

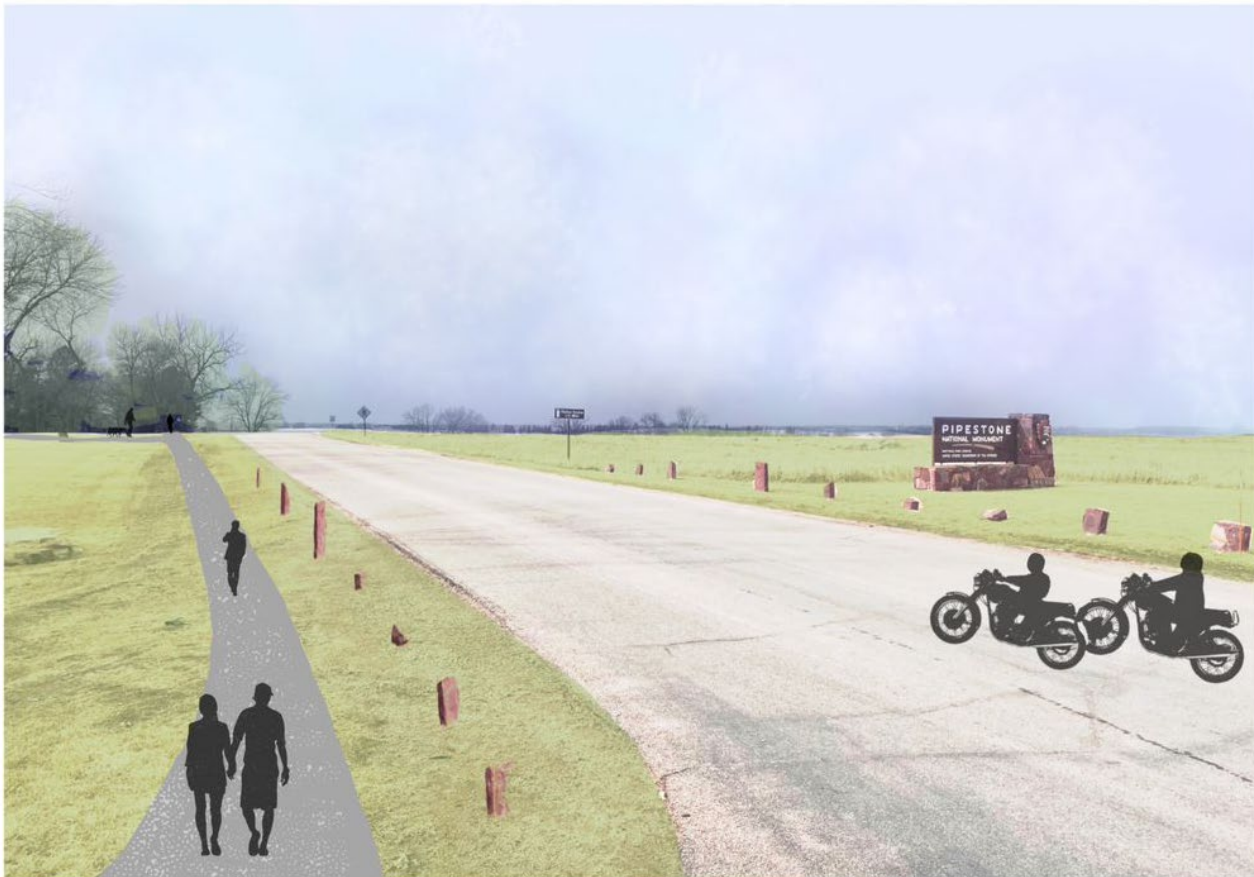
National Park Service
US Department of the Interior

Pipestone National Monument
Pipestone, Minnesota



Pedestrian Access Trail Environmental Assessment

Pipestone National Monument
Minnesota



May 2023

Executive Summary

The National Park Service (NPS) at Pipestone National Monument (Monument) has prepared an Environmental Assessment (EA) to evaluate the pedestrian access trail plan.

This EA has been prepared in compliance with the National Environmental Policy Act (NEPA) to provide a decision-making framework as follows: 1) Assess a reasonable range of alternatives to meet the purpose of the proposed action; 2) Evaluate potential issues and impacts to the natural and cultural resources of the Monument; and 3) Identify required mitigation measures designed to lessen the degree or extent of any potential adverse environmental impacts.

Two alternatives have been evaluated: Alternative A: No Action; and Alternative B: Construct Southside Pedestrian Access Trail (Preferred Action). Under Alternative A there would be no separate pedestrian access into the Monument from the entrance. Pedestrians would continue to share Reservation Ave. with vehicles. Under Alternative B, the NPS proposes to construct a pedestrian trail to allow safe access into the Monument, reduce resource impacts and provide a pedestrian connection between the Monument and the local community. The alternatives are described in detail in [Chapter 2](#).

This EA identifies the categories of resources, or Impact Topics, found within the project area that are most likely to be affected by the actions described within the alternatives. These topics have undergone a detailed analysis by the interdisciplinary team to determine the most likely effects on the resources and the required mitigations to avoid resource damage. The Impact Topics are identified in [section 1.4](#) of this document, and in [Table 1](#). Topics retained for further analysis are discussed in [Chapter 3](#). The preferred action would not result in significant impacts to any resources within the Monument.

Public Comment

A public meeting was held October 19, 2022. Approximately six (6) members of the public attended. The meeting notice and information was open for public comment from October 19 – November 10, 2022. The public was invited to comment in writing at the meeting, in the NPS Planning, Environment & Public Comment (PEPC) online system and by mail. Two comments were received via PEPC, no other comments were received.

This EA will be available for public comment in PEPC for 30 days, from April 3, 2023 – May 3, 2023. parkplanning.nps.gov/PIPE_PedAccess.

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment including your personal identifying information may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

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Chapter One

Purpose and Need for Action

1.0 Introduction

The National Park Service (NPS) at Pipestone National Monument (Monument), is proposing to construct a pedestrian access trail into the Monument from North Hiawatha Ave., a city-owned road. Located in Pipestone County, Minnesota (MN), Congress established the Monument in 1937 to protect the historic pipestone quarries, considered sacred by many American Indians. The entire Monument was listed on the National Register of Historic Places in 1966. Significant resources include the pipestone quarries, Three Maidens petroglyphs, archeological sites, remnant, and restored tallgrass prairie, threatened and endangered plants and animal species, historic features, and the Pipestone Creek. Pipestone is used to carve pipes for prayer and ceremony. To reach the pipestone, quarriers must dig and break through thick layers of soil and Sioux quartzite. Pipestone has been quarried by Indigenous people for 3,000 years and traded great distances.

Many different tribes utilized the quarries historically. During the federal treaty-making era, the Yankton Sioux Tribe negotiated the protection of the quarries in their 1858 treaty, though they were forced onto a reservation 150 miles to the west. Trespasses began almost immediately, including the construction of the Pipestone Indian School. In 1926 the U.S. Supreme Court ruled that the Yankton should be paid for the taking of their land, clearing title for the United States. Today, members of federally recognized tribes are eligible for free permits to quarry pipestone and the Monument regularly consults with 23 Tribal Nations.

1.1 Purpose and Need

The purpose of this project is to provide safe & accessible pedestrian access into Monument from North Hiawatha Ave., while also protecting the Monument's fundamental resources and values. The project is needed to ensure safe pedestrian and vehicle access to the Monument, due to the increased use of the entrance road by pedestrians causing a safety issue for visitors.

1.2 Project Background

The Monument's existing general management planning documents continue to provide relevant guidance, which may be supplemented through development of additional planning documents such as this one. The Pipestone Pedestrian Access Trail / Environmental Assessment fulfills park planning priorities for resource preservation while providing safe opportunities for visitor access and enjoyment. This plan serves as a component of the park's planning portfolio. The park's planning portfolio is the collection of planning documents that guides decision making and satisfies law and policy. The planning portfolio enables the use of targeted planning documents (such as this one) to meet the four general management plan statutory requirements identified in 54 USC 100502 and a broad range of park planning needs. This document is a component of the Monument's planning portfolio and fulfills planning for resource and visitor use management and development guidance per the 2008 General Management Plan (GMP) and the 1961 Pipestone National Monument Master plan. This plan supplements the general guidance of 2008 general management plan and helps the park to better meet the general management plan statutory requirements identified in 54 USC 100502. Figure 2 shows the 2008 GMP preferred alternative map.

Pedestrian access into the Monument presents a safety hazard since no sidewalk or adequate road shoulder currently exists on Reservation Ave. (entrance road), creating a conflict between pedestrians and vehicles. Monument staff observe visitors walking on the entrance road daily. A hill restricts visibility on the road and drivers are often distracted by the scenery, making for a potentially unsafe situation.

The city of Pipestone (City) has plans to establish a paved trail that will allow bikes near the perimeter of the Monument boundary. The proposed trail does not have a finalized plan but will likely meander through the neighboring property, and some visitors may view that approach as too indirect to use solely for Monument access. The NPS is seeking a more immediate solution to mitigate current safety concerns.

1.3 Project Area

Pipestone National Monument is in the city of Pipestone (City) in southwestern Minnesota, the county seat of Pipestone County (figure 1). The project area begins at the intersection of North Hiawatha Ave. (a city-owned road) and Reservation Ave. (NPS-owned road) and will conclude where the South Quarry Trail meets Reservation Ave. approximately 0.35 miles west of the entrance (figure 3). The project area has the potential to impact some resources such as archeological sites, sensitive vegetation, and an interpretation & visitor area. The first approximately 200ft of land on the south side of Reservation Ave. is owned by the City and would require a right-of-way or easement at the corner of Reservation Ave. and Hiawatha Ave. (figure 3), which the City has expressed a willingness to issue.

1.4 Issues and Impact Topics

Impact topics are the resources or issues of concern that could be impacted by the range of alternatives. NPS specialists used federal laws, regulations, and management policies to identify the impact topics retained for further analysis. Identification of impact topics facilitates the analysis of environmental consequences and allows for a standard comparison between alternatives based on the most relevant information. [Table 1](#) summarizes the topics retained or dismissed and includes the rationale for dismissal.

Six (6) topics are carried forward for further analysis in this EA found in [Chapter 3: Affected Environment and Environmental Consequences](#):

- cultural and historic resources,
- ethnographic resources,
- human health and safety,
- Indian trust resources and sacred sites
- viewsheds/visual resources,
- visitor use and experience.

Issues related to air quality, floodplains, fuels management, geology, land use/right of way, paleontological resources, soils, soundscape, special status species, vegetation, water resources and wildlife have been dismissed from detailed analysis because they are not central to the proposal or do not assist with making a reasoned choice between alternatives.

Figure 1: Pipestone National Monument Foundation Document Map 2017

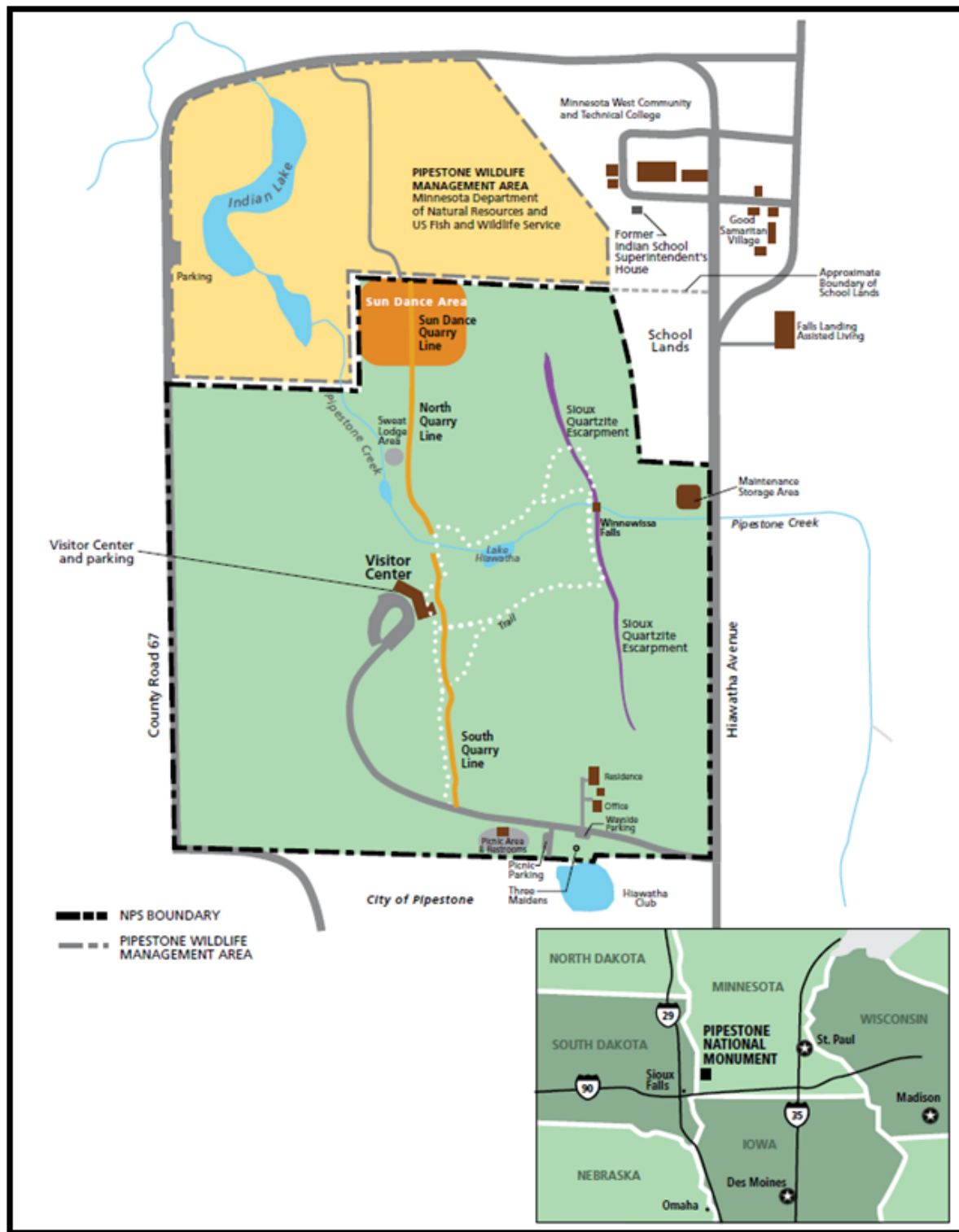


Figure 2: Pipestone National Monument General Management Plan Preferred Alternative Map 2008

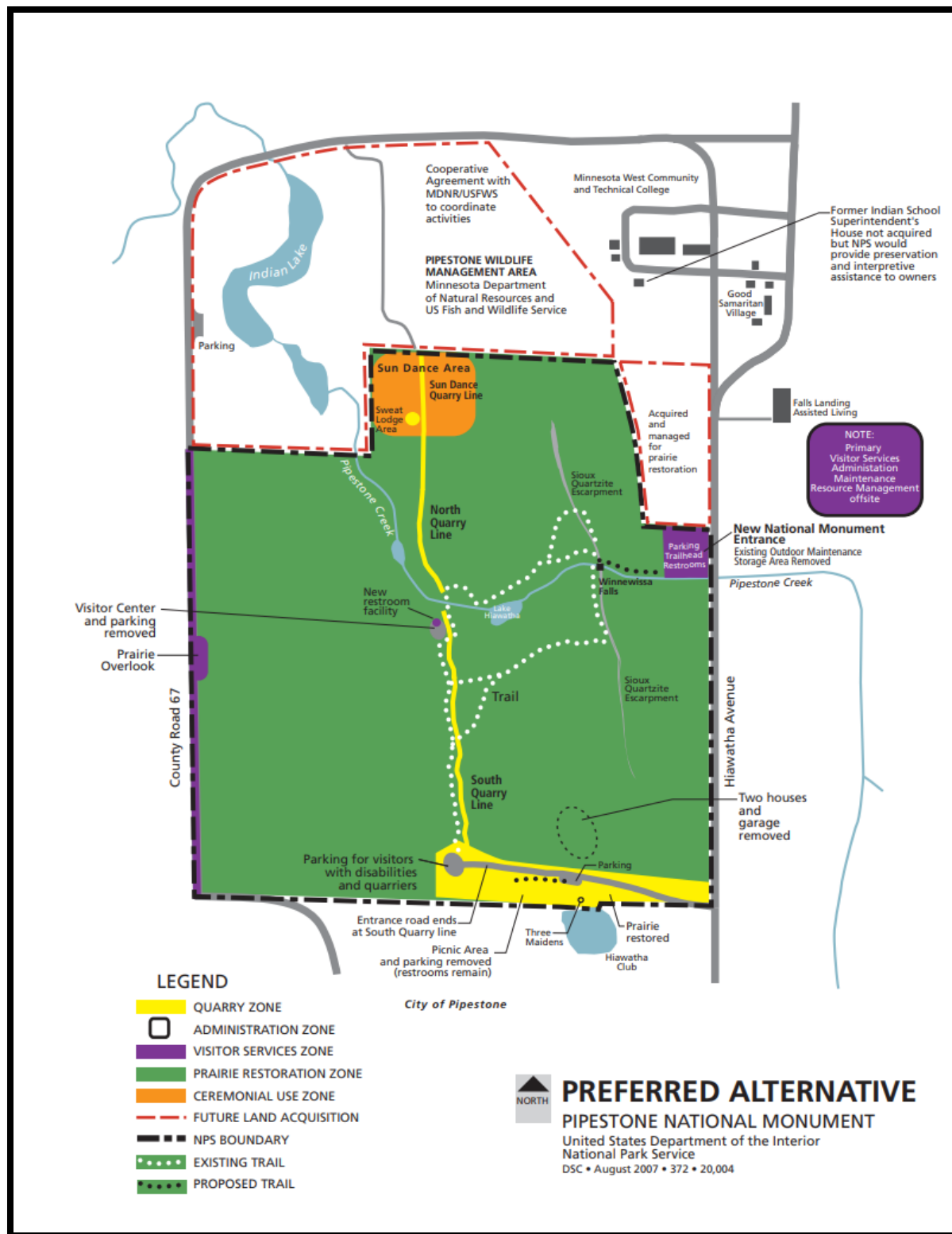


Table 1: Topics Retained & Dismissed

Retained or Dismissed	Impact Topic	Rationale for Dismissal
Impact Topics Retained	Cultural and Historic Resources	Chapter 3 discusses the potential impacts to this topic as a result of the proposed actions.
	Ethnographic Resources	
	Human Health and Safety	
	Indian Trust Resources & Sacred Sites	
	Viewsheds/Visual Resources	
	Visitor Use and Experience	
Impact Topics Dismissed	Air Quality	Impacts to air quality as a result of construction will be minor and limited to the duration of construction operations. Overall, the proposed alternative would have beneficial impacts to air quality by improving pedestrian access which would reduce the number of visitors utilizing vehicles to access the monument, but not to a measurable degree. Thus, this topic was dismissed from further analysis.
	Floodplains	All of Pipestone National Monument is within a floodplain. However, the proposed trail will not change the functions or value of the floodplain as it is now. Thus, this topic was dismissed from further analysis.
	Fuels Management	Will change fire lines, minor update to the Fire Management Plan will mitigate the potential impacts. Thus, this topic was dismissed from further analysis.
	Geology	This plan would not have any impacts on geology; thus, this topic was dismissed from further analysis.
	Land Use/Right-of-Way	Access from city owned land at Hiawatha Ave. & Reservation Ave. is being addressed through a land use agreement or ROW
	Paleontological Resources	Paleontological resources will not be impacted by this action.

Retained or Dismissed	Impact Topic	Rationale for Dismissal
	Special Status Species	While special status species do exist in and around the Monument, only one has the potential for impact by this action and is discussed under the topic of vegetation. Thus, this topic was dismissed from further analysis.
	Socioeconomics	The potential treatment alternatives for this project would likely have an unmeasurable minor, beneficial impact on employment, occupations, income, or tax base at the monument or surrounding area. Therefore, this impact topic was dismissed from further analysis.
	Soils	Minor soil disturbance during construction. With proper mitigations this topic does not result in impacts. Thus, this topic is dismissed from further analysis.
	Soundscape	Impacts to the soundscape are limited to the duration of construction operations. Overall, the proposed alternative would have beneficial impacts to the soundscape by improving pedestrian access which would reduce the number of visitors utilizing vehicles to access the monument. Therefore, this impact is dismissed from further analysis.
	Vegetation / Special status species	Minor disturbance to turf vegetation, with the removal of a few trees will take place; however, all disturbance will be minimized or avoided through mitigations and have no adverse impacts. The action alternative also purposefully avoids impacts to sensitive vegetation areas. Thus, this topic was dismissed from further analysis.
	Water Resources	The proposed action does not cross or impact any wetlands or bodies of water. Therefore, this topic was dismissed from further analysis.
	Wildlife	Wildlife does occur within the monument however impacts to will be minor at most. Therefore, this topic was dismissed from further analysis.

Chapter Two Alternatives

2.0 Introduction

This section describes the alternatives developed for the trail plan. Two (2) alternatives are carried forward for analysis: Alternative A: No-Action Alternative, and Alternative B: Construct Southside Pedestrian Access Trail, the action and preferred alternative. A no-action alternative is required by the NEPA as a baseline to compare other action alternatives. The action alternative presents a reasonable and feasible approach that meets the purpose of and need for action. This section also identifies mitigation measures for the action alternative.

2.1 Alternative A: No Action

Under this alternative there would be no separate pedestrian access into the Monument from the entrance. Pedestrians would continue to share with vehicles between Hiawatha Ave and the entrance of the South Quarry Trail along Reservation Avenue.

The section of Reservation Ave. between Hiawatha Ave and the entrance of the South Quarry Trail runs east/west for approximately 0.35 miles and is approximately 24 ft wide, edge to edge, with no shoulder. To the north of the road the area is a mix of mowed lawn (on city owned property and within the ditch) and natural prairie with veins of rocky outcrops, resource protection areas and an area with NPS buildings currently used as a maintenance facility and offices. The southside of the road is also a mix of mowed lawn (on city owned property and ditch areas), with a mix of some large trees and other wood vegetation. About 0.20 miles west of the entrance is the NPS owned day use picnic area and the location of the sacred Three Maidens site. This area consists of a parking lot, picnic area and maintained lawn. The ditch that runs along the south side of Reservation Ave is a utility corridor. Figure 2 shows existing conditions along Reservation Ave. from different locations between Hiawatha Ave and the South Quarry Trail intersection.

2.2 Alternative B: Construct Southside Pedestrian Access Trail

Under this alternative a designated pedestrian trail of approximately 1,850 ft would be constructed from the intersection of N. Hiawatha Ave. and Reservation Ave. to the southern end of the South Quarry Trail. The trail would include educational signage/visuals, bicycle parking areas, bicycle deterrents, two (2) crosswalks, and a small (180 ft) branch to the south. This alternative avoids the Western Prairie Orchid habitat, wetlands, rocky outcrops, and ethnographic resources, while maintaining the viewshed from and to the Three Maidens. See [figure 4](#) (yellow dash line).

The first ~ 180ft of the trail is land owned by the city of Pipestone. The City has expressed a willingness to issue a land transfer, right-of-way, or easement for that swath of land to construct the trail. It is on this portion of land that the Monument has identified the eastern bicycle parking areas. Bicycle parking will consist of a bicycle rack, signage, and other inhibitors to deter bicycles from entering the Monument via the trail. The trail will not comply with 36 CFR § 4.30 (the Bicycle Rule), which requires a special regulation to authorize bicycle use on new trails outside of developed areas.

Much of the trail will run adjacent to Reservation Ave. in a previously disturbed ditch/utility ROW. To comply with Architectural Barriers Act Accessibility Standard (ABAAS) accessibility regulations, the trail may be diverted no more than 100ft from the road's edge to the south (about \approx 500ft west of the entrance) to compensate for the slope of the hill. This will allow the grade of the trail to meet accessibility standards. This may also be achieved through a low impact boardwalk, that may not require diverting as far or at all from the previously disturbed areas. A boardwalk is preferred but may be outside the financial feasibility of the NPS for this project.

To address the connectivity objective, the trail will include a small branch to the south, just west of the picnic area parking lot driveway. This is also the location of the first of two crosswalks. The estimated 180-ft branch would provide connectivity between the NPS-owned lands and the city-owned lands. This branch would also be constructed within previously disturbed lands (road ditch and picnic area) and provide an option for the City to connect their proposed trail system to the Monument's trails. At this location, a second bike rack would be provided. After crossing the picnic area parking lot driveway and branch, the trail would continue west down the southside of Reservation Ave. and terminate at a crosswalk, crossing Reservation Ave. to South Quarry Trail.

2.3 Alternatives Considered but Dismissed

As part of developing alternatives for this action, several alternatives were considered by the NPS but eliminated from further detailed evaluation because they either did not meet the purpose or need, could not be implemented for technical or logistical reasons, or were not consistent with the mission or significance of the Monument. The alternatives and actions and associated reasons for dismissal are described below.

Pedestrian Access via City Trail

Under this alternative the Monument would depend on the proposed city trail to provide pedestrian access to the Monuments boundary and from there the NPS would construct a pedestrian trail connecting the two ([figure 4](#), dark and light blue dash lines). This alternative was dismissed from further consideration because:

- Currently there is no timeline or funds to construct the proposed city trail.
- Pedestrians would likely still choose the more direct entrance road to access the Monument, thus not addressing the purpose and need for the action.

Northside Pedestrian Access Trail

Under this alternative a designated pedestrian trail, \sim 1,800 ft long, would be constructed from the intersection of Reservation Ave. and N. Hiawatha Ave. along the north side of Reservation Ave. until it connected to the existing South Quarry Trail ([figure 4](#), red dashed line). This alternative was dismissed from further consideration because:

- Majority of the disturbance would take place in undisturbed locations.
- There would be the potential to adversely impact Western Prairie Orchid habitat.
- There would be the potential to adversely impact the rocky outcrops.
- It would be cost-prohibitive to achieve an ABAAS accessible slope.

Southside Prairie Pedestrian Access Trail

Under this alternative a designated pedestrian trail would follow the southside of Reservation Ave. (same as preferred alternative) and divert south at the picnic area parking lot entrance, through the picnic area and across approximately 570 ft of undisturbed prairie where it would be connected to the existing South Quarry Trail (figure 4, purple dash line). This alternative was dismissed from further consideration because:

- It would disturb previously undisturbed areas.
- It has the potential to increase unauthorized visitor created trails through the prairie.
- Pedestrians would likely still choose the more direct entrance road to access the Monument, thus not addressing the purpose and need for the action.

Figure 3: Cardinal Direction Current Street Views of Reservation Ave. at Five Locations *(Street views are taken from Bing Maps)*



Figure 4: Trail Route Options Retained and Dismissed



Chapter Three

Affected Environment and Environmental Consequences

3.0 Introduction

This chapter describes the affected environment and documents existing conditions. These descriptions serve as a baseline for understanding potential impact to resources that the alternative actions may have. This chapter analyzes the environmental consequences or “impacts” of Alternative: No-Action, and Alternative B: Construct Southside Pedestrian Access Trail for each resource retained. The resource topics presented in this section correspond to the environmental issues and concerns identified during internal scoping.

In accordance with the Council on Environmental Quality (CEQ) regulations, the environmental consequences analysis includes the direct, indirect, and cumulative impacts (40 CFR 1502.16) of each alternative. The intensity of the impacts is assessed in the context of the Monument’s purpose and significance and any resource-specific context that may be applicable (40 CFR 1508.27). The methods used to assess impacts vary depending on the resource considered, but generally are based on a review of pertinent literature and studies, the information provided by on-site experts and other agencies, dialogue with tribal partners, professional judgment, and NPS staff knowledge and insight.

3.1 Affected Environment

The affected environment describes existing conditions for those elements of the natural and cultural environment (including human health and safety and the visitor experience) which could be affected by the actions proposed in the alternatives. These descriptions serve as a baseline for understanding the resources that could be impacted by implementation of the proposed action.

3.2 Impacts

According to the 2022 Council on Environmental Quality (CEQ) revised regulations, “effects or impacts” are changes to the human environment that include reasonably foreseeable (1) direct effects, (2) indirect effects and (3) cumulative effects [40 CFR §1508.1(g)].

Agencies consider the potentially affected environment and degree of effects to determine the significance of an action’s impacts. The degree of effect is assessed in the context of the Monument’s purpose and significance and any resource-specific context that may be applicable.

When assessing the degree of effects, agencies consider:

- Both short- (during construction & rehab) and long-term (post construction & rehab) effects.
- Both beneficial and adverse effects.
- Effects on public health and safety.
- Effects that would violate Federal, State, Tribal, or local law protecting the environment. [40 CFR § 1501.3(b)]

None of the alternatives analyzed in this EA would violate any federal, state, tribal, or local laws that protect the environment.

3.3 Cumulative Impacts Methodology

In accordance with the CEQ revised regulations, this EA also considers cumulative impacts, “which are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (federal or non-federal) or person undertakes such other actions.” (§1508.1(g)(3)) Cumulative impacts have been addressed in this EA by resource and are considered for each alternative.

3.4 Trends and Reasonably Foreseeable Planned Actions

Climate Related Trends

The National Park Service recognizes the importance of understanding the effects of climate change on its resources across the country and of developing adaptive management strategies to address these effects. Patterns observed in the area of the Monument match scientifically documented changes, such as more frequent severe storms and heavy rainfall events. Between 1950 and 2010, mean annual temperature of the monument area increased $1.2^{\circ}\text{C} \pm 0.9^{\circ}\text{C}$ century⁻¹ (mean \pm standard error), while annual precipitation increased $31\% \pm 13\%$ century⁻¹ (total \pm standard error) (Gonzalez 2018). To understand the magnitude and direction of ongoing changes in climate, 25 biologically relevant climate variables were evaluated for “extreme values” over the past 10 – 30 years relative to the 1901-2012 historical range of variability (Monahan & Fisichelli 2014). Results for “extreme” variables at the area of the Monument were as follows:

- Three temperature variables were “extreme warm” (annual mean temperature, minimum temperature of the coldest month, mean temperature of the driest quarter).
- No temperature variables were “extreme cold.”
- No precipitation variables were “extreme dry.”
- Three precipitation variables were “extreme wet” (precipitation of the driest month, precipitation of the driest quarter, precipitation of the coldest quarter).

Ongoing and future climate change will likely affect all aspects of NPS management, including natural and cultural resource protection as well as operations and visitor experience.

Visitor Use Related Trends

According to the US. Census 2020, the city of Pipestone is home to approximately 4,215 residents. In 2011 the City published the [Pipestone Bicycle and Pedestrian Master Plan](#), with a goal to provide safe and accessible daily active transportation opportunities to residents and visitors by creating a community-wide system of walks, trails and bicycle friendly routes through all areas of Pipestone. In 2021 the City completed a pedestrian and bike trail around three sides of the Monument, which has led to a noticeable increase in pedestrian traffic in the Monument along Reservation Ave.

The noticeable increase in pedestrian traffic on the entrance road into the Monument has created a safety issue for pedestrians and vehicles using the roadway. To date there have been no recorded accidents. The Monument sees approximately 75,000 visitors annually, and visitation has been trending upward over the last decade. Anecdotally, visitation seemed to remain steady during the COVID-19 pandemic, but resource protection problems such as off-trail/unauthorized visitor-created trail use increased. The last Visitor Use Study was conducted in 2002. The Monument is seeking funding for a current study to provide a more accurate assessment of overall visitation and trends.

Reasonably Foreseeable Planned Actions

Demolition of Building & Restoration of Prairie

The Monument demolished Building 6 in 2021 and is planning to demolish Building 3 in 2023. The work to restore the entire area to natural prairie conditions will begin in 2024. These actions were identified in the Pipestone National Monument General Management Plan (GMP), which was completed in 2008 ([Figure 8](#)).

Traditional Cultural Property Survey

From 2023-2025, the NPS will work with tribal partners to complete an Indigenous-led Traditional Cultural Property survey, which will provide more holistic documentation of the area's cultural and spiritual significance.

Circle Trail Bridge Replacement

The replacement of the bridge below Winnewissa Falls is tentatively planned for 2025, pending funding.

City of Pipestone Bike and Pedestrian Trail

The City plans to continue executing their bike and pedestrian master plan, including a proposed bike and pedestrian trail through Hiawatha Pageant Park, which neighbors the Monument to the south. The City is currently seeking funding but does not currently have a timeline for construction ([Figure 7](#)).

Demolition & Restoration of Existing Visitor Center & Parking & Access Road

The 2008 GMP preferred alternative proposes to remove the visitor center, parking lot and access road to restore the landscape to native prairie to preserve the cultural landscape. Currently there is no funding or timeline for when this may take place, though many of the actions identified above support this long-term goal.

3.5 Cultural and Historic Resources

3.5.1 Affected Environment

Pipestone National Monument in its entirety is listed on the National Register of Historic Places (NRHP) as the Pipestone National Monument Historic District. The 1976 National Register nomination focuses on the quarries as the source for sacred pipestone, used to create pipe bowls and other artifacts, and related ethnographic cultural traditions. There are many archeological localities that contribute to the nomination. The nomination also briefly discusses the increased popularity of the site to Euro-Americans through the writings and art of George Catlin and Joseph Nicollet, American settlement in and around the site and the eventual establishment of the Monument. The limited development of the site as a park until the Mission 66 program was initiated is noted as well.

The later 2003 determination of eligibility (DOE) focused on the Mission 66 developments at the Monument. The Park-scape addition to the Visitor Center is also discussed as a continuation of the goals of Mission 66 program and is considered a contributing feature. The DOE generally defers to the 1976 nomination in regard to the significance of the sacred pipestone quarries and associated ethnographic landscape (CLI 2007).

3.5.2 Environmental Consequences

Alternative A: No Action Alternative

Alternative A would continue to utilize Reservation Ave. as means of pedestrian access into the Monument. Pedestrians and vehicles would share the road, increasing the chances of an accident, potentially discouraging pedestrians from entering the Monument. With no pedestrian exclusive access visitors would also be more inclined to create unauthorized trails, which have the potential to have negative impacts to the cultural landscape and resources, such as the quarries and Three Maidens in the long-term. [Figure 3](#), shows current conditions.

Cumulative Impacts

When combined with past, present, and reasonably foreseeable future actions and trends, the No Action alternative could result in an increase in negative impacts to the cultural landscape, resources, and the Three Maidens resources in the long-term, particularly if visitation continues to increase by continuing to allow pedestrians to use Reservation Ave to access the Monument. This could increase the likelihood for the continued creation of unauthorized visitor trails due to the lack of safe pedestrian access into the Monument.

Alternative B: Construct Southside Pedestrian Access Trail

Alternative B would provide a designated pedestrian trail from the Monument entrance to the picnic area and continue to the south end of the South Quarry Trail. This will reduce the likelihood of unauthorized visitor-created trails impacting cultural resources. This alternative would strive to stay within previously disturbed land and/or use boardwalks (product would be surface installation with no footings) where feasible to reduce impacts in undisturbed locations. The Monument also seeks to minimize impacts by ensuring there are Tribal monitors onsite during construction.

This alternative would put pedestrians approximately 20 ft closer to the northside of the Three Maidens than the existing entrance road. Vegetation would be allowed to grow back and continue to provide a visual and physical barrier between the Three Maidens and the pedestrian trail. Interpretive signage would be developed to educate and inform visitors of the significance of the Three Maidens as well as the other Monument resources along the new trail.

Figure 5 shows a concept drawing of the proximity of the proposed trail to the Three Maidens feature. The Monument would continue to consult with the twenty-three (23) culturally affiliated Tribes to have Tribal monitors present during construction. For more information on mitigation, stipulations and best management practices see Chapter 4.

Any sites discovered would be evaluated for their eligibility for listing in the National Register of Historic Places, in their own right or as an amendment to the existing National Register listing for the entire national monument. Tribal monitoring procedures would be put in place to address any inadvertent discoveries of artifacts or human remains (Chapter 4). A list of all the Native American Tribes associated with the Monument can be found in Chapter 5.

Cumulative Impacts

When combined with past, present, and reasonably foreseeable future actions and trends, Alternative B could have a short-term negative impact to the Three Maidens resource but not likely to be adverse through the temporarily changing the experience of the resource during construction (noise, view et.). There would have no adverse impact to the Monuments NRHP eligibility. Alternative B could have a long-term beneficial impact to cultural resources through greater public awareness generated by interpretive signage along the trail and by constructing a designated pedestrian trail that provides a physical barrier between visitors and the resources.

3.6 Ethnographic Resources

3.6.1 Affected Environment

Ethnographic resources are defined by the NPS as "objects and places, including sites, structures, landscapes, and natural resources, with traditional cultural meaning and value to associated peoples" (NPS 2006). Safe pedestrian access to ethnographic resources is the focus of this EA.

Ethnographic resources are the primary reason the Monument was established, as described in the 1976 nomination for the NRHP. The DOE regards to the Monuments significance of the sacred pipestone quarries and associated ethnographic landscape (*CLI 2007*). Several sites within the Monument are sacred to American Indians and are important interpretive locales. The Three Maidens site is one of the Monuments sacred and has the potential to be impacted by the proposed action. American Indian peoples from these lands view the Three Maidens as caretakers or guardians of the quarries (another sacred resource) in the area. The Three Maidens are located along the entrance road, near the picnic area and associated parking lot. Twenty-three (23) American Indian tribes are traditionally associated with the Monument (Zedeno and Basaldu 2004).

3.6.2 Environmental Consequences

Alternative A: No Action Alternative

Alternative A would continue to utilize Reservation Ave. as a means of pedestrian access into the Monument. With no direct route, visitors would continue to enter the Monument unaware of the resources they are encountering due to the lack of interpretation signage. This and the lack of designated pedestrian access trail have the potential to adversely impact the Three Maidens in both the short- and long-terms. [Figure 3](#) shows current conditions.

Cumulative Impacts

When combined with past, present, and reasonably foreseeable future actions and trends, the No Action alternative could have both short and long-term, negative impacts on ethnographic resources, particularly if visitation continues to increase by continuing to allow pedestrians to use Reservation Ave to access the Monument increasing the likelihood for the development of unauthorized visitor-created trails, which can impact the viewshed looking out from and into the Three Maiden site and has the potential to increase damage to ethnographic resources.

Alternative B: Construct Southside Pedestrian Access Trail

Alternative B would provide a designated pedestrian trail from the entrance to the interior of the Monument, reducing the likelihood of unauthorized visitor-created trails and increasing protection of ethnographic resources. However, this alternative also decreases the green space and vegetation barrier between the entrance road and the Three Maidens.

This alternative would put pedestrians approximately 20 ft closer to the northside of the Three Maidens than the existing entrance road. Vegetation would be allowed to grow back and continue to provide a visual and physical barrier between the Three Maidens and the pedestrian trail. Interpretive signage would be developed to educate and inform visitors of the significance of the Three Maidens as well as the other Monument resources along the new trail. Tribal monitors will also be onsite during construction of the trail. ([Chapter 4](#)). [Figure 5](#) shows a concept drawing of the proximity of the proposed trail to the Three Maidens feature.

[Figure 5](#) shows a concept drawing of the proximity of the proposed trail to the Three Maidens feature. The Monument would continue to consult with the twenty-three (23) culturally affiliated Tribes, to have Tribal monitors present during construction. For more information on mitigation, stipulations and best management practices see [Chapter 4](#).

Cumulative Impacts

When combined with past, present, and reasonably foreseeable future actions and trends, Alternative B could have a short-term negative impact to the Three Maidens resource but not likely to be adverse by temporarily changing the experience of the resource during construction (noise, view et.). However, Alternative B could also have a long-term beneficial impact to ethnographic resources through greater public awareness generated by interpretive signage along the trail and by constructing a designated pedestrian trail that provides physical barrier between visitors and the resources.

3.7 Human Health and Safety

3.7.1 Affected Environment

For many years, Monument staff have regularly observed visitors walking on Reservation Ave. to enter the Monument. Due to the City trail development surrounding the Monument, pedestrian traffic seems to have increased in recent years. The Monument's entrance road lacks a shoulder, and a hill restricts visibility on the road. Drivers and pedestrians can also be distracted by the scenery, increasing the potential for an accident. To date, no pedestrians or drivers have been injured, however, the risk remains.

3.7.2 Environmental Consequences

Alternative A: No Action Alternative

Alternative A would continue to utilize Reservation Ave. as a means of pedestrian access into the Monument. Pedestrians and vehicles would share the road, increasing the chances of an accident, and/or increasing unauthorized visitor-created trails. This alternative would continue putting visitors, staff, and resources at risk of impact or injury. [Figure 3](#) shows current conditions.

Cumulative Impacts

The No Action alternative, when combined with past, present, and reasonably foreseeable future actions and trends could increase the potential for adverse impacts to human health and safety, particularly if visitation continues to increase by continuing to allow pedestrians to use Reservation Ave to access the Monument.

Alternative B: Construct Southside Pedestrian Access Trail

Alternative B would provide a designated pedestrian trail from the entrance to the interior of the Monument, separating the vehicle-pedestrian interaction, reducing unauthorized visitor created trails, and decreasing the likelihood of impact or injury. This alternative also meets the desired conditions for trails laid out in the 2008 GMP. [Figure 6](#) shows a rendering of this alternative along Reservation Ave. at the entrance.

Cumulative Impacts

Alternative B, when combined with past, present, and reasonably foreseeable future actions and trends could reduce the potential for adverse impacts in the long-term to human health and safety by constructing a designated pedestrian trail to access the Monument which will provides separation between visitors and vehicles.

3.8 Indian Trust Resources and Sacred Sites

3.8.1 Affected Environment

In accordance with the Environmental Compliance Memorandum 97-2 and Executive Order 13007, the NPS must ensure it explicitly addresses any anticipated effects on Indian trust resources including access to ceremonial use of sites within the Monument as part of the NEPA process. If any effects are identified, the NPS must consult with the affected tribe(s) on a government-to-government basis with respect to the impact from the project.

The 1976 DOE for the NRHP regards to the Monuments significance to the sacred pipestone quarries and associated ethnographic landscape (*CLI 2007*). Several sites within the Monument are sacred to American Indians and are important interpretive locales. Twenty-three (23) American Indian tribes are traditionally associated with the Monument (Zedeno and Basaldu 2004). The Three Maidens feature is one of the Monuments are one sacred place to the American Indian peoples from these lands. And are viewed as caretakers or guardians of the quarries in the area. The Three Maidens are located along the entrance road as well as the picnic area and associated parking lot. The quarries are also sacred to the American Indian peoples of the area and are in Trust to the NPS for their protection. A full list of those Tribes can be found in Chapter 5 of this EA.

3.8.2 Environmental Consequences

Alternative A: No Action Alternative

The no action alternative would continue to utilize Reservation Ave. as a means of pedestrian access into the Monument. Pedestrians and vehicles would continue to share the road, increasing the chances of an accident, and/or increasing the development of unauthorized visitor-created trails. This could have a potentially adverse impact on the resource, by changing the viewshed from the Three Maidens. Figure 3 shows current conditions.

Cumulative Impacts

When combined with past, present, and reasonably foreseeable future actions and trends, the No Action alternative could have both short and long-term, negative impacts to Indian trust Resources and Sacred Sites particularly if visitation continues to increase by continuing to allow pedestrians to use Reservation Ave to access the Monument increasing the likelihood for unauthorized visitor-created trails, which can impact the viewshed looking out from and into the sacred sites and resources and has the potential to increase damage to these resources.

Alternative B: Construct South Pedestrian Access Trail

Alternative B would provide a designated pedestrian trail from the entrance to the interior of the Monument, reducing the likelihood of unauthorized visitor created trails and increasing protection of ethnographic resources. However, this alternative also decreases the green space, vegetation barrier between the entrance road and the Three Maidens. This alternative also keeps visitors away from quarries and rocky out-crops by providing a designated trail.

This alternative would put pedestrians approximately 20 ft closer to the northside of the Three Maidens than the existing entrance road. Vegetation would be allowed to grow back and continue to provide a visual and physical barrier between the Three Maidens and the pedestrian trail. Interpretive signage would be developed to educate and inform visitors of the significance of the Three Maidens as well as the other Monument resources along the new trail. Tribal monitors will also be onsite during construction of the trail. (Chapter 4). This alternative avoids going within or near any quarry sites.

Figure 5 shows a concept drawing of the proximity of the proposed trail to the Three Maidens feature. The Monument would continue to consult with the twenty-three (23) culturally affiliated Tribes, to have Tribal monitors present during construction. For more information on mitigation, stipulations and best management practices see Chapter 4.

Cumulative Impacts

Impacts to Indian trust resources and sacred sites under Alternative B, when combined with past, present, and reasonably foreseeable future actions and trends, are mixed. Analysis is informed by dialogue with Tribes that took place during scoping and the development of this EA. Some Tribes and American Indian visitors could experience a long-term beneficial impact from safe pedestrian access to the sacred sites of the Three Maidens and quarries. However, the development of a new trail, on sacred ground could have short and long-term adverse impacts to Indian Trust Resources and Sacred Sites due to increased visibility and access. The Monument would continue to work with Tribes to reduce impacts through thoughtful discussion and collaboration, such as Tribal monitoring during construction (Chapter 4).

3.9 Viewsheds and Visual Resources

3.9.1 Affected Environment

The city of Pipestone is a rural community made up of a small downtown, and residential areas with associated infrastructure such as utilities and parks. The Monument is comprised of mostly undeveloped restored prairie with some infrastructure such as trails, a road, picnic area, parking lots, visitor center and maintenance/staff area. Reservation Ave. is the entrance road to the Monument. To the north of the road the view consists mainly of restored prairie, with NPS structures towards the west. To the south of the road, the view looks towards City property which consists of utility poles, Hiawatha Park, and Leon H. Moore Park. Hiawatha Park offers walking trails, one large rentable building, with a large open green space. Leon H. Moore Park offers one large rentable building, open green space, a fishing pond, hiking trails, restrooms, and a picnic area. To the south, are the NPS-owned picnic area, associated parking lot and a mowed lawn surrounding the sacred site known as the Three Maidens. Figure 3 shows current street views from 5 points along Reservation Ave.

3.9.2 Environmental Consequences

Alternative A: No Action Alternative

Alternative A would continue to use Reservation Ave. as the main pedestrian access into the Monument, not creating any additional viewshed or visual resource impacts than the existing conditions.

Cumulative Impacts

When combined with past, present, and reasonably foreseeable future actions and trends the No Action alternative as the potential to have long-term negative impacts (likely not measurable) to viewsheds and visual resources, particularly if visitation continues to increase by continuing to allow pedestrians to use Reservation Ave to access the Monument increasing the likelihood for unauthorized visitor-created trails, which can impact the viewshed looking out from and into different Monument locations.

Alternative B: Construct Southside Pedestrian Access Trail

Alternative B would provide a designated pedestrian trail from the entrance to the interior of the Monument. The proposed trail has the potential to have a short-term adverse impact during construction but will be minimized through revegetation and other efforts found in Chapter 4. To meet ABA/ADA accessibility requirements and meet the needs outlined in the 2008 GMP, the trail would have to be constructed in a way that would likely have a greater visual impact on the viewshed than if just a small, earth trail was being constructed.

The accessibility requirements involve hard and wider surfaces that do not exceed a specific percent slope. The slope of the trail will need to be addressed along the hill on Reservation Ave. This alternative proposes to construct a boardwalk to compensate for the slope and reduce the potential ground disturbance that would result if the slope had to be addressed through grading. The boardwalk would have a long-term adverse impact to the viewshed. The figures 5 & 6 show visual renderings of the proposed trail and potential visual impacts.

Cumulative Impacts

When combined with past, present, and reasonably foreseeable future actions and trends, Alternative B could have a slight increase in long-term adverse impacts to views between the entrance of the Monument and the South Quarry Trail along Reservation Ave. However, Alternative B could also have a long-term beneficial impact to the view by decreasing the amount of unauthorized visitor created trails along Reservation Ave. between Hiawatha Ave. and South Quarry Trail.

3.10 Visitor Use & Experience

3.10.1 Affected Environment

The Monument experiences 70,000-80,000 visitors each year. Visitation has increased over the last decade and is projected to continue to rise, especially with the additional city trails built around the perimeter of the Monument. Throughout the year and especially in times of peak visitation, pedestrians enter the Monument by walking along Reservation Ave., the only paved entrance road. A hill restricts visibility for both pedestrians and vehicles. Currently there is no other way for pedestrians to access the Monument safely without the creation of unauthorized trails which would adversely impact resources, or by walking along the road, which creates a safety hazard for both drivers and pedestrians.

In March 2011 the City completed the “Pipestone Bicycle and Pedestrian Master Plan,” which identified six (6) goals to benefit the local community, and key destinations within the community and routes to access those destinations. One of the plans does include expanding a trail around the Monument, which is nearly complete. Figure 7 shows the current and proposed routes in the City.

3.10.2 Environmental Consequences

Alternative A: No Action Alternative

Alternative A would continue to utilize Reservation Ave. as a means of pedestrian access into the Monument. Pedestrians and vehicles would still share the road, increasing the chances of an accident, potentially discouraging pedestrians from entering the Monument. This alternative also does not address accessibility needs as stated in the 2008 GMP. This alternative would continue the lack of pedestrian connection to the local community and visitors to the city. This alternative would have a long-term adverse impact to visitor use and experience by not providing safe and accessible access into the Monument. Figure 3 shows current conditions.

Cumulative Impacts

When combined with past, present, and reasonably foreseeable future actions and trends, the No Action alternative could result in a slight increase in long-term adverse impacts to visitor use and experience particularly if visitation continues to increase by only providing pedestrian access into the Monument through sharing the narrow entrance road with motorized vehicles.

Alternative B: Construct Southside Pedestrian Access Trail

Alternative B would provide a designated, accessible pedestrian trail from the entrance to the interior of the Monument and provide a connection to the local community park and trails. This alternative would also address the need for interpretive information and signage along the trail. The trail would meet ABA/ADA accessibility requirements which would address the needs outlined in the 2008 GMP.

The proposed trail has the potential to have a short-term adverse impact during construction, by restricting traffic flow along Reservation Ave. However, construction impacts would be mitigated through public notification, signage, and timing (Chapter 4). Overall, this alternative would have a long-term beneficial impact on visitor use and experience.

Cumulative Impacts

When combined with past, present, and reasonably foreseeable future actions and trends, Alternative B would have long-term beneficial impacts to visitor use and experience. This is accomplished by separating pedestrians from vehicle access through the construction of a safe and accessible pedestrian trail which provides interpretative elements to broaden and enhance the visitor experience.

Figure 5: Proposed Trail Proximity to Three Maidens

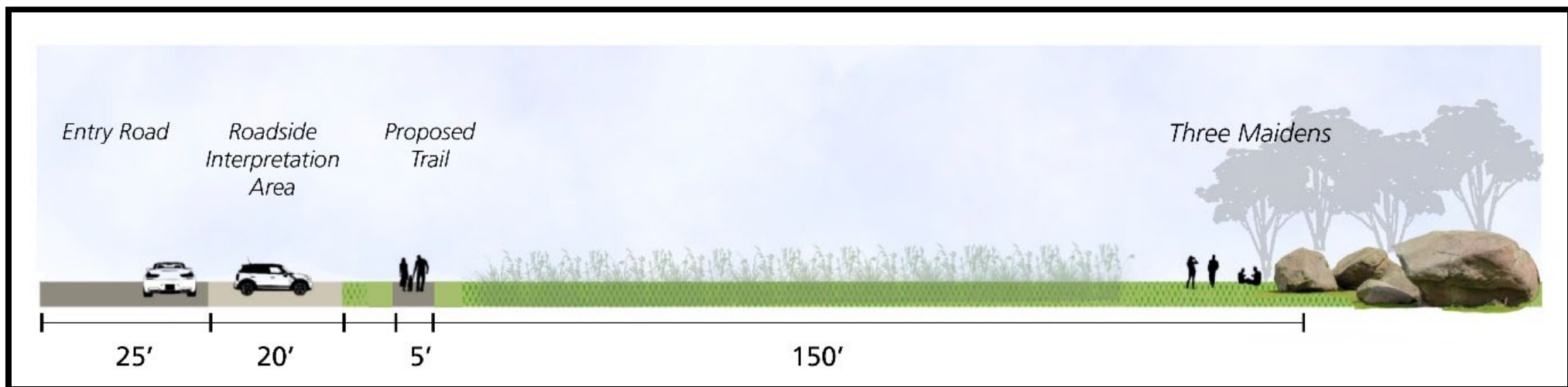


Figure 6: Proposed Preferred Trail Rendering at the Entrance vs. Current Condition



Figure 7: Current and proposed routes outline in the city

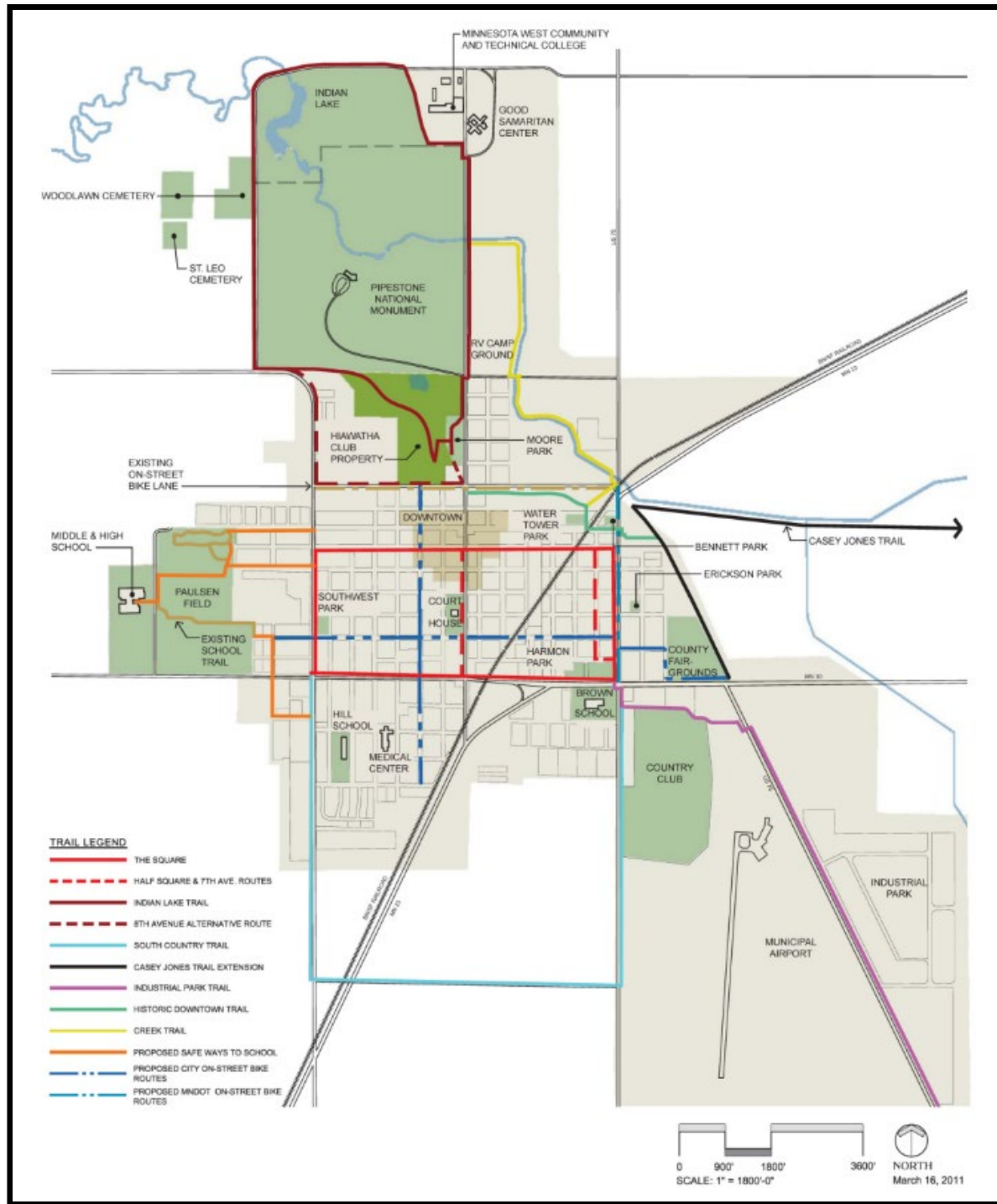


Figure 8: Reasonably Foreseeable Actions; Building Demo & Prairie Restoration



Chapter Four

Mitigation, Stipulations and Best Management Practices

4.0 Introduction

The National Park Service has generated a list of mitigation measures, as well as general best management practices for key topic areas related to this environmental assessment. These actions would minimize potential adverse impacts associated with implementation of the preferred alternative and are provided in appendix A.

NPS places strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, NPS would implement the following measures as part of the action alternative.

Chapter Five

Consultation and Coordination

5.0 Lead and Cooperating Agencies

An internal review of the Environmental Assessment has been conducted by National Park Service staff at Pipestone National Monument and by staff at the Midwest Regional Office located in Omaha, Nebraska.

5.1 Tribal Partners

Informational meetings were held virtually on September 28, 2021, and October 7, 2021. The Superintendent discussed the project during an informal meeting with Yankton Sioux Tribe community members in Fort Randall, South Dakota on April 20, 2022. A formal letter was sent in hard-copy and email to 23 Tribes on May 11, 2022, initiating formal consultation. The project was discussed with representatives of 12 Tribes that attended an in-person intertribal meeting at Pipestone National Monument on June 14 and 15, 2022, 1 Tribe by phone on June 16, 2022, and 4 Tribes that attended an in-person meeting on December 7, 2022. On December 14, 2022, the Tribe was provided a copy of the draft EA and given 60-days to review. No comments were received.

Consultation and intertribal dialogue significantly informed the development of the alternatives and analysis. Tribal feedback contributed greatly to thorough analysis and impacts considered. As a result of dialogue with tribal partners, the preferred alternative was developed to stay as close to existing development (entrance road) as possible and avoid any new impact to the prairie or quarries. In addition, the park committed to coordinating tribal monitoring during construction.

Tribes associated with Pipestone National Monument

Cheyenne River Sioux Tribe	Ponca Tribe of Nebraska
Crow Creek Sioux Tribe	Ponca Tribe of Oklahoma
Flandreau Santee Sioux Tribe	Prairie Island Indian Community
Fort Peck Assiniboine & Siouan Tribe	Rosebud Sioux Tribe
Iowa Tribe of Kansas & Nebraska	Santee Sioux Nation
Iowa Tribe of Oklahoma	Shakopee Mdewakanton Sioux
Lower Brule Sioux Tribe	Community
Lower Sioux Indian Community	Sisseton Wahpeton Oyate
Mandan Hidatsa Arikara Nation	Spirit Lake Dakota Tribe
Oglala Lakota Nation	Standing Rock Sioux Tribe
Omaha Tribe of Nebraska	Upper Sioux Community of Minnesota
Otoe-Missouria Tribe	Yankton Sioux Tribe

5.2 Federal Agencies

United States Fish and Wildlife Service (USFWS)

Informal consultation through the USFWS Information, Planning and Conservation (IPaC) system took place on December 13, 2022. Under Section 7, three (3) species were identified in the project area; the *Notropis topeka* (Topeka Shiner), *Danaus plexippus* (Monarch Butterfly) and the *Platanthera Praeclara* (Western Prairie Fringed Orchid). It has been determined there would be no effect to these species due to this action. This fulfilled the requirements of Section 7 of the Endangered Species Act.

5.3 State Agencies

Minnesota State Historic Preservation Office (SHPO)

A letter was sent on May 11, 2022, initiating formal consultation. The SHPO responded on May 17, 2022, that they recommend consultation with their office to identify character-defining features and assess potential effects.

A letter was sent on February 2023 initiating the 30-day pre-public review of the draft EA. SHPO responded via email on March 14, 2023 requesting additional information. The NPS responded and extended the review period for an additional 30-days.

5.4 Local Agencies

City of Pipestone, Minnesota

Consultation with the city of Pipestone was initiated through an in-person meeting in mid-2021 and has continued through all stages of planning. The city participated in the public meeting on October 19, 2022.

5.5 Public Engagement

A public scoping meeting was held at the Monument's visitor center on October 19, 2022. Six members of the public attended. A 30-day public scoping comment period was open from October 5 – November 10, 2022, using PEPC. Two comments were revived via PEPC.

The EA will be available for public comment from April 3, 2023 to May 3, 2023 via PEPC.

5.6 Other Environmental and Regulatory Requirements

A Notice of Availability of the Environmental Assessment will be issued via a press release and social media post. The document will be available on the NPS public Planning, Environment & Public Comment (PEPC) website at www.parkplanning.nps.gov.

Chapter Six

Acronyms and Abbreviations

CEQ	Council on Environmental Quality
City	City of Pipestone
CFR	Code of Federal Regulations
IPaC	Information, Planning and Conservation
NEPA	National Environmental Policy Act
NPS	National Park Service
Monument	Pipestone National Monument
PEPC	Planning, Environment & Public Comment
SHPO	State Historic Preservation Office
USFWS	United State Fish and Wildlife Service

Appendix A

Mitigation Measures and Best Management Practices

General

- Clearly state all resource protection measures in the construction specifications and instruct workers to avoid conducting activities outside the project area. Limit disturbances to roadsides, culvert areas, and other areas inside the project area. Clearly indicate areas of concern on construction drawings.
- Hold a preconstruction meeting to inform contractors about sensitive areas, including natural and cultural resources and provide procedures for identifying and addressing any unanticipated discoveries.
- Delineate construction zones outside existing disturbed areas with flagging and confine all surface disturbance to the construction zone.
- Site staging and storage areas for construction vehicles, equipment, materials, and soils in previously disturbed or paved areas approved by NPS. These areas shall be clearly identified in advance of construction.
- Require contractors to properly maintain construction equipment to minimize noise and emissions. Do not allow construction engines (including vehicles and equipment) to idle for extended periods, unless necessary
- Remove all tools, equipment, barricades, signs, and surplus materials from the project area upon completion of the project.
- Develop a Spill Pollution Prevention Plan for the project to include spill prevention, fueling, hazardous material containment, hazardous material usage.

Cultural & Ethnographic, Indian Trust Resources & Sacred Sites

- Identify and delineate archeological or other cultural resources near the project area prior to project work. Coordinate with Tribal partners to ensure Tribal monitors are present during construction and restoration. Share monitoring results with all affiliated Tribes.
- Continue to coordinate with the State Historic Preservation Office throughout the course of the project if unknown cultural resources are discovered as a result of the actions associated with the action alternative.
- Continue to consult with affiliated Tribes regarding site monitoring needs, and if unknown cultural resources or sacred sites are discovered as a result of the actions associated with the action alternative.
- Tribal monitoring procedures would be put in place to address any inadvertent discoveries of artifacts or human remains. If discoveries were made, construction underway would be stopped immediately, the superintendent would be notified, and proper consultation would be initiated with the State Historic Preservation Office (SHPO) and Native American Tribes traditionally associated with the Monument.
- Stop all work on the project and contact the Superintendent immediately if human remains are discovered during construction activities. As required by law, notify the coroner. Follow all provisions outlined in the Native American Graves Protection and Repatriation Act (1990).
- Ensure imported fill material are devoid of invasive species or cultural materials before transporting into the Monument.
- Coordinate construction to occur outside of the busiest times for ceremonial use (for example, avoid July and August).

Human Health and Safety & Visitor Use & Experience

- Construction area will be posted, and proper barriers put up to protect visitors
- Inform visitors in advance of construction activities via multiple methods, including the Monument's website, various signs, and the visitor center. Provide regular updates to the public about project progress and any associated delays.
- Develop a traffic plan to manage for the project site during construction

Natural Resources

- Park will provide best management practices for revegetation of the site. This may include seed type and weed/weed seed free materials.
- Park will provide best management practices to mitigate the introduction or spread of non-native, invasive species due to construction activities.
- Implement best management practices for drainage and sediment control to prevent or reduce nonpoint source pollution and minimize soil loss and sedimentation in drainage areas. These practices may include, but are not limited to, silt fencing, filter fabric, temporary sediment ponds, check dams of pea gravel-filled burlap bags or other material, and/or immediate mulching of exposed areas to minimize sedimentation and turbidity impacts as a result of construction activities. As much as practicable, do not use plastic materials. Leave erosion control measures in place at the completion of construction to avoid adverse impacts on water resources.
- Migratory birds may seek respite within trees or on buildings. The Migratory Bird Treaty Act of 1918 prohibits the removal of all listed species or their parts (feathers, eggs, nests, etc.) from such property. However, in extreme circumstances, a federal permit might be obtained for the relocation of listed species (in some states a state permit is required in addition to a federal permit). Pursuant to the spirit of the treaty, it is not trivial to obtain a permit; the applicant must meet a certain criterion as outlined in Title 50, Code of Federal Regulations, 21.27, Special Purpose Permits.

Appendix B

References

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