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1. Explanation of Material Transmitted: These guidelines have been prepared to ensure the use of consistent inventory and evaluation procedures and to provide guidance for the proper recordation and maintenance of cultural resource data and materials.

2. Reports Required: None

3. Material Superseded: None

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State Director

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GUIDELINES FOR IDENTIFYING CULTURAL RESOURCES

Bureau of Land Management
Montana, North Dakota, South Dakota
Handbook H-8110-1

February 15, 2002

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GUIDELINES FOR IDENTIFYING CULTURAL RESOURCES
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I. Introduction

This handbook provides Montana, North Dakota, and South Dakota with guidelines for inventorying and evaluating cultural resources on lands administered by the Bureau of Land Management (BLM) or affected by Bureau actions in Montana and the Dakotas. Its purpose is to ensure the use of consistent, inventory and evaluation procedures and to provide guidance for the proper recording and maintenance of cultural resource data. This handbook supplements guidance found in Bureau Manual 8110, Identifying Cultural Resources.

The Bureau of Land Management (BLM) is required by the National Historic Preservation Act (NHPA) and regulations found at 36 CFR Part 800 to take into account the effects of their undertakings on cultural properties eligible to or listed on the National Register of Historic Places (NRHP). This requirement is most often accomplished through the systematic identification, evaluation, and treatment of historic properties.

Montana has a state specific protocol developed under the National Programmatic Agreement that guides compliance with the National Historic Preservation Act (NHPA). This agreement establishes the requirements and defines the working relationship between Montana BLM and the Montana State Historic Preservation Office (SHPO), (see H-8120). In North Dakota and South Dakota Section 106 compliance procedures are guided by regulations at 36 CFR 800.

Montana/Dakotas policy regarding cultural resource inventory and evaluation is to:

- Conduct an appropriate level of inventory according to professional standards commensurate with the land use activity, environmental conditions and potential cultural resources.

- Evaluate cultural resources according to the National Register criteria and assign cultural resources to appropriate use categories as the basis for management decisions.

- Complete adequate inventory and evaluation reports and records, and maintain automated cultural resource files to allow efficient use of existing information in land use decisionmaking.

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II. When Inventory is Needed

A. Land Use Planning. Existing cultural resource data is compiled prior to preparing regional or local land use plans. A Class I Regional Overview or more focused literature search must be used as a basis for identifying and analyzing issues. If existing data are inadequate, a Class II, Class III, and/or a reconnaissance field inventory also may be needed to provide adequate information for impact analysis.

B. Land Use Actions. An appropriate level of inventory and evaluation must be conducted prior to authorizing, assisting or funding any land use activity, including transfer of title, which may affect cultural resources.

C. Waiver of Inventory. Although complete Class III inventories are performed for most land use actions, a Field Manager may waive inventory for any part of an Area of Potential Effect when 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 that is located within the study area.

4. Inventory at the Class III level has previously been performed, and records documenting the location, methods, and results of the inventory are available. Such 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 rock falls).

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

7. Conditions exist which could endanger the health or safety of personnel, such as the presence of hazardous materials, explosive ordnance, or unstable structures.

D. Actions Not Normally Requiring Inventory. Examples of the kinds of actions that will not normally require field inventory to comply with Section 106 of the National Historic Preservation Act are listed in Appendix 1.

III. Inventory Standards

At a minimum, inventory efforts for compliance purposes must be sufficient to identify potentially significant cultural resources; i.e., cultural resources potentially eligible for the National Register, within the Area of Potential Effects. The level of inventory and field methodology should be commensurate with the number and kinds of cultural properties known or expected to occur, the specific environmental conditions in the area to be inventoried, and the nature of the proposed land use activity.

A. Existing Data Review. Existing cultural resource information must be reviewed for all undertakings at a level commensurate with the size and nature of the proposed action. This includes review of Class I Regional Overviews, appropriate historic contexts, and checking site record files to determine whether previous inventories were conducted and sites recorded within or near the Area of Potential Effect. Ethnographic literature should also be reviewed to identify potential places of traditional cultural importance to Native Americans or other cultural groups.

B. Class II Inventory. Class II sample inventories are statistically based surveys designed to characterize the probable density, diversity and distribution of cultural properties in an area and to answer appropriate research questions. A variety of methods may be used, singly or in combination, to improve statistical reliability, including quadrants selected randomly or systematically, transects, stratified samples, and phased approaches. The geomorphology of the area should also be considered as a means of identifying deposits where intact subsurface archaeological sites are likely to occur and to be observable in exposed profiles. Class II inventories are generally not adequate to meet the identification requirements of Section 106 of the National Historic Preservation Act except when the sample distribution and sample rate are sufficient to demonstrate that the area sampled did not support human use to a degree that would make further inventory useful.

C. Class III Inventory. Class III inventories are designed to identify and record all cultural properties visible from the surface and from exposed profiles within a target area (except for any sub-areas determined very unlikely to contain discoverable cultural properties). They are continuous, intensive and complete surveys carried out by trained observers walking close-interval parallel transects until the area has been thoroughly examined; e.g., in the three state area 30 meters is that standard distance between transects. A Class III inventory preceded by an existing data review is the standard method of identifying cultural properties in the three state area for the purpose of complying with Section 106 of the National Historic Preservation Act.

D. Reconnaissance Inventory. Reconnaissance (selective or judgmental) inventories may be appropriate when existing data are insufficient to indicate areas where cultural properties are likely to occur. A reconnaissance survey is less systematic, less intensive, or otherwise does not fully meet Class III inventory standards. Reconnaissance level inventories may be useful for checking Class I or Class II inventory conclusions, or for developing recommendations about further inventory needs in previously unsurveyed areas. These kind of inventories may also be useful in verifying assumed conditions that would warrant a waiver of more intensive survey, checking the adequacy of pervious surveys, locating architectural or other high-profile properties, locating properties associated with particular kinds of landscape features, and gathering preliminary information on areas where little or no data exist. Reconnaissance level inventory can be used to verify existing records and provide missing information needed to evaluate cultural resources.

E. Surface Collection. Isolated artifacts and examples of diagnostic cultural materials may be collected during field inventory if their locations are adequately documented and the materials curated according to procedures outlined in Montana=s Packaging Requirements for Collections submitted to the Bureau of Land Management=s Billings Curation Center, (Appendix 2). Extensive surface collections of artifacts which substantially impact cultural properties generally should not be conducted during field inventory. In these situations on-site analysis and other non-destructive techniques should be considered as alternatives. Sample surface collections may be appropriate for evaluation purposes; sample or complete surface collections may be appropriate for mitigation purposes. Surface collections, other than the occasional collection of isolated artifacts, must be conducted according to a documented methodology approved by the Bureau as part of a stated research design.

F. Subsurface Probing. Probing (minor exposure of the subsurface with a shovel, trowel, augur, or other tool) will not be required as a standard part of field survey to identify cultural properties. Probing may be used, however, to assess the nature and extent of cultural deposits for the purpose of site recordation and evaluation where dense vegetation obscures the ground surface or other factors prevent the determination of site boundaries from surface inspection.

G. Test Excavation. Test excavations may be used during inventory and evaluation to assess the nature and extent of a cultural property for the purpose of determining its eligibility for the National Register or to determine an undertaking's potential effect on a property. However, test excavations should be considered only when eligibility or effect cannot be determined from surface inspection alone and should be limited to the minimum amount of disturbance necessary for this purpose. Testing should not diminish or substantially alter the significance or integrity of a cultural property. A testing plan must be approved by the Field Manager in advance of field work.

IV. Documenting Inventories and Compliance

A. Inventory Reports. Class III inventory reports should be commensurate with the project's size and the quality and quantity of cultural resources present. For small-scale projects involving minimal surface disturbance, or small project areas having no cultural resources, a brief summary document with appropriate maps and site forms, which addresses the general categories outlined below, may be all that is necessary. For large-scale projects involving extensive surface disturbance with numerous cultural resources, a detailed report with extensive

documentation may be required. Standards for preparing Class III inventory reports are in Appendix 3. A report prepared by non-Bureau personnel must be reviewed for adequacy by the appropriate Bureau cultural resource specialist.

B. CRABS. A Cultural Resource Annotated Bibliography System (CRABS) project record form is completed for all field inventories conducted in Montana. Completed forms along with the field inventory reports and site records are submitted to the MT SHPO for work conducted by BLM or non-BLM personnel.

C. Report Evaluation Form. A Report Evaluation Form (Appendix 4) is completed and included as part of the project case file to document review of work conducted by non-BLM personnel. Form may also be used to transmit recommended and/or required report and site form changes to cultural resource consultants.

V. Recording Cultural Resources

A. Site Records. For each cultural property located on lands within the State of Montana, a Montana BLM Site Form must be completed (Appendix 5). In addition, for cultural properties which consist of Tipi rings and/or cairns, additional data, that is, a Montana BLM Site Form plus additional feature forms, must be completed as specified in Appendix 6. For cultural properties located on lands within the States of North Dakota and South Dakota each property shall be recorded using the official site forms of those states. Site numbers for all cultural properties recorded in Montana are obtained from University of Montana, Site Records Office. In North Dakota and South Dakota, site numbers shall be obtained, respectively, at the ND SHPO and State Archaeological Research Center.

B. Minimum Site Definition. The minimum criteria for defining archaeological or cultural properties, requiring use of a site record, are that sites should contain remains of past human activity that are at least 50 years old and consist of one or more of the following:

1. At least 5 artifacts within an area 50 feet in diameter.

2. One or more archaeological features in spatial association with any number of artifacts.

3. A Traditional Cultural Property (TCP) as defined by National Register Bulletin 38.

Isolated prospect pits, single cairns, or areas which contain less than 5 artifacts may be recorded as an Isolated Find (Appendix 7) unless the investigator believes the features or cultural materials are of particular importance or the investigator suspects that more cultural materials are likely present but cannot be observed.

C. Master Maps. Field Offices are to maintain current U.S.G.S. topographic maps for the areas under their jurisdiction showing site locations (labeled by permanent site number) and inventoried areas (labeled by project number) or have access to electronic records depicting such data; e.g., GIS.

D. Collections Records. Field Offices are responsible for ensuring that cultural materials collected and records generated from such collection and under their jurisdiction are appropriately packaged and transferred to the Billings Curation Center. Records should include copies of reports, site records, field notes, and related paper and electronic data.

Collections shall not be generally kept or maintained in unsecured environments or within desks in common work areas. If a collection must be retained for analysis purposes, it must be kept safe, thorough implementation of appropriate security measures. Once the analysis is complete, the collection should be transferred to the Billings Curation Center.

VI. Evaluating Cultural Resources

Cultural resources are evaluated (1) to determine whether they meet the National Register of Historic Places criteria of significance and (2) to determine the ways in which they would most appropriately be managed and used. These two types of evaluation are complementary and should be considered part of a single, integrated evaluation process.

A. National Register Significance. Under the National Register criteria (36 CFR 60.4), significance is measured in terms of a property's integrity, association, representativeness or uniqueness, and information potential. In this context, the word "significant" means that the property meets the National Register criteria. It has no other operational meaning. In effect, evaluations under the National Register criteria divide cultural properties into two classes, eligible and not eligible. If a cultural property meets the National Register criteria within its

historic context, it is subject to compliance with Section 106 of the National Historic Preservation Act whenever a proposed Federal undertaking might have an effect on it. National Register status does not in itself signify how a property should be managed in the long term.

However, the characteristics and values which make a property eligible or not eligible for the National Register should serve as a basis for assigning the property to use categories and determining how the property should be managed in accordance with its potential uses. For detailed guidance on the National Register and application of National Register criteria, see the National Register Bulletins.

1. Applying the National Register Criteria to Archaeological Sites. Normally, archaeological sites determined eligible for the National Register will be found significant for the information they can yield about history or prehistory, a scientific value corresponding to criterion Ad@. The National Park Service advises that a property must be evaluated within or from the body of information already collected from similar properties or other pertinent sources; i.e., from within an appropriate historic context. Additionally, the site must be assignable to a specific time or cultural group, not just be "prehistoric" or "historic." A property cannot be eligible if it cannot be related to a particular time period or cultural group and, as a result, lacks any historic context within which to evaluate the importance of the information gained.

Some archaeological sites may also be found eligible under criteria "a", "b", or "c". However, National Register Bulletin 15 makes it clear that general associations with events or persons significant in the past will not be considered sufficient to meet criteria "a" or "b." A property is not eligible if its associations are speculative. Mere association with historic events, trends, or patterns of events is not enough, in and of itself, to qualify under criterion "a"; the property's specific association must be considered *important* as well (see also The National Register and Shallow Stone Features, in Cultural Investigations along the Montana Segment of the Express Pipeline, Volume 8, Class I Investigations of Shallow Stone Feature Sites in Central Montana, volume by Ken Deaver and Lynelle Peterson, Section 5, pp 1-17, Ethnoscience, Billings, MT for the Express Pipeline. *Note: The context and registration requirements developed for the Express Pipeline, as outlined in Section 5 of the Express Pipeline report, are provided here to ensure consistent application of the National Register criteria - see attached CD).*

2. Finding Archaeological Sites Eligible Under Criteria "a", "b", or "c". As noted in section 1 of this part, Archaeological sites may also be found eligible under criterion "a" when the site is specifically mentioned in oral or written histories or has a specific and important association with an event tied to the site. An archaeological site may be found eligible under criterion "b" if its association with an important person can be documented, or if it contains rock art depicting figures representing specific, known personages, ceremonies or historic events that are illustrative (not commemorative) of the person's important achievements. Archaeological sites found eligible under criterion "c" must represent exceptional examples of a type or method of construction. Neither BLM personnel nor cultural resource consultants preparing reports for the BLM should include recommendations in site records or project reports that archaeological sites are potentially eligible under criteria "a", "b", "c" without providing specific information to support eligibility under those criteria (see also National Register Bulletins 36 & 38).

B. Allocation to Use Categories. Once a cultural property has been evaluated in relation to the National Register criteria, it should be categorized to establish what values and qualities need to be protected, and when or how use should be authorized. Cultural resources can be used in many ways; e.g., for research, traditional or ceremonial purposes, interpretive exhibits, educational field schools, experimental studies, and as resource "banks" to be conserved for future use. The six use categories to which cultural resources are allocated are: (1) Scientific use, (2) conservation for future use, (3) traditional use, (4) public use, (5) experimental use, and (6) discharged from management. A cultural property may be allocated to more than one use category, and allocations may change as circumstances change. These use categories and their relationship to the National Register criteria are described in BLM Manual 8110.42 and 8110.43. The BLM is responsible for managing cultural resources regardless of their National Register status, so even properties found not eligible for the National Register should be allocated to one or more use categories. Use categories help to define the appropriate kind and degree of management needed, including no management.

C. Justifying Use Allocations. Allocation of cultural resources to use categories should be based on supporting rationale. When developing written statements to justify allocations, the following guidelines should be considered:

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1. Scientific Use. Reasons for allocating cultural properties to scientific use are based on research in progress or on short- and long-term research objectives. Information supporting the need to use cultural properties for scientific study should be provided directly by individual researchers. Research needs and objectives may also be identified from contract proposals, data recovery plans, cultural resource use permit documents, Bureau planning documents, Class I Regional Overviews, historic context studies, and other background sources. In some cases, potential uses will be perceived which have not been previously documented. Statements supporting allocation to this use category should, at a minimum:

a. Identify the information likely to be extracted from the cultural property.

b. Refer to the research objectives (regional questions and specific study topics) which would require collection of the information identified.

c. Identify the techniques likely to be used to collect the information.

d. Identify any current research project and researchers presently investigating the cultural property.

e. Identify the research objectives of any project currently investigating the cultural property.

f. Identify any techniques currently being used to extract information from the cultural property.

2. Conservation for Future Use. Rationale supporting allocation to this category should be based on future long-term goals and information needs as discussed in Bureau planning documents, Class I Regional Overviews, historic context studies, and other background documents. Justifications should, at a minimum:

a. Identify the specific information or values in the cultural property, including traditional cultural values, which are pertinent to future goals and information needs.

b. Explain why the cultural property is not presently eligible for consideration as the subject of scientific study involving physical alteration or eligible for other uses.

c. Identify the conditions under which the cultural property might be used in the future.

3. Traditional Use. Reasons for allocation to this category should be based on the identified value placed on the resource by specific social and/or cultural groups. Statements supporting allocation should address:

a. The nature of the traditional value which occasions the use.

b. The identity of the group which holds the traditional value.

c. The nature of the use made of the property related to the value.

d. The percent of the group participating directly or indirectly in the use.

e. The length of time the group has ascribed this value to the property.

f. The importance of the property in maintaining the heritage or existence of the group.

4. Public Use. Rationale for assignment to this category should be based on the potential use of cultural properties by the general public for education or recreation. Consider accessibility, public demand, impacts on cultural resource values, cost-effectiveness, and feasibility. Statements supporting allocation should be developed in coordination with recreation specialists and should:

a. Identify the specific aspect of the cultural resource which lends itself to public use.

b. Identify the techniques to be applied to provide or enhance public use opportunities.

c. Identify the specific information to be recovered or values to be protected prior to public use.

d. Identify the specific values to be protected and techniques to be used during public use.

5. Experimental Use. Assignment to this category should be based on the need to obtain information to develop effective cultural resource protection measures. For example, cultural properties may be studied to identify rates and processes of deterioration acting on them or to determine the effectiveness of specific efforts to deter vandalism. Justifications for allocation should:

a. Identify the information to be extracted from the cultural property.

b. Identify the techniques to be used to collect the information.

c. Identify the management objectives supported by the information.

6. Discharged from Management. Statements supporting assignment to this category should document the lack of any further use for the cultural property and explain why the property should no longer constrain other land uses. At a minimum, justifications for allocation should:

a. Identify the use category to which the cultural property was previously assigned, if any.

b. Explain why the cultural property no longer possesses the characteristics which qualified it for that category, or for allocation to an alternate use category.

c. Briefly describe the records representing the cultural property and explain why the records document the property's only remaining importance.

VII. Confidentiality of Cultural Resource Data

Cultural resource inventory and evaluation records may be shared with other Federal agencies, state and local governments, educational institutions, Indian tribes, private consultants and the public when sharing will further Bureau cultural resource management objectives. Cultural resource inventory and evaluation records for public lands will be held confidential when the disclosure of information would threaten archaeological resources as defined in 43 CFR 7.3. Information about the location, character or ownership of cultural properties eligible for or listed on the National Register of Historic Places will be held confidential if disclosure would cause a significant invasion of privacy, risk harm to the resource, or impede the use of a traditional religious site by practitioners (see Section 304 of the NHPA).

VIII. Personnel Qualifications

A. Cultural Resource Professionals. Cultural resource inventory, evaluation, and treatment may be planned, supervised and implemented only by qualified, professional cultural resource specialists (archaeologists, historians, ethnographers, architects, or anthropologists) as appropriate for the type of work being performed. Cultural resource specialists are responsible for advising managers about specific cultural resource 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, and professional literature. A Cultural Resource Professional has received a formal education resulting in a graduate or professional degree in an appropriate discipline (anthropology/archaeology, history, and architecture, see also BLM Manual 8130). Qualified professionals may be assisted by other Bureau personnel and volunteers as described below.

B. Volunteers and other Bureau Personnel in Cultural Resource Work. Adequately trained and experienced volunteers and Bureau personnel may assist Field Office cultural resource specialists in conducting inventories, recording and stabilizing sites, signing, conducting informant interviews, and monitoring to detect and deter vandalism. Volunteers and/or other Bureau personnel must work under the direction of, and with the concurrence of, a cultural resource specialist.

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ACTIONS GENERALLY NOT REQUIRING FIELD INVENTORY
Decision making Guidelines

Following are examples of actions which may not require field inventory to comply with Section 106 of the National Historic Preservation Act. These actions do not involve new ground disturbance, or do not ordinarily have the potential to affect historic properties. In some instances, however, the Field Office cultural resource specialist may determine that an action listed here has the potential to affect cultural resources. In such cases, an appropriate level of field inventory should be completed as described in section III of this handbook.

Realty

1. Withdrawal continuations or extensions which would (a) merely establish a specific time period, (b) create essentially no change in use, and/or no new uses would be permitted, (c) not lead to environmental degradation, and (d) have existing or additional stipulations sufficient to protect any historic properties which may be involved.

- Withdrawal terminations, modifications or revocations that, because of overlying withdrawals or statutory provisions, involve merely a record clearing procedure.

3. Withdrawal terminations, modifications or revocations and classification cancellations and opening orders where the land would be opened to discretionary land laws and where such future discretionary actions would be subject to review under the Section 106 process.

   C. Withdrawal terminations, modifications or revocations and opening orders that the Secretary of the Interior is under a specific statutory directive to execute.

   D. Issuance of permits, FLPMA leases, and rights-of-way where no surface disturbance is authorized.

6. Upgrading or adding new lines (power or telephone) to existing pole(s) when there is no change in pole configuration.

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7. Rights-of-way or modifications of rights-of-way or overhead line (no pole or tower on BLM land) crossing over a corner of public land where no ground disturbance or road construction is authorized.

8. Renewals, assignments and conversions of existing right-of-way grants where existing or additional stipulations are sufficient to protect any historic properties which may be involved.

9. Renewal of existing rights-of-way when reuse or continuous use will not affect historic properties when complete disturbance has previously occurred (roads/pipelines/power lines/communication sites).

10. Color-of-title patents, confirmatory patents, Desert Land Act patents, and patent correction documents.

Transportation

1. Vehicular closures or designations limited to existing roads and trails.

2. Installing routine signs or markers on shoulders of existing roads.

3. Temporary road closures.

Minerals

1. Seismic operations on maintained roads or trails, and those involving no use of explosives, blading, or other land modifications, nor appreciable disturbance or compaction of vegetation or soils.
2. Issuing mineral patents.

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Recreation

1. Dispersed noncommercial recreation activities such as rock collection, Christmas tree cutting, primitive backcountry camping and mushroom gathering.

2. Issuing special recreation permits:

   a. Where uses are consistent with OHV designations, as established through planning, or where there will be no surface disturbance.

3. Issuing river use permits.

Wildlife

1. Modifying existing fences to provide wildlife ingress and egress.

2. Reintroducing endemic or native species into their historical habitats.

3. Installing nesting platforms.

4. Fishery habitat improvements where confined to stream channel and watershed improvements (such as willow plantings).

Range

1. Allotment Management Plans (AMP), AMP amendments, allotment evaluations and similar actions associated with dispersed livestock grazing decisions except for locations within the allotments where specific land-disturbing developments are initiated by that action or where sites particularly sensitive to increased grazing levels are known or are expected to be present.

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2. Fence line construction where construction is limited to the emplacement of individual posts (no blading) or replacement of existing posts, and where the potential for significant cultural resources is low.

Other

1. Removal of non-valuable, recent (less than 50 years old) structures and materials (including abandoned automobiles, dumps, fences and buildings) and reclamation of the site, as long as the reclamation does not expand previous surface disturbance.

2. Removing log jams and debris dams using hand labor or small mechanical devices.

3. Special land use designations which do not authorize surface disturbing projects -- ACEC, environmental education areas, and Research Natural Areas.

4. Establishing long-term study plots for botanical research projects; botanical reintroduction studies.

5. Pre-commercial thinning; reforestation planting except site preparation involving substantial surface disturbance (rippers); non-commercial firewood cutting.

6. Resource management actions which do not utilize motorized vehicles or create new surface disturbance.

7. Placing monitoring stations where no ground disturbance is involved (e.g., stream gages).

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Packaging Requirements for Collections Submitted to the Bureau of Land Management's Billings Curation Center

PART I

THE BILLINGS CURATION CENTER

The Billings Curation Center (BCC) is the principal repository for the archaeological and ethnographic collections recovered lands administered by the BLM in Montana and the Dakotas The Center's purpose is to properly store these materials for future research, education, and exhibition purposes. To meet these future needs it is necessary to provide optimum environmental and organizational control over materials stored at the repository. We must meet the standards for handling and storing collections as required by federal law. This document presents the changes necessary to meet those standards. It is the intention of these guidelines to aid in the standardization of packaging, labeling, and organizing all materials deposited at the BCC. Items stored in the repository include the material remains, site forms, field records, maps, reports, slides and photographs.

Materials are stored by accession number and a storage shelf numbering system. This system allows an accession number to be assigned to material remains prior to cataloging, with a storage shelf number assigned to each box when it is physically shelved. All material remains will be properly accessioned and shelved by storage numbers.

Various comparative collections will be available to researchers at the BCC. Comparative collections include samples of raw lithic materials from the region and faunal remains from the northern plains.

The BCC library contains excavation and survey reports of the northern plains, anthropological and archaeological periodicals, professional journals, and a variety of reference materials. The excavation and survey reports are organized either by county or by physiographic area in the case of multi-county reports. Transferring the library materials to computer catalog is an on going effort which is near completion.

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The BCC also maintains photographic records for archaeological sites in the form of slides, prints, negatives and digital images. VHS videotaping for site documentation is also welcomed and encouraged. These materials are accessioned by project and are filed sequentially by accession number.

OWNERSHIP OF COLLECTIONS

The BCC only holds federally-owned collections and will only accept federally- owned collections. For larger projects that encompass both federal and private lands, material remains from the private portion of excavation should either be retained by the landowner or unconditionally donated in whole to the BCC. To keep projects together, effort should be made to encourage the latter option.

COMPLETE COLLECTIONS

The BCC will only accept complete collections. A Collection, as defined in 36CFR79.4a, means "material remains that are excavated or removed during a survey, excavation or other study of a prehistoric or historic resource, and associated records that are prepared or assembled in connection with the survey, excavation or other study". The originals of all supporting documentation should be deposited at the repository. A complete collection may include, but is not limited to, the following:

- New and/or updated site forms
- ALL artifacts, cultural and environmental materials, and human remains,
- Permits, fieldwork authorizations and contracts issued for the work.
- Relevant correspondence and administrative records
- Survey and or excavation records
- Field notes and journals
- Project-generated maps
- Laboratory analysis records
- Manuals of field or laboratory procedures
- Any specialized analysis reports and data
- Any supporting archival research
- Professional papers and/or final reports relevant to the project

- Photographs, negatives, contact sheets, slides, transparencies, films, videotapes, etc.
- Computer-readable data, final analyses, and inventory hardcopies
- All other supporting documentation

Incomplete collections will NOT BE ACCEPTED. If the researcher requires additional time with the collections or portions thereof, the curator will expedite a formal loan once the material has been received at the BCC.

PART II

PROCEDURES FOR SUBMITTING A COLLECTION TO THE REPOSITORY

OBTAINING AN ACCESSION NUMBER

The BCC manages their collections by the use of an accession numbering system. Accessions are synonymous with projects. The accession number, assigned as a collection control number, consists of two digits for the calendar year the material was accessioned followed by a two digit number (e.g. 9501, first accession of 1995, 9509, ninth accession of 1995, etc.). Once you have the following information, an accession number can be obtained by contacting the curator at the Curation Center: Site number, site name, owner of the collection, date collected, project name and/or number, principal investigator, and institution represented. The accession number will also be used as a reference number to indicate a collection's storage location, conservation history, content description, loan status, and the number of items in the collection.

TRANSFERRING A COLLECTION

Collections are generally submitted directly to the BCC unless other arrangements have been made with the Field Office and the BCC. Before a collection is submitted, the researcher should contact the BCC to obtain additional instructions and schedule the actual transfer. At the time of submission, a completed Project Summary/Collection Receiving Form must accompany the collection when a researcher delivers the collection to the BCC. Among other things, this form requires the accession number, permittee, permit number, site name and number, agency name or private landowners name and address (if a donated collection), and a documentation and materials checklist. This form will be kept within the project's accession file and will be provided by the BCC.

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To avoid loss or damage to artifacts due to shipping and to allow the researcher to explain the organization of the materials and answer any questions the BCC may have, it is recommended that the researcher deliver complete collections to the BCC personally.

Upon the physical transfer of a collection, the researcher will be given a signed statement from the BCC stating that the materials were received. The researcher though, is not released of any responsibilities until an inventory has been conducted of the entire collection and a receipt is issued by the BCC.

PART III

PACKAGING MATERIALS

Archival quality packaging materials are essential factors in the safeguarding of artifacts from fluctuations in temperature and humidity, abrasion, deterioration, contamination, and infestation. Collections received at the BCC must be packaged in materials made from acid-free, non-buffered paper and cardboard products and/or polyvinyl chlorides (PVC)-free plastic products. Artifact preservation can be greatly augmented simply by selecting only the best quality packing and storage material. Below is a short list of some of the most common items (suitable and not) used for packaging which should be considered when planning packaging needs for both the laboratory and the field. Materials listed on the "Avoid" list should never come directly in contact with an artifact and should only be used as a cushion or a support during transport.

SUITABLE:

-Clear, unpleated zip-lock bags
-Clear plastic containers (no PVC)
-Nonbuffered, acid-free tissue paper and cardboard products
-Natural fiber cloth bags with string closures and attached label
-Polystyrene
-Polythene or Polyether foam
-Gortex (R)
-Washed and unbleached muslin
-Bubble pack without PVC
-Packaged Silica gel
-Humidity indicator paper

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An artifact's moisture content will affect its treatment and method of packaging after removal from the ground. It is highly recommended that the project director should be familiar with different of methods for packaging artifacts with varying degrees of moisture.

TRANSPORTING ARTIFACTS TO THE LAB

As previously stated, careful packaging gives the artifacts support and cushions them from abrasion and the vibrations of the vehicle to prevent unnecessary damage when transporting them from the field to the laboratory. The heaviest and most stable items should always go on the bottom of a box with the lighter items on top. These boxes should make up the bottom row of boxes that are stacked. Newspapers are acceptable materials for providing filler and cushion to packages within a box only when transporting.

Greater care is required when packaging very fragile items to insure a safe journey. Labeling the outside of each box to identify the contents and highlighting fragile items will serve as a red flag to prevent damage caused by stacking heavy boxes on top of boxes containing fragile items. Labeling the outside of a box will also eliminate the need to open boxes to find a particular artifact, or to organize the materials when they reach the lab. To prevent damage when different personnel unpack a collection, a simple label inside the box to alert the BCC staff of any special packaging techniques used, fragile objects, or objects with special needs is also most helpful.

PART IV

LABORATORY METHODS

This section will present standard laboratory methods for cleaning, sorting and labeling collections to be submitted to the Billings Curation Center. By using these criterion, researchers will be aiding in the artifacts long-term preservation as well as drastically reduce the time spent in both processing and retrieving collections.

CLEANING

Because cleaning is an irreversible process, the research goals should be kept in mind and serve as a guide for the cleaning methods used in the lab. Cleaning diagnostic artifacts should be kept to an absolute minimum and only if it is a necessary step for artifact analysis, illustration or photographing. Many artifact types can be sufficiently cleaned by simply dry brushing, blowing or rolling water-dampened cotton swabs over the artifact.

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Where does the label go?

Labels should always go in the most inconspicuous spot. Never place a label on the retouched edge of a lithic tool, the exterior surface of pottery, or the maker's mark or other diagnostic feature of an artifact. Always try to label the ventral face of a flake or tool. When in doubt, try to label the least photogenic surface.

What is the acceptable method?

The label should be applied using a three-part technique using the materials previously listed. First, a layer of lacquer is applied to prevent the ink from soaking into the artifact making the label irreversible. Second, the three numbers are legibly printed on the dried lacquer. Third, another layer of lacquer is applied on top of the dried number to keep it from rubbing off. Try to keep labels consistently small regardless of artifact size.

Are their labeling alternatives?

There are many instances where placing the label directly on the artifact is neither wise or feasible. For small items, individual or bulk, place them in an appropriate container with an acid-free paper label inscribed with permanent ink. The BCC provides a label sheet in the Project Summary/Collection Receiving packet which is to be reproduced on acid-free paper. Pens include permanent water resistant markers, disposable drafting pens, and reusable drafting pens with permanent ink.

If a label is to be directly attached to the artifact, hang-tags with white cotton string should be used. Avoid hang-tags with metal fasteners or borders as these can corrode or be abrasive to the artifact.

Even permanent ink can rub off the outside of a plastic container or baggie. This form of labeling, used alone, will not be acceptable. If an acid-free box is used for small fragile items, the outside of the box should be properly labeled with permanent ink in order to identify the contents. An acid-free label should also be placed in the box.

For botanical samples, an acid-free paper label should be placed in a separate baggie and then placed within the larger baggie with the specimen.

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PART V

CATALOGING

FORMAT

Artifact catalog cards are currently used to record the description and provenience of each item and are available upon request from the BCC. Cards require: catalog number, description, material type, unit, location, depth, date collected, county name, and site number. Multiple items with identical proveniences may be written on the same card. The accession number should be typed or printed in the upper left hand corner of each card. The back side of the catalog cards can be used for sketches or additional comments. Although it is not necessary to include it on every page of the catalog record for a site, cross-referencing between the material remains, documentation and photographic records for a site would be easier if the project name and/or identification number were written at the bottom of the first catalog card for a site.

NUMBERING

The sequential catalog numbers are recorded on the artifact catalog cards as well as on the objects themselves. Artifact catalog cards should be submitted in sequence. Any specialized parallel numbering system used, must be accompanied by an explanation.

DATA

Data recorded on the artifact catalog cards must be legible and complete, typed whenever possible. The researcher should include a key on the last page of the artifact catalog for any abbreviations that are not self-evident. A standard artifact typology for use with a computerized inventory is currently being created at the BCC. The original catalog records will be maintained on file and any special artifact codes or typologies discussed in the report must be recorded on the artifact catalog cards or analysis records submitted to the repository.

ORGANIZING COLLECTIONS FOR STORAGE

The researcher should thoughtfully organize the collection before it is submitted to the repository. The organization of a collection should take into consideration such factors as stability, composition, provenience, future research needs, and special needs of fragile and unstable artifacts. Grouping artifacts of like composition makes it easier to meet their environmental needs at the repository and within each individual package.

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Collections will be permanently stored in 11"x 6"x 23" storage boxes. These boxes will be provided by the repository (please contact the curator for details). If the researcher does not have access to the BCC, package the collection in boxes of similar size and curation staff will make the transfer. Small acid-free boxes or self-closing plastic bags may be used to keep several smaller bagged items organized within the box. In this way small collections from several sites can be stored in the same box or items from the same site that share provenience, material type, or other characteristics will be easy to retrieve.

A box inventory sheet (included as part of the Project Summary packet), will be completed and submitted with the collection. The box inventory sheet provides the repository with the site number, accession number, project name and/or number, project sponsor and a list of catalog numbers and content description for each box. Only the accession number and box number corresponding to this inventory sheet should be written in the lower right hand corner of the box in pencil. As the collection is cataloged and inventoried at the BCC a permanent label for the box will be made.

PART VI

ASSOCIATED DOCUMENTATION

All associated documentation, as defined in Part I of the guideline MUST be submitted with the material remains. The Project Summary/Collection Receiving packet, provided by the BCC, contains a documentation inventory and must accompany each accession submitted to the repository. This inventory will be maintained at the BCC and available for future research.

PAPER RECORDS

High quality paper and ink should be chosen for site documentation. The created documents are considered archival and the extra cost of high quality materials is modest compared to conservation measures required to preserve low quality paper records.

Acid-free permanent inks (Appendix D) and permanent inks used for drafting are both good choices for record keeping. If a pencil is preferred, a No. 2 lead is recommended. Avoid magic markers, ball point and felt tip pens as they can fade or bleed, making them unacceptable for archival records.

-Lab analysis records, logically organized
-Specialized reports, data, etc.
-Archival records.
-Professional papers generated by project.
-Maps larger than 8.5" x 11"

MACHINE-READ DATA

If electronic media is submitted as part of a collection, a hardcopy printout must also be included identifying file format and codes used, etc., in order for that the information to be retrieved and useful. Also note the type and version of software and the make and model of hardware used to create the catalog.

PART VII

PHOTOGRAPHIC AND AUDIO MEDIA

Photographic records are some of the most important documentation relating to an archaeological site. Photographic documentation serves as an uncompromising visual aid to interpretation of the written documentation. Using high quality storage materials will increase the value and longevity of these records. The following will provide information on the types of film, processing and storage materials to ensure long-term preservation as well as describe the methods of photo recording and cataloging required by the repository.

The quality of photo processing techniques affects the preservation of photographic materials. Avoid "One-hour" processing labs because they do not take the time to wash film thoroughly to remove chemicals that may accelerate deterioration of the photographs and slides. If one-hour processing is imperative for field interpretation or other reasons, it is recommended that copies be made at another lab when time allows.

FILM

Careful choice of film is beneficial in increasing the chances of long-term preservation of the photographic record. Black and white prints from film rated at a low ASA will preserve better than color prints or slides. Choosing the proper slide film will depend on the purpose of the slide record.

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If the color slides are intended as a supplement to the black and white print record, then Kodachrome is recommended because it stores well. If the slides are to be mainly used in a projector, then Ektachrome will withstand the heat better than Kodachrome.

After processing, it is recommended that cataloging and handling the materials be done in a separate room away from the artifact lab to keep them as clean as possible. All photographic materials should be handled with clean 100% cotton gloves to avoid transferring the oils and salt from ones hands to the materials. Store all photographic media in a clean, cool environment until the transfer of the complete collection.

RECORDS

Record keeping is imperative when dealing with photographic media. A print or slide is only as useful as the record kept to identify it. A photographic inventory form is included in the Project Summary/Collection Receiving packet. The Photograph Inventory Form requests the following information be recorded: project name, medium, date of photograph, name of photographer, exposure number, subject description, direction faced, photo accession or roll number and, added after cataloging is completed, the negative catalog number can be added in the right margin. This information should be recorded immediately after each frame is exposed instead of relying on memory to fill out the form later.

The form should be duplicated on acid-free or 100% rag paper 8.5 x 11. These forms are stored adjacent to storage sheets containing the corresponding negatives, prints, contact sheets or slides. These forms should be completed with legible handwriting and kept as clean as possible. Permanent ink should be used to record all of the information.

CATALOGING

As previously stated, for each project, an accession number is assigned by the curator at the repository. When labeling all photographic materials, with permanent ink or a number two pencil, write the accession number and directly below the roll number/exposure number. The following is an example of a photographic accession number and its meaning:

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9501 1995, the year the materials are accessioned
02/09 01, first project assigned an accession number that year
02, second roll of film from the project; each additional roll of film would be numbered sequentially (3, 4, etc.)
09, ninth exposure on that roll, each following exposure would be numbered sequentially, (10,11, etc...)

Each exposure taken in a project, will require an entry on the Photographic Inventory form.

NEGATIVES

The negatives from each roll of film shall be placed in a negative storage sheet with the project name/number and accession number written at the top of the page. The corresponding catalog number shall be written below the proper frame of the sheet for easy reference.

SLIDES, PRINTS, AND CONTACT SHEETS

Using a number 2 lead pencil or permanent ink, the following information should be written in the upper left corner on the back of each print or slide: accession number, roll/exposure number, site number, and date photographed.

Example: 9509
02/09
24PP123
8/13/95

Keep additional locational information to a minimum, especially if it appears on a photo board in the print or slide.

Prints are to be placed in 8.5 X 11 protective sleeves with the accession number recorded on the front of the sleeve in the upper right hand corner. Acid-free or permanent ink are to be used for this number. The photographs should be organized by size and then numerically by photo accession number when being submitted to the repository.

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A contact sheet in lieu of individual prints submitted with the negative is an acceptable practice. The contact sheet should be placed in a protective sleeve and labeled with the accession, roll, and exposure numbers below each print.

The accession, roll, and exposure numbers for slides shall be written on the nonemulsion side of the slide in the upper left hand corner. An acid-free or permanent ink should be used to catalog the slides.

Slides are to be placed in protective sheets with the project name/number and accession number recorded at the top of the page. The slide catalog number is written below the corresponding slide on the sheet. If a sheet is not completely filled by one roll, the next roll with the same accession prefix can continue on the sheet as long as the proper numbers are indicated at the top of the sheet.

STORAGE METHODS

Only archival quality storage materials, including Mylar, triacetate, polypropylene, polyethylene, or acid-free paper are acceptable for storing photographic media. Unacceptable choices are paper with acid, glassine, which may become brittle or cause ferrotyping, vinyl, which contains polyvinyl chlorides, and envelopes with glued seams, which may damage a photograph if the glue migrates.

In order to meet the BCC's storage methods, all photographs, negatives, contact sheets and slides should be placed in 8.5 x 11 sheets, punched for a three ring binder.

PART VIII

FINAL PROCEDURES

After all the artifacts, documents, photographic media and machine-readable data have been prepared for long-term storage according to these guidelines, contact the field office area archaeologist to schedule a time to transfer the materials. Once again, it is recommended that all materials be hand-delivered to avoid loss or damage during shipping.

If there are any questions, please feel free to call the Deputy Preservation Officer at (406) 896-5214 or the Curator (406) 896-5213.

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Cataloging Isolates

The Billings Curation Center has adopted a method of cataloging isolated finds. This method will parallel the current system, yet the researcher will be able to look at the number and identify the object as an isolate. More importantly, this method for identifying isolates will be compatible with the collection's management database.

Indicate that an object is an isolated find by simply entering a zero (0) into the third position of the Smithsonian Trinomial site number.

	Accession Number	Smithsonian Site Number	Sequential Item Number
Example	9601	24CB0	.1

The next isolated find within the same project (indicated by the accession number) and the same county, would be numbered as:

	Accession Number	Smithsonian Site Number	Sequential Item Number
Example	9601	24CB0	.2, (.3, .4, .5, ...)

If this project (9601) encompassed another county(s), the isolates would be numbered in the same manner, only the alpha-county indicators would change:

	Accession Number	Smithsonian Site Number	Sequential Item Number
Example	9601	24YL0	.1, (.2, .3, .4, .5.,...)

For isolated finds NOT associated with a project, that must be collected, it is recommended that the archaeologist set aside all such artifacts for the calendar year and then contact the Billings Curation Center to be assigned an accession number. With that, the artifacts can then be cataloged using only one accession number for all the unassociated objects and finally deposited at the Billings Curation Center.

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Report Evaluation Form

Bureau of Land Management
Montana State Office
Report Evaluation Form

Report No. BLM: _____ Contractors Report No.:

Date Received:

Fieldwork Authorization No:

Project Proponent:

Contractor:

EA/Serial No.:

Report Status:

[ ] This report has been reviewed and accepted; no further actions are required of the contractor.

[ ] This report has been reviewed and found acceptable subject to the following modifications:

[ ] This report is deficient for the following reasons:

[ ] This report has not been reviewed, additional review time is required.

Additional comments (indicate overall quality of the report):

Reviewed by: _____ Date:
BLM Archaeologist

Approved by: _____ Date:
Field Office Manager

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GUIDELINES FOR PREPARING CULTURAL RESOURCE INVENTORY REPORTS

I. Title Page

A. Report title (include type of investigation) and Report Number (Field Office will provide report number).

B. Contracting sponsor

C. Principal investigator(s) and organization.

D. Author(s)

E. Date of Report

II. Abstract

A. In 250 words or less, provide a summary of project and results of investigation - include the following information:

1. Agency. Identify the lead Federal agency for the project and any other Federal and state land managing agencies involved.

2. Project Title. Provide the name of project.

3. Project description. Briefly describe the proposed action, including planned construction, transfer of title, need for ancillary facilities, etc.

4. Location. Identify Township, Range, and Section, name or nearest city of topographical feature (if applicable), USGS map source, and name of the county in which the project is located. If project is covers multiple townships and/or multiple counties, identify the principal counties that project is located.

5. Acres. State total number of acres inventoried for the project.

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6. Cultural Properties found. State the total number of cultural properties found during the inventory. Also provide the number considered eligible and the number considered ineligible.

7. If space allows, within the Abstract, provide the site numbers of properties found eligible and ineligible, and distinguish between the two.

8. Potential Impacts. If the inventory was done to comply with Section 106 of the National Historic Preservation Act, concisely state the potential direct and indirect effects of the undertaking on the significant cultural properties and include recommendations for avoidance and mitigation.

III. Introduction

A. No prehistoric or historic overview is required for small scale projects. Investigators should review and reference the appropriate Class I Overview, Cultural Resource Management Plan, or other sources as needed to evaluate site significance.

B. Calculate in acres the geographical limits of project area (on linear projects provide the length and width of survey area in addition to acres within project area).

C. Describe the proposed project and the nature and extent of anticipated ground disturbance.

D. Objectives (purpose of study).

E. Dates of investigation.

F. Personnel and work organization.

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G. Locational project map--Provide a map; i.e., 1:100,000 or 1:250,000 or suitable substitution, showing the project area.

Also provide a USGS topographic (7.5' or 15') map(s) showing the project area boundaries as a separate appendix. On these maps clearly indicate project name, cultural properties located, area inventoried, area of potential effect, and ensure that map name, map scale, township, range, and sections are clearly evident.

IV. Environmental Data

A. Description of physiographic province.

B. Describe the general project area in terms of topography, vegetation, geology, and soils. Relevant information on the surrounding area should be included.

C. Current condition of land within project area.

V. Existing Data and Literature Review

A. Conduct a file search of available records (site and inventory information) prior to any on-the-ground effort.
B. Indicate when and where the file searches were conducted and a summary of the results.

VI. Field and Laboratory methods

A. Describe how the area was inventoried; e.g., if transects were used indicate transect interval, if area was inventoried following the contours indicate how far apart were the investigators, (Montana BLM requires an interval of no more than 30 meters). Also indicate how many individuals were used to conduct the inventory.

B. Describe the percent of visible ground and how that may or may not have affected inventory results.

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C. Describe the kinds of laboratory analysis conducted and the results of that analysis.

VII. Summary of Results and Recommendations

A. Absence of cultural resources. If no cultural resources were located by the survey clearly state those results and, if useful to the discussion, explain the absence of cultural resources within the project area.

B. Presence of cultural resources. Describe all cultural properties as fully as possible. Record all cultural properties and isolated finds using the Montana State Office Site Form and Isolated Find Form. Prior to submission of site forms, site numbers will be obtained from the appropriate institution and included as an appendix but separate from the report.

1. Site-by-site descriptions should include a site sketch map which delineates the relationship between site boundaries, features (cultural and natural), collected artifacts, concentrations of artifacts, and a site datum; i.e., if testing was conducted a site datum should be emplaced using a metal or plastic rod).

2. Nature and extent of previous disturbance. If the cultural property has been previously recorded, a reevaluation and/or rerecording may be necessary. Site integrity should be discussed.

3. Site evaluation on a site-by-site basis. The National Register criteria for evaluation must be explicitly addressed.

4. Assessment of impact(s) on a site-by-site basis if feasible.

5. Recommendations for avoidance, for further work at cultural properties not evaluated during the inventory, or alternative mitigation measures for properties likely to be affected by the proposed undertaking.

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VIII. References Cited

A. Where necessary and appropriate give full citations to all reference material cited in the report. Citations should be formatted consistent with American Antiquity or other appropriate professional style guide.

IX. Maps and Graphics

A. Provide appropriate maps, charts, tabulations, and graphics necessary to support the report narrative. Provide a tabulation of materials collected during inventory or recovered during testing, if applicable.

X. Photographs

A. Black and white or color photos shall be taken of each site and included in the site form and at least one copy of the original report (good quality copies of photographs should be included in all subsequent copies of the report). Unless cost prohibitive, general views of the project area shall be included in the report and clearly labeled. For standing structures a photo of at least two sides of each standing structure will be necessary. All features or feature groups at historic sites should be photographed and photos provided with the site form. All photographs should show scale and true north arrow except for general views where recorded compass bearings and/or reference to a specific cardinal direction will be adequate.

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Montana State Office Site Form

The attached site forms are used to record cultural properties meeting the threshold for minimum site definition. Site forms must be typed or completed using a word processor. For North Dakota and South Dakota the state forms should be used instead of the following form. Please use the following instructions when completing this form.

1. Field No.: A temporary number assigned to a cultural property by the investigator.

2. Site No.: Fill in the Smithsonian trinomial number. The Smithsonian number consists of a state numerical designation, a 2 letter designation for the county, and a numerical designation for the site.

3. Resource Name: Archaeological resource names may be local names, names given by surveyor, or names used in earlier site records or publications. Historic period resource names should be the historic name generally associated with the significance of the resource. Other names by which the resource is known may also be provided here.

4. USGS Map Quad: List the Quad name, size of map (either 7.5 or 15 minute) and date of the map. If the map has been photo-revised, include the photo-revised map date.

5. County: Give the county in which the resource is located.

6. Other Maps: List any other maps used, including the date of the map, the map scale, and source.

7. Legal Location: Describe the location of the resource using the Rectangular Survey System. Descriptions should be as inclusive as possible with no portion of the property outside of the legal description provided in this section.

8. UTM: If the resource is less than 10 acres in size use 1 UTM for a point centered on the site. For resources greater than 10 acres, the area must be enclosed by 3 or more sided figure with a UTM reference for each corner. Points may be given in clockwise or counterclockwise order.

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9. Official Designation: This section will be completed by the appropriate resource area or district archaeologist. Completion is based on either a consensus determination made by BLM and the SHPO or by a determination from the Keeper and can be verified through written documentation on file at the district or resource area: Check as many as appropriate to categorize all components at the recorded site.

10. Site Category: Check as many as appropriate to catagorize all components at the record site.

11. Use Category: Completed by BLM archaeologist.

12. Topographic Setting: Describe the specific site topography here including named landforms and their relationship to each other: e.g., the site is situated on a ledge near the base of the west wall of Turkey Creek Canyon.

13. Soil Description (Character and Color): Describe the soil in terms of grain size (sand, silt, clay, gravel) and its color.

14. Depositional Environment: Describe the depositional environment; e.g., (1) aeolian - materials deposited by wind, (2) alluvial - materials deposited by water, (3) colluvial - materials deposited primarily by gravity (this may occur in conjunction with other geologic processes), (4) Moraine - detritus (rocks and sediments) deposited by a glacier at its terminus or lateral edges, (5) Residual - soil formed in place, presumably from the same rock on which it lies, (6) None - no soil deposition; i.e., bedrock, cliff face, etc.

15. Elevation: Calculate the mean elevation from the contour lines shown on the USGS quad map.

16. Nearest Water: List nearest water source and the nature of the source.

17. Vegetation on Site: List predominant species by genus and species nomenclature, if possible, although common names are acceptable.

18. Surrounding Vegetation: List vegetation associations/communities surrounding site. Here, an association is defined as a natural unit of vegetation characterized by a relatively uniform species composition often dominated by a particular species.

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19. Slope: Estimate the general slope of the ground on the site. Use a range of degrees for complex topography. Slope is expressed as a fraction of a right angle where 0° is horizontal and 90° is straight up or down.

20. Enter the name of the institution, agency, or company the sponsoring the survey.

21. Access: Describe features in the natural and man-made environment which will enable future investigators to relocate the site. Whenever possible note the direction and distance to features such as roads or lakes. Beginning at a known point, indicate the roads, turns, mileage, trails, gates, and means of transportation to which the site can be reached. Indicate if the site is open or accessible to the public and if its is visible from public roads.

22. Description of Site: In a narrative, summarize observed remains located at a cultural property and describe the general site setting. The description should include a synthesis of all artifacts and features and any additional important information. For sites containing tipi ring and/or cairns use enclosed guidelines in Appendix 6. For sites containing standing structures, list and describe each architectural feature. Tie each feature or architectural structure to the site map and provide scale drawings of all architectural features. The structure(s) may be labeled in descriptive or functional terms. Please be as complete as possible.

23. Site Dimensions: Give dimensions in the metric system for archaeological sites and in the English system for historic period architectural sites. Include the orientation of the primary dimension (E-W, N-S, etc.) for the resource. Provide the area of the resource in meters.

24. Boundary Description/Justification: Describe the physical extent of the resource. State how the boundaries were determined and to what degree; i.e., estimated, taped etc., those boundaries are reliable.

25. Description of Cultural and Materials (Quantify and identify): Additionally, list and describe artifacts observed on the site. The classes may be functional or descriptive and may be lumped or split as necessary. If the quantity of a particular class of artifacts is estimated, please note that it is an estimate on the form.

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26. Artifact Repository: BLM's policy requires that all artifacts are curated at the Billings Curation Center a BLM administered curation facility in Billings.

27. Description of Subsurface Testing: Describe in detail efforts at subsurface investigation including the number of test pits, shovel tests, and auger probes emplaced in the cultural property. Indicate how the material was screened and what size mesh was used. Locations of testing efforts should be denoted on the site map.

28. Current Use of Site: Describe how the site area is presently being used; e.g., pasture, agriculture, industrial, etc.

29. Land Status: Indicate whether land is public or private. If privately owned identify who owns the land.

30. Cover (% of visible ground). Estimate the amount of ground visible across the site area.

31. Man-hours spent on site: Denote the number of hours expended recording the site.

32. Project Title: The title or name given to the project for which the inventory was conducted; e.g., Altamont Pipeline.

33. Report Title: The title given to the report generated by the inventory effort.

34. Author: The author(s) responsible for production of the report.

35. Descriptions of the Collections Observed: List the collections observed and/or studied.

36. Owner-Address of Collections Observed: name and address at which any collections can or was studied; any knowledge or previous surveys and excavations and bibliographic references for all known published material concerning the site. List the names and addresses of anyone known to have information about the site.

37. Statement of Integrity: Describe the general condition of the site, whether it retains its original integrity, and any activities or land uses which have affected site integrity.

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38. Statement of Significance: Indicate possible significance of the resource based on the sites ability to meet National Register Criteria. Clearly state the logic employed to make a determination. If it is not possible state possible ways in which a determination could be made.

Additional Forms: Six additional forms are provided: (1) Sketch Map Form (2) Topographic Map Form (3) Photograph Form, (4) Continuation Form, (5) Stone Feature/Ring Ancillary Recording Form, and (6) Ancillary Recording Form for Cairn/Rockpile Features. For each recorded site a sketch map, a copy of the USGS Map quad, and a black-and-white or color photo of the location are required. Please use the provided forms to meet that requirement.

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Montana State Office Site Form
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1. Field No._____ 2. Site No._____
3. BLM Report No. _____

Management Data:
4. USGS Map Quad_____ 7.5'___ 15'_____ Date(s) _____ (attach copy)
5. County _____ 6. Other Maps: _____
7. Legal Location (Required):

			QQQ	QQ	Q
Twp_____	R_____	Sec_____	_____	_____	_____
Twp_____	R_____	Sec_____	_____	_____	_____
Twp_____	R_____	Sec_____	_____	_____	_____
Twp_____	R_____	Sec_____	_____	_____	_____

8. UTM Reference (Optional):

A. _ _; _ _ _ _ _ _mE _ _ _ _ _ _ _mN
B. _ _; _ _ _ _ _ _mE _ _ _ _ _ _ _mN
C. _ _; _ _ _ _ _ _mE _ _ _ _ _ _ _mN
D. _ _; _ _ _ _ _ _mE _ _ _ _ _ _ _mN

9. Official Designation (BLM Use Only)

Eligible	_____	Date_____
Not Eligible	_____	Date_____
Need more information	_____	Date_____
Listed	_____	Date_____
Contributing to NR District	_____	Date_____
Not Contributing to NR District	_____	Date_____

10. Site Category (check as many apply):

Prehistoric archaeological site	_____
Historic archaeological site	_____
Historic building(s)	_____
Historic structure(s)	_____
Historic Feature(s)	_____
Other	_____

11. Use Category (BLM Use Only)

Scientific Use	_____
Conservation Use	_____
Experimental Use	_____
Traditional Use	_____
Public Use	_____
Discharge Use	_____

Environmental Data:
12.Topographic Setting:_____

13.Soil Description (Character and Color): _____

14. Depositional Environment; e.g., aeolian: _____

15. Elevation_____ ft.

16. Nearest Water: name/nature _____ Elevation_____ ft.
Distance _____ Direction _____

17. Vegetation on site_____

18. Surrounding Vegetation_____

19. Slope_____ 20. Recorders Affiliation _____

Recorded by _____ Date _____

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Page 2

Field No._____ Site Number _____

Site Data:

21. Access: _____

22. Description of Site: _____

23. Site Dimensions _____m _____m Area_____m^2 ÷ 4047 _____ acres

24. Boundary Description and Justification: _____

25. Description of Cultural Materials (Quantify and identify): _____

_____# of items of cultural material observed
_____# Collected

26. Artifact Repository: _____

27.Description of Subsurface Testing: _____

Recorded by _____ Date _____

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Field No._____ Site Number _____

28. Current Use of Site: _____

29. Land Status (Indicate jurisdiction or ownership): _____

30. Cover (% of visible ground): _____

31. Man-hours spent on site: _____

32. Project Title: _____

P.I.: _____

33. Report Title: _____

Author: _____

34. Other Published References: _____

35.Description of Collections Observed: _____

36.Owner-Address of Collections Observed: _____

37.Statement of Integrity: _____

38.Statement of Significance: _____

Recorded by_____ Date_____

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Montana State Office Site Form
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Continuation Form

Page _____

Field No._____ Site Number _____

Item No.

Recorded by _____ Date _____

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Montana State Office Site Form
Topographic Map

Field No. _____ Site No. _____

Photo copy the portion of the 7.5' or 15' USGS topographic quadrangle that shows the location of the site and surrounding area. Mark the boundaries of the site on the photocopy. Photocopy of the portion of the topographic quadrangle must be actual size, reductions or enlargements are unacceptable.

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Montana State Office Site Form
Sketch Map

Field No._____ Site No._____

Include a north arrow, site boundaries, road or street names, locations of artifacts, features, buildings, structures, objects, and depressions with each item individually numbered and keyed to the Map Key.

Map Key: Map Scale:

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Montana State Office Site Form
Photographic Record

Field No. _____ Site No. _____

Photo I.D. Code: _____

Storage Location: _____

Include direction facing, feature number, and photo caption of each submitted photograph.

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Requirements for the Recordation of Archaeological Properties with Stone Features

These requirements are intended to be used when recording archaeological sites with stone features and/or stone piles. The purpose of collection of such data is, in part, to employ surficial attribute data to further explain human behavior at stone feature sites. The historic context employed for these requirements is contained in Deaver (1999: Volume 8) and is adopted here by reference.

I. Inventory Phase - For sites containing stone features/tipi rings the following types of data should be collected for all identifiable features within an established site boundary: site maps and feature attributes (in accordance with categories contained in section B.1. Generic data). Investigators are also expected to complete, in addition to the generic ring data, the standard site form.

A. Site Maps - Sketch maps for each site should include at the minimum:

1. Site number, date, name of recorder, north arrow, and scale. Indicate orientation of map to magnetic and/or true north.
2. Sketch of locations of all features and artifact concentrations. Sketch should be to scale and based on paced or taped distances and compass bearings. GPS data should not be used to substitute for paced or taped distances unless the unit has an accuracy rating of less than 3 meters.
3. Datum - identify and plot on sketch map a datum from which measurements or points can be referenced. A datum can be a stake placed in the site, a natural or cultural point (a natural boulder or a fence corner), or a center point of a stone ring.
4. Modern features - plot modern features (such as roads, fencelines, powerlines) on map to facilitate relocating sites and orientating viewer to features recorded.
5. Topographic and other natural features - plot distinct natural features like creeks or prominent boulders on map and sketch topography with approximations of contour lines.
6. Artifacts collected - plot all collected artifacts on map and label.

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B. Feature Attributes - Feature maps; i.e., tipi quick maps, are not necessary at the inventory phase. Generic attribute data should be recorded using the form provided in this Appendix on page12 and appended to the site form.

1. Generic Data (At a minimum, the following categories should be recorded for all features).

a. Ring Number (keyed to site sketch map).
b. Ring Interior Diameter (paced) Record interior diameter (inside edge to inside edge) along the north-south line (0 °- 180°).

This measurement must be paced. It is somewhat subjective in that interior edges should be defined by stones most obviously within the ring. Stones which are part of the feature but have obviously been scattered beyond the best defined portions of the ring are not used to determine ring diameter.

c. Rock Depth (using generic categories like deep, moderate, shallow). Rock depth is a visual observation. "Deep" means the proportion of the most

stones visible above the sod line is 25% or less. "Moderate" means the proportion of most stones visible above the sod is 25% to 75%. "Shallow" means the proportion of most stones visible above the sod line is more than 75%.

d. Rock Count (number of visible stones that can be attributed to an individual ring).

e. Gaps (note presence/absence of small breaks in wall)

A Wall gap is defined here as a void between stones which exceeds roughly 50cm and is less than 90° of the stone circle.

f. Definition: Note whether the tipi ring has good, moderate, or poor definition.

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Tipi ring definition is a subjective observation of feature distinctiveness of outline or detail, based on the number of stones and the spacing of stones. A feature with good definition generally has closely spaced stones. A feature with moderate definition has more widely spaced rocks but the feature has an obvious circular or oval shape. A feature with poor definition has gaps in the circumference and widely spaced stones.

g. Shape: Note whether the tipi ring resembles a circle, oval, or has an irregular shape.

The shape of the feature is determined from a visual assessment. No measurements are taken. Irregular shapes include anything other than obviously circular or oval configurations. Features recorded as irregular may display subtle departures in shape from other tipi rings; e.g., flattened on one end, concave on one edge. Irregular shaped features are not necessarily poorly defined features whose shape result from post-occupational disturbance.

h. Configuration (note the completeness of ring in general categories of ¼, ½, ¾, full.

Tipi ring configuration is a visual observation. If feature stones form a 360° circle, regardless of the definition or number of stones, it is described as full.

If a roughly 90° segment of the feature has no stones, it is ¾, if about 50% of a circle is present, it is ½ and if only 25% of the circle is present the feature is ¼.

i. Associated Features (note number of features; i.e.,cairns, clusters, hearths, internal rock features, pits, etc., and also the location in general categories, inside, outside, on wall).

Associated features should be no more than 2 meters outside of the wall of a stone ring. For purposes of completing the included form use the following operational definitions for features:

Cairns: A man-made pile of rocks.

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Cluster: A pile of rocks located along and/or comprising a portion of the wall of a stone ring.
Hearths: An identifiable grouping of rocks which exhibit use as a hearth; e.g., rocks are fire cracked or redden.
Internal Rock Feature: An identifiable group of rocks, function unknown, located inside a stone ring.
Pits: A man-made depression located within or outside of a stone ring.

C. Cairns: Use the enclosed form on page 13 of this appendix. This form has categories for cairn number, definition, shape, diameter, height, sodding, surface rock count, rock type, and average rock size. Most categories required by this form are self explanatory with the exception of "definition" and "sodding."

Definition: subjective observation of feature distinctness delineated into the following categories of good, moderate and poor. A feature with good definition has closely spaced concentrated stones clearly visible on the landscape. Moderate definition has more widely spaced rocks, not quite as concentrated, and less apparent. A feature with poor definition has only a few rocks, is one course high, and the rocks are further apart.

Sodding: Subjective observation of degree of sodding divided into none, light, and heavy. None refers to features where the rocks at the base of the stones are exposed. Light describes features where the base of the rocks are sodded. Heavy is limited to features where the base and a good portion of the stones are sodded.

D. Alignments: Plot feature on site sketch map and describe on site form in narrative form - include length, number of markers, and approximate distance between markers. Complete a cairn form for each individual marker in an alignment.

E. Cultural Material (note the presence and approximate abundance for the following categories [None= 0, Sparse = 1-10, Moderate = 11-100, Abundant = 100+], for all the following artifact types for the site as a whole).

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1. Fire-cracked Rock
2. Bone
3. Coarse-Grained Debitage
4. Fine-Grained Debitage
5. Patterned Tools (note location in site or within feature).

II. Testing and Evaluation Phase - To determine a sites eligibility to the National Register additional data must be collected. The purpose of this information is to determine the probability of the presence or absence of essential data sets for specific research questions, and to acquire information that will allow the researcher to formulate an efficient and productive data recovery plan should a subsequent mitigation phase be necessary. To ensure consistent application of the National Register Criteria to stone feature sites, enclosed find a CD containing an excerpt from Volume 8 of the *Cultural Investigations along the Montana Segment of the Express Pipeline* (Deaver 1999, Volume 8: Section 5, pages 1-18).

A. Detailed Data - For the evaluation phase, record at the detailed level, all rings within the direct impact area or, if a land exchange, all rings within the area proposed for exchange from Federal ownership (see the Ring Attribute Form Detailed Data, this Appendix page 14). Sketch maps for the detailed data level should use measured data; i.e. taped distances. Collection of these data attributes requires the stone ring to be divided into eight 45 degree, pie-shaped segments or octants of equal size. Octants are defined according to compass orientation with 0 = magnetic north and sector lines drawn from the center of the ring to the following azimuth points: Octant 1; 0-45°, octant 2; 45-90°; octant 3; 90-135°, octant 4; 135-180°, octant 5; 180-225°, octant 6; 225-270°, octant 7; 270-315°, and octant 8; 315-360°. For each ring subject to the detailed recording the following data should be recorded.

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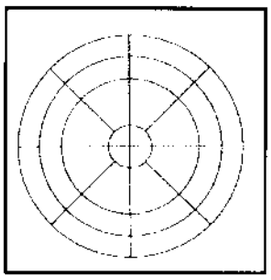

Figure 1: Ring Divided into octants

1. Ring Number (keyed to site sketch map).
2. Ring Diameter (4 inside and 4 outside diameter - measured, not just paced). Record N-S, NE-SW, E-W, SE-NW.

3. Wall attributes (record the following attributes by octant of ring wall)
    a. Rock Count - A simple count of the number of rocks per octant. If one rock spans more than one octant count and include in just one octant.
    b. Stone Depth - Record the depth of a stone per Octant. Requires partial removal or disruption of the stone to obtain measurement.
    c. Rock Size - Select a representative stone per Octant and measure its length.
    d. Wall Gaps (record size and location of gaps in each octant).
    e. Type of Coursing: Identify coursing - single, clustered, multiple (see Figures 2-4).

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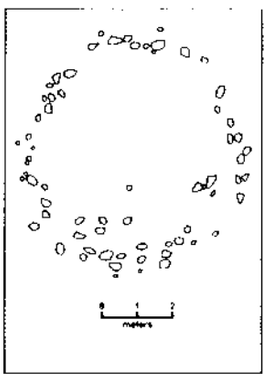

Figure 2: Single

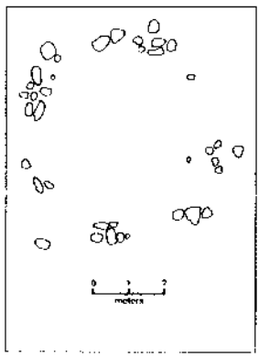

Figure 3: Clustered

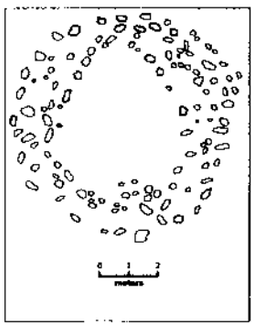

Figure 4: Multiple

f. Associated Features (note type and location of associated features - azimuth, distance from center, inside or outside wall). Associated features must be no more than 2 m from ring wall.

h. Associated Artifacts (note presence and abundance categories, as for generic data, for all materials types and plot all artifacts collected). Artifacts must be located within the ring.

4. Additional Considerations. Note any unusual circumstances in setting, associations or feature attributes and include narrative analysis in the site evaluation section of the standard site form. Include the following considerations:

a. Geographic Context - Compare the site to properties of the same type previously recorded in the region. This will require that the researcher conduct a file search for the area surrounding the newly reported site. This comparison will permit the researcher to state whether the site occurs in a typical or unusual setting, landform, distance to water, topography, for similar sites in this area.

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B. Subsurface testing - At most stone feature sties, subsurface testing is the only way to determine the presence or absence of sufficient artifacts and other forms of data to place the site or individual features in a temporal context, demonstrate contemporaneity of features and interpret what activities took place. These types of information are necessary for most research questions, and consequently, subsurface testing is necessary to demonstrate the presence of essential data sets for most questions, and for making eligibility recommendations.

For most projects, subsurface testing will be restricted to the actual project impact area for a variety of reasons some related to land ownership but also due to the scope of the project. Therefore, a testing effort may only evaluate the potential of a portion of the site. These instructions recommend the excavation of 1 square meter per ring or a maximum of 20 square meters within the impact area. For testing projects, where there is no specific impact area; e.g., land exchanges, investigators should emplace a sufficient number of formal units to determine eligibility. We recommend a minimum of 1 square meter per ring, to a maximum of 20 square meters per site, where the impact area cannot be clearly defined.

At a minimum, subsurface testing at stone feature sites should include the following elements:

1. Test units may be auger probes or formal excavation units (such as 50 cm x 50 cm or 1 m x 1 m units) or any combination, but the total area excavated must be 1 square meter per ring in the impact area to a maximum of 20 square meters (see previous discussion).
2. Testing should be conducted both within and between features in the impact area.
3. Test units should be dug as a single level to a depth of 2 cm to 3 cm below the feature stones to assure that the cultural level has been sampled. In the very rare circumstance that the site or at least the impact area is deflated, and ring wall stones are 2 cm to 3 cm above ground surface (slightly pedestaled), subsurface testing may not be warranted and careful surface examination of artifact densities may be sufficient.

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4. All sediment from test units (auger probes or formal units) should be screened through 1/4 inch mesh. Where feasible investigators should consider use of 1/8 inch mesh.
5. If cairns occur within the impact area, a minimum of 1 square meter should be used to test one or more of these features.
6. Lithic material recovered from test units should be counted by material type (in some areas such as northern Montana it may be appropriate to lump all local fine grained material and simply count the number of fine versus coarse-grained debitage) and artifact type (flakes, shatter, cores, and patterned tools). The counts should be recorded by test unit provenience. All patterned tools should be identified as to type, material and provenience.
7. Bone recovered from test units should be counted and identified (taxon, element) where possible. The counts should be recorded by provenience.
8. Fire-cracked rock from test units should be counted and recorded by provenience.
9. If subsurface features are encountered in the test units, the feature fill should be collected and returned to the lab for further processing. In the field, the feature should be photographed or drawn and profiled. In the lab, the fill should floated for macro-plant remains, a sample should be submitted for radiocarbon analysis if sufficient carbon is present and all lithic, bone and FCR items should be tabulated and added to the counts for the appropriate test units.
10. Artifacts recovered from test units should be cataloged and curated to standards noted in this Handbook. FCR and stones used from construction of cairns or stone rings, will generally not be saved for eventual curation.
11. Feature maps are optional for ring features when formal test units; i.e. units equal to or greater than 50 cm x 50 cm are emplaced within the feature. Feature maps are also not required where shovel probes or auger tests are made within ring features.

Once the detailed data has been collected and the subsurface testing completed, the investigator should review the information recovered, and contrast that data with the registration requirements identified in Deaver, Vol 8, Chapter 5, cited previously. This comparison should provide guidance on the potential eligibility of the investigated site.

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III. Excavation/Mitigation Phase

A. The excavation/mitigation phase will only be appropriate for stone feature sites that have demonstrated a good probability of offering the essential data sets for specific research questions (thus recommended as eligible) and where adverse effects from project cannot be avoided. In many cases, project design changes will be more cost effective and the adverse impact can be avoided.

Where avoidance is not feasible, the research questions proposed as a rationale for eligibility recommendation will form the basis for the research design during the data recovery effort. Since data recovery methods will derive from the specific site contents and research questions proposed, it is not appropriate to have a single set of guidelines for mitigation of all stone features sites. However, two general categories of recommendations can be made and will apply to most mitigation projects.

The first type of recommendation concerns the methods proposed for data recovery. The methods must offer a reasonable chance of recovering sufficient artifacts or data to address the research questions proposed. Given that stone feature sites typically have relatively low artifact densities, the excavation sample proposed must be relatively large to recover an assemblage sufficient for statistical manipulation.

Site types with relatively high artifact densities such as bison kills and quarry sites may produce sufficient cultural material from 50 to 100 square meter mitigation samples, but stone features sites normally need at least 200 to 500 square meter excavation samples to produce enough artifacts to document the nature of activities that occurred.

When the research questions focus on activities that occurred within or adjacent to specific rings, it is advisable to excavate as much of the particular ring as possible. Artifacts are not randomly distributed in each ring, and partial ring excavation may miss artifact concentrations and rare artifact types. In practice, this often means converting the entire mitigation sample in and around four or five rings and ignoring the rest of the site. This will result in little or no information from unexcavated areas, but will permit much more precise and detailed analyses of the activities in the locations excavated.

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The second type of recommendation concerns the focus of the data recovery project and the questions proposed. A number of research question and hypotheses such as the domestic versus special use function of rings and the size-age hypothesis have been proposed and investigated at ring sites for decades. The results of those investigations settled these questions more than a decade ago, and it is a waste of time to continue posing these questions. Questions concerning the time span during which tipis were used in a given area are also producing repetitive data and merit little attention. A more fruitful avenue will likely will come from more detailed studies of individual features where the full range of activities in and around rings can be documented, and from larger scale synthetic studies of the cultural patterns displayed by all the features in the local area.

*Acknowledgment: These requirements to record, evaluate, and mitigate stone feature sites have been taken largely but not in their entirety from the Deaver manuscript cited below. The procedures, in part, grew out of a symposium sponsored by BLM in 1998. The symposium brought together four archaeologists who have focused on tipi ring investigation and research during their careers, the SHPO, and a consulting archaeologist from RTI who served as a facilitator; i.e, Steve Aaberg, Tom Roll, John Brumley, Ken Deaver, Mark Baumler, and Mitzi Rossillon, respectively. Additionally, some definitions used to define ring attributes were taken or paraphrased from Aaberg (1996). Any errors due to omission or misinterpretation, however, should be attributed to BLM and not to the author of the cited publication nor the symposium participants.

Aaberg, Stephen
1996 *Summary Report Benjamin Ranch Stone Circle Documentation Project.* Unpublished manuscript on file at the Montana State Historic Preservation Office, Helena, Montana.

Deaver, Ken and Lynelle A. Peterson
1999 *Cultural Investigations along the Montana Segment of the Express Pipeline, Volume 8, Class I Investigations of Shallow Stone Feature Sites in Central Montana,* Ethnoscience, Billings, Montana.

The BLM thanks the symposium participants for their contribution to this Handbook and to the future of Stone Feature work in Montana and the Dakotas.

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Ring Attribute Form
Generic Data

Site Temp # _____ Smithsonian # _____

Ring Number	Int. Diam.	Rock Count	Rock Depth	Wall Gaps	Definition	Shape.	Configuration.	Assoc. Feat.	Assoc. Feat. Location
#	Paced in meters	#					Deg. of Completeness	Number & Type	location
			D-deep M=moderate S=shallow	A=absent P=present	G=good M=moderate P=poor	C=circle O=oval I=irregular	¼, ½, ¾, Full	CA=calm C=cluster H=hearths P=pits IRF= int. rck feat	I=inside W=on wall O=outside

Surface Cultural Material seen on entire Site: None (N) = 0, Sparse (S) = 1-10, Moderate (M) = 11-100, Abundant (A) = 100+

FCR_____ Bone _____ Coarse Lithics _____ Fine Lithics _____ Tools_____

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Cairn Attribute Form

Site Temporary #_____ Smithsonian #_____

Cairn Number	Definition	Shape	Diameters		Height	Sodding	Surface Rock Count	Rock Type	Rock Size
#	G=good	C=circle	N-S	E-W	cm	N=none	#	C=cobbles	Avg (cm)
	M=moderate	O=oval				L=light		A=angular	
	P=poor	S=square				H=heavy		T=tabular	

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Ring Attribute Form Detailed Data

Site Temp # _____ Smithsonian # _____

Ring #	Octant	Wall Attributes							Ring diameter		Assoc. Artif by Ring (type)	Assoc. Artif by Ring (No.)	Assoc. Features by Octant	Assoc. Feature by Octant
		Count	Depth	Wall Rock Size		Gap Size cm	Gap Location Deg.	Type of Coursing	measure (m)		F=FCR, B=bone C=coarse lth D=fine lth T=tool	Abundance N=0 S=1-10 M=11-100 A=100+	Type	Location
		# Rocks	cm	Avg cm	Range cm SM/Large			Single Multiple Clustered	4 inside (I) 4 outside(O) List in this order for each ring: N-S, NE-SW, E-W, SE-NW				CA=calm CL=cluste r H=hearth IRF =Int. Rck Feat. P=pit	azimuth & dist. from cent in degr & cm
	1(0-45)								I =	O=				
	2 (45-90)								I =	O=				
	3 (90-135)								I=	O=				
	4(135-180)								I=	O=				
	5(180-225)													
	6(225-270)													
	7(270-315)													
	8(315-360)													
	1(0-45)								I =	O=				
	2 (45-90)								I =	O=				
	3 (90-135)								I=	O=				
	4(135-180)								I=	O=				
	5(180-225)													
	6(225-270)													
	7(270-315)													
	8(315-360)													

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Montana State Office Isolated Find Form

Isolated Find forms are completed for locations which do not meet the minimum site definition (see Appendix A). Please use the following instructions to complete the form.

1. Isolated Find No.: A number assigned to an isolated find by the investigator recording the location.

2. BLM Assigned No.: A number assigned by the district or resource area office to a recorded isolated find.

3. BLM Report No.: A BLM assigned number indicating state, district and/or resource area and a sequential number; e.g., MT-060-92-1456.

4. USGS Map Quad: List the Quad name, size of map (either 7.5 or 15 minute) and date of the map. If the map has been photo-revised, include the photo-revised map date.

5. County: List the county where the isolated find was located.

6. Other Maps: List any other maps used, including the date of the map, the map scale, and source.

7. Legal Location (Required): Describe the location of the resource using the Rectangular Survey System.

8. UTM Reference (Optional): Use one UTM calculation to describe the location of an isolated find.

9. Description of Cultural Material: Describe the type and class of cultural material observed at the location. Include functional and/or descriptive categories and identify the source material from which the artifact was produced. Include dimensions of diagnostic artifacts.

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10. Artifact Repository: Identify the location of where the artifacts are curated. While BLM has a general policy of curating artifacts at its facility in Billings there are instances, through formal agreement, in which artifacts can be curated at a different location. This location should be denoted.

11. Topographic Setting: Describe the specific site topography here including named landforms and their relationship to each other: e.g., the isolated find is situated on a ledge near the base of the west wall of Turkey Creek Canyon.

Additional Form: Photo copy a portion of the Quad Map with the location of the I.F. clearly denoted on the map.

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Montana State Office
Isolated Find Form
Bureau of Land Management

1. Isolated Find No. (Field No.)_____ 2.BLM Assigned IF No. _____

3. BLM Report No. _____

4. USGS Map Quad _____ 7.5"___15' ____ Date(s) _____
(Attach copy)

5. County _____ 6. Other Maps _____
____

7. Legal Location (Required) QQQ QQ Q
Twp_____ R_____ Sec_____ _____ _____ _____

8. UTM Reference (Optional)

A. _ _ ; _ _ _ _ _ _ _ mE _ _ _ _ _ _ _ mN

9. Description of Cultural Material:

_____ # of items of cultural material
_____ # of items of cultural material collected

10. Artifact Repository: _____

11. Topographic Setting: _____
_____
_____
_____
_____

Recorded by _____ Date _____

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MSO IF Form Topographic Map Field No._____ BLM IF No. _____

Photo copy the portion of the 7.5' or 15' USGS topographic quadrangle that shows the location of the isolated find and surrounding area. Mark the position of the isolated find on the photocopy. Photocopy of the portion of the topographic quadrangle must be actual size, reductions or enlargements are unacceptable.
