

**APPENDIXES,
SELECTED BIBLIOGRAPHY,
PREPARERS, INDEX**



APPENDIX A: RELATIONSHIPS WITH AMERICAN INDIANS

TRIBES TRADITIONALLY ASSOCIATED WITH PIPESTONE NATIONAL MONUMENT

In the glossary of its publication *Management Policies* 2006 the National Park Service defines *traditionally associated peoples* as follows:

Traditionally associated peoples – may include park neighbors, traditional residents, and former residents who remain attached to a park area despite having relocated. For purposes of these *Management Policies*, social/ cultural entities such as tribes, communities, and kinship units are “traditionally associated” with a particular park when (1) the entity regards park resources as essential to its development and continued identity as a culturally distinct people; (2) the association has endured for at least two generations (40 years); and (3) the association began prior to establishment of the park (NPS 2006b).

The identification of an American Indian tribe as traditionally associated with Pipestone National Monument means that a contemporary link of interest from the present to the past — known as cultural affiliation — exists between the tribe and the national monument. The status of *traditionally associated* does not affect the national monument’s enabling legislation about who enjoys quarrying rights, which, as mentioned on the following page and elsewhere in the document in the reprinted legislation, expressly reserves the right to quarry the pipestone “to Indians of all tribes.” In the section on public involvement and Native American consultation, the American Indian tribes included in the list of tribes, agencies, and organizations to which this document was sent overlap in many instances but are not exactly congruent with the tribes listed below as traditionally associated tribes and possibly traditionally associated tribes.

Through previous ethnographic and ethno-historical evidence, eight federally recognized American Indian tribes have been previously identified through studies and NPS staff as

having cultural affiliation with the national monument. A more recent study completed in mid 2004 recognized that an additional 15 tribes were affiliated with the national monument. Therefore, 23 tribal names officially appear in the list of federally recognized tribes in the *Federal Register*, vol. 70, no. 226, November 25, 2005. A federally recognized tribe means that American Indian tribes in this category are eligible to receive services from the Bureau of Indian Affairs of the U. S. Department of Interior. Affiliation is limited to federally recognized tribes.

The study completed by the University of Arizona at Tucson includes two volumes: *Native American Cultural Affiliation and Traditional Association Study* (Zerdano and Basaldú 2004) and *The Everchanging Pipestone Quarries, Sioux Cultural Landscapes and Ethnobotany of Pipestone National Monument, Minnesota*, (Toupal et al. 2004). The former study provided indications about tribal affiliation but failed to definitively detail affiliated tribes until it was provided by letter of April 28, 2005.

Federally Recognized Tribes Culturally Affiliated with Pipestone National Monument	
1.	Cheyenne River Sioux Tribe
2.	Crow Creek Sioux Tribe
3.	Flandreau Santee Sioux Tribe
4.	Fort Peck Assiniboine and Sioux Tribes
5.	Iowa Tribe of Kansas and Nebraska
6.	Iowa Tribe of Oklahoma
7.	Lower Brule Sioux Tribe
8.	Lower Sioux Indian Tribe
9.	Oglala Sioux Tribe
10.	Omaha Tribe of Nebraska
11.	Otoe-Missouria Tribe
12.	Ponca Tribe of Nebraska
13.	Ponca Tribe of Oklahoma
14.	Prairie Island Indian Tribe
15.	Rosebud Sioux Tribe
16.	Santee Sioux Nation
17.	Shakopee Mdewakanton Nation
18.	Sisseton-Wahpeton Oyate Tribe
19.	Spirit Lake Tribe
20.	Standing Rock Sioux Tribe

21. Three Affiliated Tribes
22. Upper Sioux Community of Minnesota
23. Yankton Sioux Tribe

The staff of Pipestone National Monument conducts government-to-government relations with those of the affiliated tribes who so desire. Consultation was recently completed with interested tribes for design and construction of a display for the national monument's petroglyphs collection. The staff aims for effective communication and the sharing of information and knowledge about mutual interests in the national monument. These include concerns about planning and operations for the national monument and managing cultural and natural resources. Consultations are also conducted with individuals from the Dakotah Community of Pipestone, Minnesota, which is not a federally recognized but is consulted as a matter of courtesy and policy (NPS 2006b).

The National Park Service recognizes that indigenous peoples may well have traditional interests and rights in lands now under NPS management, as well as concerns and contributions to make for the future through the scoping process for general management plans of the national park system. Related to tribal sovereignty, the need for government-to-government Native American consultations stems from the historic power of Congress to make treaties with American Indian tribes as sovereign nations. Consultations with American Indians and other Native Americans, such as Native Hawaiians and Alaska Natives, are required by various federal laws, executive orders, regulations, and policies. They are needed, for example, to comply with section 106 of the National Historic Preservation Act of 1966, as amended (most recently in 1992). The implementing regulations of the Council on Environmental Quality for the National Environmental Policy Act of 1969 also call for Native American consultations.

INDIAN TRUST RESOURCES

The planning process of the National Park Service requires the evaluation of potential Indian trust resources in planning documents. That is, are Indian trust resources present or not? Should the red catlinite pipestone in Pipestone National

Monument be regarded as an Indian trust resource, or the national monument itself? The lands comprising Pipestone National Monument in southwestern Minnesota are not held in trust by the secretary of the interior for the benefit of American Indians because of their status as American Indians. The National Park Service has considered whether, when in 1937 Congress created the national monument and "reserved to Indians of all tribes . . . the quarrying of the red pipestone" within the national monument, the pipestone became a trust resource for the benefit and use of Indians or tribes. The National Park Service has concluded that it did not. In other words, the enabling legislation's reservation of the quarrying of pipestone "to Indians of all tribes" did not establish an Indian trust resource just because it was being done on behalf of American Indians.

The text of the act — "An Act to Establish the Pipestone National Monument in the State of Minnesota of August 25, 1937" — is reprinted elsewhere in this document. Section 1 establishes that Congress created the national monument "for the benefit and enjoyment of the people of the United States." Section 2 says that the national monument "shall be managed by the National Park Service under the direction of the Secretary of the Interior consistent with the provisions of the Organic Act" ("An Act to Establish a National Park Service") of August 25, 1916. The Organic Act requires the Secretary of the Interior through the National Park Service "to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations" of all Americans.

It is section 3 of the 1937 enabling legislation that speaks of "the quarrying of the red pipestone" as "reserved to Indians of all tribes." Section 3 adds that the quarrying is to occur "under regulations to be prescribed by the Secretary of the Interior." The National Park Service believes that "the quarrying of the red pipestone . . . reserved to Indians of all tribes . . . under regulations to be prescribed by the Secretary of the Interior" recognized a historic and cultural use of the resource. But such recogni-

tion does not translate into the creation of a trust resource because the quarrying is to take place in the context of first managing and preserving the pipestone for the benefit of all Americans as required by both the Organic Act and the enabling legislation.

The current regulations are reprinted below, as follows. They are published in the *Code of Federal Regulations* (36 CFR 7.42) as stated in the volumes revised as of July 1, 2000, and first published for Pipestone National Monument in the *Federal Register* (34 FR 5377) on March 19, 1969.

Code of Federal Regulations. Volume 36, Part 7, Section 42, Pipestone National Monument (36 CFR 7.42).

(a) An American Indian desiring to quarry and work ‘catlinite’ pipestone shall first secure a permit from the Superintendent. The Superintendent shall issue a permit to any American Indian applicant, Provided, that: (1) In the judgment of the Superintendent, the number of permittees then quarrying or working the pipestone is not so large as to be inconsistent with preservation of the deposit and (2) a suitable area is available for conduct of the operation. The permit shall be issued without charge and shall be valid only during the calendar year in which it is issued.

(b) An American Indian desiring to sell handicraft products produced by him, members of his family, or by other Indians under his supervision or under contract to him, including pipestone articles shall apply to the Superintendent. The Superintendent shall grant the permit provided that (1) in his judgment the number of permittees selling handicraft products is not so large as to be inconsistent with the enjoyment of visitors to the Pipestone National Monument and (2) a suitable area is available for conduct of the operation. The permit shall be issued without charge and shall be valid only during the calendar year in which it is issued.

**THE PERMITTING PROCESS
TO QUARRY PIPESTONE**

The superintendent of Pipestone National Monument requires that an individual applying for an annual permit to quarry pipestone show proof of affiliation with a federally recognized American Indian tribe. More than one person may quarry at the same site. Any person assisting the quarrier at a site must also validate his or her

status as a member of a federally recognized American Indian tribe.

No permits are issued to tribes. The 1937 enabling legislation clearly states that pipestone quarrying is reserved to individual “Indians of all tribes,” not to particular tribes.

**CONSULTATION FOR THE NATIVE
AMERICAN GRAVES PROTECTION AND
REPATRIATION ACT OF 1990 (NAGPRA)**

Museum collections have been inventoried for items covered by NAGPRA, such as human remains, funerary objects, and sacred or other objects of cultural patrimony. Neither human remains nor associated funerary objects have ever been part of the collections at Pipestone National Monument. The NPS “Servicewide NAGPRA Summary” of 1993 indicates 20 pipestone pipes that could be objects of cultural patrimony. They might be pipes of such individuals as Red Dog, Kills Spotted Horse, Short Bull, Rushing Bear, Dull Knife, Wolf Robe, Spotted Tail, Hollow Horn Bear, Crow Dog, Kicking Bear, White Eagle, Jack Red Cloud, American Horse, Red Cloud, Rain in the Face, Chief Joseph, Sitting Bull, Big Snake, Black Dog, and Roan Horse. One might be a council pipe.

The affiliated and other federally recognized tribes that might be linked to these pipes were notified according to NAGPRA procedures as to their possible provenance with an invitation to discuss the idea of cultural patrimony. These pipes are part of the Edward Butts Collection of Kansas City, which the national monument acquired in 1964 through the Pipestone Indian Shrine Association. The documentation linking them to these people is unclear. Nevertheless, one response was received and duly considered, with repatriation resulting in 1999 of the Roan Horse pipe, catalog number 904 in the Pipestone National Monument collections. It was returned to Raymond Lasley, Sr., of the Osage Tribe of Oklahoma, a grandson of Chief Roan Horse. The national monument remains open to NAGPRA discussions with tribes that would wish to assert claims of cultural patrimony with regard to these pipes. If there are no further claims, all of the mandates of NAGPRA should be met.

APPENDIX B: ESTABLISHING LEGISLATION

ACT OF AUGUST 25, 1937, ESTABLISHING PIPESTONE NATIONAL MONUMENT:

An Act To establish the Pipestone National Monument in the State of Minnesota, approved August 25, 1937 (50 Stat. 804)

(a) Establishment; boundaries

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the lands lying in Pipestone County, Minnesota, within the area hereinafter described are dedicated and set apart as a national monument for the benefit and enjoyment of the people of the United States, under the name of the "Pipestone National Monument": Beginning at a point twenty-two and four-tenths feet north and forty-five and eight one-hundredths feet west of the southwest corner of section 1, township 106 north, range 46 west, fifth principal meridian; thence north one thousand six hundred and fifty-five feet; thence north eighty-nine degrees fifteen minutes east, seven hundred and eight feet; thence north no degrees forty-five minutes west, six hundred and seven and three-tenths feet; thence north sixty-two degrees five minutes east, nine hundred and eighty-seven and one-tenth feet; thence south twenty-seven degrees fifty-five minutes east, two hundred and sixty-four and five-tenths feet; thence south eighty-eight degrees nineteen minutes east, nine hundred and sixty-seven and five-tenths feet; thence south no degrees twenty-four minutes east, one hundred and forty-four and three-tenths feet; thence south eighty-three degrees forty-three minutes west, four hundred and seventy-two and four-tenths feet; thence south two degrees seventeen minutes east, two thousand two hundred and forty-nine feet; thence south eighty-nine degrees twenty minutes west, four hundred and fifty-eight and two-tenths feet; thence south no degrees no minutes east, one hundred and one and one-tenth feet; thence south ninety degrees no minutes west, one hundred and thirty-seven and two-tenths feet; thence north no degrees no minutes west, one hundred feet; thence south eighty-nine degrees twenty minutes west, one thousand six hundred and eighty-three and eight-tenths feet to the point of beginning; containing approximately one hundred and fifteen and eighty-six one-hundredths acres, including concourse, excluding from the area described herein forty-seven one-hundredths acres, constituting a right-of-way of the Chicago, Rock Island and Pacific Railway. (16 U.S.C. sec.445c)

(b) Administration, protection, and development

The administration, protection, and development of such monument shall be exercised under the direction of the Secretary of the Interior by the National Park Service, subject to the provisions of an Act entitled "An Act to establish a National Park Service, and for other purposes," approved August 25, 1916, as amended. (16 U.S.C. sec. 445c)

(c) Quarry rights of Indians

The quarrying of the red pipestone in the lands described in subsection (a) of this section is expressly reserved to Indians of all tribes, under regulations to be prescribed by the Secretary of the Interior. (16 U.S.C. sec. 445c.)

ACT OF JUNE 18, 1956 ADDING LANDS TO PIPESTONE NATIONAL MONUMENT:

An Act To authorize the addition of certain lands to the Pipestone National Monument in the State of Minnesota, approved June 18, 1956 (70 Stat. 290)

Acquisition of additional lands, Pipestone School Reserve and non-Federal land; redefining of boundaries; quarry rights of Indians

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior is authorized to add to the Pipestone National Monument such part of the Pipestone school reserve, not exceeding two hundred and fifty acres, as he deems necessary to protect archeological remains, to acquire by purchase or condemnation not exceeding ten acres of non-Federal land, as he deems necessary to improve the boundary and administration of the Pipestone National Monument Federal land, and to redefine the exterior boundaries of the Pipestone National Monument to include the lands so transferred and acquired pursuant to this section. All lands added to the Pipestone National Monument pursuant to this section shall be subject to the provisions of subsections 2 and 3 of the Act of August 25, 1937 (50 Stat. 804). (16 U.S.C. section 445d).

APPENDIX C: THREATENED OR ENDANGERED SPECIES AND SPECIES OF SPECIAL CONCERN

The state of Minnesota maintains a list of endangered, threatened, and special concern species. Under "Threatened or Endangered Species and Species of Special Concern" (p. 19), the species for this area are shown, with a discussion of which have been considered in this document and which have been dismissed from further consideration.

All the state-listed species at Pipestone are associated with the Sioux quartzite prairie. They are as follows:

Endangered	Threatened	Of Special Concern
blackfoot quillwort	short-pointed umbrella-sedge	water-hyssop
hairy water clover	mud plantain	buffalo grass
	slender plantain	mudwort
		plains prickly pear
		tumble grass

The Prairie Cluster Long Term Ecological Monitoring Program is designing a protocol to monitor sensitive species located in the Sioux quartzite habitat. The following descriptions of state-listed plants come from the 1983 memorandum of understanding between the state of Minnesota and the National Park Service. The descriptions for the memorandum were prepared by Welby Smith, Botanist, Natural Heritage Program.

Blackfoot quillwort is a fern at the northern extent of its range in Minnesota. According to the state of Minnesota, it appears to be rare or local over most of its range and may be extinct in neighboring states. It is known to occur at two sites in Minnesota. It is found only in ephemeral pools that form in depressions in Sioux Quartzite outcrops. This species was first collected in Pipestone National Monument in 1979.

Hairy water clover is a fern that reaches the eastern edge of its range in Minnesota. It has been found in three locations in the state, most recently in 1963. The plant may

survive in low numbers or may have succumbed to heavy grazing by cattle. It occurs in prairie pools and water-filled depressions in Sioux quartzite. It was collected at Pipestone National Monument in 1938 and 1946. It could not be found in 1979, but it may persist in low numbers.

Short-pointed umbrella-sedge (called Tapeleaf flatsedge in the memorandum) did occur at three locations in Minnesota, but at the time of the memorandum, none could be located at the known locations. The species, which appears to be restricted to a limited habitat, is threatened by cattle grazing and quarrying. In 1983 it was thought possible that populations might persist at Pipestone and Blue Mounds State Park. All three of the collections are from the margins of shallow pools on quartzite outcrops. It was collected at Pipestone in 1938 and 1961 but could not be located in 1979 and 1980. A few individuals may persist.

Mud plantain is a small aquatic species first collected in 1945. It was collected in or near Pipestone in 1956. Repeated searches of both these sites have failed to find the species. A few may persist at these sites or in similar habitats nearby. The greatest threat to this species is heavy grazing of its habitat by dairy cattle. Both known populations of this species are associated with shallow rock pools formed in depressions in Sioux quartzite outcrops.

Water hyssop is an aquatic species, wide-ranging in North America but restricted ecologically and geographically in Minnesota. There have been six documented populations in Minnesota from six counties in the southwestern and west-central part of the state. Most populations occur in shallow pools on quartzite and granite outcrops. The other populations are found in mud flats at the margins of receding ponds in the prairie region of the state. A specimen was collected in 1963 from Pipestone National Monument, but it has not been found there

in recent years. It may persist in a dormant condition during dry periods.

Buffalo grass is a characteristic Great Plains species that reaches the eastern limit of its natural range in Minnesota. Although it can withstand cattle grazing on western rangelands, Minnesota populations appear to be susceptible to grazing and are quite small. Native Minnesota populations may also be threatened by nonnative strains introduced from farther west. This is basically a species of dry prairies and plains, but all of the known Minnesota populations are restricted to thin soil on quartzite outcrops. The species was first collected at the monument in 1954 and has been verified several times in recent years. The population is not large but is well established.

Mudwort is a small aquatic species that ranges throughout much of the continent to the north and west of Minnesota. Within Minnesota it appears to be quite rare. There have been only five documented occurrences in four counties on the western edge of the state. Many of the populations are relatively small and may have trouble persisting. It is uncertain why the genus is so rare, but it may be related to the ephemeral nature of its habitat. Three of the five occurrences are from granite or quartzite outcrops, where they are found at the edge of depression pools. The remaining two populations are from the margin of a prairie pool and the edge of a small river. This species was first collected at Pipestone National Monument in 1963 and verified in 1979. The population is small but appears to be well established.

Plains prickly pear is typical of dry prairies and plains in the south-central and southwestern United States. However, it is local in Minnesota, where it reaches the northern limit of its range in the Upper Minnesota Valley. There are currently 16 known populations in Minnesota and 2 believed recently extinct. Unlike the common Opun-

tia cactus (*Opuntia fragilis*), prickly pear is not usually favored by grazing or other disturbances, although it does persist under light-to-moderate grazing. All the populations in Minnesota occur on granite or quartzite outcrops. The species was first collected at the monument in 1895, with many subsequent collections. It is well established at the site although not notably abundant.

Tumble grass is a common western species that reaches the eastern limit of its natural range in southwestern Minnesota. It has been collected at only four locations since its discovery in the state in 1895. It appears to be tolerant of grazing but requires areas of sparse vegetation where competition from other species is minimal. Of the four documented populations in Minnesota, three occur on quartzite outcrops. The habitat of the fourth population was described by the collector as an "alkalai prairie." The first documented occurrence in Pipestone National Monument is believed to have been in 1895. It was collected again at the monument in 1954 and 1959, but not since. Although its occurrence at the site has not been recently verified, it is believed likely to persist there.

Slender Plantain is a western species that reaches the eastern edge of its range in Minnesota and appears to have very specific habitat requirements. This species was first collected at the national monument in 1931 and again in 1962. It could not be relocated in 1979 or 1980 and its present status is uncertain. It may persist in low numbers.

Although some of these species have not been found recently, protecting the Sioux quartzite outcrops from development would protect any that may still occur but are in such small numbers they cannot be found easily.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Twin Cities Field Office
4101 East 80th Street
Bloomington, Minnesota 55425-1665
NOV - 8 2000

COPY

Mr. James LaRock, Superintendent
U.S. Department of the Interior
National Park Service
Pipestone National Monument
36 Reservation Avenue
Pipestone, Minnesota 56164-1269

Dear Mr. LaRock:

This concerns your October 2, 2000, letter requesting U.S. Fish and Wildlife Service comments on federally endangered or threatened species associated with the preparation of a General Management Plan (GMP) for Pipestone National Monument in Pipestone County, Minnesota.

The following federally-listed threatened (T) and endangered (E) species are listed for Pipestone County:

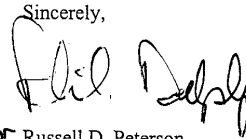
<u>Species</u>	<u>Scientific Name</u>	<u>Habitat</u>
Topeka shiner (E)	<i>Notropis topeka</i>	prairie rivers & streams
Western prairie fringed orchid (T)	<i>Platanthera praeclara</i>	mesic prairies & sedge meadows

There is no designated critical habitat for the above species. There are also no Candidate Species listed or proposed for listing in the project area at this time.

In accordance with Section 7(c) of the Endangered Species Act of 1973, as amended, it is the responsibility of the Federal agency to determine if its actions "may affect" listed species or critical habitat. We note that the above species are identified in your letter and are located within the Monument boundaries. We concur with your intent to include these species and any related impacts from the GMP in the required Environmental Impact Statement.

We also recommend that you contact the Minnesota Department of Natural Resources concerning any state-listed species which may occur within Pipestone County.

These comments have been prepared under the authority of the Endangered Species Act of 1973, (16 U.S.C. 1531-1543), as amended. We appreciate the opportunity to offer our comments on this project. Please contact Mr. Gary Wege at 612/725-3548 extension 207 if you have any questions or require additional information.

Sincerely,

For Russell D. Peterson
Field Supervisor

cc: Minnesota Department of Natural Resources, St. Paul, Minnesota



Minnesota Department of Natural Resources

Natural Heritage & Nongame Research Program, Section of Ecological Services
500 Lafayette Road
St. Paul, Minnesota 55155-40-25

December 12, 2000

Kristin Legg
Resource Manager
National Park Service
Pipestone National Monument
36 Reservation Ave
Pipestone MN 56164

Dear Ms. Legg:

Enclosed is the information you requested regarding known rare features in both Pipestone County and in the National Monument area, there are 2 printouts for each. The first printout is a summary list of the species and native plant communities that have been located and the second is an index of each separate occurrence sorted by legal description. I have also included an explanation of the different fields on the printouts. If you have any questions or need additional information about any of the records, please contact me at the phone number or e-mail address below.

I hope this information will be useful for your planning process. Thank you for contacting us on this matter.

Sincerely,

A handwritten signature in cursive script that reads 'Sharron Nelson'.

Sharron Nelson
Asst Database Manager
Natural Heritage and Nongame Research Program
Phone: 651-296-8324
Fax: 651-296-1811
E-mail: Sharron.Nelson@DNR.state.MN.US

encl.

DNR Information: 651-296-6157 • 1-888-646-6367 • TTY: 651-296-5484 • 1-800-657-3929

An Equal Opportunity Employer
Who Values Diversity



Printed on Recycled Paper Containing a
Minimum of 10% Post-Consumer Waste

Peperomia obtusifolia plantain

Minnesota Natural Heritage Database Element Occurrence Records				LIST OF KNOWN RARE FEATURES IN PIPESTONE NATIONAL MONUMENT SORTED BY CLASS AND ELEMENT NAME MnDNR, Natural Heritage and Nongame Research Program			14:06 Tuesday, DECEMBER 12, 2000 Copyright 2000 State of Minnesota DNR	
Federal Status	MN (legal) Status	Global Rank	Last Observed	# of Occurs.	Element Name (Common Name)			
			1983	1	NATURAL COMMUNITIES MESIC PRAIRIE (SOUTHWEST) CRYSTALLINE BEDROCK SUBTYPE			
					ANIMALS			
END	THR	G4		1	AMMODRAMUS HENSLOWII (HENSLOW'S SPARROW)			
	SPC	G23	1947	1	HESPERIA DACTYLAE (DAKOTA SKIPPER)			
		G2	1998	1	NOTROPIS TOPEKA (TOPEKA SHINER)			
					PLANTS			
NON	NON	G5	1962	1	ALOPECURUS CAROLINIANUS (CAROLINA FOXTAIL)			
NON	NON	G4	1954	1	ATRIPEX GLABRIUSCULA (SMOOTHISH ORACH)			
SPC	SPC	G5	1963	1	BACOPA ROTUNDIFOLIA (WATER-HYSSOP)			
SPC	SPC	G4G5	1979	2	BUCHLOE DACTYLOIDES (BUFFALO GRASS)			
END	END	G1G2	1999	1	BUELLIA NIGRA (A SPECIES OF LICHEN)			
NON	NON	G5	1999	2	CERASTIUM BRACHYPODUM (MOUSE-EAR CHICKWEED)			
NON	THR	G5	1961	1	CYPERUS ACUMINATUS (SHORT-POINTED WATERMORT)			
NON	THR	G5	1963	1	ELATINE TRIANDRA (THREE STIMENED WATERMORT)			
NON	THR	G5	1956	1	HETERANTHERA LIMOSA (MUD PLANTAIN)			
NON	THR	G5	1967	1	HORDEUM PUSILLUM (LITTLE BARLEY)			
END	END	G5	1979	1	ISOETES MELANOPODA (BLACKFOOT QUILLMORT)			
SPC	SPC	G5	1979	2	LIMOSELLA AQUATICA (MUDMORT)			
END	END	G5	1946	1	MARSILEA VESTITA (HAIRY WATER CLOVER)			
NON	NON	G5	1999	1	MYOSOTIS VERNIA (FORGET-ME-NOT)			
NON	NON	G5	1999	2	MYOSOTIS MINIMUS (MOUSETAIL)			
SPC	SPC	G5	1967	1	OPUNTIA MACRORHIZA (PLAINS PRICKLY PEAR)			
THR	THR	G4	1967	1	PLANTAGO ELONGATA (SLENDER PLANTAIN)			
END	END	G2	1984	1	PLATANOTHERA PRAECLARA (WESTERN PRAIRIE FRINGED ORCHID)			
SPC	SPC	G5	1954	1	SCHEDONARDUS PANICULATUS (TUMBLEGRASS)			

ELEMENTS PRINTED - 23

monument

KNOWN RARE FEATURES FROM THE NATURAL HERITAGE DATABASE IN PIPESTONE COUNTY

13:43 Tuesday, DECEMBER 12, 2000
Copyright 2000 State of Minnesota DNR

Minnesota Natural Heritage Database
Element Occurrence Records

MnDNR, Natural Heritage and Nongame Research Program

Federal Status	MN (legal) Status	Global Rank	Last Observed	# of Occurs.	Element Name (Common Name)
NATURAL COMMUNITIES					
			1999	2	CALCAREOUS SEEPAGE FEN (SOUTHWEST) PRAIRIE SUBTYPE
			1984	9	DRY PRAIRIE (SOUTHWEST) HILL SUBTYPE
			1986	1	DRY PRAIRIE (SOUTHWEST) SAND-GRAVEL SUBTYPE
			1983	4	MESIC PRAIRIE (SOUTHWEST) CRYSTALLINE BEDROCK SUBTYPE
ANIMALS					
END	G5		1939	1	ACRIS CREPITANS (NORTHERN CRICKET FROG)
END	G4			1	AMMODRAMUS HENSLOWII (HENSLOW'S SPARROW)
SPC	G3G4		1996	2	ATRYTONE AROGOS (AROGOS SKIPPER)
NON	G5		1990	2	BARTAMIA LONGICAUDA (UPLAND SANDPIPER)
SPC	G5		1986	1	CRYPTOTIS PARVA (LEAST SHREW)
THR	G4		1989	3	EMYDOIDEA BLANDINGII (BLANDING'S TURTLE)
SPC	G4		1997	7	FUNDULUS SCIADICUS (PLAINS TOPMINNOW)
THR	G2G3		1996	7	HESPERIA DACOTAE (DAKOTA SKIPPER)
SPC	G4T4		1978	1	HESPERIA LEONARDUS PANNEE (PANNEE SKIPPER)
THR	G3G4		1995	2	HESPERIA OTTOE (OTTOE SKIPPER)
THR	G5		1995	2	LANIUS LUDOVICIANUS (LOGGERHEAD SHRIKE)
SPC	G5		1968	1	MICROTUS OCHROGASTER (PRAIRIE VOLE)
SPC	G2		1999	34	NOTROPIS TOPEKA (TOPEKA SHINER)
SPC	G2G3		1996	5	ORISMA FOWESHEIK (FOWESHEIK SKIPPER)
NON	G5		1947	2	REITHRODONTOMYS MEGALOTIS (WESTERN HARVEST MOUSE)
END	G4		1989	1	SPECTOTYTO CUNICULARIA (BURROWING OWL)
SPC	G3		1997	7	SPEYERIA IDALIA (REGAL FRITILLARY)
PLANTS					
NON	G5		1962	1	ALOPECURUS CAROLINIANUS (CAROLINA FOXTAIL)
SPC	G5T5?		1986	1	ARISTIDA PURPUREA VAR. LONGISETA (RED THREE-AWN)
NON	G4		1954	2	ATRIPLEX GLABRIUSCULA (SMOOTHISH ORACH)
SPC	G5		1963	1	BACOPA ROTUNDFOLIA (WATER-HYSSOP)
SPC	G3		1985	1	BOTRYCHUM CAMPESTRE (PRAIRIE MOONWORT)
SPC	G4G5		1979	3	BUCHLOE DACTYLOIDES (BUFFALO GRASS)
END	G1G2		1999	2	BUELLIA NIGRA (A SPECIES OF LICHEN)
NON	G5		1999	4	CERASTIUM BRACHYPODUM (MOUSE-EAR CHICKWEED)
THR	G5		1961	2	CYPERUS ACUMINATUS (SHORT-POINTED UMBRELLA-SEDGE)
SPC	G4		1985	2	CYPRIPEDIUM CANDIDUM (SMALL WHITE LADY'S-SLIPPER)
NON	G5		1963	1	ELATINE TRIANDRA (THREE STAMENED WATERMORT)
THR	G5		1956	1	HETERANTHERA LIMOSA (MUD PLANTAIN)
NON	G5		1967	2	HORDEUM PUSILLUM (LITTLE BARLEY)
END	G5		1979	1	ISOETES MELANOPODA (BLACKFOOT QUILLMORT)
SPC	G5		1979	2	LIMOSELLA AQUATICA (MUDWORT)
END	G5		1963	2	MARSILEA VESTITA (HAIRY WATER CLOVER)
NON	G5		1999	3	MYOSOTIS VERNA (FORGET-ME-NOT)
NON	G5		1999	3	MYOSOTIS MINIMUS (MOUSETAIL)
SPC	G5		1967	1	OPUNTIA MACRORHIZA (PLAINS PRICKLY PEAR)
THR	G4		1967	1	PLANTAGO ELONGATA (SLENDER PLANTAIN)
END	G2		1999	2	PLANTANHERA PRASCLARA (WESTERN PRAIRIE FRINGED ORCHID)
THR	G5		1988	2	RHYNCHOSPORA CAPILLACEA (HAIR-LIKE BEAK-RUSH)
SPC	G5		1959	2	SCHEDONNARDUS PANICULATUS (TUMBLEGRASS)

of the
western
red states
Canada

LT

County

LT

Minnesota Natural Heritage Database Element Occurrence Records				KNOWN RARE FEATURES FROM THE NATURAL HERITAGE DATABASE IN PIPESTONE COUNTY				13:43 Tuesday, DECEMBER 12, 2000		Copyright 2000 State of Minnesota DNR	
				SORTED BY CLASS AND ELEMENT NAME							
				MnDNR, Natural Heritage and Nongame Research Program							

Pipestone National Monument

Minnesota Natural Heritage Database Element Occurrence Records				INDEX OF KNOWN RARE FEATURES IN PIPESTONE NATIONAL MONUMENT SORTED BY TOWNSHIP, RANGE AND SECTION				14:07 Tuesday, DECEMBER 12, 2000 Copyright 2000 State of Minnesota DNR		1	
				MnDNR, Natural Heritage and Nongame Research Program							
COUNTY NAME	TWP	RNG	SECTION	FED STATUS	MINN STATUS	S	RANK	ELEMENT and OCCURRENCE NUMBER	MANAGED AREA		
PIPESTONE	T106N	R46W	NESW01		NON			ALOPECURUS CAROLINIANUS (CAROLINA FOXTAIL) #3	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	01		END			AMMODRAMUS HENSLOWII (HENSLOW'S SPARROW) #2	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	01		NON			ATRIPLEX GLABRUSCULA (SMOOTHISH ORACH) #1	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	NESW01		SPC			BACOPA ROTUNDIFOLIA (WATER-HYSSOP) #7	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SESW01		SPC			BUCHLOE DACTYLOIDES (BUFFALO GRASS) #3	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SESW01		SPC			BUCHLOE DACTYLOIDES (BUFFALO GRASS) #7	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	NESW01		END			BUCELLIA NIGRA (A SPECIES OF LICHEN) #20	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	NESW01		NON			CERASTIUM BRACHYPODIUM (MOUSE-EAR CHICKWEED) #10	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SESW01		NON			ELATINE TRIANURA (THREE STAMENED WATERWORT) #8	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	0W01		THR			HESPERIA DACOTAE (DAKOTA SKIPPER) #42	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	NESW01		THR			HETERANTHERA LIMOSA (MOD PLANTAIN) #2	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SESW01		NON			HORDEUM FUSILLUM (LITTLE BARLEY) #5	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SESW01		END			ISOETES MELANOPODA (BLACKFOOT QUILLWORT) #2	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SESW01		SPC			LIMOSILLA AQUATICA (MUDWORT) #1	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SESW01		SPC			LIMOSILLA AQUATICA (MUDWORT) #4	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SESW01		END			MARSILEA VESTITA (HAIRY WATER CLOVER) #2	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SW01		SI			MESIC PRAIRIE (SOUTHWEST) CRYSTALLINE BEDROCK SUBTYPE #6	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	NESW01		NON			MYOSOTIS VERNIA (FORGET-ME-NOT) #3	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SESW01		NON			MYOSOTIS VERNIA (FORGET-ME-NOT) #6	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	NESW01		NON			MYOSOTIS MINIMUS (MOUSETAIL) #36	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SW01	LE	SPC			NOTROPIS TOPEKA (TOPEKA SHINER) #1	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SESW01		SPC			OPUNTIA MACRORHIZA (PLAINS PRICKLY PEAR) #5	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SESW01		THR			PLANTAGO ELONGATA (SLENDER PLANTAIN) #1	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SW01		SPC			SCHEDONARDUS PANICULATUS (TUMBLEGRASS) #4	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	02		NON			CERASTIUM BRACHYPODIUM (MOUSE-EAR CHICKWEED) #1	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	02		THR			CYPERUS ACUMINATUS (SHORT-POINTED UMBRELLA-SEDE) #2	PIPESTONE NATIONAL MONUMENT		
PIPESTONE	T106N	R46W	SESE02	LT	END			PLATANATHERA PRAECLARA (WESTERN PRAIRIE FRINGED ORCHID) #39	PIPESTONE NATIONAL MONUMENT		

RECORDS PRINTED = 27

Minnesota Natural Heritage Database Element Occurrence Records				KNOWN RARE FEATURES FROM THE NATURAL HERITAGE DATABASE IN PIPESTONE COUNTY SORTED BY TOWNSHIP, RANGE AND SECTION MnDNR, Natural Heritage and Nongame Research Program				13:45 Tuesday, DECEMBER 12, 2000 Copyright 2000 State of Minnesota DNR	
COUNTY NAME	TWP	RNG	SECTION	FED STATUS	MINN STATUS	S RANK	ELEMENT and OCCURRENCE NUMBER	MANAGED AREA	
PIPESTONE	T105N	R44W	OSSE13		SPC		SPERYERIA IDALIA (REGAL FRUITILARY) #27		
PIPESTONE	T105N	R44W	SW13		SPC		SPERYERIA IDALIA (REGAL FRUITILARY) #28		
PIPESTONE	T105N	R44W	NE14		NON	S3	BAKTRAMIA LONGICAUDA (UPLAND SANDPIPER) #302		
PIPESTONE	T105N	R44W	1314				DRY PRAIRIE (SOUTHWEST) HILL SUBTYPE #74		
PIPESTONE	T105N	R44W	17	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #22		
PIPESTONE	T105N	R44W	20	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #23		
PIPESTONE	T105N	R44W	2227	LE	END		NOTROPIS TOPEKA (TOPEKA SHINER) #21		
PIPESTONE	T105N	R44W	212728	LE	SPC		ACRIS CREPITANS (NORTHERN CRICKET FROG) #8		
PIPESTONE	T105N	R44W	SNW33	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #40		
PIPESTONE	T105N	R44W	NE33	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #56		
PIPESTONE	T105N	R45W	NE01	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #82		
PIPESTONE	T105N	R45W	NE21	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #69		
PIPESTONE	T105N	R45W	SESE25	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #41		
PIPESTONE	T105N	R45W	SE27SW26	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #81		
PIPESTONE	T105N	R46W	NWSW15		S3		DRY PRAIRIE (SOUTHWEST) HILL SUBTYPE #32		
PIPESTONE	T105N	R46W	15	NON			REITHRODONTOMYS MEGALOTIS (WESTERN HARVEST MOUSE) #12		SPLIT ROCK CREEK RECREATI
PIPESTONE	T105N	R46W	OW15	SPC			SPERYERIA IDALIA (REGAL FRUITILARY) #92		SPLIT ROCK CREEK RECREATI
PIPESTONE	T105N	R46W	20	NON			CERASTIUM BRACHYPODIUM (MOUSE-EAR CHICKWEED) #2		SPLIT ROCK CREEK RECREATI
PIPESTONE	T105N	R46W	20	THR		S1	CYPERUS ACHMINATUS (SHORT-POINTED UMBRELLA-SEDE) #1		
PIPESTONE	T105N	R46W	OSNE21				MESIC PRAIRIE (SOUTHWEST) CRYSTALLINE BEDROCK SUBTYPE #9		
PIPESTONE	T105N	R46W	29	NON			HORDEUM FUSILLUM (LITTLE BARLEY) #6		
PIPESTONE	T105N	R46W	29	END			MARSILEA VESTITA (HAIRY WATER CLOVER) #1		
PIPESTONE	T105N	R46W	SE29	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #79		
PIPESTONE	T105N	R46W	SNW32	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #6		
PIPESTONE	T105N	R46W	SW35	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #80		
PIPESTONE	T106N	R44W	NW07	LE	SPC		FUNDULUS SCIADICUS (PLAINS TOPMINNOW) #2		CASEY JONES MWA
PIPESTONE	T106N	R44W	NW07	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #3		CASEY JONES MWA
PIPESTONE	T106N	R44W	NE08	LE	SPC		FUNDULUS SCIADICUS (PLAINS TOPMINNOW) #1		CASEY JONES MWA
PIPESTONE	T106N	R44W	NE08	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #2		
PIPESTONE	T106N	R44W	NW17	LE	SPC		FUNDULUS SCIADICUS (PLAINS TOPMINNOW) #9		
PIPESTONE	T106N	R44W	NW17	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #42		
PIPESTONE	T106N	R44W	SESE28		S1		NOTROPIS TOPEKA (TOPEKA SHINER) #42		
PIPESTONE	T106N	R44W	SESE28	THR			EMYDOIDEA BLANDINGII (BLANDING'S TURTLE) #123		BURKE MWA
PIPESTONE	T106N	R44W	SE28	THR			FUNDULUS SCIADICUS (PLAINS TOPMINNOW) #4		BURKE MWA
PIPESTONE	T106N	R44W	SESE28	THR			RHYNGCHOSPOA CAPILLACEA (HAIR-LIKE BEAK-RUSH) #37		BURKE MWA
PIPESTONE	T106N	R44W	SESE28	NON			TRIGLOCHIN PALUSTRIS (MARSH ARROW-GRASS) #42		BURKE MWA
PIPESTONE	T106N	R44W	NE32	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #5		
PIPESTONE	T106N	R44W	SW33	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #31		
PIPESTONE	T106N	R46W	NESW01	NON			ALOPECURUS CAROLINIANUS (CAROLINA FOXTAIL) #3		PIPESTONE NATIONAL MONUME
PIPESTONE	T106N	R46W	01	END			AMMODRAMUS HENSLOWII (HENSLOW'S SPARROW) #2		PIPESTONE NATIONAL MONUME
PIPESTONE	T106N	R46W	01	NON			ATRIPLEX GLABRIUSCULA (SMOOTHISH ORACH) #1		PIPESTONE NATIONAL MONUME
PIPESTONE	T106N	R46W	01	NON			ATRIPLEX GLABRIUSCULA (SMOOTHISH ORACH) #2		PIPESTONE NATIONAL MONUME
PIPESTONE	T106N	R46W	NESW01	SPC			BACOPA ROTUNDIFOLIA (WATER-HYSSOP) #7		PIPESTONE NATIONAL MONUME
PIPESTONE	T106N	R46W	SESW01	SPC			BUCHLOE DACTYLOIDES (BUFFALO GRASS) #3		PIPESTONE NATIONAL MONUME
PIPESTONE	T106N	R46W	SESW01	SPC			BUCHLOE DACTYLOIDES (BUFFALO GRASS) #7		PIPESTONE NATIONAL MONUME
PIPESTONE	T106N	R46W	SESW01	END			BUCELLIA NIGRA (A SPECIES OF LICHEN) #19		PIPESTONE MWA
PIPESTONE	T106N	R46W	SNW101	END			BUCELLIA NIGRA (A SPECIES OF LICHEN) #20		PIPESTONE NATIONAL MONUME
PIPESTONE	T106N	R46W	NESW01	NON			CERASTIUM BRACHYPODIUM (MOUSE-EAR CHICKWEED) #9		PIPESTONE MWA

Appendix C: Threatened and Endangered Species and Species of Special Concern

[illegible]

Minnesota Natural Heritage Database Element Occurrence Records									
COUNTY NAME	TWP	RNG	SECTION	FED STATUS	MINN STATUS	S RANK	ELEMENT AND OCCURRENCE NUMBER	MnDNR, Natural Heritage and Nongame Research Program	
PIPESTONE	T107N	R46W	36		SPC		SCHEDONARDUS PANICULATUS (TOMBLEGRASS) #3		
PIPESTONE	T107N	R47W	NW13	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #27		
PIPESTONE	T108N	R44W	NE20		SPC	S3	DRY PRAIRIE (SOUTHWEST) HILL SUBTYPE #29		
PIPESTONE	T108N	R44W	22		SPC	S3	CYPRIPEDIUM CANDIDUM (SMALL WHITE LADY'S-SLIPPER) #84		
PIPESTONE	T108N	R44W	NE33050528		THR	S3	DRY PRAIRIE (SOUTHWEST) HILL SUBTYPE #158		
PIPESTONE	T108N	R44W	SE2905W28		THR	S3	DRY PRAIRIE (SOUTHWEST) HILL SUBTYPE #43		
PIPESTONE	T108N	R44W	NE32SE29		SPC	S3	DRY PRAIRIE (SOUTHWEST) HILL SUBTYPE #9		
PIPESTONE	T108N	R44W	SE29		END		ORLISMA POMESHEIK (POMESHEIK SKIPPER) #83		
PIPESTONE	T108N	R44W	30		SPC		SPECTIVTO CUNICULARIA (BURROWING OWL) #28		
PIPESTONE	T108N	R44W	0NWSE32		SPC		ARISTIDA PURPUREA VAR. LONGISETA (RED THREE-AMN) #24		
PIPESTONE	T108N	R44W	0NWSE32		SPC		ATRYTONE AROGOS (AROGOS SKIPPER) #16		
PIPESTONE	T108N	R44W	SNSE32		SPC		CYPRIPEDIUM CAMPESTRE (PRAIRIE MOONWORT) #2		
PIPESTONE	T108N	R44W	SNSE32		SPC	S3	ATRYTONE CANDIDUM (SMALL WHITE LADY'S-SLIPPER) #137		
PIPESTONE	T108N	R44W	NE32		S2		DRY PRAIRIE (SOUTHWEST) HILL SUBTYPE #10		
PIPESTONE	T108N	R44W	NE32		THR		DRY PRAIRIE (SOUTHWEST) SAND-GRAVEL SUBTYPE #11		
PIPESTONE	T108N	R44W	NE32		THR		HESPERIA DACOTAE (DAKOTA SKIPPER) #44		
PIPESTONE	T108N	R44W	NE32		THR		HESPERIA DACOTAE (DAKOTA SKIPPER) #56		
PIPESTONE	T108N	R44W	NNNW32		THR		HESPERIA OTTOE (OTTOE SKIPPER) #19		
PIPESTONE	T108N	R44W	0NE32		SPC		LANIUS LUDOVICIANUS (LOGGERHEAD SHRIKE) #140		
PIPESTONE	T108N	R44W	0NE32		SPC		ORLISMA POMESHEIK (POMESHEIK SKIPPER) #84		
PIPESTONE	T108N	R44W	0NE32		SPC		ORLISMA POMESHEIK (POMESHEIK SKIPPER) #95		
PIPESTONE	T108N	R44W	0NE32		SPC		ORLISMA POMESHEIK (POMESHEIK SKIPPER) #158		
PIPESTONE	T108N	R44W	0NE32		SPC		SPEYERIA IDALIA (REGAL FRITILLARY) #95		
PIPESTONE	T108N	R44W	0NE32		SPC		SPEYERIA IDALIA (REGAL FRITILLARY) #162		
PIPESTONE	T108N	R44W	NW33		SPC		ATRYTONE AROGOS (AROGOS SKIPPER) #45		
PIPESTONE	T108N	R44W	NNNW33		NON		BARTRAMIA LONGICAUDA (UPLAND SANDPIPER) #383		
PIPESTONE	T108N	R44W	NW33		S3		DRY PRAIRIE (SOUTHWEST) HILL SUBTYPE #159		
PIPESTONE	T108N	R44W	NW33		S3		DRY PRAIRIE (SOUTHWEST) HILL SUBTYPE #160		
PIPESTONE	T108N	R44W	NW33		THR		HESPERIA DACOTAE (DAKOTA SKIPPER) #28		
PIPESTONE	T108N	R44W	NW33		THR		HESPERIA LEONARDUS PANNEE (PANNEE SKIPPER) #13		
PIPESTONE	T108N	R44W	NNNW33		THR		HESPERIA OTTOE (OTTOE SKIPPER) #2		
PIPESTONE	T108N	R44W	NNNW33		THR		SPEYERIA IDALIA (REGAL FRITILLARY) #96		
PIPESTONE	T108N	R44W	NNNW33		THR		SPEYERIA IDALIA (REGAL FRITILLARY) #77		
PIPESTONE	T108N	R45W	NNW18	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #78		
PIPESTONE	T108N	R45W	NE22NW23	LE	SPC		NOTROPIS TOPEKA (TOPEKA SHINER) #76		
PIPESTONE	T108N	R45W	NNW28	LE	SPC		CALCAEUS SEEPAGE FEN (SOUTHWEST) PRAIRIE SUBTYPE #3		
PIPESTONE	T108N	R46W	NNW01		S1		MYDIOIDEA BLANDINGII (BLANDING'S TURTLE) #121		
PIPESTONE	T108N	R46W	NNW01		THR		RHYNCHOSPORA CAPILLACEA (HAIR-LIKE BEAK-RUSH) #33		
PIPESTONE	T108N	R46W	NNW01		THR		TRIGLOCHIN PALUSTRIS (MARSH ARROW-GRASS) #40		
PIPESTONE	T108N	R46W	NNW11		THR		MYDIOIDEA BLANDINGII (BLANDING'S TURTLE) #404		
PIPESTONE	T108N	R46W	NW22		SPC		CRYPTOTIS PARVA (LEAST SIREN) #2		
PIPESTONE	T108N	R46W	NW22		SPC		MICROTIS OCHOAGASTER (PRAIRIE VOIE) #16		
PIPESTONE	T108N	R46W	33		THR		LANIUS LUDOVICIANUS (LOGGERHEAD SHRIKE) #5		

RECORDS PRINTED - 139

13:45 Tuesday, DECEMBER 12, 2000
Copyright 2000 State of Minnesota DNR

MANAGED AREA

Rare Features Database Print-outs: An Explanation of Fields

The Rare Features database is part of the Natural Heritage Information System, and is maintained by the Natural Heritage and Nongame Research Program, a unit within the Section of Ecological Services, Minnesota Department of Natural Resources (DNR).

*****Please note that the print-outs are copyrighted and may not be reproduced without permission*****

Field Name: [Full (non-abbreviated) field name, if different]. Further explanation of field.

-C-

CBS Site: [County Biological Survey site number]. In each county, the numbering system begins with 1.

CLASS: A code which classifies features by broad taxonomic group: NC = natural community; SA = special animal; SP = special plant; GP = geologic process; GT = geologic time; OT = other (e.g. colonial waterbird colonies, bat hibernacula).

Cty: [County]. Minnesota counties (ordered alphabetically) are numbered from 1 (Aitkin) to 87 (Yellow Medicine).

CURRENT STATUS: Present protection status, from 0 (owner is not aware of record) to 9 (dedicated as a Scientific and Natural Area).

-D-

DNR Region: 1=NW, 2=NE, 3=E Central, 4=SW, 5=SE, 6= Minneapolis/St. Paul Metro.

DNR Quad: [DNR Quadrangle code]. DNR-assigned code of the U.S. Geologic Survey topographic map on which the rare feature occurs.

-E-

ELEMENT or Element: See "Element Name (Common Name)"

Element Name (Common Name): The name of the rare feature. For plant and animal species records, this field holds the scientific name, followed by the common name in parentheses; for all other elements (such as plant communities, which have no scientific name) it is solely the element name.

EO RANK: [Element Occurrence Rank]. An evaluation of the quality and condition of natural communities from A (highest) to D (lowest).

EO Size: [Element Occurrence Size]. The size in acres (often estimated) of natural communities.

-F-

FED STATUS: [Federal Status]. Status of species under the Federal Endangered Species Law: LE=endangered, LT=threatened, C=species which have been proposed for federal listing.

Federal Status: See "FED STATUS"

Forestry District: The Minnesota DNR's Division of Forestry district number.

-G-

GLOBAL RANK: The abundance of an element globally, from G1 (critically imperiled due to extreme rarity on a world-wide basis) to G5 (demonstrably secure, though perhaps rare in parts of its range). Global ranks are determined by the Conservation Science Division of The Nature Conservancy.

-I-

INTENDED STATUS: Desired protection status. See also "CURRENT STATUS." If a complete list of protection status codes is needed, please contact the Natural Heritage Program.

-L-

LAST OBSERVED or Last Observed Date or Last Observation: Date of the most recent record of the element at the location.

Latitude: The location at which the occurrence is mapped on Natural Heritage Program maps. NOTE: There are various levels of precision in the original information, but this is not reflected in the latitude/longitude data. For some of the data, particularly historical records, it was not possible to determine exactly where the original observation was made (e.g. "Fort Snelling", or "the south shore of Lake Owasso"). Thus the latitude/longitude reflect the mapped location, and not necessarily the observation location.

Legal: Township, range and section numbers.

Long-: [Longitude]. See NOTE under "Latitude"

-M-

MANAGED AREA or Managed Area(s): Name of the federally, state, locally, or privately managed park, forest, preserve, etc., containing the occurrence, if any. If this field is blank, the element probably occurs on private land. If "(STATUTORY BOUNDARY)" occurs after the name of a managed area, the location may be a private inholding within the statutory boundary of a state forest or park.

Map Sym: [Map Symbol].

MN STATUS: [Minnesota Status]. Legal status of plant and animal species under the Minnesota endangered species law: END=endangered, THR=threatened, SPC=special concern, NON=no legal status, but rare and may become listed if declines continue. This field is blank for natural communities and colonial waterbird nesting sites, which have no legal status in Minnesota, but are tracked by the database.

-N-

NC Rank: [Natural Community Rank].

-O-

Occ #: [Occurrence Number]. The occurrence number, in combination with the element name, uniquely identifies each record.

OCCURRENCE NUMBER: See "Occ #"

OF OCCURS: The number of records existent in the database for each element within the area searched.

Ownership: Indicates whether the site is publicly or privately owned; for publicly owned land, the agency with management responsibility is listed.

-P-

Precision: Precision of locational information of occurrence: C (confirmed) = known within 1/4 mile radius, U (unconfirmed) = known within 1/2 mile, N (non-specific) = known within 1 mile, G (general) = occurs within the general region, X (unmappable)=location is unmappable on USGS topographic quadrangles (often known only to the nearest county), O (obscure/gone)=element no longer exists at the location.

PS: [Primary Section]. The section containing all or the greatest part of the occurrence.

-Q-

Quad Map: See "DNR Quad"

-R-

Rec #: [Record number].

RNG or Rng: [Range number].

-S-

SECTION or Section: [Section number(s)]. Some records are given only to the nearest section (s), but most are given to the nearest quarter-section or quarter-quarter-section (e.g., SWNW32 denotes the SW1/4 of the NW1/4 of section 32). A "0" is used as a place holder when a half-section is specified (e.g., 0N03 refers to the north 1/2 of section 3). When an occurrence crosses section boundaries, both sections are listed, without punctuation (e.g., the NE1/4 of section 19 and NW1/4 of section 20 is displayed as "NE19NW20").

Site: A name which refers to the geographic area within which the occurrence lies. If no name for the area exists (a locally used name, for example), one is assigned by the County Biological Survey or the Natural Heritage Program.

Source: The collector or observer of the rare feature occurrence.

S RANK: [State Rank]. A rank assigned to the natural community type which reflects the known extent and condition of that community in Minnesota. Ranks range from 1 (in greatest need of conservation action in the state) to 5 (secure under present conditions). A "?" following a rank indicates little information is available to rank the community. Communities for which information is especially scarce are given a "U", for "rank undetermined". The ranks do not represent a legal status. They are used by the Minnesota Department of Natural Resources to set priorities for research, inventory and conservation planning. The state ranks are updated as inventory information becomes available.

State Status: See "MN STATUS"

-T-

TWP or Twp: [Township number].

-V-

Verification: A reflection of the reliability of the information on which the record is based. The highest level of reliability is "verified," which usually indicates a collection was made or, in the case of bird records, nesting was observed. Plant records based on collections made before 1970 are unverified.

Voucher: The museum or herbarium where specimens are maintained, and the accession number assigned by the repository. In the case of bald eagles, this is the breeding area number.

-W-

Wildlife Area: The Minnesota DNR's Section of Wildlife administrative number.

Data Security

Locations of some rare features must be treated as sensitive information because widespread knowledge of these locations could result in harm to the rare features. For example, wildflowers such as orchids and economically valuable plants such as ginseng are vulnerable to exploitation by collectors; other species, such as bald eagles, are sensitive to disturbance by observers. For this reason, we prefer that publications not identify the precise locations of vulnerable species. We suggest describing the location only to the nearest section. If this is not acceptable for your purposes, please call and discuss this issue with the Environmental Review Specialist for the Heritage and Nongame Research Program at 651/296-7863.

Revised 11/2000

APPENDIX D: CORRESPONDENCE WITH MINNESOTA STATE HISTORIC PRESERVATION OFFICE



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE
Pipestone National Monument
36 Reservation Avenue
Pipestone, Minnesota 56164-1269

May 29, 2003

H32(PIPE)

Dr. Nina Archabal
State Historic Preservation Officer
Minnesota Historical Society
345 Kellogg Boulevard, West
St. Paul, Minnesota 55102-1906

Dear Dr. Archabal:

We evaluated the National Park Service Mission 66 development at Pipestone National Monument, Pipestone County, Minnesota, to determine its eligibility for the National Register of Historic Places. We believe that the visitor center/Upper Midwest American Indian Cultural Center, entrance road, parking lot, interpretive circle trail, and two park residences are contributing resources and, as a whole, constitute a historic landscape site within the existing Pipestone National Monument Historic District. In addition, we think that they qualify under Criteria Consideration G: Properties that Have Achieved Significance Within the Past Fifty Years.

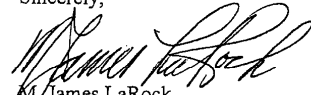
The evaluation is submitted on National Register of Historic Places continuation sheets, and we anticipate officially amending the nomination after the completion of a Cultural Landscape Report that will begin sometime in fiscal year 2004 and take approximately three years to complete.

In the meantime, we compiled the attached progress report on the current results of research underway to further identify the historic resources, including archeological and ethnographic features, at the Monument. In conversations with Dennis Gimmestad and Susan Roth in your Historic Preservation Office, they indicated that they would like to see the Mission 66 evaluation presented within the context of the more holistic understanding of the cultural resources at Pipestone National Monument. This progress report provides a quick overview of the state of the knowledge of cultural resources at the Monument. This information and any new information available after the completion of the Cultural Landscape Report will be integrated into the amendment to the nomination.

It is important for our general management planning process to evaluate the Mission 66 resources at this time. Please review the documentation on the Mission 66 development and sign in the space provided below if you concur with our determination of eligibility. If you have any questions, please contact Senior Historian Donald L. Stevens, Jr. at 402-514-9353 in our Midwest Regional Office.

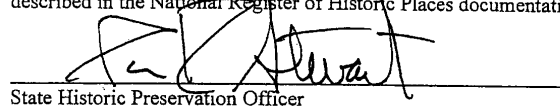


Sincerely,


M. James LaRock
Superintendent

Enclosures

We concur with your determination of eligibility of the Pipestone Mission 66 Development as described in the National Register of Historic Places documentation dated April 21, 2003.



State Historic Preservation Officer

Ian R. Stewart, Deputy State Historic Preservation Officer


Date

Cc:

All without attachments

Donald L. Stevens, Jr., Senior Historian MWRO

Susan Roth, national Register Program, Minnesota SHPO

Dennis Gimmestad, Government Compliance Program, Minnesota SHPO



MINNESOTA HISTORICAL SOCIETY
STATE HISTORIC PRESERVATION OFFICE

November 17, 2000

COPY

Mr. M James LaRock
U.S. Department of the Interior
National Park Service
Pipestone National Monument
36 Reservation Avenue
Pipestone, MN 56164-1269

RE: Pipestone National Monument; General Management Plan and Environmental
Impact Statement
Pipestone, Pipestone County
SHPO Number: 2001-0091

Dear Mr. LaRock:

Thank you for your letter regarding the initiation of a General Management Plan for the
Pipestone National Monument.

We are certainly interested in participating in this process, although staff limitations
probably preclude us serving as a full member of the team. We would ask that you
schedule a consultation with us early to determine an appropriate and helpful level of
involvement. This discussion should result in a specific understanding as to when and
how we will be involved as the planning process proceeds.

We look forward to working with you. Contact us at 651-296-5462 with questions or
concerns.

Sincerely,

Dennis A. Gimmestad
Government Programs and Compliance Officer



MINNESOTA HISTORICAL SOCIETY
STATE HISTORIC PRESERVATION OFFICE

July 19, 2002

Mr. M. James LaRock
U.S. Dept. of the Interior
National Park Service
Pipestone National Monument
36 Reservation Avenue
Pipestone, MN 56164-1269

RE: Pipestone National Monument; General Management Plan and Environmental
Impact Statement
Pipestone, Pipestone County
SHPO Number: 2001-0091

Dear Mr. LaRock:

Thank you for submitting us your preliminary alternative concepts for the general management plan.

As we have discussed with you and other NPS staff, the monument includes cultural resources from several different periods of use. We recognize that, in some cases, the management plan may need to emphasize certain categories of cultural resources over others, depending on their relationship to the purpose and significance of the park, and to other considerations, including tribal and public input and the National Historic Preservation Act.

What is most important at this juncture is that the effort to update the information on the range of cultural resources at the monument is completed promptly, so that clear information about the variety and types of resources is available as the planning process proceeds. We look forward to reviewing the results of these efforts.

Contact us at 651-296-5462 with questions or concerns.

Sincerely,

Dennis A. Gimmestad
Government Programs and Compliance Officer

Cc: Troy Strom, Pipestone HPC
Don Stevens, National Park Service Omaha

APPENDIX E: STATEMENT OF FINDINGS — FLOODPLAINS

STATEMENT OF FINDINGS FOR *GENERAL MANAGEMENT PLAN / ENVIRONMENTAL IMPACT STATEMENT*, PIPESTONE NATIONAL MONUMENT

Introduction

In accordance with Executive Order (EO) 11988, “Floodplain Management” and NPS guidelines for implementing the order, the National Park Service has evaluated the flood hazards for development in Pipestone National Monument and has prepared this statement of findings. As an integral part of the effort to develop a general management plan for the national monument, this statement contains descriptions of the flood hazard, alternatives, and mitigating measures for the continued use of this area. More details about future actions and environmental impacts are available in the *General Management Plan / Environmental Impact Statement*.

Description of Site

Pipestone Creek enters the national monument from the east, cascades over the Sioux quartzite escarpment as a waterfall, and flows into a small impoundment. From there it meanders northwesterly across the glacial valley until it exits at the north boundary. Above the falls, the creek was channeled in the early 1900s to help drain agricultural lands and decrease the chance of flooding upstream. Now it flows well below its original bed. The channel to the falls, which is roughly 21 feet wide and 5 feet deep, drains about 30,000 acres of land. Pipestone Creek starts upstream about 13 miles and eventually flows into the Lower Big Sioux River. According to measurements taken in 1984, the discharge of the creek ranges from about 1 to 88 cubic feet per second (cfs).

Within a few hundred feet of Pipestone Creek, a Mission 66 visitor center / maintenance facility / administrative headquarters was developed roughly in the center of the national monument along the quarry line. The quarry line is a north-south layer of Sioux quartzite rock where Ameri-

can Indians quarried a thin layer of pipestone (catlinite).

The Federal Emergency Management Agency mapped floodplains at Pipestone National Monument in 1991. The resulting flood insurance rate map indicates that about one-third to one-half of the national monument is in the 100-year floodplain. A small portion of the floodway of the main channel lies between the Soo Line Railway and Hiawatha Avenue, east of the national monument. Base flood plain elevations were determined for this area.

A wide corridor along the main channel is in the 100-year floodplain. That corridor extends from the northwest boundary of the national monument to within about 250 feet of the eastern boundary, but no base flood elevations were determined. An area approximately 250 feet wide along the eastern boundary is within the 100-year floodplain. That area extends from 9th Street to about 250 feet north of the main channel. Its base flood elevations were calculated at 1718–1719 feet. The rest of the monument lies within the 500-year floodplain or areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile.

Description of Preferred Alternative

This statement of findings addresses the NPS proposal to remove the visitor center and associated development including the two houses near the entrance. The picnic grounds, and restroom facilities near the Three Maidens rock formation, would be removed.

New facilities will be developed including a new restroom facility near the western end of the Circle Trail and a new Visitor Center in an area that will be determined following detailed study of available locations and potential impacts.

The use of the Sun Dance grounds by American Indians would continue. The National Park Service would continue to rehabilitate and preserve

the native prairie, which is the setting for the quarries and their interpretation.

Area Flooding Characteristics

The visitor center / maintenance / headquarters facility is in the 100-year floodplain, for which no base flood elevations have been determined. The two houses are in the area for which base flood elevations have been calculated at 1718–1719 feet. The maintenance storage yard is in the floodway of the main channel. It appears that most of the western part of the USFWS property north of the national monument also is within the 100-year floodplain.

Flash flooding in the national monument along Pipestone Creek is relatively frequent. Such flooding is most likely to occur after a quick spring thaw over frozen soils or after a severe summer thunderstorm. Flooding of bridges and trails is frequent, with rare flows causing floodwaters to overtop the escarpment south of Winnewissa Falls.

Several adverse impacts can result from frequent flash flooding. Sediments have nearly filled Lake Hiawatha, and less than 2 feet of water storage is left in the lake. Periphyton on rocks in the stream are dislodged, resulting in reduced stream productivity. In the floodplain, biota are exposed to chemical pollutants from upstream, and debris detracts from the site's aesthetics.

JUSTIFICATION FOR USE OF THE FLOODPLAIN

Why Facilities in Floodplain Would Be Retained

The visitor center / maintenance / headquarters facility would be removed from the floodplain. The two houses are exactly at the calculated flood elevation of 1,718–1,719 feet and will also be removed.

Under NPS procedures for implementing EO 11988, all other facilities such as parking areas, trails, maintenance storage areas, and picnic areas may be within the 100-year floodplain.

Alternatives Considered in the General Management Plan / Environmental Impact Statement

Retaining the visitor center at its current location the national monument was considered, as was expanding it at the present location.

SITE-SPECIFIC FLOOD RISK; MINIMIZING HARM TO FLOODPLAIN VALUES AND RISK TO LIFE OR PROPERTY

To protect lives, the staff of Pipestone National Monument periodically closes trails that could be flooded. The national monument could be closed completely to visitors during a 100-year or greater event. The staff monitors weather reports and follows standard operating procedures for handling trail closures. Such procedures include posting signs explaining the hazards, assigning rangers to alert visitors to the danger, and clearing the trails to ensure that no visitors are present.

The new restroom facility along the western leg of the Circle Trail will be constructed in the 100-year floodplain. The facility will be located in an area that has historically not flooded. A berm will be constructed around it to prevent floodwaters from damaging the structure.

The natural and beneficial values of floodplains (moderation of floodwaters, maintenance of water quality, and groundwater recharge) would not be affected by retaining the existing facilities. Minimal improvements to groundwater recharge would result from removing the structures and associated impervious paved surfaces.

SUMMARY

The National Park Service has determined that removing the visitor facilities and two houses from the floodplain of Pipestone Creek is the most desirable alternative.

APPENDIX F: THE NATIONAL HISTORIC PRESERVATION ACT AND NPS ASSISTANCE

The National Historic Preservation Act of 1966, as amended, provides a mechanism for federal agencies to help private entities with the preservation of structures in or eligible for inclusion in the National Register of Historic Places.

Federal agencies can provide technical assistance in the form of advice. This is the type of assistance envisioned within this plan for the Pipestone Indian School superintendent's house. National monument staff and NPS regional staff would provide recommendations on types of materials or products that should be used for preservation work. They could also provide some on-site evaluative services based on expertise and available time providing judgments on building condition and uses.

National monument staff could help with grant applications for funding. However, no funding from the government to a private entity would be involved.

Funds are provided yearly by the National Park Service to each state historic preservation officer to oversee the granting of funds to organizations for historic preservation purposes. Grants would be requested by the property owner and, if accepted, overseen by the state historic preservation officer. In the case of the Pipestone Indian School superintendent's house, any funding for design or bricks and mortar preservation would have to come from this or some other funding source. No funding directly from Pipestone National Monument would occur.

SELECTED BIBLIOGRAPHY

- Abbott, Kathryn A.
 1996 "Hiawatha" In *Encyclopedia of American Indians*, edited by Frederick E. Hoxie, 245–246. Boston: Houghton Mifflin.
- Ager, Jerald
 1996 "Geology of the Pipestone Quarry." Coteau Heritage, Journal of the Pipestone County [MN] Historical Society 2 (1, April 1989): 2–5.
- Anfinson, Scott F.
 1997 *Southwestern Minnesota Archaeology: 12,000 Years in the Prairie Lake Region*. Saint Paul: Minnesota Historical Society Press. Minnesota Prehistoric Archaeology Series, no. 14.
- Becker, Donald A., Thomas B. Bragg, and David M. Sutherland
 1986 "Prairie Management Plan: Pipestone National Monument." Prepared by Ecosystems Management, Elkhorn, NE.
- Bray, Edmund C., and Martha Coleman Bray, editors and translators
 1993 *Joseph N. Nicollet on the Plains and Prairies: The Expeditions of 1838–1839, with Journals, Letters, and Notes on the Dakota Indians*. Saint Paul: Minnesota Historical Society Press. First published in 1976.
- Davis, John Wayne
 1934 "A History of the Pipestone Reservation and Quarry in Minnesota." M.S. thesis, University of Colorado at Boulder.
- Draper, Chuck, editor
 1984 *A History of Pipestone County [MN]: Information Gathered by the Book Committee and Edited by the Editorial Committee*. Dallas, TX: Taylor Publishing Company. Prepared for the Pipestone County Historical Society, Pipestone, MN (copyright holder).
- Dudzik, Mark J.
 1995a "American Indian Rock Art, State of Minnesota." National Register of Historic Places nomination form prepared by Mark J. Dudzik, March 18, 1995. Omaha, NE: sponsored by the Midwest Regional Office, National Park Service. This rock art district, state of Minnesota, was listed in the National Register of Historic Places on November 14, 1996.
 1995b "Visions in Stone: The Rock Art of Minnesota." *Minnesota Archaeologist* 54: 99–108.
- Fish, Larry
 2001 "Indian Schools' Mark Indelible: Exhibit Explores Rules, Paternalism." *Denver Post*, July 15, 2001, 26A.
- Halvorson V.
 1983 Personal correspondence with superintendent of Pipestone National Monument in June 1983.

- Hiebert, Ron
2001 "Prioritizing Weeds: The Alien Plant Ranking System." *Conservation Biology in Practice*. 2 (1, Winter 2001): 36–38.
- Hoxie, Frederick E.
1996 "Calumet." In *Encyclopedia of North American Indians.*, edited by Frederick E. Hoxie, 98. Boston: Houghton Mifflin.
- Hughes, David T.
1995 "Perceptions of the Sacred: A Review of Selected Native American Groups and Their Relationships with the Catlinite Quarries" [at Pipestone National Monument, Minnesota]. Prepared by Anthropological Research Laboratories, Wichita State University. Wichita, KS, under contract for the Midwest Archeological Center, National Park Service, Lincoln, NE.
- Hughes, David T., and Alice J. Stewart
1997 "Traditional Use of Pipestone National Monument: Ethnographic Resources of Pipestone National Monument." Prepared by Anthropological Research Laboratories, Wichita State University. Wichita, KS, under contract for the Midwest Archeological Center, National Park Service, Lincoln, NE.
- Linch, Lyle K.
1954 *The History of the Pipestone Indian Shrine and National Monument*. Compiled for the Pipestone Shrine Association. Pipestone, MN: Pipestone National Monument.
- Mahon, John K.
1967 *History of the Second Seminole War, 1835–1842*. Gainesville, FL: University of Florida Press.
- Matusky, Julia Gedeon
2001 "The Great Peace of Montreal, 1701." *The Beaver, Canada's History Magazine* 81(3, June–July 2001): 8–11.
- Minnesota Department of Natural Resources, Natural Heritage and Nongame Research Program
1973 *Minnesota Proposed List of Endangered, Threatened, and Special Concern Plants and Animals*.
- 1983a Letter of November 16, 1983, transmitting the memorandum of understanding that would place Pipestone National Monument on the Minnesota Natural Heritage Register. Signed by Barbara Coffin, Coordinator, Natural Heritage Program. Prepared by Section of Ecological Services.
- 1983b Memorandum of understanding for inclusion of Pipestone National Monument on the Minnesota Natural Heritage Register. Includes species status sheets prepared by Welby Smith, Botanist, Natural Heritage Program.
- 1985 "Sioux Quartzite Prairie Element Abstract," prepared by Keith Wendt.
- 2000 Natural Heritage Database, Element Occurrence Records "List of Known Rare features in Pipestone National Monument, Sorted by Class and Element Name."

Minnesota Pollution Control Agency

- 1984 *Chapter 7050: Classification and Standards for Waters of the State*. Saint Paul. Cited in Becker, Bragg, and Sutherland "Prairie Management Plan."

Mitchell, J. H.

- 1934 "The Pipestone Quarry, or Restoring an Ancient Indian Shrine." In *Indians at Work: A News Sheet for Indians and the Indian Service* 2 (8, December 1934): 25–29. Pipestone, MN: The Pipestone Indian School, Bureau of Indian Affairs, U.S. Department of the Interior.

Moore, Robert J., Jr.

- 1997 *Native Americans: A Portrait: The Art and Travels of Charles Bird King, George Catlin, and Karl Bodmer*. New York: Stewart, Tabori, and Chang.

Murray, Robert A.

- 1965 *A History of Pipestone National Monument, Minnesota*. Pipestone, MN: Pipestone Indian Shrine Association.

Nabokov, Peter

- 1995 "Lineal Descendants of Former Owners of Pipes in Collections of Pipestone National Monument." Prepared by Loendorf and Associates, Las Cruces, NM, for the Midwest Archeological Center, National Park Service, Lincoln, NE.
- 1996 "Tobacco." In *Encyclopedia of North American Indians*, edited by Frederick E. Hoxie, 633–635. Boston: Houghton Mifflin.

National Park Service, U.S. Department of the Interior

- 1955 "Notes on the Archeology of Pipestone National Monument," by Paul L. Beaubien. Manuscript on file at Midwest Archeological Center, Lincoln, NE.
- 1964 "Master Plan for the Preservation and Use of Pipestone National Monument," by Carl R. Stoddard. Pipestone, MN.
- 1966 "A Vascular Plant Collection, Pipestone National Monument," by Dennis Disrud. Pipestone, MN.
- 1971 "Report on Archeological Salvage, Upper Midwest Cultural Center and Six-Unit Apartment Complex, Pipestone National Monument," by Roy W. Reaves III. Prepared by Northeast Region, Philadelphia, PA.
- 1973 "Interpretive Prospectus, Pipestone National Monument, Minnesota," by Russell J. Hendrickson, *William T. Ingersoll, Cecil D. Lewis Jr., and Jon B. Montgomery. Harpers Ferry, WV: Harpers Ferry Center.
- 1976 Pipestone National Monument nomination form, National Register of Historic Places, by David Arbogast. Omaha, NE: Midwest Regional Office. Form recorded July 2, 1976, by Keeper of the National Register of Historic Places, Washington, DC. [The national monument was originally listed in the national register on October 15, 1966. (Form updated April 13, 1976.)]

National Park Service, U.S. Department of the Interior (continued)

- 1983 *Evaluation of Catlinite Resources: Pipestone National Monument, Minnesota*, by G. B. Morey. Prepared by Midwest Region, Omaha, NE. Report MWR-4.
- 1984 “Water Quality Study, Pipestone: National Park Service Staff Research Investigation,” by Denise Stocks.
- 1986 “Prairie Management Plan: Pipestone National Monument.”
- 1988 *Trails Management Handbook*, by Lennon Hooper. Denver Service Center. Available on the Internet at <www.bea.doc.gov/bea/regional/bearfacts/index.htm>.
- 1993a *Floodplain Management Guideline*. Washington, DC.
- 1993b *Guiding Principles of Sustainable Design*.
- 1993c “Servicewide Summary of Unassociated Funerary Objects, Sacred Objects, and Objects of Cultural Patrimony, Native American Graves Protection and Repatriation Act of 1990”. Prepared by Cultural Resources Division.
- 1996 “Archeological Survey of a Controlled Burn at Pipestone National Monument, Pipestone County, Minnesota,” by Caven P. Clark. Lincoln, NE: Midwest Archeological Center. Technical report 40.
- 1998a *Director’s Order 28: Cultural Resource Management*. Washington.
- 1998b *National Park Service Procedural Manual 77-1: Wetland Protection*. Technical report NPS/NRWRD/TRTR098/203. Denver.
- 1998c “Resources Management Plan: Pipestone National Monument.”
- 1999a Annual Report, Fiscal Year 1998. From Inventory and Monitoring Program. Available on the Internet at <<http://www.nature.nps.gov/pubs/I&M/title.htm>>.
- 1999b “Great Plains Prairie Cluster, Prairie and Grassland Biome,” by L. Thomas, (Cluster I&M Coordinator), M. DeBacker, S. Jenkins, L. Thomas, G. Wilson, B. Rizzo, E. Schneider, D. Debinski, S. Mahady, and A. Powell.
- 2000a *Annual Status Report, 1999: Plant Community Monitoring for Pipestone National Monument*, by Mike DeBacker and Karola Milekush. Prairie Cluster Long-Term Ecological Program.
- 2000b *Annual Status Report, 1999: Western Prairie Fringed Orchid Monitoring for Pipestone National Monument*, by Gary D. Wilson, U.S. Geological Survey, Biological Resources Division, Northern Prairie Research Center. Missouri Project Office. Program Report 99-003, Great Plains Prairie Cluster Long-Term Ecological Program.
- 2000c “Grassland Bird Inventory of Seven Prairie Parks,” by A. N. Powell. Final Report to the Great Plains Prairie Cluster Long-term Ecological Monitoring Program, Wilson Creek National Battlefield, Republic, Missouri.

National Park Service, U.S. Department of the Interior (continued)

- 2000d "Mission 66 Visitor Centers: The History of A Building Type," by Sarah Allaback
Washington, DC: Park Historic Structures and Cultural Landscapes Program,
Cultural Resources Stewardship and Partnerships Division.
- 2000e *Strategic Plan for Pipestone National Monument, October 1, 2001–September 30, 2005.*
- 2001a *Conceptual Framework, Monitoring Components, and Implementation of an NPS Long-term Ecological Monitoring Program*, by L. P. Thomas, M. D. Debacker, J. R. Boetsch, and D. G. Peitz. Prairie Cluster Prototype Program Status Report, Wilson's Creek National Battlefield, Springfield, MO.
- 2006b *Management Policies 2006.*
- 2001c "Ethnographic Landscapes," by Michael J. Evans, Alexa Roberts, and Peggy Nelson. In *People and Places: The Ethnographic Connection. A Special Issue of CRM [Cultural Resource Management]: A Journal of the National Park Service* 24 (5): 53–56.
- 2001d "Plant Help." E-mail message regarding slender plantain, a species listed as threatened by the state, from Mike Debacker, NPS Great Plains Prairie Cluster, to Kristin Legg, Resource Manager, Pipestone National Monument.
- 2002 Trip report for travel to Pipestone National Monument on June 10–12, 2002, by Richard Inglis, Hydrologist, Water Operations Branch, Water Resources Division. September 16.
- 2003a M. James LaRock, superintendent, Pipestone National Monument, to Dr. Nina Archabal, Minnesota state historic preservation officer, May 29, 2003, regarding request for concurrence, determination of eligibility for listing in the National Register of Historic Places of the Mission 66 structures and features in the national monument. On file at Pipestone National Monument.
- 2003b "Pipestone National Monument Visitor Study: Summer 2002," by Margaret Littlejohn and Steven J. Hollenhorst. Visitor Services Project Report 135.
- 2003c Gary M. Smillie, hydrologist, Water Resources Division, National Park Service, e-mail message to Mary Magee, Denver Service Center, January 3, 2003, regarding Pipestone flood hazard.

National Park Service and U.S. Geological Survey, U.S. Department of the Interior

- 1996 "Prairie Cluster Long-term Ecological Monitoring (LTEM) Program, submission to NPS Annual Report, Inventory and Monitoring Program, Fiscal Year 1996." Prepared by NPS and USGS, Biological Resources Division.

Ojakangas, R. W., and C. L. Matsch

- 1982 *Minnesota's Geology*. Minneapolis: University of Minnesota Press.

Pond, Samuel W.

- 1986 *The Dakota or Sioux in Minnesota: As They Were in 1834*. Saint Paul: Historical Society Press. First published in 1908 by Minnesota Historical Society, Saint Paul. Minnesota Historical Collections 12.

- Powers, William K.
1977 *Oglala [Lakota] Religion*. Lincoln: NE. University of Nebraska Press. A Bison book.
- Rothman, Hal K., and Daniel K. Holder
1992 "Managing the Sacred and the Secular: An Administrative History of Pipestone National Monument." Report prepared for the National Park Service Midwest Regional Office by Hal K. Rothman and Associates,. Henderson, NV, under contract.
- Seig, Louis
1999 *Tobacco, Peace Pipes, and Indians: The Ceremonial Use of Tobacco*. Palmer Lake, CO: Filter Press.
- Sigstad, John S.
1970 "A Report of the Archaeological Investigations, Pipestone National Monument 1965 and 1966." *Journal of the Iowa Archaeological Society* 17 (December 1970): 1–51.
- Snyder, Ellen J.
1986 "Small Mammal Habitat Use and Some Population Parameters of *Microtus pennsylvanicus* and *Sorex cinereus* at Pipestone National Monument. Prepared for the National Park Service by Iowa State University, Ames, IA.
- Soil Conservation Service, U.S. Department of Agriculture
1976 *Soil Survey of Pipestone County, Minnesota*. Maps included.
- Stevens, O. A.
1969 "Pipestone National Monument in Minnesota." *Rhodora*, 195–7.
- Talley, Jenell
2004 "Little Orchid on the Prairie." *National Parks: The Magazine of the National Parks Conservation Association* 78 no. 2 (Spring): 60–61.
- Thiessen, Thomas D.
2002 "The Pipestone Petroglyphs." Talk presented at the February 26, 2002, meeting of the Kiwanis Club of Pipestone, Pipestone, Minnesota. Ethnohistorian and archeologist from Midwest Archeological Center, National Park Service, Lincoln, NE.
- Thiessen, Thomas D., and Charles R. Bailey
1999 "The Pipestone Petroglyphs." Paper presented at the 1999 meeting of the International Rock Art Congress, Ripon College, Ripon, Wisconsin on May 27, 1999. In possession of the authors at NPS Midwest Archeological Center, Lincoln, NE, and Upper Midwest Rock Art Research Association, Brooklyn Center, MN.
2000 "The Pipestone Petroglyphs." In *Proceedings of the 1999 Meeting of the International Rock Art Congress, Ripon College, Ripon, Wisconsin May 27, 1999*, edited by Peggy J. Whitehead and Lawrence L. Loendorf, 115–126. Tucson, AZ: American Rock Art Research Association.
- Tiller, Veronica E. Velarde
1996 *Tiller's Guide to Indian Country: Economic Profiles of American Indian Reservations*. Albuquerque NM: Bow-Arrow Publishing Company.
- Toupal, Rebecca S., Richard W. Stoffle, Nathan O'Meara, and Jill Dumbauld
2004 "The Everchanging Pipestone Quarries: Sioux Cultural Landscapes and Ethnobotany of Pipestone National Monument, Minnesota." Vol. 2 of "Ethnohistorical and Ethnobotanical Study." Prepared by Bureau of Applied Research in Anthropology, University of Arizona, for the National Park Service under cooperative agreement. Tucson, AZ.

- U.S. Department of the Interior, Office of the Secretary, Office of Occupational Safety and Health
 2001 Memo to Superintendent, Pipestone National Monument, from Industrial Hygienist, subject "Silica Exposure Monitoring" September 28, 2001.
- U.S. Environmental Protection Agency
 1998 Environmental Justice Guidance. From the Internet at <<http://es.epa.gov/oeca/ofa/ejepa.html>>.
- U.S. Environmental Protection Agency (continued)
 1979 *Classification of Wetlands and Deepwater Habitats of the United States*. Prepared for the USFWS by Lewis M. Cowardin (USFWS), Virginia Carter (USGS), Francis C. Golet (Univ. of RI), and Edward T. LaRoe (NOAA). Reprint 1992. Washington, DC.
 1989 *Classification of Wetlands and Deep Water Habitats of the United States*. Prepared for the USFWS by Lewis M. Cowardin (USFWS), Virginia Carter (USGS), Francis C. Golet (Univ. of RI), and Edward T. LaRoe (NOAA). Reprint 1992. Washington, DC.
- U.S. Fish and Wildlife Service, U.S. Department of the Interior
 1996 "Western Prairie Fringed Orchid Recovery Plan," Fort Snelling, MN.
 2002a "Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Topeka Shiner." *Federal Register* (August 21, 2002) vol. 67, no. 162. USDI, Fish and Wildlife Service, 30 CFR 17.
 2002b *For Lack of a Moth, the Orchid is Lost*." Feature Series, vol. II, no. 4. From USFWS Internet site, November 1, 2002.
 2002c *U.S. Fish and Wildlife Service Publishes Updated List of Candidates for Endangered Species Act Listing* June 13, 2002, from the Internet at <fws-news@lists.fws.gov>.
- U.S. Geological Survey, U.S. Department of the Interior
 1998 *Regional Landscape Ecosystems of Michigan, Minnesota, and Wisconsin*. Sub-Section II.2.3., Ivanhoe-Worthington Coteau: Ground Moraine and stagnation moraine; tallgrass prairie. Accessed on the Internet in June 2003 at <<http://www.npwrc.usgs.gov/resource/1998/rlandscp/s2-2-3.htm>>.
- Wilson, Gary D., and Timothy W. Vinyard
 1984 "Changes in the Lichen Flora of Pipestone National Monument, Minnesota." *The Prairie Naturalist* 8(1): 9-14.
- Woolworth, Alan R., editor
 1983 "The Red Pipestone Quarry of Minnesota: Archaeological and Historical Reports." *Minnesota Archaeologist* 42 (1 and 2): 1-137
- Zedeño, Maria Nieves and Robert Christopher Basaldu
 2004 "Native American Cultural Affiliation and Traditional Association Study, Pipestone National Monument, Minnesota." Vol. 1 of "Ethnohistorical and Ethnobotanical Study." Prepared by Bureau of Applied Research in Anthropology, University of Arizona, for the National Park Service under cooperative agreement. Tucson, AZ.

PREPARERS OF THE DOCUMENT

PLANNERS AND PREPARERS, NATIONAL PARK SERVICE

Denver Service Center

Craig Cellar, Anthropologist/Planner. Job Captain, overall project coordination. B.A. (History), B.A. (Anthropology), two years toward M.A. in Anthropology. Thirty-two years with the National Park Service.

Mary Magee, Natural Resource Specialist. Responsible for description and analysis of impacts on natural resources. B.S. (Biology). Thirty years with the National Park Service.

Karen Vaage, Landscape Architect. Responsible for analysis of design, visual resources, circulation, and construction costs. B.L.A. (Landscape Architecture and Environmental Planning), M.L.A. (Landscape Architecture). Twenty-three years with the National Park Service.

Larry Van Horn, Cultural Resource Management Specialist. Responsible for description and analysis of impacts on cultural resources. B.A. (History), M.A. (Anthropology), Ph.D. (Anthropology). Twenty-eight years with the National Park Service.

Harpers Ferry Center

Don Kodak, Interpretive Planner. Responsible for description and analysis of interpretive, information, and orientation media. Eighteen years with the National Park Service.

Pipestone National Monument

Jim LaRock, Superintendent. Core Planning Team. Responsible for overall park management, including planning. B.S. (Landscape Architecture). Thirty-two years with the National Park Service.

Sheryl Baerenwald, Administrative Technician. Extended Planning Team. Fifteen years with the National Park Service.

Alice Erickson, Park Ranger (retired). Extended Planning Team, responsible for interpretation. Thirty years with the National Park Service.

Kristin Legg, Chief of Resources, Core Planning Team. B.S. (Biology), M.S. (Fish and Wildlife Management). Fifteen years with the National Park Service.

Glen Livermont, Chief of Visitor Services and Protection. Core Planning Team. Twenty-six years with the National Park Service.

Sue Reiss, Maintenance Worker. Extended Planning Team. Twenty years with the National Park Service.

David Trieff, Maintenance Worker Supervisor (deceased). Core Planning Team. Fifteen years with the National Park Service.

Sylvia Vogt, Administrative Officer. Core Planning Team. Twenty-five years with the National Park Service.

Gia Wagner, Biologist-Resource Program Manager, Core Planning Team. B.S. (Biology), M.S. (Environmental Biology). Thirteen years with the National Park Service.

Keweenaw National Historical Park

Abby Sue Fisher, Curator. Extended Planning Team. PhD 1992. Thirteen years with the National Park Service.

Midwest Region

Michael Evans, Regional Anthropologist. Consultant. B.S. (Sociology), M.A. (Sociology), Ph.D. (Anthropology). Eleven years with the National Park Service.

Sandra Washington, Regional Chief of Planning.
Extended Planning Team. B.S. (Natural
Resources), M.A. (Natural Resources).
Fifteen years with the National Park Service.

Sherda Williams, Cultural Landscape Architect.
Extended Planning Team. B.S. (Forestry),
M.L.A. (Landscape Architecture). Thirteen
years with the National Park Service.

Wilson's Creek National Battlefield

Lisa Thomas, Ecologist, Prairie Cluster, Long-
term Ecological Monitoring Program.
Extended Planning Team. M.A. (Ecology).
Fifteen years with the National Park Service.

**PEER REVIEWERS,
NATIONAL PARK SERVICE**

Noel Poe, Superintendent, Theodore Roosevelt
National Park.

Bill Supernaugh, Superintendent, Badlands
National Park.

**PUBLICATION SERVICES,
NATIONAL PARK SERVICE,
DENVER SERVICE CENTER**

Ruth Eitel, Visual Information Specialist
Lou Layman, Writer-Editor
Linda Ray, Visual Information Specialist
Sandy Schuster, Writer-Editor

INDEX

- Access, 10, 51, 116, 186, 203
- Accessibility, 128
- Advisory Council, 4, 15, 25, 26, 27, 64, 138, 139, 141, 147, 150, 151, 164, 165, 168, 170, 186, 188, 190, 203, 205, 207, 224, 226, 228
- Advisory Council on Historic Preservation, 4, 25, 26, 27, 64, 138, 139, 141, 147, 150, 151, 164, 165, 168, 170, 186, 188, 190, 203, 205, 207, 224, 226, 228
- agreements, 26, 33
- air quality, 20, 29
- American Indian Movement, 107, 227
- American Indian Religious Freedom Act, 25, 26, 228
- American Indians, i, iii, v, 3, 8, 9, 12, 13, 14, 16, 17, 23, 24, 26, 27, 41, 43, 46, 47, 49, 50, 55, 56, 58, 63, 64, 68, 71, 79, 85, 92, 105, 106, 107, 108, 110, 111, 112, 115, 116, 130, 136, 148, 149, 150, 159, 162, 166, 167, 168, 180, 183, 184, 186, 187, 188, 198, 200, 203, 204, 205, 218, 223, 285, 286, 307, 312, 313, 314
- archeological resources, 15, 25, 35, 44, 45, 46, 51, 104, 105, 106
- Archeological Resources Protection Act, 25
- Archives, 93, 114, 115, 142, 152, 170, 190, 207
- birds, 46, 120, 124, 177, 196, 214
- bison, 82, 124, 147, 149, 165, 167, 185, 187, 202, 204
- boundaries, i, v, 9, 42, 65, 72, 80, 85, 104, 110, 111, 114, 136, 147, 149, 153, 154, 164, 167, 182, 185, 187, 202, 204, 209, 288, 289
- boundary adjustment, 65, 72, 80
- buffalo, 20, 290
- Bureau of Indian Affairs, 285, 314
- camping, 106
- campsites, 62, 76, 85, 105, 131
- carrying capacity, vi, ix, 36, 41, 62, 76, 94, 96, 166, 171, 173, 176, 177, 178, 203, 207, 208, 209, 212, 213, 214, 218
- catlinite, i, iii, 3, 16, 23, 24, 44, 49, 51, 56, 71, 104, 105, 106, 108, 109, 110, 111, 115, 116, 118, 120, 149, 167, 187, 204, 286, 287, 307
- CCC, vii, viii, 92, 109, 110, 114, 165, 185, 186, 190, 202, 203
- CEQ, 19, 135, 138
- Circle Trail, 3, 9, 11, 44, 52, 55, 56, 58, 63, 68, 79, 98, 110, 113, 119, 127, 128, 136, 148, 151, 153, 158, 159, 160, 164, 166, 169, 174, 180, 182, 185, 186, 187, 189, 191, 198, 199, 202, 203, 206, 216
- Civilian Conservation Corps, vii, 109, 110, 114
- construction, 12, 15, 18, 20, 29, 30, 37, 52, 85, 86, 87, 99, 114, 124, 135, 139, 141, 147, 149, 151, 164, 165, 167, 169, 176, 181, 182, 183, 185, 187, 189, 197, 199, 200, 201, 202, 204, 206, 210, 215, 217, 286, 319
- cooperating association, i, iv, v, vi, viii, 10, 11, 37, 58, 66, 75, 82, 127, 161
- Council on Environmental Quality, 19, 135, 286
- counties, 290, 291

- cultural landscapes, 11, 13, 14, 25, 27, 28, 35, 55, 63, 85, 92, 104, 108, 113, 114, 136, 138, 139, 147, 148, 164, 165, 185, 186, 190, 202, 203, 225
- cultural resources, iii, 7, 13, 15, 26, 37, 41, 42, 104, 106, 108, 115, 135, 138, 139, 140, 163, 183, 201, 218, 319
- ecosystem, 24, 29, 31, 32, 33, 45, 115, 122, 153, 171, 192, 208
- education, viii, ix, 55, 64, 68, 74, 75, 79, 88, 90, 91, 127, 128, 157, 225
- employment, 27, 99, 145, 161
- endangered species, 23, 24, 29, 31, 32, 44, 45, 52, 97, 142, 158, 159, 178, 179, 197, 198, 214, 215
- Endangered Species Act, 14, 21, 24, 32, 86, 142, 318
- environmentally preferable alternative, 83, 84
- erosion, 31, 38, 76, 85, 86, 124, 136, 154, 157, 172, 176, 177, 192, 195, 196, 209, 213
- ethnographic resources, viii, 13, 25, 26, 27, 55, 63, 64, 68, 71, 79, 92, 104, 106, 108, 111, 112, 138, 139, 140, 148, 149, 150, 166, 167, 168, 186, 187, 188, 203, 204, 205, 225
- exotic species, 10, 24, 29, 31, 32, 33, 42, 43, 52, 58, 90, 121, 136, 153, 172, 208, 213, 225
- fee collection, 9, 58
- fires, ix, 35, 58, 74, 122, 125
- fishes, 120, 159, 179, 197, 215
- flooding, i, iv, vi, vii, ix, 10, 30, 45, 66, 72, 80, 88, 93, 95, 105, 109, 123, 124, 137, 151, 152, 155, 156, 162, 163, 169, 171, 174, 175, 183, 184, 189, 191, 193, 194, 200, 201, 206, 207, 211, 212, 218, 219, 307, 308
- floodplains, i, iv, vii, ix, 14, 29, 30, 56, 64, 71, 80, 86, 95, 105, 123, 142, 143, 151, 155, 156, 163, 169, 170, 175, 189, 190, 193, 194, 206, 207, 211, 307, 308
- floods, 123, 194, 212
- Forest Service, 35
- geologic features, 118, 120
- geology, 115, 116, 230
- goals, 23, 27, 28
- gravel, 18, 158, 179, 197, 215
- grazing, 19, 121, 159, 179, 197, 215, 290, 291
- hunting, iv, 10, 46, 106
- impairment, 31, 92, 137, 138, 148, 150, 186, 190, 203, 207
- Indian School superintendent's house, i, iv, v, viii, 8, 63, 64, 74, 80, 90, 151, 169, 225
- interpretation, i, iv, v, vi, vii, viii, ix, 4, 7, 8, 9, 14, 37, 41, 49, 51, 52, 55, 56, 62, 63, 64, 66, 67, 68, 74, 75, 76, 79, 80, 88, 90, 91, 98, 142, 145, 151, 182, 190, 198, 200, 206, 216, 217, 225, 308, 319
- interpretive themes, 79, 115, 180, 230
- landowners, 13, 18, 33, 64, 72, 80
- management prescriptions, 48
- management zones, 48
- Minnesota Department of Natural Resources, i, iv, vi, ix, 4, 10, 33, 46, 58, 61, 74, 150, 168, 172, 188, 205, 208, 226, 228, 313
- mitigation, 13, 30, 85, 139, 143, 144, 156, 157, 162, 168, 170, 178, 183, 194, 197, 200, 214, 218
- mitigative measures, 139, 141, 168, 170

- museum collections, i, iv, v, vii, viii, 25, 28, 56, 64, 71, 74, 75, 80, 88, 93, 104, 108, 111, 115, 116, 117, 118, 136, 138, 139, 142, 152, 162, 163, 170, 171, 174, 189, 190, 191, 193, 207, 218
- National Environmental Policy Act, 13, 83, 135, 138, 286
- National Historic Preservation Act, 13, 24, 25, 26, 27, 64, 86, 138, 224, 286, 309
- national monument headquarters, 30, 155, 156, 175, 194, 211
- National Register of Historic Places, 8, 15, 24, 25, 26, 27, 43, 55, 56, 58, 63, 64, 71, 79, 80, 83, 105, 108, 112, 113, 138, 139, 140, 141, 150, 151, 164, 165, 167, 168, 169, 170, 188, 189, 190, 205, 206, 207, 224, 309, 312, 314, 316
- Native American Graves Protection and Repatriation Act, 26, 28, 115, 315
- Native Americans, 286, 314
- natural resources, i, iii, vi, 3, 4, 13, 16, 23, 25, 29, 30, 35, 37, 41, 51, 52, 74, 90, 115, 120, 142, 143, 150, 163, 167, 179, 188, 201, 205, 286, 319, 326
- natural sounds, 29, 34, 49, 50, 51
- nonnative, 10, 45, 46, 49, 61, 67, 76, 86, 124, 136, 154, 158, 172, 177, 192, 196, 209, 214, 291
- nonnative species, 45, 49
- NPS Organic Act, 35
- parking, i, iv, v, vii, viii, 8, 15, 31, 48, 50, 51, 52, 58, 61, 62, 63, 66, 67, 68, 71, 75, 76, 79, 88, 89, 91, 92, 94, 95, 96, 113, 127, 128, 149, 151, 153, 154, 155, 167, 169, 172, 173, 174, 175, 176, 177, 180, 181, 182, 183, 184, 186, 188, 189, 191, 193, 201, 204, 205, 206, 208, 209, 210, 212, 308
- pipemaking, 12, 68, 79, 115, 118, 127, 159, 198
- pipes, i, iii, 3, 23, 28, 56, 68, 71, 104, 115, 116, 118, 127, 180, 198, 287
- pipestone, i, iii, v, vi, 3, 7, 8, 10, 11, 12, 13, 16, 17, 23, 24, 27, 42, 43, 44, 46, 51, 56, 58, 63, 66, 67, 71, 75, 104, 105, 106, 108, 109, 110, 111, 115, 116, 118, 120, 121, 127, 130, 136, 148, 149, 151, 160, 161, 163, 167, 169, 184, 187, 189, 199, 201, 204, 206, 216, 219, 229, 230, 285, 286, 287, 288, 307
- Pipestone County, i, 3, 19, 42, 118, 129, 135, 137, 151, 161, 227, 228, 288, 312, 315, 317
- Pipestone Indian School, i, vi, vii, 8, 23, 43, 44, 46, 55, 56, 58, 63, 66, 71, 72, 93, 105, 109, 112, 114, 115, 147, 149, 151, 152, 162, 164, 165, 167, 169, 170, 187, 189, 190, 204, 206, 207, 309, 314
- Pipestone Indian Shrine Association, 99, 127, 130, 161, 169, 181, 182, 199, 200, 217, 226, 228, 287, 314
- Pipestone Wildlife Management Area, i, iv, 10, 46, 147, 149, 165, 167, 185, 202
- pollution, 29, 30, 31, 32, 33, 42, 45, 118
- prairies, vi, vii, 21, 52, 89, 109, 125, 178, 215, 291
- public involvement, 41, 285
- purpose, iii, 3, 4, 13, 23, 34, 42, 63, 67, 74, 76, 82, 106, 115, 116, 118, 137, 148, 166, 177, 187, 203, 230
- quarries, i, iii, v, vi, 3, 8, 10, 11, 12, 13, 18, 20, 23, 27, 31, 41, 49, 55, 58, 61, 62, 63, 64, 66, 67, 68, 72, 74, 75, 76, 79, 80, 86, 95, 98, 104, 105, 106, 107, 108, 109, 110, 111, 112, 114, 115, 116, 121, 127, 136, 149, 156, 158, 159, 160, 162, 163, 166, 172, 174, 180, 182, 184, 187, 192, 195, 198, 200, 201, 204, 211, 213, 215, 218, 229, 308

- quarrying, i, vi, vii, viii, 3, 8, 12, 13, 16, 23, 24, 42, 43, 46, 49, 51, 62, 63, 66, 67, 68, 75, 76, 82, 91, 97, 98, 104, 106, 107, 108, 109, 110, 111, 112, 114, 115, 136, 148, 149, 156, 160, 161, 163, 167, 175, 184, 187, 191, 192, 194, 195, 197, 198, 199, 204, 212, 215, 216, 219, 285, 286, 287, 288, 290
- recreation, 35, 45, 110, 326
- research, v, vi, vii, viii, ix, 7, 24, 25, 26, 32, 33, 52, 55, 58, 63, 66, 68, 75, 82, 88, 93, 107, 115, 120, 142, 152, 170, 171, 190, 191, 207
- sacred sites, i, 25, 27, 111, 229, 230
- sacredness, 12, 41, 82, 107, 112, 228
- scoping, 11, 13, 41, 82, 223, 286
- section 106, 64, 86, 138, 139, 140, 141, 224, 286
- SHPO, 7, 224, 225, 228, 229
- socioeconomic environment, 17, 136, 138, 145
- soils, vii, 13, 14, 18, 19, 24, 29, 31, 32, 33, 44, 46, 86, 87, 96, 121, 124, 142, 144, 155, 157, 176, 177, 195, 196, 213, 308
- soundscape, 111
- species of special concern, 32, 142, 144, 198, 215
- state historic preservation office, 4, 7, 15, 25, 26, 27, 56, 64, 71, 79, 85, 105, 113, 164, 165, 168, 170, 189, 206, 224, 228, 229, 309, 316
- state historic preservation officer, 4, 25, 26, 27, 56, 64, 71, 79, 85, 105, 113, 164, 165, 168, 170, 189, 206, 224, 228, 309, 316
- Sun Dances, i, iv, v, vi, vii, viii, 50, 51, 55, 61, 62, 76, 90, 92, 96, 107, 148, 150, 153, 162, 163, 166, 168, 172, 177, 183, 187, 189, 192, 196, 197, 200, 201, 203, 204, 205, 213, 214, 218, 225
- sweat lodges, 50, 51, 55, 62, 67, 76, 149, 166, 176, 187, 203, 204, 213
- threatened or endangered species, 9, 13, 14, 87, 142, 144, 159
- Three Maidens formation, iv, 8, 10, 51, 56, 67, 76, 159, 208
- Topeka shiner, 9, 14, 19, 21, 45, 86, 97, 125, 158, 159, 178, 179, 197, 198, 214, 215, 228
- traditional use, vii, 41, 55, 64, 68, 79, 92, 148, 150, 166, 167, 168, 186, 187, 188, 203, 204, 205
- trails, i, iv, v, viii, ix, 9, 12, 15, 18, 27, 28, 38, 48, 49, 51, 55, 61, 62, 64, 67, 68, 75, 76, 79, 85, 86, 90, 109, 110, 114, 123, 128, 130, 149, 151, 157, 158, 162, 166, 167, 169, 180, 181, 184, 187, 188, 189, 198, 200, 204, 206, 211, 218, 225, 308
- tribes, iii, 4, 8, 15, 16, 23, 25, 27, 41, 42, 82, 85, 104, 106, 107, 111, 116, 119, 163, 184, 201, 219, 223, 228, 230, 285, 286, 287, 288
- U.S. Fish and Wildlife Service, i, iv, vi, ix, 4, 10, 14, 19, 21, 33, 35, 42, 46, 58, 61, 74, 86, 87, 97, 125, 135, 172, 177, 178, 179, 197, 208, 213, 214, 226, 228, 318
- U.S. Geological Survey, 120, 315, 316, 318
- Upper Midwest Indian Cultural Center, 11, 66, 118, 127
- USFWS, i, iv, vi, vii, ix, 10, 46, 66, 67, 72, 75, 90, 96, 123, 125, 142, 147, 149, 150, 153, 165, 167, 168, 172, 185, 188, 192, 196, 197, 202, 205, 208, 209, 225, 292, 308, 318
- USGS, 316, 318
- vegetation, iv, ix, 3, 10, 13, 18, 29, 31, 32, 35, 49, 51, 85, 87, 97, 106, 114, 120, 136, 137, 139, 153, 154, 155, 157, 160, 164, 171, 173, 176, 178, 179, 180, 185, 195, 202, 207, 208, 209, 213, 291

views, 11, 33, 43, 164, 185, 202

viewshed, 42, 137, 186

visitor experience, i, iii, 3, 4, 14, 24, 34, 35, 36, 38, 41, 48, 51, 74, 84, 98, 137, 145, 151, 159, 160, 169, 179, 180, 182, 189, 198, 199, 206, 215, 216

visitors with disabilities, v, 24, 61, 62, 67, 88, 89

water quality, 12, 13, 18, 24, 31, 42, 45, 61, 64, 66, 72, 75, 80, 86, 124, 125, 158, 178, 179, 197, 215, 308

western prairie fringed orchid, 9, 14, 19, 42, 86, 87, 97, 121, 125, 158, 159, 179, 197, 198, 214, 215, 228

wetlands, vi, 10, 14, 29, 30, 31, 32, 33, 86, 94, 122, 123, 136, 142, 143, 154, 155, 173, 174, 175, 193, 194, 209, 210, 211

wildlife, i, vi, 10, 14, 32, 33, 46, 52, 96, 125, 142, 144, 158, 163, 177, 178, 184, 196, 197, 201, 214, 219, 326

Winnewissa Falls, i, iv, v, vii, ix, 3, 18, 44, 55, 58, 62, 63, 68, 71, 72, 75, 79, 80, 85, 86, 88, 89, 90, 92, 95, 109, 110, 111, 112, 114, 120, 123, 127, 136, 148, 156, 160, 162, 166, 172, 176, 180, 185, 186, 187, 188, 195, 202, 203, 205, 212, 225, 308

Yankton Sioux, 7, 106, 107, 108, 111, 226, 228, 229, 285

Yankton Sioux Tribe of South Dakota, 107

zones, 48, 51



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.