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BUREAU OF LAND MANAGEMENT  
MONTANA STATE OFFICE SUPPLEMENT  
MANUAL TRANSMITTAL SHEET

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Subject 8143 - AVOIDANCE AND/OR MITIGATION OF  
ADVERSE EFFECTS TO CULTURAL PROPERTIES

1. Explanation of Material Submitted: This Manual Supplement provides direction to fulfill the Bureau's responsibility to protect cultural resources from adverse effects caused by proposed land uses pursuant to Section 106 of the National Historic Preservation Act and the regulations of the Advisory Council on Historic Preservation. This release establishes Montana BLM Manual Supplement 8143 and incorporates the following:

- a. Terminology and references consistent with the 1986 changes in the 36 CFR 800 regulations.
- b. Specific guidance on cultural resource compliance relating to oil and gas operations, mining activities regulated at 43 CFR 3809, and coal leasing is contained in Appendices 1, 2, and 3.
- c. Guidance on Bureau responsibility for cultural resources on non-Federal lands is clarified in line with Washington Office policy.
- d. The Memorandum of Agreement for North Dakota, Memorandum of Understanding for Montana, and the Programmatic Agreement on State Land Exchanges in Montana (each affecting specific areas of cultural resource protection policy) are attached as Appendices 4, 5, and 6.

- 2. Reports Required: None.
- 3. Material Superseded: None.
- 4. Filing Instructions: File as directed below.

REMOVE

None

INSERT

8143

(Total: 58 Sheets)

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State Director

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1. Guidelines for the Protection of Cultural Resources Specific to Oil and Gas Activities
2. Guidelines for the Protection of Cultural Resources Specific to Mining Operations Regulated by 43 CFR 3809
3. Guidelines for the Protection of Cultural Resources Specific to Coal Planning, Exploration, Leasing and Development
4. Memorandum of Agreement Between the Department of Interior, Bureau of Land Management and the State of Montana, Montana Historical Society, State Historic Preservation Officer, Regarding Certain Cultural Resource Inventories
5. Memorandum of Agreement Between the Department of Interior, Bureau of Land Management and the State of North Dakota, State Historical Society of North Dakota, State Historic Preservation Officer, Regarding Certain Cultural Resource Inventories
6. Programmatic Agreement on Consultation Responsibilities for State Land Exchanges within Montana
7. A Cultural Resource Survey Plan for the Glaciated Prairie Region of Northern Montana
8. Guidelines for Compliance with and Preparation of Section 106 Compliance Documentation

Bibliography

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.01 Purpose. These procedures provide direction to fulfill the Bureau's responsibility to prevent inadvertent adverse effects caused by proposed land uses, pursuant to Section 106 of the National Historic Preservation Act and the regulations of the Advisory Council on Historic Preservation (36 CFR 800).

.02 Objectives. The objectives of this Manual Supplement are to:

A. Minimize conflicts between cultural resources and other land uses of the public lands.

B. Give full consideration to cultural resources in all land use and management decisions.

C. Avoid inadvertent damage to or destruction of cultural resources located on either Federal or, where appropriate, non-Federal lands.

D. Provide for appropriate mitigation of adverse effects on cultural resources prior to their injury or destruction.

.03 Authority. (See Manual Section 8100.03 and Bibliography.)

.04 Responsibility. (See Manual Section 8100.04.)

A. State Director is responsible for directing the implementation of the Cultural Resource Management Program within State Office jurisdiction, including developing policy for the identification of Bureau undertakings, and statewide standards for cultural resource inventory, evaluation, and treatment.

B. District Manager is responsible for overall direction of the Cultural Resource Program at the District level.

C. Area Manager is responsible for making final decisions concerning cultural resource inventory, evaluation and treatment, and for ensuring potential effects of all Bureau undertakings (generally, surface-disturbing land use activities) on cultural resources are adequately considered prior to making land use decisions. The Area Manager is responsible for ensuring coordination and documentation requirements under cultural resource laws and regulations are satisfied. He/She is also responsible for reviewing identification, evaluation and treatment recommendations to ensure reasonableness, proper documentation and adequate justification.

D. Cultural Resource Specialist is responsible for advising managers about specific cultural resources conflicts with various land use activities; developing a full range of reasonable and justifiable alternatives for inventory, evaluation and treatment of cultural resources potentially affected by land use activities; and preparing (or technically reviewing) reports, records, etc., needed for adequately documenting the compliance process.

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.05 References. (See BLM Manual)

.06 Policy. Montana policy for Cultural Resource Management is to:

A. Adequately identify and evaluate cultural resources which may be affected by a proposed land use.

B. Take into account the effects of proposed land uses upon cultural resources and take reasonable precautions to ensure these land uses do not inadvertently impact cultural resources.

C. Where possible and feasible, plan, locate, and/or design Bureau land use activities to avoid adversely affecting cultural resources.

D. Through inventory, detailed recording, data recovery or other means, mitigate adverse effects on cultural resources caused by proposed land uses when avoidance of cultural resources is not feasible.

E. Afford consideration and protection (including avoidance and mitigation) to cultural resource properties at a level commensurate with their significance.

.07 File and Records Maintenance. All records relating to 8143 must be maintained and disposed of in accordance with the BLM retention and disposition schedule 16, Item 2 (see BLM Manual 1272).

.08 Relationships to Other Bureau Programs.

A. Relationship to Land Use Activities. The procedures and policies set forth in this manual supplement are generally appropriate to all land use activities whether initiated by the BLM or land use applicants. Specific directions relating to oil and gas operations, locatable minerals management, and the coal program, are contained in Appendices 1 through 3 of this Manual Supplement.

B. Relationship to Benefitting Subactivities. The cost of cultural resource inventory, evaluation, and treatment related to land use activities as described in the manual supplement shall be paid by the subactivity which is responsible for initiating, reviewing, regulating, authorizing, implementing, or otherwise overseeing the proposed land use activity. Cultural resource work in such situations is considered a support function for other programs which is required for compliance with various laws and regulations.

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C. Relationship to Other Cultural Resource Program Guidance. Procedures and policies in this manual supplement are intended to supplement and clarify rather than repeat relevant laws and regulations. Further details on the Section 106 compliance process can be found in 36 CFR 800, 36 CFR 63, and 36 CFR 60; these regulations shall take precedence over this manual supplement. When Memoranda of Agreement (MOA) among the Bureau, the State Historic Preservation Officer (SHPO), and Advisory Council on Historic Preservation (ACHP) are executed, such agreements shall take precedence over this manual supplement and may also supplement regulations where the agreement so states. See Appendices 4 and 5 for Programmatic Agreements between the Montana BLM and the SHPOs in Montana and North Dakota on general compliance responsibilities and roles; Appendix 6 for a Programmatic Agreement with the Advisory Council concerning land exchanges with the State of Montana; and Appendix 7 for a specific instance of modified cultural property identification measures for the northern Montana Hi-Line area.

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.1 Determining the Applicability of the Manual Supplement. These procedures for ensuring compliance with Section 106 of the National Historic Preservation Act (NHPA) shall be followed whenever the Bureau either plans or makes a decision to authorize a ground disturbing land use (termed an "undertaking" in the 36 CFR 800 regulations). The procedures protect cultural resources through the consideration of alternatives to a planned federal undertaking, a process which requires consultation with other agencies. If the Bureau has no discretion in the occurrence of a land use on federal lands, the procedures do not apply and Section 106 compliance is not required, although other legislation may be appropriately used to protect cultural resources.

.11 Federal Undertakings. The NHPA is invoked in the event of a federal undertaking (see Glossary). Within the Bureau, undertakings generally are classed as "land uses."

.12 Effect on Cultural Resources. The NHPA Section 106 compliance process is followed in the event the undertaking has the potential to cause changes in the character or use of cultural properties. Land use decisions, therefore, which do not have the potential to affect cultural properties are not considered "federal undertakings" as defined in the Section 106 regulations (36 CFR 800) and are not subject to the procedures in this manual supplement.

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.2 Inventory and Evaluation.

.21 Determination of Field Inventory Needs.

A. Land Uses Affecting Cultural Properties. When it has been determined that a proposed land use might affect cultural properties, the authorized officer or his designee shall determine the area of potential effects of the proposed land use, the adequacy of existing inventory information pertaining to that area, and the type of further inventory needed, if any. The SHPO shall be consulted in making these determinations (see 36 CFR 800.4).

B. Class and Intensity of Inventory. The authorized officer shall ensure that the class and level of intensity of inventory is commensurate with the proposed land use, the planning stage at which inventory takes place, and the predicted nature and distribution of cultural resources.

C. Bureau Responsibility on Non-Federal Lands. The Bureau shall limit its responsibilities for inventory, evaluation, and protection of cultural properties on non-Federal lands according to the degree to which Bureau decisions determine or control the location of surface-disturbing activities on those lands.

1. Where the exact location of potential surface disturbance is dependent on, integrally related to, or directly associated with a Bureau decision, so that the Bureau decision would foreclose locational alternatives for surface-disturbing activities on non-Bureau lands, the Bureau shall be accountable for effects on cultural properties on lands clearly affected by the decision.

2. Where a Bureau decision would leave such locational alternatives open, the Bureau shall take into account only those potential effects on cultural properties on non-Bureau lands that are reasonably attributable to the Bureau decision.

3. Where the Bureau has been assigned to act as lead agency in the environmental review of a proposed land use which would affect lands under other jurisdiction or ownership, the Bureau's accountability may be determined to extend to the entire project, and the Bureau's responsibility may be found not to be limited as described in .21C through .21C2.

4. Where public lands administered by BLM are involved in a proposed land use for which the environmental review lead rests with another agency, the Bureau shall not be concerned with effects beyond the boundaries of the BLM-administered public lands.

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.22 Field Inventory Waivers.

A. Waiver by Authorized Officer. Field inventory requirements may be waived by the authorized officer under certain conditions.

B. Regulatory Limitations on Authorized Officer. The authorized Officer must confer with the SHPO before deciding if an inventory is necessary to identify cultural properties within the area of potential effects (see 36 CFR 800.4(b)).

C. Conditions Under Which Field Inventory May Be Waived. Field inventory may be waived for any part of the area of potential effects for which one or more of the following conditions exist:

1. Previous natural ground disturbance has modified the surface so extensively that the likelihood of finding cultural properties is negligible.

2. Human activity within the last 50 years has created a new land surface to such an extent as to eradicate locatable traces of cultural properties.

3. Existing Class II or equivalent inventory data are sufficient to indicate that the specific environmental situation did not support human occupation or use to a degree that would make further inventory information useful or meaningful.

a. Previous inventories must have been conducted according to current professionally acceptable standards.

b. Records must be available and accurate, and must document the location, methods, and results of the inventory.

c. Class II "equivalent inventory data" should include an adequate amount of acreage distributed across the same specific environmental situation which is actually located within the study area.

4. Inventory at the Class III level of intensity has previously been performed, and records adequately documenting the location, methods, and results of the inventory are available. Such previous inventories must have been conducted according to current professionally acceptable standards.

5. Natural environmental characteristics are unfavorable to the presence of cultural properties (such as recent landslides or rockfalls).

6. The nature of the proposed action is such that no impact can be expected on significant cultural resources.

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.23 Inventory Procedures. If need for an inventory has been established, a Class III inventory will generally be conducted in the area of potential affects. The authorized officer may determine that an alternative inventory technique(s) is appropriate. Cultural resource inventories shall be conducted according to standards set forth in Manual Section 8111.

.24 Evaluation.

A. Use Categories and National Register Criteria. Cultural resources shall be evaluated according to Bureau use categories as defined in BLM Manual Supplement 8111. The National Register criteria (36 CFR 60) shall be interpreted through or with reference to Bureau use categories.

1. Statements of use must be consistent with recommendations of National Register eligibility.

2. Cultural resources must be evaluated in a regional context considering existing information and the results of previous treatment of similar resources elsewhere in the region.

3. Evaluation recommendations must provide a clear basis for management decisions on eligibility and must form an adequate foundation for formulating treatment proposals.

B. Use of Testing. Subsurface testing of cultural properties may be necessary to evaluate overall significance and to assess the degree of potential effects. Test excavations may need to extend beyond the area of proposed impact.

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.3 Treatment. If the proposed land use has the potential for affecting the characteristics which contribute to the use(s) determined appropriate for the cultural property, or the qualities which qualify the cultural property for the National Register, treatment should be considered and implemented where necessary.

.31 Treatment Types.

A. Avoidance. The preferred strategy for treating potential adverse effects on cultural properties eligible to the National Register is avoidance. If avoidance involves project relocation, the new project area may require cultural resource inventory and evaluation.

B. Mitigation. If avoidance is imprudent or infeasible, recommendations should include a range of alternative treatments. Mitigation proposals may include data-recovery, stabilization, monitoring, protective barriers and signs, or other physical and administrative measures. Mitigation proposals along with other required documentation shall be submitted to the SHPO and also to the ACHP, as appropriate, according to the procedures identified in 36 CFR 800.4 through 800.9.

1. Data recovery plans should define research topics and discuss data collection priorities related to the use(s) and/or significant qualities of specific cultural properties or types of cultural properties. The proposed work, including field methods and analysis techniques, should be justified in terms of the data recovery objectives. Proposals must include consideration of conservation and collections management.

2. If physical or administrative protection measures are recommended, proposals should include a feasibility justification and specifications.

.32 Recommendations. Treatment recommendations should be commensurate with the nature and significance of the involved cultural resources and the extent of possible impacts. Proposed treatment should be cost-effective and realistic and should consider project requirements and limitations. Treatment recommendations must be Bureau-approved or Bureau-formulated and based on the alternatives developed during the consultation process.

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.4 Documentation and Consultation.

.41 Reports. Reports documenting the results of cultural resource inventory and evaluation and setting forth treatment alternatives should be written according to standards contained in Manual Section 8111 and Montana Manual Supplement 8111. These reports should provide sufficient information for conducting Section 106 consultation (See Appendix 7). Reports completed by consultants shall be reviewed by the appropriate Bureau cultural resource specialist for adequacy.

.42 Consultation Responsibilities and Management Decision.

A. Absence of Cultural Properties. If no cultural properties are located within the area of potential effects, the authorized officer shall document this fact and proceed without further consideration of cultural properties under this Manual Supplement. Reports documenting the absence of cultural resources shall be submitted to the SHPO in accordance with regulatory requirements found at 36 CFR 800.5(d), unless more specific requirements apply (for example, see reporting requirements in the MOU with the Montana SHPO - Appendix 4).

B. Presence of Cultural Properties. If cultural properties are discovered within the area of potential effects, their cultural resource use and eligibility for inclusion in the National Register of Historic Places shall be determined (36 CFR 63). The authorized officer shall apply the National Register eligibility criteria (36 CFR 60.4) and develop the data called for in those regulations.

C. Consultation. If National Register or eligible cultural properties are located within the area of potential effects and cannot be avoided, then the authorized officer shall seek ways to mitigate the undertakings effect on cultural properties through the consultation process. Further details on this process are contained in 36 CFR 800 and in Appendix 8. Specific modifications to this process are described in the Programmatic Agreement in Appendix 6 of this manual supplement.

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.5 Implementation. Mitigation measures shall be implemented according to a mitigation plan approved by the Bureau's authorized officer.

.51 Mitigation.

A. Mitigation Plans. Mitigation plans shall be reviewed and implemented as part of the Section 106 consultation process.

B. Data Recovery Reports. The results of data recovery activities shall be documented in a report meeting professional standards. Data recovery reports should include:

1. Brief summary of the project background and scientific context of work conducted.

2. Description of fieldwork, analysis techniques, and results. Topographic site maps, artifact drawings, stratigraphic profiles shall be included as part of the main body of the document.

3. Interpretation of data and conclusions.

4. Suggestions for future evaluation and treatment of similar cultural properties.

5. Recommendations for future research directions.

6. Appendices, as appropriate, on special studies or analyses, and other graphics, plus certification of curation of recovered materials.

.52 Previously Undiscovered Cultural Properties. If previously undiscovered cultural properties are located during surface-disturbing activities, project personnel must report these properties to the project supervisor. The project supervisor shall halt surface disturbance affecting the cultural properties and shall notify the Bureau authorized officer of the conflict between the project and the cultural properties. The authorized officer shall require that the discoveries be recorded and evaluated (according to Manual Section 8111) as soon as possible in order to avoid project delays. Such discoveries are subject to Section 106 consultation pursuant to 36 CFR 800.11.

8143 — AVOIDANCE AND/OR MITIGATION OF ADVERSE  
EFFECTS TO CULTURAL PROPERTIESGlossary of Terms

-A-

Advisory Council on Historic Preservation (ACHP): The Advisory Council was established by the National Historic Preservation Act of 1966 (NHPA) and is a separate Executive Branch agency, responsible directly to the President. The Council has advisory powers only, and does not have decisionmaking authority over Bureau undertakings. The NHPA requires that the ACHP be provided an opportunity to comment on federal undertakings which may affect National Register or eligible properties. The Council was empowered by the NHPA to write regulations (36 CFR 800) which established a consultation process that strongly encourages federal agencies to avoid impacting historic properties.

area of potential effects: generally, the area directly affected by a project or undertaking, including both primary and ancillary facilities, and the area affected by indirect impacts.

authorized officer: any employee of the Bureau of Land Management who has been delegated the authority to perform the duties described in this manual supplement.

avoidance: preventing a potential adverse effect from occurring by the partial or complete redesign or relocation of a proposed land use.

-C-

cultural property: any definite location of past human activity, occupation, or use, identifiable through field inventory (survey), historical documentation, or oral evidence; includes archaeological, historic or architectural sites, structures, or places, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups, whether or not represented by physical remains. Cultural properties are concrete, material places and things that are managed through the system of inventory, evaluation, planning, protection, and utilization described in Bureau manuals.

cultural resource value: any cultural property, including records and physical remains related to such property, as well as any traditional lifeway value.

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-D-

data recovery: with regard to cultural properties, the professional application of scientific techniques of controlled observation, contextual measurement, controlled collection, excavation, and/or removal of physical remains, including the analysis, interpretation, explanation, reporting and curatorial safeguarding of recovered remains, and associated records in an appropriate public repository; with regard to traditional lifeway values, the collection of historical and/or anthropological data, such as oral histories, genealogies, folklore, and related data.

determination of effect: the initial determination made by the Bureau, in consultation with the SHPO, as to whether or not a proposed action will alter the characteristics of a cultural property that may qualify the property for inclusion in the National Register of Historic Places. If no effect is determined, no further consultation is required. If an effect is identified, it must be either adverse effect (i.e., will result in damage to or deterioration of the National Register qualities of the property) or no adverse effect (i.e., will not result in damage to or deterioration of the National Register qualities of the property). Determination of effect is guided by criteria in the regulations of the Advisory Council, 36 CFR 800.9.

determination of eligibility: initial determination by the Bureau in consultation with the SHPO as to whether or not a property meets the criteria for inclusion in the National Register of Historic Places (36 CFR 60) and is thereby subject to procedures under 36 CFR 800. Formal determinations are made by the Secretary of the Interior through the Keeper of the Register (see 36 CFR 63).

-E-

effect: any change in the characteristics which contribute to the use(s) determined appropriate for a cultural resource, or to the qualities which qualify a cultural property for the National Register. Determination of effect to cultural properties is guided by criteria in the regulations of the Advisory Council, 36 CFR 800.9.

evaluation:

1. with regard to BLM planning, the process of determining the public and scientific use potential of cultural resources through: (a) the analysis of cultural resource inventory data, (b) the application of professional judgment to identify characteristics contributing to possible uses, and (c) the recommendation of appropriate uses. (For definitions of use categories, see Montana Manual Supplement 8111.)

2. with regard to the National Register of Historic Places, the application of the National Register eligibility criteria, 36 CFR 60.4, in consultation with the State Historic Preservation Officer. Evaluations are carried out by cultural resource specialists.

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-I-

impact: any change, existing or future, beneficial or adverse, in the environment caused by an undertaking. Impacts can be direct or indirect in nature, and, pursuant to the National Environmental Policy Act of 1969 and 36 CFR 800, authorized officers considering proposed land uses must take into account both direct and indirect impacts to cultural resources.

1. direct impacts result from planned, physical disturbance occurring within the designated boundaries of a proposed project. The area of direct impact includes those areas disturbed by the specific proposed action plus any additional area that will be required to complete subsequent rehabilitation operations.

2. indirect impacts are those unquantifiable or intangible effects (e.g., vandalism or nonphysical intrusions such as damaging vibrations) on the integrity of cultural resources, or inadvertent effects which are incidental to the operations carried out in the area of direct impact (e.g., operation of equipment outside authorized areas).

inventory: a process of descriptive listing and documentation of cultural resources within a defined geographic area based on review of existing data, fieldwork, and other means. The Bureau employs three classes of inventory: Class I, Class II, and Class III (see Manual Section 8111).

-L-

land user: persons and organizations, their employees and their agents, holding the authorization of the authorized officer for a proposed land use.

-M-

mitigation: lessening the severity of a potential adverse effect by application of appropriate protection measures, such as data recovery, stabilization, monitoring, protective barriers and signs, or other physical and administrative measures.

-P-

proposed land use: any use of lands or resources which are subject to approval or special conditions by the authorized officer, whether proposed by the Bureau or by an outside applicant. When a proposed land use might affect cultural properties, such term is synonymous with "undertaking", as used in the National Historic Preservation Act, for purposes of this manual supplement.

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protection measures:

1. physical protection measure: any physical means, such as stabilization of elements of a cultural property or its immediate environment, placement of physical barriers, or similar measures, employed to arrest, slow the rate of, or divert the source of natural or human-caused deterioration to a cultural property.
2. administrative protection measure: any nonphysical means, such as withdrawal, closure or other measures, employed to limit conflicting use of, or access to, an area containing or importantly pertaining to a cultural resource undergoing or threatened by deterioration or disruption.

public lands: any lands or interest in lands owned by the United States administered by the Secretary of the Interior through the Bureau of Land Management.

-S-

Section 106 consultation: refers to consultation between the Bureau (or other federal agency), the SHPO, and the Advisory Council in accordance with Sections 106 and 110 of the National Historic Preservation Act following procedures specified in 36 CFR 800. Major steps in the consultation process include: (1) defining the area of an undertaking's potential effects; (2) defining an appropriate level of inventory; (3) determining National Register eligibility of located cultural properties; (4) determining effect of an undertaking on National Register or eligible properties, including appropriate mitigation measures. Terms used in the consultation process are Determination of Eligibility, Determination of Effect, Effect, Mitigation, SHPO, and ACHP.

State Historic Preservation Officer (SHPO): the official who is appointed by the Governor to be responsible for administering the State Historic Preservation Program in that state pursuant to section 101(b)(1) of the National Historic Preservation Act.

-T-

traditional lifeway value: the quality of being useful in or important to the maintenance of a specified social and/or cultural group's traditional system of (a) religious belief, (b) cultural practice, or (c) social interaction, not closely identified with specific locations. Traditional lifeway values are taken into account through public participation during planning and environmental analysis. Another group's shared ideas are abstract, nonmaterial, ascribed ideas that one cannot know about without being told.

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-v-

vandalism: any deliberate alteration of cultural resource values by individual persons or organizations, including but not limited to, destruction, removal, defacement or disturbance with the intention of personal amusement, gain, or as malicious mischief.

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MONTANA BUREAU OF LAND MANAGEMENT  
Guidelines for the Protection of Cultural Resources  
Specific to Oil and Gas Activities

I. Introduction.

In accordance with the National Historic Preservation Act of 1966, the Antiquities Act of 1906, and the Archaeological Resources Protection Act of 1979, the federal Surface Management Agency (SMA) must assure that operations on oil and gas leases under its jurisdiction are conducted with due regard for the protection of cultural resources. All operations which are conducted on onshore federal and Indian oil and gas leases must conform to the requirements of any Notices to Lessees (NTLs) applicable to Montana, North Dakota, and South Dakota (except where local Indian requirements apply) as well as those contained in the Oil and Gas Operating Regulations, 43 CFR 3160; Onshore Oil and Gas Order No. 1; National Register of Historic Places, 36 CFR 60; Determinations of Eligibility for Inclusion in the National Register of Historic Places, 36 CFR 63; Protection of Cultural and Historic Properties, 36 CFR 800, and Protection of Archaeological Resources, 43 CFR 7.

The SMA is responsible for considering the undertaking's area of potential effects (36 CFR 800.4), including both direct and indirect effects. However, if the SMA requires the lessee/operator to conduct a cultural resource survey, the lessee/operator will only be responsible for conducting a survey for the area of proposed lease operations. The SMA will monitor for vandalism or other indirect effects and will conduct any necessary cultural resource evaluation or protective measures associated with such effects, but shall review the proposed lease operations within the timeframe requirements of Onshore Oil and Gas Order No. 1. The operator is responsible for informing employees that vandalism, including artifact collection and unauthorized site disturbance, is illegal and punishable under the Archaeological Resources Protection Act and other statutes.

For the Montana State Office area of jurisdiction (Montana, North Dakota, and South Dakota), an oil and gas NTL has been issued by the State Director--NTL-MSO-1-85. All SMAs shall ensure that oil and gas operators are provided with access to the NTL, so that such operators can be made fully aware of their legal responsibilities with regard to cultural resource protection.

II. Project Planning.

The SMA will be sensitive to cultural resource values when considering areas for oil and gas development. Areas that may contain significant cultural resources must be identified because such areas require protective restrictions. Areas of low sensitivity should be identified as posing less potential conflict for leasing and development.

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III. Field Procedures.

A. Leasewide or Unitwide Inventories. When a lease is to be extensively developed, it may be most efficient to develop a lease-wide approach to cultural resource inventory. Such approaches may include the following:

1. Block (or areal) surveys may be considered for areas where cultural properties occur in high densities or where intensive development is planned. Advantages exist for such Class III inventories and mitigation of anticipated adverse effect if the inventory is completed early for portions of the lease area. This will eliminate the need for individual project clearances. Although block or areal surveys are performed by the lessee/operator, close coordination with the Bureau must be maintained to assure survey design adequacy.

2. Surveys which utilize sampling methods (Class II inventories) may be used to develop a predictive model for a lease area. Such models may be used to reduce or eliminate further inventory requirements for the lease area, as well as to streamline mitigation strategies.

B. Determination of Need for Survey. In order to avoid unnecessary delays or expense, the lessee/operator should contact the SMA at least 15 days prior to submission of an Application for a Permit to Drill (APD) or Notice of Staking (NOS) to determine if a site-specific cultural resource survey is required prior to entry on the lease for lease operations. If a survey is required, the survey report is to be submitted as provided for in Onshore Oil and Gas Order No. 1. If the SMA has reason to believe that properties listed or eligible for listing in the National Register of Historic Places (NRHP) are present in the area of proposed lease operations, a survey will be required. Situations exist when the SMA may determine there is no reason to believe that listed or eligible properties are present, and a survey will not be required (see Section .2 of this manual supplement).

If a survey is required as determined by the involved SMA, then prior to any surface disturbance, the lessee/operator should either request that the SMA conducts the survey or engage a cultural resource professional acceptable to the SMA to conduct a survey in the area of proposed lease operations. Cultural resource professionals contracted by the lessee/operator must consult the involved SMA prior to beginning fieldwork.

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C. Survey Area. In order to assure compliance with the requirements for cultural resources protection (36 CFR 800), the minimum survey area shall be the area of proposed lease operations. The area of proposed lease operations is defined in the Surface Use Plan and shall include all areas to be physically disturbed by earthmoving activities, as well as areas where vehicle movement, off-loading of equipment, rehabilitation, etc. may be reasonably anticipated. For consistency among federal agencies, a standard 10-acre survey area centered on the well site, plus access road and ancillary areas, is considered the norm. To ensure that an acceptable survey is completed, operators should be encouraged to notify the BLM and the involved SMA if they intend to survey less than 10 acres. The operator may choose to survey areas larger than 10 acres to provide a greater degree of flexibility for siting of facilities and to further reduce the possibility of the need for additional survey.

D. Split Estate. The Bureau of Land Management has the responsibility to consider the effects of oil and gas undertakings on cultural resources on private surface over leased federal and Indian minerals. In such cases, the BLM or other involved SMA shall determine if a survey, evaluation, or mitigation of potential direct effects on cultural resources is appropriate. Copies of relevant survey and mitigation reports will be available to the landowner, and all collected artifacts will be returned to the landowner after a reasonable study period.

1. When a survey is required, the lessee/operator will be responsible for obtaining access to the property of the surface owner. If the surface owner objects to either survey or mitigation procedures, the SMA shall obtain written documentation (where possible, a written statement from the surface owner) of the reasons for the objection by the surface owner. Inability to obtain access to the private lands does not relieve the SMA of federal agency responsibility to comply with Section 106 of the National Historic Preservation Act. A permit to drill shall not be approved until the procedures required by 36 CFR 800 have been completed. As a last resort, where negotiations or remote cultural property location methods have failed, it may be necessary to require the lessee/operator to obtain a court order to gain access to the surface owner's land for the purpose of completing cultural resource compliance requirements.

E. Snow Cover. For consistency among federal agencies at least 70 percent of the area of proposed lease operations must be visible at the time of cultural resource survey. Exceptions may be allowed in situations such as leases expiring within 30 days of the initiation of the NOS or APD process, offset discovery, options, farm-out requirements, and rig availability. There is no guarantee that, in any particular situation, exceptions will be allowed. The major factor in this decision should be the potential for adverse effect of the proposed action on cultural resources listed or eligible for listing on the NRHP in the area. Operators should be encouraged to survey an adequate number of locations or request the SMA to do so when the ground is free of snow to support their winter drilling program, considering alternate sites and other contingencies.

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F. Evaluation, Reporting, and Mitigation Measures.

1. General. The results of the survey shall be described in a report to be submitted to the authorized officer. These reports shall conform to standards described in Manual Section 8111 and timeframes in existing cultural and oil and gas regulations.

2. Evaluation. Cultural resources located during the survey which cannot be avoided shall be evaluated, in part, using NRHP criteria (36 CFR 60) to determine the need for possible mitigation. Evaluations shall be sufficient to determine eligibility to the NRHP and to make decisions concerning mitigation.

3. Reporting. The survey report shall document survey methods; describe the survey area, including a map of the survey area (7.5 minute USGS quad sheet preferred) and cultural property maps at an appropriate scale; and document cultural properties, property evaluations, and proposed mitigating measures.

4. Mitigating Measures. The primary mitigating measure should be avoidance of the cultural property. If this cannot be accomplished, other measures may be required, including data recovery. When cultural resources are not present or are avoided, the reports will be processed by the SMA within the timeframe requirements established by Onshore Oil and Gas Order No. 1. If cultural resources eligible for the NRHP are present but cannot be avoided, consultation with the SHPO and ACHP will be necessary, before the SMA can make a decision regarding the appropriateness of the mitigating measures as a way of completing cultural resource compliance requirements.

G. Previously Undiscovered Cultural Resources. Whether or not a survey has been done and notwithstanding that operations are being conducted as approved, the operator shall immediately notify the BLM or involved SMA if unexpected cultural resources are observed and shall avoid operations that would result in destruction of these resources. Disturbance of such discoveries is not allowed until the operator is directed to proceed by the BLM or involved SMA.

H. Vandalism. Impacts due to cultural resource vandalism directly attributable to the land user will be treated as law enforcement issues, and/or as administrative issues under current regulations governing revocation of permits. Operators should be advised to caution their field employees about vandalism penalties. Operators shall be held accountable for the conduct of their employees.

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IV. Geophysical Operations.

A. Policy. Geophysical operations can affect some fragile cultural resource values under specified circumstances through direct impacts (blasting, vehicle movements, road building, etc.) and/or indirect impacts (collecting, erosion, increased access, etc.). Generally, geophysical proposals shall be evaluated on a case-by-case basis to determine appropriate cultural resource inventory or mitigation requirements. In Montana, cultural resource compliance procedures for geophysical operations are guided by a Memorandum of Understanding with the SHPO (see Appendix 4).

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MONTANA BUREAU OF LAND MANAGEMENT  
Guidelines for the Protection of Cultural  
Resources Specific to Mining Operations Regulated by 43 CFR 3809

I. Introduction.

These guidelines explain special cultural resource compliance problems associated with areas to be disturbed by mining operations subject to the surface mining regulations, 43 CFR 3809. Irrespective of the level of activity (casual use, notice, or plan of operations), operations are subject to cultural resource protection (see 43 CFR 3809.2-2).

II. Applicability of Section 106.

Casual use activity by miners does not require either notification of the BLM by the miner, nor a BLM approval. The procedures pursuant to Section 106 of the National Historic Preservation Act (NHPA) do not apply to casual use activities. The mining regulations at 43 CFR 3809.2-2 prohibit miners from knowingly destroying cultural resources, placing the burden on the BLM of informing miners about any cultural resources subject to the regulation.

Reviewing a mining notice does not involve discretionary decisionmaking on the part of BLM. The regulations require operators to notify the BLM of their intention to begin work, but BLM approval of the notice is not required. The BLM role is therefore ministerial (or advisory), and does not constitute an undertaking as specified in Section 106 of the NHPA. Notices are not subject to the procedural requirements of 36 CFR 800.

However, 43 CFR 3809.2-2 specifically provides for the protection of cultural properties by prohibiting mining operators on claims of any size from knowingly disturbing or damaging them. Upon discovering a cultural resource, the operator must notify the authorized officer of the discovery and leave that resource intact until the authorized officer allows the operation to proceed. Within 10 working days of notification by the claimant, the authorized officer must protect or remove the resource or allow the operations to proceed. (See 43 CFR 3809.2-2(e)(2).)

Mining plans of operation do involve a discretionary approval process by the BLM. Regulatory timeframes are stringent and compressed from those applicable to many other BLM land use decision processes (see regulations at 43 CFR 3809.1-6 and BLM Manual 3809.22A2). Approval of a plan of operations is subject to Section 106 of the NHPA and the associated procedural requirements of the regulations at 36 CFR 800. Compliance with those procedures are guided by this manual supplement in Section 8143.1 through 8143.5 and Appendix 8.

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Issuing a mineral patent is not a discretionary action by BLM. BLM responds to a patent application by making a series of objective determinations of fact, and does not have the option to modify or deny an application which meets requirements. If BLM finds that conditions of law and regulations are met, title passes to the applicant. A patent application also cannot be denied for the purpose of protecting resources from mining activities, nor can the patent be conditioned or encumbered with provisions for resource protection.

Therefore, issuance of a mineral patent does not constitute an undertaking for purposes of complying with Section 106 of the National Historic Preservation Act of 1966 (NHPA) and is not subject to the procedural requirements of 36 CFR 800.

III. Determining Need for Inventory.

A cultural resource field inventory need not be conducted in response to every notice. Field inventories should be conducted before mining operations are begun under a notice if BLM has reason to believe significant cultural resources may be damaged or destroyed by those operations.

Inventory efforts should focus on areas that are most sensitive. The area of potential effects covered under a notice should be surveyed if existing Class I or other inventory data indicate that comparable locales within a similar environmental situation have supported human occupation or use and have been found to contain significant cultural properties.

In cases where little is known of the project area or of similar environmental settings, the need for a cultural resource field inventory should be determined on the basis of professional judgment and is left to the discretion of the Area Manager.

A cultural resource field inventory would not be appropriate in response to a notice if one or more of the conditions specified in section .22C of this manual supplement applies to the area of potential effects.

Inventory decisions in response to a mining plan of operations should be made according to the procedures specified in section .2 of this manual supplement.

IV. SHPO Consultation.

The State Historic Preservation Officer need not be consulted in determining the level or extent of cultural resource inventory needed, if any, in response to a mining notice. For a mining plan of operations, consultation requirements are the same as those required by the procedures of sections .2 through .5 of this manual supplement.

8143 – AVOIDANCE AND/OR MITIGATION OF ADVERSE  
EFFECTS TO CULTURAL PROPERTIESV. Avoidance or Mitigation.

Mining notices must be reviewed within 15 days of receipt. If review of a notice reveals that significant cultural properties may be adversely affected by the proposed activities, the operator must be notified immediately. The operator must be advised of the potential conflict and that knowingly disturbing cultural properties is prohibited by the surface mining regulations (see Montana Handbook 3809). If the cultural properties can be avoided, operations may proceed accordingly. If the cultural properties cannot be avoided, the authorized officer should take all feasible steps to salvage the information contained in the properties.

Mining plans of operations also are subject to short timeframes. All initial information (such as inventory data) must be collected within 30 days of the filing of a plan. The plan, however, cannot be approved until Section 106 consultation is complete and the comments of the Advisory Council on Historic Preservation are obtained. Once all procedural requirements have been met, the government has 30 additional days to complete any necessary remedial actions. If avoidance of a property is not possible, and it has been determined through the consultation process that the adverse effects can be mitigated, the BLM must complete the required steps and bear the associated costs within the 30-day time limit. Inability to complete mitigation measures within 30 days cannot be used as cause to further delay plan approval.

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MONTANA BUREAU OF LAND MANAGEMENT  
Guidelines for the Protection of Cultural Resources Specific to  
Coal Planning, Exploration, Leasing and Development

I. Introduction.

The Surface Mining Control and Reclamation Act section 522(e) requires that cultural properties listed on the National Register of Historic Places be found unsuitable for mining unless an exception (based on mitigation feasibility) can be applied. The NHPA requires federal agencies to seek the comments of the ACHP for any land use authorizations (undertakings) which would affect cultural properties listed, or eligible for listing, on the National Register. During coal planning and decisionmaking these two requirements become part of the coal resource management program by application of two screens (Unsuitability and Multiple Resource Trade-Off) in the Resource Management Plan and Activity Planning stages. The attached Montana BLM document "Data Adequacy Standards for the Fort Union Coal Region" describes the complete coal planning process and the Bureau's Section 106 responsibilities concerning coal leasing.

II. Pre-Lease and Section 106 Responsibilities.

Cultural resources are considered during planning and decisionmaking through application of NHPA, Sections 106 and 110; and regulations at 36 CFR 60, 36 CFR 63, and 36 CFR 800. These requirements direct that cultural resources be systematically located and evaluated, and through consultation with the SHPO and ACHP, potential effects upon resources listed in, or eligible for listing in, the National Register be considered in the decisionmaking process. The authorized officer must consider the comments of the ACHP in reaching a decision to find an area acceptable for further consideration for coal leasing (Resource Management Plan) and to bring it forward through activity planning and site-specific analysis to a leasing decision.

III. Avoidance or Mitigation.

Where National Register eligible properties are located, or are reliably predicted to be located, within an area of potential coal leasing, the effect of coal leasing on such properties will likely be found to be adverse. The regulations at 36 CFR 800 require a Memorandum of Agreement to be executed to address adverse effect and to demonstrate what actions the federal agency will take to mitigate the adverse effect. BLM decisions, at this point, will likely have to consider either modifying the areas acceptable for further leasing consideration or establishing commitments to historic preservation measures which will be carried out during mine plan development.

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IV. Coal Exploration and Section 106.

Coal exploration activities in Montana are guided by an existing MOU with the Montana SHPO (see appendix 4). In North Dakota exploration activities are not currently excluded from section 106 review and as such are subject to compliance with 36 CFR 800.

V. Mine Plan Review and Mine Development.

The Office of Surface Mining Reclamation and Enforcement (OSMRE) is the lead agency responsible for final review and approval of a proposed mine plan where federal coal is involved. The federally authorized state agency (e.g., in North Dakota the Public Service Commission) issues the mine permit and is responsible for mine plan compliance and enforcement of SMCRA's requirements. The BLM reviews proposed mine plans involving federal coal and may recommend additional measures to protect the natural environment. As part of that process, the cultural resource specialist inspects the mine plan and determines if additional survey, evaluation, mitigation, and/or preservation of specific cultural properties is needed. Cultural resource recommendations arrived at during the review process form part of the district's response to the mine plan and are forwarded to OSMRE. The OSMRE considers Bureau concerns and may recommend revision of the mine plan through the federally authorized state agency (i.e., in Montana, in the Department of State Lands; in North Dakota, the Public Service Commission).

Implementation of cultural resource recommendations made by the BLM and carried forward by OSMRE are the responsibility of the coal company. The federally authorized state agency oversees historic preservation measures implemented by the coal company as stipulated by the mine plan in conjunction with the State Historic Preservation Officer.

The BLM cultural resource specialist has no formal role in the review of survey, testing, or mitigation reports produced as a result of stipulations attached to the mine plan. Nevertheless, the BLM should obtain copies of all such documentation to accurately assess and chronicle cultural resource work recommended during pre-lease planning or mine plan review. In addition, these documents must be incorporated into future Class I cultural resource inventory documentation, and must be used to guide future decisions about cultural resource inventory, evaluation, and property treatment for coal leasing and other federal undertakings in nearby areas.

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8111:1786  
MT no. 209  
Amend. 1

AMENDMENT 1  
TO MEMORANDUM OF AGREEMENT OF MAY 1981  
BETWEEN BUREAU OF LAND MANAGEMENT AND  
MONTANA STATE HISTORIC PRESERVATION OFFICER

The following provision shall be made part of the Agreement as Stipulation 8, further clarifying the circumstances where an undertaking would or would not cause environmental impact to CULTURAL RESOURCES.

8. Under normal operating conditions (see definitions) the following undertakings have been determined to cause no ~~effect~~ <sup>impact</sup> to CULTURAL RESOURCES:

- a. Utility lines chisel plowed into the ground.
- b. Water pipelines from existing wells.
- c. Fencelines.
- d. Seismic testing.
- e. Exploratory coal drilling.

Because of the lack of ~~effect~~ <sup>impact</sup> site identification and evaluation measures are not mandatory. Any protective management measures used in association with these undertakings will be at the Bureau of Land Management's discretion. If normal operating conditions do not obtain, Stipulations 1 through 7 of the Agreement shall be followed.

The following definition shall be made part of the Agreement as Definition 3:

3. NORMAL OPERATING CONDITIONS - The usual and accepted way in which the Bureau of Land Management constructs and carries out project work. For the undertakings listed in Stipulation 8, under normal operating conditions the Bureau allows no site preparation or other ground disturbing actions beyond the minimum disturbance directly associated with the work (e.g., the hole in which a utility pole is placed, the ground which a fencepost disturbs, etc.).

Any work conducted in wet conditions or which entails earth moving to prepare sites or to allow equipment access would require special Bureau permission, and would be outside normal operating conditions.

Michael J. Pugh  
State Director, Montana State Office

11-3-82  
Date

Maxwell Murphy Deputy  
State Historic Preservation Officer,  
Montana

11-5-82  
Date

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MEMORANDUM OF AGREEMENT  
BETWEEN THE  
DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT  
AND  
THE STATE OF MONTANA  
MONTANA HISTORICAL SOCIETY  
STATE HISTORIC PRESERVATION OFFICER  
REGARDING CERTAIN CULTURAL RESOURCE INVENTORIES

WHEREAS, it is the responsibility of the Bureau of Land Management to manage and conserve CULTURAL RESOURCES under its jurisdiction; and

WHEREAS, it is the responsibility of the State Historic Preservation Officer to protect and preserve CULTURAL RESOURCES in the State of Montana; and

WHEREAS, during the planning of an undertaking, the Bureau of Land Management is responsible under Section 106 of the National Historic Preservation Act and Title 36, Code of Federal Regulations Part 800.4, to take positive action to identify properties in the undertaking's area of environmental impact which are potentially eligible for the National Register of Historic Places and to consider the effect the Bureau undertaking may have on such properties; and

WHEREAS, it is the responsibility of the State Historic Preservation Officer to comment upon such undertakings, and to comment on the identification and evaluation of CULTURAL RESOURCES and to evaluate the Bureau of Land Management undertaking's potential impacts to those CULTURAL RESOURCES; and

WHEREAS, it is in the best interest of both parties to reduce unnecessary paperwork and time delays by expediting cases in which no National Register eligible CULTURAL RESOURCES are identified or lie within the

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area of probable environmental impact;

NOW, THEREFORE, both parties mutually agree that the State Historic Preservation Officer hereby programmatically makes his comments on Bureau undertakings in the following instances:

- (1) When no CULTURAL RESOURCES are discovered within the area of potential environmental impact on a project undertaking; or
- (2) When CULTURAL RESOURCES are discovered within the area of potential environmental impact but the project is moved, thereby redefining the potential environmental impact of the project undertaking so as to affect no CULTURAL RESOURCES.

In all such instances, the Bureau will carry out its responsibilities by adhering to the following stipulations:

STIPULATIONS

1. The Bureau of Land Management, prior to any ground disturbance, will conduct or will cause to have conducted Bureau Class III CULTURAL RESOURCES field inventory (per Bureau Manual 8111) for all Bureau undertakings which disturb the ground surface.
2. The Bureau of Land Management will file a report of the inventory within 45 days of the completion of field work with the State Historic Preservation Officer, containing at a minimum:
  - a. Evidence of a thorough literature and records examination for previously recorded CULTURAL RESOURCES.
  - b. A map, based on a United States Geological Survey Quadrangle sheet or other detailed small-scale map showing the area inventoried and the area of potential impact.

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- c. A description of the inventory methods used, and an estimate of the reliability of the inventory, based on ground visibility.
  - d. A description of the Bureau undertaking and its area of potential impact.
  - e. A brief description of the area and its environment.
3. The Bureau of Land Management will ensure that the intensive inventory is conducted by or under the SUPERVISION of a Bureau archeologist or other qualified archeologist. If a Bureau archeologist does not conduct the inventory, an Antiquities Permit holder will inventory federally owned lands.
  4. When CULTURAL RESOURCES are discovered during intensive inventory, they will be fully described, and documentation provided to demonstrate that the undertaking potentially affecting them has been moved to avoid any effect on the CULTURAL RESOURCES.
  5. When CULTURAL RESOURCES are discovered but cannot be avoided, or if the Bureau of Land Management deviates from the requirement that Class III CULTURAL RESOURCES inventory be completed over the entire area of the ground disturbing undertaking, the terms of this Memorandum of Agreement will not be legally applicable. In such cases, the State Historic Preservation Officer's comments will be solicited as required by Title 36, Code of Federal Regulations, Part 800.4.
  6. All CULTURAL RESOURCES inventory reports required by this agreement will be submitted to the State Historic Preservation Officer within 45 days of the completion of field work.
  7. The Bureau will ensure that all employees, other persons and contractors developing or modifying public resources will be informed of laws and regulations protecting CULTURAL RESOURCES from vandalism

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and intentional destruction, and that they must notify Bureau management of all previously unknown CULTURAL RESOURCES which are found in the area of a project's environmental impact after the intensive cultural resource inventory has been completed. The immediate area of these cultural resources, so discovered while project work is ongoing, will be protected from further disturbance, until the Bureau has consulted and concurred with the Montana State Historic Preservation Officer on a suitable method of procedure to be followed relative to that resource.

DEFINITIONS

1. CULTURAL RESOURCES - Those remains of human activity, occupation or endeavor, as reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture and natural features important in human events. These resources consist of (1) physical remains, (2) sites where significant historic events occurred and (3) the environment immediately surrounding the actual resource.
2. SUPERVISION - In this context, the reference is to the amount of critical watching and directing a cultural resource professional gives to any nonprofessional assisting with cultural assessment work. Supervision consists of either (1) direct personal observation in the field by the district archeologist or (2) an amount of training and monitoring which satisfies the district archeologist that the nonprofessional can recognize CULTURAL RESOURCES in the field independently. Supervised work conducted by a nonprofessional may include independent site locating activities, but will not include any judgment or interpretation of the resource pursuant to agency decisions regarding CULTURAL RESOURCE protection. The district archeologist will sign all reports resulting from supervised work, attesting to its adequacy.

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ADMINISTRATIVE

1. Coordination Meetings. Frequent consultation and coordination among all levels of offices through either formal or informal meetings, workshops and joint studies are encouraged. Field level offices will promptly notify the next higher echelon for resolution of any novel or disputed issues.
2. Review and monitoring. The 45 day provision for submitting reports to the State Historic Preservation Office provides for a minimum span of time to pass before review can occur. Should the State Historic Preservation Officer, upon review of individual inventory reports, disagree with how the Bureau of Land Management has implemented the terms of this Agreement, the Bureau will suspend implementation of the Agreement after receiving a written request of such action from the State Historic Preservation Officer until such disagreements can be resolved.
3. Disclaimer. Nothing in this Agreement will be construed as limiting or affecting in any way the authority or legal responsibility of the Montana Historical Society or the Bureau of Land Management, or as binding either party to perform beyond the respective authority of each, or as requiring either party to assume or expend any sum in excess of appropriations available and administratively allocated.

Each and every provision of this Agreement is subject to the laws of the State of Montana, the laws of the United States and the regulations of the Secretary of the Interior.

4. Effective Date, Amendment, Termination. This Agreement shall become effective when signed by the parties hereto and shall remain in force for one year thereafter. At the end of one year, the Agreement shall be reviewed. If both signatories agree that it is necessary and effective, the Agreement shall be renewed for a mutually acceptable term. Amendments to the Agreement may be proposed by



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1786:8111  
No. MT-195

MEMORANDUM OF AGREEMENT  
BETWEEN THE

DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT

AND

THE STATE OF NORTH DAKOTA  
STATE HISTORICAL SOCIETY OF NORTH DAKOTA  
STATE HISTORIC PRESERVATION OFFICER

REGARDING CERTAIN CULTURAL RESOURCE INVENTORIES

WHEREAS, it is the responsibility of the Bureau of Land Management to manage and conserve cultural resources under its jurisdiction; and

WHEREAS, it is the responsibility of the State Historic Preservation Officer to protect and preserve cultural resources in the State of North Dakota; and

WHEREAS, during the planning of an undertaking, the Bureau of Land Management is responsible under Section 106 of the National Historic Preservation Act and Title 36, Code of Federal Regulations Part 800.4 to take positive action to identify properties in the undertaking's area of environmental impact which are potentially eligible for the National Register of Historic Places and to consider the effect the Bureau undertaking may have on such properties; and

WHEREAS, it is the responsibility of the State Historic Preservation Officer to comment upon such undertakings, and to comment on the identification and evaluation of cultural resources and to evaluate the Bureau of Land Management undertaking's potential impacts to those cultural resources; and,

BLM MANUAL SUPPLEMENT  
STATE OFFICE — MONTANA  
SUPERSEDES REL. NONE

Rel. 8-6  
5/4/90

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WHEREAS, it is in the best interest of both parties to reduce unnecessary paperwork and time delays by expediting cases in which no cultural resources are identified;

NOW THEREFORE, both parties mutually agree that where no cultural resources are discovered when the Bureau carries out its responsibilities under Title 36, Code of Federal Regulations, Part 800.4, the Bureau will have fulfilled all responsibilities under the regulations when it executes the following stipulations; and both parties therefore agree that there will be no effect to cultural resources listed on, or eligible for inclusion to, the National Register of Historic Places.

STIPULATIONS

1. The Bureau of Land Management, prior to any ground disturbance, will conduct or will cause to have conducted an intensive cultural resources field inventory for all Bureau undertakings which disturb the ground surface.
2. The Bureau of Land Management will file a report of the inventory with the State Historic Preservation Officer, containing at a minimum:
  - a. Evidence of a thorough literature and records examination for previously recorded cultural resources.

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- b. A map, based on a United States Geological Survey Quadrangle sheet or other detailed small-scale map showing the area inventoried and the area of potential impact.
  - c. A description of the inventory methods used, and an estimate of the reliability of the inventory, based on ground visibility.
  - d. A description of the Bureau undertaking, and its area of potential impact.
  - e. A brief description of the area and environment.
3. The Bureau of Land Management will ensure that the intensive field inventory is conducted by a Bureau archeologist or other qualified archeologist. If a Bureau archeologist does not conduct the inventory an Antiquities Permit holder will inventory federally owned lands; an archeologist approved by the State Historic Preservation Officer will conduct the inventory where the Bureau undertaking affects land surface not under the jurisdiction of the federal government.
4. The Bureau of Land Management will only apply the terms of this agreement when no cultural resources are identified through either literature and records search, or intensive field inventory. The Agreement is not applicable to undertakings when cultural resources are present in the area of impact, nor to undertakings for which inventory is initiated when visibility of the ground surface of the project impact area is precluded by snow, or other vision limiting factors.

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5. If cultural resources are found within the area of impact, the terms of this agreement are not applicable. All steps in the consultation process required by Title 36, Code of Federal Regulations, Part 800, will be carried out on a case-by-case basis as such situations arise.
6. The Bureau will ensure that all employees, other persons and contractors developing or modifying public resources will be informed that they must notify Bureau management of all previously unknown cultural resources which are found in the area of a project's environmental impact after the intensive cultural resource inventory has been completed. The immediate area of these cultural resources, so discovered while project work is ongoing, will be protected from further disturbance, until the Bureau has consulted and concurred with the North Dakota State Historic Preservation Officer on a suitable method of procedure to be followed relative to that resource.

ADMINISTRATIVE

1. Coordination Meetings. Frequent consultation and coordination among all levels of offices through either formal or informal meetings, workshops, and joint studies are encouraged. Field level offices will promptly notify the next higher echelon for resolution of any novel or disputed issues.
2. Disclaimer. Nothing in this Agreement will be construed as limiting or affecting in any way the authority or legal responsibility of the

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State Historical Society of North Dakota or the Bureau of Land Management, or as binding either party to perform beyond the respective authority of each, or as requiring either party to assume or expend any sum in excess of appropriations available and administratively allocated.

Each and every provision of this Agreement is subject to the laws of the State of North Dakota and the laws of the United States, and the regulations of the Secretary of the Interior.

- 3. Contact Point. The Dickinson District of the Bureau of Land Management will be the contact point for the State Historical Society of North Dakota during all normal operations and actions pursuant to this Agreement.
- 4. Effective Date, Amendment, Termination. This Agreement shall become effective when signed by the parties hereto, and shall remain in force until terminated by mutual agreement, or by either party upon thirty days notice in writing. Amendments to this Agreement may be proposed by any party, and shall become effective upon approval by both parties.

<i>Michael J. Poffel</i>	1/18/80
State Director, Montana State Office	Date
<i>James E. Sperry</i>	3/19/80
State Historic Preservation Officer, North Dakota	Date

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PROGRAMMATIC AGREEMENT

WHEREAS, the Bureau of Land Management (BLM), Department of the Interior, has determined that its program to transfer lands currently in Federal jurisdiction to the State of Montana through land exchange agreements will have an effect upon properties included in or eligible for the National Register of Historic Places and has requested the comments of the Advisory Council on Historic Preservation (Council) pursuant to Section 106 of the National Historic Preservation Act (16 U.S.C. 470) and its implementing regulations, "Protection of Historic Properties (36 CFR Part 800)," and

WHEREAS, representatives of the Council, BLM, and the Montana State Historic Preservation Officer (SHPO) have consulted and reviewed the proposed land transfer program and agree that execution of this Programmatic Agreement in accordance with 36 CFR Section 800.13 is the most expeditious and advisable means of achieving compliance with Section 106 and the Council's regulations for this undertaking, and

NOW, THEREFORE, the Council, BLM, and the Montana SHPO agree that the proposed land transfer program shall be implemented in accordance with the following stipulations in order to take into account the effects of the undertaking, and

STIPULATIONS

1. The BLM shall ensure that the Memorandum of Agreement (Appendix I) among the BLM, the Montana SHPO, and the Montana Department of State Lands and the following stipulations are carried out.
2. Any of the signatories to this Agreement may terminate this Agreement, provided that the party initiating such termination provides a 30-day notice and the reasons for such in writing to the other parties. In case of such termination, BLM shall ensure that the measures in Appendix I are implemented for all lands already transferred to the Montana Department of State Lands and shall comply with Section 106 in accordance with 36 CFR Part 800 for each land exchange undertaken after termination of this Agreement.
3. Two years after the execution of this Agreement and annually upon its renewal or amendment, BLM shall submit a report summarizing the actions taken to implement this Agreement, including Appendix I, to the other signatories of this Agreement. The signatories of this Agreement shall review the effectiveness of the implementation of this Agreement, including Appendix I, and determine whether it should be renewed, amended or

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terminated, taking into account the report summarizing its previous implementation. Renewals of this Agreement may be made with the written concurrence of the signatories of this Agreement. Amendments or other modifications to this Agreement, including Appendix I, shall be developed and executed in accordance with 36 CFR Section 800.13.

4. The Council may monitor activities carried out pursuant to this Agreement and will review such activities if so requested by any person. The BLM shall cooperate with the Council in carrying out the Council's monitoring and review responsibilities.

5. Nothing in this Agreement shall be construed as affecting the authority or legal responsibility of the BLM, the Montana SHPO, or the Council. This Agreement is subject to the applicable laws and regulations of the State of Montana and of the United States of America.

Execution of this Programmatic Agreement has evidenced that the Bureau of Land Management has afforded the Council a reasonable opportunity to comment on the proposed program of land transfers and has evidenced that the Bureau of Land Management has taken into account the effects of this undertaking on historic properties.

Bureau of Land Management:

Dean Stepanek 3/30/87  
By: State Director (date)

State Historic Preservation Officer:

Marvella Luff 4-3-87  
By: Montana State Historic Preservation Officer (date)

Advisory Council on Historic Preservation:

[Signature] 30 May 87  
By: Chairman (date)

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APPENDIX I

MEMORANDUM OF AGREEMENT  
REGARDING CULTURAL RESOURCE MANAGEMENT RESPONSIBILITIES  
AMONG  
USDI BUREAU OF LAND MANAGEMENT, MONTANA  
AND  
MONTANA DEPARTMENT OF STATE LANDS  
AND  
MONTANA STATE HISTORIC PRESERVATION OFFICE

I. PURPOSE

This Memorandum of Agreement, developed and entered into by the Montana State Director, USDI Bureau of Land Management (BLM), the Commissioner, Montana Department of State Lands (DSL), and the Montana State Historic Preservation Officer (SHPO), establishes cooperative procedures to be followed by the three parties in protecting significant cultural resources on public lands, administered by BLM, which are to be transferred to the State of Montana in exchange for State lands received by the BLM, under Section 206 of the Federal Land Policy and Management Act.

II. SCOPE

This agreement applies only to lands transferred from federal to state ownership through land exchanges, and will remain in effect until the State of Montana has discharged the responsibilities for cultural resource protection provided herein. This is a provisional agreement, and as such, will apply only to land exchanges completed during the 2 years following signature date. The 2-year period will serve as a test of the effectiveness of the terms and procedures specified in this agreement, to be followed by measures to renew or modify the agreement (see Section VI.D. 2 and 3).

III. POLICY

The parties to this Memorandum recognize the unique and irreplaceable heritage values inherent in significant cultural resources located within the State of Montana, and they will exercise prudent and feasible means available to them to ensure that those values and resources will be protected from inadvertent loss or destruction.

IV. DEFINITIONS

A. Mitigation - The lessening of a potential adverse effect by application of appropriate protection measures, such as data recovery, stabilization, monitoring, protective barriers and signs, or other physical and administrative measures.

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B. SHPO - Means the Montana State Historic Preservation Officer, an officer within the Montana Historical Society, appointed by the Governor as specified in Title 36, Code of Federal Regulations, Part 61.2.

C. Significant Cultural Resource - For the purposes of this Agreement, a cultural resource is defined by 36 CFR Section 800.2(e).

D. State Action - For the purpose of this agreement, a State Action is any activity authorized, funded, or initiated by the State of Montana on lands received through land exchanges with the BLM which may result in surface disturbance, modification of current land use, or termination of state ownership.

V. AUTHORITIES

A. The General Exchange Act of 1922 (16 U.S.C. 485-486) and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1716) authorize the BLM to enter into land exchanges wherein lands of equal value are disposed of and acquired by the pertinent agency.

B. The State Historic Preservation Officer is the official designated by the Governor with responsibilities to administer federal historic preservation grants-in-aid to the State, to implement comprehensive Statewide historic preservation planning, to prepare and submit nominations to the National Register of Historic Places and to participate in the review of federal undertakings that might affect properties eligible for or included in the National Register. The position of SHPO is established by Sec. 101 of the National Historic Preservation Act of 1966 (16 U.S.C. 470a as amended 1980). Execution of the SHPO's responsibilities is guided by regulations in 36 CFR, Part 60, Part 61, Part 63 and 36 CFR 800.

C. Section 106 of the National Historic Preservation Act, as amended 1980 (16 U.S.C. 470F), requires the head of a federal agency to take into account the effects of its undertakings on historic properties and to afford the Advisory Council on Historic Preservation an opportunity to comment on a federal or federally assisted undertaking that might affect a property eligible for or included in the National Register of Historic Places, prior to making a decision to proceed with the undertaking. The review process follows direction in regulations at 36 CFR 800. In addition, Section 110 (16 U.S.C. 470h) requires the head of a federal agency to assure that any federally-owned property that may qualify for nomination to the National Register of Historic Places is not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly.

D. The Enabling Act of 1889 (25 Stat. 676), among other provisions, granted to the State of Montana authority to enter into land exchanges to dispose of and acquire lands. Cultural resources on State of Montana lands are protected and managed under authority of the Montana Antiquities Act.

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E. The Montana Antiquities Act of 1979 (Title 22, Chapter 3, Part 4, MCA) prohibits unpermitted excavation, removal or restoration of any archaeological or historical feature, situated on lands owned or controlled by the State of Montana or any agency thereof without first acquiring an Antiquities Permit. Rules regarding consultation by the Montana Department of State Lands with the Montana State Historic Preservation Officer are found in State of Montana regulations at 26.2.801-813, which became effective May 30, 1986.

F. Title 77, Chapter 2, Part 201, MCA grants authority to the Department of State Lands to exchange State-owned land for Federally-owned land.

## VI. COOPERATIVE PROCEDURES

## A. The BLM shall:

1. provide DSL and SHPO a document containing all cultural resource information that the BLM has accumulated to date in areas embraced by land exchange proposals prior to a final decision on the exchange.
2. ensure that the information will include what BLM tracts have and have not been surveyed, where known cultural resources are located, and the potential for National Register sites being located on public lands to be acquired through exchange.
3. screen public lands to be transferred through exchange to eliminate lands on which cultural properties are located which are significant at greater than a state level unless adequate consideration is given to the protection, data recovery, or other mitigation of the adverse effects to the cultural property as appropriate.
4. upon notification of an unresolvable dispute on inventory procedures, property evaluation, or treatment plan, seek National Register of Historic Places eligibility determinations from the Secretary of Interior as provided for in regulations at 36 CFR 63, or seek comments from the Advisory Council on Historic Preservation as provided for in regulations at 36 CFR 800, as appropriate.
5. upon request by DSL, provide site inventory and evaluation assistance insofar as funding and scheduling of personnel allow.

## B. The Montana DSL shall:

1. consult with SHPO on preliminary exchange proposals to avoid selecting public lands with known significant cultural properties.

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2. prior to any proposed State Action on lands acquired by land exchange with the BLM, and in consultation with SHPO, cause an inventory to be conducted at the BLM class of inventory necessary to identify any affected cultural resources and submit a report of the inventory results to the SHPO.
  3. cause any affected cultural resources to be evaluated per National Register criteria, in consultation with the SHPO, and submit a report of the results of evaluation to SHPO.
  4. prior to any proposed action that affects a National Register quality cultural resource, in consultation with SHPO, incorporate procedures or stipulations to avoid the National Register quality cultural resource, or cause potential adverse effects to the cultural resource to be mitigated in accordance with applicable standards and guidance in VI.D.
  5. while conducting cultural resource management actions on lands acquired by exchange from BLM, use the BLM Inventory and Evaluation Manual (BLM Manual 8111, attached as Appendix A) to guide the identification, evaluation, and reporting of cultural resources potentially affected by DSL land use authorizations. All cultural resource work shall be performed by qualified cultural resources professional personnel, as specified in federal regulations at 36 CFR 61 or Office of Personnel Management qualification standards. Where legal and practical, DSL may require potential state land users to have cultural resource work conducted on DSL's behalf.
  6. in consulting with SHPO adhere to the timeframes and procedures established in DSL's cultural resource regulations, except that when concurrence with the SHPO is not achieved, the procedures in VI.C.5. shall be followed.
  7. if timeframes are short and DSL deems it necessary, request assistance from BLM to complete cultural resource inventory and evaluation at federal standards. However, if BLM cannot provide timely assistance, state land use authorizations shall be withheld until DSL, BLM, or a contracted consulting cultural resource specialist can complete necessary cultural resource work.
- C. The SHPO shall:
1. supply information to advise DSL when known significant cultural resources are present within an area being considered for acquisition through exchange.
  2. prior to any proposed State action that may affect cultural resources on lands received in land exchanges, consult with DSL, recommend whether or not inventory is necessary, and if inventory is necessary, recommend the appropriate BLM class of inventory.

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3. upon receipt of the required cultural resource inventory report, consult with DSL and comment on the adequacy of inventory and determination of which cultural resources have National Register qualities.
4. consult with DSL to assist in determining whether or not a proposed land use on the lands received in the land exchange would affect cultural resources that cannot be avoided. Where effects cannot be avoided, comment on the plan of mitigation provided by DSL.
5. in case of an unresolvable dispute on inventory procedures, property evaluation, or treatment plans, the SHPO will notify the BLM, by letter, who will in turn seek eligibility determinations for the National Register of Historic Places from the Secretary of the Interior as provided for in regulations at 36 CFR 63, or seek comments from the Advisory Council on Historic Preservation as provided for in regulations at 36 CFR 800, as appropriate.
6. in consulting with DSL use the timeframes established in DSL's cultural resource regulations.

## D. All parties shall:

1. in executing their responsibilities under this memorandum, take into account the standards set forth in 36 CFR Part 66, Appendix B; the handbook of the Advisory Council on Historic Preservation entitled Treatment of Archaeological Properties; the publication of the Former Heritage Conservation and Recreation Service entitled, The Archaeological Survey: Methods and Uses; the National Park Service Resource Protection Planning Process; and the Secretary of the Interior's "Standards for Archeology and Historic Preservation" (Federal Register, September 29, 1983, Vol. 48, No. 190, pp. 44716-42 or such amendments that supercede it).
2. for the duration of this agreement, provide each other party with information copies of all reports and correspondence resulting from operations under this agreement.
3. at the end of the provisional 2-year term of this agreement, meet to review operations under the agreement and decide jointly to renew, modify, or terminate the agreement.

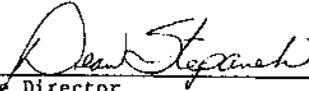
## VII. TERMINATION

- A. This Memorandum may be terminated by any party, upon 30 days written notice to all other parties, except that for all exchanges completed under this agreement, the terms shall be binding to all tracts exchanged, except under conditions where the parties and the Advisory Council on Historic Preservation determine that new state

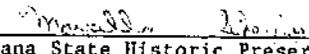
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or federal law has changed the authorities and responsibilities in such a way that adherence to the policy and procedures herein shall be repetitive or out of keeping with provisions of statute which seek the same ends. Amendments or supplements to this document may occur only upon written agreement of all parties to this Memorandum and the Advisory Council on Historic Preservation.

  
\_\_\_\_\_  
State Director  
Bureau of Land Management, Montana

  
\_\_\_\_\_  
Commissioner  
Montana Department of State Lands

  
\_\_\_\_\_  
Montana State Historic Preservation  
Officer

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A CULTURAL RESOURCE SURVEY PLAN

for the

GLACIATED PRAIRIE REGION

of

NORTHERN MONTANA

by

George H. Ruebelmann

Burton D. Williams

Dale A. Davidson

May 1984

Bureau of Land Management  
Lewistown District, Montana

BLM MANUAL SUPPLEMENT  
STATE OFFICE -- MONTANA  
SUPERSEDES REL. NONE

Rel. 8-6  
5/4/90

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I. INTRODUCTION

A. Purpose and Scope

This document provides the background and justification for sample survey strategies on selected lands in the glaciated prairie region of Northern Montana, herein identified as the SP area.

B. Objectives

The objectives of this document are 1) to describe and analyze the nature and distribution of cultural resources in the SP area, 2) to develop models for predicting and explaining the occurrence of cultural resources, and 3) to provide an economic, systematic, and coherent approach to some aspects of cultural resource management.

II. DESCRIPTION OF THE AREA

A. Boundaries

The SP area consists of the rolling, glaciated plains of northern Montana lying between the Rocky Mountain front and North Dakota, and between the Canadian border and the Missouri River Breaks. Although the entire area is relatively homogeneous in terms of environment and topography, some subdivisions were made in assigning final boundaries. East of Valley County to North Dakota, little cultural resource work has been done, and BLM has had few management actions. This area was subsequently excluded from the management plan. The few isolated mountain ranges within the SP area (Sweetgrass Hills, Bearspaw Mountains, and Little Rocky Mountains) were also excluded because of the variation in environment and topography, and predicted difference in cultural resource content from the SP area in general. The actual boundary of the area encompasses all or part of the following counties: Glacier, Pondera, Teton, Cascade, Toole, Liberty, Hill, Chouteau, Blaine, Phillips, Valley, Daniels, Sheridan, and Roosevelt (see attached map).

B. Setting and Environment

The SP area is located within the western half of the Missouri Plateau Section of the Great Plains Physiographic Province. This section is characterized by rolling, sedimentary plains and small, isolated mountain groups formed by volcanic and diastrophic uplifts (Fenneman 1931). The landscape of the SP area is dominated by glaciated topography with features such as kettle lakes, kames, glacial erratics, and a continuous ground moraine. The terrain is gently rolling with valley

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slopes seldom exceeding 5 percent except in mountainous areas. The general view of the landscape is one of a monotonous rolling prairie, broken only by major stream courses. Elevations on the plains range from 2,000 feet in the extreme east to 5,000 feet in the extreme west. Principal water courses are the Milk, Marias, Teton, and Poplar Rivers which flow into the Missouri River from the west and north. Surface water is seasonally (spring, summer) abundant in numerous kettle ponds which dot the landscape of the SP area.

The climate of the SP area is continental in type, with great extremes in winter and summer temperatures, and with the major precipitation occurring in the spring and summer months. The plains of the region have moderately low rainfall (12-14 inches annually), extremely cold winters with temperatures often exceeding 20 degrees below zero, and warm summers where 95-110 degree temperatures are not uncommon (Ross and Hunter 1976).

The vegetation of the SP area is comprised of a mosaic of various grassland subtypes with a dominance of Northern Grassland and Northeastern Grassland subtypes. The Northern Grassland subtype consists mainly of blue grama, western wheatgrass, sedges, clubmoss, and sagewort. The Northeastern Grassland subtype is composed of blue grama, needleandthread, western wheatgrass, and little bluestem. The latter subtype is found only in the extreme eastern part of the SP area. Mixed or associated with these large grassland areas are smaller areas with minor quantities of sagebrush and saltbush. Throughout the entire region, the vegetation of the stream bottoms, and occasionally the lake basins, is comprised of western wheatgrass, blue grass, cheatgrass brome, willows, and cottonwood trees. Various shrubs such as rose, sagebrush, rabbitbrush, buffaloberry, and chokecherry are also common (Payne 1973).

The types of animals in the SP area at present are somewhat different than in the past. Big game species such as bison, grizzly bear, and prairie wolf either no longer exist in the region, or have been restricted in numbers, or have been limited to specific locations as a result of human interference (Walcheck 1976). Bison were once present in the region in great numbers and were the most important food source for the native inhabitants. Other important food animals in the region include mule deer, white-tail deer, and pronghorn antelope. A more complete list of small game mammals, reptiles, birds, and fish can be found in Deaver and Aaberg (1977a).

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C. Prehistoric Archeological Resources

An overview of the archeology and prehistory of the SP area is contained in "An Archeological Study of the Lewistown BLM District, Montana" by Ruebelmann (1982) (Appendix 1). The reader should consult Chapter 3 of that document for information pertaining to chronology, prehistoric lifeways, and culture history, as it will not be discussed here. However, the material concerning prehistoric settlement-subsistence patterns is greatly expanded upon in Section III of this paper.

The archeological manifestations of the SP area are essentially the same as that described for the Northern Area in the Lewistown District archeological overview (Ruebelmann 1982). The prehistoric sites are classified into four functional types as determined from features, artifacts, and other cultural remains present (often these occur in combination). Briefly, these types are described as follows:

1. Habitation sites which are characterized by the presence of all or part of the following archeological features:
  - a. Scatters of discarded tools, lithic waste, bone waste, fire cracked rock, or pottery, usually in association.
  - b. Hearths and other remains of fires like fire cracked rock concentrations, charcoal, ash, and clusters of rock in or around a pit.
  - c. Cairns, defined as groups or clusters of boulders which served as utility platforms or location markers (these may occur in isolation).
  - d. Stone circles or tipi rings, defined as circular or oval outlines of small boulders used to anchor the edges of skin-covered lodges.
2. Procurement Sites

Procurement sites are indicated by the presence of a deposit of bones and artifacts at the base of a bluff or in a ravine. Often a drive line is associated, represented by two parallel-converging rock alignments leading from a gathering area to the bluff edge or ravine. Procurement sites in the SP are usually bison kills of three kinds-- jumps, pounds, and traps. Artifacts associated with such sites are projectile points, knives, choppers, and other butchering tools.

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3. Industrial Sites

Industrial sites are represented by scatters of non-diagnostic lithic debitage, cores, hammerstones, roughed-out stone objects, antler knapping tools, and unmodified chunks of raw material (chert, chalcedony, basalt, quartzite).

4. Ritual Sites

Ritual sites are characterized by a variety of features suggesting ceremonial, social, or political activities. Such features include burials, rock art, boulder effigies, and unusual rock structures (medicine wheels, vision quests, eagle catching pits, etc.).

Prehistoric sites in the SP area may have a tendency to be more numerous and more complex around the areas of topographic distinction. The sites are generally scattered over swells and swales with little or no aggregation except along major stream courses and escarpments. The average site density is 6-7 sites per section (640 acres) for the SP area, but unfortunately no density figures are available for comparing the undifferentiated uplands with zones of topographic diversity.

Habitation sites such as tipi rings and cairns tend to be on higher ground with respect to surrounding terrain, and are normally located near the edges of bluffs or escarpments, and on swells and swales around kettle lakes and ponds.

Hearths and debris scatters, butchering or processing areas, and occasionally tipi rings are typically found along terraces of larger stream courses, often a short distance from tipi ring sites on adjacent bluffs.

Procurement sites or bison kills are situated in areas of steep terrain in close proximity to expanses of upland prairie (i.e. breaks, bluffs, and escarpments). This terrain usually occurs along the major stream valleys with notable exceptions being various glacial outwash channels, and the Kevin Rim in the extreme western part of the SP area. The kill sites are often accompanied by rock alignments or drive lines which are located on adjacent upland prairie surfaces. Occasionally, habitation sites and processing areas are also associated with the kills; the former are usually located in adjacent uplands, while the latter are found in nearby terraces or lowlands.

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Industrial sites can be found almost anywhere in the SP area because the principal source for stone tool material is the glacial drift deposits. Quartzite is the most abundant material and, hence, was the most commonly used in the manufacture of chopping, cutting, and pounding tools. Crypto-crystalline silica materials are also found in the glacial deposits, and were used to fabricate projectile points, scrapers, and finer-edged tools. Industrial activities were apparently performed on or adjacent to habitation sites, and thus, their distribution is similar. However, there may be exceptions such as are found in the southern parts of Phillips and Valley Counties. Here, the glacial drift mantle is quite patchy, apparently caused by discontinuous deposition and/or extensive erosion. A few sites of strictly an industrial nature can be found around these glacial drift patches.

The distribution of ritual sites is poorly known because they are so few in number, especially certain subtypes. A secondary burial was discovered on a ridge around a kettle lake depression. Two horned, anthropomorphic, effigy figures are associated with the drive lines of a bison kill and habitation site complex. A number of petroglyph boulders have also been found; the boulders are small glacial erratics that may have been utilized because they happened to be near habitation and kill sites.

D. Historic Resources

The history of the SP area is discussed in an overview document by Will, Bailey, and Schweigert (1982) (Appendix 2). The most important historical events, with respect to Euro-American development of the land, were the construction of the Great Northern Railway across the SP area in 1887 and the subsequent influx of homesteaders and townspeople in the early 1900s. Other important events related to these but occurring somewhat later in time, were the Great Depression of the 1930s and the Bankhead-Jones Act of 1937. The depression forced many of the homesteaders off their lands and into bankruptcy; the Bankhead-Jones Act enabled the Federal government to purchase the vacated homestead lands. These acquired lands are referred to as "LU" (Land Utilization Act) lands.

Historic remains in the SP consist primarily of those from the settlement period of 1910-1930, with few exceptions. Settlement period sites can be classified into the following types: homesteads, towns, railroad sidings, rural schools and rural churches. Other related manifestations are refuse dumps, fences, field clearings, corrals, wells, and graffiti, all related to homestead farming and ranching activities.

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Settlement period sites may contain stone, wood, and concrete buildings in various states of preservation; rectangular stone and concrete foundations; cellar, latrine, and well depressions which may be lined with stone or concrete; and scatters of old farm machinery, vehicle parts, boards, wire, glass, tin cans, and other Euro-American manufactured materials.

If standing structures are present, it is fairly easy to distinguish between homesteads, schools, and churches on the basis of architecture. However, when only foundations or depressions remain, the function of the site must normally be determined by analyzing associated artifacts and reviewing the homestead records. Abandoned townsites usually contain evidence for the existence of many dwelling units. Structures or their remains located near railroad tracks may be siding stations, but generally this has to be verified by reviewing the local historical records.

Other historic sites from earlier times exist in the SP area, such as trading posts (Fort Turnay), military posts (Fort Benton, Fort Assiniboine), U.S. Army and Indian battle sites (Baker Massacre, Frenchman Creek Fight), and old Indian Agency sites (Fort Belknap, Fort Browning). Historic trails once passed through the area also. These include the Lewis and Clark Trail up the Marias River, the Whoop-up Trail between Fort Benton and Fort McLeod, and the Bootlegger Trail between Great Falls and Canada. However, these historic sites and trails with several exceptions, exist mainly in the historical literature. Few have ever been documented on the ground.

III. PREHISTORIC SETTLEMENT--SUBSISTENCE

In this section, a two-part statement is presented to provisionally describe and explain the techno-economic and demographic behavior of prehistoric peoples in the SP area. One part is a subsistence model which depicts how, when, and why prehistoric hunter-gatherers would have exploited the resources of the area. The other is a settlement hypothesis which may describe the nature of these peoples' movements in the area. Settlement is ultimately dependent on the subsistence for explaining cause and effect, so they are herein considered as a single settlement-subsistence model.

There are a number of problems in developing a settlement-subsistence model for the SP area. Chief among these is the lack of datable materials and index artifacts in most of the archeological sites. This makes it exceedingly difficult to define the settlement-subsistence model chronologically and to test derived hypotheses systematically. In such cases, the only argument that can be made for cultural and chronological association is evidence of a repetitive site distribution pattern.

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In proposing a subsistence model for the SP area, consideration must be given to certain fundamental rules of human ecology. These are as follows (Jochim 1976):

- Human groups must exploit resources which permit them to survive.
- The most important resources, in terms of energy yield versus energy spent procuring them, will take priority in exploitation.
- Resource exploitation will tend to be efficient and not wasteful.

A subsistence model should therefore describe what types of resources would have been exploited by human populations, which resources would have been the most important, and what type of resource exploitation pattern would have been the most efficient.

In the SP area, the resources available for prehistoric human exploitation included big game animals such as bison, antelope, deer, and bear; small animals such as rabbit, prairie dog, beaver, birds, and carnivores; fish and molluscs; edible plants such as cattail, prairie turnip, biscuit root, wild onion, plains pricklypear, and various berries; stone such as quartzite and chert; fuel such as buffalo chips, sagebrush, and small amounts of wood; and water.

Bison were the largest and most numerous of the big game animals on the Northern Plains. Although abundant, bison were widely scattered during much of the year in herds of varying sizes; they were also highly unpredictable in their movements. They might congregate in large herds during the rutting season (late summer) or around water during times of drought, but smaller groups were generally the rule (McHugh 1972). Antelope and deer are considerably smaller than bison and existed in fewer numbers in the area. Both are more predictable in their movements and tend to have defined territories; but they are also more difficult for hunters to get close to than bison. Bears, such as the plains grizzly, are sizable animals and have well-defined territories, but were not as numerous as other large game. They would also have been formidable opponents to prehistoric hunters.

Small game animals were probably somewhat more numerous in the past than at present. Prairie dogs would have been abundant during the fair weather months in the southern portion of the area. Ducks and geese would have been seasonally plentiful (spring and fall) around the numerous kettle lakes

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and ponds. Other game birds such as sage grouse would have been available at most times. Fish and mussels were available in small quantities in perennial streams and lakes (BLM 1981). Wolves were also numerous anytime around the bison herds (Walcheck 1976).

Edible plants such as cattail, prairie turnip, biscuit root, rose, buffaloberry, yucca and others are widely distributed throughout the SP area (Harrington 1967). Cattails, which can be found along streams and in ponds, offer tender shoots in the spring, young fruits during summer, and pollen in the fall. The prairie turnip or breadroot is best during late summer when the leaves are beginning to brown; it is found in sandy soil areas which abound in the glacial deposits of the area. Biscuitroot can be found throughout the area on clayey soils (Ross and Hunter 1976); it is best in terms of size and nutrition in late summer and fall. Berries, such as chokecherry, serviceberry, buffaloberry, and rose, can be found in small quantities in the coulee bottoms of the area; they are more abundant near the small mountain ranges in the region (Payne 1973). They would be available for human consumption during late summer and fall.

Stone for making tools is variable in terms of type and abundance in the SP area. Coarse grained rocks, such as quartzite, granite, and gneiss, are available in great quantity, but scattered throughout the glacial drift deposits. Fine grained rocks like chert, chalcedony, and porcellanite, are present in the drift, but in unpredictable locations and limited quantities. Other than the drift deposits, the only sources for suitable stone are in the several small mountain groups of the region or in porcellanite deposits south of the Missouri River.

Fuel is scarce in the SP area today, and may have been only slightly more abundant in the past. Wood in the form of cottonwood trees can be found in small quantities along the permanent streams of the area. Brush is available throughout the area, but probably cannot be considered abundant enough to be used as a reliable source of firewood. The sagebrush and juniper are mainly small, low-profile varieties that occur in interrupted patterns along coulee bottoms and in badlands terrain. Buffalo chips would have been plentiful all across the region in the past, and probably were a major source of fuel for prehistoric inhabitants (Denig 1961).

Shelter from the elements, as offered by natural features of the landscape, is extremely limited in the SP area. As most of the terrain was scoured and subdued during glacial periods, few rock outcrops, escarpments, or canyons exist. However, shelter from the ever-present wind was available to some extent in the numerous valley and coulee bottoms.

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During all seasons of optimum years, water is available in small quantities in the SP area. The larger streams such as the Milk River, Marias River, Beaver Creek, Rock Creek, Battle Creek, Whitewater Creek, Frenchman Creek, etc. usually have permanent water in the holes of their channels if they are not actually flowing. The majority of the smaller drainages usually have permanent water also in the holes, but it tends to be brackish in late summer and early fall. The smaller or shallower kettle lakes and ponds are usually dry by late summer, but larger ones are full year around. These conditions may be different during the frequent drought years.

To analyze the importance of the resources to the prehistoric inhabitants of the SP area, we have chosen to employ a modified gravity model based on that used by Jochim (1976: 56-62) to predict resource distribution for Mesolithic hunter-gatherers in the upper Danube area of western Europe.

As discussed by Butzer (1982: 215), the basic premise of Jochim's gravity model is that the intensity of interaction between a prehistoric hunter-gatherer group and preferred resources is directly proportional to the size of the group and the quantity of the dietary resources, and inversely proportional to the intervening distance.

To a group of hunter-gatherers of a given size, larger and/or closer resources will be more important than smaller and/or more distant resources. Generally, distance will be more important than resource mass because of increased energy requirements for exploitation. In some cases, however, the importance of distance can be diminished because hunter-gatherer groups may be able to move closer to resources that occur in larger quantities in a confined area (clustering).

By applying the model to the dietary resources in the SP area, it follows that big game will be more important than small game or edible plants the same distance away. It can also be seen that clustered resources of immense size, such as bison, could be relatively more important even at great distances. Although there is insufficient data for quantification, the gravity model allows the dietary resources of the SP area to be logically ranked for importance in the following order:

1. Bison
2. Edible plants
3. Small game
4. Other large game
5. Fish

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Bison would be the most important resource because they are the largest animal in the SP area. Since they usually occur in clusters, they would also have a large mass as a resource. Because bison are highly mobile, their location and distance relative to a hunter-gatherer group would be extremely unpredictable. However, the herds would be easy to exploit as long as the hunters kept them in sight. Bison have few natural enemies and the herds would not have been difficult to get close to and follow (McIlugh 1972).

Edible plants would be the next most important resource in the SP area. Although they are low-mass resources individually, they are stationary and thus highly predictable. They are seasonally available, but many roots can be stored for long periods of time. Edible plants are dispersed throughout the area in moderate quantities and could be exploited concurrently with bison.

Small game and other large game were considered similar in importance, with perhaps a slightly greater emphasis on small game. Neither group would have been a primary determinant of subsistence strategy or settlement pattern.

Small game was considered somewhat more important than other large game (mainly deer and antelope) because their numbers are greater overall and because they are much more predictable in terms of location. The prairie dogs, various birds, and other species make up in numbers for what they lack in size, and would be easier to obtain because they are less mobile and have established territories. Dogs ought to be included in the small game category despite their having been domesticated.

Other large game (principally deer and antelope) occur only occasionally in known archeological context in the SP area. While a good food source when available, their numbers were not great enough, nor were they predictable enough in numbers and location throughout the year to be a reliable support for human groups.

Fish is considered the least important resource in the SP area, primarily because of low numbers, low overall mass, and unpredictability in location. However, some historic Plains Indians are reported to have utilized fish when opportunities arose (Denig 1961).

The resource rankings closely agree with the ethnographic and ethnohistoric accounts of subsistence activities of the Northern Plains Indians:

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The yearly round of productive activities was geared to the quest (of bison), with hunting of other animals, collecting, and processing of raw materials subordinated thereto (Flannery 1953: 533).

and

. . . the buffalo is the principal (animal), being the most numerous and valuable for everything necessary for . . . support. Every part of this animal is eaten by the Indians except the horns, hoofs, and hair. Even the hide is made to sustain life on trying occasions. The skin is used to make their lodges and clothes, the sinews for bow strings, the horns to contain their powder and the bones wrought into dressing tools, or pounded up and the grease extracted (Denig 1961: 13-14).

and

The fruits and esculent roots indigenous to . . . (the area) are few and only suited to the uncultivated taste of the Indians, although they form a considerable item in their bill of fare in times of great scarcity. The prairie turnip . . . is found everywhere on the high prairies (Denig 1961: 10-11).

B. Prehistoric Settlement Hypothesis

In order to initially exploit the large clustered, yet unpredictable mass of the bison resource, the hunter-gatherers would have moved their campsite to within close proximity of the herds because the quantity of meat and other usable products would be too great to transport over long distances. Furthermore, if the exploitation were to continue, it would be in the best interest of the hunter-gatherers to know the whereabouts of this important resource on a more predictable basis.

The somewhat unpredictable movements of bison provide the basic pattern for prehistoric settlement in the SP area. As the bison moved from place to place in search of forage, water, and shelter, the prehistoric hunter-gatherers would have followed at a distance, making and breaking camp to keep the herd within range. When bison movement occurred often, the camps would be only briefly occupied, probably just a few days. At other times, when bison would congregate in large herds for longer periods, the camps would be occupied for perhaps several weeks. The camps would also have fluctuated in size and population, depending on certain sociocultural factors (such as trade, marriages, and alliances).

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By moving their campsites in concert with the movement of the bison herds, the hunter-gatherers would not have had to utilize many of the other resources in the SP area. The edible plants are sufficiently dispersed as to be seasonally available at or near most campsite locations. Other large and small game could be hunted as they were encountered or needed; they could normally be found in small numbers in the same areas frequented by bison. Water, fuel, and stone would have been available much of the time near the bison herds. Shelter would have been provided partly by the bison themselves and partly by the areas in which they tend to congregate during adverse weather.

Given the nature of bison movements as described by McHugh (1972: 169-178), a more specific scenario or model can be constructed for prehistoric settlement in the SP area:

Temporary camps (occupied for a few weeks) would be located near the areas where bison congregate for periods of time. These locations in the SP area would be where permanent water, forage, or shelter for bison occur -- primarily the major stream valleys. These areas would also provide the terrain suitable for mass kills which were undertaken for the purpose of obtaining hides and meat in quantity. The temporary camps would be the typical settlement type at the following times:

Late summer/early fall - Due to the rutting season, bison herds will increase in size and therefore require large quantities of water. Only the principal streams and large lakes contain sufficient water at this time of year.

Winter - The cold weather and biting wind typical of the SP area at this time of year would force bison to seek shelter, warmth, and water in the major stream bottoms. The herds may move along these bottoms in search of forage; the temporary camps would also be moved accordingly.

Ephemeral camps (occupied for a few days) would be located in the areas where bison would be dispersed much of the time. These areas would be in the rolling upland prairie near kettle lakes, seasonal streams, and good forage. Such camps would also be found near permanent streams and lakes, however, because bison would utilize the water when needed. The ephemeral camps would be the settlement mode at the following times:

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Spring and early summer - The presence of abundant water and forage in the uplands would attract the bison from their wintering areas. The large herds would split into nurse herds as calving time arrived. Hunter-gatherer groups would tend to be dispersed into the uplands to efficiently exploit the relatively dispersed bison.

Late fall - After the rutting season, the bison would disperse into the uplands for forage, but would maintain a close proximity to major water sources such as permanent streams and lakes. Hunter-gatherer camps would be dispersed in both areas to take advantage of various seasonal resources (roots, berries, deer, waterfowl), as well as bison.

Bison procurement or kill sites would be in areas with suitable terrain for traps, pounds, and jumps. This terrain is most commonly found along the major streams of the SP area. Such sites would be in close proximity to temporary and ephemeral camps, depending on the time of year and the size of the hunter-gatherer groups. Processing areas may be on or adjacent to the kill sites. Bison kill sites could be utilized any time of the year, but would be especially active when bison herds and hunter-gatherers were frequenting the major stream valleys and adjacent uplands (fall and winter). Pounds would be the most common type of kill since a small population could control the number of bison trapped, killed, and processed. Also, the SP area is not noted for arroyos or vertical escarpments required for traps and jumps.

As can be seen, the above settlement model contains predictable and unpredictable elements. For instance, it predicts that most sites in the undifferentiated uplands will be ephemeral camps; however, it cannot predict that most ephemeral camps will be located in the uplands. An opposite situation exists with the temporary camps. The model predicts that most temporary camps will be located near the major stream valleys of the SP area; but it cannot predict that most sites near major stream valleys will be temporary in type. A similar problem exists with respect to predictions concerning seasonality. The model predicts that most winter camps will be situated near major stream valleys; but it cannot predict that most sites near major stream valleys will represent winter camps.

These shortcomings notwithstanding, the model adequately describes and explains the distribution sites in the SP area. However, at least two assumptions have been made regarding the archeological record of the region:

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1. Small habitation sites represent ephemeral camps which are believed to have had a brief occupancy, possibly less than a week.
2. Large, complex habitation sites (as defined earlier) represent either temporary camps which are believed to have had an occupancy of less than a month or multiple, discontinuous, overlapping ephemeral sites.

While these assumptions are critical to the logic of the settlement model, they are not unreasonable considering the nature of the archeological record in the SP area.

C. Summary Statement

The hunter-gatherers of the SP area concentrated their subsistence efforts on the procurement of bison. In so doing, their settlement pattern was dictated, for the most part, by the movements of bison. As the bison moved for whatever reason, so moved the bands of hunter-gatherers who relied on them for food, clothing, fuel, shelter, and tools. Other resources were exploited also, but the overwhelming mass and versatility of the bison resources ensured that bison hunting took priority.

IV. CULTURAL RESOURCE DATA ANALYSIS

In preparation for a proposal of sample survey strategies, BLM archeologists compiled cultural resource information from inventory reports and site records pertaining to the SP area. Areas which have been systematically inventoried were marked on BLM planimetry maps, and site information (type, significance, and location) was illustrated on mylar overlays. Mapping conventions for the site information are as follows:

1. Sites with a combination of tipi rings, cairns, lithic scatters and hearths were recorded as tipi ring sites only.
2. Sites with a bison kill in combination with other features were recorded as bison kill sites only.
3. All sites were plotted to the nearest 40 acre legal subdivision of land; a number was entered inside or beside a symbol if more than one site was present in the 40 acre tract. If sites were larger than 40 acres, boundaries were sketched around them.

The significance ratings of the sites are based on the research value assessment criteria specified in the BLM archaeological site evaluation system (BLM Manual 8111 Montana Supplement - 1980). If the sites contained buried cultural materials in stratified contexts and were potentially datable, they were assigned high research values (having high significance). If the sites contained datable

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materials or numerous variable features, they were assigned to the moderate research value category. All other sites--those with few features and lacking datable material--were assigned low research values.

Historic sites were not illustrated on the overlays because the homestead distribution was regarded as different from that of prehistoric sites (agrarian economic system *vs.* hunting and gathering). Also, the distribution pattern of homesteads on BLM administered lands in the SP area is already well known; they almost always occur on lands which were acquired by the Federal Government as a result of the Bankhead Jones Act of 1934. These lands are referred to as LU lands.

A. Previous Inventories

Numerous Class II and Class III cultural resource inventory projects have been undertaken in the SP during the last ten years. Most have been sponsored and/or funded by oil and gas companies, the Bureau of Land Management, and the Bureau of Reclamation. Table I lists the major inventory projects and pertinent data for each.

By far, most the cultural resource inventories have occurred on public lands administered by the Bureau of Land Management, which comprise some 1.7 million acres in the SP area. Of these lands, roughly 10 percent (165,000 + acres) have been systematically surveyed for cultural resources; this figure does not include inventories related to linear projects and small clearances. The inventoried lands have been delineated on the maps supporting this management plan.

The inventories which proved to be the most useful in determining the distribution of cultural resources in the SP area were those conducted by Professional Analysts in north Blaine and south Phillips Counties (Deaver 1980a and 1980b). These Class II inventories provided information for relatively large samples of BLM lands in areas which can be considered typical of the SP area. Also, a large number of sites were identified which provide a reliable source of data concerning the nature of the archeological record.

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Table 11: FREQUENCY AND SIGNIFICANCE OF PREHISTORIC  
SITES IN THE SP AREA

<u>Total Site Type Number</u>	<u>Percent</u>	<u>Significance</u>			
		<u>High</u>	<u>Mod.</u>	<u>Low</u>	
Tipi Ring 67%		17	228	1,494	1,739
Lithic Scatter/Hearth 12%		18	61	225	304
Cairn 370	14%	0	3	367	
Rock Alignment 4%		0	0	95	95
Bison Kill 2%		39	8	2	49
Ritual 1%		2	4	13	19
100%	TOTALS:	76	304	2,196	2,576

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B. Inventory Analysis

Approximately 2,575 prehistoric and 200 historic sites have been recorded in the SP area. Of these, approximately 1,950 prehistoric and 150 historic sites were identified by the systematic inventory projects in the Table I. The site density for prehistoric sites is approximately one site per 100 acres or six sites per section (assuming a random distribution). This figure compares favorably with the site density estimated by Deaver (1980a and 1980b) for north Blaine and south Phillips Counties. A density estimate for historic sites has not been calculated; however, homestead legislation would have allowed no more than four sites per section.

1. Prehistoric Sites

As Table II shows, the majority of prehistoric sites are comprised of tipi rings with or without the addition of cairns, lithic scatters, and hearths. The next most numerous sites are lithic scatters and hearths. Together, these sites comprise most of the habitation sites and 79 percent of all sites in the SP area. Cairn sites, which in some cases are habitation sites, make up another 14 percent of all sites. Bison kill and ritual sites comprise small percentages of the total; the figures compare closely with the estimates of Deaver (1980a and 1980b) for the frequencies of these site types in north Blaine and south Phillips Counties. Rock alignment sites also make up a small percentage of the total sites; they are difficult to assign to functional site types because sometimes they may represent drive lines to an undiscovered bison kill or they may be part of ritual site.

The significance evaluations shown in Table II reflect a pattern which archeologists working in the area have intuitively understood for a long time: The majority of the sites contain very little archeological information in terms of cultural affiliation and chronological placement. Admittedly, the evaluations were determined from information derived primarily from surface observations; however, considerable excavation work has been undertaken on numerous sites in the area (Lahren 1979, Deaver and Morter 1981) which suggests that such an evaluation procedure is fairly accurate.

The majority of the tipi ring sites are evaluated as low in research value because they consist of few features or artifacts and contain no known datable cultural materials. Most of these small sites are thought to represent brief occupations and can be classified as ephemeral camps. A number of tipi ring sites are evaluated as moderate in research value, generally because they are comprised of many features; however, few of the sites

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contained any observed datable cultural materials. Large moderate value sites are believed to be occupations of longer duration than ephemeral camps and are probably temporary camps if situated near permanent water sources. However, if they are located in the uplands, they may represent multiple and overlapping occupations by ephemeral camps. A few tipi ring sites are evaluated as high in research value because they contain time-diagnostic artifacts or buried datable deposits in conjunction with a great number of features. Such sites are generally near permanent water and are considered to be temporary camps which may be related to nearby bison procurement sites.

The lithic scatter/hearth sites are evaluated as low in research value if they contain no time-diagnostic artifacts or datable materials. As with the tipi ring sites, most lithic scatter/hearth sites received low significance evaluations. A few of these sites were assigned moderate and high significance evaluations because they contain either time-diagnostic artifacts and/or buried datable deposits. Most of the important lithic scatter/hearth sites are located near permanent water sources and are in association with large tipi ring sites (temporary camps) or bison kills.

Cairn and rock alignment sites are evaluated similar to tipi ring and lithic scatter/hearth sites. Most are evaluated as low in research value because they contain no subsurface cultural deposits or datable materials. These sites are believed to be related to habitation, procurement, or ritual activities, but the precise relationship often cannot be determined.

Most of the bison kill sites are evaluated as high or moderate in research value. Buried datable cultural material in a stratified context is one of the characteristics of such sites, provided they have not been badly disturbed. The criterion used to distinguish the moderate value sites from the high value sites is primarily integrity, while that used to separate low value bison kills from the others is authenticity (sites of the latter were only "possible" or "reputed" kills in the site records).

Evaluating the significance of ritual sites was more difficult than with the other sites. As such sites are quite rare, they would all qualify for a high rating for that reason alone. However, there is good cause for doubting the authenticity of some of the sites, and this is the reason why some significance ratings are low. The highly significant ritual sites are comprised of

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authenticated rock art or burial sites. The moderately significant ritual sites are those where a reasonable amount of confidence can be placed in the accuracy of the recorder's observations, i.e. that a feature actually may be a medicine wheel, effigy, burial or rock art. Another criterion used for moderate significance is integrity (some of the them have been relocated; otherwise they would have been rated as highly significant). The low significance ritual sites are those which are reported as some kind of site other than those defined here, but which may also be a figment of the recorder's imagination (a number of alleged effigy sites fall into this category).

2. Historic Sites

The historic sites in the SP area consist almost entirely of homestead remains dating from the early 1900s. In fact, even the three school sites recorded are related to the homestead period. The only recorded site predating the homestead period is that of Fort Turnay (1870s) which is located somewhere on Frenchman Creek. The site is so poorly documented, however, that it is not included here.

As Table III shows, the majority of the recorded homestead sites are located on BLM lands (73%). This is obviously due to the greater amount of inventory conducted on public lands because most of the private lands were homesteaded at one time or another. Since there are more acres of private land in the SP area, it is only reasonable to assume that they contain many more homestead sites than the public lands.

Considering only the homestead sites on BLM lands, it is apparent in Table III that over 90% occur on LU lands (138 of 153 sites). This figure was expected because of the land use history of the SP area and the acquisition by the Federal Government of thousands of acres of homesteaded lands at the end of the Great Depression.

Table III also shows that a preponderance of the homestead sites are in a demolished state and they contain little in the way of standing structures. Of the homestead sites recorded on public lands, only a little over one percent have standing structures present; this contrasts sharply with the 33 percent of the sites recorded on private lands. Sites with foundation remains were about equal to those with depressions (38% to 38%), although the former sites often had both types of features present.

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Table III: HISTORIC SITES AND THEIR DISTRIBUTION RELATIVE  
TO LAND CLASSIFICATION

Site Type No.	%	No.	%	FD		LU		STATE		PRIVATE
				No.	%	No.	%	No.	%	
Homestead										
Stand. Struct.				0	0%	2	1%	3	1%	
15	7%	20	10%							
Foundation				5	2%	53	25%	3	1%	
8	4%	69	33%							
Depression				2	1%	56	27%	4	2%	
14	7%	76	36%							
Dump				2	1%	6	3%	0	0%	
2	1%	10	5%							
Misc.*				6	3%	20	10%	0	0%	
5	2%	31	15%							
School										
Stand. Struct.				0	0%	0	0%	0	0%	
1	.5%	1	.5%							
Foundation				0	0%	1	.5%	0	0%	
1	.5%	2	1%							
TOTALS				15	7%	138	66%	10	5%	
46	22%	209	100%							

\*Includes rock piles, fencelines, wells, check dams, corrals.

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The significance of homestead sites not having standing structures should depend on their potential to yield information not obtainable from historic records. Using this criterion most of the sites identified in Table III would generally not be of high significance. The foundation, depression, dump, and miscellaneous homestead remains have relatively little integrity and most have records that will yield information pertinent to historical research questions (name, nationality, origin, etc.). The few sites with standing structures may be considered as moderately to highly significant, depending on the relative differences in architecture, and historical association. Many of these are currently occupied by descendants of the homesteaders.

C. Prehistoric Site Distribution Analysis

As part of the distribution analysis, the prehistoric site data were plotted on map overlays as described previously in this section. When the overlays were completed, the high and moderate value sites were then tabulated according to type, value, and proximity to major drainages\* or larger streams. Four arbitrary width intervals were selected to present proximity data: 2 miles, 4 miles, 6 miles and greater than 6 miles.

Table IV shows the correlation between site type, site value, and distance to the rivers in the SP area (Missouri, Milk, Marias, and Tetou). As can be seen, a large number of high value sites (39 of 76) and a modest number of moderate value sites (80 of 304) occur near these rivers, most of which (93%) are within two miles of the stream channels.

Table V indicates the relationship between the sites located nearest to principal tributaries of the rivers (Beaver Creek, Rock Creek, Frenchman Creek, Battle Creek, etc.). A somewhat smaller number of high value sites (25 of 76) and a larger number of moderate value sites (123 of 304) occur near these streams; again most of these (76%) are located within two miles of the channels.

\*For the purpose of this paper, a major drainage is a third or fourth order stream that usually contains flowing or stagnant water most of the year. One exception is Bitter Creek, a fifth order stream in northern Valley County which normally contains some form of water the year around. The other exception is the Kevin Rim which is included in the principal streams category because it provides the same type of steep-sided valley landform as a principal stream.

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Table IV: DISTANCE OF HIGH AND MODERATE VALUE SITES FROM RIVERS

Miles Site Type Totals	0-1 Miles		1-2 Miles		2-3 Miles		≥3	
	H	M	H	M	H	M	H	M
Tipi Ring 0 5	4 41	26	1	11	0	4	0	
L.S./Hearth 0 0	13 13	33 32	0	1	0	0		
Wison Kill 1 0	13 20	5 5	3	0	3	0		
Ritual 0 0	1 1	2 2	0	0	0	0		
TOTALS	31 39	66 80	4	12	3	4		
PERCENT	79% 100%	80% 100%	10%	15%	8%	5%		
COMBINED %	1%	80% 100%		13%		6%		

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Table V: DISTANCE OF HIGH AND MODERATE VALUE SITES FROM PRINCIPAL STREAMS

Miles Site Type	0-1 Miles		1-2 Miles		2-3 Miles		3
	H	M	H	M	H	M	
<u>H</u> <u>M</u>	<u>Totals</u>		<u>H</u>	<u>M</u>	<u>H</u>	<u>M</u>	
Tipi Ring	3	57	2	23	1	12	
0 15	6	107					
L.S./Hearth	4	6	0	2	0	2	
0 2	4	12					
Cairn	0	2	0	1	0	0	
0 0	0	3					
Bison Kill	10	0	1	0	1	0	
3 0	15	0					
Ritual	0	1	0	0	0	0	0
0 0	0	1					
TOTALS	17*	66*	3	26	2	14	
3 17*	25	123					
PERCENT	68%	54%	12%	21%	8%	11%	
12% 14%	100%	100%					
COMBINED %	56%		20%		11%		
13%	100%						

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Table VI: DISTANCE OF HIGH AND MODERATE VALUE SITES FROM MAJOR DRAINAGES

Miles Site Type M	0-1 Miles		1-2 Miles		2-3 Miles		H
	H	M	H	M	H	M	
Totals							
Tipi Ring	4	52	1	18	1	7	
0 4		6 81					
L.S./Hearth	1	10	0	5	0	0	
0 0		1 15					
Bison Kill	3	3	1	0	0	0	
0 0		4 3					
Ritual	0	0	0	0	0	1	
1 0		1 1					
TOTALS	8	65	2	23	1	8	
1 4		12 100					
PERCENT	67%	65%	17%	23%	8%	8%	
8% 4%		100% 100%					
COMBINED %	65%		22%		8%		
4%	99%						

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Table VI shows the relationship of the sites with the major drainages of the PMOA area, such as Bitter Creek, Brazil Creek, Willow Creek, Woody Island Coulee/Cottonwood Creek, etc. A small number of high value sites (11 of 75) and a relatively large number of moderate value sites (100 of 304) occur nearest to these streams; the majority (89%) are located within two miles.

On the basis of the information in Tables IV-VI, corridors of varying widths were developed along the rivers, principal streams, and major drainages. They were then sketched on the map overlays. The purpose of the corridors is to identify the archeological zones in the PMOA area that are "sensitive" with respect to having a large quantity and variety of high and moderate value sites. The river corridors are six miles wide in order to include most of the breaks terrain along the margins of the valleys at their greatest breadth. The corridors for principal streams are four miles wide from below the confluence of their major tributaries to their mouths, and two miles wide from the confluence of the major tributaries to their heads. The reason for the division is that many of these stream valleys are glacial in origin and are therefore quite broad on the lower portions; the corridors were extended here to incorporate the margins of the valleys. The corridors for major drainages are two miles in width.

The three categories of corridors can be described as follows:

<u>Corridor Width</u>	<u>Corridor Length</u>	<u>Total Acres In Corridor</u>
6 miles	430 miles	1,603,480
4 miles	164 miles	432,640
2 miles	1,214 miles	<u>1,523,020</u>
	Total	3,559,140

The total acres in all the corridors represent 17.5% of the acreage in the SP area.

Once the corridors were delineated (Table VII), the data for low value prehistoric sites were tabulated and analyzed. As can be seen in Table VIII, almost half of these sites occur within the corridors.

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IN THE SURVEY PLAN AREA

In the area from the Blackfoot Reservation to the Milk River north of the Marias River:

<u>Corridor</u>	<u>Width of Corridor in Miles</u>	<u>Length of Corridor in Miles</u>	<u>Acres in Corridor</u>
Kevin Rim	2	12	7,680
Willow Creek and Tributaries	2	60	76,800
Cottonwood Creek	2	40	51,200
Sage Creek and Big and Little Sandy Creeks	2	120	153,600
Cutbank Creek	4	10	12,800

In the area from the west boundary of the survey strategy area to the Missouri River south of the Marias River:

<u>Corridor</u>	<u>Width of Corridor in Miles</u>	<u>Length of Corridor in Miles</u>	<u>Acres in Corridor</u>
Marias River	6	124	376,320
Pondera Coulee	2	20	25,600
Basin Coulee	2	28	35,840
Dugout Coulee	2	20	25,600
Dead Indian Creek	2	16	20,480
Teton	6	42	161,280
Missouri River Cheuteau County line to Little Sandy Creek	6	50	107,520 from

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In the area along the Milk River to White Water Creek:

<u>Corridor</u>	<u>Width of Corridor in Miles</u>	<u>Length of Corridor in Miles</u>	<u>Acres in Corridor</u>
Spring Coulee	2	16	20,480
Red Rocks Coulee	2	36	46,080
Milk River from Canada to White Water Creek	6	204	783,360
Lodge Creek	2	40	51,200
Battle Creek and Tributaries	2	56	71,680 its
Thirty Mile Creek	2	32	40,960
Woodie Island Coulee Cottonwood Creek	2	72	92,160 and
Little Cottonwood Creek	2	20	25,600
Assiniboine Creek	2	30	38,400

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In the area from White Water Creek to the east boundary of the survey plan area north of the Milk River:

<u>Corridor</u>	<u>Width of Corridor in Miles</u>	<u>Length of Corridor in Miles</u>	<u>Acres in Corridor</u>
White Water Creek	4	22	56,320
White Creek	2	12	15,360
Frenchman Creek	4	22	56,320
Tributaries of Frenchman Creek	2	24	30,720
Rock Creek and Tributaries	2	120	153,600 its
Tributaries of White Water Creek	2	34	43,520
Buggy Creek	2	20	25,600
Porcupine Creek and Tributaries	2	52	43,520 its
Poplar River	2	14	17,920

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In the area east of the Little Rocky Mountains and south of the Milk River:

<u>Corridor</u>	<u>Width of Corridor in Miles</u>	<u>Length of Corridor in Miles</u>	<u>Acres in Corridor</u>
Alkali Creek	2	52	66,560
Bowdoin Area	6		175,000
Beaver Creek	4	72	184,320
Beaver Creek Tributaries	2	68	87,040
Beauchamps Creek	2	10	12,800
Dry Fork Creek	2	8	10,240
Fouchette Creek	2	14	17,920
Second/Telegraph Creek Telegraph Creek	2	24	30,720
Larb/Timber Creek	4	38	122,880
Willow Creek	2	54	69,120
Loan Tree Creek	2	22	28,160
Beaver Creek and Tributaries (Valley County)	2	38	48,460
Brazil Creek	2	16	20,480
Antelope Creek	2	14	17,920
		TOTAL	3,559,140

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Table VIII: DISTRIBUTION OF LOW VALUE PREHISTORIC  
SITES

<u>Site Type Corridors</u>	<u>Inside Corridors Total</u>	<u>Percent</u>	<u>Outside</u>
Tipi Ring 1,494	690	46%	804
L.S./Hearth 225	111	49%	114
Cairn 367	138	38%	229
Rock Align. 95	73	77%	22
Bison Kill 2	1	50%	1
Ritual 13	13	93%	0
2,196	TOTALS 1,026	47%	1,170

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V. INVENTORY STRATEGY

The plan for cultural resources inventory in the SP area is based on the presentations of information in Sections II, III and IV of this document. Essentially, it proposes inventory of prehistoric sites based on a sampling framework, and historic sites by reviewing landownership status. The specific elements of the plan are as follows:

- A. When a BLM sponsored or sanctioned undertaking is planned for the area inside the corridors described in Section IV and delineated on supporting maps, an intensive (Class III) field inventory will be conducted on 100% of the area of potential cultural resource impact.
- B. When a BLM sponsored or sanctioned undertaking is planned for the areas outside the corridors in Blaine, Phillips and Valley Counties, an intensive field inventory will be conducted on 30% of the area of potential cultural resource impact. For undertakings with a small area of potential impact (40 acres or less), the 30% sample requirement will be satisfied by conducting an intensive inventory on 100% of the area in every third undertaking.
- C. When a BLM sponsored or sanctioned undertaking is planned for the area outside the corridors in other counties of the SP area, an intensive field inventory will be conducted on 50% of the area of potential cultural resource impact. In the case of small undertakings as defined above, an intensive inventory will be conducted on 100% of the area in every second undertaking.
- D. In the planning stage of an undertaking, the BLM will review air photos, land use records, and land status maps in an attempt to identify historic sites in the area of potential cultural resource impact. If the review indicates that historic sites exist, it will be visited for purposes of recordation and evaluation.

The preceding inventory plan is a stratified sampling method whereby areas in inventory corridors (taking in 30% of the area affected by this sampling plan) are given more emphasis than the undifferentiated uplands, because the sights associated with the former are probably more important than those associated with the latter. The 100% inventory corridors will provide a complete cross section of site types in the SP area, but inventory outside the corridors will provide information upon which to examine certain assumptions and predictions of the settlement-subsistence model and site patterning and content.

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As previously discussed, considerable inventory has already been conducted in roughly the eastern half of the SP area, while less has been done in the west. Hence, a 30% sample level is considered adequate for testing the model in the eastern area while a 50% sample would be more appropriate in the west. The result of the sample inventories will be incorporated into the management plan.

Cultural resource research in this region of Montana is an interesting paradox. In some respects it is a mature program. Considerable inventory has been accomplished. That inventory early on (by 1977) identified the range of site types, the density of cultural resources, and the expectations of distribution of various site types. It also established what quantity of information cultural resource sites could be expected to produce, given site attributes and geomorphological position. In the past seven years the inventory work has confirmed and reconfirmed the original predictions. A solid inductively reasoned case can be made, based on many observations, that site numbers, distribution, and attributes will be found as identified in Parts II and IV of this plan.

There is a high degree of confidence that the preceding inventory plan will identify all cultural resources necessary for a basic cultural resource protection and management plan responsive to historic preservation community needs and to the spirit of the legislative framework. The corridor concept insures the identification of virtually all sites that have information that would be important in interpretation of past human activities in the area, outside the present corridors and theory. The sampling scheme for the areas alongside the corridors provides a level of consideration sufficient to continue to test the assumptions of site occurrence developed from the information on hand. The sampling fractions (30% in the eastern portion of the area, 50% in the western) were selected to reflect the amount of previous inventory and the degree of confidence in predicted site occurrence. Should anomalies in site distribution appear in any of the sampled areas, those areas will be delineated by Bureau of Land Management archeologists in consultation with the SHPO, and receive 100% inventory in future Bureau undertakings.

Because no framework has been established for historic site numbers, density, distribution and evaluation, the sampling portion of the inventory plan will not be applied to the location of these sites. The effort outlined for historic remains in the plan is a methodology designed to locate all historic properties.

The weaker part of the research program is an anthropological explanation of the prehistoric lifeways that produced sites and patterns presently being recorded. The foregoing discussions demonstrate that the majority of sites do not possess the information--buried deposits in context containing chronological indicators or even basic toolkits, domestic features and ecofacts--which facilitate explanation for the area through time. The discussion in Part III represents a viable explanation based on the observable archeological phenomenon recorded to date. It is presently an untested explanation.

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The inventory plan was designed to be conservative enough so that the assumptions in Part III or future thinking concerning the glaciated prairie region can be tested and representative examples preserved or managed. The 100% inventory corridors assure that virtually all sites with significant information are considered in BLM undertakings. The sample survey of the uplands, plus the distribution of site types normally found there assures that a representative group of all site categories will receive the same consideration.

V. DISCUSSION

There are at least two important generalizations to be made on the data presented in Section IV. One is that over half of all prehistoric sites are located within the corridors developed for sensitive areas (in spite of there being less than 25% of the inventoried land area within them). The other generalization is that the great majority of high and moderate value sites (88% and 76% respectively) are also located within the corridors.

These generalizations have strong implications for the prehistoric settlement-subsistence models presented in Section III. These are as follows:

1. Large habitation and procurement sites, represented by high and moderate value tipi ring, lithic scatter/hearth, and bison kill sites, are generally located along major stream valleys.
2. Small habitation sites represented by low value tipi ring, lithic scatter/hearth, and cairn sites, tend to be more numerous in the undifferentiated uplands, but are also well-represented along major stream valleys.

The implications appear to be consistent with some of the predictions of the settlement-subsistence model discussed earlier in this paper. Other lines of evidence also provide a certain amount of support for the model which follows:

1. The presence of so many sites, most of which appear to be small and transitory occupations, suggests a highly mobile human population. Such a situation would be expected of hunter-gatherers whose subsistence focussed on bison exploitation.
2. The lack of many sites with multiple components and/or rich cultural deposits indicates that few locations were reoccupied year after year. This suggests that a seasonal round type of settlement-subsistence was not operating in the PMOA area.
3. Few sites, including bison kills, contain the cultural manifestations of more than one phase or period, and those that do usually have only two contiguous phases represented, and their manifestations often occupy discrete areas of the sites. This further argues against a seasonal round settlement-subsistence pattern.
4. Seasonality data from the Bootlegger Trall site (Roll and Deaver 1978) and the Henry Smith site (Wilson 1982) indicate that organized bison procurement occurred at all times of the year. Such a situation would be expected for a nomadic bison hunting settlement subsistence pattern.

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VI. CULTURAL RESOURCE MANAGEMENT

This section proposes a cultural resource management plan that better fits the management needs of BLM, is more economical to the public and industrial users of public lands, and contributes more to the fields of history and archeology.

A. Inventory Strategy

The plan for cultural resource inventory in the PMOA area is based on inventory analysis presented in Section II and the prehistoric settlement-subsistence model described in Section III. Essentially, the plan proposes to inventory prehistoric sites using a sampling framework, and historic sites by reviewing landownership status. The specific elements of the plan are as follows:

1. When a BLM sponsored or sanctioned undertaking is planned for the area inside the corridors described in Section II and delineated on the maps, an intensive (Class III) field inventory will be conducted on 100% of the area of potential cultural resource impact.
2. When a BLM sponsored or sanctioned undertaking is planned for the area outside the corridors in Blaine, Phillips and Valley Counties, an intensive field inventory will be conducted on 30% of the area of potential cultural resource impact. For undertakings with a small area of potential impact (40 acres or less), the 30% sample fraction requirement can be satisfied by conducting an intensive inventory on 100% of the area for 1/3 of the undertakings.
3. When a BLM sponsored or sanctioned undertaking is planned for the area outside the corridors in other counties of the PMOA area, an intensive field inventory will be conducted on 50% of the area of potential cultural resource impact. In the case of small undertakings as described above, an intensive inventory will be conducted on 100% of the area for 1/2 of the undertakings.
4. In the planning stage of an undertaking, the BLM will review air photos, land use records, and land status maps in an attempt to identify historic sites in the area of potential cultural resource impact. If the review indicates that historic sites exist, BLM personnel will visit the site for purposes of recordation and evaluation.

The above inventory plan essentially involves a stratified sampling method whereby the areas along the major streams are

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given more emphasis than the undifferentiated uplands, because the sites associated with the former are more important than those associated with the latter. Since the sites in the corridors contain, or are likely to contain, greater archeological information than those in the undifferentiated uplands, it is more economical from the standpoint of sampling theory to place emphasis on the sites that will provide the most information for the least cost. The hinterlands and less important sites are not neglected by stratifying a sample, they merely receive less attention, commensurate with their value. Also, there is considerably more land outside than inside the corridors; given approximately the same number of sites, this will cause an increase in the representation of the upland sites in the overall inventory.

The 100% inventory in the corridors will provide a complete cross section of the site types in the PMOA area, regardless of their significance. The great majority of the highly valuable sites (in terms of their archeological information potential) will also be identified. More important, however, is that the sites will allow the predictions of the settlement-subsistence model to be tested: they may contain deposits from which chronological, seasonality, and functional data can be retrieved.

The upland sample inventory will provide a sizable quantity of the site types commonly found there. It will also allow for certain assumptions and predictions of the settlement-subsistence model to be examined, e.g. whether or not the larger tipi ring sites represent a combination of several small sites occupied at different times. Data may be lacking for the appropriate analyses, however.

Another reason for continuing to collect information from the upland areas is to test the predictions and hypotheses for site patterning and site content. As previous discussion indicates, considerable inventory has already been conducted in roughly the eastern half of the PMOA area, while less inventory has occurred in the west. Hence, a 30% sample level is considered adequate for verification of the model in the eastern area while a 50% sample would be more appropriate in the west. The results of the sample inventories would be incorporated into the management plan if revisions are necessary.

B. Site Treatment

Once a site has been recorded and evaluated, the task at hand is to decide what to do with it. If it is in no danger of impact from a project, the task is easy: the decision can be deferred until some later date. However, if the site will be disturbed or destroyed by a project, the task is more difficult and a decision must be made soon. The decision will usually be one of the following:

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1. Apply measures to the site to mitigate the anticipated impact.
2. No mitigation measures will be necessary because the site is not significant enough to warrant it.
3. No mitigation measures will be necessary because the site is one which is duplicated many times elsewhere; any mitigation measures would be redundant.
4. The project will be cancelled because the potential impact to the site cannot be mitigated at a "reasonable cost," or the values of the site are so great that they cannot be treated by mitigation.

Presently, there is confusion and uncertainty within the professional ranks as to which decision to make in any particular case. Often mitigation is prescribed as a matter of routine without regard to degree of significance or to retrieving important information. This is not surprising, since most site treatment connected to project impact mitigation is designed and undertaken without a comprehensive plan. Admittedly, every cultural resource mitigation project has some rather general research questions guiding it.

The site treatment plan proposed here is primarily based on the nature of the cultural resources in the PMOA area, certain research issues identified in the Lewistown District archeological overview (Ruebelmann 1982), and the settlement-subsistence model discussed in Section II. The elements of the plan are as follows:

1. Prehistoric sites with low research/rarity value will be mitigated (other than that involved in recordation) if recorded sites of a similar nature exist in an undisturbed state within a ten mile radius of the site locations.
2. Prehistoric sites with moderate research/rarity value, located outside the 100% inventory corridors, will generally not be mitigated if the basis for the value rating is primarily the number of features and recorded sites of a similar nature exist within a ten mile radius of the site locations.
3. Prehistoric sites with moderate research/rarity value, located inside the 100% inventory corridors, will normally receive some form of mitigation if project impact cannot be avoided.
4. Prehistoric sites with high research/rarity value, wherever located, will be mitigated if the impact cannot be avoided. However, avoidance will be stressed in all cases.

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5. Historic homestead sites with standing structures will be mitigated if project impact cannot be avoided. Such mitigation may involve complete photo recordation of the site or other appropriate measures.
6. Historic homestead sites without standing structures will generally not be mitigated unless deposits exist which can produce information not obtainable from historical record. Archeological excavations may be the form of data retrieval if necessary.

The treatment of prehistoric sites will generally be designed to examine the archeological theories, hypotheses, and models presented in Chapters 3 and 4 of the Lewistown District archeological overview document (Ruebelmann 1982). In addition to, or instead of these, other archeological research issues and interests may be used to design a site treatment project with the concurrence of SHPO and BLM archeologists.

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V. DISCUSSION

There are at least two important inferences to be drawn from the data presented in Section IV. One is that over half of all known prehistoric sites are located within the sensitivity corridors. This is in spite of the sensitivity corridors containing less than 25% of the inventoried lands in them. The other generalization is that the great majority of high and moderate value sites (88% and 76% respectively) are also located within the corridors.

These inferences have strong implications for the prehistoric settlement-subsistence models presented in Section III. These are as follows:

- A. Large habitation and procurement sites, represented by high and moderate value tipi rings, lithic scatter/hearth and bison kill sites, are generally located along major stream valleys.
- B. Small habitation sites represented by low value tipi rings, lithic scatter/hearth, and cairn sites, tend to be more numerous in the undifferentiated uplands, but are also well represented along major stream valleys.

With these in mind, a series of hypotheses can be generated that may be examined with survey, testing and excavation data from the PMOA area. They are:

- A. The presence of so many sites, most of which appear to be small and transitory occupations, suggests a mobile human population. Such a situation would be expected of hunter-gatherers whose subsistence focused on bison exploitation.
- B. The lack of many sites with multiple components and/or rich cultural deposits indicates that few locations were reoccupied year after year. This suggests that a seasonal-round type of settlement-subsistence was not operating in the PMOA area, or was not constrained, i.e., one area is just as good as another.
- C. Few sites, including bison kills, contain the cultural manifestations of more than one phase or period, and those that do usually have only two contiguous phases represented, and their manifestations often occupy discrete areas of the sites. This further argues against a seasonal round settlement-subsistence pattern.
- D. Seasonality data from the Bootlegger Trail site (Roll and Deaver 1978) and the Henry Smith site (Wilson 1982) indicate that organized bison procurement occurred at all times of the year. Such a situation would be expected for a semi-nomadic bison hunting settlement-subsistence pattern.

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Guidelines for Preparation of Section 106  
Compliance Documentation

I. Introduction.

A. Purpose. These guidelines provide direction for preparing documentation for submission to the SHPO and/or Advisory Council in compliance with Section 106 of NHPA. This overview presents a general framework for report preparation and identifies report elements (see Table 1). It does not attempt to define steps or procedures in the compliance process. Procedural guidance may be found in regulations, at 36 CFR 800 and other BLM manual sections and supplementary guidance as described in section B. below.

B. Relationship to Other Cultural Resource Program Guidance.

1. BLM Directives. Refer to Montana Manual Supplement 8111 for further information on determinations of eligibility, use evaluations, and inventory/evaluation reports. Guidelines for recovery of cultural resource data are found in Manual of Mitigation Measures (MOMM) and the Treatment of Archaeological Properties: A Handbook.

2. Cultural Resource Regulations. Details on various steps in the Section 106 compliance process may be found in the following regulations:

a. 36 CFR 800, Protection of Historic and Cultural Properties - describes the procedures for consultation with the SHPO and Advisory Council on Historic Preservation and documentation requirements regarding National Register listed and eligible properties.

b. 36 CFR 63, Determinations of Eligibility for Inclusion in the National Register of Historic Places - describes the eligibility consultation process with SHPO and Keeper of the Register and documentation requirements. However, determinations of eligibility reached by consensus between the BLM and the SHPO may be sufficient for Section 106 purposes (see 36 CFR 800.4c).

c. 36 CFR 60, National Register of Historic Places - contains the criteria of eligibility in 36 CFR 60.4.

3. Supplemental Guidance. The Advisory Council has issued several handbooks and sets of guidelines to aid federal agencies in the Section 106 compliance process (see 8143 Bibliography in this document). Additional guidance is located in the Secretary of the Interior's Standards and Guidelines for Historic Preservation. These documents should be consulted during development of compliance documentation.

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4. Memoranda of Agreement (MOA). Project-specific MOAs or general Programmatic Agreements may supplement the above-mentioned guidance and will usually take precedence in procedural matters relating to Section 106 compliance.

II. Project Information.

The following information may be presented in the format developed for meeting NEPA requirements. This data should be prepared for undertakings involving normal Section 106 compliance actions. The level of documentation should be commensurate with the size and complexity of the proposed undertaking, the nature of the cultural resources involved, and the potential effects on them.

A. Description of the proposed undertaking and/or the project and the area of potential effects, including as appropriate, photographs, maps, drawings, and specifications.

B. Description of the agency's involvement with the undertaking and an identification of any other participants (e.g., cooperating federal agencies, licensees, permittees, recipients of federal assistance, etc.).

C. Description of the methods used to identify potentially eligible cultural properties subject to effect, or to predict the classes of potentially eligible cultural properties subject to effect (report to be prepared according to standards in Manual Section 811).

D. Results of identification efforts, including maps showing location of surveyed areas and cultural properties.

III. Determination of Eligibility Documentation.

A. Report Content Requirements.

1. Application of the criteria for eligibility (see Table 2) should be discussed for all cultural properties or classes of properties located within the area of potential effects, whether recorded under the present undertaking or previously recorded.

2. All items listed in the guidelines appended to 36 CFR 63 should be addressed either in narrative or tabular format (see Table 3).

3. Where determinations are made that properties meet the eligibility criteria, provide an adequate justification.

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4. Discuss the eligibility criteria with reference to BLM use categories. For properties with scientific uses (i.e., potentially satisfying criterion (d)), identify the specific types of scientific information which the properties are likely to yield.

(NOTE: If no potentially eligible cultural properties are located within the area of potential effects, no further documentation is required.)

B. Formal Determinations of Eligibility.

1. Requests for formal determinations of eligibility from the Keeper of the Register are not normally required (see 36 CFR Part 800.4(c)).

2. If a formal determination is required, the documentation package should include all information described in Section A. above, with a copy of the letter from the SHPO regarding his/her opinion on the BLM's eligibility determination.

IV. Determination of Effect Documentation.

A. Report Content Requirements.

1. Where potential effects to eligible cultural properties may occur, provide the following general information:

a. Brief description and list of cultural properties or property classes subject to effect.

b. Description of how the criteria of effect and adverse effect (see Table 4) were applied to each cultural property or class.

c. Description of alternatives considered that might have avoided or reduced adverse effects, or increased beneficial effects, and the rationale for BLM's recommended actions.

2. Adequate discussion of the basis and rationale for all effect determinations (including "no effect") must be provided.

B. Treatment Plans.

1. Where treatment (i.e., mitigation of effects) is proposed, provide the following information:

a. Identification of those characteristics of the property worthy of protection (refer to eligibility documentation).

b. Description of the treatment methods to be employed (including physical and administrative protection measures, and/or data recovery techniques).

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TABLE 1  
Sample Outline of Section 106 Compliance Documentation Report

(This outline is included only as an example of a completed compliance package.)

## I. Introduction.

- A. Proposed Action
- B. General Project Background
- C. Description of Study Area

## II. Cultural Resource Investigations in the Study Area.

- A. Summary of Previous Inventory Work
- B. Previously Recorded Cultural Property Types

## III. Field Inventory Strategy.

- A. Research Orientations
- B. Survey Techniques
- C. Data Recording Techniques

## IV. Description of Cultural Properties.

- A. Description of Cultural Property Types Recorded
- B. Distribution and Density of Cultural Properties
- C. Interpretations of Inventory and Analysis Results

## V. Evaluation of Cultural Properties.

- A. Cultural Resource Use Categories
- B. National Register Eligibility

## VI. Determination of Effects.

- A. Application of Criteria
- B. Negation of Effect

## VII. Data Recovery Plan.

- A. Basis for Data Recovery
- B. Proposed Data Recovery Program
- C. Implementation and Coordination

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TABLE 2  
Criteria of Determination of Eligibility (From 36 CFR 60.4)

I. The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

A. that are associated with events that have made a significant contribution to the broad patterns of our history, or

B. that are associated with the lives of persons significant in our past, or

C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or

D. that have yielded or may be likely to yield information important in prehistory or history.

II. Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

A. A religious property deriving primary significance from architectural or artistic distinction or historical importance.

B. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event.

C. A birthplace or grave of historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life.

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D. A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events.

E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of restoration master plan, and when no other building or structure with the same association has survived.

F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance.

G. A property achieving significance within the past 50 years if it is of exceptional importance.

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TABLE 3  
Summary of Determinations of Eligibility Documentation (36 CFR 63)

1. Property Name or Identifying Number.
2. Location (legal description, address, UTM, etc.).
3. Classification (district, individual site, building, etc.).
4. Ownership (agency name, private landowners, etc.).
5. Representation in Existing Surveys, if any, (Historic American Buildings Survey, Historic American Engineering Record, National Survey of Historic Sites and Buildings, etc.).
6. Description (for archaeological sites include: site type, boundaries, surrounding environment, intrusions, condition, artifacts, and features present).
7. Significance (kinds of information likely to be present, types of data which may be recovered, general research questions and specific study topics which may be addressed, architectural and aesthetics qualities, and associations with historic persons, events, or activities).

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TABLE 4  
Criteria for Determination of Effect and Adverse Effect (36 CFR 800.9)

I. Criteria of Effect.

A. An undertaking has an effect on a historic property when the undertaking may alter characteristics of the property that may qualify the property for inclusion in the National Register.

B. For the purpose of determining effect, alteration to features of a property's location, setting, or use may be relevant depending on a property's significant characteristics and should be considered.

II. Criteria of Adverse Effect. An undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects to historic properties include, but are not limited to:

A. Physical destruction, damage, or alteration of all or part of the property.

B. Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register.

C. Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting.

D. Neglect of a property resulting in its deterioration or destruction.

E. Transfer, lease, or sale of the property.

III. Considering Effects Not Adverse. Effects of an undertaking that would otherwise be considered adverse may be considered not adverse for the purpose of complying with 36 CFR 800 if at least one of the following conditions applies:

A. When the historic property is of value only for its potential contribution to archaeological, historical or architectural research, and when such value can be substantially preserved through the conduct of appropriate research, and such research is conducted in accordance with applicable professional standards and guidelines.

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B. When the undertaking is limited to the rehabilitation of buildings and structures and is conducted in a manner that preserves the historical and architectural value of affected historic properties through conformance with the Secretary's "Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings."

C. When the undertaking is limited to the transfer, lease, or sale of historic property, and adequate restrictions or conditions are included to ensure preservation of the property's significant historic features.

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TABLE 5  
Questions to be Addressed for the Negation of Adverse Effect  
(from Section X, Advisory Council Handbook on  
Treatment of Archaeological Properties)

- I. Does the significance of the property, as documented in the nomination to or determination of eligibility for the National Register, lie primarily in the data it contains, so that retrieval of the data in an appropriate manner may preserve this significance? If so:
- II. Does it appear that preservation in place would be more costly, or otherwise less practical, than data recovery? If so:
- III. Will the effects of the undertaking be minor relative to the size and nature of the property? Examples of such effects include:
- A. Marginal disturbance to an extensive archaeological site by construction along one edge.
- B. Minor disruption of the surface of an archaeological site whose primary valuable information lies in subsurface deposits, where this disruption is unlikely to have long-range effects on subsurface conditions (e.g., by causing erosion, etc.).
- IV. Is the property subject to destruction regardless of the undertaking, so the agency's action is only slightly hastening an inevitable process? Examples of such a condition include:
- A. Disturbance of an archaeological site on a rapidly eroding cliff, where measures to halt erosion are not practical.
- B. Disturbance of an archaeological site that is being vandalized or clearly will be subject to vandalism, where there is no practical way to deter the vandals.
- C. Disturbance of an archaeological site on land that has great potential for non-Federal development, where no mechanisms (zoning, state or local preservation ordinances, easements) are likely to be employable for protection.
- V. Is the property not:
- A. A national historic landmark, a national historic site in non-Federal ownership, or a property of national historical significance so designated within the National Park System?
- B. Important enough to fulfillment of purposes set forth in the state Historic Preservation Plan to require its protection in place?

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C. In itself, or as an element of a larger property, significantly valuable as an exhibit in place for public understanding and enjoyment?

D. Known or thought to have historic, cultural, or religious significance to a community, neighborhood, or social or ethnic group that would be impaired by its disturbance?

E. So complex, or containing such complicated data, that currently available technology, funding, time, or expertise are insufficient to recover the significant information contained in it?

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