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An Assessment of Cultural Resources for Proposed Water Supply Projects in Western South Dakota

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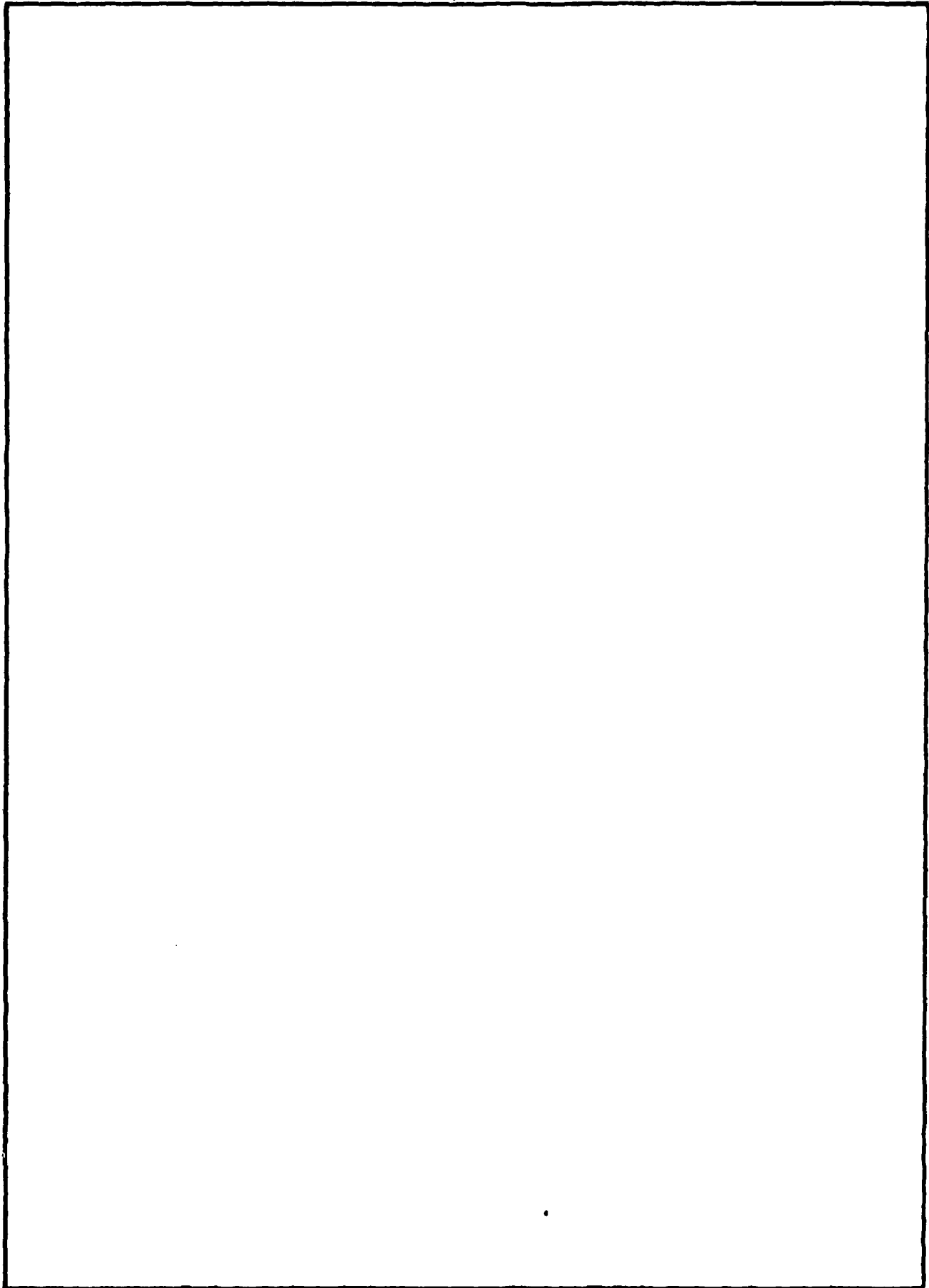
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Western Dakotas Region of South Dakota
Water Resources Study

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An Assessment of Cultural Resources
for
Proposed Water Supply Projects
in
Western South Dakota

by

Richard E. Berg
Richard E. Berg
Principal Investigator

December 1988



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ABSTRACT

Nineteen water supply alternatives for western South Dakota were assessed for the presence of National Register properties, other cultural resources and previous historic resource investigations. The assessment did not identify any National Register properties within the project areas. Other cultural resources are predominantly historic in nature. Previous historic resource investigations have covered portions of the alternatives located in the Black Hills. The sites outside of the Black Hills have not been thoroughly investigated. Additional reconnaissance surveys and National Register evaluations would be needed for the 19 alternatives.

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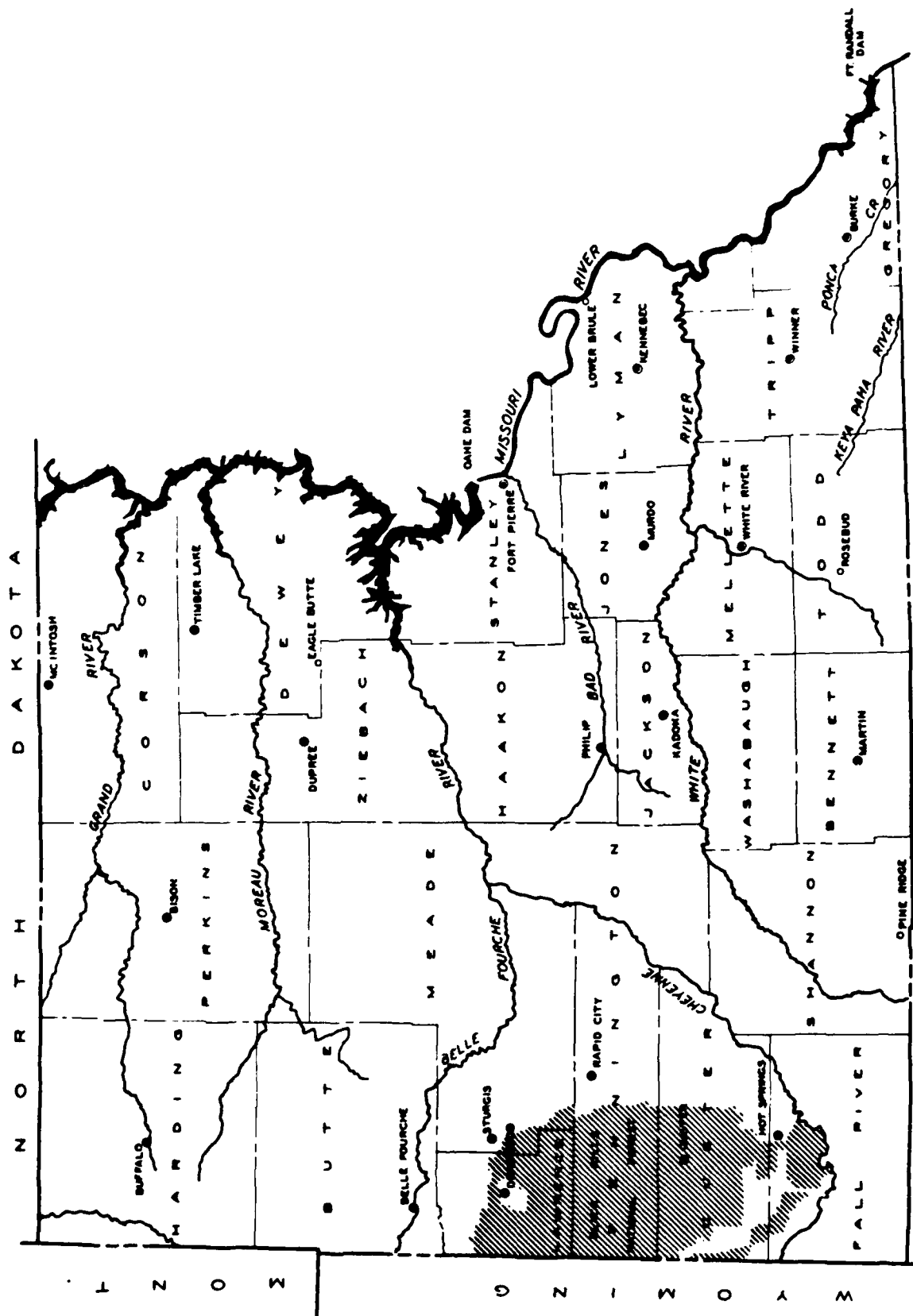
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INTRODUCTION

From 1982 to 1985, the U.S. Army Corps of Engineers, Omaha District (USACE), investigated the water resources of the Western Dakota region of South Dakota (figure 1) to formulate solutions to the identified water resources problems and needs and to prepare a comprehensive plan for development and use of water and related land resources of the region for flood control, erosion and sedimentation control, water supply, water quality control and pollution abatement, water conservation, energy production, and allied measures. This study was authorized by resolutions of the Committee on Public Works of the United States Senate that were adopted on 18 November 1963 and 29 January 1976 and by a resolution of the Committee on Public Works and Transportation of the House of Representatives that was adopted on 23 September 1976 (USACE 1987:1).

The study examined the feasibility of multiple purpose and single purpose projects that would meet the water resources needs of western South Dakota. Each subarea (region) was studied in sufficient detail to identify potential solutions to each water resources need and to determine economic feasibility (USACE 1987:1). In conjunction with the feasibility study, a cultural resources assessment was conducted for the various water supply projects.

Since this report was first written a number of the proposed project areas were investigated further for cultural resources for other reasons. We were made aware of these additional investigations in April of 1988. Unfortunately, funding is not available to incorporate this new information. This information was received in correspondence (April 4, 1988) from the State Archeological Research Center. The letter is attached as an Appendix to this report.



U S ARMY ENGINEER DISTRICT, OMAHA
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OMAHA, NEBRASKA

NO SCALE

Figure 1. Western South Dakota

METHODS

The level of cultural resources investigation required for USACE feasibility studies is the Assessment (Class I Inventory). This is defined as a literature search and records review, coupled with local interviews as appropriate, to determine what resources were known or considered likely to be located within the planning area. This is combined with an assessment of the type, extent, and validity of any historic resource investigations already accomplished (USACE 1982).

Some reconnaissance work (Class II Inventory) was also undertaken during field trips to the project sites located in western South Dakota. The reconnaissance was opportunistic, i.e., as the project manager, biologists, South Dakota Game Fish and Parks representatives, and USACE archeologist (the author) traveled to the different proposed dam and lake projects, mainly areas accessible by road were inspected. In some instances, longer distances were walked. Specific areas of interest were the locations of existing or proposed dam axes, overlooks or high places where a panoramic view could be made, and tail waters.

The National Register of Historic Places (NRHP) and its current supplements were consulted to identify National Register properties. The author and Mr. Timothy Nowak, the Corps' South Dakota Field Archeologist, searched records at the Register of Deeds offices, in all the counties in which the projects are located to identify original ownership of property containing historic structures on available maps. Most of the available maps were U.S. Geological Survey (USGS) quadrangles, county road maps, and original plats. The South Dakota Archaeological Research Center was visited to obtain information on previous cultural resource investigations in the project areas.

Pipelines associated with the projects under study were generally assigned for construction along the highway rights-of-way. The proposed

routes should be considered as speculative at this time. The literature and records search comprised a cursory inspection of current county road maps, site maps at the Archaeological Research Center, and county records. The National Register was also inspected. Nearly all of the roads designated for the pipelines were traveled for the purpose of checking the width of the right-of-way and the location of historic structures and cemeteries. The pipelines are briefly mentioned in the north and southeast regional summaries.

Near the end of the study, a number of potential well fields were identified. Sufficient time to investigate the well fields with field work or a detailed records search did not exist. The well fields are briefly mentioned in each regional summary.

NORTH REGION

LAKE GARDNER

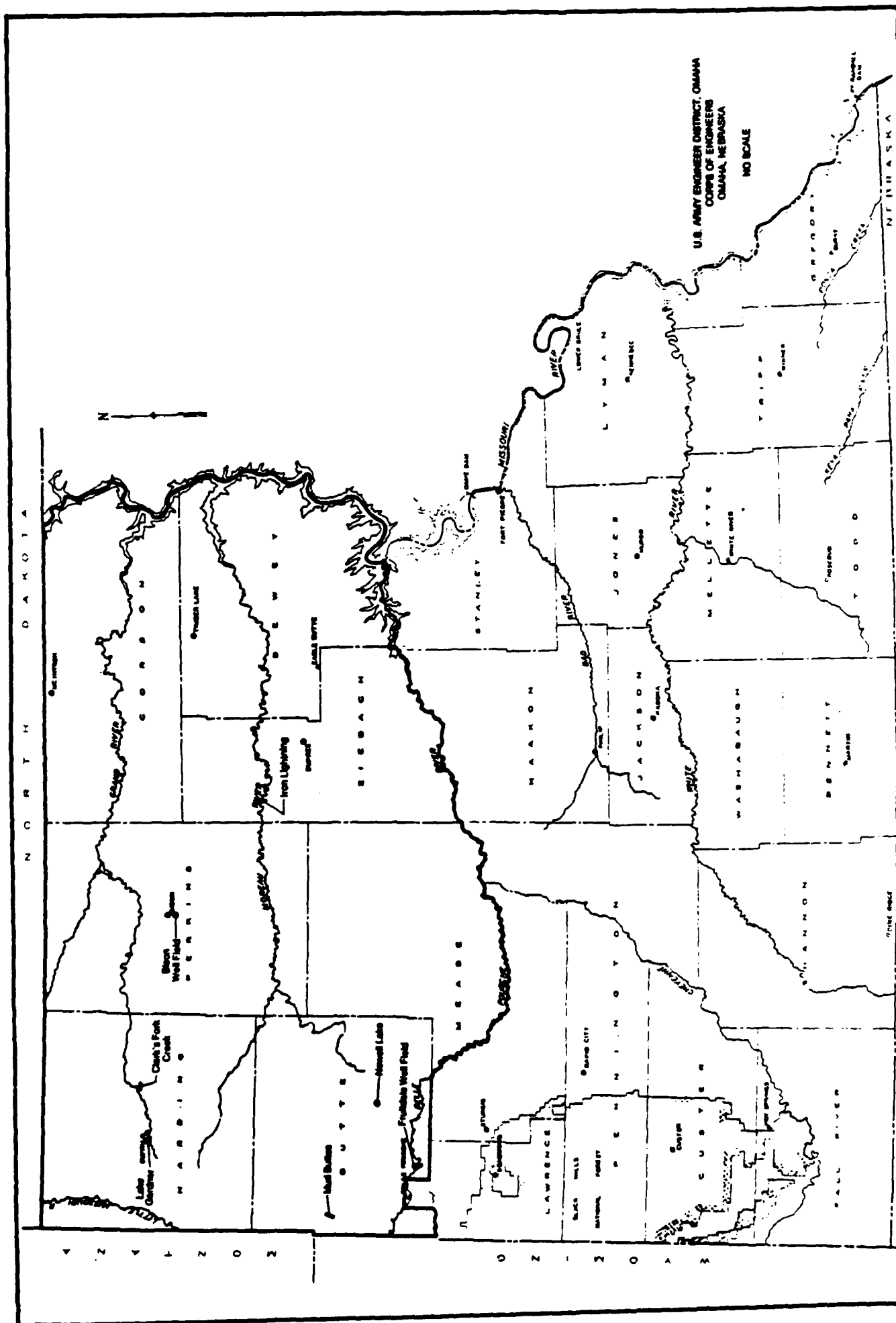
Location. Lake Gardner is located in Sections 9-10, 14-16, and 22, T. 19 N., R. 4 E., west of the town of Buffalo in Harding County (figure 2).

Plan. The pool level would be raised 20 feet from elevation 2920 feet to 2940 feet above mean sea level (m.s.l.) for water supply.

Literature and Records Search. No National Register properties are located in the vicinity of Lake Gardner. The only such property located in Harding County in 1985 was Ludlow Cave, which is many miles away. The earliest map located for the county is an 1894 plat. The map does not indicate the presence of any structures within the existing pool. Patent records for the area indicate that the earliest patent was granted for the SW1/4 of Section 10 to a Ms. Julia A. McHugh on 24 June 1912.

Previous Investigations. Some archeological work was done approximately 1 mile west of the lake by the South Dakota Archaeological Research Center (Haug 1978). Two proposed exploratory drill sites surveyed in the western half of Section 16 did not contain evidence of human activity. Archeological surveys conducted elsewhere in the county (Beckes and Keyser 1983, Haug 1978, Chevance and Chevance 1983, 1984) indicate that most of the sites found outside the Custer National Forest are comprised of lithic scatters, loci, and isolated finds. A USACE archeologist surveyed a peninsula at the south-east end of the lake (SE1/4, SE1/4, Section 15). Cultural material was not observed during the short visit.

Data Gaps. Information obtained through records indicate that remains of an early 20th century homestead may exist near the lake. However, there is also the possibility that the homestead was inundated when the lake was built in 1949 or that the homestead did not exist and the land was never occupied.



Nothing is known of earlier historic and prehistoric occupations in this area. Survey reports could be used to deduce which types of prehistoric sites might be found in the area. Because a detailed analysis of sites in Harding County is not available, the cultural periods cannot be identified.

Preliminary Research Designs. Research topics for this region of South Dakota can be found in the State's archeological management plan (Buechler n.d.). Lake Gardner is located within the Sandstone Buttes Study Unit. Research topics relative to this project would include (1) increasing the inventory of sites outside the intensively studied areas in the Custer National Forest for validating the types of sites commonly found in this environment, (2) evaluating site distribution, and (3) determining what cultural periods are represented. A more detailed study of the sites is important to clarify specific activities engaged in by people outside the Black Hills area and the Custer National Forest where most cultural resource investigations are conducted.

Potential Impacts. The plan for Lake Gardner would be to use the existing water in the lake for water supply. This use would cause a drawdown of several feet annually. The drawdown could expose previously unknown cultural resources. Impacts to such resources cannot be determined without additional information. Installation of an intake structure is also planned to transport water to the pipeline system. This would result in some alteration of the land.

Recommendations. The land that would be inundated and eroded by the enlarged pool should be inventoried first. The land exposed during the drawdowns should be periodically surveyed for cultural resources and to evaluate impacts. The survey would also include the site of the intake structure. An attempt should be made to see if there are any remains of the McHugh homestead.

CLARK'S FORK CREEK RESERVOIR

Location. This proposed reservoir would be located on Clark's Fork and Squaw Creeks in Sections 1-3, T. 16 N., R. 6 E.; Section 6, T. 18 N., R. 7 E.; Sections 14, 22-27, and 34-36, T. 19 N., R. 6 E.; Sections 30-31, T. 19 N., R. 7 E., east of the town of Buffalo in Harding County (figure 2). The dam axis would be in the S1/2 of Section 23.

Plan. A water supply reservoir with a flood pool elevation of 2761 feet above m.s.l. would be constructed. Approximately 350 acres would be inundated.

Literature and Records Search. Ludlow Cave is the single National Register property in Harding County and is located many miles north of the project area. Two maps were available for reference. The earliest map located for the county is an 1894 plat map. No structures are shown in the vicinity of the proposed pool. The other map is the 1971 Sheep Pen Draw SE quadrangle. Buildings are present in the SW1/4 of Section 25. Patent records in Buffalo show that this section was patented by Mr. Almon H. Dean on 20 July 1915.

A large Sioux encampment may have been located somewhere in the vicinity of Clark's Fork Creek at the end of the summer of 1876. In September of 1876, an army column commanded by General George Crook attacked a small village of Sioux Indians under the leadership of American Horse on the east side of Slim Buttes. The Sioux who were captured during the battle told the soldiers that there was a large hostile encampment about 10 miles west of their position (Green 1982).

Previous Investigations. The South Dakota Archaeological Research Center investigated an exploratory drill site located approximately 1 mile south of the lower Squaw Creek reach of the proposed reservoir (Haug 1978). No cultural remains were located in the survey area. In July 1983, a USACE

archeologist stopped at a number of locations in the southern two-thirds of the proposed reservoir. A small surface artifact scatter site (39HN356) was found on a hilltop about 800 feet west of the proposed pool. Two shallow shovel test pits were made. No artifacts were recovered from the test pits. Eight unmodified flakes and a spent 30-30 shell casing were collected from the surface and sent to the Archaeological Research Center. The structures observed on the 1971 quadrangle map were visited briefly and included a house and six associated farm buildings. The house was abandoned. The cattle pens and sheds showed signs of continued use. Most of the structures are conservatively estimated to be in excess of 30 years old. Archeological surveys conducted elsewhere in the county (Haug 1978, Beckes and Keyser 1983, Chevance and Chevance 1983, 1984) indicate that most of the sites found outside the Custer National Forest are comprised of prehistoric lithic scatters, loci, and isolated finds.

Data Gaps. County records and onsite observations have documented the existence of a cattle ranch that was possibly built in the first two decades of the 20th century although no later than the 1950s. The survey reports referenced above were extensive enough to determine the types of aboriginal sites that are usually located in areas such as Clark's Fork Creek. Earlier use of the area by people is demonstrated by the unassigned artifact scatter, although nothing is actually known about previous historic and prehistoric occupations around Clark's Fork. Accurate representation of different cultural periods in this area cannot be ascertained because detailed analysis of the sites reported in Harding County is not available.

Preliminary Research Designs. Research topics for this region of South Dakota were drafted in the State's archeological resource management plan (Buechler n.d.). Clark's Fork Creek is located in the Sandstone Buttes Study Unit. Statements made for the prehistoric resources around the Lake Gardner project area would be applicable here also. Initial historic research topics would involve the ranch and its occupants, the architecture, and a possible

change in function from farm to ranch at some time after the land was homesteaded. It may also be possible to locate the large Sioux encampment that was alluded to in Green's book.

Potential Impacts. The information that is available for Clark's Fork is insufficient to determine the probable impacts to all existing cultural resources that would result from reservoir construction. The exceptions are the ranch and site 39HN356. The ranch buildings and artifact scatter are located above the maximum flood pool of 2761 feet m.s.l. and probably beyond the ultimate erosion line for the reservoir.

Recommendations. Clark's Fork Creek would inundate approximately 350 acres at the maximum flood pool of 2761 feet above m.s.l. This acreage is considered small enough for complete (100 percent) coverage for a cultural resource reconnaissance survey for the next phase of investigation. Additional survey areas should also be included if additional lands are required for the project. Future surveys would include site evaluation of the ranch buildings for possible National Register nomination. Testing at site 39HN356 is also recommended if it will be located within the project boundaries.

NEWELL LAKE

Location. Newell Lake is located in Sections 4, 5, 8-10, and 15-16, T. 10 N., R. 6 E., northeast of the town of Newell in Butte County (figure 2).

Plan. The pool would be raised 50 feet from 2880 feet m.s.l. to 2930 feet m.s.l. for water supply. The lake would be increased from its' present 168 acres to approximately 482 acres. This increase would inundate about 314 acres.

Literature and Records Search. National Register properties in Butte County are located several miles south and southwest in or near the towns of Belle Fourche, Newell, and Vale. They are all buildings. No early maps of the county were found in the Register of Deeds office. The map used for the assessment was the 1977 Newell Lake quadrangle. The lands, which include Newell Lake, were patented by the South Dakota Department of Game, Fish and Parks in 1958 for the construction of the dam which created the lake.

Previous Investigations. Newell Lake was included in a literature search for the West River Aqueduct (Artz 1980). No cultural resources were noted for the township and range where Newell Lake is situated. In 1983, the southwest end of the dam axis (NE1/4, SE1/4, NW1/4, Section 16) and picnic area (NE1/4, SE1/4, SE1/4, Section 9) were visited by a USACE archeologist. No isolated artifacts or sites were observed.

Data Gaps. The late 20th century is represented by the dam and recreation/picnic area. Nothing is known about the lake prior to 1958.

Preliminary Research Designs. Newell Lake falls within the Belle Fourche Study Unit of the State's archeological resource management plan (Buechler n.d.). Little information exists on the cultural resources in this unit. Research topics proposed in the plan would be applicable for this project.

Potential Impacts. The information for Newell Lake or this region is insufficient to determine probable impacts resulting from a pool drawdown or installation of an intake structure.

Recommendations. The next phase would be to complete a cultural resource reconnaissance of all land to be inundated by the enlarged pool and the area designated for installation of the intake structure and pipeline. Drawdowns should be periodically surveyed to discover exposed cultural resources.

MUD BUTTES RESERVOIR

Location. This proposed reservoir is located on South Indian Creek in Section 1, T. 11 N., R. 1 E., Sections 5-9, T. 11 N., R. 2 E.; Sections 30-32, T. 12 N., R. 2 E., northwest of the town of Belle Fourche in Butte County (figure 2). The dam axis would be situated in Sections 8 and 9.

Plan. A water supply reservoir would be constructed with a flood pool elevation of 3085 feet above m.s.l. and would cover 794 acres.

Literature and Records Search. No National Register properties are located in the project area. The properties that do exist are located within or near the towns of Belle Fourche, Newell, and Vale. No early maps of the county were found in the Register of Deeds office. On the 1965 Mud Buttes NW quadrangle map, there are no occupied or abandoned structures shown within the proposed pool. However, there are four stock dams that would be inundated.

Previous Investigations. Except for a brief visit by a USACE archeologist in 1984, the project area or lands within 2 miles have not been investigated for cultural resources. No isolated artifacts or sites were observed during the visit.

Data Gaps. Evidence of human activity in the project area is almost totally unknown. The presence of stock ponds represents historic use; however, the age of the ponds is not known. The purpose of such ponds is to provide water for livestock. Otherwise, nothing else is known about the history and prehistory of this project area.

Preliminary Research Designs. The proposed Mud Buttes Reservoir would also be within the Belle Fourche Management Unit of the State's archeological

management plan (Buechler, n.d.). Research topics for this project would be the same as for Newell Lake.

Potential Impacts. Presently, the only known impacts would involve the stock ponds, which would be inundated by the reservoir. Other impacts cannot be determined until additional fieldwork is conducted.

Recommendations. The level of the maximum flood pool would be approximately 3100 feet m.s.l. and would inundate an area of 794 acres. The next phase of investigation would require a reconnaissance survey of the areas that would be inundated and eroded by the pool.

IRON LIGHTNING RESERVOIR

Location. The proposed Iron Lightning Reservoir is located on the Moreau River in Sections 1-3, 10-12, T. 14 N., R. 16 E.; Sections 1-13, T. 14 N., R. 17 E.; Sections 33 and 36, T. 15 N., R. 17 E.; Sections 1-12, 15-17, 20-21, 28-29, and 32-33 T. 14 N., R. 18 E., in Ziebach and Perkins Counties (figure 2). The dam axis would be situated in Section 12, T. 14 N., R. 16 E.

Plan. A water supply reservoir with a pool elevation of 2201 feet m.s.l. would be constructed and would cover a surface area of 2,160 acres.

Literature and Records Search. Currently, there are no National Register properties identified in Ziebach County. In Perkins County, two National Register properties are located in the towns of Lemmon and Bison. An 1899 Government Land Office (GLO) map of the county shows two widely separated structures on the Rock Creek tributary of the Moreau River. The structure located by the confluence is not identified. The other structure, located farther upstream, is probably an allotment to an Indian named Puts On His Shoes. Two structures are present in the same locations on the 1951 Redelm NW quadrangle map. Patent records for structures identified on the 1951 quadrangle maps (Redelm NE and Faith NE) and in the county atlases dated 1967 and 1982 indicate that legal settlement began in 1909. Early patentees are presented in table 1.

Table 1
Patentees in the Iron Lightning Reservoir Project Vicinity

<u>Location</u>	<u>Name</u>	<u>Date</u>
Sec. 11, T. 14 N., R. 17 E.	Alvin N. Williams	6 December 1909
Sec. 4, T. 14 N., R. 17 E.	Lars Olefson	23 June 1910
Sec. 28, T. 14 N., R. 18 E.	George Cahill	21 August 1918
Sec. 4, T. 14 N., R. 18 E.	Mary Dupris (Indian)	7 February 1920
Sec. 8, T. 14 N., R. 18 E.	Fred Allison	11 February 1921
Sec. 20, T. 14 N., R. 18 E.	John P. Anderson	25 July 1921
Sec. 20, T. 14 N., R. 18 E.	Joseph E. Brackett	6 March 1936

Previous Investigations. The Iron Lightning Reservoir project area has had two cultural resource investigations. Mr. Joe Lazio surveyed water supply pipelines in Sections 3, 4, 9, 10, 15-17, and 20, T. 14 N., R. 18 E., for a proposed water supply system on the Cheyenne River Indian Reservation (Lazio 1980). The survey appears to have followed the roads. No cultural resources were recorded for the project area although prehistoric and historic sites were located elsewhere during the survey. In 1983, a USACE archeologist visited several locations in the project area. A small lithic scatter site, 39ZB11, was found about 2 miles northwest of the village of Iron Lightning. Three abandoned buildings were also observed beyond the upstream end of the project, within one-fourth mile southwest of the State Highway 73 bridge over the Moreau River in Perkins County.

Other assessments and surveys were conducted within approximately 20 miles of this study unit (Wedel 1953, Beckes and Keyser 1983). Lithic scatters, stone cairns, stone circles, buried occupations and possible earthlodge depressions were found.

Data Gaps. Most of the records for the Iron Lightning Reservoir project area exhibit evidence of historic Native American and Euro-American homesteading in the late 1890s and first four decades of the 20th century. Other than the unassigned lithic scatter discovered in 1983, nothing is known of earlier human occupation of the project area. Accurate knowledge of different cultural periods cannot be ascertained because very little survey work has been done in this study unit.

Preliminary Research Designs. This project is located in the Grand/Moreau Tablelands Study Unit of the State's archeological resource management plan (Buechler, n.d.). Very little is known about both the prehistoric and historic cultural resources in this unit. Research topics proposed in the plan would be applicable here. The two possible Native American allotments could provide information on Sioux Indian acculturation and cultural transition to sedentism. The sites should be evaluated for significance.

Potential Impacts. The information available for the Iron Lightning Reservoir project area is insufficient to determine probable impacts to National Register properties resulting from reservoir construction. The historic sites and lithic scatter currently identified would be inundated by the reservoir.

Recommendations. The next phase of investigations should involve a complete survey of the Iron Lightning Reservoir project area flood plain and a sample survey of the terraces. National Register evaluation should be made of the seven known historic occupations shown in table 1 and site 392B11.

NORTH REGION SUMMARY

The surface and subsurface water alternatives and their associated pipeline routes will not affect properties currently eligible for or listed on the National Register of Historic Places. No intensive cultural resource investigation has been conducted for the surface alternatives, the Bison well field, or the pipeline routes. The pipeline routes may follow State Highway 20 from Lake Oahe to Lake Gardner; U.S. Highway 85 between Buffalo and Belle Fourche; State Highway 34 between Belle Fourche and Fruitdale; and U.S. Highway 85, and State Highways 168 and 79 between Buffalo and Newell Lake. A fraction of the Fruitdale well field (figure 2) was surveyed. The Bison well field (figure 2) has not been surveyed. Surveys in comparable environmental locations have identified prehistoric sites. Literature and records searches have identified historic sites in all but two proposed project areas. This was confirmed at the surface alternatives during limited fieldwork by a USACE archeologist. The fieldwork also identified one prehistoric artifact scatter at each of the Iron Lightning and Clark's Fork Creek project areas. The Fruitdale well field was partially within a survey of the Belle Fourche River conducted by the South Dakota Archaeological Research Center (Keller and Keller 1984). One historic site and a prehistoric site were identified. All of the known or suspected cultural resources are presented in Table 2.

Table 2
Historic and Prehistoric Sites for the North Region Alternatives

<u>Project</u>	<u>Historic</u>	<u>Prehistoric</u>	<u>Total</u>
Iron Lightning Reservoir	7	1	8
Mud Buttes Reservoir	4	0	4
Fruitdale Well Field (Sections 1, 12, T. 8 N., R. 3 E.)	1	2	3
Clark's Fork Creek Reservoir	1	1	2
Lake Gardner	1	0	1
Newell Lake	0	0	0
Bison Well Field (Section 24, T. 18 N., R. 13 E.)	0	0	0

Reservoirs, drawdowns, and well drilling adversely affect cultural resources. The magnitude of the effect decreases with the level of disturbance. Most of the proposed pipeline routes should not have an effect upon surface or shallowly buried cultural resources as they follow along existing highways. Deeply buried sites might be encountered during trenching activities along the highway rights-of-way. The exception to this is the branch line connecting Iron Lightning to the system. Surface as well as subsurface sites may be disturbed during construction of the branch line. Additional work is needed to identify the exact number of sites and potential National Register properties at all of the proposed water supply projects in this region.

CENTRAL REGION

RAPID CREEK RESERVOIR

Location. The proposed Rapid Creek Reservoir would be located on Rapid Creek in Sections 1-4, T. 15, R. 11 E. and Sections 19, 22, 23, and 26-36, T. 1 N., R. 11 E., southeast of Rapid City in Pennington County (figure 3). The dam axis would be situated in Section 36.

Plan. A water supply reservoir with a pool elevation of 2649 feet m.s.l. would be constructed and would cover a surface area of 1,345 acres.

Literature and Records Search. The National Register properties presently recorded for Pennington County would not be affected by construction of the Rapid Creek Reservoir. The 1953 Caputa NE quadrangle map (photo revised 1979) shows three building complexes that would be inundated by the reservoir. Also, an abandoned Chicago, Milwaukee, St. Paul, and Pacific railroad line is located in the reservoir pool area. The Knuppe School could be subject to shoreline erosion. Patent records for Sections 27 and 28 show that the school land (Section 27) was acquired by School District No. 37 in 1913. The NW1/4, SW1/4, Section 28 was patented by Mr. Charles M. Allen in 1890.

Previous Investigations. Other than a brief visit in 1984 by a USACE archeologist, the project area has not been investigated for cultural resources. The USACE archeologist recorded a small lithic scatter site (39PN704) in Section 28, above the projected maximum flood pool. The Knuppe School was also visited. The buildings associated with the school have been removed. All that remains is the rectangular concrete foundation of a one room (?) schoolhouse. It is assumed that the buildings were dismantled or moved after the 1979 photo revision of the Caputa NE quadrangle map.

Data Gaps. The period of time during which Native Americans occupied and left behind remains of their activities along this section of Rapid Creek is

not known. Prehistoric sites are quite probably present based on the fortuitous finding of a small site. In addition, people who live in the vicinity have collected Indian artifacts from the creek valley. County records document acquisition of some of the project lands in the 1890s. The presence of historic structures is not documented until the early 1950s on USGS quadrangle maps. As a result of the population density reached in the early 20th century, a school was built for the district. Some additional information that can be inferred is the construction of new buildings and roads between 1953 and 1979. Some time after 1979, the school and buildings were moved or dismantled. We are unable to determine when the school closed.

Preliminary Research Designs. This project is in the South Fork Cheyenne Study Unit of the State's archeological management plan (Buechler n.d.). Research topics presented in the plan were pertinent to this locale. Additional research should be applied towards understanding the Knuppe School and the people who attended it.

Potential Impacts. The areas containing historic buildings would be inundated by the proposed reservoir as would any existing bridges along the railroad. Other impacts to cultural resources cannot be assessed until additional fieldwork is conducted.

Recommendations. The Rapid Creek Reservoir would cover approximately 1,345 acres of land. The next phase of investigation would require a reconnaissance survey of 20 percent of the lands to be inundated. All previously recorded historic structures, the rail line, and the railroad bridges should be evaluated for nomination to the National Register of Historic Places.

BRENNAN RESERVOIR

Location. The proposed reservoir would be built on Dry Creek in Sections 35 and 36, T. 1 N., R. 8 E., and Sections 4 and 5, T. 1 S., R. 8 E., southeast of Rapid City in Pennington County (figure 3). The dam axis would be in the W1/2 of Section 36.

Plan. A water supply reservoir with a flood pool elevation of 3107 feet m.s.l. would be constructed. We do not have a figure available for the number of acres proposed for inundation.

Literature and Records Search. Current National Register properties in Pennington County will not be impacted by the project. The 1953 Rapid City quadrangle map shows an abandoned structure in the SE1/4 of Section 35, T. 1 N., R. 8 E.

Previous Investigations. A literature search was conducted within this township and range of Pennington County (Artz 1980). Five isolated finds and a historic dugout were recorded. These resources are not within the reservoir area.

Data Gaps. Nothing is known about the past in the project area. The dugout indicates historic use of Dry Creek.

Preliminary Research Designs. The proposed Brennan Reservoir project would be located in the South Fork Cheyenne Study Unit of the State's archeological management plan (Buechler n.d.). Research topics for this unit would be pertinent to this locale.

Potential Impacts. The only known impact would be the inundation of the abandoned historic structure. Additional fieldwork would be necessary to determine impacts to other cultural resources within the project.

Recommendations. A reconnaissance survey is recommended for the entire area impacted by the dam and reservoir. The historic structure should be evaluated for possible nomination to the National Register.

BOXELDER CREEK NO. 1

Location. This proposed reservoir location is on Boxelder Creek in Sections 23 and 24, T. 2 N., R. 6 E. and Section 19, T. 2 N., R. 7 E., northwest of Rapid City in Pennington County (figure 3). The dam axis would cross the creek in Sections 23 and 24.

Plan. A water supply reservoir with a pool elevation of 3767 feet m.s.l. would be constructed and would cover 576 acres.

Literature and Records Search. The National Register properties in Pennington County will not be affected by Boxelder Creek Dam No. 1. No structures were observed on the 1953 Rapid City West quadrangle map. There is some evidence that the 1874 Custer expedition explored the Black Hills via Box Elder Creek. The expedition may have camped somewhere in the vicinity of this proposed reservoir on August 13, 1874 (Frost 1979). At this time, Custer was on his way from the Black Hills back to Fort Abraham Lincoln in North Dakota.

Previous Investigations. An archeological survey conducted to the west and southwest of the damsite located rock shelters, lithic scatters, loci, lithic procurement sites, a kiln, historic homesteads, and mining pits (Groenfeldt and Popelish 1978). No other surveys have been documented for the area. The only investigation for cultural resources at the proposed damsite was done by a USACE archeologist during a short visit in 1984. A historic dump and mining pits were observed in the S1/2 of Section 19, T. 2 N., R. 7 E. Two modern homes are located on overlooks in the NW1/4 of Section 19 and either the NW1/4, SW1/4 of Section 19 or NE1/4, SE1/4 of Section 24, T. 2 N., R. 6 E. In the center of Section 19, there is a flat valley where Boxelder Creek makes a sharp loop east to west in Section 25. In the bend, vegetation patterns appeared to outline symmetrically shaped structures, probably historic in nature. Closeup examination and verification were not possible.

Data Gaps. The available information is quite restricted in scope. Only very recent historic structures, a dump, and modern mine claims are documented. A survey of a nearby area (Groenfeldt and Popelish 1978) recorded comparable historic sites plus a number of prehistoric sites that may be found along Boxelder Creek. The 1874 Black Hills expedition quite possibly passed through the area.

Preliminary Research Designs. The Black Hills Study Unit of the State's archeological management plan (Buechler n.d.) encompasses the damsite for Boxelder Creek No. 1. Other topics for research can be associated with the material evidence of Custer's 1874 expedition down Boxelder Creek.

Potential Impacts. The historic dump may be inundated by the pool. The homes and mining claims are located above the pool. Impacts to other cultural resources cannot be determined until there is additional fieldwork.

Recommendations. It is recommended that a cultural resource reconnaissance survey investigate the entire project area within the maximum flood pool. Special effort should be directed at determining if there is a historic site in the valley, if rock shelters exist along the valley slopes, and if evidence of the Custer expedition can be found.

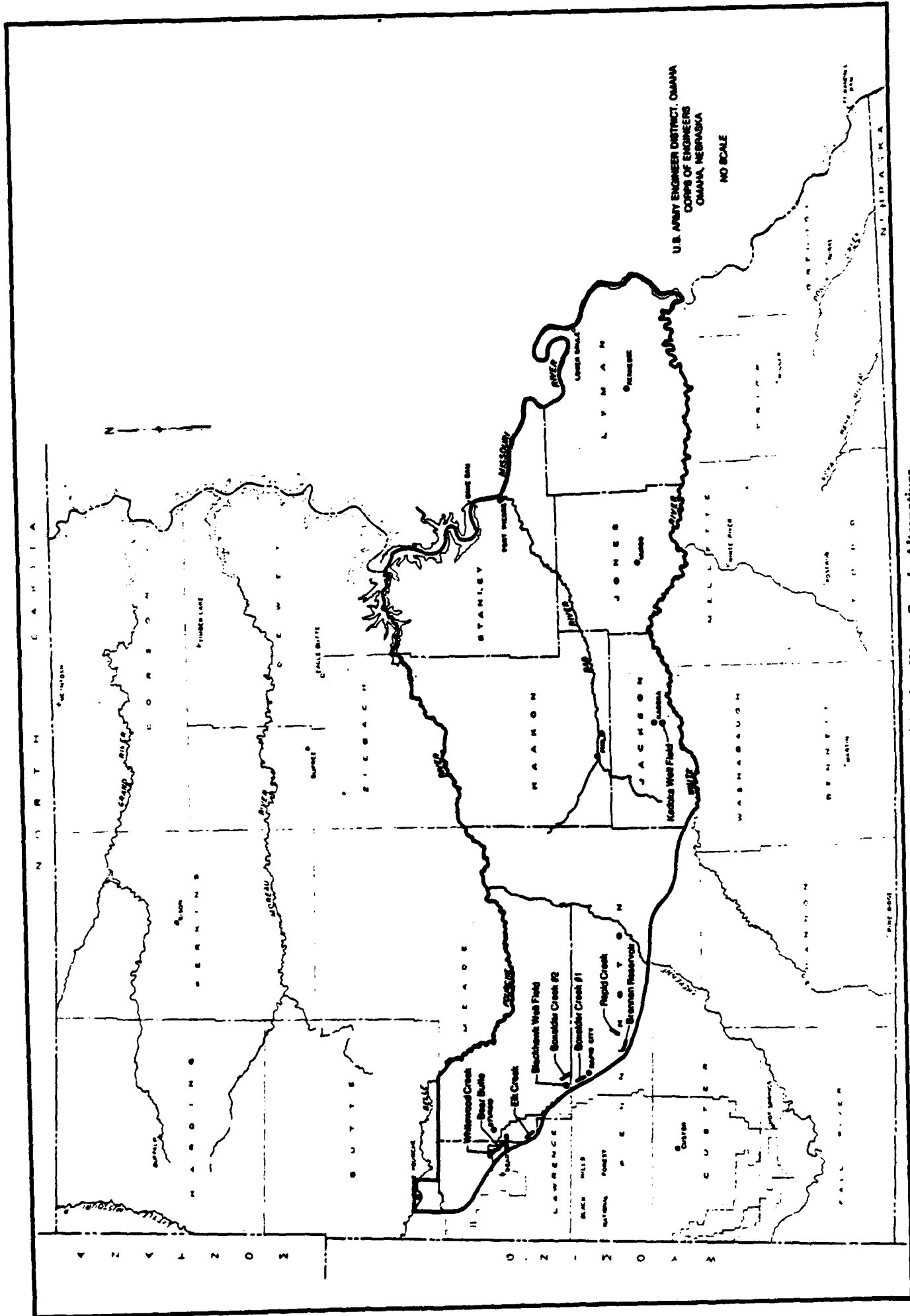


Figure 3. Central Region Water Supply Alternatives

BOXELDER CREEK NO. 2

Location. The second reservoir proposed for Boxelder Creek is located in Sections 1, 2, and 9-12, T. 2 N., R. 7 E., north of Rapid City in Meade County (figure 3). The dam axis would be built in the SW1/2 of Section 1.

Plan. A water supply reservoir with a pool elevation of 3380 feet m.s.l. would be constructed. We do not have a figure available for the number of acres to be inundated.

Literature and Records Search. Current National Register properties in Meade County will not be impacted by the project. The 1953 Rapid City West quadrangle map shows nine locations where one or more structures were present. We were unable to check the patent information for these structures. The legal descriptions are:

SE1/4 Section 1, T. 2 N., R. 7 E. (two structures)
NE1/4 Section 9, T. 2 N., R. 7 E. (two structures)
SE1/4 Section 9, T. 2 N., R. 7 E. (one structure)
NE1/4 Section 10, T. 2 N., R. 7 E. (one structure)
SW1/4 Section 10, T. 2 N., R. 7 E. (two structures)
SE1/4 Section 10, T. 2 N., R. 7 E. (one structure)
NE1/4 Section 10, T. 2 N., R. 7 E. (one structure)
NW1/4 Section 11, T. 2 N., R. 7 E. (one structure)
N1/2 Section 11, T. 2 N., R. 7 E. (two structures)

Previous Investigations. An earlier literature search covered the project area in 1980 (Artz 1980). No sites were recorded. The same investigation performed an on-the-ground survey immediately to the west and southwest. A single small lithic scatter was recorded within a mile of the project area on a terrace of Boxelder Creek.

Data Gaps. Nothing is known about the project area's past. All that can be stated is that it was occupied historically and probably prehistorically as well.

Preliminary Research Designs. The description of the State's archeological management units regarding the location of this project is ambiguous. It appears that this reservoir straddles the Black Hills and Lower Cheyenne Study Units (Buechler n.d.). The most appropriate goal for this project would be acquisition of additional site inventory information and site specific data collection mentioned in the Lower Cheyenne Study Unit. Historic settlement of the area is another avenue for research.

Potential Impacts. Most of the known historic structures would be inundated. Two or three might be affected by shoreline erosion. Dam construction would destroy two other structures. The effect of this reservoir upon cultural resources cannot be accurately stated without additional fieldwork.

Recommendations. A complete reconnaissance survey is recommended for this reservoir. The nine historic sites should be evaluated for possible nomination to the National Register of Historic Places.

ELK CREEK

Location. This proposed reservoir is located on Elk Creek in Sections 16, 17, 21, and 22, T. 4 N., R. 5 E., southwest of the town of Sturgis in Meade County (figure 3). The dam axis would be located in the E1/2 of Section 21.

Plan. A water supply reservoir with a pool elevation of 4569 feet m.s.l. would be constructed and would cover 227 acres.

Literature and Records Search. National Register properties in Meade County would not be affected by the proposed Elk Creek Reservoir. Runkle, an early 20th century townsite, is within the flood pool. The town had about a dozen homes and a post office. A branch line of the Homestake Mine, Black Hills, and Fort Pierre Railroad connected the town with other towns in the Black Hills (Parker and Lambert 1974). A homestead patent, which included the Runkle townsite, was given to Mr. Edward F. Boyd in 1913. Downstream from the dam are Bethlehem and Wonderland Caves. Both are commercial operations open for visitation by the public (Cassells and Miller 1982a).

Previous Investigations. The first recorded survey was conducted approximately a mile to the southwest of the project area in 1976. No cultural resources were identified (Tratebas 1978). The proposed reservoir was included in a literature search (T. 4 N., R. 5-7 E.) for the West River aqueduct (Artz 1980). Thirteen prehistoric sites and a ranch were recorded; however, their locations were not listed in the report. In 1982, Plano Archaeological Consultants surveyed lands within the reservoir as part of the Runkle timber sale (Cassells and Miller 1982b). The survey covered high potential areas: drainages, clearings, terraces, cliffs, and roads. Only three sites were identified: the abandoned town of Runkle, a cave site (39MD124), and a livestock feed area (39MD125). A USACE archeologist visited the Runkle townsite in 1984. No standing structures remain. Several areas

appear to have been disturbed, indicating locations of buildings near an apple orchard and along the creek. Cut timbers and metal fragments were present in the disturbed areas. Animal bone was exposed on the two-track road leading to the townsite, about 82 paces from the road turnoff in the W1/2 of Section 16. There were no artifacts present. The bone was not collected.

Data Gaps. The available information has identified only a historic townsite within the proposed project area. It probably contains sufficient information to reconstruct the activities which supported the town's existence as well as the function of the buildings that once existed there. Work in the surrounding areas has located few cultural sites. It is estimated that from 10 to 15 percent of the proposed reservoir area was surveyed in 1982.

Preliminary Research Designs. Elk Creek is within the Black Hills Study Unit (Buechler n.d.). Research topics in the plan would be applicable here. The settlement of Runkle could generate a number of additional topics specific to this locale and its interaction with the railroad and other towns along the line.

Potential Impacts. The only known impact resulting from reservoir construction would be the inundation of what remains of Runkle. The townsite may be disturbed if the land it is situated on is used for fill in the dam construction. Other impacts cannot be determined until additional fieldwork is conducted.

Recommendations. A future reconnaissance survey of the project area should cover those areas not investigated in 1982. In addition, the townsite of Runkle should be thoroughly researched, mapped, and evaluated for possible nomination to the National Register. The small bone scatter is also recommended for testing to determine if it is associated with Runkle or another occupation.

WHITEWOOD CREEK

Location. The proposed reservoir on Whitewood Creek would be situated in Sections 4-9, T. 5 N., R. 4 E., northeast of Deadwood in Lawrence County (figure 3). The dam axis would cross the creek in the NW1/4 of Section 4 and NE1/4 of Section 5.

Plan. A water supply reservoir with a flood pool elevation of 3969 feet m.s.l. would be constructed and would cover 153 acres.

Literature and Records Search. National Register properties currently identified in Lawrence County would not be impacted by the project. Patent records were checked only for the SE1/4 and NE1/4 of Section 5 because a log cabin was found there in 1984 and because earlier maps were not located in order to identify other historic structures. General Crook encamped his command at the Centennial Park Prairie outside of Crook City on 18 September 1876 after the battle of Slim Buttes occurred earlier in the same month (Green 1982).

Previous Investigations. An archeological survey was performed just to the northwest of the proposed reservoir area. A prehistoric chipping station and a probable stage station for the old Deadwood Stage Line were found (Sigstad 1972). A later literature search (Artz 1980) covered the township immediately north (T. 6 N.) but did not mention the sites located by Sigstad. Five prehistoric sites were located in that township. A timber sale survey in 1976 (Tratebas 1978) identified an isolated find (39LA111) on top of Crook Mountain. Another timber sale survey in the Crook Mountain vicinity was conducted in 1982 (Legard and Miller 1982). This survey may have covered 10 percent of the proposed reservoir area. A total of 13 prehistoric and historic sites and 11 isolated finds were located during the survey to the south and southeast outside the project area. The prehistoric sites are identified as campsites (39LA245, 247, 249, 250, and 258) and limited activity areas (39LA248, 251, and 259-261). Only two were assigned to a

temporal period. Site 39LA249 is a Late Plains Archaic or Late Prehistoric campsite. Site 39LA259 is a limited activity site associated with the Late Plains Archaic.

Two years later, a Corps archeologist visited the left bank of Whitewood Creek from the location of the proposed dam axis to about 300m upstream along the left bank. The valley has been extensively disturbed from prospect holes or dredging performed during mining. A small log structure was found about 300m south of the axis. It is eight logs high and has a partial roof. Its outside dimensions are 2m x 2m. There is a pile of rock in one corner of the structure immediately opposite the door which is located at the southeastern corner of the east wall. A check of the land records for the SE1/4 of NE1/4 in this section shows a patent granted to a Mr. John S. Harp in August of 1916. The structure may have functioned as a storage shed or possibly a permanent hunting blind. The roof is too low for someone over 5 feet in height to stand up and is open at the end facing the creek so hunters could view any game coming down to drink.

Data Gaps. It is very likely that this portion of Whitewood Creek was inhabited as early as the late Archaic period. Areas adjacent to this indicate that during the late Archaic period, prehistoric people probably camped and hunted along this stream. Evidence for such occupation or other prehistoric use along the flood plain of Whitewood Creek has probably been destroyed by mining activities since the late 1870s. Surviving prehistoric sites might be found further away from the stream on higher ground. Historic sites and activities are expected to be found along the length of the creek in areas that have been disturbed by mining. Although an estimated 10 percent of this proposed reservoir was surveyed, the exact survey areas cannot be pinpointed.

Preliminary Research Designs. The Whitewood Creek project area falls within the Black Hills Study Unit of the State's management plan for archeological

resources (Buechler n.d.). The research questions and goals for this unit would be pertinent to pursue. In addition, there should be studies on the effects of mining upon the distribution of prehistoric sites within this basin and this study unit.

Potential Impacts. With the exception of the log cabin, the information available for Whitewood Creek is not sufficient to determine what impacts will occur to cultural resources if the project were built. The log cabin would be inundated by the reservoir.

Recommendations. Approximately 153 acres of land would be inundated by this project. A complete reconnaissance survey is recommended. Shovel tests should be made in areas undisturbed by mining because of the ground cover. The log structure found in 1984 should be researched further.

BEAR BUTTE RESERVOIR

Location. This proposed reservoir would be located on Bear Butte Creek in Sections 13, 14, 23, and 24, T. 5 N., R. 4 E., southwest of Sturgis in Lawrence County (figure 3). The dam axis would be built in the SW1/4 of Section 13.

Plan. A water supply reservoir with a flood pool elevation of 3900 feet m.s.l. would be constructed and would cover 51 acres.

Literature and Records Search. There are no National Register properties located within or in the vicinity of the proposed reservoir. Patent records for the sections containing occupied and abandoned structures on the 1954 Sturgis quadrangle map indicate official historic occupation in the early 1880s and 1890s. A list of early patentees is presented in table 3.

Table 3
Patentees in the Bear Butte Project Vicinity

<u>Location</u>	<u>Name</u>	<u>Date</u>
Sec. 13, T. 5 N., R. 4 E.	Alexander J. Roberts	23 August 1881
Sec. 13, T. 5 N., R. 4 E.	Henry C. Dunning	18 February 1892
Sec. 24, T. 5 N., R. 4 E.	Martin H. Johnson	2 April 1888
Sec. 23, T. 5 N., R. 4 E.	Edward W. Ball	24 March 1884

The settlement of Boulder Park was inhabited by 1890 (Parker and Lambert 1974).

Previous Investigations. From 1976 to 1978, paraprofessional surveys were conducted outside the project on the southwest (Lambert n.d.a), east (Lambert n.d.b), and south (Lambert n.d.c). Only a few prehistoric lithic scatters and historic cabins were located. To the north and west of Boulder Park,

two professional surveys were performed (Legard and Miller 1982, Tratebas 1978). Over a dozen sites, as well as many isolated lithic finds were recorded. All of the surveys were associated with U.S. Forest Service (USFS) timber sales. A USACE archeologist made a short visit to the area proposed for the dam axis in 1984. The visit was confined only to the road due to access problems. Houses were observed within the area of the potential pool.

Data Gaps. Euro-American occupation of the proposed pool area is the only cultural resource presently known. This occupation extends from the present to probably earlier than A.D. 1880. Aboriginal use of the valley still requires investigation.

Euro-American land records indicate that this area was inhabited during at least the last two decades of the 19th century A.D. These records show the land as being either homesteaded or mined. Previous archeological surveys in this area of the Black Hills vary in their quality, experience, and thoroughness. Sites found by the paraprofessional and professional archeologists are in general agreement as to the location of at least the prehistoric sites. These sites were found on ridges, drainage bottoms, and in roads. The Legard and Miller survey has demonstrated Archaic or Late Prehistoric use (Sites 39LA249 and 39LA263) northwest of the reservoir. Historic sites were found in valleys, drainages, and along roads. There is probably evidence of mining activities (prospect holes and mining claim posts) that were observed but not recorded (Legard and Miller 1982).

Preliminary Research Designs. The Bear Butte Reservoir project is within the Black Hills unit (Buechler n.d.). Research topics for this unit would be appropriate to this proposed reservoir. Specific topics should also consider historic land use other than mining and how Fort Meade and Sturgis contributed to the settlement of this area.

Potential Impacts. The community of Boulder Creek would not be affected by the dam unless borrow areas were selected in the valley where there are buildings. There are at least three residences in the project area that would be inundated by the reservoir. Other impacts cannot be determined until additional fieldwork is conducted.

Recommendations. A reconnaissance survey of the entire pool and dam axis areas is recommended. All standing structures should be evaluated for possible nomination to the National Register of Historic Places.

CENTRAL REGION SUMMARY

The surface and subsurface water alternatives should not affect current properties eligible for or listed on the National Register of Historic Places. Pipeline routes were not identified in the USACE water supply study (USACE 1987). The surface alternatives have received various levels of the investigation for cultural resources. The proposed Elk Creek Reservoir was partially covered by earlier assessments and partial surveys. A portion of Whitewood Creek was surveyed. Rapid Creek, Brennan, Boxelder Creek Nos. 1 and 2, Bear Butte, and the well fields have not been intensively investigated for cultural resources. These earlier assessments and surveys have identified dozens of historic and prehistoric sites in or near the alternatives and pipeline routes. Literature and record searches by USACE archeologists have added additional historic sites for all the surface and subsurface alternatives. These observations were later confirmed by limited fieldwork by a USACE archeologist. The fieldwork also discovered one prehistoric artifact scatter at the Rapid Creek alternative. All of the known or suspected cultural resources are presented by project in Table 4.

Table 4
Historic and Prehistoric Sites for the Central Region Alternatives

<u>Project</u>	<u>Historic</u>	<u>Prehistoric</u>	<u>Total</u>
Blackhawk Well Field (Section 17, T. 2 N., R. 7 E.)	36	0	36
Boxelder No. 2	9	0	9
Rapid Creek	4	1	5
Bear Butte	4	0	4
Boxelder No. 1	4	0	4
Brennan Reservoir	1	0	1
Elk Creek	1	0	1
Whitewood Creek	1	0	1
Kadoka Well Field (Sections 25, 36, T. 25 N., R. 21 E.) (Sections 30, 31, T. 2 S., R. 22 E.)	0	1	1

Reservoirs and well drilling adversely affect cultural resources. The effects are much greater at reservoir sites. The proposed pipeline route should not have an effect upon surface or shallowly buried cultural resources. Primarily, because of earlier road construction in the right-of-ways. Deeply buried sites might be encountered during trenching activities along the highway right-of-ways. The number of sites or potential National Register properties will not be known until additional work is performed.

SOUTHWEST REGION

SHERIDAN LAKE

Location. Sheridan Lake is located below the confluence of Horse and Spring Creeks in Sections 1, 2, and 11-14, T. 1 S., R. 5 E. and Sections 7 and 18, T. 1 S., R. 6 E., southwest of Rapid City in Pennington County (figure 4).

Plan. A water supply reservoir with a flood pool elevation of 4623.5 feet m.s.l. would be maintained and would have an annual drawdown of 4 feet for water supply. We do not have a figure available for the number of acres exposed by a drawdown.

Literature and Records Search. Although there are a number of National Register properties in Pennington County, none are located near Sheridan Lake. When the dam was constructed in 1940, it inundated the town of Sheridan. The town was built in 1875 and, for a short time, was the county seat (Parker and Lambert 1974). The map used for this assessment was the 1954 Mount Rushmore quadrangle photo revised in 1971.

Previous Investigations. Previous surveys at the lake varied in size, intensity, quality, and experience. Land adjacent to the lake was first surveyed in the late 1970s. Professional and paraprofessional cultural resource surveys conducted around the lake as well as to the north, east, and south (Tratebas 1977, Popelish 1978, Slay 1979, Cassells and Miller 1982a; Lyon n.d. a and b, Sommers n.d., Lindstrom n.d. 2-d) have located isolated or small artifact scatters, homesteads, mines, smelters, and flumes. Only four sites were recorded close to the lake. They are an isolated aboriginal find (39PN168), a small aboriginal artifact locus (39PN106), segments to the Rockerville water supply flume (39PN17 and 39PN176), and a possible mining pit.

The initial survey was conducted around the North Cove. A single, small, unidentifiable aboriginal locus or campsite was found (Tratebas, 1977). USFS

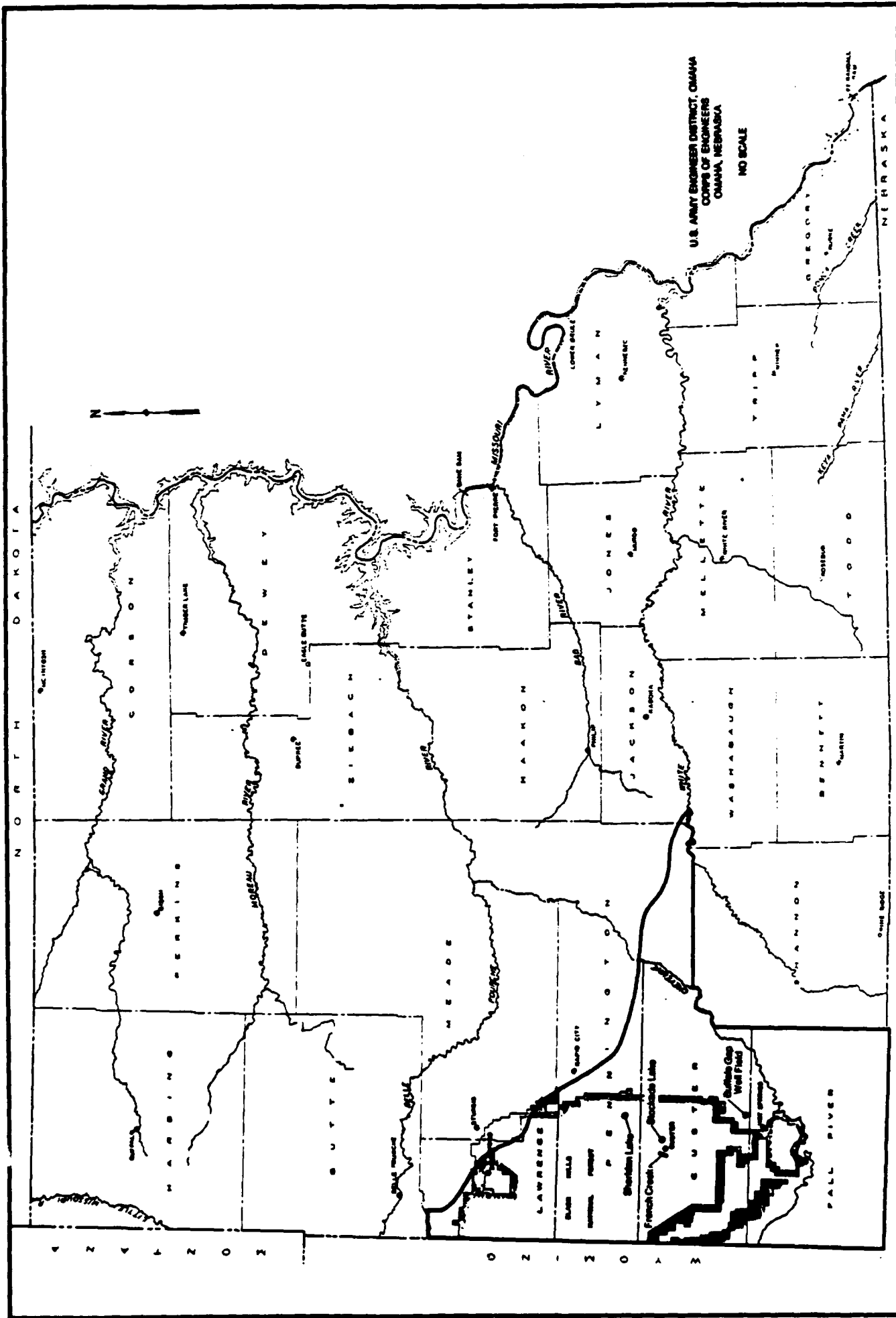


Figure A Southwest Region Water Supply Alternatives

archeologists and paraprofessionals next surveyed accessible land on the north, west, and south side of the lake. The survey of west and south timber lake locations (Lyon n.d.a) recovered an isolated retouched flake (39PN168) and identified two segments of one flume. Site numbers 39PN167 and 39PN176 were given to the segments which at one time made up the Rockerville flume. Construction on the flume began in 1878. When completed, the flume diverted water from Spring Creek to Rockerville Valley, 17 miles away. Within a decade after its construction, it ceased to function (Tallent 1974). Currently, the flume has three site numbers. It was recommended that only one number (39PN167) be assigned to the flume (Cassells and Miller 1982a). A paraprofessional survey on the north side failed to relocate site 39PN106, although possible mining pits were located somewhere in the vicinity of the campground and boat ramp (Sommers n.d.). The most recent survey (Cassells and Miller 1982b) covered several acres on the southwest section of the lake. It identified an additional section of the Rockerville flume and a possible early 20th century placer mine (the Buck Eye), which was patented in 1915.

All of the surveys were associated with Black Hills National Forest timber sales. The information obtained from these surveys is similar to other investigations conducted within this area of the Black Hills. Small artifact scatters or remains of activities associated with mining were encountered.

Data Gaps. Information is available for the project area from about A.D. 1875 to the present. Much of it has to do with mining and forest management. Prior to 1875, virtually nothing is known. The two aboriginal sites are probably temporally and spatially restrictive in the amount of data they contain. Very little information might be learned from them about the prehistory of the Sheridan Lake area.

Preliminary Research Designs. Sheridan Lake is in the Black Hills Study Unit of the State's archeological management plan (Buechler, n.d.). The research topics in the plan can be applied to sites near the lake. The following two

research topics relative to this area should be addressed first: (1) Why are there so few aboriginal sites recorded here? Is it due to high ground cover or terrain? (Cassells and Miller 1982a.); (2) What was the range of mining activities and how has it changed over the past century?

Potential Impacts. There are no plans to raise the pool level of Sheridan Lake. Impacts to the cultural resources at this lake would primarily involve disturbance associated with visitation and drawdowns.

Recommendations. Future surveys should be done during a drawdown. It is suggested that the USFS evaluate the Rockerville flume and site 39PN106 for possible nomination to the National Register of Historic Places.

STOCKADE LAKE

Location. Stockade Lake was built on French Creek in Sections 21, 22, 27, and 28, T. 3 S., R. 5 E., east of the town of Custer in Custer County (figure 4).

Plan. The pool elevation of 5169 feet m.s.l. and the annual pool drawdown of 4 feet for water supply will be maintained. We do not have a figure available for the number of acres exposed by a drawdown.

Literature and Records Search. All of the National Register properties in Custer County are located outside the Stockade Lake project area. In 1874, the Custer expedition made a reconnaissance survey of the Black Hills with the expedition passing west of the lake. During a short stay in the area by the expedition, gold was found near French Creek. Later that year, a group of miners erected a stockade for protection against the Indians west of the lake. French Creek was mined extensively until larger discoveries were made around Deadwood and Lead (Schell 1975). The map used for this assessment was the 1954 Custer quadrangle.

Previous Investigations. Essentially no information is available pertaining to cultural resource investigations at Stockade Lake. Only a single professional survey has been done adjacent to the project area (Cassells 1981). No prehistoric sites were recorded. The Bismarck Lake Dam and the Bob Marshall Forest Service Camp, built in 1936 and 1940, respectively, were noted in the report. Surveys in nearby sections have recorded largely historic homesteads and mines. Aboriginal sites are small (Eckles 1978).

Data Gaps. Documentary information for this area begins in 1874. Before that year, nothing is on record. Historic activities that can be documented would involve mining and prospecting into the 20th century. During the 1930s and 1940s, engineering evidence is shown by the construction of the dams

which created Stockade and Bismarck Lakes. Architectural evidence should be shown by the Bob Marshall Forest Service Camp, if extensive alterations were not made.

Preliminary Research Designs. Stockade Lake is located in the Black Hills Study Unit of the State's archeological management plan (Buechler n.d.). The research questions and goals for this lake should be oriented toward the historic use of the area. Research topics for this area should question the possibility of locating remnants of gold mining and prospecting activities from the 1870s. Another avenue to approach would be to determine if public use of the lake essentially destroyed all evidence of the past.

Potential Impacts. There are no plans in this study to raise the level of Stockade Lake. Disturbance to cultural resources are likely to result from visitation and drawdowns.

Recommendations. Future surveys should be done during drawdown. The Stockade Lake Dam, Bismarck Lake Dam, and Bob Marshall Forest Service Camp should be evaluated for possible nomination to the National Register by the USFS.

FRENCH CREEK

Location. This proposed reservoir would be constructed on French Creek in Sections 16, 19-22, and 28-30, T. 3 S., R. 4 E., west of the town of Custer in Custer County (figure 4). The dam axis would be placed in the NW1/4 of Section 28.

Plan. A water supply reservoir with a pool elevation of 5491 feet m.s.l. would be constructed and would cover 274 acres.

Literature and Records Search. None of the National Register properties currently eligible or listed in Custer County was found in the proposed project area. The 1874 Custer expedition camped several miles to the east. It was on French Creek where the expedition discovered gold (Frost 1979). In the years following the discovery, gold mining activities have probably disturbed all of the flood plain along the creek. The 1954 Berne quadrangle map shows a number of occupied and abandoned structures, including two mines. County patent records show filings in 1913 (James P. Sure), 1915 (several miners), 1917 (Joseph McMaster), 1918 (James P. McKenna), and 1936 (Peter J. Folsom).

Previous Investigations. A number of prehistoric and historic cultural resources are located within or adjacent to the estimated maximum flood pool. The Highland Lode and Minnie May Archaeological surveys (Eckles 1978, Miller 1979) identified aboriginal habitation sites, chipping stations, a butchering site, and loci. Historic homesteads, mines, sheds, and Custer's initials were also located. These two archeological surveys for the USFS have covered approximately 20 to 40 percent of the land that would be inundated by the proposed reservoir. Eckles' survey on the south side of French Creek identified an aboriginal locus (39CU278), a homestead (39CU284), and examined (39CU101) dredge tailings and footings.

The survey done by Miller on the north side did not identify any cultural resources. Both surveys failed to record historic structures and mines known to exist or that once existed in the survey tracts.

Data Gaps. Information available in county records and survey reports has clearly demonstrated that prehistoric and historic people have occupied the project area. The only information available concerning prehistoric use of the French Creek area is represented by a single undefined locus. It is possible that the prehistoric sites will be found on ridge slopes, knolls, and knoll tops within 100 meters of the stream or its tributaries. From 1874 to the present, written and physical evidence exists for exploration, mining, and homesteading. Historic sites will be generally found on valley floors, flood plains, and ridgetops also within 100 meters of a stream. The exception to this would be the location of the mines. It is believed that the French Creek valley was extensively mined over the last century and that there are probably no longer prehistoric sites in primary context. Loci or small artifact scatters might be found along the creek.

Preliminary Research Designs. This project is within the State's archeological management plan for the Black Hills Study Unit (Buechler n.d.). The research questions and goals for this unit would be appropriate to investigate in this area. Other research topics will need to investigate the impacts of mining on the valley and what changes occurred in the level of gold extraction and mining technology.

Potential Impacts. Presently, only historic structures are known to exist in the reservoir area. These would be inundated. The Highland Lode and Minnie May mines would be affected by shoreline erosion and possibly underground flooding if the dam were built. Additional investigations are required to determine impacts to other cultural resources.

Recommendations. All areas below the maximum flood pool which have not been surveyed will require a 100-percent reconnaissance investigation. Twenty percent of the area investigated by Miller should be reexamined. The historic structures and mines located during the Eckles survey and shown on the 1954 Berne quadrangle map should be evaluated for possible nomination to the National Register. Sections where homestead and mining patents were made also should be examined. Attempts to locate physical remains of mining equipment and to find Custer's initials should be made.

SOUTHWEST REGION SUMMARY

The surface and subsurface water alternatives should not affect current properties eligible for or listed on the National Register of Historic Places. Pipeline routes were not identified in the USACE water supply study (USACE 1987). The water supply alternatives have been studied at various levels during the investigation for cultural resources. The proposed French Creek reservoir has had from 40 to 50 percent of the pool area surveyed. Only a small fraction of the lands around Sheridan and Stockade Lakes were surveyed. The pipeline routes were partially covered by earlier assessments. The well field has not been investigated for cultural resources. These earlier assessments and surveys have identified historic and prehistoric sites in or near the proposed alternative sites and pipeline routes. Literature and records searches by USACE archeologists have added a single additional historic site for the subsurface alternative at Buffalo Gap well field. The observations of the surface alternatives were later confirmed by limited fieldwork by a USACE archeologist. All of the known or suspected cultural resources are presented by project in Table 5.

Table 5
Historic and Prehistoric Sites for the Southwest Region Alternatives

<u>Project</u>	<u>Historic</u>	<u>Prehistoric</u>	<u>Total</u>
French Creek	7	1	8
Sheridan Lake	3	2	5
Stockade Lake	4	0	4
Buffalo Gap Well Field (Secs 28, 33, T. 6 S., R. 7 E.)	1	0	1

Reservoir drawdowns and well drilling adversely affect cultural resources. Deeply buried sites will probably be encountered during trenching activities along the highway rights-of-way. The number of sites or potential National Register properties will not be known until additional work is performed.

SOUTH CENTRAL REGION

PINE CREEK

Location. The proposed reservoir would be constructed on Pine Creek and would involve Section 31, T. 42 N., R. 29 W.; Sections 5-6, T. 41 N., R. 29 W.; Section 36, T. 42 N., R. 30 W.; and Sections 1, 2, and 9-12, T. 41 N., R. 30 W., northwest of the town of White River in Mellette County (figure 5). The dam axis would cross the creek in the W1/2 of Sections 5 and 6.

Plan. A water supply reservoir with a pool elevation of 1636 feet m.s.l. would be constructed. We do not have a figure available for the number of acres proposed for inundation.

Literature and Records Search. As of 1985, there were no National Register properties documented in Mellette County. Patent records for existing structures shown on the 1982 provisional White River West and Murdo 3 SW quadrangle maps indicate early and mid-20th century acquisition. Two patents include earlier undated allotments to Native Americans. Table 6 lists the patentees and allottees.

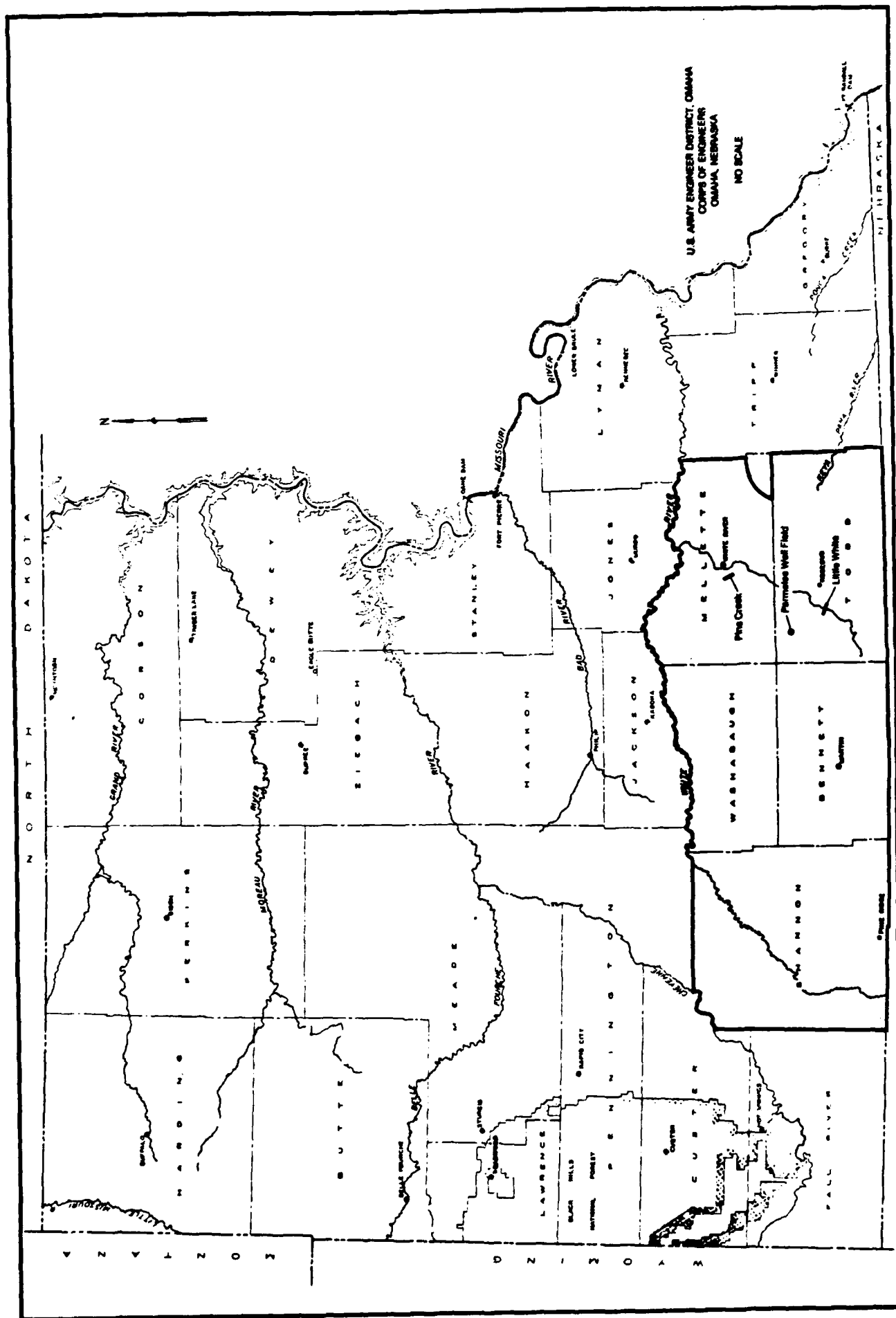
Table 6
Patentees and Allotments for the Pine Creek Project Vicinity

<u>Location</u>	<u>Name</u>	<u>Date</u>
Sec. 1, T. 41 N., R. 30 W.	T. F. Harrington	January 1912
	John E. Ryan	January 1916
	D. J. Ryan ^{1/}	December 1927
Sec. 10, T. 41 N., R. 30 W.	A. L. Mountain ^{2/}	November 1926
Sec. 11, T. 41 N., R. 30 W.	Noble Wicklund	December 1918

^{1/} D. J. Ryan's patent included land allotted to Brings Three White Horses.

^{2/} A. L. Mountain's patent included land allotted to Nellie Nora Henry.

Previous Investigations. Except for a brief visit by a USACE archeologist in 1983, the area has not been investigated for cultural resources. About



2 miles east of the proposed dam axis, a small survey for the White River was conducted at the Swift Bear Community Educational Resource Center (Buechler 1977). No cultural resources were observed. The 1983 visit was confined to the road that runs down the valley. No archeological sites were observed.

Data Gaps. Based on the two recorded allotments and subsequent patents, there is evidence that the proposed reservoir area was occupied continually from the late 19th century. No other information on the past history of the area is readily available.

Preliminary Research Designs. The Pine Creek alternative is located within the White River Badlands Study Unit of the State's archeological management plan (Buechler n.d.). The setting for this unit does not adequately describe the project area. The Lower White River Study Unit more accurately characterizes Pine Creek. The primary research goal pertinent to this project would be to collect basic information for the latter unit.

Potential Impacts. Two clusters of historic structures would be inundated by the reservoir. An abandoned building near the upstream end of the pool may be affected by a high water table. The higher water table would accelerate the eventual degradation of the structure. Additional fieldwork would be required to determine the impacts to all cultural resources in the project area.

Recommendations. The next phase of investigation should involve an archeological reconnaissance survey of the entire project area. In addition, the historic structures should be evaluated for possible nomination to the National Register of Historic Places.

LITTLE WHITE RESERVOIR

Location. The proposed reservoir would be located on the Little White River in Sections 3-6, T. 36 N., R. 32 W.; Section 1, T. 36 N., R. 33 W.; Sections 7-10, 14-18, 23, and 24, T. 36 N., R. 32 W. and Sections 7, 8, 12-17, and 21-23, T. 36 N., R. 33 W., southwest of the town of Rosebud in Todd and Bennett Counties (figure 5). The dam axis would be built in the SW1/4 of Section 3.

Plan. A water supply and recreation reservoir with a pool elevation of 2714 feet m.s.l. would be constructed and would cover 625 acres.

Literature and Records Search. In 1985, there were four National Register properties in Todd County and none in Bennett County. All those in Todd County were located outside of the proposed reservoir project within or near the towns of St. Francis and Rosebud. The 1969 Spring Creek quadrangle map shows three locations where there are historic buildings. Patent information could not be located for any of the structures. Because the project is on the Rosebud Indian Reservation, the lands associated with the buildings may be found under allotments to Native Americans. The project area may have been visited by an exploration party under the command of Lieutenant Gouverneur K. Warren in 1857 (Warren 1981). The route taken by Lieutenant Warren from Fort Laramie via the Black Hills to Fort Randall traversed several miles of the upper reach of the Little White River.

Previous Investigations. A small archeological reconnaissance survey was performed in the settlement of Spring Creek, approximately 2-1/2 miles east of the proposed dam axis. The survey was at the site of a proposed community educational resource center. No cultural resources were observed (Buechler 1977). In 1983, a USACE archeologist briefly looked at three locations in the project: the dam axis in the SW1/4 of Section 3 and two acres in the SE1/4 of Section 9. Some historic debris was noted in the vicinity of the dam axis.

Mr. Tom Frederick, Rosebud Conservation Officer, showed the archeologist a paleontological site (SW1/4, SE1/4, Section 9) where a mastodon or mammoth was excavated by geologists from the University of Minnesota. The elephant was originally exposed in a cutbank of the river. Some additional fossilized remains of the elephant were collected by the USACE archeologist. The second site (NE1/4, SE1/4, Section 9) is supposedly the location of a late 19th century military encampment. The Conservation Officer said that the U.S. Cavalry had dug rifle pits on a small hill when confronted by a hostile group of Indians. The soldiers were supposedly there 5 days. The site is called the Messiah War Camp. Shallow depressions, which were observed in 1983, were much deeper several years ago, according to Mr. Frederick. No artifacts were observed. Mr. Frederick also said that a university or college located near the Boston area had done some research into the site. The name of the institution could not be recalled.

Data Gaps. Very little solid evidence was found to clearly establish the occurrence of historic and prehistoric activities. Historic debris along the river may demonstrate continued use from the mid-19th century to the present. The historic structures may extend this knowledge back several decades.

Preliminary Research Designs. The State's archeological management unit for this project is the White River Badlands (Buechler n.d.). The research question and goals for this unit would involve early scientific investigations, changes in Sioux adaptation to a sedentary way of life, 19th century military activities, and evidence of Megafauna/Paleo Indian interaction.

Potential Impacts. The three historic structures shown on the topographic maps, the paleontological site, and the military encampment would be inundated by the reservoir. Other impacts to cultural resources cannot be determined until further investigations are conducted.

Recommendations. If this project is selected for additional work, it is suggested that 100 percent of the flood plain and 20 percent of the terraces be surveyed to identify cultural resources. Additional background research and onsite testing of the identified historic sites is also considered essential.

SOUTH CENTRAL REGION SUMMARY

The surface and subsurface water alternatives should not affect current properties eligible for or listed on the National Register of Historic Places. Pipeline routes were not identified in the USACE water supply study (USACE 1987). None of the alternatives have been intensively investigated for cultural resources. Literature and records searches have identified only historic and paleontological sites for the alternatives. Not enough surveys have been done in this region of South Dakota to make any statements regarding the identification of possible historic and prehistoric sites. Limited fieldwork by a USACE archeologist at the reservoir alternative sites identified six historic sites and visited the reputed location of another historic site. All of the known or suspected cultural resources are presented by project in Table 7.

Table 7
Historic and Prehistoric Sites for the South Central Region Alternatives

<u>Project</u>	<u>Historic</u>	<u>Prehistoric</u>	<u>Paleontological</u>	<u>Total</u>
Pine Creek	5	0	0	5
Little White River	4	1	1	6
Parmalee Well Field (Secs. 20, 29, T. 39 N., R. 31 W.)	1	0	0	1

Reservoirs and well drilling adversely affect cultural resources. The effects are much greater at reservoir sites. A proposed pipeline route should not have an effect upon surface or shallowly buried cultural resources because they would be located within highway right-of-ways. Deeply buried sites will probably be encountered during trenching activities along the highway rights-of-way. Additional work is needed at the alternative sites and pipeline route to identify the number of sites and potential National Register properties.

SOUTHEAST REGION

ROOSEVELT LAKE

Location. Roosevelt Lake was constructed on a tributary of Ponca Creek in Section 12, T. 97 N., R. 74 W., southeast of the town of Colome in Tripp County (figure 6).

Plan. The pool elevation of 2219 feet m.s.l. and the annual drawdown of 2.6 feet for water supply will be maintained. We do not have a figure available for the number of acres exposed by a drawdown.

Literature and Records Search. The two National Register properties in Tripp County are located in the town of Winner, many miles northwest of the lake. An early atlas of Tripp County places a building in the SW1/4 of Section 20 (Ogle 1915). Patent records indicate that a Farming and Grazing Lease was granted to a Lucy High Hawk. The building was probably razed, moved, or inundated when the Works Progress Administration built a dam in 1936, creating the lake. The dam was washed out in 1947 and repaired the following year (Marrone n.d.).

Previous Investigations. The only archeological investigation was a brief visit by a USACE archeologist in 1983. An area measuring 50 by 3 yards was walked between the spillway south to a boat ramp. Only recent historic debris was observed. Approximately one-half mile south of Roosevelt Lake, a larger survey covered over 160 acres (Haberman 1982). A single site (39TP19) with two stone cairns was found. The cultural affiliation was not determined. No other archeological investigations have been done in the vicinity of the lake.

Data Gaps. Except for the dam and evidence of recent hunting and fishing activities, earlier human use of the area is not apparent. The location of the building attributed to Lucy High Hawk is now covered by the waters of Roosevelt Lake.

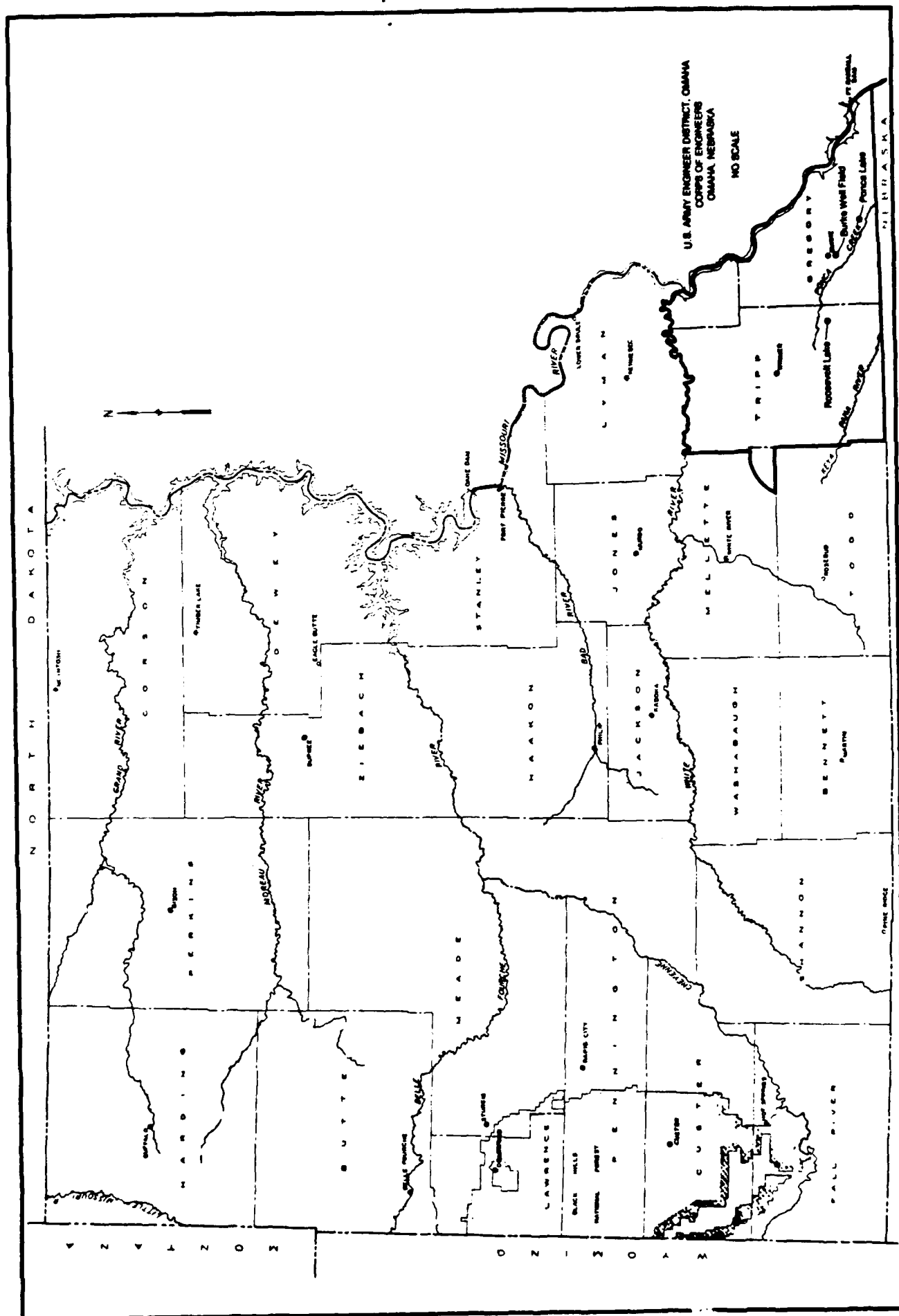


Figure 6. Southeast Region Water Supply Alternatives

Preliminary Research Designs. Roosevelt Lake appears to fall within the Sand Hills Study Unit of the State's archeological management plan (Buechler n.d.). This unit is an archeological unknown. Basic inventory and data collection are the goals for this unit and are also pertinent to the Roosevelt Lake project.

Potential Impacts. The plans for Roosevelt Lake do not involve raising the pool. Therefore, the impacts now occurring to cultural resources would be based on current land use and recreation activities.

Recommendations. A survey of the lake is not necessary because the pool will not be raised under the current alternative. The installation of an intake structure and pipeline system would require a survey.

PONCA LAKE

Location. Ponca or Indian Lake was built on Willow Creek, which is a tributary of Ponca Creek, in Section 8, T. 95 N., R. 70 W., southeast of the town of Herrick in Gregory County (figure 6).

Plan. The pool elevation of 1949 feet m.s.l. and the annual pool drawdown of 3.9 feet for water supply will be maintained. We do not have a figure available for the number of acres exposed by a drawdown.

Literature and Records Search. In 1985, there were only three National Register properties recorded for Gregory County. All were located many miles from the project area within or near the towns of Dallas, Dixon, and Pickstown. Ponca Lake (Indian Lake on the 1964 Herrick quadrangle maps) was built by the Works Progress Administration in the 1930s or early 1940s. An early atlas of Gregory County shows one building in the northern one-half of the section (Ogle 1912) in which the lake is now located. This half-section in the atlas indicates that Mr. Henry Milk occupied the residence. He did not receive a patent until May, 1919.

Previous Investigations. The only survey visit to the area has been by a USACE archeologist. In 1983, a narrow strip of land was walked near the crest of the hill on the eastern shore commencing at the northeastern end of the lake and ending at the spillway. No cultural resources were observed in the thick grass. Historic debris consisting of beer cans and fishing lure packages were scattered about.

Data Gaps. The only information that may be available would be associated with the dam and the Milk residence. The residence was still occupied in 1983. It is not known if this is the original structure occupied earlier in the century.

Preliminary Research Designs. Ponca Lake is in the same study unit as Roosevelt Lake (Buechler n.d.). The basic inventory and data collection needs will also apply here.

Potential Impacts. Plans for this lake would involve annual drawdowns which could expose previously unrecorded cultural resources. Impacts to such resources could not be determined without additional information. An intake structure is also planned to transport water along a pipeline.

Recommendations. The area along the shore should be completely inventoried for cultural resources during drawdowns. It would also include the site of the intake structure.

SOUTHEAST REGION SUMMARY

The surface and subsurface water alternatives and their associated pipeline routes should not affect current properties eligible for or listed on the National Register of Historic Places. Only the pipeline intake locations at Fort Randall Dam were thoroughly investigated for cultural resources (Hurt 1952; Zimmerman and Hannus 1976; Nowak 1979, 1980; Lueck 1981; Bambrey 1985; Lees, Brown and Mandel 1985). The pipeline routes may follow U.S. Highway 18 between Winner and Fairfax; section roads between the intake location east of Lucas and Burke and between the intake location at Scalp Creek and Bonesteel. Literature and records searches have identified only one historic site at the Burke well field. Except for the areas along the Missouri River, sufficient surveys have not been done in this region of South Dakota to make any statements regarding the identification of possible historic and prehistoric sites. Limited fieldwork of the surface alternatives was inconclusive. All of the known or suspected cultural resources are presented by project in Table 8.

Table 8
Historic and Prehistoric Sites for the Southeast Region Alternatives

<u>Project</u>	<u>Historic</u>	<u>Prehistoric</u>	<u>Total</u>
Ponca Lake	2	0	2
Roosevelt Lake	1	0	1
Burke Well Field (Secs. 5, 6, T. 96 N., R. 71 W.)	1	0	1

Drawdowns and well drilling will adversely affect cultural resources. The magnitude of the effect will depend upon the level of disturbance. The proposed pipeline routes should not have an effect upon surface or shallowly buried cultural resources. Deeply buried sites might be encountered during trenching activities along the road rights-of-way. Additional work is needed at the alternative sites and pipeline route to identify the number of sites and potential National Register properties.

CONCLUSIONS

Human activity in western South Dakota is documented for all major cultural periods: Paleo-Indian, Archaic, Woodland, Plains Village, and Historic. This documentation varies considerably for each cultural period as well as for drainage basins and specific landforms.

The variations arise from the location and level of cultural resource investigations. To date, most surveys and assessments have been performed along the Missouri River and its major tributaries in the Black Hills, the Custer National Forest, and the Buffalo Gap and Fort Pierre National Grasslands. Nearly all the surveys were sponsored by the Federal Government. The surveys in total covered thousands of acres. Many more very small scale surveys have been performed in areas scattered throughout western South Dakota. These were, in general, State or locally sponsored. Archeological excavation of sites identified during the surveys has provided important information about the major cultural periods.

Evidence for the various cultural periods in western South Dakota indicates that there are certain areas where a preponderance of sites for any period may be found. However, this may be only the result of our incomplete knowledge about western South Dakota. The few Paleo-Indian sites do not indicate a general pattern. Most of the Archaic sites have been found in the Black Hills and in the northwestern corner of the State. Woodland period sites identified by burial mounds and Plains Village occupations are located along the Missouri River. Evidence of Euro-American presence is found everywhere. These observations will certainly change as more areas in South Dakota west of the Missouri River are surveyed for cultural resources.

REFERENCES CITED

- American Atlas Company
1967 Atlas of Ziebach County, South Dakota. Bemidji, Minnesota.
- Artz, Joe Alan
1980 Cultural Resources of the West River Aqueduct: Literature Search and Preliminary Reconnaissance. South Dakota Archaeological Research Center. Contract Investigation Series 30. Submitted to CH2M-Hill, Incorporated.
- Bambrey, Lucy Hackett
1985 A Cultural Resources Survey for the Gregory County Pumped Storage Power Project, Gregory County, South Dakota. Gilbert/Commonwealth, Inc. Submitted to U.S. Army Corps of Engineers, Omaha District. Contract No. DACW45-84-M-0418.
- Beckes, Michael R. and James D. Keyser
1983 The Prehistory of the Custer National Forest: An Overview. U.S. Forest Service, Department of Agriculture.
- Buechler, Jeff
1977 An Archaeological Reconnaissance Survey of Eleven Proposed Construction Locations on the Rosebud Sioux Reservation in Gregory, Mellette, Todd, and Tripp Counties, South Dakota. Ms on file at the South Dakota Archaeological Research Center, Fort Meade.
- Buechler, Jeff (Draft)
n.d. Management Plan for Archaeological Resources in South Dakota. Part I: Study Units. Dakota Research Services, Rapid City. Submitted to the South Dakota Archaeological Research Center, Fort Meade.
- Cassells, E. Steve
1981 Cultural Resource Survey of the Bismarck Timber Sale, Custer District, Black Hills National Forest, South Dakota. Plano Archaeological Consultants. Submitted to U.S. Forest Service, Custer. Contract No. 43-82X9-0-1257.
- Cassells, E. Steve and Paul Miller
1982a Cultural Resource Survey of the Calumet Timber Sale, Pactola District, Black Hills National Forest, South Dakota. Plano Archaeological Consultants. Submitted to U.S. Forest Service, Custer.
- 1982b Cultural Resource Survey of the Runkle and Tilford Timber Sales, Nemo District, Black Hills National Forest, South Dakota. Plano Archaeological Consultants. Submitted to U.S. Forest Service, Custer. Contract No. 53-82X9-1-169.

Chevance, Nicholas and Therese C. Chevance

1983 The Archaeology of Harding County, South Dakota: A Summary of the First Season's Investigation. South Dakota Archaeological Research Center, Fort Meade. Contract Investigations Series 81. Submitted to the South Dakota Historical Preservation Center, Office of Cultural Preservation.

1984 The Archaeology of Harding County, South Dakota: The Little Missouri River Valley. South Dakota Archaeological Research Center, Fort Meade. Contract Investigation Series 105. Submitted to the South Dakota Historical Preservation Center, Office of Cultural Preservation.

Eckles, David

1978 Cultural Resources Survey of the Lake Road, Marble Quarry, North Custer, Streets, Thunderhead, and Wabash Timber Sales in the Central Black Hills. U.S. Forest Service, Black Hills National Forest, Custer.

Frost, Lawrence A. (editor)

1979 With Custer in '74, James Calhoun's Diary of the Black Hills Expedition. Brigham Young University Press, Salt Lake City.

Green, Jerome A.

1982 Slim Buttes, 1876. University of Oklahoma Press, Norman.

Groenfeldt, David and Linda Popelish

1978 Cultural Resources Survey of the Wild Irishman Timber Sale. U. S. Forest Service, Black Hills National Forest, Custer.

Haberman, Thomas W.

1982 Cultural Resources Survey of Three DOT Materials Pits in Tripp County, South Dakota. South Dakota Archaeological Research Center. Contract Investigation Series, 63. Submitted to South Dakota Department of Transportation.

Haug, James K.

1978 Cultural Resources Survey of Proposed Drill Sites in Northwestern South Dakota. South Dakota Archaeological Research Center. Submitted to Union Carbide Corporation.

Hurt, Wesley R., Jr.

1952 Report of the Investigations of the Scalp Creek Site (39GR1) and the Ellis Creek Site (39GR2), Gregory County, South Dakota. Archaeological Studies, Circular No. 4, South Dakota Archaeological Commission.

Keller, Steve and Renee Keller

1984 Belle Fourche River Project Western Butte County, South Dakota, 1984. South Dakota Archaeological Research Center. Contract Investigations Series, 144-I. Submitted to Historic Preservation Center.

Lazio, Joseph G.

- 1980 Cultural Resources Survey of the Proposed Tri-County Water Association Domestic Water Supply System: The Cheyenne River Indian Reservation, Dewey and Ziebach Counties, South Dakota. Submitted to the Tri-County Water Users Association.

Lees, William B., Marie E. Brown and Rolfe D. Mandel

- 1985 Cultural Resources Reconnaissance along the Lower West Bank of Lake Francis Case in Gregory and Lyman Counties, South Dakota. Office of Archeological Research, University of Kansas Submitted to the U.S. Army Corps of Engineers, Omaha District. Contract No. DACW45-83-C-0236.

Legard, Carol and Sylvia Miller

- 1982 An Archaeological Survey of Four Timber Sales in the Northern Black Hills National Forest, South Dakota. Pioneer Archaeological Consultants, Inc. Submitted to U.S. Forest Service, Lakewood. Contract No. 53-82X9-2-074.

Lindstrom, Carl

- n.d.a Boulder Park Bug Sale. U.S. Forest Service, Black Hills National Forest, Deadwood.
- n.d.b Red Hill Bark Beetle and Timber Sale. U.S. Forest Service, Black Hills National Forest, Deadwood.
- n.d.c Lost Gulch Bark Beetle Sale (Nemo). U.S. Forest Service, Black Hills National Forest, Deadwood.
- n.d.d Commissary-Balser Timber Sale. U.S. Forest Service, Black Hills National Forest, Custer.

Lueck, Edward J.

- 1981 An Extensive Search and Review of the Existing Literature to Identify Historic and Prehistoric Cultural Resources for the Proposed Gregory County Pumped Storage Facility Area, Gregory County, South Dakota. Cultural Resources Consulting Services. Submitted to U.S. Army Corps of Engineers, Omaha District. Contract No. DACW45-81-M-1750.

Lyon, Bruce W.

- n.d.a Sheridan Lake Complex - Timber Sale. U.S. Forest Service, Black Hills National Forest, Custer.
- n.d.b Burnt Ranch Timber Sale. U.S. Forest Service, Black Hills National Forest, Custer.

Marrone, Gary

- n.d. Roosevelt Lake, Tripp County. South Dakota Department of Game, Fish and Parks, Pierre.

- Miller, Paul V.
1979 Cultural Resources Survey of the Bull Springs, Sourdough, and West Custer Timber Sales. U.S. Forest Service, Black Hills National Forest, Custer.
- Nowak, Timothy K.
1979 Preliminary Cultural Resources Investigation of Six Potential Pumped-Storage Facilities for the Lake Sharpe and Lake Francis Case Projects, South Dakota. U.S. Army Corps of Engineers, Omaha District.

1980 Cultural Resources Inspection of Drill Locations for Gregory County Pumped Storage Site. U.S. Army Corps of Engineers, Omaha District.
- Ogle, Geo. A. and Company
1912 Standard Atlas of Gregory County, South Dakota. New York.

1915 Standard Atlas of Tripp County, South Dakota. Chicago.
- Parker, Watson and Hugh K. Lambert
1974 Black Hills Ghost Towns. Swallow Press, Chicago.
- Pioneer Atlas Company
1982 Ziebach County Atlas. Dupree, SD.
- Poplish, Linda
1978 Cultural Resources Survey of the North Sheridan Lake and Calumet Timber Sales, Pactola District, Black Hills National Forest, South Dakota. South Dakota Archaeological Research Center. Submitted to U.S. Forest Service, Custer.
- Schell, Herbert S.
1975 History of South Dakota (3rd ed.) University of Nebraska Press, Lincoln.
- Sigstad, John S.
1972 An Archaeological Survey of the Centennial Prairie Area. Lawrence County, South Dakota. South Dakota Archaeological Commission.
- Slay, John D.
1979 Cultural Resources Survey of Selected Areas on Calumet Ridge, Pennington County, South Dakota. Black Hills National Forest. Submitted to Dural Corporation, Tucson.
- Sommers, Cliff
n.d. Burnt Ranch Timber Sale Annex. U.S. Forest Service, Black Hills National Forest, Custer.

- Tallent, Annie
 1974 The Black Hills or the Last Hunting Grounds of the Dakotas.
 Brevet Press.
- Tratebas, Alice
 1977 A Cultural Resources Survey of North Core, Jenny Gulch and Pactola Campgrounds, Pactola District, Black Hills National Forest. South Dakota Archaeological Research Center. Submitted to U.S. Forest Service, Custer.
- 1978 Archaeological Surveys in the Black Hills National Forest, South Dakota, 1975-1977. South Dakota Archaeological Research Center. Submitted to U.S. Forest Service, Custer.
- U.S. Army Corps of Engineers (USACE)
 1982 Engineering Regulation (ER) 1105-2-50. Planning, Environmental Resources. Department of the Army. Washington, D.C.
- 1987 Western Dakotas Region of South Dakota Water Resources Study. Missouri River Division, Omaha District.
- Warren, Lieut. G. K.
 1981 Preliminary Report of Explorations in Nebraska and Dakota, in the Years 1855-'56-'57. Reprinted. Engineer Historical Studies, Number 2. Originally published 1875, Government Printing Office, Washington, D.C.
- Wedel, Waldo R.
 1953 River Basin Survey Papers, No. 2, Prehistory and the Missouri Valley Development Program, Summary Report on the Missouri River Basin Archaeological Survey in 1949. Bureau of American Ethnology, Bulletin 154.
- Zimmerman, Larry and L. Adrian Hannus
 1976 Cultural Resources Reconnaissance of a Proposed Pumpback Hydro-Power Storage Site Located in Gregory County, South Dakota. University of South Dakota. U.S. Army Corps of Engineers, Omaha District, Contract No. DACW45-76-M-1683.

Appendix
Correspondence



SOUTH DAKOTA HISTORICAL SOCIETY
State Archaeological Research Center

April 4, 1988

Richard P. Miner
Chief, Economics and
Social Analysis Branch
Planning Division
U.S. Army Corps of Engineers
Omaha District
1612 USPO and Court House
Omaha, NE. 68102-4978

RE: Richard E. Berg

Dear Rich:

As we discussed on the telephone this A.M., there have been additional cultural resource surveys and site recordings since your initial request to complete "An Assessment of Cultural Resources for Proposed Water Supply Projects in Western South Dakota". I will list the additions and or corrections by project name.

BOXELDER CREEK NO. 1 Haug, October 6, 1986, inspection of a quarry for Hills Material, recorded 39PN804 in Section 30, no report.

BOXELDER CREEK NO. 2 Haug, 1986, inspection of a shale pit for South Dakota Concrete. R. Alex SW $\frac{1}{4}$ of Section 1, letter report and the Rapid City NW quad was revised in 1971.

ELK CREEK In 1985 Tim Church, etl, from this office surveyed the Vanocker Canyon Road between Meade County and Lawrence County. 39MD145 was recorded during this survey and is considered eligible to the National Register by CDOE. This site is in Section 17.

BEAR BUTTE RESERVOIR 39LA3 is in Section 13, SW $\frac{1}{4}$. This site was recorded by Gant and investigated by Alice Tratebas with a field school, no formal report was written, but an article was put in the archaeological newsletter. There also is a small housing development in the area.

SHERIDAN LAKE A couple of years ago Lance Rom and myself got together and grouped the sites belonging to the Rockerville Flume and designated the flume site number 39PN377. The forest service recorded some more sites in the area when they were surveying for a trail.

STOCKADE LAKE Eight additional surveys have been reported within this area. Buechler, 1987, Stockade Lake Bridge, Determined Eligible; Chevance, N. 1986; Lennon, 1984; Chevance, T. 1987; Cassells, 1981; Symes, 1977; Brooks, 1987; Sites recorded consist of 39CU861, 39CU817, 39CU741.

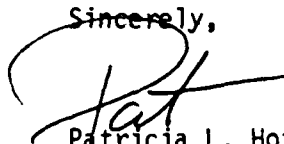
April 4, 1988
Richard Berg
Page 2

FRENCH CREEK Six additional surveys have been conducted within this area. Buechler, 1986; Rom, 1985; Moore, 1977; Miller, 1980; Eckles, 1978; Rom, 1986.

Rich, I went through these areas rather fast. If you feel it necessary for a more extensive search or need copies of the reports I have mentioned just give me a call or jot a note.

It was nice talking to you on Monday.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Pat', with a large, sweeping loop at the end.

Patricia L. Hofer
Senior Secretary



SOUTH DAKOTA HISTORICAL SOCIETY
State Historical Preservation Center

April 15, 1988

Mr. Richard P. Miner
Economics and Social Analysis Branch
Planning Division
U.S. Army Corps of Engineers
1612 U.S. Post Office and Courthouse
Omaha, Nebraska 68102-4978

TECHNICAL ASSISTANCE

Project: 880315003F -- Assessment of Proposed Water Supply Projects (CORPS)
Location: Hughes County

Dear Mr. Miner:

I am in receipt of the report "An Assessment of Cultural Resources for Proposed Water Supply Projects in Western South Dakota," by Richard E. Berg, dated November 1987. Based on information in the report, the Historical Preservation Center makes the following determination, in accordance with Section 106 of the National Historic Preservation Act of 1966:

I note that no Federal action is planned at this time. Should such projects be undertaken, portions of the proposed project areas will require cultural resources surveys.

Please contact Jim Wilson at the Center for further information or assistance. Your concern for the protection of the heritage of our state is appreciated.

Sincerely,

Jim Wilson
JR

J. R. Fishburne
State Historic Preservation Officer

cc: Dr. Robert Alex. State Archaeologist, Rapid City, SD

DWF/dwf