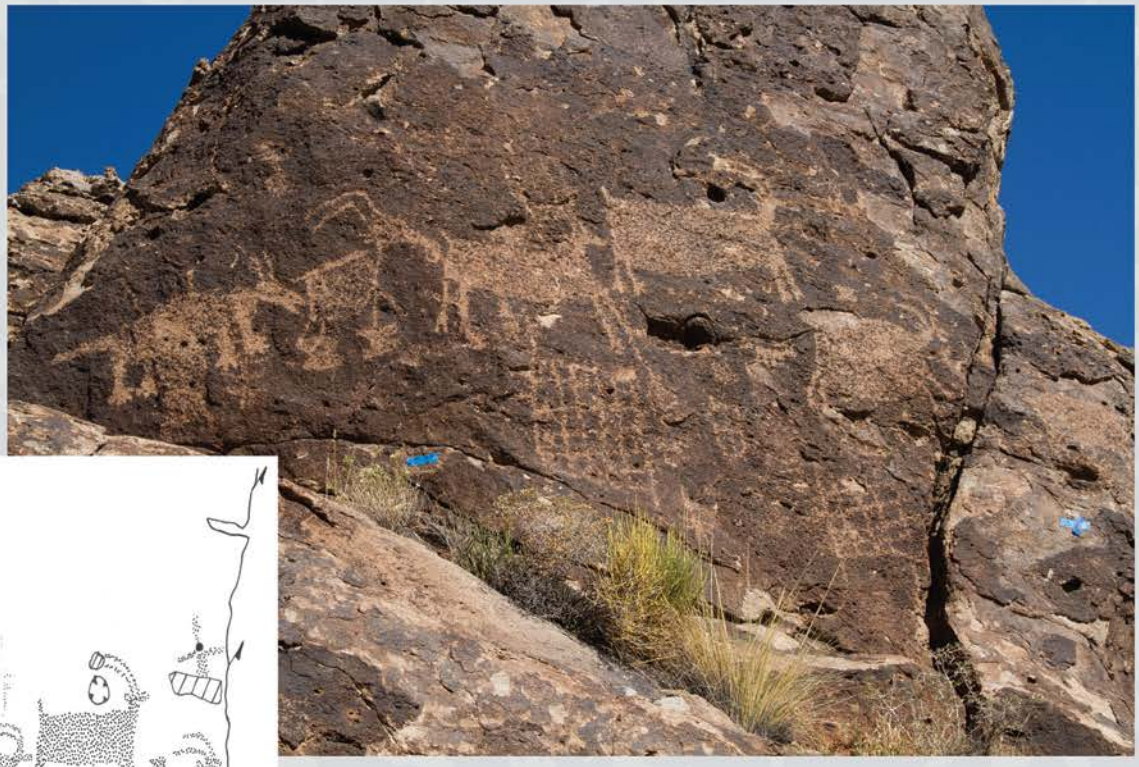
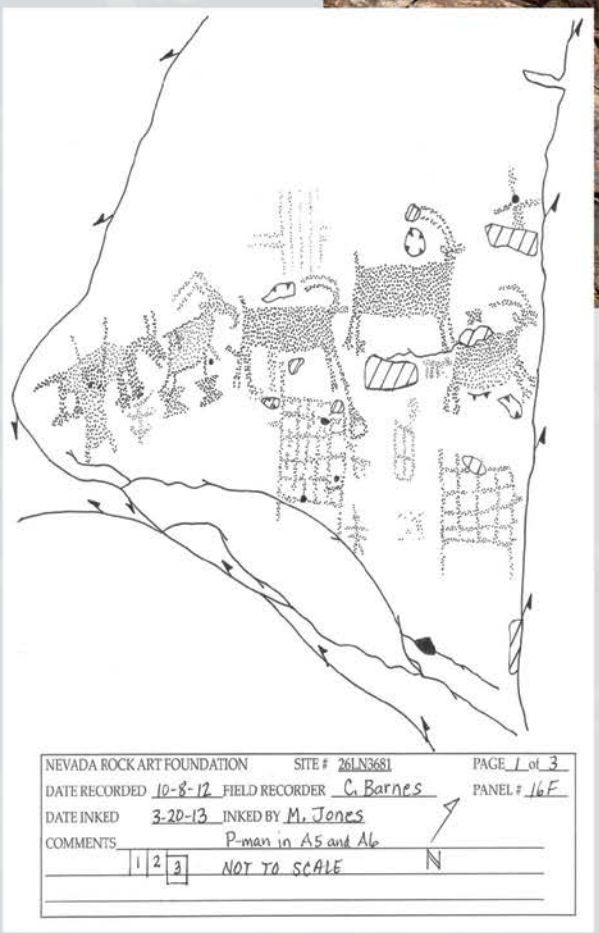
U.S. Department of the Interior
Bureau of Land Management

Guidelines and Standards for Archaeological Inventory

Sixth Edition





Nevada State Office

2019

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GUIDELINES AND STANDARDS FOR ARCHAEOLOGICAL INVENTORY

Approved by:
/s/ _____
State Director, Nevada

UNITED STATES DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
NEVADA STATE OFFICE

Sixth Edition
April 2019

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1. INTRODUCTION

These Guidelines are issued under the authority of the Archaeological Resources Protection Act (16 U.S.C. 470cc Section 4.d) which states "any permit under this section shall contain such terms and conditions, pursuant to uniform regulations promulgated under this Act, as the Federal land manager concerned deems necessary to carry out the purposes of this Act" and the implementing regulations for the Archaeological Resources Protection Act, found in 43 CFR § 7.9. These Guidelines set the archaeological inventory standards established by Bureau of Land Management (BLM) Nevada in order to assist BLM and its permittees (contract archaeologists) in complying with federal laws, regulations and policies on cultural resources protection. The purpose of these Standards and Guidelines are to assist in achieving consistency in the manner in which inventories are conducted for archaeological sites, as well as in the recording and reporting of the results of those inventories. This consistency should reduce the amount of time BLM Cultural Resource Specialists spend reviewing reports and consulting with the Nevada State Historic Preservation Office (SHPO). BLM Nevada has issued a second set of Guidelines for the recording and reporting of architectural resources.

The intent of the "Section 106 process" is to take into account adverse effects to historic properties, or those properties listed in or eligible for the National Register of Historic Places. As such, these Guidelines are primarily designed to serve as a template for BLM Nevada to be able to make adequate and reasonable determinations of site eligibility to the National Register; they are not designed to cause unnecessary delays in the Section 106 process. The GIS Standards and site forms included in these Guidelines, for example, require strict adherence – e.g., BLM's GIS National Data Standards are official BLM policy and cannot be altered or submitted to the BLM with missing data set forth in the Standards. Each inventory and report

FROM BLM MANUAL 8100.06 POLICY:

Cultural resources are recognized as fragile, irreplaceable resources with potential public and scientific uses, representing an important and integral part of our Nation's heritage.

The BLM manages cultural resources under its jurisdiction or control according to their relative importance, protecting against impairment, destruction, and inadvertent loss, and encouraging and accommodating the uses determined appropriate through planning and public participation.

Apart from certain considerations derived from specific cultural resource statutes, management of cultural resources on the public lands is primarily based on FLPMA (see .03H), and is governed by the same multiple use principles and the same planning and decision making process as are followed in managing other public land resources.

should strive to comply with the remaining elements in these Guidelines to the extent practicable; in the final analysis, however, it is up to each BLM Cultural Resource Specialist (CRS), working through their Authorized Officer (State Director, District Manager, Field Manager) to determine whether reports meet the intent of these Guidelines to produce documentation that allows for the BLM Authorized Officer to make adequate determinations of eligibility and effect in order to consult with the SHPO, if appropriate, on those determinations.

BLM Nevada has developed these standards to complete inventory, recording, evaluation, and reporting of archaeological resources associated with federal undertakings, as well as for lands managed by BLM Nevada for projects that are not federal undertakings, such as Notices of Intent under the 3809 regulations that result in archaeological inventory. All parties (proponents, contract archaeologists, and BLM staff) involved in land uses, actions, or undertakings should be thoroughly familiar with these Guidelines. Adherence to these Guidelines, working through the BLM Nevada CRS and Authorized Officer, as noted above, is a primary stipulation for maintaining compliance with Cultural Resource Use Permits issued by BLM Nevada.

BLM is responsible for completing the "Section 106" (54 U.S.C. § 306108) process whenever there is an undertaking or an authorization with potential for effects on historic properties (those eligible for inclusion in the National Register of Historic Places). The purpose of cultural resource inventory and site evaluation is to allow the BLM to make informed decisions on multiple-use lands and take into account effects to historic properties. As appropriate, these decisions are made in consultation with the SHPO, the Advisory Council on Historic Preservation (ACHP), Indian tribes, and local and state governments, among others.

PURPOSE

A principle purpose of the Guidelines is to assist the BLM in meeting its responsibilities under Title 54: Section 306108 (formerly Section 106 of the NHPA): The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, shall take into account the effect of the undertaking on any historic property.

Section 306131 (a)(1)(A) (formerly Section 112(a)(1)(A) of the NHPA): Each Federal agency that is responsible for the protection of historic property (including archeological property) pursuant to this division or any other law shall ensure that all actions taken by employees or contractors of the agency meet professional standards under regulations developed by the Secretary in consultation with the Council, other affected agencies, and the appropriate professional societies of archeology, architecture, conservation, history, landscape architecture, and planning.

Inventory to identify and evaluate potential effects to historic properties affected by a land use application on BLM-administered lands is often an early step in the Section 106 process. Federal undertakings cannot be authorized until the Section 106 process is completed. These Guidelines are comprehensive instructions for conducting archaeological resource inventories on BLM-administered lands in Nevada, but they are not intended to serve as comprehensive instructions for complying with all relevant components to the Section 106 process.

General procedures for complying with Title 54 U.S.C. 3001 to 3071 (formerly the National Historic Preservation Act [NHPA]) are found in the *State Protocol Agreement between the Bureau of Land Management, Nevada and the Nevada State Historic Preservation Officer for Implementing the National Historic Preservation Act* (Protocol); policy guiding consultation with Indian Tribes can be found in BLM Manual 1780 and Handbook 1780-1, as well as a multitude of other laws, regulations, and policies listed in Appendix A.

Guidelines for conducting architectural inventories and reporting can be found in *Guidelines for Recording and Reporting Architectural Resources in Nevada* (Architectural Guidelines).

All spatial data will be collected in compliance with the current version of *BLM's National Cultural Resource Management Data Standard*. BLM will ensure that the most current Implementation Guide for this Data Standard is made available with these Guidelines, and will provide guidance to crosswalk from the BLM Nevada's Forms to the tabular data for the layers included in the standard.

Guidelines for completing ethnographic studies, including qualifications and reporting, may be obtained from the BLM NSO and local BLM District Offices.

These Guidelines are organized to show the steps required to complete the archaeological resource inventory process, starting with a land use application and continuing through the production of an archaeological report. Requirements and procedures for obtaining a cultural resource use permit can be found in Appendix B; GIS requirements are found in Appendix C; the Project Authorization form is Appendix D; required forms for resource documentation and reporting (Nevada IMACS, Isolate Report Form, and Negative Report Form) can be found in Appendix E; Digital Data Standards can be found in Appendix F; mapping standards are found in Appendix G; illustration standards are found in Appendix H; Historic Context development standards are found in Appendix I; a suggested Contractor Report Review Form is Appendix J; and a glossary of terms can be found in Appendix K.

These Guidelines are developed by the BLM and authorized under the Archaeological Resources Protection Act, Section 7.9(a)(4). Conformance to these Guidelines is a condition of the Federal Permit issued by the BLM Nevada State Office.

2. ROLES AND RESPONSIBILITIES

2.1 BLM

CULTURAL RESOURCES SPECIALIST (CRS):

The BLM CRS is responsible for advising managers on implementing these Guidelines to ensure that all parties to a land use application comply with them. The CRS advises managers on the intensity and extent of inventory required for the proposed action (through a Cultural Inventory Needs Assessment); reviews and recommends Project Authorization stipulations to conduct field work; reviews the products of the inventory and any treatment plan generated for the undertaking; and recommends approval or revision of reports, site records, and treatment plans.

The CRS is also responsible for advising managers on consulting with the SHPO to ensure compliance with the Protocol. Consultation may be required at any stage in the land use approval process depending on the extent of deviations from these Guidelines, the significance of the resources affected, and the nature of potential effects.

The CRS consults with BLM managers to define the Area of Potential Effect (APE), based on knowledge of the field office resources, data from tribes, and use of other documents including the Protocol, the BLM Manual Series 8100, and appropriate NEPA guidance. The APE defines the area in which historic properties must be identified, so that effects to any identified properties can be assessed. An APE may be defined as a larger area than the proponent's project area in order to account for effects to cultural resources, and should include analysis of direct, indirect, and cumulative effects. The standard for the identification of archaeological resources is a Class III inventory of the direct effects APE. Deviations from Class III may be warranted on a case-by-case basis. Deviations from Class III are generally approved through the CRINA process (see section 3.3). Indirect effects may require the establishment of a broader APE in order to take into account potential effects to archaeological resources such as historic mining communities and National Historic Trails.

The BLM CRS is also responsible for monitoring the quality of work performed by contract archaeologists, maintaining BLM standards of performance as set forth in these Guidelines, and reporting results of this monitoring to BLM managers, the NSO, archaeological permittees, and others as appropriate.

The BLM CRS is responsible for ensuring that all spatial data collected for all Cultural Resources and Inventories are done in accordance with the Standards outlined in BLM's GIS Requirements contained in this document as Appendix C. The BLM CRS will also ensure that this spatial data is incorporated into the BLM Nevada's Cultural Resource Management Database for incorporation into the National Cultural Resource Management Database. The

BLM CRS is responsible to ensure that Permittees working on BLM managed lands in Nevada obtain a data cut of the Nevada Cultural Resource Management Database for the entire Direct and Indirect Effects Area of Potential Effect for the project that they are working on. The BLM CRS is responsible for ensuring that the spatial data is updated by the archaeologists conducting the inventory and for incorporating the spatial data into the statewide database as soon as practical following completion of the inventory report.

MANAGERS:

The BLM Manager is responsible for overall direction of the cultural resources program at the District or Field Office level. He or she is also responsible for making submissions to the SHPO and the ACHP as needed for compliance with the Protocol and the Section 106 process.

The BLM Manager is responsible for government to government consultation with tribal entities. BLM managers are also responsible for making decisions, within his or her delegated authority, concerning cultural resources inventory, evaluation, and treatment, for determining effects and treatments, and for ensuring that the potential effects of all actions on cultural resources are adequately considered prior to authorizing actions.

NEVADA STATE OFFICE DEPUTY PRESERVATION OFFICER:

The BLM Nevada Cultural Resource Program Lead, also known as the Deputy Preservation Officer, is located in the Nevada State Office in Reno. The Cultural Resources Lead issues permits, assists in settling disputes, strives for consistency in cultural resources management practices among BLM offices, and helps ensure the implementation of policy generated from the Washington Office, as well as the NSO through the BLM Nevada State Director.

DISTRICT OR FIELD OFFICE:

Project Authorizations, signed by a BLM Manager, are issued at the District or Field Office level. Project Authorizations are required prior to a permittee beginning inventory. A permit issued by the NSO is required prior to a consultant submitting a Project Authorization to a BLM Office.

2.2 Land Use Applicant

The land use applicant (proponent), with certain exceptions, pays for cultural resource inventories and all related costs for actions on BLM lands that may include surface disturbing activities or transfer of title from Federal ownership. For actions involving both BLM and non-BLM lands, inventories of the non-BLM lands may also be required. When the BLM is

responsible for inventory, such as mining Notices of Intent, proponents can voluntarily fund cultural resource inventories.

The proponent is responsible for obtaining permission to conduct cultural resource inventories on non-BLM lands affected by the proposed action, including private property or any other Federal lands that may be part of the land use application.

The proponent is responsible for providing accurate 1:24,000 scale USGS maps (and, if required by a BLM District, GIS shapefiles/geodatabase) of the proposed project area to the BLM CRS. The proponent may be required to clearly mark the APE on the ground by staking, flagging or some other visible means in advance of cultural resource inventories as insurance against GIS inaccuracies. If visible marking prior to inventory is not done, and doubts subsequently arise about the location of the inventoried ground, re-inventory may be required before the project can proceed. For linear projects, flags must be clearly visible from one point to the next from either direction.

The proponent is also responsible for complying with all stipulations in any BLM approved treatment plan relating to the proposed action, and with certain exceptions is responsible for funding and implementing the treatment plan.

2.3 Permittees:

Permittees are responsible for obtaining a BLM Cultural Resource Use Permit (CRUP) from the NSO prior to initiating field work. Each level of archaeological work required by the proposed action (e.g., surface inventory, limited testing and collecting, data recovery and removal of artifacts) requires a specific permit. Appendix B contains further details and instructions about each type of permit issued by the NSO.

2.4 Archaeologists:

All archaeologists who work on BLM-administered lands in Nevada are responsible for conducting inventories in compliance with these Guidelines.

Archaeologists are responsible for each of the following:

- Creation, or use, of a complete and up-to-date prehistoric and historic overview
- Identifying and documenting archaeological resources
- Updating the Spatial Data within the BLM Nevada’s Cultural Resource Management Database as necessary
- Reporting on these findings as outlined in these Guidelines

- Ensuring that all spatial data collected is in compliance with the BLM's National Cultural Resource Management Data Standards (See Appendix C)
- Obtaining Smithsonian site numbers from SHPO
- Evaluating properties for eligibility to the National Register of Historic Places (NRHP) within an appropriate Historic Context
- Estimating the potential effects of the action on historic properties
- Evaluating the feasibility of avoidance to protect and preserve cultural resources, including historic properties, within the APE
- Recommending additional work steps, e.g., testing, data recovery requirements etc.

3. THE BLM NEVADA ARCHAEOLOGICAL INVENTORY AND REPORTING PROCESS

3.1 Land Use Application

The proponent is responsible for submitting a land use application package that contains all necessary information to facilitate the Section 106 compliance process and Native American consultation. Unless otherwise approved by BLM, archaeological inventory is not initiated prior to BLM's acceptance of a complete application. Information should include, but is not limited to:

- Project area shown on location maps (at a minimum BLM Land Status 1:100,000 scale and USGS topographic 1:24,000, unless otherwise agreed upon by BLM), provided in hard copy and as pdf
- GIS shapefile/geodatabase of project area, unless BLM agrees that a shapefile from the proponent is un-necessary (Appendix C contains GIS requirements)
- Complete description of the undertaking
- Anticipated duration of project

The BLM will determine the appropriate APE(s) based on information in the application. For archaeological resources, the minimal APE will be those areas where ground disturbance may be reasonably anticipated by BLM based on the kinds of activities proposed in the application. The overall APE may be larger depending on the effects from the proposed undertaking, such as potential visual or audible effects to setting along a National Historic Trail.

3.2 Native American Consultation

In general, BLM Nevada's consultation process follows BLM Manual 1780 and Handbook H-1780-1, and any other guidance issued by the Washington Office or NSO. Upon receipt of the land use application the BLM will introduce the project into the Native American consultation

process. The BLM manager will initiate the government to government communication, as necessary, following applicable laws, regulations, executive orders, and policies summarized in Appendix A. The BLM remains responsible for conducting tribal consultation, and usually does not assign or delegate consultation to other federal agencies unless specified under a Programmatic Agreement. Ethnographers may be authorized to assist in data collection that has relevance to the consultation process. To comply with BLM's 8150 Manual, ethnographers should be approved by BLM prior to the initiation of field studies.

The Native American consultation process is tailored to meet the nature of the project and the tribes and BLM offices involved. Tribal participation in the section 106 process, including the use of tribal monitors, is designed to identify properties of cultural or religious significance, as well as to offer solutions to eliminate or reduce potential adverse effects, consistent with practices and policies in BLM Manual 1780 and H-1780-1.

3.3 Cultural Resource Inventory Needs Assessment

The Cultural Resource Inventory Needs Assessment (CRINA) evaluates the need and extent of cultural resource inventory required for a proposed project. The intent of the CRINA is to document the processes used to establish the Direct and Indirect Areas of Potential Effect (APEs), provide a summary of known resources present within the APEs, evaluate inventory needs, describe the methods (other than standard inventory) that will be used to analyze effects (e.g., visual and auditory simulation modelling), and list the tribes, consulting parties and members of the public who will be consulted for individual undertakings. The CRINA may also provide a statement on the kinds and density of cultural resources anticipated to be found within the APEs. Changes to a project may necessitate reanalysis using a CRINA and may result in additional time.

At a minimum the CRINA will contain the following information:

- Full Description the Proposed Action being evaluated
- Define the Direct APE and describe how it was established
- Define the Indirect APE and describe how it was established
- Provide a Summary of the all known cultural resources within the APEs, and identify the sources used (for Historic Properties located within the APEs this section should describe any needs to address potential direct and indirect effects to those resources.)
- Define the approach for identification of Historic Properties and justify the approach if it is not a Class III for the Direct Effects APE. This section should also discuss the needs of other types of identification (i.e. Ethnographic, Architectural, or other specialized inventory)
- Describe the plan necessary to reach out to interested public and Tribal Governments regarding potential effects to Historic Properties

The CRS oversees the completion of the CRINA, after which it should approved by the Authorized Officer who would be authorizing the undertaking. The final approved CRINA may be provided to the SHPO as notification of the undertaking, see the most recent version of the Protocol for instructions.

3.4 Project Authorization

The Project Authorization request is submitted by the permittee to the appropriate BLM Office. The request should be submitted at least two weeks prior to conducting field work. Fieldwork may not commence until the Project Authorization is signed by the appropriate BLM Manager. It is important to note that the terms of the Project Authorization cannot be violated without risking revocation of the CRUP. In addition to the Project Authorization request form (Appendix D), the following data must be included if the request is to be granted:

- A description of the anticipated work schedule (e.g., fieldwork dates)
- Description of proposed project and fieldwork to be completed, including acreage
- Identification of key personnel (i.e., Principal Investigator, Crew Chief(s))
- 1:24,000 maps of areas to be inventoried, including land status

Email provides the most expedient method of submitting and processing the Project Authorization.

Changes to key personnel and/or significant changes to the anticipated work schedule must be approved by the BLM or the Project Authorization will be considered invalid. Conducting field work without a valid Project Authorization may be considered grounds for revocation of the CRUP.

BLM may require additional stipulations regarding the information sources to be used, acceptable field work conditions, off-road travel limitations, fire restrictions, etc.; these stipulations will be documented on the approved Project Authorization.

BLM may require an archival research report to be submitted prior to authorization of fieldwork in order to ensure that personnel on large or complex projects may be adequately briefed about inventory expectations and the types of resources likely to be encountered during inventory.

BLM will provide the principle investigator listed on the Fieldwork Authorization with a data cut from the BLM Nevada's Cultural Resource Management Database for the area within the Indirect Effects Area of Potential Effects at the time of project authorization.

3.5 Prehistoric and Historic Overview

The purpose of the prehistoric and historic overview (literature review and background re-search; see also page 15) is to create a series of expectations regarding the nature of the archaeological resources likely to be encountered in order to determine the archaeological inventory effort required. At a minimum, the prehistoric and historic overview will seek relevant data within a one mile radius of the exterior boundary of the proposed APE, or as stipulated by the BLM, and will compile information from the following sources:

- BLM Nevada Cultural Resource Management Database (Maintained by the BLM)
- Nevada Cultural Resource Information System (Maintained by the NV SHPO) (if non-BLM managed lands are involved or within the established APEs)
- District or Field-level cultural resources database and files
- General Land Office (GLO) maps (all available editions)
- Master Title Plat (MTP) records
- USGS Historical Quadrangle Georeferenced maps, if available
- Pertinent articles, books, theses, dissertations, websites or other publically available research that are either relevant to the proposed project area or relevant to known resources within the project area

The BLM may stipulate that additional sources be consulted, depending on the nature of the project and the APE. The BLM may also stipulate that the search radius be extended depending upon the results of the literature review, back-ground research, and government-to-government consultation (e.g., identification and significance of a telegraph line may require more than a one mile radius).

The results of all source inquiries shall be incorporated into the final report regardless of whether those inquiries resulted in useable data (e.g., if a search of the GLO maps shows no potential for archaeological resources then it should be stated which maps were consulted but contained no relevant information). Unless otherwise stipulated in the Project Authorization all archaeological resources or potential archaeological resources are to be considered in the prehistoric and historic overview, and an effort will be made to locate all such identified or possible resources within the APE during the archaeological inventory.

3.6 Archaeological Inventory—General

There are basic logistical and environmental conditions under which archaeological field work should be performed.

LOGISTICAL NEEDS COMMON TO ALL ARCHAEOLOGICAL INVENTORIES

Notify the BLM that fieldwork is commencing. This step is critical to ensuring the safety of the crew (especially during fire season) and is required to show compliance with the Project Authorization.

ENVIRONMENTAL REQUIREMENTS COMMON TO ALL INVENTORIES

Sufficient ground visibility. No more than 25% of the APE can be obscured by conditions such as snow cover. If thick vegetation is adversely affecting ground visibility, then the field archaeologist should immediately consult with the BLM regarding how to proceed.

Adverse weather conditions. Site conditions may be such that trampling, increased erosion, or other adverse effects may arise from inventory and/or site recordation. This may arise, for example, shortly after rains have saturated the ground surface. Professional judgment should be used to ensure that the inventory does not damage or threaten the preservation of cultural resources. The BLM may contact field crews and advise them to cease inventory if it is believed that trampling, vehicle tracks, etc. may damage cultural resources due to saturated ground or other adverse conditions.

3.7 Class III Inventory

Class III inventory is the standard to locate and record archaeological resources having exposed indications in the APE. To be considered a Class III Inventory, the inventory must:

- Thoroughly cover the area of potential ground disturbance on foot, with a series of close interval parallel pedestrian transects not to exceed 30 meters in separation. As appropriate and approved by the BLM Manager based on recommendations from the CRS, narrower separations may be required to identify particular kinds of expected or known archaeological resources in an area.
- The surface of the APE must be available for adequate visual inspection (i.e., snow cover or other surface obscuring materials do not exceed 25% of open ground).
- Be preceded by a prehistoric and historic overview that is acceptable to BLM.
- Previously recorded properties will be treated as follows:
    - If the site was recorded less than 10 years ago, or if the site was recorded more than 10 years ago but is considered adequate by the BLM CRS, then no site updates are required. However, the site needs to be reported in the site summary and eligibility recommendations sections of the report, and be included on all appropriate maps.

  - If a site revisit indicates there is no change in the character of a site, then a brief narrative stating this fact will be presented in the report; the report will also state whether the site has had additional site form updates previous to the most recent record; the most recent site form will be included with the site records attached to the report.
  - If a site revisit indicates that the character of a site has changed (e.g., ground disturbance, presence of previously unrecorded artifact types and features, site boundary changes, etc.), then a new site form will be prepared. The report will also reflect this updated information.
  - If a site that is being revisited has never had an IMACS form completed, then a full recording of the site on a Nevada IMACS form is required.
  - If a previously recorded site cannot be relocated, then the IMACS form will be updated to reflect this new information and attached to the report.
- Attempt to define a finite site boundary. Boundaries must be established for sites contained within the APE. In some cases, sites may extend for hundreds of meters outside of the APE. In these cases, the contractor is to contact the BLM immediately. The extent of inventory outside the APE and the extent to which sites are to be recorded outside of the APE will be determined by the BLM, or as defined in the Protocol, or as defined in specific documents such as Programmatic Agreements (PAs) or Memorandum of Agreements (MOAs). By documenting site boundaries beyond an APE, options for avoidance outside of a proposed APE may be better evaluated.
- An APE is defined early in the identification process, but the APE may be modified by BLM; for examples, when resources can be avoided under terms of the Protocol, if threatened or endangered species are discovered during fieldwork, or if the proposed action changes. Documentation for the undertaking will contain maps of both the original APE and the redefined APE, along with the basis for the redefinition. Documentation will also include site records and maps for all resources located in the initial inventory and subsequently excluded from the APE through redesign (including deletion) as well as all resources within the redefined APE.
- Provide complete and accurate site records for all new cultural resources recorded.
- Produce a report acceptable to the BLM.

Deviations from Class III standards (e.g., Class II sample survey) may be approved, on a case-by-case basis, by the BLM Office having jurisdiction. BLM approval must be obtained prior to initiating field work. A detailed justification for adopting alternative field methods, and an inventory plan, must be provided to the BLM Office when requesting deviations from the Class III standard and be included in the draft and final inventory report. The proponent's failure to allow sufficient lead time for a Class III inventory will not be considered adequate justification for completing less than the Class III standard.

3.8 Site Recording Form

The Nevada Intermountain Antiquities Computer System (IMACS) Form is used to document all Cultural Resource sites. In cases where the Cultural Resource Site contains features that meet the definition of Architectural Resources as defined in the Architectural Guidelines, those resources will be documented in accordance with those guidelines and appended to the Nevada IMACS Form. In circumstances where there is only an Architectural Resource with no archaeological component, the Nevada IMACS Form will not be completed.

Appendix E contains the Nevada IMACS Form and the instructions for filling out the form. Additional requirements for GIS, Digital data standards, mapping standards, and illustration standards to be used during data collection are detailed in Appendices C, F, G, and H, respectively.

MULTI-COMPONENT SITES:

Multi-component sites contain both prehistoric and historic artifacts and features. Multi-component sites may be recorded as a single site and assigned one site number. In these cases, each component (prehistoric and historic) is evaluated separately for their eligibility to the National Register based on the established Historic Contexts. Alternatively, the prehistoric and historic components of a multi-component site each may be assigned unique site numbers. This method is particularly useful in cases in which limited numbers of historic sites occur within densely concentrated prehistoric resources, or vice versa where a limited number of prehistoric resources occur within densely concentrated historic sites and features. The appropriate method to be used should be discussed and approved by the BLM CRS prior to completion of fieldwork and recordation to avoid the need for additional field trips.

LINEAR FEATURES:

There are specific data requirements that apply to historic linear features, as outlined in the Protocol. Historic linear features often possess varying states of preservation, and their recordation can be problematical because they often extend well outside of an APE. As a result, and unless previously agreed to by the BLM in consultation with SHPO, the recording of historic linear features shall extend 100 meters beyond the APE boundaries. The site form for a historic linear feature will include:

- Location and Boundaries
- Description, including dimensions of the feature and any identified associated features, each of which shall be recorded and described
- Setting, or the degree of alteration of the surrounding landscape past the period of use of the feature

Historic linear features as a whole may be eligible for the NRHP, but they often possess various levels of integrity along their route. As a result, individual segments within the APE should be recorded and evaluated as to whether they retain sufficient integrity to convey significance (i.e., are contributing elements) or have lost integrity and no longer convey significance (i.e., are non-contributing elements) to the overall NRHP eligibility of the feature.

ARCHITECTURAL RESOURCES:

When Architectural Resources are identified as part of a Cultural Resource Inventory a separate report must be completed in conformance with *Guidelines for Recording and Reporting Architectural Resources in Nevada*. All determinations of Eligibility and Effect for Architectural Resources must be prepared, or reviewed, by a qualified Architectural Historian prior to BLM's submission of the reports to the SHPO.

In cases where the architectural resources are features of a bigger archaeological resource, the architectural resources will be documented in accordance with the Architectural Guidelines and appended to the Nevada IMACS Form, only the features that are defined as architectural resources will be included in the architectural report. In circumstances where there is only an Architectural Resource with no archaeological component, the Nevada IMACS Form will not be completed.

SITES SUBJECTED TO COLLECTION AND/OR EXCAVATION

If a site is subjected to collection and/or excavation an updated site form will be prepared. Maps and Sketch maps will be updated to show all excavation units. Details will be included to document the extent of the collection and/or excavation efforts. A summary of all materials removed from the site will be documented on the site form. The site form will document where all curated items are housed.

3.9 Preliminary Report

In most cases, a letter (or summary) report is required by contractors five working days after completion of field work. This report may be submitted via email, mail, or hand delivery depending on the requirements of the BLM Office. At the discretion of the BLM CRS or manager, the letter report requirement may be waived if indicated as such on the Project Authorization.

The letter report will include the following:

- A draft site location map (including temporary site numbers, site boundaries, and isolated artifacts) for the entire project
- A draft map showing inventoried areas and direct effects APE for the entire project
- A table including all sites and isolates, including: site type (e.g. historic, prehistoric, multi-component) and preliminary NRHP eligibility recommendations (if newly recorded) or established eligibility determinations (if previously recorded); the latter includes previously recorded sites that could be relocated
- Shapefiles/geodatabase for all inventory areas and cultural resources documented showing extent and boundaries of each
- Preliminary assessment of potential effects

3.10 Inventory Results—Negative & Isolate Reports

Inventories that result in negative findings or the discovery of isolated artifacts only shall be reported using the Cultural Resource Negative Report or Cultural Resource Isolate Report, respectively (Appendix E). GIS, GPS, mapping, and illustration standards detailed in appendices C, F-H, & L apply.

Single pot-drops or broken bottles that result in multiple fragments of a single vessel may be recorded as isolates or as sites. If BLM considers Isolated Artifacts or Features significant cultural resources under FLPMA and/or ARPA, the location of these resources should be documented in accordance with section 3.8 of these guidelines. The Nevada IMACS Forms for these Isolated Artifacts or Features will be appended to the Isolate Report.

3.11 Inventory Results - Site Report Format

Details of the format for reporting inventory that results in site recordation is contained below. Each inventory report will include the following sections:

1. Administrative Summary
2. Project Description
3. Prehistoric and Historic Overview
4. Historic Context
5. Environmental Background
6. Expectations
7. Field Methods
8. Results of the Inventory
9. Eligibility Recommendations
10. Management Recommendations
11. Conclusions
12. Bibliography
13. Appendices

1. The ***Administrative Summary*** provides a brief over-view of the project as a whole. The summary should describe the undertaking, total acreage surveyed (including a breakdown of public and private land surveyed), summarize the number of sites documented and the number of sites recommended as eligible and ineligible, summarize the nature of historic properties within the project area, and provide recommendations for the preservation of cultural resources within the APE.

2. The ***Project Description*** provides a full description of the undertaking including proponent, description of the undertaking (including project dimension, duration, land status, legal description, county, and dates of fieldwork), identification of the APE (including a statement of its size), and level of inventory completed.

3. The ***Prehistoric and Historic Overview*** (i.e. literature search) consists of an archival review of pertinent data sources (e.g., BLM reports, published articles and books, ethnographic literature) appropriate to the project area. Based on these data, an overview of the prehistoric, historic, and ethnographic knowledge of the region scaled to the size and scope of the project is presented.

4. The ***Historic Context*** serves as the basis for making NRHP eligibility determinations. The historic context is used to establish the significance of cultural resources under all four of the NRHP significance criteria that are recorded in the APE (see Appendix I). A historic context will be developed for the site types encountered within the APE (e.g., historic mining, historic roads, railroad grade, prehistoric campsites etc.). The scope of the Historic Contexts will be scaled to the size and complexity of the project and the resources encountered. When discussing NRHP eligibility under criterion d, each site's potential to answer specific research questions will be considered in determining site eligibility, and must be documented in the site evaluations tied to the Historic Context.

5. The ***Environmental Background*** provides the parameters of the landscape that limit or allow cultural use (such as geology, past and present vegetation and hydrology patterns, landscape islands, past cultural modifications, etc.). This information may be obtained through field observations, GIS data layers, and other research sources.

6. The ***Expectations*** section briefly describes the type and density of artifacts, sites, and features anticipated to be encountered during the survey based on the information gathered during the Overview research, discussions with BLM archaeologists, and the archaeologists own working knowledge of the region.

HISTORIC CONTEXTS CONTAIN THREE BASIC ELEMENTS:

Research Themes are broad topics addressed through scientific analysis of data recoverable through pedestrian inventory and through more detailed future scientific investigations. Research Themes can encompass prehistoric or historic demography, culture contact, chronology, subsistence, early 20th century mining, large game hunting strategies, etc.

Research Questions are specific, scientifically relevant questions that address the research themes. For example, under a Subsistence Theme, relevant research questions could include: (1) do changes in subsistence patterns through time suggest that foragers in the region broadened or restricted their diet in relation to changing climatic patterns?; (2) when do we see initial evidence for communal large game hunting? etc.

Data Requirements are characteristics sites must possess in order to address and answer specific research questions. For example, for the first research question above, sites should contain evidence such as fire-affected rock in a depositional microenvironment that may preserve faunal remains or macrobotanical remains that may be recoverable through further research efforts.

7. The ***Field Methods*** describe the inventory methodology (Class II, Class III) to collect data and record sites.

8. The ***Results of the Inventory*** provides the body of the archaeological data findings from the fieldwork. Each cultural resource will be described, with tables used to summarize large quantities of sites or other cultural data. Detail of the data should be in the site form attached to the report, but enough information should be provided in the report to support the eligibility recommendations.

9. The ***Eligibility Recommendations*** provide recommendations and justifications for the eligibility of all cultural resources identified in inventory records or located during the inventory. All archaeological sites are to be assessed for significance in the draft and final inventory reports with reference to the developed Historic Contexts. Significance is determined by applying the criteria for inclusion in the National Register of Historic Places (36 CFR 60.4). Sites may be significant at a local, regional, or national level, and this should be discussed as appropriate.

The Section 106 process requires the BLM to determine if properties are eligible for the NRHP. In limited cases (e.g., further site testing is warranted), the label "unevaluated" for inclusion in the NRHP may be used. All determinations (eligible or ineligible, and in rare cases, unevaluated) are subject to Section 106 consultation requirements found in the Protocol, or in 36 CFR 800, as appropriate. Permittees should attempt to complete NRHP recommendations based on surface-only archaeological inventory information whenever possible.

NATIONAL REGISTER ELIGIBILITY

As defined in regulations (36CFR60.4) a property is eligible for the National Register if it:

1. Is at least 50 years old;

2. Retains integrity of location, design, setting, materials, workmanship, feeling, and association; and

3. Has one or all of the following characteristics:

a. association with events that have made a significant contribution to the broad patterns of our history; or

b. association with the lives of persons significant in our past; or

c. embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possess high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction; or

d. has yielded, or may be likely to yield, information important to prehistory or history.

10. The ***Management Recommendations*** evaluate effects to NRHP listed, eligible, and unevaluated sites. These recommendations should include suggestions for avoiding, minimizing, or reducing any potential adverse effects. These could include, but are not limited to, avoidance measures, fencing, project redesign, monitoring, and mitigation (data recovery) if avoidance is not possible. Monitoring recommendations could include pre– and post– project construction, including long-term agreements that BLM develops under a specific MOA or PA.

Findings of Effect:

Based on the permittee's recommendations of NRHP eligibility, the report should state that there are no historic properties affected if either (a) there are no recommended historic properties or (b) the permittee recommends there are historic properties present but that the undertaking will have no effect on them. If the permittee is recommending that historic properties are present but that they will not be affected, the basis for that determination will be presented.

An adverse effect is found when it may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that diminishes the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. A summary of some adverse effects to historic properties includes, but is not limited to: physical destruction or damage; removal of the property from its historic location; change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance; introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features; neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe; transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

Effect Determination:

Effect means an alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the NRHP.

The permittee will recommend to BLM what effect the proposed action would have on each property located during the inventory. The permittee shall make this assessment for each site in the APE regardless of recommended eligibility for the NRHP as the BLM may make final determinations of eligibility that differ from those of the permittee.

Findings of effect follow 36CFR800.4 and 800.5, while definition of effects follows 36CFR800.16.

For an archaeological resource identified as a historic property, important information is typically preserved in a combination of factors involving location, materials and workmanship, but especially association, which provides horizontal and vertical context to artifacts and features that is used in interpreting the past. Direct effects to archaeological resources as historic properties are expected to diminish this association and thereby qualify as adverse effects.

A finding of no adverse effect is made when the criteria of adverse effects are not met. Archaeological data recovery as a means to mitigate anticipated damage or destruction of a historic property through excavation or collection does not qualify for a finding of no adverse effect. A no adverse effect finding generally involves means for preservation, rehabilitation, restoration and/or reconstruction, as those are defined in 36 CFR 68.2 and accompanying guidance, and usually pertains to buildings and structures identified as historic properties.

11. The ***Summary/Discussion/Conclusions*** summarize the survey, results of inventory, numbers of eligible and ineligible sites recorded, eligibility recommendations, and management recommendations.

12. The ***Bibliography*** shall reference all citations in the text, including printed manuscripts, websites, and other results from archival research. Style follows American Antiquity.

13. The ***Appendices*** shall include complete site records, isolate location information (isolate table and maps), and a complete photo log of all photos digitally submitted. Minimum data to include in the photo log can be found in Appendix H. Other appendices may include additional supporting maps, and archival documents in support of a Historic Context.

3.12 Draft Report

The draft report is to be written as though it is the final report, including all maps, tables, figures, works cited, and site records. BLM expects that the need for revisions to the draft report is minimal. A need for major revisions or an inordinate number of editorial mistakes to the draft report will be seen as unacceptable, and may jeopardize a permit, as well as result in the report being "unreviewable" until it is written to meet the standards outlined herein.

The Draft Report Package will include the following:

- Full report (submit a minimum one hard copy and one digital copy that is compatible with Microsoft and/or Adobe software, unless prior arrangements have been made with a BLM Office regarding submission standards)
- Site forms and any associated field/temporary numbers; submit a minimum one hard copy and one digital copy that is compatible with Microsoft and/or Adobe software, unless prior arrangements have been made with a District Office regarding submission standards).
- Table of isolates, including isolate numbers issued by the BLM District Office
- Updated Geodatabase with complete spatial data for all inventory areas and cultural resources documented. All features will be attributed in accordance with the requirements outlined in Appendix C.
- All project photos on archival quality disk in TIFF file formats (see also Appendix H). Printed photos must be included in reports and site forms; do not simply reference the disk containing the electronic copies of photos. At a minimum, photos to be included with the hard copy report include: (1) at least two different site overviews; (2) at least one photo of each feature that depicts the feature and its significance; and (3) at least one photo of each diagnostic artifact capable of showing its diagnostic features.

Unless otherwise approved by the BLM or stated in policy guidance (e.g., Geothermal IM), the draft report will be submitted no more than 60 days after the completion of fieldwork. The BLM will have a minimum of 30 calendar days in which to review reports and inform the permittee if the BLM accepts the report as is, accepts it with editorial modifications, rejects the report pending substantive changes, or that the BLM needs further review time (see Appendix J for a suggested contractor report review form). During BLM's review of the draft report, BLM will assign agency site numbers, if appropriate. The contractor can then request Smithsonian site numbers from the NVCRIS Coordinator at the SHPO for the final report (the final report must include the Smithsonian site numbers and any corresponding agency site numbers). Corrections must be returned to the BLM within 30 days of receipt of BLM comments, unless prior arrangements have been made with a BLM District office.

3.13 Final Report

All reports must be submitted to the BLM in at least one bound hardcopy, one unbound hard copy, and two digital copies (see Appendix H). In some cases more copies may be required, depending on the BLM administrative unit involved, the nature of the land use action, the significance of the findings, and tribal data sharing agreements. The proponent or non-BLM archaeologist is to consult with the District or Field Office to determine the number of additional copies needed. The permittee is responsible to provide the BLM with the necessary numbers of copies needed for the purposes of consultation, record keeping, data sharing, etc.

The file name for all digital portions of the report should contain the BLM Report Number.

The BLM is responsible for determining whether final reports adequately meet the intent of these Guidelines for the purposes of making eligibility and effect determinations, and then providing the SHPO with the results of the inventory for Section 106 consultation purposes. BLM will provide the SHPO with at least one unbound hard copy of the final report, digital (pdf) copies of the site forms, and all spatial data the meets the requirements outlined in appendix C.

The permittee must obtain the permission of the BLM before submitting copies of the report to the proponent. If granted, the proponent must obtain permission from the BLM prior to distributing copies of the report to any other individual, organization, group, or agency. The products of the cultural resource inventory are the property of the BLM. BLM may use current data sharing agreements to distribute copies of the report to others (e.g., tribes, state and local governments, proponents, etc.).

3.14 How do I document inventories if resources meet the site definition but are all categorically not eligible according to the most recent edition of the BLM Nevada Protocol?

As identified in the current Protocol Agreement the BLM and SHPO have jointly determined that properties meeting certain parameters are categorically not eligible for listing on the NRHP. In cases where an inventory results in sites that each meet the parameters outlined in the Protocol as Categorically Not Eligible for the NRHP then there is no need to evaluate the resources using a Historic Context; therefore, in these circumstances only the following report sections would be necessary:

- Administrative Summary
- Project Description
- Results of the archival review of data sources
- Expectations
- Field Methods
- Results of the Inventory
- Conclusions
- Bibliography
- Appendices

While this does allow for an abbreviated report format, if cultural resources do not meet the definition of an Isolated Artifact or Feature, as defined in these Guidelines, then those sites must be documented using the Nevada IMACS Form following the Standards outlined in these Guidelines.

3.15 What are a contractor's responsibilities if an inventory is started but the land use applicant ceases payment prior to BLM accepting a final report?

In some cases, the BLM is informed by a permittee that a land use applicant will no longer provide the funds necessary to complete reporting tasks following completion of Class III inventory on BLM-managed lands. In these circumstances, a report that details the results of the inventory is to be prepared by the permittee, to be submitted to BLM within 30 days following fieldwork. This report shall be considered a letter report, and it will contain copies (including digital copies, as appropriate) of all records, including notes, photographs, site records etc. completed up to that point in which the permittee's services were terminated by the land use applicant. Included with these materials shall be a map of the surveyed area, the mapped locations of sites and at least one UTM point for each site recorded with corresponding field site numbers, as well as a brief summary of each site. No recommendations of eligibility for the NRHP are required, but they may be offered. This letter report would not result in a Section 106-compliant report.

BLM may incorporate the information into their District report records, and the letter report may be sent to SHPO for information purposes. BLM may decide to upload the information into our Cultural Resources Management Database to assist in managing the resources in the future. Further, permittees may not deliver or share any results of the inventory with any other party except BLM, as these constitute confidential federal records managed under authority of the BLM; the BLM will determine any further distribution. Permittees will not submit a copy of the letter report, maps, etc. to any land use applicant, nor will they share the results with another cultural resources contractor without prior BLM authorization. If released by BLM, a second contractor may use the letter report to aid in development of a future completed report for a project, but that con-tractor would need to decide to either incorporate the data "as is" and take responsibility for its accuracy and contents, or repeat the survey and recordation using the letter report as a guide. Any shortcomings found as a result of use of the original letter report data will be the responsibility of the new contractor to rectify, including a repeat of Class III inventory if determined necessary by BLM.

A land use applicant who terminates the services of a permittee may substantially increase the amount of time and cost required to produce a Section-106 compliant report.

APPENDICIES

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Appendix A: Law and Policy

Federal laws and policy directives applicable to cultural resources management include the following:

Antiquities Act of 1906 (P.L. 59-209; 34 Stat. 225; 16 U.S.C. 432, 433) provides for the protection of cultural resources on federal lands through criminal sanctions against excavation, injury, or destruction of cultural resources without permission. It provides for permits to authorize scholarly use, and the designation of national monuments. Implemented at 43 CFR Part 3.

Historic Sites Act of 1935 (P.L. 74-292; Stat. 666; 16 U.S.C. 461) declares national policy to identify and preserve "historic sites, buildings, objects and antiquities" of national significance, authorizes the National Historic Landmark (NHL) program and provided a foundation for the later creation of the National Register of Historic Places (NRHP). Implementation of the NHL program is at 36 CFR Part 65.

National Environmental Policy Act of 1969 (P.L. 91-190; 83 Stat. 852; 42 U.S.C. 4321), or NEPA, directs Federal agencies to consider cultural resources in fostering environmental quality and preservation. Implemented by regulations found at 40 CFR 1500-1508.

Executive Order 11593, May 31, 1971 directs Federal agencies to locate and inventory all cultural resources under their jurisdiction and to ensure that actions do not inadvertently affect significant cultural resources. Also direct agencies to consider effects of an action on non-Federal lands.

Archeological and Historic Preservation Act (P.L. 94-291; 16 U.S.C.469) directs Federal Agencies to undertake recovery, protection, and preservation measures to pre-serve data that would be lost as a result of authorizing an action. Both this act and NHPA led to government-wide regulations for the curation and care of Federal archeological collections and associated records (implemented at 36 CFR Part 79).

Federal Land Policy & Management Act of 1976 (P.L. 94-579; 90 Stat. 2743; 43 U.S.C. 1701), or FLPMA, is the "organic" law governing the BLM. It directs the BLM to establish a clear policy of long-term retention and professional management of the lands including scientific, historical, and archaeological resources within the framework of multiple-use management. FLPMA and BLM Re-source Management Plans are a primary basis for the BLM managing cultural resources on public lands.

American Indian Religious Freedom Act of 1978 (P.L. 95-341; 92 Stat. 469; 42 U.S.C. 1996), or AIRFA, requires Federal agencies to, prior to actions being authorized, take into account the effect of the undertaking on Native American traditional beliefs, practices, and access to sacred sites and natural resources.

Archaeological Resources Protection Act of 1979 (P.L. 96-95; 93 Stat. 721; 16 U.S.C. 470aa et seq.; as amended), or ARPA, establishes definitions, permit requirements, and provides civil and felony-level criminal penalties for the unauthorized excavation, removal, damage, alteration, defacement, or an attempt to excavate, remove, damage, alter, or deface any archaeological resource of more than 100 years old on public or tribal lands. This act overlaps with and partially supersedes the Antiquities Act. It is implemented by uniform regulations and departmental regulations, both at 43 CFR Part 7and 36 CFR Part 296).

Native American Graves Protection and Repatriation Act of 1990 (P.L. 101-601; 104 Stat. 3048; 25 U.S.C. 3001; as amended), or NAGPRA, establishes rights of Indian tribes and Native Hawaiian organizations to claim ownership of certain items including human remains, funerary objects, sacred objects, and objects of cultural patrimony on Federal lands and in federally-funded museums. Implemented by regulations found at 43 CFR 10.

Executive Order 13007, May 24, 1996 directs Federal agencies to accommodate access to and ceremonial use of Indian sacred sites by practitioners, and to protect the physical integrity of such sites. It also directs agencies to maintain the confidentiality of sacred sites.

Executive Order 13287, March 5, 2003 orders Federal agencies to lead protection, enhancement, and contemporary use of historic properties under Federal ownership. It establishes more accountability for agencies with regard to inventories and stewardship.

Title 54 U.S.C., Public Law 113-287 (formerly National Historic Preservation Act of 1966, as amended), requires Federal agencies to take into account the effect of their actions on cultural resources and afford the Council an opportunity to comment on actions prior to them being authorized (implemented through regulations of the Council at 36 CFR Part 800). Also extends the policy in the Historic Sites Act to include properties of State and local significance and to non-Federal properties; establishes the NRHP and how to list properties on the NRHP (implemented at 36 CFR Part 60 and Part 63); and federal agency responsibilities of inventory, nomination, protection, and preservation.

The National Programmatic Agreement among the BLM, the National Conference of SHPOs, and the Council, or nPA, gives the BLM considerable autonomy in the implementation of its responsibilities under Title 54, especially those regarding compliance with “Section 106”. The nPA effectively supplants, with some exceptions, the applicability of the Council government-wide regulations (36 CFR Part 800), and replaces them with the BLM Manual Series and a state-specific Protocol Agreement.

The State Protocol Agreement between the Bureau of Land Management, Nevada and the Nevada State Historic Preservation Office for Implementing the National Historic Preservation Act, (as amended), or Protocol, sets out the terms and conditions, goals and objectives, under which BLM would operate the cultural resources program in the State of Nevada. This Protocol also defines the circumstances when and how BLM would consult the SHPO, and/or the Council over specific activities.

BLM Policy Manual Series 8100-8170, or “8100 Manual”, provides BLM managers and staff with a general summary guidance for managing cultural resources in a uniform BLM process.

Appendix B: Cultural Resource Use Permits (CRUP)

All persons conducting archaeological field work on BLM lands in Nevada are required to hold a valid CRUP prior to beginning field work. Permits issued by BLM Nevada pertain only to lands administered by BLM Nevada; lands administered by other BLM state offices (e.g., northwestern Nevada is administered by BLM California through the Surprise and Alturas field offices) or other federal agencies require permits from those entities. Actions involving private or State lands may require a Nevada Antiquities Permit issued by the Nevada State Museum for archaeological work on non-BLM lands. A copy of a current and valid curation agreement with a facility with standards for long-term curatorial services and meeting requirements of Code of Federal Regulations Part 79, Curation of Federally-owned and Administered Archaeological Collections is also required prior to the issuance of a CRUP. The BLM may designate a specific repository for curation and may require a permittee to obtain a curation agreement from that repository.

CRUPs are issued by the BLM NSO. Currently, the authority to sign and issue CRUPs on BLM lands in Nevada has been delegated to the State Archaeologist.

Permit Types

There are three types of permits issued by the Nevada State Office:

1. ***Survey and Recordation Permits*** authorize archaeological surface inventory to identify, evaluate, record, or conduct similar non-impacting studies of cultural properties, which will not involve excavation, or removal of material remains or other disturbance of cultural properties. This type of permit will be the standard working permit for contract archaeologists involved in inventories. A survey and recordation permit will normally allow sufficient information collection to make an eligibility determination. Inventories involving a three phase inventory design (initial survey, testing, data recovery) will require a different permit for each phase.

2. ***Limited Testing and/or Collection Permits*** authorize small-scale testing and/or systematic collection and removal of artifacts. These permits allow limited testing to better understand or define the significance or research potential of a cultural property. Testing and collection will be limited in such a way that the significance or research potential of the property is not substantially diminished.

3. ***Excavation and/or Removal Permits*** authorize excavation and/or removal of material remains at a greater scale than described above, with the result that the significance or research potential of a cultural property or properties may be substantially altered.

Research, testing plans or treatment plans that include limited testing, artifact collection, excavation, or removal of artifacts will require additional information from the BLM District or

Field office in which the work is going to occur prior to the NSO issuing Limited Testing and/or Collection Permits or Excavation and/or Removal Permits:

- The BLM Manager's written determination whether the proposed permit issuance may pose possible harm to, or destruction of, sites on public land with tribal religious or cultural importance; indicating whether appropriate tribes have been given a minimum 30-day notification of pending permit issuance, including the date of notification to tribes; a list of notified tribes; any stipulation(s) that the BLM Manager has determined should be built into the permit as mitigation measure(s)
- A copy of a signed MOA addressing adverse effects relating to excavation and/or removal
- A copy of the treatment plan
- A copy of the correspondence from SHPO indicating concurrence with the treatment plan (for Section 106 purposes)

Application Procedures

A BLM permit application package can be obtained through the BLM NSO State Archaeologist or Associate State Archaeologist, Bureau of Land Management, Nevada State Office, 1340 Financial Blvd., Reno, NV 89502-7147. One copy of the completed application should be mailed to the BLM NSO at least four weeks prior to beginning field work. NSO staff examines each application upon receipt to determine if the filing meets all requirements. Applications lacking necessary information or required documentation in support of an information item will be withheld from further review until the needed information or documentation is provided. When missing information has been requested but not received within 10 working days, the application may be closed and the applicant notified.

There are 3 general types of requests received by NSO involving permits:

1. ***Application for a new CRUP***. In these cases, a complete application would include (a) the CRUP application itself; (b) summary of applicants' abilities to carry out the work requested; (c) resumes of all individuals to be considered for permitting at the Principal Investigator (PI) or Crew Chief (CC) level; (d) work time documentation tables for all proposed PIs and CCs; (e) copy of current curation agreement; and (f) copy of current Nevada State Antiquities Permit if the area of cultural resources investigation is known or likely to affect private or non-federal public lands. Permits for cultural resources investigations on Indian lands or on other federally administered lands than BLM must be obtained from other federal agencies than BLM.

2. ***Application for Permit Renewal***. The request for permit renewal must be submitted in writing, and must be requested by the Permit Administrator. Renewal requests must include: (a) request for renewal on company letterhead; (b) for survey/recordation permits, a list of all projects undertaken under the existing permit during the previous period of authorization, and the status

of the fieldwork and/or reports associated with each project; for ARPA permits involving removal of artifacts, the status of the testing or excavation report and anticipated timeframe for its completion, as well as status of the collected artifacts, including any curation receipts received; (c) copy of current curation agreement; and (d) copy of current Nevada Antiquities Permit, as appropriate. Renewal requests should also include any status changes in company contact information (e.g., change in address, telephone numbers, email addresses), as well as any requested changes in personnel (deletions or additions of PIs or CCs from the permit). Any requested additions or reclassifications of personnel to the permit must also include copies of resumes and work time documentation tables.

3. ***Request for Permit Modification***. Permit modification requests can be sent via regular mail or by email, and must be requested in writing by the Permit Administrator. Modifications generally involve either deletions or additions of key personnel (PIs and CCs) to the permit. Any requested additions of personnel to the permit must also include copies of resumes and work time documentation tables. Requests may be sent via e-mail, but the Permit Administrator's written letter of request must also be sent in hard copy.

Permit Qualifications

Permit Administrator is responsible for carrying out the terms and conditions of the permit and otherwise complying with legal requirements applicable to the permitted activity. This individual must be legally empowered to obligate the applicant organization, and must sign the application. If the individual(s) named as permit administrator(s) in the application are not also named as a PI or CC, they do not have to be professionally qualified as an archaeologist, anthropologist, historian, or architect.

Principal Investigators are responsible for planning, supervising, and overseeing field projects, including responsibility for the professional quality of resource evaluations and recommendations. A PI must have been previously determined by BLM as qualified to make recommendations of NRHP eligibility or treatment for the resources involved in the permit type or application; NRHP recommendations from unqualified PIs will not be accepted by BLM and may result in adverse actions against the permittee. PIs have primary accountability for technical completeness and competence of work conducted under the permit. They are responsible for developing work plans or research designs, for performance of field supervisors, for selection standards and limitations on work assignments of crew members, for analysis and interpretation of field data, for integrating field work results into comparative regional perspective, and for approving reports prior to sending them to the BLM for final approval.

In addition, PIs demonstrate:

- Graduate degree or BA + 24 months experience in a similar position
- Competence in archaeological method and theory

- Ability to plan, organize, and supervise the activities requested
- 16 months of Cultural Resources Management experience, including 4 months in similar cultural contexts and environmental settings as identified by BLM (see work time documentation requirements below for qualifications to work under the capacity of a PI for prehistoric and historic resources)

Crew Chiefs are responsible for carrying out field projects. CCs are responsible for the technical quality of field operations, for direct on-site supervision of all aspects of field work and data gathering, for proposing resource evaluations and recommendations for further treatment, and for preparing field records and descriptive reports.

In addition, CCs demonstrate:

- BA + 12 months experience in a similar position or 30 months of supervised experience
- Competence in field methods including recording and evaluating sites
- Ability to supervise
- 4 months experience in similar cultural contexts and environmental settings as identified by BLM (see work time documentation requirements below for qualifications to work under the capacity of a CC for prehistoric and historic resources)

Work time documentation tables list the previous Great Basin experience (and related areas) of proposed PIs and CCs. BLM Nevada permits individuals to work in the capacity of a PI or CC on prehistoric period resources on a District-by-District basis, based on subareas, because of the varying types of cultural resources and ecological conditions found across the state. As a result, requested PIs and CCs should demonstrate a minimum of four months experience working in each of the northern, western, central, southern, and eastern regions of the state in order to be permitted on a Statewide basis for prehistoric resources. As mentioned above, the BLM may qualify people by BLM District Office rather than on a statewide based on more limited experience.

BLM Nevada permits individuals to work under the capacity of a PI or CC on historic period archaeological resources on a Statewide basis if they demonstrate experience in archaeological resources representative of the historic period of the Great Basin (e.g., ranches, industrial mining sites, homesteads, irrigation systems, mining towns, etc.) totaling a minimum of 12 months either within or outside of the Great Basin.

Any application which fails to meet minimum qualifying criteria specified above, either upon initial receipt or through failure to respond adequately to a request for missing information, may be rejected.

Appendix C: GIS Standards

These GIS Requirements pertain to spatial data for Cultural Resource Inventories as well as to ALL documented Cultural Resources on lands managed by the BLM Nevada. All spatial data used in the drafting of the report and site records will be submitted in accordance with the current BLM Cultural Resource Management (CRM) Data Standard, which will be available on BLM Nevada's website, and will be updated and replaced as necessary. These standards currently address Investigations (Inventories) and Resources. The spatial data required for Isolates on BLM managed lands in Nevada are included later in this section.

All field collected spatial data will be collected in accordance with the GPS Standards included in this document as Appendix F. The BLM's standard datum is Universal Transverse Mercator, North American Datum 1983 (NAD83). All spatial data should be collected and reported using the NAD83 values. The metadata for each dataset shall contain more specific labeling of the datum as appropriate. Examples of this include: NAD 83 (2007) or NAD 83 (CORS 96) (1997). The metadata also needs to contain information related to the equipment used to collect the data in the field.

All spatial data will be submitted in a format that is compatible with ESRI's ArcGIS Software. At a minimum the spatial data submitted should include polygons for the area inventoried, polygons for all Cultural Resources Documented, and points for each isolated artifact identified. If any other spatial data is collected, such as point data for artifacts and features within site boundaries, this information should also be included with the rest of the spatial data collected. All files for spatial data should be labeled with the BLM Report Number, the data it contains and the type of file that it is. For Example if the BLM Report Number for a project was 1-1234 the following filenames would be used:

Inventory Filename would be 1-1234_crm_invstgtn_poly

Resources Filename would be 1-1234_crm_rsrce_poly

Isolate Filename would be 1-1234_crm_isolate_point

For more detailed information on the Data Standard including the physical definitions and design considerations for each domain please see the CRM Implementation Guide. This information is also available on BLM Nevada's website: https://www.blm.gov/programs/cultural-heritage-and-paleontology/archaeology/what-we-manage/nevada.

Isolates

Submit point data for isolates. There is no BLM statewide naming convention for isolates, so it is important that all isolates are associated with an Agency Report Number. **Before submitting final data, check with the appropriate BLM office to see if there is a district naming requirement for isolates.**

REQUIRED ISOLATE POINT ATTRIBUTES				
Attribute	Naming Convention	Field Type	Example	Character Limit
Agency Report Number	LEADAGRNUM	text or string	1-1234	10
Isolate Number	ISOLATE	text or string	EIF-2055 Iso-25	25
Age	AGE	text or string	PREHISTORIC HISTORIC/PREHISTORIC HISTORIC ETHNOHISTORIC UNKNOWN	25
Description	DESC_	text or string	Red chert flake Hole-in-top can Projectile point base, Humboldt Aqua glass bottle base, “A.B. CO.”	150

Appendix D: Project Authorization

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

PROJECT AUTHORIZATION FOR CULTURAL RESOURCES INVESTIGATIONS

To Conduct Specific Cultural Resource Work under the Authority of a
Cultural Resources Use Permit Issued by the Bureau of Land Management, Nevada
Pursuant to Sec. 302(b) of P.L. 94-579, October 21, 1976, 43 U.S.C. 1732
and Sec. 4 of P.L. 96-95, October 31, 1979, 16 U.S.C. 470cc

1. Institution requesting Authorization:
   Name:

   Address:

   Phone:

   Email:

2. Cultural Resource Use Permit:
   N-

3. District Control Number:

4. Legal Description of Project Area (Attach Map):

5. Project Proponent:
   Type of Project:

6. Nature of Proposed Cultural Resources Work (check all that apply to this authorization):
| | Records Search only (no field work) | | Non-Collection Survey/Recordation
| | Survey and Limited Testing | | Excavation and/or Removal

7. Person in General Charge (Principal Investigator)

8. Person(s) in Direct Charge of Work (Crew Chief(s))

11. Special Stipulations or Other Conditions (BLM Use Only)

(Attach Additional Pages as Needed)

12. Requestor's Signature:

   Title:

   Date:

13. Approved:

   Title:

   Date:

The Individual named in item 8 above shall be present during any conduct of fieldwork authorized herein.

NV 8150-1 (March 1985)

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Appendix E: Standard BLM Nevada Forms

NEGATIVE REPORT

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CULTURAL RESOURCES INVENTORY NEGATIVE REPORT

BLM Office: BLM Report Number:

Organization/Field Crew:

Project Name and Description:

Project Area: acres

County: Map Reference:

UTM Reference:

Records Check: __ BLM Records; __NVCRIS; __ NR List; State Archive; __ Other

Results of Previous Inventories:

Recorded and Unrecorded Sites:

Expectation:

Inventory Date(s):

Inventory Type:

Findings: No cultural resources were encountered during the inventory.

ATTACH CLEAN REPRODUCIBLE 7.5' MAP(S) SHOWING AREA OF POTENTIAL EFFECT AND AREA INVENTORIED

Prepared By: Date:_____

Approved By: Date:_____

ISOLATE REPORT

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CULTURAL RESOURCES INVENTORY ISOLATE REPORT

BLM Office: BLM Report Number:

Organization/Field Crew:

Project Name and Description:

Project Area: acres

County: Map Reference:

UTM Reference:

Records Check: __ BLM Records; __NVCRIS; __ NR List; State Museum; __ Other

Results of Previous Inventories:

Recorded and Unrecorded Sites:

Expectation:

Inventory Date(s):

Inventory Type:

Findings: No cultural resources other than isolates were encountered during the survey.

{Attach table displaying isolate numbers, descriptions, and UTMs}
{Attach 7.5' map(s) showing locations of isolates recorded}

ATTACH CLEAN REPRODUCIBLE 7.5' MAP(S) SHOWING AREA OF POTENTIAL EFFECT AND AREA INVENTORIED

Prepared By: Date:_____

Approved By: Date:_____

BLM Eligibility Determination: Unevaluated __ Not eligible__ Eligible __ Criteria: A__ B__ C__ D__

SHPO Concurrence: Yes___ No___

NEVADA IMACS SITE FORM

Administrative and Environmental Data

1. State Site No: 26
2. County:
3. BLM Site No:
4. Project Name:
5. Temporary/Field Site No:
6. BLM Report No:
7. Site/Property Name:
8. Temporal Cultural Assignment:
   Age/Period:
   Dating Method:
   Property Class:
   Primary Resource Category:

9. Site description:

Site area: x m/ft
Depth of Cultural Fill: Determination Method:

Site Condition:

NRHP Eligibility Recommendation: Criteria:
NRHP Justification:

10. Elevation:
11. UTM Reference: Zone 11
12. Meridian: Mt. Diablo
13. Map Reference:
14. Land Owner:
15. BLM District and Field Office:
16. Photographs (attach photo log):
17. Recorded by: Date:
18. Survey Organization:
19. Distance to Permanent Water: Type: (A) spring (B) stream/river (C) lake (D) other
20. Geographic Unit:
21. Topographic Location/Primary Landform:
22. Depositional Context:
23. Vegetation Community (primary only):

Artifact Summary: Record all culturally modified materials and artifacts (including but not limited to: projectile points, bifaces, debitage, groundstone, beads, FCR, textiles, glass, cans, ceramics, etc.) using **IMACS USER'S GUIDE** categories.

Count	Density m^2	Material	Artifact	Comments

Feature Description:
Feature Dimensions: X m/ft Area: m^2
Feature Type:
Feature Description (dimensions, materials, physical attributes, etc.)

Artifacts Directly Associated with Feature:

Collected Materials:
Surface Collection Method:
Excavation Status:
Report detailing excavation:
Summary Description of Collected Materials:

Location of Collected Materials:

Description of and results of all artifact level analyses conducted:

Attachments: 7.5 minute USGS Location Map; Site Sketch Map; photographs

NEVADA IMACS SITE FORM RECORDING INSTRUCTIONS

The Nevada IMACS Site Form is the standard form for recording archaeological resources. How to complete the Nevada IMACS Site Form: All numbers on the form are the required data fields. The IMACS User's Guide, Sections 310-Part A, Administrative Data, 320-Part B, Prehistoric Site Data, and 330-Part C, Historic Site Data contain detailed instructions for filling out these fields.

Property Class:

Temporal Cultural Assignment: Must use one of the CRM Resource Temporal Cultural Assignment Domain Values defined in the BLM CRM Data Standards

Age: If a precise date or time period is known (i.e. Paleoindian, Formative, 1910-1960, etc.)

Dating Method: describe the method used to determine the precise date or time period (i.e. diagnostic artifact cross-dating, obsidian hydration, radiocarbon dating results, etc.)

Property Class: Must use one of the CRM Resource Primary Property Class Domain Values defined in the BLM CRM Data Standards

Primary Resource Category: Must use one of the CRM Resource Primary Category Domain Values defined in the BLM CRM Data Standards

Site Description: A concise, detailed narrative of the site type, site size, artifact numbers and types, features, artifact concentrations, and depositional context. Included may be notations of the relationship or uniqueness of the site compared to other sites in the region. Historic and prehistoric sites will be recorded, described and mapped in terms of the artifacts present (i.e., number and types of tin cans, bottles, wood and metal debris, features, structures). Citations for diagnostic historic artifacts will be included in both the report and site forms. Architectural Resources will be recorded pursuant to the *Guidelines for Recording and Reporting Architectural Resources in Nevada*, and if associated with an archaeological resource the appropriate architectural documentation will be appended to the Nevada IMACS Form.

Site Condition: Must use one of the CRM Resource Condition Assessment Domain Values defined in the BLM CRM Data Standards

National Register Justification: Follow the National Register of Historic Places standards for evaluating sites using the criteria a-d (see Side Bar, page 16); each of these criteria must be addressed for each site The significance of a site can be evaluated and justified only when it is evaluated within an historic context (see Appendix I). Sites determined eligible may be further defined as significant at the Local, State, or National level.

NRHP Eligibility Recommendation: Yes, No or Undetermined

Criteria: Must use one of the CRM Resource National Register of Historic Places Eligibility Criteria Domain Values defined in the BLM CRM Data Standards

NRHP Justification: This section must tie the resource to the Historic Context in the report and show that you considered all of the criteria and discuss the sites integrity.

Artifact Summary: The table will include the count and density per m2 for all prehistoric artifacts: debitage, tools, bifaces, and all historic and prehistoric culturally modified materials.

Debitage, tools, and bifaces should be listed by material type, and described by color, luster, etc., if applicable. The IMACS User's Guide provides a valuable listing of artifact types and features.

Feature Description: Include the dimensions, area feature type, description, sketch map if applicable, and photographs.

Collected Materials: Please note if any materials have been removed from the site.

Surface Collection Method: What method was used to choose which artifacts were collected?

Excavation Status: Has the site been excavated and if so how much? Excavation Units should be shown on the map and sketch map associated with the site.

Report detailing excavation: Include the title and BLM Report Number for the excavation report

Detailed Description of Collected Materials: Describe all of the materials collected

Location of Collected Materials: Nevada State Museum, Carson City (Northern Nevada Collections) or Las Vegas Natural History Museum (Southern Nevada Collections)

Description of and results of all artifact level analyses conducted: Describe any analysis conducted on individual artifacts and describe the results. The reports produced for these analyses may be attached to the site form in-lieu of re-writing the results on the site form.

Photographs and Photo Logs: At least two overview site photographs, displaying different aspects, of each site recorded. Features should be photographed, including petroglyphs/pictographs, stone circles, foundations, hearths, etc. Project photo logs associated with each site will be submitted with the appropriate site form. Photos will be printed at a minimum 3 x 5 inch (best at 4 x 6 inch) and submitted on 8 1/2 by 11 inch pages with descriptions beneath the photos (see Appendix H for photo quality standards).

Attachments: 7.5 minute location map with scale, north arrow, map name and date, and measured UTM grid; site sketch map; photographs.

UTM Reference: If a datum is established at the site, the UTM Reference point should be the location of the datum. If no formal datum is established then any point within the site boundary would be appropriate.

Digital Files: All digital site forms will be saved as individual documents and names with the Smithsonian and/or BLM Site Number(s).

Location Map and Site Sketch Map: Refer to Appendix G for guidance.

Appendix F: GPS Standards

F.1 BLM National GPS Standard

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

October 20, 2003

In Reply Refer To:
8100 (240)P

EMS TRANSMISSION 10/22/2003
Instruction Memorandum No. 2004-020
Expires: 09/30/2005

To: All Field Officials
From: Assistant Director, Renewable Resources & Planning
Subject: Guidance for Recording Cultural and Paleontological Resource Locations for the Bureau of Land Management (BLM) using Global Positioning System (GPS) Technology
DD: 04/01/2004

Program Areas: Cultural and Paleontological Resources

Purpose: The purpose of this guidance is to provide a minimum set of requirements for recording cultural and paleontological resource locations for the BLM using GPS technology. The GPS has become a major tool for Geographic Information System (GIS) and traditional mapping applications. The use of GPS technology to record all site locations for the BLM shall be required within six months from issuance of this Instruction Memorandum.

The main objective of this guidance is to improve the overall reliability of site location information recorded by field archaeologists, paleontologists, and other specialists working within the BLM or working on lands administered by the BLM, including contractors; and support the standardization and expansion of GIS applications for cultural and paleontological resource management.

Policy and Action: This guidance is intended to produce overall cultural and paleontological resource location data with a mean error of +/-12.5 meters or less, at a 95 percent confidence level. The mean error requirement is consistent with the National Map Accuracy Standard for 1:24,000 scale quadrangles and Federal Geographic Data Committee (FGDC) reporting requirements. This accuracy can be achieved with a variety of contemporary GPS equipment. Appropriate equipment is defined as GPS technology that meets the accuracy standard.

Cultural resources shall be located by reporting a minimum of one GPS-observed coordinate taken in the approximate estimated visible center (centroid) of the resource. The centroid need not be perfectly central to a site, but it must lie in the site's approximate center for map-plotting purposes. Multiple coordinates shall be used to define the approximate centerline of a linear resource (e.g. trail), if field judgment suggests that a single centroid is insufficient to record its location. More points, lines or polygons may be taken for other mapping purposes, including recording project area boundaries, site datums or markers, or internal attributes. Applicability of this standard for recording isolated finds shall be a state-level decision.

Paleontological resources shall be located according to the guidelines set forth in the BLM Handbook H-8270-1, General Procedural Guidance For Paleontological Resource Management, Ch. II A(4) and Ch. IV P(1) and expressed in Universal Transverse Mercator (UTM) North American Datum 1983 (NAD83) coordinates. Points may be used to identify discrete sites or isolates; lines or polygons may be used to delineate site or project boundaries.

Archaeological resource locations shall be reported in an appropriate, identified, coordinate system. The BLM's standard for coordinates is Universal Transverse Mercator, North American Datum 1983 (NAD83); whenever possible, coordinates should be reported using the NAD83 values. However, standards may differ between States and in collaboration with State historic preservation offices; consequently, all reported coordinates must clearly identify the coordinate system used.

In situations where GPS observations are not practical or possible due to geography, vegetation, satellite availability, or the presence of hazardous materials, the recorder should locate the resource using GPS offset equipment and capabilities, map coordinates, or a combination of GPS and other techniques. Such non-GPS methods must be described in the site or project area record.

The GPS observations will be reported on the appropriate part of a resource recording form, in the narrative description of the resource, or both, and include the following information:

- The UTM coordinates with the UTM zone should be reported. For all coordinates, the datum reference must be reported.
- The coordinate system for observations should be recorded in an obvious way (e.g. "UTM Zone 10 NAD83 centroid coordinate: N4986000 E302000 meters")
- If the error terms for a given coordinate are known, then the probable error must also be recorded in narrative (e.g., "GPS observations were differentially processed to an average error of less than 5m root mean standard deviation [RMS]").
- Receiver type, correction status, length of observation and number of observation points, position dilution of precision (PDOP), and horizontal error estimates must be recorded with the location whenever GPS equipment and software provides such information.

Discrepancies between GPS locations and USGS quadrangle locations should be noted on the site record. Because GPS locations are mathematically precise coordinates, a point plotted from GPS may appear to be in an incorrect location on a USGS quadrangle.

This is a minimum standard and should not be used to lessen any applicable State, agency or Federal standard or reduce site location accuracy from conventional mapping methods. There will be situations where more accurate location information is desirable, or required. For instance, District Offices may apply more stringent standards for intra-site mapping, excavation unit and datum locations. In all instances, the most accurate and capable equipment available shall be used to meet the needs of the types of data that are being recorded, even if it exceeds the accuracy suggested in this guidance. Appropriate GPS experts within District and Field Offices should be consulted as needed.

Timeframe: This minimum requirement for recording cultural and paleontological resource locations for BLM using GPS technology is in effect on April 1, 2004.

Contact: Please contact either Marilyn Nickels, at (202) 452-0331, or Linda Clark, at (208) 756-5460 with any questions.

Signed by:
James G. Kenna
Acting Assistant Director
Renewable Resources and Planning

Authenticated by:
Barbara J. Brown
Policy & Records Group, WO-560

F.2 GPS Accuracy Standards for Archaeological Inventory in BLM Nevada: Further Guidance

Under most circumstances the accuracy requirement for a dataset would help determine the type of GPS/GNSS (Global Positioning System/Global Navigation Satellite System) receiver that would be used on a project. For the most part accuracy standards do not reflect the collecting capability of modern technology or provide the necessary accuracy to stand up to internal or external scrutiny.

The software that is used on a GPS/GNSS receiver to collect data and the corresponding office component also plays an important part in determining the correct receiver to use on a project. The final accuracy of collected data will depend on the software that is used to collect the data and how it is processed.

The collection of GPS-generated data and its corresponding accuracy can be classified as a series of "accuracy bands". Depending upon the data being collected, GPS receivers and soft-ware may provide accuracy within the following bands:

Accuracy Band at 95% Confidence Level
<0.5m
0.5m – 1m
1m – 3m
3m – 5m
>5m

There are several factors that would have to be considered to determine the band that a receiver would fall within. These would include the GPS/GNSS chip design and capability, real time differential correction capability, post-processed differential correction capability, signals tracked, and field data collection software.

As a minimum standard, GPS-generated data should be collected, processed, and reported within the 3m-5m accuracy band for site and isolate locations (including site boundaries), and within the 0.5m-1m accuracy band for mapping individual artifacts, features, and other items within site boundaries for the purposes of generating a detailed site sketch map. GPS units and software that perform post-processed or real time differential correction is required to achieve these accuracy band standards.

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Appendix G: Mapping Standards

Mapping data provides spatial relationships of cultural resource data not easily transmitted through text or photographs. Three types of plan-view maps are used in cultural resources reports and site forms: project location maps, site and isolate location maps, and site sketch maps. Project location maps show the inventory area and the APE without displaying site and isolate locations. These maps may appear in the body of the report, and may become public. Two scales of project maps will be included: (1) at 1;100,000 or larger scale, in order to show the location of the project in relation to the broader region; and (2) 1:24,000 scale USGS maps.

ALL maps (including sketch maps) will contain the following information (and will be submitted on 8.5" x 11" or 11" x 17" paper):

- Source map used (e.g. USGS 7.5' Spruce Mountain, 2003)
- Scale
- North arrow
- Measured UTM grid
- Datum (NAD 83)
- BLM Report number
- Site boundary or Isolate point (GIS shapefile from the field)
- Relation of sites and isolates to APE boundary
- Date map was produced and map author

A complete set of site and isolate location maps using the 7.5' USGS maps need to be provided in each report; individual site location and sketch maps will also be included with each site form. Site and isolate location maps for the report, as well as for site records will appear only in detachable confidential appendices and will not appear in the body of the report. Similarly, UTMs, legal descriptions, etc. of sites will not appear in the body of the report but only in the confidential appendices.

1:24,000 scale maps will be produced on paper at 1:24,000 scale; do not submit 1:24,000 scale maps that have been reduced.

Sketch maps should convey information about the site at an appropriate scale. This information provides a visual reference for information provided elsewhere in the report and site form.

A sketch map will include the following information:

- Features (as lines or polygons, as appropriate), such as hearths, canals, etc.
- Locations of internal spatial patterning (e.g., concentrations of artifacts and/or features)
- Natural features on the landscape within the site boundaries
- Prehistoric: Tools, bifaces and features (see glossary) numbered if more than one of each is present; if applicable, features should be shown using a line or polygon, as appropriate
- Historic: Artifact concentrations, features, any artifacts called out (e.g. makers' marks, embossing, unique or distinctive items, etc.) in the site form or report
- Author (archaeologist responsible for data shown on map)
- Date of data collection in field

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Appendix H: Illustration Standards

At a minimum, all artifact and feature photographs will be of sufficient quality to document the essential diagnostic elements of the artifact/feature. To achieve this goal, the following data requirements must be met in order for a site to be considered fully documented:

Diagnostic artifact and feature photographs shall meet the following data criteria:

- Images will be taken using a camera with 10 megapixels or better resolution
- Images will be captured in Tag Image File Format (TIFF). If TIFF option is not available on the camera itself then JPG files may be converted to TIFF provided nothing about the image is modified
- Images will be reproduced at a minimum size of 3 x 5 inches using 600 dpi
- All images will contain an easily interpretable scale (metric for prehistoric artifacts and standard [US English Measurement] for historic artifacts)
- Minimum perspective photographs of diagnostic prehistoric artifacts: Front and back, minimally, and ideally profile, if practicable
- Minimum perspective photographs of diagnostic historic artifacts: representative sample of each makers' marks on site, all distinguishing characteristics (e.g. pattern, vessel form, etc.)
- If the aforementioned data criteria and critical elements cannot be met using digital photography then the artifact(s) in question will be sketched by hand in order to meet these requirements

Artifact photographs shall convey the following critical elements:

- Length, width, thickness (in metric for diagnostic prehistoric artifacts; standard for diagnostic historic artifacts)
- Material type and color (may require additional written notations)
- Flaking scars (where applicable)
- Presence or absence of re-working (where applicable)
- Use-wear, polish, or other evidence of use (where applicable, e.g. groundstone)

Artifact image descriptions will contain:

- Dimensions (length, width, thickness)
- Assigned artifact number (if more than one is present)
- Raw material
- Artifact type
- Smithsonian Site number OR isolate number
- BLM report number
- UTM coordinates in NAD 83

Submission Requirements:

All digital images will be submitted in an acceptable electronic format, including archival quality CDs and DVDs, in addition to the print copies included with the report and site forms. Photo logs are to be submitted with reports. Minimum data to include in the photo log, which is to be attached to the report as an Appendix, include description, UTM, BLM report number, site number, direction, and date.

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Appendix I: Historic Context Development

The structure and relative content of historic and prehistoric contexts should be similar, but the lack of written historic records can make development of contexts for prehistoric sites more difficult than those for historic sites. At a minimum, however, both contexts must consider the possibility that sites qualify under NRHP criteria other than “d”, and provide evaluation standards for each of the four criteria, a-d.

The following two examples of a developed Historic Context under criterion “d”, were taken from the SWIP South (ON Line) Treatment Plan written by SWCA (Cannon et al. 2010), and the Historic Context Outline for the Basin & Range National Monument. Only the first theme is reproduced for the SWIP example.

SWIP EXAMPLE

Prehistoric Research Themes

"Based on previously conducted research and an understanding of the Great Basin subareas, seven re-search themes may be potentially addressed during this study and inventory. These include:

- Chronology and cultural affiliation
- Settlement patterns and subsistence strategies
- The organization of technology
- Population movement and trade
- Trade Systems
- Ideology and worldview
- Environmental reconstruction and adaptations

Chronology and Cultural Affiliation

Within the Great Basin, prehistoric chronology is a topic of much research and concern; often because many other research issues and themes require a temporal affiliation (Elston 1990). The Nevada State Historic Preservation Plan (Elston et al. 1992) proposes the following questions: What are the principal artifactual time-markers that can help establish a periodization of the cultural history of the study area? What dates do they reflect? What other aspects of the archaeological record may serve to signal temporal subdivisions of the cultural sequence?

Chronologies often lack adequate controls or are poorly defined, based on a lack of sites with datable stratigraphic contexts and a lack of stratigraphic contexts in association with artifacts in context, including projectile points (McGuire et al. 2004). Sites with temporal data can be used to date sites, refine chronologies (projectile points and ceramics), define period-specific components, and compare and test typologies within the Great Basin. This project is especially useful for this research issue due to the long, linear nature of the project area and its location within the Eastern and Western Great Basin and the Snake River Plain and its proximity to Brown's Bench Obsidian Source.

Basic temporal affiliations and geographic ranges have been in place in the Great Basin for projectile points for years, however, differences in the age estimates and typological schemes developed for individual localities have remained a significant problem (Amick 1999; McGuire et al. 2004). The debate between the Long and Short chronologies centers on the age of Elko series and split stemmed projectile points; these points appear to be as much as 5,000 years older in the Bonneville Basin (eastern Great Basin) than they are in the Lahontan Basin (western Great Basin) (Hockett 1995). Although it was believed that sufficient data would rectify this situation, it is now obvious that age and use of specific point types varied across the Great Basin, sometimes considerably (Basgall and Hall 1996; Beck 1999; McGuire et al. 2004; Delacorte

2008). The debate between Long and Short chronologies can no longer be dismissed as sampling or interpretation issues, as it appears to reflect a real distinction between the two areas (Hockett 1995). It appears that most of the project falls within general constraints of the Short Chronology, based on the discrete, relatively narrow time frames for Gatecliff and Elko series projectile points at Pie Creek (McGuire et al. 2004) and James Creek (Eltson and Budy 1990). Most recently, the sequence has been adopted by Hockett and Murphy (2009) in their study of prehistoric antelope drive features in the Elko ar-ea. Further typological and temporal refinements is needed for all time periods, for example, some sites contain Eastgate points or Rosegate points exclusively while other sites contain a mixture (Hockett 2007b). Furthermore, if DSN points are associated with northward and eastward expansion of Numic pop-ulations (Delacorte 2008; Hildebrandt and King 2002), there may be significantly later dates in more north-ern areas.

Eastern Idaho lies near the intersection of the Great Basin, Columbia Plateau and the Great Plains; as such, projectile points in this area show similarities and may have been given differing names (Holmer 1995, 2009). For example, some Plains style points (i.e., Avonlea) have been misclassified as Great Ba-sin types (i.e. DSN) (Holmer 1995). Based on Holmer (1995), a generalized chronology for this area has been proposed and has been updated (Holmer 2009) based on analysis of over 500 points with approximately 100 radiometric dates from 17 sites. Further analysis and projectile points may tighten this chronology, referred to as the Eastern Idaho Data Base.

Although obsidian hydration studies have historically been undertaken in the southwestern Great Basin, local hydration chronologies for the northern and central Great Basin have become more prevalent. Brown's Bench obsidian has been used successfully to date sites (Hockett 1996a). Hockett (1995) has produced a relative hydration sequence for this source group; a quantity of data is sufficiently large enough to calculate a provisional hydration rate by correlation with the mean and/or maximum age estimates of the points. However, this type of rate has proven to be imprecise at times; a number of radiocarbon/hydration pairings from stratigraphically controlled contexts can be used to establish and strengthen the hydration rate for Browns Bench, and possibly for known sources in Idaho.

Ceramic chronologies within the Great Basin are also not well understood, in part due to the variability in local materials used in production and the relatively small amount of ceramics recovered to date. Fremont ceramics includes at least five cultural variants (see Section 2); the Great Salt Lake variant is most likely to be found in the project area, as it extends from the Great Salt Lake to southern Idaho and northeastern Nevada (Madsen 1986); it is a good temporal marker of the Late Archaic, as it appears to date between 1450 and 650 BP (Madsen 1986). Paiute-Shoshone brown ware, also called Intermountain brown ware (Pippen 1986) is located throughout the majority of the Great Basin; the project area corresponds to Western Shoshone lands (Tuohy 1973). Although not absolute, brown ware appears to have arrived in Western

Shoshone lands after 500 BP (Eerkens 2004; Rhode 1994; Pippen 1986) and as such is a good temporal marker in the area.

Eligible Sites would:

> 1. Contain an unmixed assemblage of typeable projectile points (e.g. Desert Series) or other chronometrically sensitive artifacts along with independently datable material (e.g. charcoal, obsidian, ceramics, fire-cracked rock, etc.) that can address research issues such as the Long vs. Short Chronology debate or add to the Eastern Idaho Data Base discussed above, or:
>
> 2. Have stratified deposits likely to contain datable artifacts or features (projectile points, ceramics, obsidian, etc.) or:
>
> 3. Be able to address issues of the reliability of less often used dating techniques such as obsidian hydration, thermoluminescence, archeomagnetism, etc. This would require that a site contain artifacts appropriate for the technique being tested (e.g. obisidan, ceramics, FCR, thermal features with high clay content) as well as comparative material known to produce accurate dates such as charcoal for C-14 dating or wood for dendrochronological dating. Additionally sites would have to contain horizontally or vertically stratified unmixed deposits or represent single occupations or:
>
> 4. Address outstanding chronological issues pertaining to time periods or site types that are poorly understood. For example, given their relative rarity, most sites containing Western Stemmed points or Large Side-notched points would be recommended eligible even if the site condition is less than optimal or,:
>
> 5. Contain typeable obsidian projectile points that can be analyzed to further define source chronologies."

BARNM CONTEXT EXAMPLE

A HISTORIC CONTEXT FOR THE BASIN AND RANGE NATIONAL MONUMENT

THEME OUTLINE

PREPARED BY:
Nicholas B. Pay
Archaeologist
Basin and Range National Monument
1400 South Front Street
P.O. Box 237
Caliente, NV 89008-0237

FINAL
March, 2016

EXECUTIVE SUMMARY

Between January and March of 2016, Basin and Range National Monument (BARNM) Archaeologist, Nicholas Pay, with the assistance of those individuals listed in the Acknowledgements section of this document, drafted an outline that will be used to develop a Historic Context for the Basin and Range National Monument. Presented in this document is the final result of this effort.

This outline is based on *The Components of a Historic Context: A National Register White Paper* by Barbara White (4-9-09) (available online at http://www.nps.gov/nr/publications/policy.htm) and on the following National Register Bulletins:

How to Apply the National Register Criteria for Evaluation (NRB 15)

How to Complete the National Register Registration Form (NRB 16A)

How to Complete the National Register Multiple Property Documentation Form (NRB 16B)

The National Register Bulletins are available electronically at http://www.nps.gov/nr/publications/.

ACKNOWLEDGMENTS

The Bureau of Land Management, Basin and Range National Monument would like to express their sincere gratitude to the following individuals for their review and comments as this outline was developed. The contributions made by these individuals will help create a historic context that will be an incredible tool that will allow managers to quickly evaluate and manage the cultural resources that have been, or will be, identified within the Basin and Range National Monument.

We are looking forward to working with many of these individuals and others as we move forward on developing the Historic Context for the Basin and Range National Monument.

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THEME

A theme is a means of organizing properties into coherent patterns based on elements such as environment, social/ethnic groups, transportation networks, technology, or political developments that have influenced the development of an area during one or more periods of prehistory or history. A theme is considered significant if it can be demonstrated, through scholarly research, to be important in American history.

Fully describe the theme, its geographical limits, the chronological period, and describe its significance to local, regional, or national prehistory or history. This section should not be a dissertation but instead provide a concise summary of what we know about the theme.

Period of Significance

If a theme has multiple periods of significance, consider creating a Sub-Theme to avoid making the theme description too complex.

Sub-Themes

List the sub-themes by which a property identified under this theme could also be evaluated.

Associated Property Types

List and define the various property types expected under this theme. Identify and briefly describe any currently documented Historic Properties for each property type identified.

DETERMINING A PROPERTY'S SIGNIFICANCE

CRITERION A: Association with a Significant Event

SIGNIFICANT EVENT

Describe known significant events that are present within the historic context and their importance to local, regional, or national prehistory or history.

CRITERION B: Association with a Significant Person

SIGNIFICANT PERSON OR GROUP

Describe the significant person, persons, and /or group, with are present within the historic context and their individual importance to local, regional, or national prehistory or history.

CRITERION C: Embody Distinctive Characteristics

DISTINCTIVE TYPE

Describe the type within the typology and its significance in local, regional, or national prehistory or history

DISTINCTIVE PERIOD

Describe the period and its significance in local, regional, or national prehistory or history

DISTINCTIVE METHOD

Describe the method and/or methods and their significance in local, regional, or national prehistory or history.

REPRESENT THE WORK OF A MASTER

Describe the qualities that would characterize exceptional workmanship and define what is representative of the individual's career or craft as it relates to the historic context.

POSSESS HIGH ARTISTIC VALUE.

Describe the attributes needed for possessing high artistic value and its significance in local, regional, or national prehistory or history.

REPRESENT A SIGNIFICANT AND DISTINGUISHABLE ENTITY WHOSE COMPONENTS MAY LACK INDIVIDUAL DISTINCTION.

Define how a district or districts should be identified under Criterion C within this historic context.

CRITERION D: Have Yielded, or Likely To Yield, Significant Information

RESEARCH QUESTION(S)

Explain the question's significance; describe why the research question is both relevant and significant to the understanding of local, regional, or national prehistory or history. Research questions presented should not be questions for which there is an agreed upon answer or answers in the archaeological/historical community, unless the information presented calls into question the current understanding of that topic or issue.

Describe the data that must be present in order to address the question. Please keep in mind that in order for resources to be eligible they must contain data that may build on the current understanding of the local, regional, or national prehistory or history.

ASSESSING INTEGRITY

Rank the seven aspects of integrity to identify which of the aspects of integrity comprise the character-defining attributes for the resource.

Location

Location is the place where the historic property was constructed or the place where the historic event occurred.

Design

Design is the combination of elements that create the form, plan, space, structure, and style of a property.

Setting

Setting is the physical environment of a historic property.

Materials

Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.

Workmanship

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.

Feeling

Feeling is a property's expression of the aesthetic or historic sense of a particular period of time.

Association

Association is the direct link between an important historic event or person and a historic property.

GEOGRAPHICAL DATA

Identify the geographic limits for which properties under this theme are known to exist.

This section should also contain a map of the Geographic Limits.

SUMMARY OF IDENTIFICATION AND EVALUATION METHODS

Describe what work has been completed in the past to identify properties associated with this context.

BIBLIOGRAPHY

Appendix J: Contractor's Report Review Form

UNITED STATES DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
[BLM] OFFICE

BLM Report No.: Contractor's Report No.:

Report Title:

Date Received:

Project Proponent:

Permit Holder:

EA/Serial No.:

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

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

[ ] This report is unacceptable. Please revise following the current BLM Guidelines.

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

Contractor's Eligibility Recommendations:

BLM Comments on Eligibility Recommendations:

General Comments on the Draft Report:

Reviewed by: _____ Date:
(Archaeologist)

Approved by: _____ Date:
(BLM Manager)

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Appendix K: Glossary of Terms

AREA OF POTENTIAL EFFECT is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist

ARTIFACT human made, not natural; any object that shows evidence of human manufacture, modification, or use. In common usage, normally refers to portable prehistoric items such as implements made of stone, bone, pottery, or other durable material

BIFACE flaked stone that has been chipped or worked on two sides or faces; bifaces may be further classified as tools, cores, preforms, or blanks; a biface may have been used as a cutting, scraping, engraving, drilling, or chopping tool, or it may represent an artifact that was in the process of being manufactured into a tool

CLASS I existing information inventory: a study of published and unpublished documents, records, files, registers, and other sources, resulting in analysis and synthesis of all reasonably available data; Class I inventories encompass prehistoric, historic, and ethnological/sociological elements, and are in large part chronicles of past land uses; they may have major relevance to current land use decisions

CLASS II probabilistic field survey; a statistically based sample survey designed to help characterize the probable density, diversity, and distribution of archaeological properties in a large area by interpreting the results of surveying limited and discontinuous portions of the target area

CLASS III intensive field survey; a continuous, intensive survey of an entire target area, aimed at locating and recording all archaeological properties that have surface indications, by walking close-interval parallel transects until the area has been thoroughly examined; Class III methods vary geographically, conforming to the prevailing standards for the region involved

CORE stone which serves as the parent material or nucleus from which flakes are removed by the application of controlled force

FEATURE a type of material remain that cannot be removed from a site such as roasting pits, fire hearths, house floors or post molds

HISTORIC the period of time that is after Native American contact with non-native groups

HISTORIC CONTEXT are statements that provide the basis for evaluating significance and integrity of cultural resources; they provide the foundations for decisions about survey and the identification, evaluation and treatment of historic properties

HISTORIC PROPERTY means any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion in, the National Register of Historic Places

INVENTORY a term used to refer to both a record of cultural resources known to occur within a defined geographic area, and the methods used in developing the record; depending on intended applications for the data, inventories may be based on (a) compilation and synthesis of previously recorded cultural resource data from archival, library, and other indirect sources; (b) systematic examinations of the land surface and natural exposures of the subsurface (survey) for indications of past human activity as represented by artificial modifications of the land and/or the presence of artifacts; and (c) the use of interviews and related means of locating and describing previously unrecorded or incompletely documented cultural resources, including those that may not be identifiable through physical examination

ISOLATE OR ISOLATED ARTIFACT a single artifact that is spatially discrete from any other artifacts by a minimum distance of 30 meters; a single artifact broken into two or more pieces (e.g., broken historic-aged bottle or broken prehistoric ceramic vessel) may be recorded as an isolated artifact as long as no other artifacts or features are associated within 30m of the artifact

ISOLATED FEATURE a single feature unassociated with other features or artifact scatters (30 meters minimum distance) that are undateable (e.g., prospect pit, adit, shaft). Features with unique construction, distinctive qualities, or that can be dated shall be recorded on an IMACS form and evaluated for eligibility to the National Register

PREHISTORIC the period of time that is prior to Native American contact with non-native groups

PROJECTILE POINT a term for sharp implements that were hafted to darts, spears or arrows

RECONNAISSANCE SURVEY field survey that is less systematic, less intensive, or otherwise does not fully meet inventory standards; reconnaissance surveys may be useful for checking class I inventory or class II survey conclusions, or for developing recommendations about further survey needs in previously unsurveyed areas; other terms sometimes applied to similar kinds of survey include "judgmental," "intuitive," "opportunistic," and "purposive"

SHAPEFILE geospatial vector data format for Geographic Information Systems (GIS) software; spatially describe points, polylines, and polygons

SITE a place where human activity occurred and material remains were deposited; in BLM Nevada, a site is defined as any location containing two or more artifacts or features that are spaced no more than 30 meters apart

SURVEY (see inventory)

TOOL a device or implement used to carry out specific tasks or functions

UNDERTAKING means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval.