park is important. A Tribal Blood Run Forum was suggested to continue the dialogue throughout the

design, planning, and construction of the site. Continued support, engagement, and participation protocols for Tribal members are necessary. A template for resolution of support was requested, drafted, and sent to Tribes for presentation to their respective councils. The Ponca Tribe of Nebraska passed a Resolution of Support on June 25, 2011.

Design Issues

Several comments/suggestions were made during the visioning/planning meeting regarding design of the park. It was noted that access to the site on the South Dakota side is difficult. A bridge could provide access between the South Dakota and Iowa sides. Construction of walking trails (concrete) could affect each side differently. It was recommended that nothing more than walking trails be constructed on the South Dakota side only; leaving the Iowa side restricted. It was requested that no development occur on or near sacred sites, and no development on the Iowa side. It was recommended that overlooks not be paved due to potential cultural resources.

Recommendations

This section outlines all recommendation themes moving forward in the master planning process. These recommendations were expressed by Tribes through participation at the initial Tribal meeting, planning/visioning meeting, and the webinars.

Traditional Cultural Property (TCP) Survey

Several Tribes stated throughout the master planning process that a TCP survey should be conducted on the Blood Run

NHL to ensure that the property will be protected and monitored appropriately.

Continued Engagement of Tribes

All Tribal participants agreed that the involvement of Tribes at the beginning and throughout the development of the potential state park is important. It was expressed during multiple meetings that the early engagement of Tribes during this master planning process has been exemplary. Tribes want to continue to be involved and updated on the Blood Run Master Plan and possible state park project. The development of a Tribal Blood Run Forum was suggested to ensure that Tribes are involved and a part of future monitoring, designing, and planning, every step of the way. The Forum would serve as a working relationship between Tribes and the SD GF&P.

Sacred Areas

In meeting with Tribes, it has been expressed that particular areas within the Blood Run NHL are sacred areas, and should be protected and have limited access to by the general public. Access to these areas should be restricted, but open to Tribal use, especially for ceremonial purposes.

Next Steps

In the completion of the master planning process, the next steps should include continued Tribal communication and consultation, involving Tribes on any new or upcoming events about the Blood Run NHL Landmark, the master plan, and any following actions.

Visioning Process

Outreach Strategy

Specific Interviews

Visioning Workshops

SWOT Analysis

Geographic Mapping Exercise

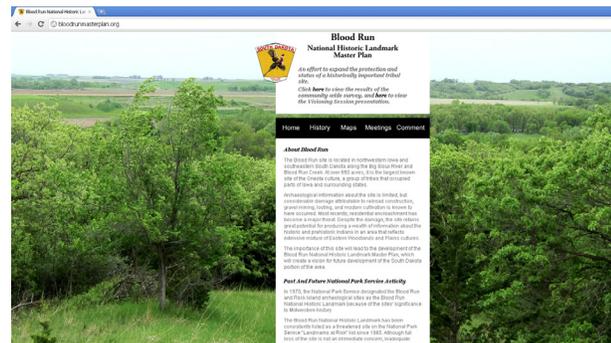
To assist in creating a consensus-driven vision for the project area, a visioning process was conducted where local officials, adjacent land owners, Tribal representatives, State officials from both Iowa and South Dakota, elected officials, other key stakeholders, and the general public were engaged in a fact-finding process to get their feedback on how they potentially see the Blood Run property developing over time. A variety of methods were conducted in order to get the most beneficial information that will be useful to continue on with the next phases of the project. These methods included conducting specific interviews, holding a series of visioning workshops where a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis and geographic mapping exercise were conducted, and a public survey that was available on the project website as well as delivered by direct mail to key individuals.

Outreach Strategy

The rich cultural background of the Blood Run National Historic Landmark made it essential to be in constant contact with each diverse group concerned with the future of the site. These groups included local landowners; Tribal communities; elected, governmental, and agency officials; and the surrounding community schools, neighborhoods, and religious institutions. By enabling these groups to provide input regarding the future use of the Blood Run NHL site, the master planning team was able to measure the pulse of the community.

Facilitating this community input and stimulating dialogue throughout the Blood Run NHL master planning process meant establishing a specific, structured

communications outreach program. By design, the outreach program encouraged early and active community engagement, recognized local knowledge, maximized cross-cultural methods of communication, and leveraged existing social networks. Specifically, outreach efforts consisted of traditional print media, a custom website (www.BloodRunMasterPlan.org), direct mail, and email, all of which supported the print- and web-based community survey.



Homepage of the project website BloodRunMasterPlan.org

The Doon Press, the *Little Rock Free Lance*, ***Lyon County News***, the *Lennox Independent*, and *Sioux Valley News* received two rounds of press releases in sync with the Visioning Workshop and Charrette, highlighting input opportunities. At the same time, the *Argus Leader*, the local daily publication, received press releases and designed display advertisements. Ancillary media—community calendar blurbs and media advisory notices—were also distributed to these organizations.

With an online survey, multiple ways to contact the project team, and over 900 visitors, the website served as both the information and public input center for the Blood Run National Historic Landmark Master Planning project. The website was updated both before and after public engagement opportunities to encourage continued community involvement and education.

To support of the community survey, and to direct traffic to website materials and input opportunities, 554 surveys letters or emails were sent prior to the Visioning Workshop, and 557 were sent prior to the Charrette. Over 10% of recipients submitted a survey. More than 40 specific comments were also submitted during the same period of time. Detailed survey results are discussed as follows:

- The online survey on the project website received feedback from 130 respondents. 61 respondents (47% of the total) came from zip codes within Sioux Falls, while an additional 19 respondents (15%) were from Harrisburg, SD zip codes.
- Based on the responses, 98% of the participants were familiar with Blood Run, and over half (70) had actually visited the site.
- The top three interests were Native American heritage and culture (72%), wildlife (55%), and scenery (52%).
- The most beneficial aspects of Blood Run becoming a park are cultural and

historical awareness (63%), conservation of natural resources (81%), and recreational opportunities (51%).

- Main concerns regarding the potential development include impacts to cultural site (74%), increased traffic (63%), and visual impacts (62%).
- The top desired active uses are hiking (67%), education (77%), and recreation (42%).
- The top desired passive uses are observation of nature (74%), contemplation (51%), and spiritual activities (34%).
- Services seen as most beneficial to the community include nature programs (73%), living history demonstrations (70%), and guided group tours (49%).
- Other desired park infrastructure improvements include better access (48%), Visitor's Center (48%), modern restrooms (44%), and interpretive kiosks (43%).

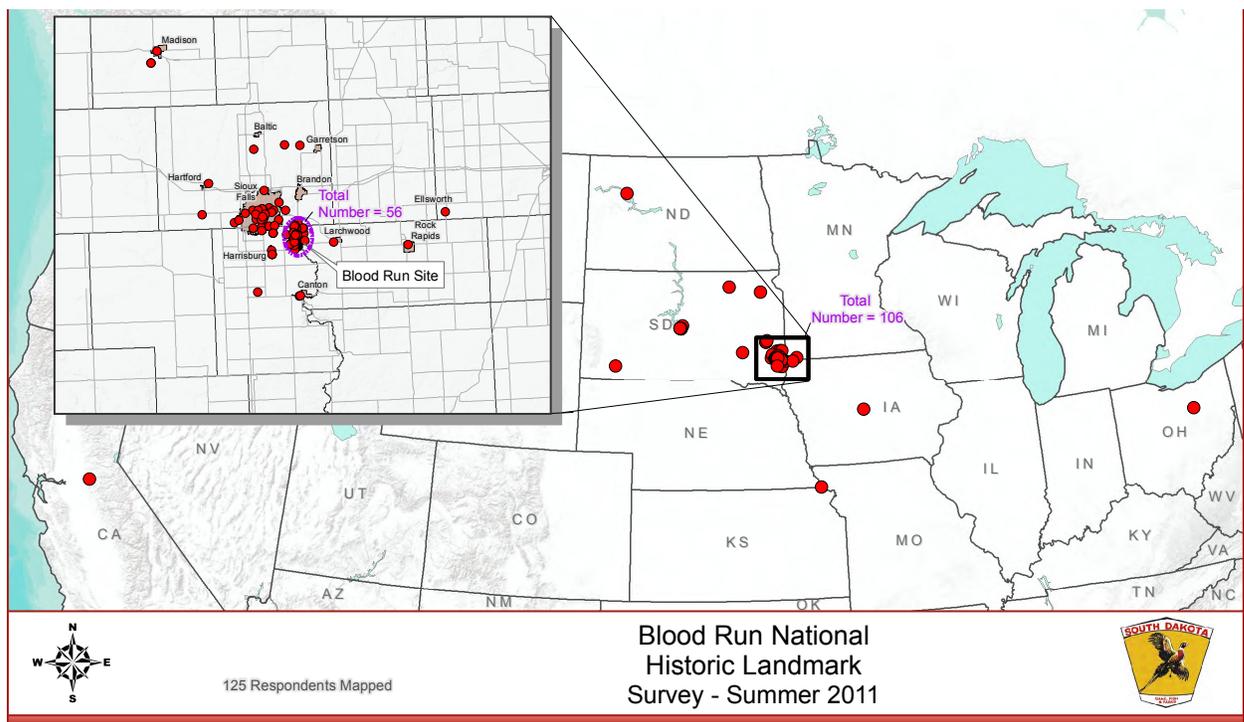


Figure 11, Graphic showing the locations of those participating in the online survey

Specific Interviews

A series of 19 Interviews were conducted, both in person and over the telephone, with a wide cross-section of individuals having an interest in Blood Run. Each of these interviews consisted of eight prepared questions that were asked to each person or group, as well as an open conversation about issues related to Blood Run. The questions and most common responses were as follows:

What are your general impressions of the Blood Run site?

- The land is immensely beautiful, and preservation of the land is definitely a concern. The valuable resources that exist on the site are very important to protect for future generations.
- The general public has a general lack of cultural knowledge and appreciation for what exists here, it is generally an unknown.

Are there specific elements of the site that you feel should be preserved and enhanced?

- Telling the story about the special history of what once happened on the site is a critical element that should be embraced going forward. Not only the cultural significance, but also the natural beauty of the site. Viewsheds should be protected in order to limit the visibility of future development encroaching onto the sacred site.
- Acquiring adjacent properties that are currently under private ownership is a critical step in the process of preserving the cultural amenities that lie within the site boundaries. The burial mounds on the Iowa side are currently at risk due to agriculture and quarrying activities.

What is your first priority, goal, use, etc. that should occur on the Blood Run site?

- Provide better access and linkages to the different properties. Constructing a new entrance road that doesn't bring the traffic past the existing Lincoln Lakes subdivision. Acquiring the Decker property would allow access from the Blood Run Addition property to the existing Blood Run site as it is currently landlocked.
- Preservation of the rich cultural resources should be the primary goal regarding the Blood Run site. Once preserved, educating the public about the story of Blood Run is also very important. A visitor's center would be a good addition to the potential park.

What do you envision the Blood Run site being like in 20 years?

- A public place where anyone can visit to learn about the story of Blood Run. A world-class visitor's center will assist in telling the story with a high level of interpretation
- A well-preserved property in which both sides of the river are linked together to create a cohesive site.
- An area with an intuitive series of trails connecting the major points of interest within the site boundaries.

What specific uses, features, items, etc. do you envision being located at the site?

- A naturalist program with a Visitor Center that will act as the hub of the development, containing interpretive information regarding the important natural and cultural features existing within the site boundaries.
- A series of walking and hiking trails that will connect throughout the site boundaries.

- Picnic areas and other day-use type of activities where visitors would be able to spend several hours over a single visit.
- Outdoor activities respecting the sensitive nature of the property, i.e. bird watching, hiking trails, cross country skiing.

What specific users, features, items, etc. are not applicable to the Blood Run site?

- The use of motorized vehicles should be limited, and ATVs should not be allowed.
- Recreational uses like soccer fields, baseball fields, or playgrounds are not desired.
- Mountain biking or equestrian trails are also not desired due to the high amount of disturbance they tend to have on the environment.

Are there any other references, uses, etc that are relevant to this discussion?

- Other locations such as Custer State Park, Newton Hills, Pipestone National Monument, Cahokia Mounds, the Archeodome, Effigy Mounds, and Bear Butte State Park all were mentioned as locations having features that may be useful precedents for the development of Blood Run.

Visioning Workshop

Three Visioning Workshops were scheduled in order to obtain additional information regarding the future development of Blood Run. The three groups that participated in the workshops included Tribal representatives on June 8, 2011 (refer to the summary on page 54), the general public on the evening of June 21, 2011, and a stakeholder workshop during the day on June 22, 2011. The public and stakeholder workshops included the following components and are described in further detail in the ensuing sections:

- An overview of the master planning efforts to date.
- SWOT analysis of the project area and potential future development
- Geographic mapping exercise to allow participants the opportunity to describe their vision for the project area.



Group presentation during geographic mapping exercise

SWOT Analysis



For both the public visioning workshop as well as the stakeholder visioning workshop, a Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis was completed as part of the meeting agenda. Participants separated themselves into groups of 6-10 people and began by having an open brainstorming session with their individual groups where they documented as many items pertaining to each SWOT as they could during the given time period. A round robin session ensued where all of the ideas from the various groups were transferred to flip charts, which then were posted on the wall. Each participant was allotted colored dots to “vote” for their top three items in each SWOT category that they felt the most strongly about.

The combined results of the meeting votes are shown on the opposite page. The number at the end of each bullet point is the number of cumulative “votes” that the particular SWOT received during the voting process for the various meetings. As you can see by looking at the total vote numbers, each SWOT category had several items that rose to the top and were important to many people that attended the workshops. Top votes received included:

1. *Brainstorming during the SWOT Analysis*
2. *Group Discussion during the SWOT Analysis*
3. *Voting at end of SWOT Analysis*
4. *Continued group discussion during the SWOT Analysis*
5. *Collaborative brainstorming during the SWOT Analysis*
6. *Participants voting at the end of SWOT Analysis*



Strengths

- Educational opportunity - 36
- Preservation of nature - 31
- Unique history/example of ancient village and early settlement - 30
- National significance for Tribal issues - 12
- Designated historical landmark - 9

Weaknesses

- Limited access to some of the properties - 23
- Commercial infringement – McDonalds - 17
- Provision of impacting private property rights - 17
- Not one continuous piece of land - 16
- Lack of public perception or awareness of site - 16

Opportunities

- Preserve and restore natural ecosystems – tallgrass prairie, bison, savannah - 22
- Preservation of historical landmark - 22
- Improve relationship with Native American culture - 22
- Education – 21
- Living history museum - 13
- Interpretation, cultural and historical educational opportunities - 10
- Natural flora and fauna education - 7

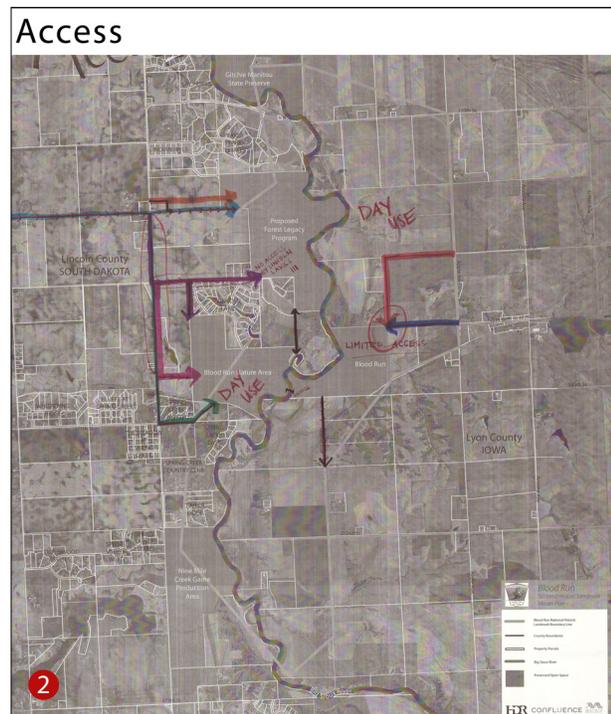
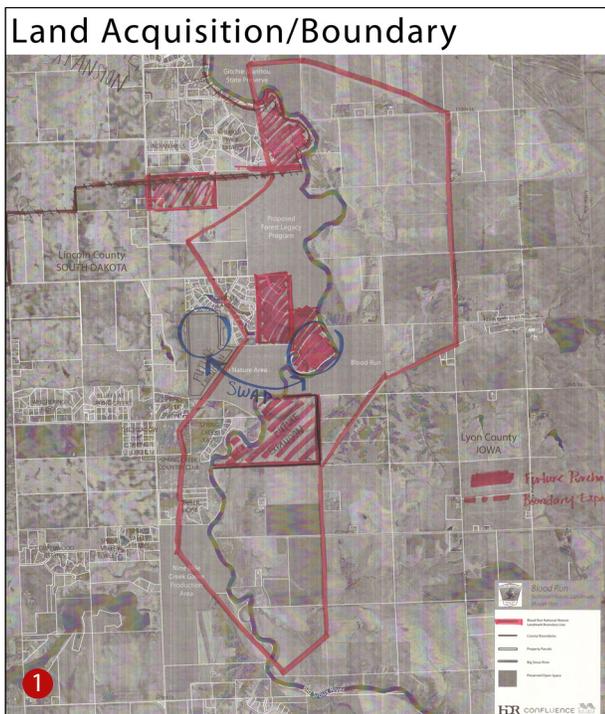
Threats

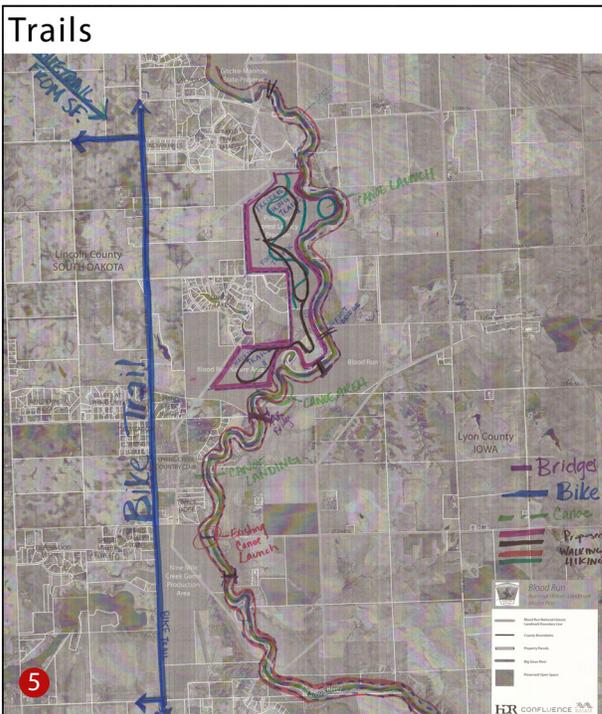
- Over development of the site itself - 25
- Development of residential areas encroaching on site - 23
- Losing Native American history - 19
- Undesirable usage – vehicles, horses - 18
- Public access locations – uncertainty of impacts - 15

Geographic Mapping Exercise

Note: Images depicted on these two pages represent ideas developed during the geographic mapping exercise and are not meant to convey the final recommendations of the master plan. Final locations for each of the elements are developed throughout the future phases of the master planning process.

The final section of each of the visioning workshops was a geographic mapping exercise in which the small groups were each given a map of the Blood Run study area and were then asked to depict a conceptual design showing where they thought some of the various programmatic elements should be located within the site boundaries. At the end of the session, each group presented their concepts to the larger group. This exercise allowed group members with competing interests to find common ground with others in their group to think about issues that they may not have understood coming into the meeting, and provided valuable insights to the consulting team.





1. Properties identified by group participants for future land acquisition during the geographic mapping exercise.
2. Various locations designated by the groups for future park access points during the geographic mapping exercise.
3. Participants explain their ideas during the geographic mapping exercise.
4. Participants present their concept for Blood Run to other public participants during the geographic mapping exercise.
5. Various locations identified by the group participants for future trails during the geographic mapping exercise.

Conceptual Master Plan Development

Design Charrette

Charrette Refinement

Design Charrette

The first component in the development of the conceptual master plan was a multi-day public design charrette. The design charrette was an intense workshop that was held on July 11-13, 2011 at Cherapa Place in downtown Sioux Falls, where a select team of design professionals spent their time brainstorming, testing ideas, and drawing up potential concepts for the future development of the Blood Run property. At the end of each day, a public presentation was given that updated the events and ideas that had surfaced during the course of the day. An open-house format followed each presentation where participants could review ideas in more detail and provide feedback on what they thought were valid ideas and ones that they did not think would be a suitable idea. The project team then took that feedback back to the drawing board the following day and refined their ideas further. By the end of the charrette, a conceptual master plan was unveiled that took into account all of the feedback that was heard over the course of the week.

Day One Summary

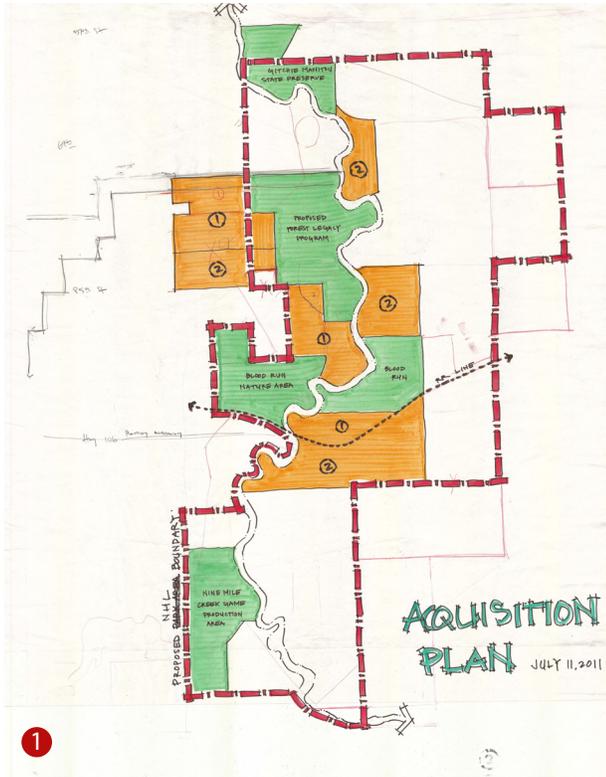
The first day of the charrette ended with two developed options, A and B, that could work with an overall phasing plan.





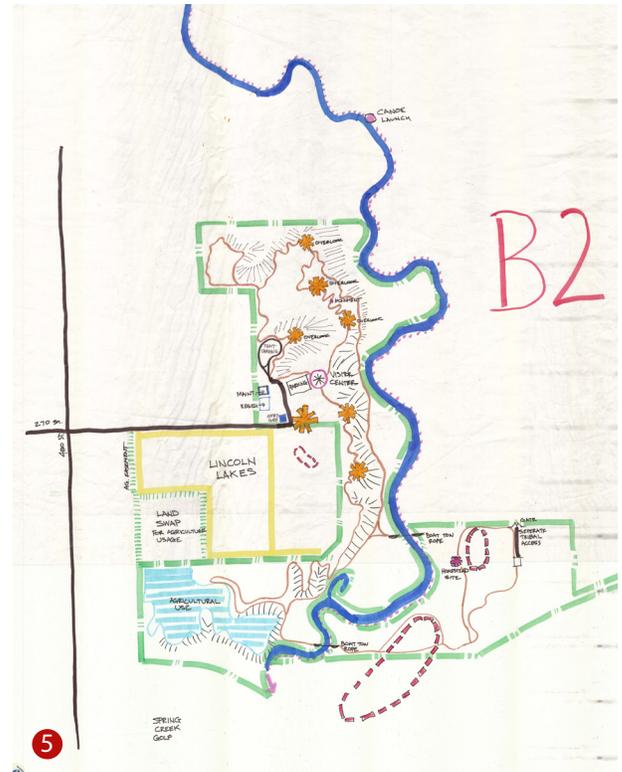
1. Charrette participants reviewing compiled maps created during the geographic mapping exercise
2. Informal discussion among public participants
3. Public presentation of concepts during design charrette
4. Public presentation of concepts during design charrette
5. Design team interacts with public participants to gain productive feedback.
6. Open House session during the design charrette
7. Public discussion regarding potential concepts for the master plan
8. Additional review of potential master plan concepts during design charrette

Concept A Drafts



1. Initial recommended future property acquisition during Day One of the design charrette
2. Phase One Improvements for Concept A during the design charrette
3. Future Concept A as developed during Day One of the design charrette

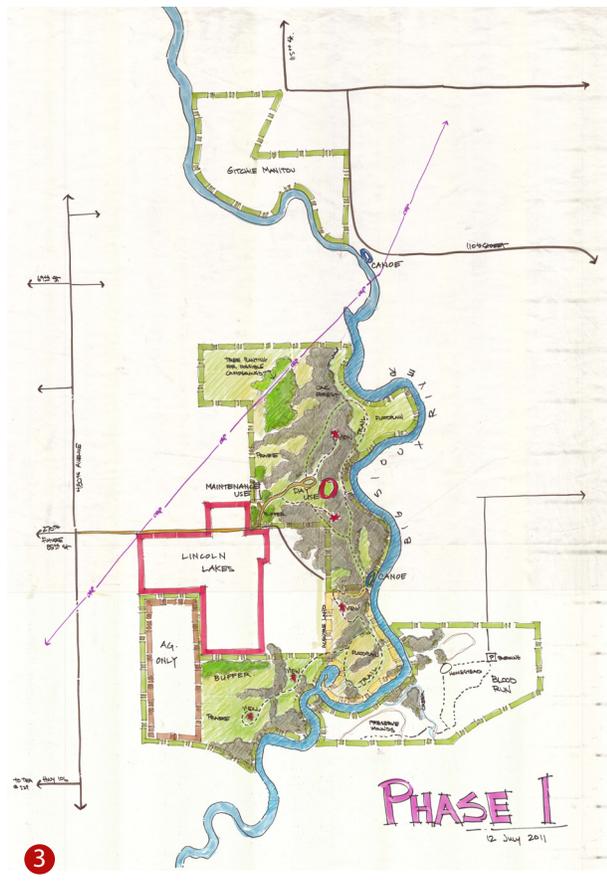
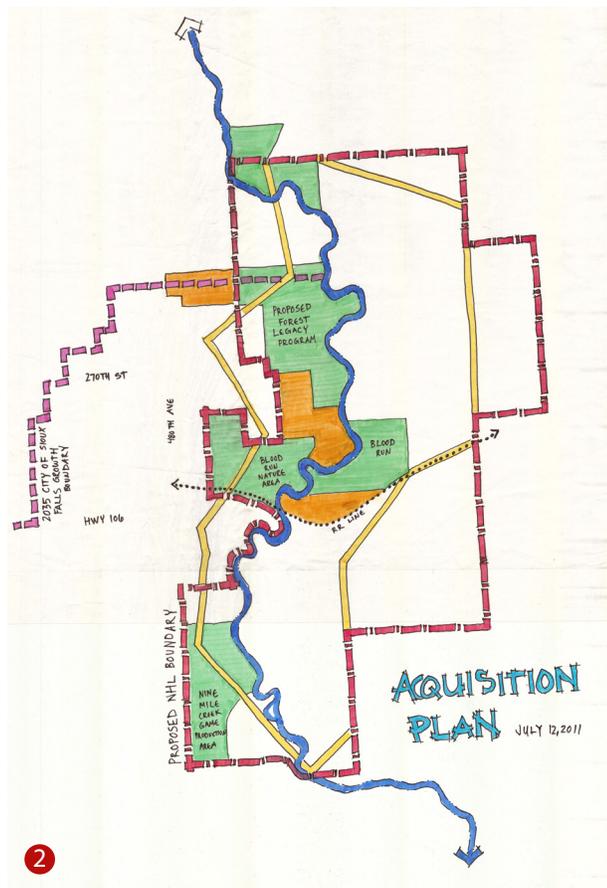
Concept B Drafts



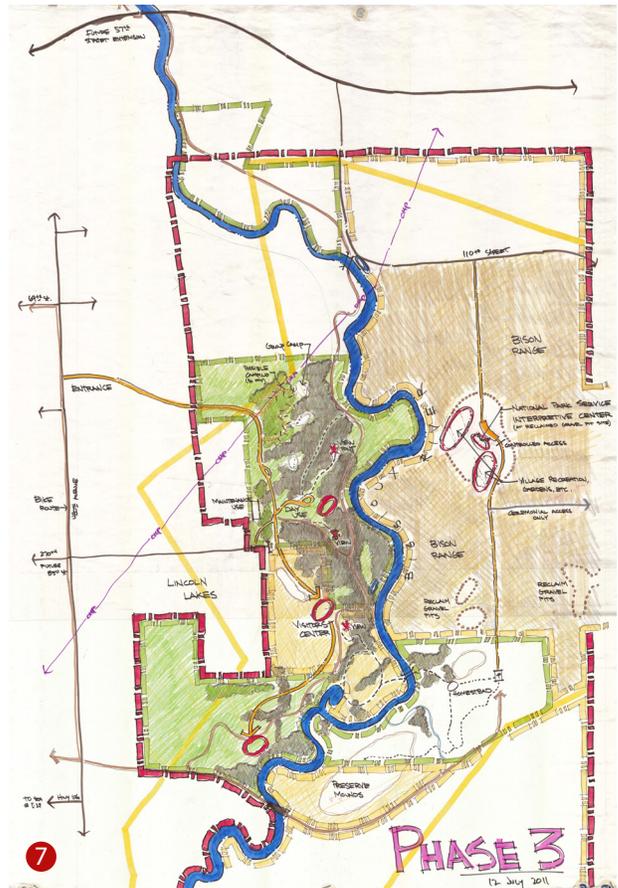
4. Concept B showing the potential first Phase One improvements including various high points, steep slopes, future trail system, and the cultural resources to protect as designated during Day One of the charrette
5. Concept B showing potential Phase Two improvements including a new Visitor's Center and additional property acquisitions
6. Concept B showing the full build out of the property with a new entrance drive as well as additional property acquisitions on the Iowa side of the Big Sioux River

Day Two Summary

The second day of design focused on natural features, and cultural resources. Designers tried to incorporate all of these elements into the overall plan and began to refine the chosen option from the previous evening, while beginning to work out the phasing plan that was dependent on certain property acquisitions. In addition to the Master Plan concepts, two design concepts of the architecture for the Visitor's Center were presented and square footages were discussed.



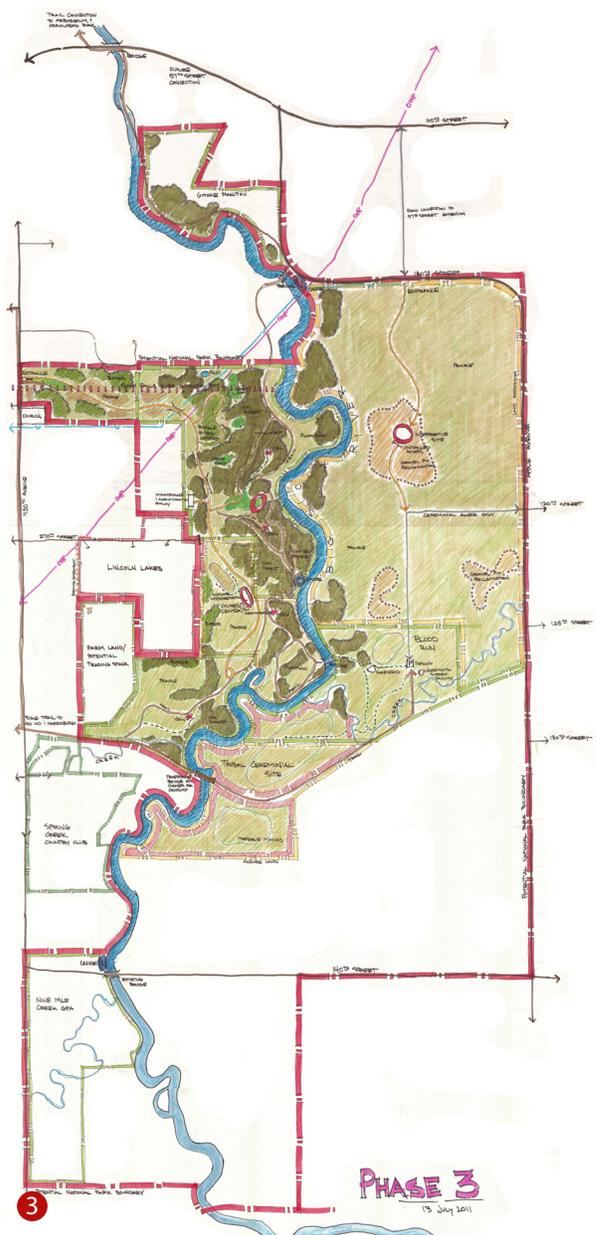
1. Group discussion during closer review of the proposed master plan concept
2. Refined property acquisition plan for the future growth and development of Blood Run
3. Revisions showing the potential Phase One improvements, including the acquisition of the Decker East Property within the floodplain



- 4. Small group discussion regarding various Native American issues
- 5. Small group discussion regarding access concerns with Lincoln Lake residents
- 6. Concept for the Phase Two improvements for the Blood Run Master Plan, including additional property acquisition
- 7. Concept showing the potential full build out of the Blood Run property

Charrette Refinement

Following the charrette, the project team revisited the drawings, sketches, and ideas that were developed during the design charrette. The graphic level of the ideas produced was increased by including proper dimensions, and adjustments were made to address issues with topography, existing vegetation, and other limitations. The modified plans formed the basis for the overall master plan for Blood Run, which is described in more detail in the following chapter.



Master Plan

Overview

Key Elements

Phasing Plan

Operational Management Structure

Overview

The consensus master plan for future improvements to the Blood Run site was separated into three phases. Phase One includes improvements that could occur as soon as possible within a timeframe of roughly 5 years. Phase Two brings a significant amount of park improvements that could occur in 5-20 years. Phase Three is seen as the full build-out of the park boundaries, and would have the maximum amount of property acquisition on both sides of the Big Sioux River, and is visualized in the long term.

Key Elements

Key programmatic elements that were discussed during the visioning phase have been refined to a final list of items that were utilized within the final conceptual design. These physical improvements are as follows:

- Day-Use area
- Visitor's Center and associated parking
- Maintenance and Administration complex
- Trail Connections
- Construct a new park entrance
- Bridge Crossings
- Interior roadway network

Phasing Plan

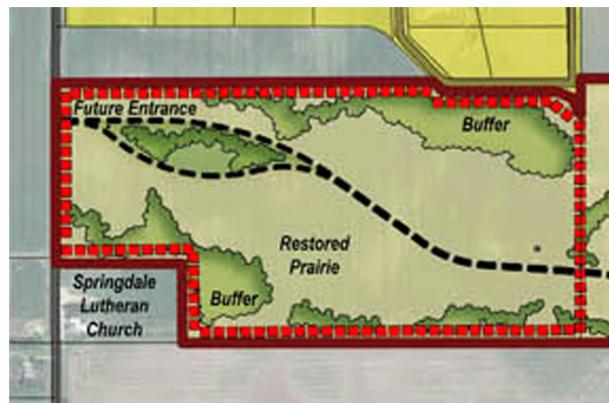
A critical component of the Blood Run Master Plan is the development of a plan with the ability to be constructed in phases over time as funding becomes available, or as programmatic needs require additional improvements. Determining the prioritization of these improvements to the master plan was a crucial step in the process.

This master plan is separated into three phases; Phase One includes priorities that could happen within the next 5 years, Phase Two involves improvements that could occur in 5-20 years, and Phase Three is a long term build-out of the project. A summary of the improvements recommended for each of the phases is described in the following pages.

Phase One

Key elements of Phase 1 could be completed within 5 years, and include the following programmatic elements:

- **Acquisition of the 324-acre Buzz Nelson property** - The State of South Dakota has recently acquired this critical piece of property that holds the key to much of the future development of the park, and is important for the forest that exists on the site boundaries.
- **Prioritize Vander Waerdt/Evenson Parcel Acquisition** - Ensure that every reasonable effort is made to acquire an access easement, or the entirety of the 74-acre Vander Waerdt/Evenson parcel, during the first phase. This is shown as the location of the future entrance road into the park located on the north side of Springdale Lutheran Church.

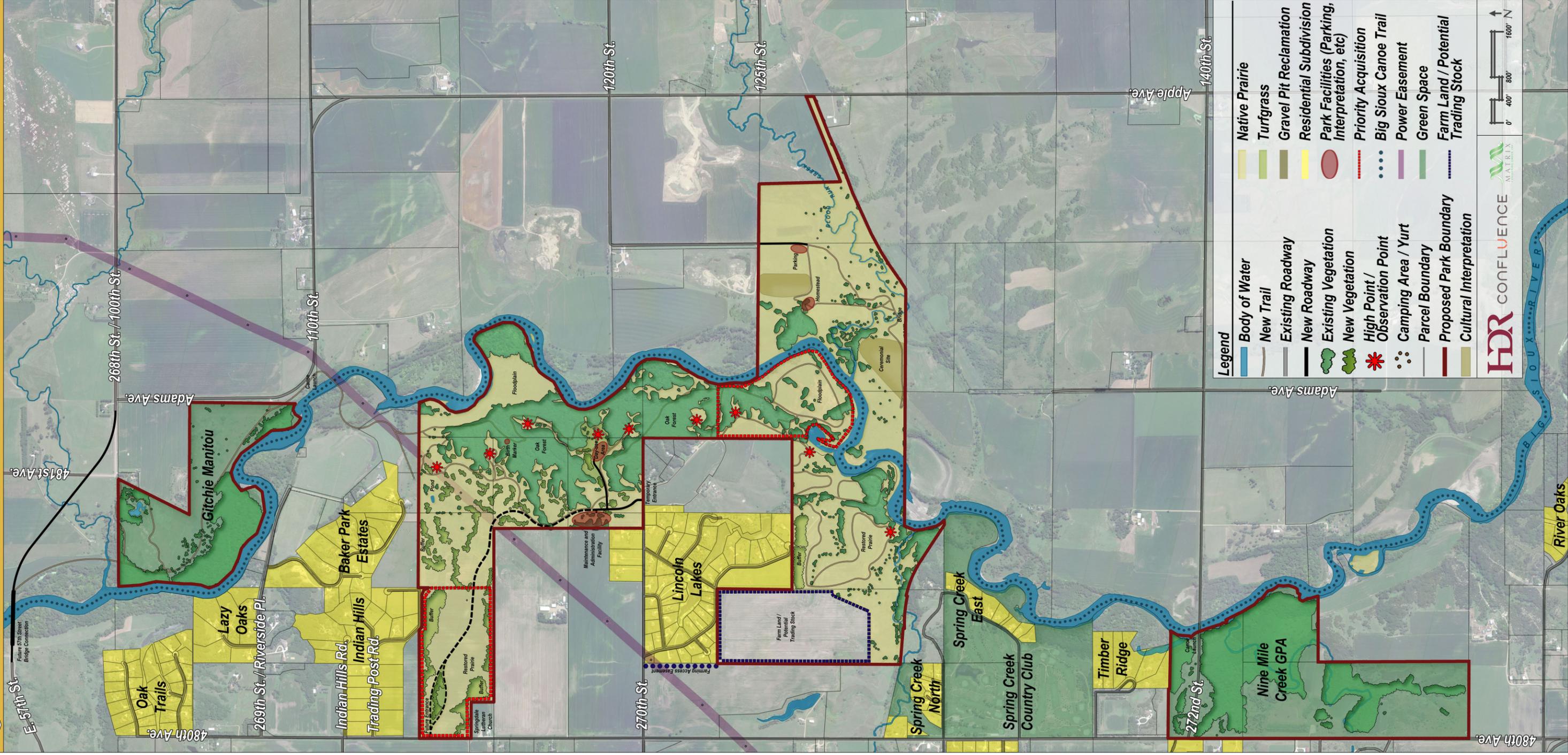


Vander Waerdt/Evenson property shown as the new location for the park entrance drive

-On opposite page, Phase One Blood Run Master Plan



Blood Run National Historic Landmark Master Plan - Phase One

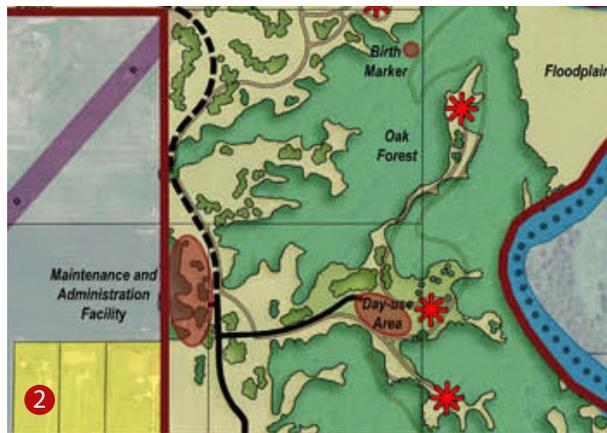
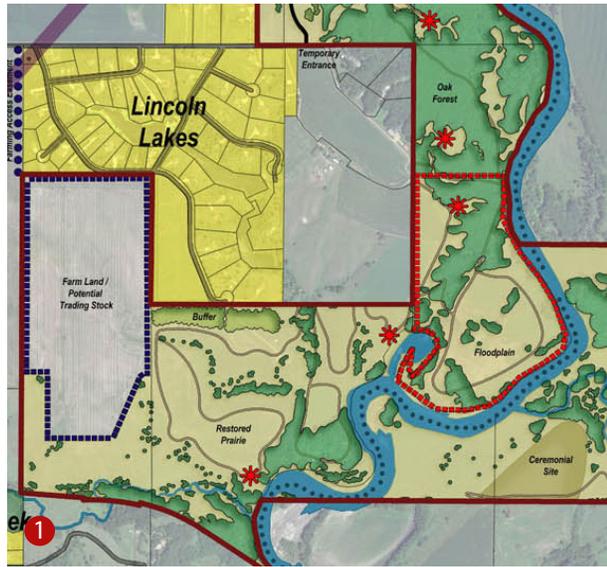


| Legend | | | |
|--------|--------------------------------|--|--|
| | Body of Water | | Native Prairie |
| | New Trail | | Turfgrass |
| | Existing Roadway | | Gravel Pit Reclamation |
| | New Roadway | | Residential Subdivision |
| | Existing Vegetation | | Park Facilities (Parking, Interpretation, etc) |
| | New Vegetation | | Priority Acquisition |
| | High Point / Observation Point | | Big Sioux Canoe Trail |
| | Camping Area / Yurt | | Power Easement |
| | Parcel Boundary | | Green Space |
| | Proposed Park Boundary | | Farm Land / Potential Trading Stock |
| | Cultural Interpretation | | |

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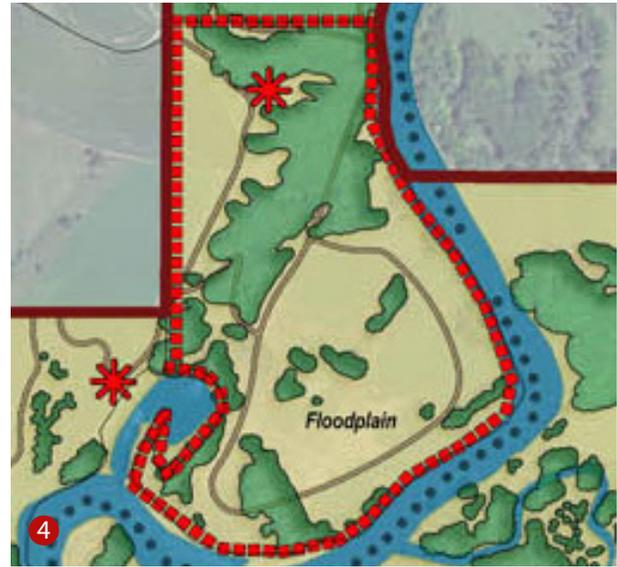
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- **Establish temporary entrance point** - If the Vander Waerd/Evenson property is not able to be secured in the near-term, the entrance point should be temporarily shown off of 270th Street. If this location is required to become the temporary entrance into the property, 270th Street is in need of repairs, where the State may be responsible for upgrading the roadway to accommodate the additional traffic that park visitors may bring.
- **Utilize Trading Stock Opportunities** - The 70 acres of the existing Blood Run Nature Area, outside the existing and proposed Blood Run National Historic Landmark boundary, that abut the French property on the west side of the Blood Run Nature Area, should be utilized as trading stock to acquire some of the critical properties. This land could remain in an agricultural use, but it will be important to secure an agricultural access easement to access the property from 270th Street for farming purposes without requiring access through the Lincoln Lakes subdivision.
- **Construction of the Maintenance and Administration Facility** - Construct the maintenance and administration facility on the existing site of the former Buzz Nelson farmstead. Once a new resident manager facility is constructed on the site, the existing home on the Blood Run Nature Area property could be demolished.
- **Develop Day-Use Facility** - A day-use facility should be developed as the first park-related improvement. Features that could exist in this location are a shelter, restroom facilities, parking lot, trails, trailhead, and an observation lookout.



1. West Blood Run Property utilized for farming/trading stock.
2. Construct Administration and Maintenance Facility and Day Use Area
3. Photo of Barn on the former Nelson property.
4. Acquire "Lower" Decker Property

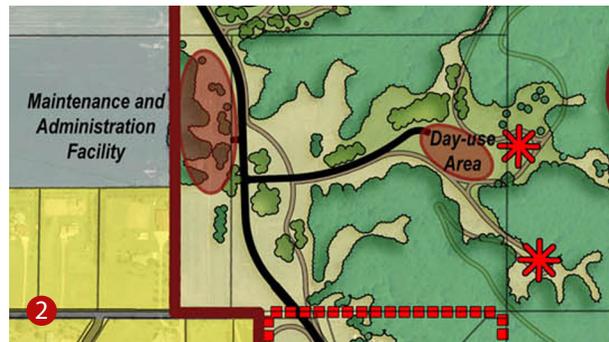
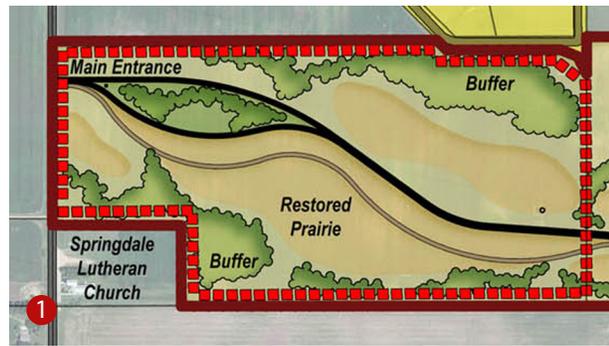
- **“Lower” Decker Property Acquisition -** Acquire, through a land trade, the Decker “lower” property consisting of 42 acres. The majority of this land is within the 100-year floodplain, and therefore not suitable for other types of development. Consideration should be given to utilize some of the existing Blood Run Nature Area property that was held back for trading stock as mentioned earlier.



Phase Two

Phase two elements include those items that will require some additional property acquisition in order to continue implementing the master plan. These improvements within Phase Two could be expected to be developed within a 5-20 year time horizon:

- **Permanent Entrance Road** - Once the property is acquired, the next priority would be to immediately construct an entrance road through the property in order to allow the removal of the temporary entrance built as part of Phase One along 270th Street.
- **Enhanced Landscaping** - After the installation of the new entrance road directly off of 480th Avenue, the entrance drive should be enhanced with native landscaping. Creating a buffer between the entrance and the surrounding residential uses will help alleviate potential problems further down the road, as well as return some of the land to the native prairie vegetation.
- **Create Single Access Point** - Remove the direct connection into the property from 270th Street and maintain the single access point. This will remove all of the non-residential traffic from 270th Street and will alleviate some of the concerns of the surrounding land owners.
- **Additional Property Acquisitions** - Work to secure some of the priority property acquisitions, namely the “upper” Decker property, the Duane Decker property, and the Hattervig property on the South Dakota side; and a portion of the Ruud and Kappenman properties on the Iowa side at least to the extents of the old railroad corridor that once bisected the site. This will help protect the valuable cultural resources on both sides of the river.

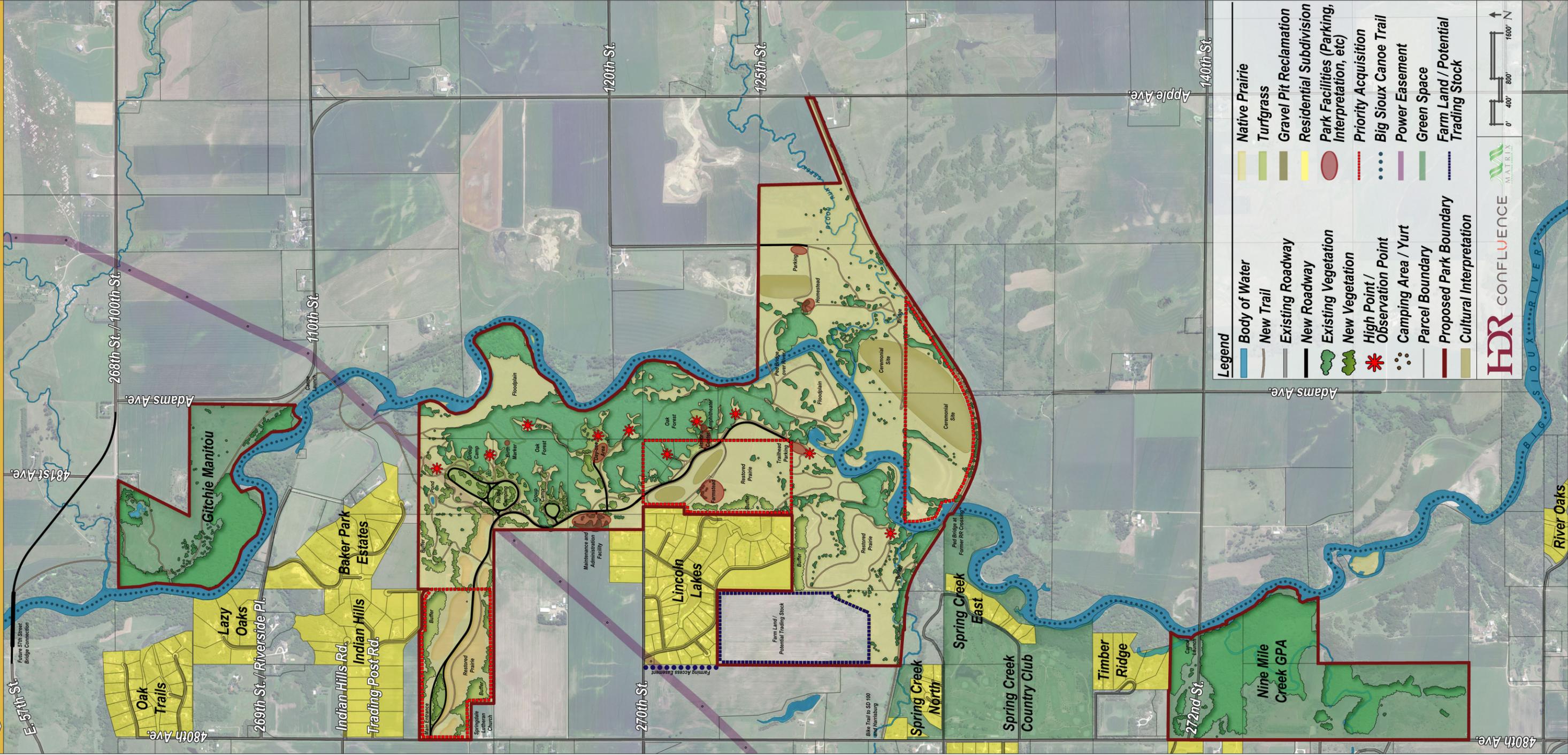


1. Construct entrance road and enhanced landscaping at entrance.
2. Remove roadway connection to 270th Street.
3. Priority Acquisition of main Decker property and Ruud property.

-On opposite page, Phase Two Blood Run Master Plan



Blood Run National Historic Landmark Master Plan - Phase Two

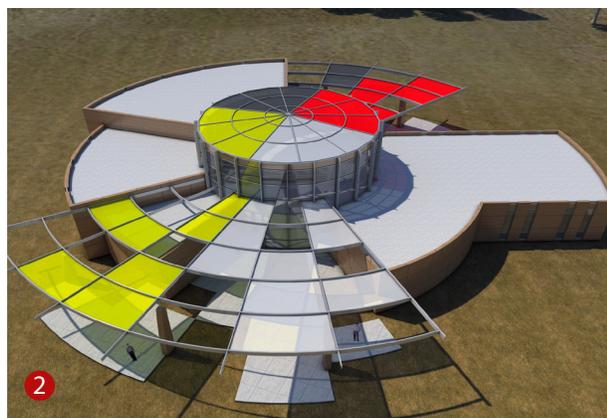
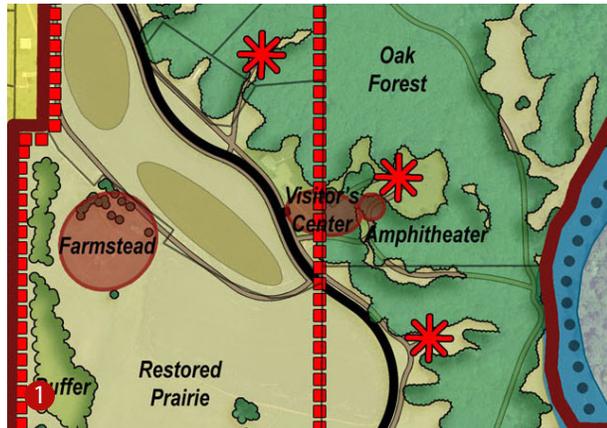


| Legend | |
|--------|--|
| | Body of Water |
| | New Trail |
| | Existing Roadway |
| | New Roadway |
| | Existing Vegetation |
| | New Vegetation |
| | High Point / Observation Point |
| | Camping Area / Yurt |
| | Parcel Boundary |
| | Proposed Park Boundary |
| | Cultural Interpretation |
| | Native Prairie |
| | Turfgrass |
| | Gravel Pit Reclamation |
| | Residential Subdivision |
| | Park Facilities (Parking, Interpretation, etc) |
| | Priority Acquisition |
| | Big Sioux Canoe Trail |
| | Power Easement |
| | Green Space |
| | Farm Land / Potential Trading Stock |

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- Construct the Visitor's Center** - Once the "upper" Decker property is secured, the Visitor's Center can be constructed along with the adjacent amphitheater. The Visitor's Center will be a world class facility providing an opportunity to tell the story of the Native Americans that once inhabited the area. The Center will include a lobby with a gift shop and information kiosk, an interpretive museum to possibly contain artifacts found on the site, an educational classroom/multi-purpose room, curatorial space, staff offices, and additional accessory spaces (restrooms, mechanical, electrical, etc.). The Architectural Program of Spaces is as follows:



| SPACE | SQ FT |
|--------------------------------------|------------------|
| VESTIBULE | 200 |
| LOBBY/INFORMATION | 2,050 |
| SALES | 300 |
| RESTROOMS | 600 |
| EXHIBIT/INTERPRETIVE | 3,500 |
| EDUCATION CENTER/ CLASSROOM | 600 |
| OFFICE (MANAGER) | 150 |
| OFFICE (FACILITY MANAGER) | 150 |
| OFFICE | 120 |
| OFFICE | 120 |
| OFFICE | 120 |
| GENERAL STORAGE | 300 |
| MECH ELEC. COMM. | 400 |
| CURATIONAL STORAGE | 200 |
| CURATIONAL WORKROOM | 200 |
| NET BUILDING SQUARE FOOTAGE | 9,010 SF |
| | |
| GROSS BUILDING SQUARE FOOTAGE | 10,812 SF |

Table 2, Architectural Program

| ITEM | FACTOR | COST |
|------------------------------------|-------------|-----------------------|
| ESTIMATED BUILDING COST | 10,812 SF X | \$2,162,400 |
| SD SALES TAX (MATERIAL) | 4% | \$86,496 |
| TOTAL DIRECT CONSTRUCTION | | \$2,248,896 |
| STANDARD GENERAL CONDITIONS | 12% | \$269,868 |
| SUB TOTAL NET CONSTRUCTION | | \$2,518,763.52 |
| Overhead | 12% | \$302,252 |
| Profit | 8% | \$201,501 |
| Estimated Construction Cost | | \$3,022,516 |

Table 3, Opinion of Probable Cost

The building footprint of the Visitor's Center will be formed by a series of concentric circles, which represent the 'Circle of Life.' The entry canopy, lobby skylight, and rear viewing deck are constructed to represent a "Medicine Wheel," each a central concept in Native American culture. The Visitor's Center will be designed and constructed using sustainable strategies and materials, including: energy and water reducing strategies and equipment, environmentally friendly materials (low volatile organic compounds), locally produced materials, and daylighting strategies to reduce electrical loads.

The opinion of probable cost, as listed on the opposite page, is based upon current construction costs and the current bidding climate in the area. The estimate does not, however, include any escalation for future years.

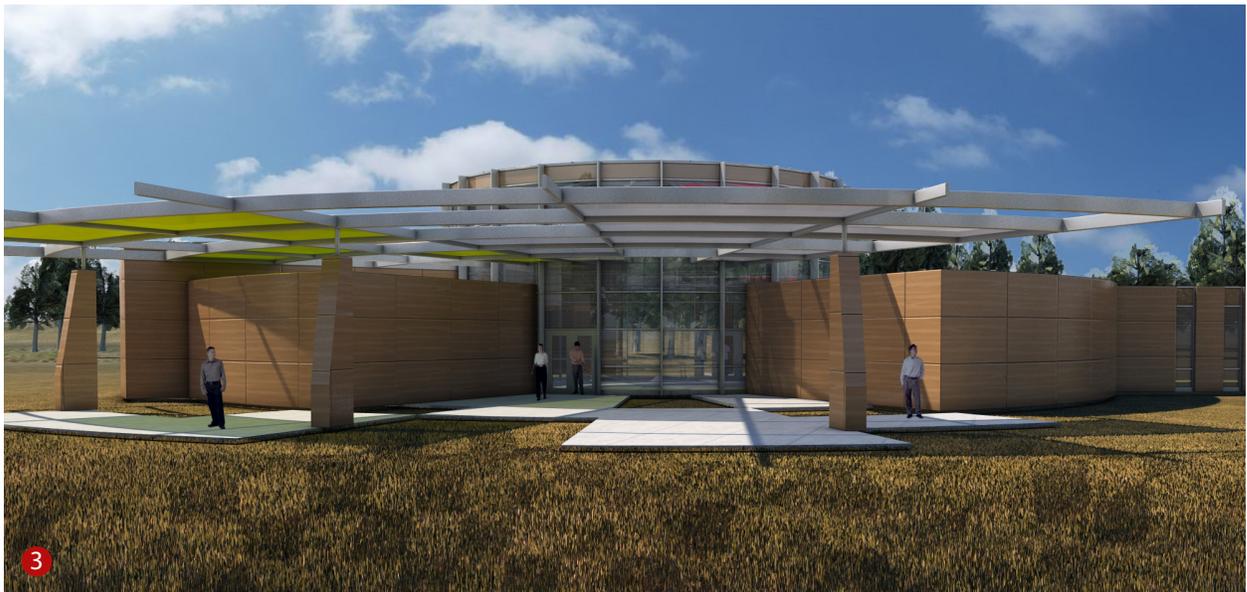
The parking demand for both the facility and the park, listed to the right, is based upon the projected number of visitors expected per year, the operating hours of the facility, the average length of stay of visitors, and the average number of visitors per vehicle.

| PARKING CALCULATION* | |
|--------------------------------|---------|
| ESTIMATED VISITORS PER YEAR | 240,000 |
| VISITORS PER DAY (365 days) | 658 |
| OPEN HOURS PER DAY | 13 |
| AVERAGE VISITOR STAY (hrs) | 3 |
| VISITORS PER 3-HOUR STAY | 152 |
| VISITORS PER VEHICLE | 3 |
| VISITOR PARKING SPOTS REQUIRED | 51 |
| OVER-LAP VISITOR PARKING | 20 |
| PARKING STALLS (staff) | 4 |
| PARKING STALLS (maintenance) | 4 |
| ADDITIONAL PARKING FOR PEAK | 20 |
| TOTAL PARKING STALLS | 99 |
| BUS AND RV PARKING STALLS | 10 |

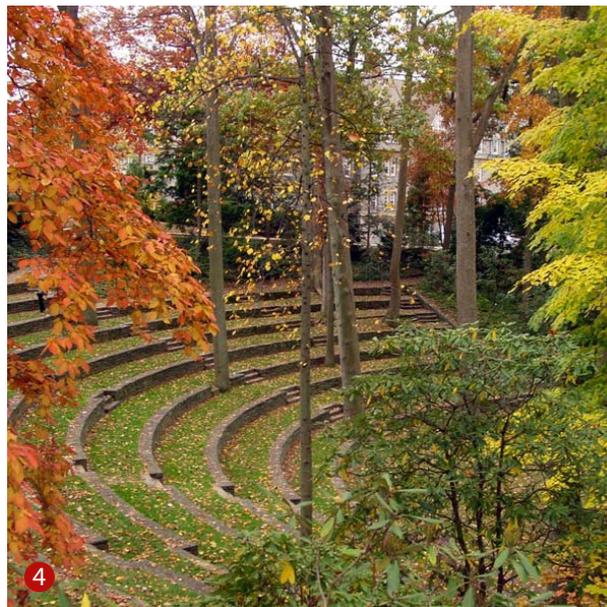
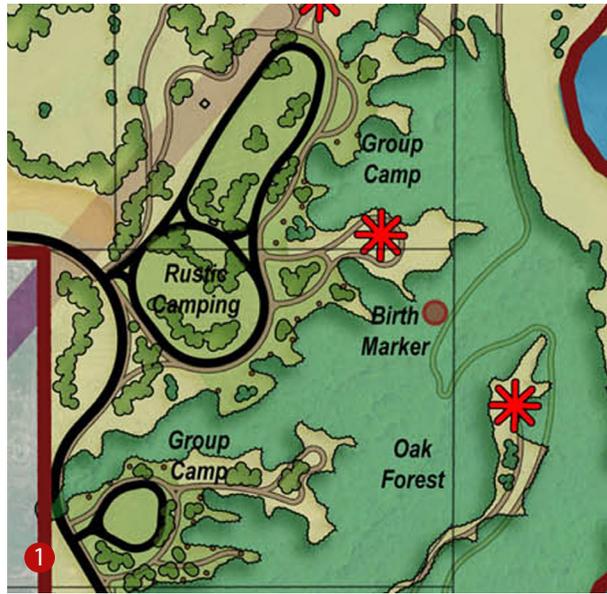
* based upon the National Park Service parking calculations

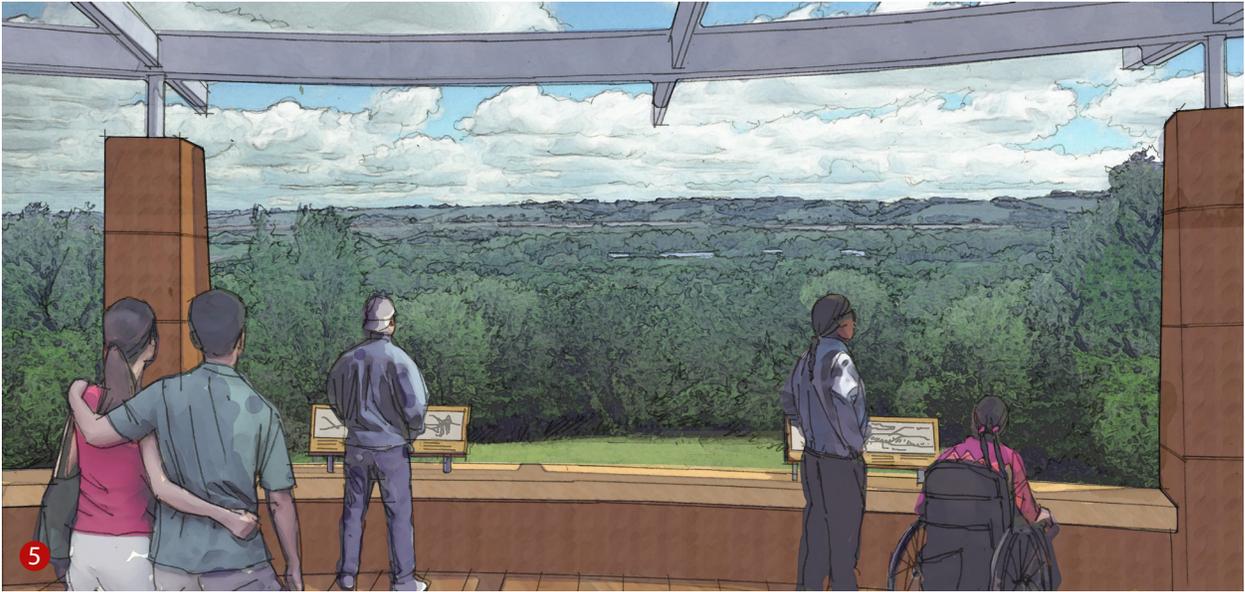
Table 4, Parking Demand for Facility and Park

1. Construct Visitor's Center
2. Bird's Eye rendering of Visitors Center
3. Rendering of the main entrance to the Visitor's Center



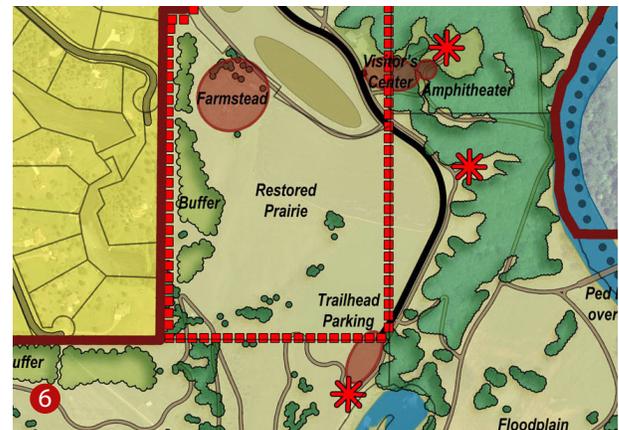
- Establish Overnight Camp Site -**
 Overnight camp sites are located in the far northwest corner of the former Nelson property. RV camping is not appropriate, as there are other locations in the vicinity for that particular use. However, appropriate semi-permanent structures could accommodate group camping for Scouts or families without being invasive. In addition, there is an area set aside for rustic tent camping. However, prior to camping being a viable use, it will be important to establish tree cover to provide shade for the camp sites.
- Amphitheater Construction -** As mentioned in the Visitor's Center discussion above, an amphitheater would be an ideal element to place adjacent to the Visitor's Center. By utilizing the naturally sloped topography, a stunning and unique experience would await visitors.
- Construction of Bridge Crossings -**
 The construction of a couple of bridge crossings over the Big Sioux River would allow for various trail connections to directly connect Iowa and South Dakota. One appropriate location for a potential bridge crossing would be to replicate the existing alignment of the





old railroad bridge that once spanned the river. Under that scenario, there is the opportunity to investigate whether any of the remaining structure that still remains in the river is viable for reutilization. Another suitable location for a pedestrian only crossing, would be from the bottom land on the “lower” Decker property.

- **Roadway Extension** - Extend the existing park roadway, on the South Dakota side, from 270th Street southward through the “upper” Decker property, connecting to the new Visitor’s Center, and finally continuing to the south towards the Blood Run Nature Area property. From here, the topography becomes an issue and the roadway will not be able to continue on. However, a small parking lot could be created in this location, as well as another trailhead for the extensive trail network shown within the park boundaries. During times when Native Americans are interested in performing rituals or ceremonies, this roadway could provide controlled access, thus providing privacy during ceremonial activities.

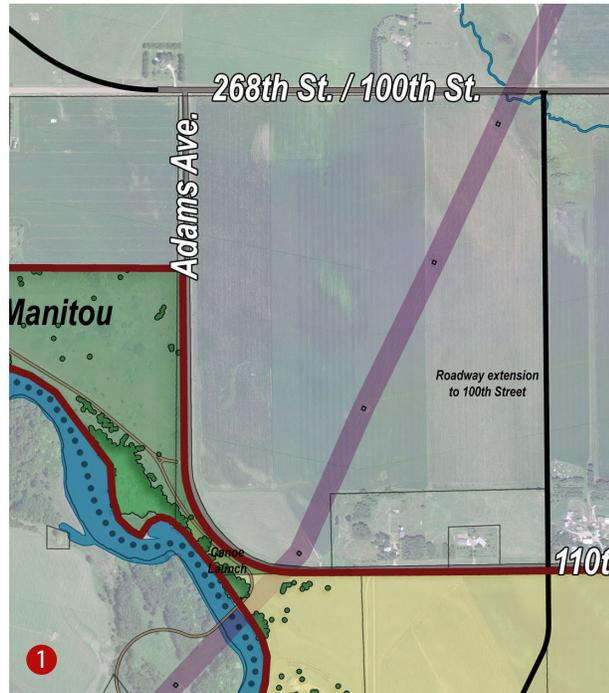


1. Overnight camping locations, both rustic and group camp locations
2. An example of a yurt, a type of camping suitable to groups
3. Amphitheater location
4. Example of an amphitheater in a wooded and sloped setting
5. Perspective view from potential overlook location looking across the Big Sioux River Valley
6. Extension of road to south property, maintain controlled access for Tribal ceremonial activity.

Phase Three

Elements found within the third phase of the master plan are components that are predicted to occur beyond 20 years. These items would require additional cooperation between Iowa and South Dakota, as well as the likelihood of additional studies conducted in order to expand the NHL boundaries and preserve most of the cultural elements that are currently under private ownership. Specific elements that comprise Phase Three include the following:

- **NPS Involvement** - If at some point in the future the National Park Service becomes involved in moving this project forward, the park boundaries should be expanded in order to preserve as much of the historic Blood Run site as is possible. At this point in time, it may make sense to convert the property from two State owned sites to one that is managed or affiliated by the NPS.
- **57th Street/100th Street Extension** - From the future 57th Street/100th Street extension over the Big Sioux River, there is the opportunity on the Iowa side to draw in potential visitors by constructing a new roadway from the core of the Iowa Blood Run site to the north, where it would intersect with 100th Street.
- **Land cover Restoration** - Much of the land on the Iowa side should be converted back to a natural land cover such as native prairie and restoring the old quarry locations to a natural condition.

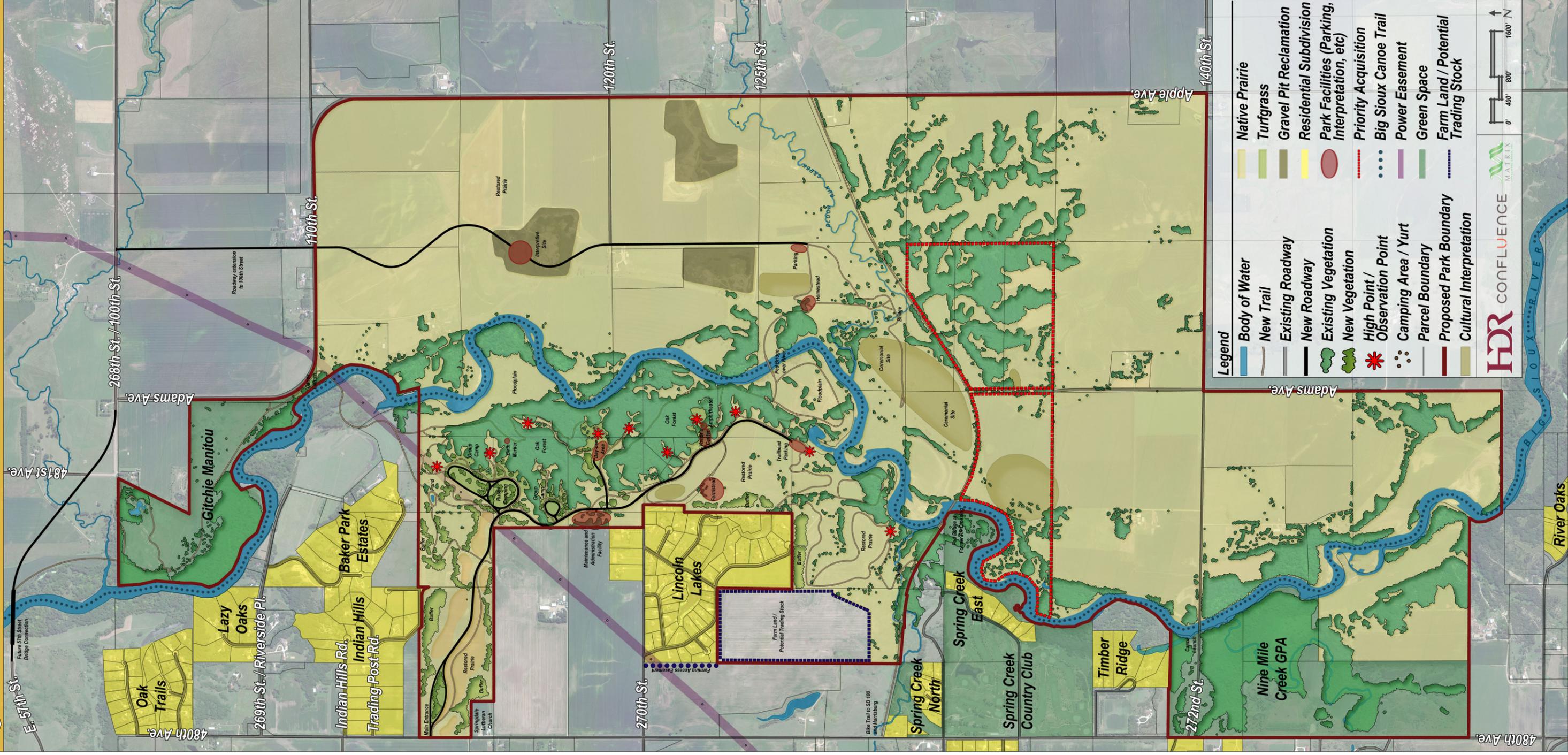


1. Image showing a potential future roadway connection from 100th Street into the heart of the Iowa Blood Run site
2. Example of the native prairie land cover that should be restored on the Iowa side

-On opposite page, Phase Three Blood Run Master Plan



Blood Run National Historic Landmark Master Plan - Phase Three



Legend

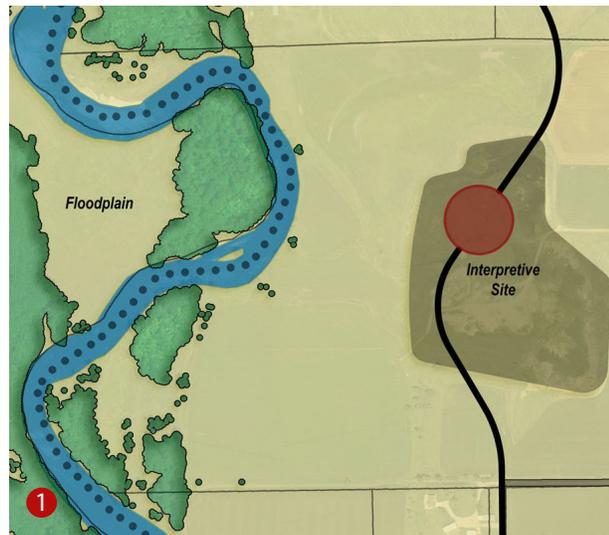
| | | | |
|--|--------------------------------|--|--|
| | Body of Water | | Native Prairie |
| | New Trail | | Turfgrass |
| | Existing Roadway | | Gravel Pit Reclamation |
| | New Roadway | | Residential Subdivision |
| | Existing Vegetation | | Park Facilities (Parking, Interpretation, etc) |
| | New Vegetation | | Priority Acquisition |
| | High Point / Observation Point | | Big Sioux Canoe Trail |
| | Camping Area / Yurt | | Power Easement |
| | Parcel Boundary | | Green Space |
| | Proposed Park Boundary | | Farm Land / Potential Trading Stock |
| | Cultural Interpretation | | |

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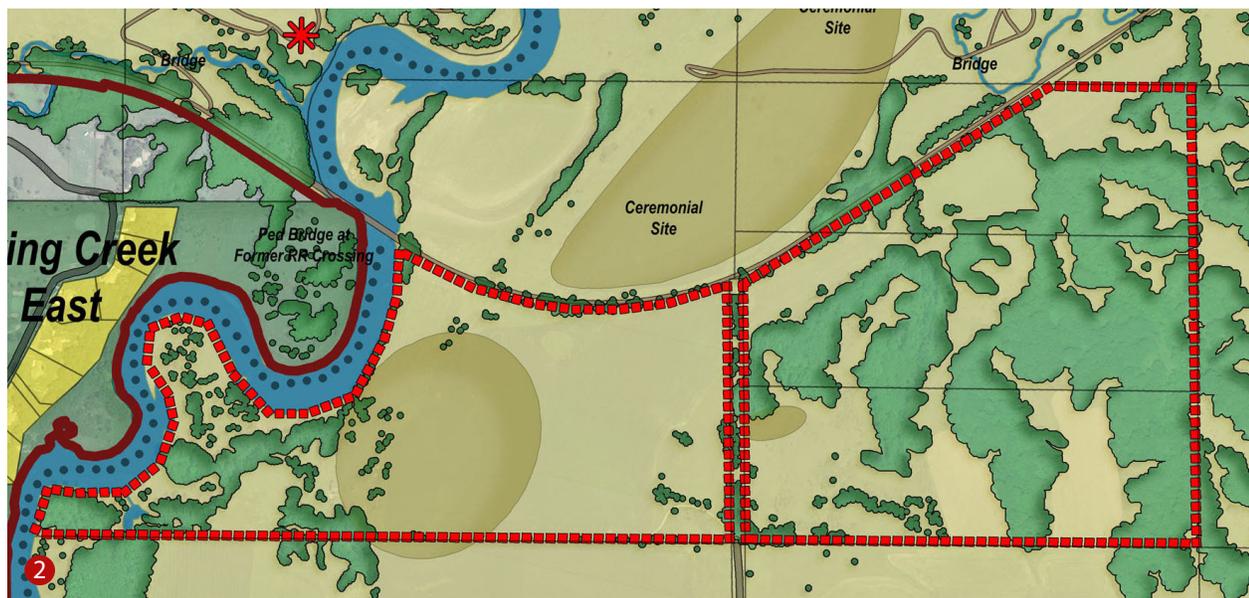
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- **Establish Interpretive Site** - If an interpretive site is to be developed on the lowa side of the river, the old Myrl and Roy's quarry site would be a logical location. Due to the many years of excavation, there is less of a threat of disturbing the sensitive cultural sites that exist in that area. The interpretive site would not necessarily have to be a building, but could hold data where a mobile barcode reader, such as those commonly found on smartphones, could scan the barcode and download key information.

- **Additional Property Acquisition** - Acquisition of the remainder of the Ruud property and the adjacent Kappenman parcels are likely the most important priority acquisitions that remain to be preserved within this phase. The Ruud property once contained an earthen enclosure and it is seen as a very sacred site within the Native American Community. The Dieters, Harms, Hildring, remainder of the Kappenman property, Leuthold, Long, Myrl and Roy, and Ovre properties should also be considered for acquisition within this phase in order to preserve the valuable cultural resources found within them.



1. Interpretive site location on the lowa side, currently the old Myrl and Roy's quarry site
2. Image showing acquisition of remaining Ruud property and the adjacent Kappenman parcels.



Operational Management Structure

Following the Special Resource Study completed by the National Park Service in 2000, there were four alternatives presented for the future management of a potential park at Blood Run. The four options were:

- No action – This option is not a viable alternative due to the lack of future acquisition and preservation of adjacent land.
- Multi-Jurisdictional State Park – This option would require the States of South Dakota and Iowa to work together to manage the property and plan for the future growth of the park. However, there could be some challenges due to the somewhat differing goals that the two states have for their particular portions of the site.
- Multi-Jurisdictional State Park Affiliated with the National Park Service – This option would allow the NPS to become involved in the interpretation aspect of telling the story of Blood Run, something that the NPS is very astute at performing. However, the property would still be managed by the two states.
- Designation as a Unit of the National Park Service – This option would turn over the management of the property to the NPS. The NPS would then be responsible for protecting the cultural and natural resources found within the confines of the park. Federal ownership could increase the public awareness of the site and draw additional visitors that a State-owned facility may not be able to accomplish.

The study determined that the site is suitable for future inclusion in the national park system. According to the NPS, the most effective means of protecting the site resources would be a designation as a unit of the National Park System. Any future involvement from the NPS would be subject to a Congressional mandate. In the short term, it makes sense for the properties to continue to be managed separately by the two States, while continuing discussions on a combined effort between the states for the potential creation of a bi-state management entity. The NPS can continue to provide assistance, but will not be able to take it further without the support of Congress. When the time comes to transition to a unit of the National Park System, an expanded NHL boundary will help with gaining the support of Congress.

The State of South Dakota is currently in the process of drafting an amendment to South Dakota Codified Law (SDCL) 41-17-1, which designates the names of the state parks that have been defined and established within the State of South Dakota. Due to SDCL 41-17-2, which states that Legislative adoption is required for new state parks to be created and designated, the amendment to SDCL 41-17-1 will have to be passed by the State Legislature in order to add Blood Run to the official list of state parks. It is the intent of the State of South Dakota to add Blood Run to the list of state parks as early as the 2013 Legislative session. One item of note is that the designation of a state park will not preclude Blood Run from future inclusion as a National Park or partnership with the State of Iowa.

Next Steps

Next Steps

Unveil the Master Plan

The next step in the process should include the unveiling of the Blood Run master plan to the various interested constituencies, including key stakeholders, surrounding land owners, Tribal interests, various agencies, and the general public. On the Iowa side of the river, it will be important to schedule an Iowa “political session” of city, county, and state legislators, and any congressional leaders that can be brought up to date on the plan. Iowa will likely be pursuing designation of the area as a state preserve, which can afford a high level of protection on public and private property.

Continued Property Acquisition and Preservation

After the recent acquisition of the 324-acre former Nelson property by the State of South Dakota, it is important to continue holding discussions with the owners of several of the other properties identified as priority acquisitions in order to maintain the momentum and excitement that this project has created. Acquisition of additional properties will be able to preserve them and help prevent them from being developed as another type of land use.

Key property acquisitions identified in this master plan include the Decker, Vander Waerdt/Evenson, and Hattervig properties on the South Dakota side, and the Dieters, Hildring Kappenman, Leuthold, Long, Myrl & Roy’s, and Ruud properties on the Iowa side.

If some of the properties are not able to be acquired, another option would be to purchase conservation easements that could restrict the uses or activities that are allowed on the parcels. The specific activities to restrict would have to be tailored to each individual parcel.

Additional protection on the Iowa side needs to be pursued, including

acquisitions, land trades, and easements where desirable or possible to protect the visitor experience and viewshed.

New NHL Boundary Study

A new NHL boundary study should be undertaken as an early step in plan implementation. It will be important for the states of Iowa and South Dakota to work together to successfully capture the proper study area of significance. Groups such as Iowa Natural Heritage Foundation (INHF) and the Lyon County Conservation Board can assist on the Iowa side of the study area. The TCP evaluation may also assist in determining these boundaries.

Recommended Future Master Planning Efforts

The appropriate Iowa-side interests need to work toward a master planning effort to complement and extend the SD effort. The Iowa Office of the State Archaeologist (OSA) is currently discussing with the NPS, Lyon County Historical Society, SHSI, and INHF potential funding to support an initial NHL boundary re-examination effort focused on the natural beauty of the Blood Run landscape and associated viewshed with an eye toward prioritizing future parcel acquisitions. Views from the bottom lands in Iowa looking up to the South Dakota Bluffs and from the South Dakota bluffs looking across the bottom lands in Iowa should be considered.

Fundraising and Publicity

Utilizing the master plan as a tool to inform others about the intent to create a future park, funds could begin to be raised that will help carry out various elements of the master plan. The South Dakota Parks and Wildlife Foundation is currently participating in efforts to raise funds for Blood Run and should continue to do so. Other potential funding sources could come from a public fundraising campaign that could include public

service announcements, informational brochures located around the State at other Visitor's Centers, or partnering with appropriate conservation, preservation, and archaeological organizations.

Create Economic Basis to Support Project

A study should be implemented that will look at the economic justification for the development of this site as a park. Various site development costs for the various improvements as recommended within the master plan should be compared to the economic positives, environmental and cultural protection, and revenue streams that this project may attract. Site development costs include property acquisition, grading and excavation, site clearing, erosion control, roadway system, trail development, parking areas, future utility infrastructure, and bridges. Besides the cost to develop the site improvements, operational and maintenance costs need to be factored into the discussion. Potential revenues would include the park entry fees, as paid by the daily visitors. Other benefits of the project would include the increased preservation and conservation of open space, and the reduction of pollution, which are items that are difficult to place an economic value on.

Tribal Participation and Engagement

Creation of a Tribal Blood Run Forum is recommended in order to continue the ongoing dialogue between the SD GF&P and the Tribal representatives regarding the future development of Blood Run as a State Park. Tribes have a desire to continue being involved in the process and to take part in the future monitoring, designing, and planning of what will eventually be developed at Blood Run. Utilizing the Blood Run Forum will provide a working relationship between the Tribes and the SD GF&P.

Traditional Cultural Property (TCP) Survey

Several Tribes stated throughout the master planning process that a TCP survey should be conducted on the Blood Run NHL to ensure that the property will be protected and monitored appropriately. The SD GF&P has indicated that a TCP is likely to take place on the newly acquired Blood Run Addition property.

Sacred Areas

Creation of a Tribal Blood Run Forum is recommended in order to continue the ongoing dialogue between the SD GF&P and the Tribal representatives regarding the future development of Blood Run as a State Park. Tribes have a desire to continue being involved in the process and to take part in the future monitoring, designing, and planning of what will eventually be developed at Blood Run. Utilizing the Blood Run Forum will provide a working relationship between the Tribes and the SD GF&P.

Interpretive Message

Continue working with archaeologists familiar with the site as well as applicable Tribal entities in order to create a clear interpretive message that tells an accurate and historical story of what once occurred at Blood Run. This message will be carried out within the Visitor's Center as well as the trail system that traverses through the site. The cultural history and interpretation should be a shared history based on Tribal experiences, both ceremonial and spiritual. One issue having a great deal of concern is the name of the future park, and if it will be changed from Blood Run. Tribal interests have a desire to develop a name for the site that has a traditional indigenous meaning in order to remove some of the negative connotations that are derived from the current name. Continued discussions between all applicable parties will help craft this message as the park continues into the development process.