



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

Handbook of Guidelines and Procedures for Inventory, Evaluation, and Mitigation of Cultural Resources

Bureau of Land Management
Colorado State Office
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I. PURPOSE AND OBJECTIVES

This handbook addresses cultural resource standards and guidelines and provides direction to Bureau of Land Management (BLM), cultural resource specialists, prospective or current archaeological investigations permittees (herein referred to as permit holders), other Federal agencies, and commercial developers (herein referred to as project proponents). The requirements that are discussed here and in BLM Manual Series 8100 dated December 3, 2004 (<https://www.blm.gov/policy/manuals>) regarding cultural resource policy are to be used by applicants or permit holders to conduct cultural resource work for a Federal undertaking or independent scientific study. This information is also used by the BLM to guide its own cultural program and by permit holders and project proponents to understand the scope and requirements that they may have to undertake in carrying out the stipulations attached to leases and permits under which they may be working.

The BLM requires that the permit holder of a Permit for Archaeological Investigations (PAI) carry out the terms and conditions of the permit or face suspension or revocation of the permit. For a project proponent to proceed with a project, the permit stipulations must be completed. Signing the permit indicates acceptance of these responsibilities.

The BLM will provide necessary guidance to both permit holders and project proponents regarding legal and regulatory requirements and cultural resource management. The BLM *is not* an arbitrator between permit holders and project proponents with business disputes. The BLM strongly suggests that the two business entities develop explicit contracts between themselves prior to any PAI application or issuance.

The BLM is required by law and regulation to ensure that Bureau-initiated or Bureau-authorized actions do not inadvertently harm or destroy cultural resources. Because most cultural resources are unidentified, irreplaceable, and highly sensitive to ground disturbance, it is necessary that the resources are properly identified, evaluated, and reported prior to any proposed action that might affect their integrity or condition. All cultural artifacts and other related materials such as notes, photographs, GIS, GPS, and other digital data, etc. from public lands remain the property of the U.S. Government.

II. AUTHORITIES

Other guidance provided for the identification, evaluation, treatment, and management of cultural resources on BLM lands can be found in the *Programmatic Agreement Among the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Manner in which BLM will Meet Its Responsibilities under the National Historic Preservation Act* (NHPA, as amended in 2016). [Also see “BLM Manual 8100 The Foundations for Managing Cultural Resources” for listing and description of applicable historic preservation laws.]

In Colorado, specific guidance is provided by the:

- BLM Colorado Manual 8100 dated December 3, 2004;
- *State Protocol Agreement Between the Colorado State Director of the Bureau of Land Management and the Colorado State Historic Preservation Officer Regarding the Manner in which the Bureau of Land Management will meet its Responsibilities under the National*

Historic Preservation Act and the 2012 National Programmatic Agreement Among the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (2014) (Protocol or Protocol Agreement);

- Office of Archaeology and Historic Preservation (OAHP) Colorado Cultural Resource Survey Manual;
- Colorado OAHP Cultural Resource Report Forms and Guidelines; and
- General Colorado historic and prehistoric context documents, as well as specific context documents, many of which can be found here: www.historycolorado.org/historic-prehistoric-contexts.

III. GLOSSARY OF TERMS

Area of potential effects: the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be caused by the undertaking.

Cultural landscape: a cultural landscape is a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with an historic event, activity, or person, or exhibiting other cultural or aesthetic values (NPS Preservation Briefs 36, "Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes").

Cultural resource or cultural property: a definite location of human activity, occupation, or use, normally greater than 50 years of age, identifiable through field survey, historical documentation, or oral evidence. The term includes archaeological, historical, or architectural sites, structures, places, or sites or places with important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups (cf. "traditional cultural property"). Cultural resources are concrete, material places and things that are located, classified, ranked, and managed through the system of identifying, protecting, and utilizing for public benefit described in laws, regulations, and the BLM Manuals.

Definite location: having discernible, map-able, more-or-less exact limits or boundaries, on a scale that can be established by a survey crew using conventional sensing and recording equipment, by an informant's direct on-the-ground indication, or by precise placement in a documentary source (see "cultural resource or cultural property").

Direct effect: refers to the causality, not the physicality, of the effect to historic properties. This means that if the effect comes from the undertaking at the same time and place with no intervening cause, it is considered "direct" regardless of its specific type (e.g., whether it is visual, physical, auditory, etc.). Pursuant to 36 CFR 800.5(a)(1), such effects must impact "...any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association."

Field office standards and procedures: procedures and reporting standards for permit holders conducting projects under a Permit for Archaeological Investigations that supplement standards and procedures in this Handbook and are maintained by individual BLM field offices or districts.

Historic property: any prehistoric or historic district, site, building, structure, or object included in,

or eligible for inclusion in, the National Register of Historic Places (NRHP). The term includes artifacts, records, and remains that are related to and located within such properties. The term "eligible" for inclusion in the NRHP includes both properties formally determined as such by the Secretary of the Interior and all other properties that meet NRHP listing criteria (NHPA, 54 USC 300308 and 36 CFR 800.16(l)(1)). (See also "cultural resource or cultural property." Cultural resource or cultural property is an analogous BLM term not limited by NRHP status.) In Colorado, properties classified as "need data" are treated as if they are eligible for the NRHP.

Indirect effect: effects caused by the undertaking that are later in time or farther removed in distance but are still reasonably foreseeable. Pursuant to 36 CFR 800.5(a)(1), such effects must impact "...any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association."

Isolated find: a physical location of past human activity consisting of one or very few artifacts in a location that is interpreted as not representing patterned human behavior. [Note: The distinction between a site and an isolated find is, in many instances, difficult to quantify. The above definition does not operationalize the distinction, it merely provides guidance to the Field Offices. In practice, the operational concepts of site and isolated find will be explicitly defined by each Field Office Archaeologist and may, therefore, vary significantly from region to region within Colorado. Each Field Office should be asked to provide their definition before entering the field.]

Large-scale projects: projects involving acreage more than 160 acres with no sites, or any size acreage where sites are present. Test excavations, sample/full-scale excavations, and scientific research are considered large-scale projects. There is some flexibility in the use of this guideline according to project complexity.

Permit areas: permits are typically issued by three Colorado regions associated with Field Offices (FO) and National Landscape Conservation Lands: Plains Region (Browns Canyon National Monument [NM], Kremmling FO [Larimer County only], and Royal Gorge FO); Mountain Region (Colorado River Valley FO, Dominguez-Escalante National Conservation Area [NCA], Grand Junction FO, Gunnison FO, Gunnison Gorge NCA, Kremmling FO, Little Snake FO, McInnis Canyons NCA, San Luis Valley FO, Uncompahgre FO, and White River FO); and Southwest Region (Canyons of the Ancients NM, La Jara Geographic Area (formerly La Jara FO, the southern portion of the San Luis Valley FO), and Tres Rios FO).

Permittee: professional permit holder that holds a BLM PAI.

Proponent: operator, commercial developer, or any other party or organization proposing to conduct Federal undertakings for which BLM is the lead agency.

Section 106 consultation: refers to consultation between the BLM (or other Federal agency), the Colorado State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), Tribes, local governments, and other consulting parties, in accordance with Section 106 of the NHPA (54 USC 306108), and following procedures specified in the State Protocol Agreement.

Site: the locus of previous human activity (50-year age minimum) at which the preponderance of evidence suggests either one-time diagnostically interpretable use or repeated use over time, or

multiple classes of activities.

Small-scale projects with limited results: linear projects that do not exceed four (4) miles in length and/or block areas of 160 acres or fewer, with no sites, and a maximum of four (4) isolated finds.

Traditional cultural property: a property that derives significance from traditional values associated with it by a social and/or cultural group, such as an Indian Tribe or local community. See “cultural resource or cultural property” and “definite location.” A traditional cultural property may qualify for the NRHP if it meets the criteria and criteria exceptions at 36 CFR 60.4 (see National Register Bulletin No. 38).

Undertaking: a term with legal definition and application i.e., “actions carried out by or on behalf of the agency; those carried out with Federal financial assistance; those requiring a Federal permit, license, or approval; and those subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency” (see 54 USC 300320; 36 CFR Part 800.16(y)). The NHPA does not apply to actions subject to State or local regulations. Most land use authorizations approved by BLM, as well as BLM-funded projects, are undertakings for purposes of Section 106 of the NHPA (54 USC 306108).

IV. LIST OF BUREAU OF LAND MANAGEMENT MANUALS FOR CULTURAL RESOURCE MANAGEMENT

8100 THE FOUNDATIONS FOR MANAGING CULTURAL RESOURCES

8110 IDENTIFYING AND EVALUATING CULTURAL RESOURCES

8130 PLANNING FOR USES OF CULTURAL RESOURCES

8140 PROTECTING CULTURAL RESOURCES

8150 PERMITTING USES OF CULTURAL RESOURCES

8160 COLLECTIONS MANAGEMENT (reserved)

8170 INTERPRETING CULTURAL RESOURCES FOR THE PUBLIC

V. PERMIT PROCEDURES FOR ARCHAEOLOGICAL INVESTIGATIONS

A PAI is a land use authorization that the State Director, or his/her designee, issues to a qualified applicant, pursuant to BLM Manual 8150, for the purposes of carrying out various identification and/or data recovery operations on cultural properties that are located on BLM-administered lands. **The PAI does not apply to non-Federal surface.** Although permits are not issued for consultants working on non-Federal land under BLM requirements, BLM is responsible for the quality of work done to satisfy historic preservation requirements and may ask to review both the project proponent’s proposed choice of consultant and the adequacy of the work proposed and advise the proponent about adequacy of the qualifications and/or the work through official correspondence. The BLM must accept a consultant’s work product before completing the historic preservation review process and approving the proponent’s lands use application. **At no time should a consultant use the permit as the mechanism to gain access to non-Federal**

surface. The proponent is responsible for obtaining landowner consent and access.

Permits are issued partly under the authority of Section 302(b) of the Federal Land Policy and Management Act of 1976 (FLPMA) and the procedures in BLM Manual Section 2920, but in contrast to other “2920 permits,” PAIs are nonexclusive, noncompetitive, minimum impact permits, and are not subject to Notices of Realty Action, filing fees, or cost reimbursement. PAIs are required for any person(s) performing cultural resource investigations on BLM-administered lands in Colorado. Permits are also issued under the authority of the Archaeological Resources Protection Act of 1979 (ARPA). PAIs are issued by the BLM Colorado State Office. For more information, contact the BLM Colorado Deputy Preservation Officer (BLM_CO_CR_Permits@blm.gov).

The State Director, or his/her designee, is responsible for receiving permit applications; preparing case files; conducting technical and management reviews to ensure that all qualifying requirements are met; issuing, denying, modifying, suspending, and revoking permits; and maintaining current files.

Field Office Managers, or their designee, are responsible for conducting technical and management reviews of permit applications as requested by the State Director, or his/her designee; for making recommendations to the State Director, or his/her designee, for permit issuance, denial, modification, suspension, or revocation; for notifying and consulting with affected Tribes; for monitoring work conducted under permits; and for issuing fieldwork authorizations.

Cultural Resource Specialists on State and Field Office staffs are responsible for providing and documenting technical reviews and recommendations; for developing terms and conditions; for monitoring and documenting permittees’ technical performance; and for compliance with permit terms and conditions.

While the Colorado BLM encourages and requires participation by permittees at various stages of the Section 106 process, the Colorado BLM retains ultimate responsibility for complying with all requirements of the NHPA and its implementing regulations.

Permits may be issued to appropriately qualified applicants, provided the work proposed would further knowledge in the public interest, would not conflict with other legitimate or protected uses of the public lands and resources, and would not be inconsistent with any approved management plan, objective, or established policy applicable to the public lands concerned.

Because of the considerable staff time it takes to review applications, prepare permits for approval, and monitor status, the Colorado BLM will not issue speculative permits. Applicants who are qualified for but denied a speculative permit will be informed in writing (see BLM Manual 8150.12.B.8) that an application for definite work will be processed promptly, and that denial under these circumstances does not reflect negatively on qualifications or performance (BLM Manual 8150.12.B.5.b). It is therefore preferable that a new applicant has a job in hand when applying for a permit.

Permits are not issued to other Federal agencies. Officially proposed cultural work may be authorized by a written agreement. Approval is subject to the same review process and considerations specified in Manual 8150. The written agreement can be a letter, subject to the

same special conditions applied to other permit holders, which must be referenced in the letter, with special conditions attached. Other Federal agencies are required to obtain a fieldwork authorization from the appropriate Field Office Manager prior to beginning fieldwork. An employee of another Federal agency, proposing to conduct off-duty personal research that would require a permit, is subject to the standard permit application process.

The terms and conditions that apply to all permits are listed in them and must be followed for all projects, or the permit may be suspended or revoked.

Additional Field Office standards and procedures are available at <https://www.blm.gov/programs/cultural-heritage-and-paleontology/archaeology/what-we-manage/colorado>.

A. Types of Permits

Permit holders must be specific about the type of permit being requested in their application. The following uses are authorized:

1. Survey and Recordation activities may be authorized for applicants who propose to identify, evaluate, record, or conduct similar non-impacting studies of cultural properties that will not include excavation and/or removal of material remains or other significant disturbance of cultural properties. As acknowledged in advance, and specifically limited in the permit terms and conditions, such permits may authorize collection of isolated cultural materials, cultural materials that are at-risk of being damaged or removed by looters, and minor subsurface probing to locate limits of cultural properties or unconfirmed archaeological deposits for mapping purposes or eligibility determinations. Minor subsurface probing is limited to shovel or trowel tests.

Survey and recordation permits may be issued on a multiple-Field Office, region, or statewide basis for three (3) years to facilitate Section 106 compliance inventories. First-time permit holders, or those who have not demonstrated an organizational history of work on BLM Colorado lands, are issued permits for one (1) year only, until they have established a history of successful project completion.

2. Limited Testing and/or Collection activities may be authorized for applicants who propose to conduct small-scale testing and/or systematic collection and removal of cultural materials during field identification, evaluation, and recording, so that the significance or research potential of a cultural property may be better understood (but not substantially diminished). Small-scale testing should be limited to a maximum of three (3) square meters per site. It is important to understand that the purpose of limiting testing is to establish whether a site is eligible for nomination to the NRHP. Hence, testing should cease once it is determined that intact subsurface cultural deposits are present.

Exceptions to the three-square meter rule require written permission from the Field Office Archaeologist and must provide details about the site, project, time frame, and reasons for the exemption. Excavation of any cultural property beyond limited evaluative or eligibility testing requires the issuance of a permit for excavation and/or removal (see item 3 below). Limited testing may be conducted to identify mitigation needs at a site. Because the work performed under limited testing permits is expected to disturb relatively little of the cultural property, they generally can be issued without Native American consultation, at the discretion of the Deputy

Preservation Officer, in consultation with the Field Office Archaeologist.

3. Excavation and/or Removal may be authorized for applicants who propose to excavate and/or remove material remains at a greater scale than the limited testing described above, with the result that the significance and/or future research potential of a cultural property may be substantially altered. Excavation/removal permits are restricted to specific project areas or specific cultural properties and are issued for the duration of the project. Major testing programs designed to answer research questions and to guide future data recovery efforts of an eligible cultural property require excavation permits. Ordinarily, excavation/removal permits will be issued only after Native American notification and consultation required by ARPA and the Native American Graves Protection and Repatriation Act (NAGPRA) has been completed. The work is usually guided by a detailed treatment plan that has been reviewed and approved by BLM after consultation with the Colorado SHPO (details may be found in Section X.H. of the Protocol).

A combination of cultural resource activities described in items 1 and 2 above may be authorized in a single permit, as appropriate, depending on the extent and nature of work proposed in the application. A survey and recordation or limited testing/collection permit may be modified to authorize additional activities, project areas, and/or cultural properties that were not specified in the permit at the time of issuance. An excavation/removal permit normally will not be modified to include additional project areas and/or cultural properties; a new excavation/removal permit would be required.

Pursuant to BLM Manual 8150.11.C.3, permits are not required for ethnographic work.

A project-specific Fieldwork Authorization Request form (Form CO-8151-3) is required **before** commencing fieldwork and is issued by the appropriate BLM Field Office. Fieldwork authorizations should not be routinely used to apply additional special conditions to the permit beyond what was attached at original issuance, nor should the authorization process be used as a second level of review of proposed personnel. **BLM Field Offices must verify permit status and permitted individuals prior to signing a Fieldwork Authorization.**

BLM Archaeologists may participate in or monitor work conducted by permit holders.

B. Permit Application

Any person may apply for a PAI by submitting an application (Appendix 1, DI-1926 Form) and required supporting documentation to the State Director or his/her designee. Applicants should contact the BLM Deputy Preservation Officer for information about how to apply. Applications must be submitted electronically to the BLM Deputy Preservation Officer via email (BLM_CO_CR_Permits@blm.gov). The application **should not** be sent to the Field Office(s). Permittees must allow four weeks for processing of a survey permit request and six to eight weeks for processing of testing or excavation permit requests.

Applications must show that the work proposed will further the knowledge of cultural resources in the public interest.

Permits must not be used as a Federal certification of consultants' credentials, a license to practice, or a precondition for consultants to compete for industry jobs. However, if bidding on a BLM Colorado contract, a consultant generally must hold a valid BLM Colorado PAI or show they

are sufficiently qualified to obtain a permit. The Request for Proposal should specify those requirements. The permit must be consistent with the type and scope of work proposed. Also, BLM may not renew first-time permit holders if work is not conducted under the permit during the year.

The following list of minimum requirements will assist permit holders in preparing applications (see also Appendix 2, Individual Permit Qualifications Quick Guide).

1. Organizational Qualifications

Applications must show the applicant's organizational ability to accomplish work of the type and scope proposed. A summary of organizational experience should be submitted providing the following minimum information:

- a. Statement of applicant's organizational ability to accomplish work, including:
 - i. Location(s) of facilities and equipment;
 - ii. Description of facilities and equipment;
 - iii. Organizational structure and staffing; and
 - iv. Specification of which and to what extent facilities, equipment, and staff listed would be utilized.
- b. Statement of applicant's organizational history in completing the type of work proposed, including:
 - i. Similar past projects;
 - ii. Past government contracts;
 - iii. Selected bibliography of project or contract reports and/or publications resulting from the previous two items;
 - iv. Previous Federal permits held in the last three (3) years, effective dates of permits currently in force, and applications pending or planned;
 - v. Suspended or non-renewed Federal permits; and
 - vi. Other pertinent organizational experience, such as research and special studies.

If the applicant is a newly formed entity, any information that might take the place of information requested in items 1.a. and 1.b. above should be provided. In such cases, individual capabilities of personnel will carry greater weight in evaluation of organizational qualifications. Lack of an organizational history will not be the principal factor in a recommendation for permit denial.

2. Individual Qualifications

A resume and experience chart must be submitted for each Principal Investigator and Field Director proposed for listing on the permit, detailing the below qualifications (see Appendices 3 and 4, recommended resume and experience chart formats). Resumes and experience charts *shall not* contain staff members' personal addresses, phone numbers, email address, etc. as this is "personally identifying information (PII)." Only work contact information should be included on any submission to BLM. If PII is included, the application will be rejected.

- a. *Permit Administrator*: Applications must include the name of the individual proposed to be 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. Unless this individual is also named under items 2.b. and 2.c. below, it is not necessary that this individual is a professionally qualified archaeologist, historian, or architect.

- b. *Project Director/Principal Investigator*: Applications must include the name of any individual(s) who would be responsible for planning, supervising, and overseeing the overall project, including responsibility for the professional quality of evaluations and recommendations. Principal investigators will have primary accountability for technical completeness and competence of work conducted under the permit. They are responsible for development of work plans and research designs, for performance of crew chiefs, for selection standards and limitations on work assignments of crew members, for analysis and interpretation of field data, for integration of fieldwork results into comparative regional perspectives, and for preparation of reports. Information must be included with the application to demonstrate that each individual has achieved the following:
 - i. Adequate professional instruction. This may be obtained in either of the following two ways:
 - 1. Formal education resulting in a graduate degree in the appropriate discipline for the permitted activity, *or*
 - 2. Formal education resulting in a bachelor's degree in the appropriate discipline for the permitted activity, *plus* at least two (2) years of pertinent, professionally supervised experience, with increasing responsibility leading to duties similar to those proposed in the application.
 - ii. Competence in theory and method, and in recording, collecting, handling, analyzing, evaluating, and reporting of cultural resources data, relative to the type and scope of work proposed.
 - iii. Ability to plan, equip, staff, organize, and supervise activity of the type and scope of the work proposed.
 - iv. Ability to carry research to completion, as evidenced by timely completion of theses, research reports, final reports, etc.
 - v. Completion of at least sixteen (16) months of professional cultural resource management experience, including similar duties as proposed in the application. This experience must include at least four (4) months (120 days) of experience with comparable cultural resources in similar cultural and geographical areas (see B.3. below). If equivalency is claimed under item 2.b.i.2. above, the sixteen (16) months of experience required here is to be included in, not in addition to, the two (2) years of experience required in item 2.b.i.2. above.
- c. *Field Director/ Crew Chief*: Applications must include the name of individual(s) that are responsible for carrying out field projects and are in the field when fieldwork is underway. Field directors (for the purpose of PAIs, synonymous with crew chiefs) are responsible for the technical quality of fieldwork, for the direct on-the-ground supervision of all aspects of fieldwork and data gathering, for proposing resource evaluations and recommendations for further treatment, and for preparing field records and descriptive reports. For each individual, information must be included with the application to demonstrate that the individual has achieved the following:
 - i. Adequate professional instruction, obtained either of the following two ways:
 - 1. Formal education resulting in a bachelor's degree in the appropriate discipline (anthropology/archaeology, history, architecture) and at least twelve (12) months of pertinent professionally supervised experience, with increasing responsibility

- leading to duties similar to those proposed in the application; or
- 2. Equivalent training and experience, including at least thirty (30) months of pertinent, professionally supervised experience, with increasing responsibilities equivalent to those proposed in the application.
 - ii. Competence in recording, collecting, handling, analyzing, evaluating, and reporting cultural property data, relative to the type and scope of work proposed.
 - iii. Demonstrated ability to supervise activity of type and scope proposed.
 - iv. Completion of at least four (4) months (120 days) of professional cultural resource management experience with comparable cultural resources in similar cultural and geographic areas (see B.3. below). This may be part of the experience required in item 2.c.i. above.

The same individual may be named under items 2.a.-c. above (e.g., the same individual may be proposed to serve as permit administrator, principal investigator, and field director), provided that evidence is submitted to demonstrate that all pertinent criteria are met.

- d. *Monitors*: Project excavation or trenching monitors who will be operating on their own in the field (without direct field director supervision) must meet qualifications V.B.2.c.i. and ii. above. In addition, monitors must have at least one (1) month (30 days) of professional cultural resource management experience with comparable cultural resources in similar cultural and geographic areas. Monitors must have experience in excavation methods, either through an approved field school, or at least thirty (30) days supervised experience in excavation. Excavation experience may be part or all of the one month of experience in a similar cultural or geographical area. Previous monitoring experience may take the place of any or all of these qualifications, on a case-by-case basis. Exceptions to these qualifications may be made in discussion with the State Deputy Preservation Officer, depending on the type and scope of monitoring project.
- e. *Historical Archaeologist*: This designation is only for those with professional experience restricted to historical archaeology. Certification must meet the same minimum qualifications as a principal investigator and field director.
- f. *Architectural Historian*: The minimum professional qualifications in architectural history are a graduate degree in architectural history, art history, historic preservation, or a closely related field, with coursework in American architectural history, or a bachelor's degree in architectural history, art history, historic preservation, or a closely related field plus one of the following:
 - i. At least two (2) years of full-time experience in research, writing, or teaching in American architectural history or restoration architecture with an academic institution, historical organization or agency, museum, or other professional institution; or
 - ii. Substantial contributions, through research and publication, to the body of scholarly knowledge in the field of American architectural history (Secretary of the Interior's Standards and Guidelines: Professional Qualifications Standards).
- g. *Crew Members*: All crew members must possess a minimum of eighteen (18) hours of anthropology or archaeology experience, with two (2) months field experience or field school. The permit holder is responsible for assuring that these qualifications are met.

3. Cultural and Geographic Area Experience

The completion of **at least four (4) months (120 days)** of professional cultural resource management field experience in applicable cultural and geographical areas associated with the

Field Office, or in areas of adjacent states involving similar cultural resources (Appendix 5, Geographical and Cultural Field Experience by County and BLM Field Office) is required. The geographical area experience is based on the number of field days by project work (i.e. survey, excavation, and monitoring) by county. **At least half (60 days) of the qualifying experience must be survey work. Additionally, at least half of the qualifying experience must be within Colorado.**

For purposes of evaluating professional work experience, thirty (30) days constitutes one (1) month. One workday, even if it is slightly more or less than eight (8) hours, counts as a single day. Thus, if an individual worked for no less than six (6) hours or no more than ten (10) hours in a single day, that workday would count as one (1) day. The resumes and experience charts (Appendices 3 and 4) of personnel submitted with the application must clearly show the required information. **Resumes must reflect the specific projects cited in the experience chart** (see Appendix 3).

4. Qualifications of Proposed Curatorial Facility

Materials collected from BLM-administered lands and associated records will be deposited in the following facilities unless otherwise noted in the permit:

- a. Canyons of the Ancients Visitor Center and Museum: Canyons of the Ancients National Monument and the Gunnison, Tres Rios, and Uncompahgre Field Offices.
- b. Museums of Western Colorado: Colorado River Valley, Grand Junction, Kremmling, Little Snake, and White River Field Offices.
- c. Royal Gorge Regional Museum and History Center: Royal Gorge Field Office.
- d. No specified long-term facilities are available for the San Luis Valley Field Office. A no collection policy is currently in effect, unless specified in the fieldwork authorization.

To the maximum extent possible, proposed curatorial facilities should meet the 36 CFR Part 79 standards and must satisfy the following minimum considerations, as applicable:

- a. Physical Considerations:
 - i. Adequate security;
 - ii. Adequate protection for the types of materials expected to be housed, such as climate control for perishable material remains;
 - iii. Adequate protection for records, data, photographs, and other documents;
 - iv. Adequate records/accessioning/retrieval systems, including full capability to account for materials;
 - v. Adequate provisions for scholarly access and study; and
 - vi. Maintenance of physical plant insurance.
- b. Administrative Considerations:
 - i. Provision for permanent preservation, including transfer to a Federal or federally approved location in the event the facility should cease to exist;
 - ii. Adequate staffing;
 - iii. Provision for granting qualified scholars reasonable access to records and collections for research purposes.

5. Certification by Curatorial Facility

Curation agreements are required regardless of the type of permit issued and uses authorized (BLM Manual 8150.11.E). It is the responsibility of the permit holder to establish curation agreements with repositories for all regions they request to be permitted in. The agreement(s) should be submitted to the BLM with the application or renewal request and **must be in place** before a permit is issued.

Each curation agreement must be signed by an authorized official of the proposed curatorial facility, detailing the facility's willingness to accept collections, records, data, photographs, and other documents generated during the proposed term of the permit, and to assume permanent curatorial responsibility and accountability for such materials on behalf of the United States (U.S.) Government. The U.S. Government owns all collections and associated records. The permit holder is required to notify the curatorial facility of the term of the permit. The curation agreement must include the expiration date for the permit.

C. Permit Modification or Renewal

Application for modification of permits may be requested using the "Request for Modification of Permit for Archaeological Investigations" (Appendix 7, Form CSO-8151-02). Applicants may need to submit supporting documentation that is relevant to the requested modification. Permittees should try to combine modification requests to include as many changes as possible at one time. **No more than three modifications may be requested in a year.**

Renewal requests for existing permits should include Form CSO-8151-02 (Appendix 7) and resumes and experience charts for any new staff being requested as Principal Investigators or Field Directors. The renewal request may not be made prior to 30 days before the expiration of the term of the permit. Provided the permit has not been misused since it expired, renewals may be requested within a reasonable period after expiration. If the existing permit is in good standing, during the time a permit renewal is being reviewed and processed, the permit will remain in effect.

D. Application Review and Evaluation

Applicants should expect a minimum of 20 business days for a permit application to be reviewed (depending on the type of permit application- see V.B. above). The BLM Deputy Preservation Officer will review all applications, with input from the Field Office in which the proposed work will occur, for compatibility of proposed work with any approved management plans, established policy, objectives, or requirements applicable to the management of the public lands and resources involved. Proposed work may be modified or limited by the BLM through established terms and conditions. An application may also be denied if work proposed is or would be incompatible with cultural resources management commitments established through evaluation and planning, multiple resource use protection requirements pertaining to time of year, type of activity, type of equipment employed, access, personal safety, fire safety, or other management restrictions, and other authorized uses of lands or resources exclusive in nature.

The applicant is responsible for seeking input from the appropriate Field Offices to better complete an application, particularly when the application involves treatment plans. Prior to the approval of any excavation and/or removal permits and some limited testing permits, the Field Office must complete appropriate SHPO and Tribal consultation and provide documentation of

consultation to the Deputy Preservation Officer.

Documentation of qualifications for all supervisory personnel must be provided in resumes. Applications that are missing necessary information or required documentation in support of an information item may be withheld from further review until the needed information or documentation is provided. The BLM will inform the applicant what is needed for review as quickly as possible. For this purpose, documented telephone or email contact is preferable to written notification.

Applications may be disqualified based on failure to meet qualifying criteria, which may include documented history of inadequate performance under a previous permit. Similarly, individuals named in applications may be excluded from a permit or have their intended roles changed for insufficient qualifications or documented inadequate performance under a previous permit.

Any application that fails to meet minimum qualifying criteria specified, either upon initial receipt or through failure to respond adequately to a request for missing information, may be recommended for rejection without further review, by following the applicable permit denial procedures in the 8150 Manual.

If an individual deliberately falsifies or grossly exaggerates his or her qualifications or experience on their resume, the BLM will suspend any further consideration of certifying that individual in a supervisory capacity for a period of time commensurate with the severity of falsification.

E. Permit Areas

Survey/Recordation permits are issued by Field Office/Regional jurisdiction (Appendix 5). Limited Testing/Collection and Excavation/Removal permits are issued by project area or cultural property.

F. Permit Numbers

Survey/Recordation and Limited Testing/Collection permits are assigned numbers that will remain in effect through all modifications and renewals. Excavation/Removal permits are assigned numbers that will remain in effect only through the term of the project.

G. Fieldwork Authorization

Prior to commencement of any field investigations, permit holders must notify the appropriate Field Office(s) of their intent to carry out fieldwork and submit a Fieldwork Authorization Request (Appendix 6, Form CSO-8151-01). A request must be made for each project-specific authorization and a map showing the proposed project area must be included. **At no time should a permittee use the authorization as the mechanism to gain access to non-Federal surface.** The proponent is responsible for obtaining landowner consent and access. The BLM Archaeologist will file a copy of the authorization in the Field Office permit files and send an electronic copy to the BLM Deputy Preservation Officer for the permanent, statewide PAI file.

H. Pre-Field Check-In

Prior to each project, having received a Fieldwork Authorization and before commencing fieldwork, the permittee must conduct a records search. The permit holder will have to check the records at the BLM Field Office(s) and History Colorado, Office of Archaeology and Historic Preservation, to identify all recorded cultural resource sites and previous inventories. The BLM may not have the staff and time to conduct such pre-field records check for permittees. In this event, the permit holder may schedule a check-in with the BLM Archaeologist at the Field Office where fieldwork will be conducted. The purpose of the check-in is to conduct the files searches, discuss the scope of the project and the adequacy of the proposed survey, and to obtain a BLM project number. Scheduling the check-in may be done by phone or email and should **allow at least a week's notice for scheduling**. Failure to conduct a pre-field records check may result in the rejection of the associated survey report and/or suspension or revocation of the permit.

I. Post-Field Check-In

As soon as possible, upon completion of the fieldwork, the permit holder will notify the appropriate BLM office of the results of the fieldwork. This may be done over the phone or by email (please see section VI.J. Reporting Process and Standards). For long-term projects, it is advisable to keep the BLM Archaeologist informed as fieldwork proceeds using progress reports.

After the permit holder reports the results, the BLM Archaeologist will contact SHPO to obtain the OAHP documentation number for the survey or limited results report, for inclusion on the written documentation. **The BLM will provide the permit holder with an OAHP documentation number.** The following information is required for the post-fieldwork phone call or email to the BLM Archaeologist:

- 1) County or counties associated with the project;
- 2) Type of finding (positive or negative);
- 3) Working report title; and
- 4) The BLM project number assigned to the project.

J. Annual Permit Reports to the State Office

Permit holders are **required** to submit an annual report of their work for the calendar year, even if no work was conducted. The report will include the following information: name, type, and size of project; OAHP and BLM documentation numbers; number of isolated finds and sites discovered (if any) and number of eligible sites; date of report acceptance or notation of report pending; and if artifacts were collected, number of materials, from which site(s) they originated, and where and when they were curated (see Appendix 8, recommended annual report format). **Curation receipts must be submitted at the same time as the report**, if they have not been previously submitted. The report will be submitted to the Deputy Preservation Officer no later than December 31 of each year. The report should be submitted by email, rather than in hard copy. If no projects were conducted within the year, an email with this information may suffice as the annual report. Failure to submit the annual report may be grounds for permit suspension or revocation. [Note: the annual report is not to be used as a substitute for any survey or excavation reports or site evaluations.]

K. Outreach

Permit holders are especially encouraged to educate project proponents about the value of cultural resources and the legal consequences of unauthorized damage and unauthorized removal of artifacts. It is strongly recommended that project proponents offer an employee education program for field employees.

VI. INVENTORY

(See BLM Manual 8110 Identifying and Evaluating Cultural Resources)

A. Objectives

The inventory objective is to identify all cultural resources, including traditional cultural properties (TCPs), that may be affected within a specified APE. Identification efforts should meet the “Reasonable and Good Faith” standard, outlined by the ACHP in the document located here: https://www.achp.gov/sites/default/files/guidance/2018-05/reasonable_good_faith_identification.pdf. The identification of cultural resources must be conducted in accordance with professional standards detailed in the Secretary of the Interior’s Standards and Guidelines for Archaeology and Historic Preservation (published by the NPS at 48 FR 44716, September 29, 1983).

B. Classes of Inventory

The BLM cultural resource inventory system is composed of three kinds of inventory: Class I – existing information inventory; Class II – probabilistic field inventory; and Class III – intensive field inventory. Each type of inventory is designed to provide specific cultural resource information for various planning and resource management needs. The most frequently employed method is Class III inventory, carried out with the intent of enabling BLM to comply with Section 106 of the NHPA before making decisions about proposed land and resource uses. In those cases, unless specifically prohibited in regulations, the cost of inventories will be the responsibility of the project proponent or the benefiting BLM activity, as authorized by Section 110(g) of the NHPA (54 USC 306109).

1. Class I inventory is **not merely a records search or pre-field literature review, conducted prior to land disturbance actions**. A Class I inventory is most useful for gaining a comprehensive view of all the known archaeological, historical, and cultural resources and TCPs within a large area. It is a professionally prepared study that includes a compilation and analysis of all reasonably available cultural resource data and literature. Additionally, this study is a management-focused, interpretive, narrative overview and synthesis of the data.

2. Class II inventory is a professionally conducted, statistically based sample survey, designed to aid in characterizing the probable density, diversity, and distribution of cultural properties within a large area. Intensive pedestrian survey is conducted in limited and discontinuous portions of the APE. Within individual sample units, survey aims, methods, and intensity are the same as those applied in a Class III inventory. A Class II inventory may include an approach that is based on a professional, but judgmental, strategy that needs to be specifically defined for a project. A Class II inventory may be conducted in several phases, using different sample designs to improve statistical reliability.

3. Class III inventory is a professionally conducted, continuous, intensive pedestrian survey of an entire project area, aimed at locating and recording *all* cultural properties. Intensive survey describes the distribution of properties in an area; determines the number, location, and condition of properties; determines the types of properties present within the area; permits classification of individual properties; and records the physical extent of specific properties.

4. Reconnaissance survey is a focused or special-purpose information tool that is less systematic, less intensive, less complete, or otherwise does not meet Class II or III inventory standards. An area only surveyed by reconnaissance methods cannot be considered complete and may be subject to resurvey for other purposes.

The cultural resource inventory of the built environment will incorporate guidance from the OAHPC *Colorado Cultural Resource Survey Manual – Guidelines for Identification: History and Archaeology*.

C. Determination of Level of Inventory

Once an application or notice of proposed activity is received, and the BLM has determined that it is an *undertaking*, as defined by 36 CFR 800.16(y), the BLM:

1. Will determine the area of potential effects (APE), including direct and indirect effects of the proposed undertaking, as defined by 36 CFR 800.16(d), considering information provided by Tribes, consulting parties, and interested parties, as appropriate. The APE must be fully documented in the inventory report, including a clear description and boundary. The BLM may request the assistance of the SHPO when defining the APE. **Neither permit holders nor their clients define the APE.** Projects must be adequately designed and identified. Preliminary and final project design will be identified on GIS-produced maps using USGS 7.5-minute basemaps, with sufficient detail for adequate determination of the potential effect a proposed project might have on cultural resources.

2. Will review the project characteristics and all existing cultural resource inventory data (including Class I information) pertaining to the APE. Once this review is completed, the BLM will inform the permit holder of the required level of effort, following guidance provided in 36 CFR 800.4(b)(1), and the class of inventory that will be required.

D. Minimal Area to be Surveyed

The following standards are intended to be minimal survey guidelines. Additional Field Office standards and procedures are available at the BLM Colorado internet site for permits for archaeological investigations or by contacting the Field Office or State Office cultural resource staff. The BLM will exercise professional judgment on a case-by-case basis, and some projects can be expected to deviate. The permit holder will locate the boundaries of the defined survey area prior to commencement of the survey. Geospatial data, corner markers, benchmarks, 7.5-minute topographic maps, aerial photographs (where available), roadways, and other landscape features can be used to ensure ground control and confidence in the survey area and in the location of cultural resources. Field Offices will provide or review geospatial data defining boundaries for the APE and survey area. If needed, the permit holder can flag and stake the boundary on the ground. Flagging or stakes must be removed upon completion of project.

Survey areas must include at least a fifty- (50-) foot buffer beyond the proposed area of

disturbance. Survey areas may be expanded beyond standard requirements to prevent site damage from inadvertent project activities, to assist in site avoidance for areas of high site density, to allow for minimal project redesign, or for other reasons on a case-by-case basis. Field Office Archaeologists will provide appropriate direction to permit holders for the area to be surveyed.

The following minimum standards will apply to the survey area for specific land uses:

1. Rights-of-Way (ROWs): A Class III survey will include the proposed ROW plus fifty (50) feet on each side of the ROW. The survey must include turnouts, staging, temporary use areas, parking, and camping, or any other area where reasonably foreseeable (direct) effects may occur.
2. Coal: A Class III survey will include an area of one (1) square acre, centered on the exploratory drill hole. The operator may choose to do more than this amount to ensure adequate coverage.
3. Oil and Gas: A Class III survey will include a minimal area of ten (10) square acres or forty (40) square acres, centered on the drill hole depending on the size of the well pad. The operator may choose to do more than this amount to ensure adequate coverage. If several well sites are anticipated, block survey coverage should be considered. Access roads and other associated ROWs require a minimum 200-ft.-wide corridor, unless otherwise determined. The survey should be conducted with sufficient lead time to ensure that the cultural resources report will be included in the Application for Permit to Drill (APD) package.
4. Geophysical: Geophysical operations can affect cultural properties through direct impacts (blasting, vehicle movements, road building, etc.). Generally, geophysical proposals will be evaluated on a case-by-case basis to determine appropriate inventory requirements. The following is provided to give specific information on geophysical project requirements.
 - a. Geophysical operations *may* be conducted without a survey, provided that 100 percent of the ground is snow-covered, there is a snow depth of at least six (6) inches, *and* the ground is frozen. Class III survey is required in areas where surface disturbance, such as blading, road construction, shot points, or other activities will take place. When filing the "Notice of Intent," the operator must provide BLM with accurate geospatial data, showing the proposed line location and areas of proposed activity, including, but not limited to, seismic lines, staging areas, access routes, and drop zones. The geospatial data will form the basis for a literature search to determine survey requirements. All project areas will be appropriately marked for BLM inspection and cultural fieldwork.
 - b. Where a Class III survey has been determined necessary, it will include:
 - i. A 100 ft. radius around each shot point;
 - ii. A 300 ft. radius around each shot point near a rim or rock/cliff face, or in areas otherwise identified during the records and literature review as having high potential for standing structures and/or rock art;
 - iii. A 100 ft.- wide swath (50 ft. on either side of center line) on all source lines, receiver lines (if vehicles will be driven down the receiver lines), and access routes. Other types of receiver lines, wireless or wired, do not require Class III survey, unless the BLM cultural resource specialist determines otherwise;
 - iv. A 300 ft.-wide corridor will be surveyed on all source lines/points that are located along canyon rims and/or below cliffs and rock faces, or in areas otherwise identified during the records and literature review as having high potential for standing structures and/or rock art;

- v. All helicopter landing zones, staging areas, parking areas for vibroseis buggies, or other locations of surface disturbance;
- vi. Personnel conducting the survey will use existing vehicle access routes and keep to existing roads; and
- vii. The permit holder will sufficiently flag all cultural resources for avoidance during survey. All material (i.e. flagging, stakes, lath, pin flags, etc.) used to mark sites will be removed by the permit holder after seismic work is completed in the area.

5. Indirect APE: The following minimum standards apply to the indirect APE of specific land uses. The APE for indirect effects on historic properties must consider effects that are later in time or further removed in distance but are still reasonably foreseeable.

The indirect APE can be influenced by the scale and nature of an undertaking. Large and complex undertakings will likely include an indirect APE. Wells, ponds, and existing access roads under rights-of-way are examples of typical small undertakings that primarily deal with direct effects only. A specific example of indirect effects includes increased access and potential vandalism, both incidental and intentional, to nearby historic properties. See, for example, Nickens, Paul R. et al., 1981, *A Survey of Vandalism to Archaeological Resources in Southwestern Colorado*, Colorado Bureau of Land Management.

The above minimum standards apply in most cases and should be employed whenever feasible and prudent for efficient project design and implementation. Exceptions may occur, and they should be considered when the design is not routine and/or when environmental conditions allow for areas to be surveyed at less than these standards. The BLM may determine, on a case-by-case basis, that the Class III standards are not applicable.

E. Level and Intensity of Inventory and/or Monitoring

The BLM will ensure that the class, level, and intensity of inventory are commensurate with the proposed land use, the planning stage at which required consultation takes place, topographic setting, and the known distribution of cultural resources. Prior to any surface-disturbing activity, a Class III survey is usually conducted. Class III inventories must account for all visible surface sites within the defined area. All decisions to conduct less than a Class III inventory must be documented in writing and approved by BLM.

BLM-administered lands, unless meeting a specific exclusion, will be surveyed at a Class III level. The following conditions *might* limit or preclude Class III coverage of cultural resources:

1. Previous natural ground disturbance that has modified the surface so extensively that the likelihood of finding cultural resources is negligible; and/or
2. Human activity within the past fifty (50) years that has created a new land surface to such an extent as to eradicate traces of cultural resources; and/or
3. Prior survey that adheres to current BLM survey standards of the same class and level whose records adequately document the location, methods, results, and reliability of the survey; and/or
4. Natural environmental characteristics that are unfavorable to the presence of cultural resources (such as recent landslides or rock falls):

- a. Slopes greater than 30 degrees (58 percent), where no potential exists for rock shelters, rock art, historical mining sites, or other cultural resources associated with rock faces or ledges. This particularly applies to steep talus or shale slopes. Field verification must be made of this condition.
- b. Dense vegetation cover or other surface-obscuring conditions might require further survey as these conditions change. In most cases, there will be areas where spot ground checking is possible; some other methods of "seeing" through the vegetation and/or surface to near-surface deposits may be recommended, such as testing or monitoring.

In cases where a Class III survey has been determined necessary, the APE must be 100 percent snow-free before the survey can take place. Field Office Archaeologists may grant exceptions to this standard, based on factors specific to the area proposed for survey. Cultural resource monitoring where resources are present or reasonably expected is permitted only when the ground surface is free of snow, unfrozen, and dry.

The above environmental conditions do not always apply to the built environment. Class III inventory will be required in most situations.

F. Inventory Field Methods

In consultation with BLM, permit holders may use their own field methodologies within the following guidelines and limits:

1. To the extent possible, the APE boundary must be identified by the BLM before any fieldwork is undertaken. **Field Offices will provide geospatial boundaries for the APE and survey area(s).** If needed, the permit holder can flag and stake the survey boundary on the ground. However, the flags and stakes must be removed following the survey. For narrow linear projects, it is important that right-of-way widths are precisely known. The appropriate BLM Archaeologist must approve any variances from these requirements.
2. For block surveys and regional studies, crews will be limited to no more personnel than can be effectively managed by the field supervisor (experience has shown four or five to be about maximum).
3. Crew spacing should not normally exceed 15-20 meters. Exemptions from total coverage, due to terrain or other factors, must be coordinated with and approved by the appropriate BLM Archaeologist.
4. Collection strategies must be coordinated with the appropriate BLM Archaeologist (see Section VI.K. Collection and Curation).
5. If paleontological resources are suspected or encountered during inventory, archaeologists should note the location, write a brief description of condition, and contact the BLM Authorized Officer, who will contact the BLM regional paleontologist.

G. Recording Cultural Resources

Upon finding unrecorded cultural resources, descriptive data will be recorded on the appropriate Colorado OAHp site forms. Sites previously recorded on abbreviated, unofficial, or outdated (typically prior to 2010) site forms, or where information is incomplete or the site/information has changed since the last recording (e.g., human or natural activity has changed the site, additional features or artifacts were located, etc.), must be re-recorded. A Cultural Resources Re-Visitation Form, or a BLM-approved monitoring form, must be completed, where adequately recorded cultural resources are inspected and are present within the APE.

Sites partially within the inventory area must be fully recorded. [Note: Portions of extensive sites may be excluded from this requirement on a case-by-case basis in consultation with the appropriate BLM Archaeologist.] Linear sites will be recorded on BLM linear site forms within the APE.

Hard datums are discouraged. Virtual datums are preferred and can be based on a permanent or semi-permanent feature on the site, such as a tree or boulder.

H. Digital Data Management Specifications

[See the most current version of the BLM-Colorado Digital Data Management Specifications at the BLM Colorado internet site for Permits for Archaeological Investigations.]

All data will be submitted to the OAHp by the Field Office; OAHp will only accept digital submissions.

I. Evaluation

Often, cultural resources cannot be evaluated from surface observations. The BLM Class III inventory methods allow for limited testing using limited probing, troweling, or shovel testing to locate the spatial limits of cultural resources, to determine whether buried cultural deposits are present, and/or to make determinations of eligibility. Limited testing might be necessary to determine whether buried cultural deposits exist. This testing for evaluation should not be confused with formal testing and should be kept to the minimum amount necessary to determine the presence of subsurface deposits. In no case should such evaluative testing exceed three (3) square meters of site surface. Test plots should also be shown on the site sketch. Criteria used to determine properties potentially eligible for the NRHP must be substantive, objective, and stated in the report.

The potential for subsurface cultural materials must be given special consideration in assessment of future monitoring and mitigation needs. Permit holders are encouraged to use their best professional judgment to recommend whether sites are eligible for nomination to the NRHP. The "Need Data" determination should be applied sparingly, and only in those cases where *both* surface evidence and limited testing yield ambiguous results. Significance evaluations made by the permit holder are recommendations only. The BLM will determine NRHP eligibility according to criteria listed in 36 CFR Part 60.4, without a requirement to wait for concurrence from SHPO. BLM may request assistance from SHPO if questions about NRHP eligibility arise. BLM's NRHP eligibility determinations regarding traditional cultural properties will require formal SHPO consultation, as well as consultation with Tribes or communities with historically rooted

beliefs, customs, and practices tied to a particular place.

J. Reporting Process and Standards

Upon completion of the fieldwork, the permit holder must report the field findings to the appropriate BLM Field Office. The report must include a detailed description of the undertaking and the definition of the APE used as the basis for identification and evaluation recommendations. Phone calls or electronic mail are acceptable methods of reporting results. **Permit holders do not have the authority to give permission for a client company, i.e., project proponent, to proceed with a project.** The BLM Authorized Officer is the only person who can authorize a proponent to proceed.

1. Negative findings: Permit holders can report negative findings by phone to the BLM Field Office Archaeologist. The BLM Field Office Archaeologist, however, does not have the authority to allow the project to proceed. The report of negative findings will be passed on to the appropriate BLM Authorized Officer. This reporting process will expedite the internal BLM review process. Often, other project considerations and stipulations may be applicable.

2. Positive findings with no effect to cultural resources: Field surveys with known cultural resources that can be avoided by the project will require BLM review. The BLM Field Office Archaeologist will notify the appropriate BLM Authorized Officer of these findings.

3. Positive findings with effects to cultural resources: Field surveys with known cultural resources listed or potentially eligible for the NRHP that cannot be avoided will require discussions between the permit holder, the project proponent, and the BLM. Treatment plans will be developed and implemented in consultation with the SHPO, as well as Tribes and other consulting parties, as appropriate. See the Protocol, Section X.H., regarding resolution of adverse effects. Authorization to proceed can occur only after consultation and resolution of adverse effects has been completed. The BLM Field Office Archaeologist will notify the appropriate BLM Authorized Officer of these findings.

Prior to project authorization, a cultural resource report of survey, testing and excavation must be approved by the BLM. The project authorization document may include stipulations for additional cultural resource work (e.g., monitoring, data recovery). Deadline requirements for submission of additional cultural resource reports will be included in the authorization document.

All preliminary reports are to be submitted to the BLM within ten (10) working days of completion of fieldwork, if no sites were encountered or sixty (60) days if sites were located. Extensions may be allowed, in coordination with the BLM. However, all agreements between the BLM and the permit holder will be in writing, with clearly defined dates for draft and final report reviews established, pursuant to instructions in BLM Manual 8150.

The permit holder will submit all proprietary information directly to the appropriate BLM Field Office. Proprietary information includes any documentation that is exempt from public disclosure under ARPA and NHPA, including the location of cultural resources and traditional cultural properties. Reports with non-proprietary information may be made available to the project proponent. **The disclosure of proprietary site information remains at the discretion of the BLM only.**

The report will follow the Colorado OAHP Cultural Resource Report Forms and Guidelines. The report must identify the number of acres inventoried on BLM-administered lands and on non-BLM-administered lands. Reports and site forms that are not in this format are not acceptable to the BLM or SHPO. These reports and forms will be rejected, and the project will not be allowed to proceed until an acceptable documentation is completed.

Professional peer review can be used to ensure quality products. Peer review is especially desirable for syntheses, historic contexts or research design development, or other planning and inventory efforts that form the primary substantive and theoretical basis for evaluation and planning. It is also appropriate for planning, implementing, and reporting of major inventory or data recovery projects. BLM will only provide substantive and critical quality control comments on reports; **the BLM will not serve as a copy editor.**

The permit holder will submit one (1) hard copy and one (1) electronic copy (PDF) of the final report and site forms, as well as shapefiles/a file geodatabase of the resource and project boundaries, to the appropriate BLM office. BLM will provide the SHPO with the report and site forms and will conduct the appropriate consultation. Site forms should be kept separate, i.e., not bound in the report.

K. Collection and Curation

Qualified individuals may be authorized by the State Director, or his/her designee, to remove cultural resource artifacts from BLM-administered land which are in danger of loss or which are needed for scientific study, public interpretation, or evaluation of the cultural property. Additionally, no paleontological resources may be collected under a cultural resource permit, unless the remains are in an archaeological context (e.g. paleontological bone in a hearth), however, a paleontologist should be consulted. Cultural resource artifacts removed from BLM-administered land in Colorado, along with copies of the associated records, are curated as property of the United States in a university, museum, or other scientific or educational institution within or near the state of Colorado. BLM has designated repositories in Colorado to permanently curate collections and associated documentation (see above Section B.3.). Research collections and associated documentation may be temporarily held at another location until completion of research, with BLM approval. Arrangements must be made with the appropriate landowner (private, county, state, etc.) for removal and curation of artifacts from those lands; a BLM PAI may only authorize collection and curation of artifacts from BLM-administered lands.

1. Collection: Only limited collections will be made on BLM-administered lands in Colorado in the following circumstances.

- a. Survey and Recordation: The BLM generally adheres to a no collection policy. Collection is only recommended if, in the opinion of the BLM Archaeologist, the artifact(s) are unique and vulnerable to unauthorized collection or destruction, diagnostic (time-sensitive), and cannot be readily identified in the field. A catalog sheet, drawings of the artifact(s), and location of the collection must be included in the body of the report and attached to the appropriate site form(s). The location of collected artifacts will be accurately plotted on site maps.
- b. Limited Testing and Collection and Excavation/Removal: If artifacts are collected, rationale and the method and nature of any collection (e.g., systematic versus

nonsystematic), will be included in the data recovery plan submitted with the permit application and in the final report. Artifact provenience control must be established and exercised. Collection will require a more detailed assemblage analysis in the final report. A catalog sheet, drawings and photos of the artifact(s), and location of the collection will be included in the body of the report and attached to the appropriate site form(s). The location of collected artifacts must also be accurately plotted on site maps.

2. Curation: Collected artifacts must be curated according to the standards of the facility designated as the curatorial repository on the PAI.

- a. The permittee will deposit all artifacts, samples, and collections, as applicable, and copies of all records, data, photographs, and other documents resulting from work conducted under a PAI, with the curatorial facility named in the PAI, not later than 90 days after the date the final report is submitted to the appropriate BLM official. Receipt of collections must be documented on the museum collections deposit statement form, along with the repository accession and/or catalog numbers. Copies of the completed form must be provided by the permittee to the State Office **within 30 calendar days** of depositing the collections to the curatorial facility. Failure to provide a completed form with a list of materials deposited in approved curatorial facilities may result in the suspension or revocation of the permit.
- b. No collections are exempt from deposit with the curatorial facility, including type collections. Permittees wishing to hold type collections must do so through the issuance of curatorial loan agreements between them and the curatorial facility.

L. Treatment Options

Treatment recommendations should be commensurate with the nature and significance of the involved cultural resources and the extent of possible damage, be cost-effective and realistic, consider project requirements and limitations, consider substantive input from consulting parties, and be BLM-approved. Treatment plans should follow the steps outlined in the Protocol, Section X.H.

BLM will seek ways to avoid, minimize, or mitigate any adverse effects on historic properties:

1. Avoidance: This is the preferred strategy for treating potential direct adverse effects on historic properties. Monitoring may be required to ensure that historic properties are avoided. If avoidance involves project relocation, the new APE may require cultural resources inventory. The proponent's input will be required prior to determining avoidance and/or mitigation measures.

2. Minimization: BLM may employ the following physical and administrative conservation measures as management tools to protect historic properties. Proposals should include a feasibility justification and specifications. Indirect methods may include signing, fencing/gating, other protective barriers, patrol/surveillance, erosion control (off-site), and/or off-site fire control. Direct methods may include erosion control (on-site), fire control (on-site), detailed recording, and/or relocation.

3. Mitigation: If avoidance is imprudent or infeasible, recommendations should include a range of mitigation options for adverse effects. Mitigation options may include data recovery, stabilization,

building and landscape documentation, and production of syntheses and historic contexts.

- a. **Data Recovery:** The recovery of cultural resource data employs scientific methods and techniques, which are guided by a consideration of current archaeological issues, questions, and objectives. Data recovery proposals should define study topics and discuss data collection priorities as related to the use(s) and/or significant qualities of specific cultural properties or types of cultural properties. The proposed work, including field methods and analysis techniques, should be justified based on the data recovery objectives. Proposals must include consideration of conservation and collections management. Permit holders are encouraged to include study topics that benefit or are of interest to Native American Tribes.
- b. **Stabilization:** Condition assessments for each affected historic property, detailing a plan for conservation and treatment, are required. Detailed specifications for stabilization work will include individual fieldwork tasks, specific locations requiring stabilization, methods and materials use, and types of necessary expertise.
- c. **Historic American Buildings Survey/Historic American Engineering Record/Historic American Landscapes Survey (HABS/HAER/HALS) and Historic Resource Documentation Standards for Level I, II and III Documentation** (as described in OAHF Publication 1595): For an historic property where an adverse effect can be mitigated by completing HABS/HAER/HALS documentation or Level II or III documentation, BLM will ensure the preparation of a documentation plan. To ensure that the appropriate level of documentation is completed, BLM will coordinate all HABS/HAER/HALS documentation projects with the National Park Service prior to initiating the project.
- d. **Syntheses and Historic Contexts:** If on-the-ground mitigation is not feasible or appropriate, preparation of a synthetic document or historic context might be an acceptable resolution of adverse effects. BLM and SHPO, and the ACHP if required, will together determine whether such an approach is desirable, and the documents will need to meet certain standards, such as the Secretary of the Interior's Standards for Historical Documentation.

M. Treatment/Mitigation Plans

If a cultural property is determined eligible for or listed on the NRHP, and thereupon defined as an "historic property," and will be adversely affected by a proposed development, the BLM prefers avoidance of the historic property over costly and lengthy mitigation activities. When historic properties cannot be avoided, BLM will determine, in consultation with the SHPO, ACHP, Tribes, and other consulting parties, the appropriate treatment. Project proponents should be aware that cultural resource conflicts do not normally prevent eventual development, but will take time to formulate and implement mitigation measures to prevent the loss of cultural information. These mitigating measures will be developed with the input of the BLM Field Office Archaeologist(s), the permit holder, and the proponent, but consultation with SHPO, and possibly the ACHP, will be necessary.

The permit holder will submit a research design and treatment/mitigation plan, when appropriate, to guide a program of mitigation, to the appropriate BLM Field Office Archaeologist for review, unless stipulated differently in a project-specific agreement. The proposed plan will conform to the Secretary of the Interior's *Standards and Guidelines, Archaeology and Historic Preservation*,

ACHP guidance on archaeology, and the SHPO's guidelines for "Data Recovery Plans" and "Reports." BLM and SHPO will comment in writing within ten (10) working days of receipt of correspondence and associated documentation, unless the parties agree to an extension. If SHPO disagrees with BLM, the parties will follow procedures for resolving disagreements in Section XII.C. of the Protocol Agreement. The BLM will notify the permit holder upon SHPO concurrence with the treatment/mitigation plan.

N. Unanticipated Discoveries

All large-scale projects must include a strategy for dealing with discoveries. If cultural resources and/or human remains are discovered during operations, activity in the vicinity of the discovery will cease, and the BLM Authorized Officer will be notified *immediately*. BLM, in cooperation with the project proponent and/or permit holder, will ensure that the cultural resources and/or human remains are protected from further disturbance until BLM determines the next steps, and until any necessary procedures are completed.

Unless otherwise noted in treatment plans or agreements, BLM will evaluate the cultural resources and, in consultation with the SHPO and any Tribe that might attach religious and cultural significance to the affected property, select the appropriate mitigation option within 48 hours of the discovery. BLM will implement the process in a timely manner, and will fully document it in reports, site forms, maps, drawings, and photographs. The BLM will forward documentation to the SHPO for review and concurrence.

If human remains are discovered on BLM-administered lands, the treatment of human remains will be in accordance with NAGPRA and BLM policy. If human remains are discovered on private or State land during a BLM undertaking, the BLM will follow the provisions of the applicable Colorado Revised Statutes (CRS) regarding unmarked human remains (CRS-24-80-1301-1305).

O. Emergencies

The BLM will follow the procedures at 36 CFR 800.12 for all emergency situations.

P. Other General Standards that Apply to Land Uses

Cultural resource documentation will be submitted to the BLM for review and Section 106 compliance *prior* to project authorization. Subsequent conditions by avoidance or special stipulations may be formulated after review of the documentation. Where historic properties cannot be avoided or are damaged by operations, acceptable mitigation will be performed at the expense of the project proponent.

All employees of the proponents, and any subcontractors, must be informed by the project proponent before commencement of operations that any disturbance to, defacement of, or removal of archaeological, historical, or cultural material (including pot sherds and arrowheads) will be treated as law enforcement/administrative issues. Project proponents will be held accountable for the conduct of their employees and subcontractors.

If subsurface cultural materials are discovered during operations, all work in the vicinity of the resource will cease, and the BLM Authorized Officer will be notified *immediately*. The operator will take any additional measures requested by the officer, including the possibility of hiring a

qualified archaeologist to carry out specific instructions.

A cultural resource monitor (permitted archaeologist) may be required during operation and/or reclamation activities to ensure that the operations or activities cause no inadvertent damage to cultural properties.

Additional stipulations may be added in cases where additional or standard protection is needed. Examples may include but are not limited to: cultural resource monitoring for all operations in sensitive areas; weather restrictions; frequent compliance checks and contacts with all operational personnel on site; site fencing or restrictive use barriers; requirements for identification and monitoring of sites made more susceptible to vandalism or collection because of proposed land use; verification of site locations, even if a Class III inventory had previously been conducted; and special reclamation measures to reduce erosion.

The standard stipulations or conditions of approval to be applied to all land use authorizations are:

1. Unless permitted, anyone associated with the management and operation of this project must not disturb historic, archaeological, or paleontological resources, including collecting artifacts, or will be subject to prosecution.
2. Pursuant to 43 CFR 10.4(g), the BLM Authorized Officer must be notified, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), activities must stop in the vicinity of the discovery and the discovery must be protected for 30 days, or until a notification to proceed is issued by the BLM Authorized Officer.
3. If in connection with operations, the permittee, their contractors, subcontractors, or the employees of any of them, discovers, encounters or becomes aware of any objects or sites of cultural or paleontological value or scientific interest, such as historic or prehistoric ruins, graves or grave markers, fossils, or artifacts, the permittee will immediately suspend all operations in the vicinity of the cultural or paleontological resource and will notify the BLM Authorized Officer of the findings (36 CFR 800.13). Operations may resume at the discovery site upon receipt of written instructions and authorization by the BLM Authorized Officer.

VII. APPENDICES

1. DI-1926 Form
2. Individual Permit Qualifications Quick Guide
3. Recommended resume format
4. Recommended field experience chart format
5. Geographical and Cultural Field Experience by County and BLM Field Office
6. Form CSO-8151-01
7. Form CSO-8151-02
8. Recommended annual report format
9. Bureau of Land Management Colorado Cultural Resources Digital Data Specifications Guide

Appendix 1

DI-1926 Form



APPLICATION FOR PERMIT FOR ARCHEOLOGICAL INVESTIGATIONS

Under the Authority of
The Archaeological Resources Protection Act of 1979
(16 U.S.C. 470aa-mm; 43 CFR 7);

and/or **The Antiquities Act of 1906**
(P.L. 59-209; 34 Stat. 225; 54 U.S.C. 320301-320303; 43 CFR 3)

and/or the appropriate **Bureau-specific statute** Such as
The Reclamation Act; The National Park Service Organic Act;
The National Wildlife Refuge System Administration Act;
The Federal Land Policy and Management Act

FOR OFFICIAL USE ONLY

Date Received: _____

Sent for Review: _____

Control No. _____

Instructions: Complete and return two copies of this application form and required attachments to the appropriate State or Regional Office of the land managing bureau involved. All information requested must be completed before the application will be considered. Use separate pages if more space is needed to complete a section.

1. Name of applicant (institution, corporation, partnership, individual, or other entity)

2. Mailing address

3. Telephone Number

☐ Home ☐ Work ☐ Cell

3A. Alternate Telephone Number

☐ Home ☐ Work ☐ Cell

4. Email address(es)

5. Nature of archeological work proposed

- ☐ Survey and Recordation
☐ Limited Testing and/or Collection (project-specific)
☐ Excavation and/or Removal (project-specific)

6. Location of proposed work (attach additional sheets)

- a.** Description of Federal lands involved. Indicate State, county, and Federal administrative unit. Specify the best available location data, e.g., GPS coordinates, UTM coordinates, township, range and section (cadastral) subdivisions, or metes and bounds. Include a readable copy of a map or plan at an appropriate scale showing specific areas for which permit is desired.
- b.** Identification of archeological resource(s) or other cultural resource(s) involved (if applicable).

7. Time of Proposed Work

Overall Duration of Project:

Estimated Duration of Fieldwork:

From

To

From

To

8. Principal Investigator

Name of individual(s) responsible for planning and generally overseeing field projects, including overall supervision of staff and overall responsibility for the professional quality of resource evaluations and recommendations.

Telephone Number

☐ Work ☐ Cell

Email address(es)

9. Field Director

Name of individual(s) responsible for carrying out field projects, for technical quality of fieldwork through direct on-the-ground supervision of all aspects of fieldwork and data gathering, for proposing resource evaluations and recommendations for further treatment, and for preparing field records and descriptive reports.

Telephone Number

☐ Work ☐ Cell

Email address(es)

10. Permit Administrator

Name of individual responsible for fulfilling the terms and conditions of the permit
(must be legally empowered to obligate applicant organization).

Telephone Number

☐ Work ☐ Cell

Email address(es)

11. Applicant must include the following attached to the application form.

- a. Description of the purpose, nature, and extent of the work proposed, including how and why it is proposed to be conducted: (include research design, methods, curation);
- b. Summary of organizational capabilities, including information on location(s) and description of facilities and equipment, on organizational structure and staffing, and on facilities, equipment and staff to be involved in the proposed work;
- c. Summary of organizational history in completing work of the kind proposed, including similar past projects, government contracts, and Federal permits (previously held, currently in force with effective dates, and currently pending or planned, by agency and region/state), reports and/or publications resulting from similar work, and any other pertinent organizational experience;
- d. For each individual named in 8 and 9 above, a curriculum vitae or similar resume or summary of education, training, and experience in the kind of work proposed and, in the role, proposed.
- e. Written certification, signed by a properly authorized official of the proposed curatorial facility, attesting to the facility's capability and willingness to accept any collections, as applicable, and records, data, photographs, and other documents generated during the proposed term of the permit, and to assume permanent curatorial responsibility for such materials on behalf of the United States Government pursuant to 36 CFR 79. In the case of an application on Indian lands where the Indian Tribe or Indian owner(s) do not wish to take custody, written consent to undertake curation is required from the Indian Tribe or the Indian owner(s) pursuant to 25 CFR 262.8. Custody of any Native American human remains or cultural items subject to the Native American Graves Protection and Repatriation Act (NAGPRA), 25 USC 3001-3013, removed from public lands or Indian lands shall be determined in accordance with NAGPRA and its implementing regulations, 43 CFR 10.

12. Proposed outlet(s) for public written dissemination of the results

13. Signature of individual named in 10

14. Date signed

NOTICES

PRIVACY ACT STATEMENT

Authority: 16 U.S.C. 470aa-mm; 43 CFR 7, The Archaeological Resources Protection Act of 1979; P.L. 59-209; 34 Stat. 225; 54 U.S.C. 320301-320303; 43 CFR 3, The Antiquities Act of 1906; 54 U.S.C. 100701 Protection, interpretation, and research in System.

Purpose: The primary use of the records maintained in the system is to 1.) administer scientific archeological research within areas administered by Federal land managers and assess individuals' capabilities and organizational capacities to carry out the research and 2.) maintain a record of the research performed through the interim and final reports, and arrangements made to care for collections through the curation agreement.

Routine Uses: In addition to those disclosures generally permitted under 5 U.S.C.552a(b) of the Privacy Act, records or information contained in this system may be disclosed outside DOI or other Federal agencies as a routine use pursuant to 5 U.S.C. 552a(b)(3) to other federal, state, local, tribal or foreign governments and organizations, and members of the general public based on an authorized routine use when the disclosure is compatible with the purpose for which the records were compiled as described under the system of records notice for this system.

Disclosure: Voluntary, however, failure to provide the requested information may impede the institution, corporation, partnership, individual, or other entity from obtaining a permit for archeological investigations.

PAPERWORK REDUCTION ACT STATEMENT

This information is being collected pursuant to 16 U.S.C. 470cc and 470mm, to provide the necessary facts to enable the Federal land manager (1) to evaluate the applicant's professional qualifications and organizational capability to conduct the proposed archeological work; (2) to determine whether the proposed work would be in the public interest; (3) to verify the adequacy of arrangements for permanent curatorial preservation, as United States property, of specimens and records resulting from the proposed work; (4) to ensure that the proposed activities would not be inconsistent with any management plan applicable to the public lands involved; to reports to Congress on Federal Archeology Programs; and (6) to allow Federal agencies to evaluate Federal archeological protection programs and assess compliance with the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470cc). Submission of the information is required before the applicant may enjoy the benefit of using publicly owned archeological resources. To conduct such activities without a permit is punishable by felony-level criminal penalties, civil penalties, and forfeiture of property. A federal agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. OMB has approved this collection of information and assigned Control No. 1024-0037.

ESTIMATED BURDEN STATEMENT

Public reporting for this collection of information is estimated to average 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Information Collection Clearance Officer, National Park Service, 12201 Sunrise Valley Drive Reston, Virginia 20192. Do not send your completed form to this address.

Appendix 2. Individual Permit Qualifications Quick Guide

ROLE AND RESPONSIBILITIES	DEGREE*	ANALYSIS	SUPERVISION AND PLANNING	TIMELINESS AND FOLLOW-THROUGH	FIELDWORK
<i>Field Director (FD):</i> Carries out field projects and is in the field when fieldwork is underway. Responsible for technical quality of the fieldwork; for direct field site supervision of crew members and data gathering; for recommendations of site eligibility, integrity, and further treatment; and for preparing site records and inventory/excavation reports.	Bachelor's degree and 12 months of professional experience similar to that proposed in the application <i>OR</i> 30 months of professional cultural resource management (CRM) experience similar to that proposed in the application.	Experience in collecting, analyzing, and reporting comparable data to what will be collected and analyzed by the permitted activity.	Demonstrates ability to supervise activities of the type and scope as is proposed in the application.	N/A	4 months** (120 days) of experience (survey, monitoring, excavation, etc.) with comparable cultural resources in similar cultural contexts and environmental settings, of which at least 60 days must be survey experience.
<i>Principal Investigator (PI):</i> Responsible for planning and supervising the overall project. Reviews and approves all products that are submitted to the BLM and is responsible for the professional quality of the report submitted, including any evaluations and recommendations.	Graduate degree <i>OR</i> Bachelor's degree plus two years of professionally supervised experience similar to duties proposed in the application.		Ability to plan, equip staff, organize, and supervise CRM activities of the type and of a similar scale to what is proposed in the application.	Ability to complete projects and submit final reports in a timely fashion.	16 months of professional CRM experience, of which 4 months (120 days) is experience with comparable cultural resources in similar cultural contexts and environmental settings.
<i>Permit Administrator</i>	Individual legally empowered to obligate the company and responsible for carrying out the terms and special conditions of the permit and complying with other legal requirements. This individual does not have to qualify as a PI or FD. Generally, this person should be the owner, CEO, branch chief, president, vice president, etc. of the organization.				

*Degree(s) must be in anthropology/archaeology or other applicable field (history, architecture, etc.)

**One month = 30 days

Appendix 3. Recommended Resume Format

Jane S. Doe, M.A., RPA

Education

M.A. in Anthropology, University of Colorado, 2008

B.A. in Anthropology, Colorado State University, 2002

Professional Experience

Dates of Employment, Job Title, Place of Employment, City, State

Brief description of duties

Dates of Employment, Job Title, Place of Employment, City, State

Brief description of duties

Dates of Employment, Job Title, Place of Employment, City, State

Brief description of duties

Representative Projects

Month Year- Month Year	[Job Title] for [Project Name], project duties, resource types recorded	County(ies), State(s)
Month Year- Month Year	[Job Title] for [Project Name], project duties, resource types recorded	County(ies), State(s)
Month Year- Month Year	[Job Title] for [Project Name], project duties, resource types recorded	County(ies), State(s)

Specialized Training

Year	Training
Year	Training
Year	Training

Professional Memberships

Register of Professional Archaeologists, 2008- Present

Society for American Archaeology, 2001- Present

Colorado Council of Professional Archaeologists, 2006- Present

Awards

Student Poster Award, Colorado Council of Professional Archaeologists, 2007

Select Professional Publications

[Use SAA style citation]

Select Reports and Unpublished Manuscripts

[Use SAA style citation]

Appendix 4. Recommended Field Experience Chart Format

In this example, the individual would qualify as a crew chief statewide except in CANM, TRFO, LJGA, and RGFO

Table 1. Relevant experience, by project

Project Name/ Type (Date)	Position	County(ies), State	Survey Days	Excavation Days	Monitoring Days	Total Days
Entrega Pipeline Project (May- October 2016)	Crew Chief	Moffat, CO	40	45	10	95
Cushman Mesa Survey (April 2015)	Crew Chief	Montrose, CO	15			15
NRCS-Blanding Survey (April 2014)	Assistant Crew Chief	San Juan, UT	10			10
Uncompahgre Plateau Survey (June 2013)	Assistant Crew Chief	Montrose and Mesa, CO	12			12

Table 2. Experience summary, by county

County, State	Fieldwork Days	Relevant Field Offices
Montrose	19	UFO, GJFO, DENCA, MCNCA, GGNCA, WRFO, LSFO, CRVFO, KFO, SLVFO, GFO
Mesa	8	UFO, GJFO, DENCA, MCNCA, GGNCA, WRFO, LSFO, CRVFO, KFO, SLVFO, GFO
San Juan	10	CANM, TRFO
Moffat	95	UFO, GJFO, DENCA, MCNCA, GGNCA, WRFO, LSFO, CRVFO, KFO, SLVFO, GFO

Table 3. Experience summary, by field office and cultural region

Field Office	Cultural Region	Relevant Field Days
UFO	Mountain	122
GJFO	Mountain	122
DENCA	Mountain	122
MCNCA	Mountain	122
GGNCA	Mountain	122
WRFO	Mountain	122
LSFO	Mountain	122
CRVFO	Mountain	122
KFO	Mountain	122
LSFO	Mountain	122
GFO	Mountain	122
CANM	Southwest	10
TRFO	Southwest	10

Appendix 5. Geographical and Cultural Field Experience by County and BLM Field Office (05/2023)

Colorado Counties

Adams: RGFO
Alamosa: SLVFO
Arapahoe: RGFO
Archuleta: CANM, TRFO
Baca: RGFO
Bent: RGFO
Boulder: RGFO
Chaffee: RGFO
Cheyenne: RGFO
Clear Creek: RGFO
Conejos: CANM, DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, TRFO, UFO, WRFO
Costilla: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Crowley: RGFO
Custer: RGFO
Delta: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Denver: RGFO
Dolores: CANM, TRFO
Douglas: RGFO
Eagle: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Elbert: RGFO
El Paso: RGFO
Fremont: RGFO
Garfield: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Gilpin: RGFO
Grand: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Gunnison: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Hinsdale: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Huerfano: RGFO
Jackson: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, RGFO, SLVFO, UFO, WRFO
Jefferson: RGFO
Kiowa: RGFO
Kit Carson: RGFO
Lake: RGFO
LaPlata: CANM, TRFO
Larimer: KFO, RGFO
Las Animas: RGFO
Lincoln: RGFO
Logan: RGFO
Mesa: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Mineral: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Moffat: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Montezuma: CANM, TRFO
Montrose: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Morgan: RGFO
Otero: RGFO
Ouray: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Park: RGFO
Phillips: RGFO

Pitkin: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Prowers: RGFO
Pueblo: RGFO
Rio Blanco: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Rio Grande: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Routt: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Saguache: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
San Juan: CANM, GFO, TRFO
San Miguel: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Sedgwick: RGFO
Summit: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Teller: RGFO
Washington: RGFO
Weld: RGFO
Yuma: RGFO

Arizona Counties

Apache: CANM, LJGA, TRFO
Navajo: CANM, LJGA, TRFO
Coconino: CANM, LJGA, TRFO

New Mexico Counties

McKinley: CANM, LJGA, TRFO
San Juan: CANM, LJGA, TRFO
Rio Arriba: CANM, LJGA, TRFO

Utah Counties

Daggett: GJFO, LSFO, WRFO
Duchesne: GJFO, LSFO, WRFO
Grand: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Uintah: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
San Juan: CANM, LJGA, TRFO

Wyoming Counties

Uinta: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Sweetwater: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Carbon: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Albany: DENCA, GFO, GGNCA, GJFO, CRVFO, KFO, LSFO, MCNCA, SLVFO, UFO, WRFO
Laramie: KFO, RGFO

Field Offices by Colorado Cultural Region

Plains Region: BCNM, KFO (Larimer County only), and RGFO

Mountain Region: CRVFO, DENCA, GGNCA, GJFO, MCNCA, GFO, KFO, LSFO, SLVFO, UFO, and WRFO

Southwest Region: CANM, LJGA*, UFO (San Miguel County only), and TRFO

*LJGA: LaJara Geographical Area (formerly LaJara Field Office, south part of SLVFO)

BLM Offices

Rocky Mountain District: BCNM = Browns Canyon National Monument; RGFO = Royal Gorge Field Office; SLVFO = San Luis Valley Field Office (except LaJara Geographical Area)

Northwest District: KFO = Kremmling Field Office; LSFO = Little Snake Field Office; WRFO = White River Field Office

Upper Colorado River District: CRVFO = Colorado River Valley Field Office; north DENCA = Dominguez Escalante National Conservation Area; GJFO = Grand Junction Field Office; MCNCA = McInnis Canyons National Conservation Area

Southwest District: CANM = Canyons of the Ancients National Monument; south DENCA = Dominguez Escalante National Conservation Area; GFO = Gunnison Field Office; GGNCA = Gunnison Gorge National Conservation Area; LJGA = LaJara Geographical Area; TRFO = Tres Rios Field Office; UFO = Uncompahgre Field Office

Appendix 6

Form CSO-8151-01
Fieldwork Authorization

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FIELDWORK AUTHORIZATION REQUEST

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

1. Permit Number and Name of Permittee:	2. Date of Permit Expiration:
3a. Mailing Address:	3b. Telephone: 3c. Email:
4. Project Name:	
5. Nature of Work Proposed (if consultation work, identify client, project, and undertaking): <i>Attach additional sheets as needed.</i>	
6. Location of Proposed Work (<i>Attach 1:24,000 Map and GIS Data</i>)	7. Acres of BLM Lands Involved:
8. Date of Pre-Field Literature Review and Cultural Resource Types Expected:	
9. Period During Which Work Will Be Conducted: From: To:	
10a. Name of Individual(s) Responsible for Planning and Supervising Fieldwork and Approving Report, Evaluations, and Recommendations (Principal Investigator):	
10b. Name of Individual(s) Responsible for Supervising Fieldwork (Field Director/Crew Chief):	
<ul style="list-style-type: none">The individual(s) named in 10b shall be present during the conduct of fieldwork authorized herein or shall notify the authorized officer of the need for any extended absence, and shall make provision that the work will be carried out under supervision of equal quality, by an individual approved on the permit.All terms and conditions of the permit apply; and special conditions attached hereto have the same force and effect as conditions of the permit.Permittee shall immediately notify the authorized officer of any change in items 3-10 above.	
11a. Signature of Principal Investigator:	11b. Date:
12a. Approved by (Authorized Officer):	12b. Date:

Submit one copy of each request to each BLM field office with administrative jurisdiction over the public lands involved.
Electronic submission is encouraged.

FORM INSTRUCTIONS FOR CSO-8151-01 (FIELDWORK AUTHORIZATION REQUEST)

<p>Purpose and Use</p> <p>Fieldwork authorizations serve as a second level of review given the BLM's unique blanket permit system. Rather than issuing permits for each episode of fieldwork, authorizations are granted. This process ensures permits are valid, proposed staff is appropriately permitted, the proposed survey area is appropriate, the area has not been previously surveyed, and there are no conflicts with other resources, and identifies any safety concerns and allows field offices to communicate important information to consultants prior to initiations of fieldwork.</p> <p>Fieldwork authorizations must be submitted and approved prior to any episode of fieldwork.</p>	<p>Each BLM field office will assign a BLM project number in the upper right corner of the approved authorization. Fieldwork may not proceed until a signed fieldwork authorization is returned to the requester.</p>	<p>3b. Telephone</p> <p>Enter the telephone of the Principal Investigator for this request.</p>
<p>Requirement</p> <p>All permits regardless of type require the use of fieldwork authorizations.</p>	<p>Additional Permit Conditions</p> <p>If necessary and appropriate, the agency official, in coordination with the field office archaeologist(s), may impose conditions not previously included on the permit.</p> <p>These conditions shall be limited to protection of other resources or ensuring public safety and may not substantially alter the scope of the permit.</p>	<p>3c. Email</p> <p>Enter the email of the Principal Investigator for this request.</p>
<p>Processing Times</p> <p>Fieldwork requests are subject to a ten (10) business day processing period at the field office to which the request is submitted. Requests submitted less than 10 days prior to proposed fieldwork may not be honored.</p>	<p>Denial</p> <p>Should a Fieldwork Authorization request be denied, the applicant will receive a letter from the denying field office which sets out the reasons for denial. The permittee may file a written request for review of the denial to the authorized officer.</p>	<p>4. Project Name</p> <p>Enter the project/undertaking name.</p>
<p>Submission and Approval</p> <p>One copy of the fieldwork authorization request form, along with any supporting documentation, additional pages, maps, and GIS data must be submitted to the appropriate field office for the area in which work is proposed. If work will cross the jurisdictions of multiple field offices, separate authorizations must be submitted to each affected field office.</p>	<p>Instructions</p> <p>1. Permit Number and Name of Permittee</p> <p>Enter the permit number from the top left corner of the issued Permit for Archaeological Investigations (DI-1926) and permittee name as listed in line 1. on the permit (e.g. COCO123456789, CRM Expert Consulting). Do not list the name of the person filling out the form.</p> <p>2. Date of Permit Expiration</p> <p>Enter the date of permit expiration, from line 11. on the valid permit in mm/dd/yyyy format.</p> <p>3a. Mailing Address</p> <p>Enter the mailing address listed on the permit.</p>	<p>5. Nature of Work Proposed</p> <p>Include a detailed description of the fieldwork proposed and proposed methods. If work is tied to an undertaking, include the client and project and a description of the undertaking. Attach additional sheets as necessary.</p> <p>6. Location of Proposed Work</p> <p>Submit as an attachment a 1:24,000 map showing the project survey area and land status, and GIS data of the project area.</p> <p>7. Acres of Public Lands Involved</p> <p>Enter information about the acres of BLM administered lands involved.</p> <p>8. Date of Pre-Field Literature Review and Cultural Resource Types Expected</p> <p>List date(s) that a literature review for the project was conducted in mm/dd/yyyy format. List cultural resources identified as part of the literature review. Attach additional pages as necessary.</p> <p>9. Period During Which Work Will Be Conducted</p> <p>Input the start date (From) and the end date (To) in the appropriate boxes in mm/dd/yyyy format. Please be as specific as possible about dates, rather than proposing broad periods of time if fieldwork has not yet been scheduled.</p>

<i>10a. Name of Individuals Responsible for Planning and Supervising Fieldwork</i>
List those individuals who will serve as Principal Investigators (PI) for this project, including permitted areas, ensuring said individuals are permitted to conduct work in the proposed permit area(s).
<i>10b. Name of Individuals Responsible for Supervising Fieldwork</i>
List those individuals who will serve as Field Directors (FD) for this project, including permitted areas, ensuring said individuals are permitted to conduct work in the proposed permit area(s).
<i>11a. Signature of Principal Investigator</i>
Digital or wet-ink signature of authorized Principal Investigator submitting request.
<i>11b. Date</i>
Select date of permit request in mm/dd/yyyy format, using drop down calendar.
<i>12a. Approved by</i>
Digital or wet-ink signature of authorized officer at BLM field office approving the Fieldwork Authorization Request.
<i>12b. Date</i>
Select date of permit approval in mm/dd/yyyy format, using drop down calendar.

Appendix 7

Form CSO-8151-02

Request for Modification of Permit for Archaeological Investigations

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

REQUEST FOR MODIFICATION OF PERMIT FOR ARCHAEOLOGICAL INVESTIGATIONS

1. Permit Number and Name of Permittee:	2. Date of Permit Expiration:
3a. Mailing Address:	3b. Telephone: 3c. Email:
<p>4. Nature of Requested Modification</p> <p><input type="checkbox"/> a. Addition of the Following Personnel and Position (Field Director or Principal Investigator) Applying for (with resume and experience charts attached):</p> <p><input type="checkbox"/> b. Removal of the Following Personnel:</p> <p><input type="checkbox"/> c. Change of Permittee Name to:</p> <p><input type="checkbox"/> d. Change of Permittee Address to:</p> <p><input type="checkbox"/> e. Change of Curation Facility to:</p> <p><input type="checkbox"/> f. Extension of Time/ New Requested Expiration Date:</p> <p><input type="checkbox"/> g. Change of Location of Work to:</p> <p><input type="checkbox"/> h. Change in Type of Work to:</p>	
5a. Signature of Permit Administrator:	5b. Date:

Attach additional information/pages as necessary. Electronic submission to BLM_CO_CR_Permits@blm.gov is encouraged.

FORM INSTRUCTIONS FOR CSO-8151-02 (REQUEST FOR MODIFICATION OF PERMIT FOR ARCHAEOLOGICAL INVESTIGATIONS)

Purpose and Use
This request for modification of a permit serves as a process for amendment to previous applications for a Permit for Archaeological Investigations (DI-1926). The form may be used to request changes needed to an existing permit, including contact information, personnel changes, changes to the scope of the permit, changes in curation facility(ies), or extension to the permit timeframes. This form may be used to renew an expiring permit, as long as the organizational structure of the permittee has not changed.
Requirement
This form is an optional form to use in place of DI-1926 for minor permit modifications or renewals. Permittees may not submit more than three modification requests per calendar year. Renewal requests may not be made prior to 30 calendar days in advance of the expiration of the current permit.
Processing Times
Permit modifications are subject to a twenty (20) business day processing period.
Submission and Approval
One copy of the modification request form, along with any supporting documentation or additional pages, must be submitted to the BLM Colorado State Office. The form will not be accepted unless the authorized permit administrator signs it. To ensure prompt processing, electronic submission to BLM_CO_CR_Permits@blm.gov is encouraged.

Denial
Should a permit modification request be denied, the applicant will receive a letter from the BLM Authorized Officer which sets out the reasons for denial. The permittee may file a written request for review of the denial to the Authorized Officer.
Instructions
1. Name of Permittee
Enter the permit number from the top left corner of the issued Permit for Archaeological Investigations (DI-1926) and permittee name as listed in line 1. on the permit (e.g. COCO123456789, CRM Expert Consulting). Do not list the name of the person filling out the form.
2. Date of Permit Expiration
Enter the date of permit expiration, from line 11. on the valid permit in mm/dd/yyyy format.
3a. Mailing Address
Enter the mailing address of the permittee.
3b. Telephone
Enter the telephone of the Permit Administrator for this request.
3c. Email
Enter the email of the Permit Administrator for this request.
4. Nature of Requested Modification
Select the appropriate check boxes for the request(s) being made.
4a. Addition of the Following Personnel
List all personnel you wish to add to the permit, along with

requested permitted areas and for which position they are applying (Field Director or Principal Investigator) (i.e. Jane Doe, CANM & TRFO, Field Director). Attach a resume/curriculum vitae and an experience chart for each individual.
4b. Removal of the Following Personnel
List names of individuals requested to be removed from the permit.
4c. Change of Name to
If the permittee has changed names, but no other significance organizational changes have occurred, list the new name here.
4d. Change of Permittee Address to
List new address.
4e. Change of Curation Facility to
If proposing a change of curation facility, list the new facility here, with address. Attach the appropriate curation agreement.
4f. Extension of Time/ New Requested Expiration Date
List a proposed extension date in mm/dd/yyyy format. Permits may not be issued for a period of more than three years. If the requested extension exceeds three years from the issuance of the original permit, the modification request will be processed as a permit renewal.
4g. Change of Location of Work to
If requesting a change to the regional limits of the permit, list the requested areas to add or

<p>remove here. Attach supporting documentation that demonstrates the appropriate personnel are on the permit, or are requested to be added to the permit, with experience in the appropriate permit regions.</p>	<p>may not be modified to become an Excavation and/or Removal permit, and a new application (DI-1991) should be submitted for this use.</p>	<p>legally empowered to obligate the organization and is responsible for carrying out the terms and special conditions of the permit and complying with other legal requirements. Generally, this person should be the owner, CEO, branch chief, president, vice president, department chair, etc. of the organization.</p>
<p>4h. Change in Type of Work to</p>	<p>5a. Signature of Permit Administrator</p>	
<p>If proposing a change to the type of work, please list here. A change may only be requested among Survey and Recordation or Limited Testing and/or Collection permits. A permit</p>	<p>Only the Permit Administrator may sign the modification request (item 6. on the valid permit). If the request includes a change to the Permit Administrator, the form must be signed by an individual who is</p>	<p>5b. Date Signature date in mm/dd/yyyy format.</p>

Appendix 8. Recommended Annual Report Format for Permit for Archaeological Investigations (revised 01/2022)

Field Office	Project Name & OAHP/BLM No.	Project Type	Total Acres	Federal Acres	No. Sites Identified	No. Eligible Sites	Date of Report Acceptance	Collections from: (site numbers or N/A)	Number of artifacts	Deposited in Repository (Date)*
CRVFO	Report Title (GF.LM.R/1021-01)	Class III	100	75	6	2	3/12/20	N/A	N/A	N/A
GJFO	Report Title (ME.LM.R/1021-01)	Data recovery	10	10	1	1	5/20/20	5ME1234 5ME2222	12 4	MWC (8/27/20)
TRFO	Report Title (LP.LM.R/1021-03)	Class II	40	40	5	4	9/24/20	N/A	N/A	N/A
WRFO	Report Title (RB.LM.R/1021-04)	Class III	550	550	38	11	12/1/20	5RB9997 5RB9998 5RB9999	1 2 1	Pending to MWC

**Deposit receipt must be attached*



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

BUREAU OF LAND MANAGEMENT COLORADO

CULTURAL RESOURCES DIGITAL DATA SPECIFICATIONS GUIDE



Supplement and Appendix 9 to

Handbook of Guidelines and Procedures for Inventory, Evaluation, and Mitigation of Cultural Resources Bureau of Land Management Colorado State Office

Revised October 2022

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GPS AND GIS DATA

The Colorado Office of Archaeology and Historic Preservation (OAHP) serves as BLM's primary repository for geospatial inventory and site location data. Consequently, BLM and the OAHP operate under the same set of geospatial parameters and digital data requirements.

GPS Data Collection

- A. Data collected by GPS must meet a ± 5 m. accuracy standard. You should independently confirm that the GPS equipment that you are using in the field is correctly recording locational information at the requisite level of accuracy. In situations where GPS observations are not practical or possible due to geography, vegetation, satellite availability, or the presence of hazardous materials, you must record sites and isolated finds using hard-copy methods and create the appropriate shapefiles or geodatabase feature classes upon returning from the field. Such non-GPS methods must be described in the site form and report.
- B. Differential correction is strongly encouraged, but the resulting data must meet the standards and format outlined below. Do not submit raw correction files.
- C. If you are using a GPS device that does not support shapefile or ESRI file geodatabase formats, you must convert your field data into an acceptable format. BLM will not provide technical support for this process.
- D. Do not leave physical datums in the field unless otherwise instructed. Datums may be used during site recording but must be removed once the field work is completed. Virtual datums are preferred and can be based on a permanent or semi-permanent feature on the site, such as a tree or boulder. Virtual datums must relate to the UTM's listed in the Management Data Form, or locational data should be available on the plan map (e.g., UTM's of the datum noted on the map or a UTM grid is included).
- E. Site boundaries shall be recorded as polygons and should accurately reflect the observed extent of all surface artifacts and features. A linear site may be recorded as a line in the field, then appropriately buffered and converted to a polygon using GIS. Isolated finds may be created from a single point and converted to a polygon using GIS (the standard buffer is 4 meters).

GIS Data

- A. BLM will accept geospatial data as either shapefiles or ESRI file geodatabases. Do not submit ESRI personal geodatabases, .kml/.kmz files, or other raw formats. All site and survey boundary data must be submitted as polygons. Do not submit point, line, or polyline data for site or survey boundaries. Some offices may also require submission of the artifact/feature-level point, line, and polygon data. Permittees may request details about these requirements from the field office of interest.

Coordinate Systems

- A. All cultural resources data submitted to BLM shall be reported in the NAD 1983 datum utilizing UTM coordinates in the appropriate zone (i.e, 12 or 13) and Meridian.
- B. The NAD 83 UTM projection is subdivided into zones. Most of Colorado is in Zone 13N, while the far western edge of the state is in Zone 12N. Surveys conducted within Zone 13 must be submitted in the Zone 13 projection. For those surveys that fall within Zone 12, please check with the field office with which you are working before submitting data; some offices no longer accept Zone 12 data and may require data reprojected to Zone 13.

Geometry Types and Standards

- A. All site and survey boundary data must be submitted as polygons. Do not use generic shapes (circle, oval, rectangle, etc.) to delineate site boundaries. All sites must be recorded with multiple vertices that precisely form the site boundary. Mapping errors as a result of positional accuracy that cause irregularities in the site boundary must be correct prior to submission to the BLM.
- B. Linear survey corridors must accurately reflect the width of the inventory (for example., a 100-foot-wide inventory corridor should be buffered 15.7 meters).
- C. Isolated finds may be created from a single point but must be buffered and submitted to the BLM as polygons (**the required buffer is 4 meters**). Isolated find polygons can portray actual boundaries and do not have to be circular.

Attributes

- A. Site and survey attribute tables must conform to those presented below in Tables 1 and 2. In both cases, there is a set of core attributes that must be populated and an additional set of optional attributes that should be populated where possible. Templates for shapefile attributes can be downloaded from the OAHP website: <https://www.historycolorado.org/submitting-your-data-shpo>. You may also request the templates from individual field offices.
- B. The attribute tables in these templates contain the minimum fields required for site and inventory shapefile attribute. Additional fields may be added, but do not remove any of the required fields or change the name of the fields provided in the template.

Standardized Site Types

- A. Tables 3 and 4 below reflect common site (and feature) types for both prehistoric and historic resources. This should not be confused with resource type (e.g., Archaeological, Historical Archaeology, Historic, Historical Archaeology| Historic, Paleontological, Unknown). See Table 5 for further clarification. It is recommended to use the following lexicon to describe site and features encountered in the field. Table 3 reflects prehistoric site types. Prehistoric isolated finds will have certain artifacts and/or features that are associated with the various site types (e.g., hearth, lithics, projectile point etc.). Table 4 reflects common historic site types and features but is not an exhaustive list of all historic resources that could be encountered in the field.

Packaging and Delivery

The following outlines best practices for submitting digital data.

- A. It is recommended to utilize the OAHF shapefile template for sites and survey. There should be two shapefiles (survey and site/IF), or one geodatabase with two feature classes (survey and site/IF) for each project. If the project is in more than one zone there will likely be four shapefiles or feature classes (two surveys and two sites, when applicable).
 - a. More fields can be added to the template, but do not change/remove required fields.
 - b. Surveys should be submitted as a single row within the survey shapefile or geodatabase feature class. Where a survey comprises multiple discontinuous inventory areas, the resulting survey file should be submitted as a single, multipart polygon. That is, the individual areas should be dissolved to a single feature (single row) that includes all the individual surveyed areas.
 - c. Do not submit sites and surveys in the same shapefile or feature class. Site shapefiles may contain multiple features (multiple sites), but the attribute table must clearly differentiate sites by Smithsonian Number.
 - d. Sites that cross counties should be separated in the shapefile at the county line and numbered accordingly. For example, 5SM.493/5OR.6531 should have a shape for 5SM.493 (San Miguel county only) and one shape for 5OR.6531 (Ouray county only). Do not use both numbers for one shape.
- B. Within the shapefile/geodatabase's applicable attribute field, site and document numbers should always use periods to separate county, agency, and number. Please do not use underscores or leading zeros and do not add any other descriptors such as "IF," or "Site at the end. For Example:
 - a. Document Number:
 - i. **MC.LM.R146**
 - b. Site Number:
 - i. **5MF.435 (Site or IF)**
 - ii. **5MF.435.1. (Linear)**
- C. Label your shapefiles/geodatabase with a project identifier such as a BLM project number or your assigned document number using underscores, or periods, to separate county, agency, and numbers with “_sites” or “_survey” at the end to differentiate the two types. For example:
 - i. **MC_LM_R483_Sites**
 - ii. **MC_LM_R483_Survey**
- D. Please use the “Check Geometry” tool and correct any errors using the “Repair Geometry” tool before submission.
- E. Compress file geodatabases before submission and do not nest compressed folders in other compressed folders.
- F. Data must be submitted electronically using a secure platform. If it is unfeasible to provide the

electronic data using online file sharing, the BLM will accept encrypted USB flash drives, but will no longer accept CDs, unless specifically requested by the BLM archaeologist.

- G. Shapefile geometry should be polygon. No points or lines.

REPORT AND SITE FORM DOCUMENTATION

Requesting Agency Project/OAHP Document and Site Numbers

BLM Project and OAHP Document Numbers

- A. Request both the BLM project and OAHP document number directly from the BLM. To request project and document numbers, in an email to the BLM FO archaeologist, provide the following information:
 - a. County or counties the project occurred in.
 - b. Type of finding (positive or negative).
 - c. Working report title.

Site Numbers

- A. All site and IF numbers should be directly requested from the OAHP. To request site/IF numbers, you will need to submit a shapefile to the OAHP (i.e., a generic polygon from a buffered point or actual shape) for all new cultural resources documented. Newly documented cultural resources should be assigned temporary resource numbers pending obtaining official Smithsonian trinomial numbers, however, do not use or reference temporary site numbers, in lieu of Smithsonian numbers, in any documentation. Smithsonian numbers should be assigned to all draft and final site and IF forms and incorporated into the report prior to submission to the BLM.
- B. To request site numbers email OAHP at: hc_filesearch@state.co.us; with the suggested subject Line: **BLM_Site Number Request for [insert OAHP Document or BLM Project Number]**
 - a. In the email to OAHP, please provide the following information:
 - i. Shapefile of all cultural resources necessitating a site number.
 - ii. County/counties where the cultural resource(s) are located.
 - iii. Number of site numbers needed for each county.
 - iv. If a site is linear:
 - 1. Type (Example: road, ditch, etc.).
 - 2. Name of linear.
 - 3. Determine if a segment number is required:
 - a. A segment number is not required if the linear was recorded in its entirety; but you will need to inform the OAHP if the linear was recoded in its entirety.
 - b. If the linear has been recorded before, the OAHP will need the site number and/or name in order to assign a segment number.

Documentation Requirements¹

Report and Site Forms

All documentation must be submitted to BLM (not directly to the OAHP).

- A. Check with the BLM field office archaeologist before submitting draft documentation; most prefer to review draft deliverables electronically in Microsoft Word format (.docx). Ensure the draft versions are not locked or encrypted so that comments and suggested revisions can be added directly to the document. PDF is not recommended for review but is the only format in which final reports and site forms will be accepted.
- B. For final deliverables the BLM requires both digital copies of all documentation, and one hardcopy set of printed site form(s), associated report, and map(s). The BLM prefers unbound copies (consult local field office prior to printing) . Make sure all report and site form deliverables, except for maps, are printed double-sided.
- C. Final PDF versions must be submitted to BLM at the end of the project and should be saved as either PDF/A-1a or PDF/A-1b. The final PDF versions must have the relevant OAHP, and BLM numbers populated where appropriate throughout. PDFs created from scanned hard copies must be processed using optical character recognition (OCR) to make them searchable.
- D. The most current OAHP forms can be found at: <https://www.historycolorado.org/survey-inventory-forms>. Do not change the format of the OAHP forms. It is preferred that all fields be completed, even if the field is not applicable (use “N/A” or “none”). Fields can be compressed or expanded as needed (e.g., rows in the artifact tables in the historic component form). Use the OAHP form instructions and the NPS National Register Bulletins to inform completion of the forms. BLM Colorado also has BLM specific; linear site, aboriginal wooden structure , historic well pad, grazing impacts, and travel management forms. These specific BLM forms maybe be required in addition to the standard OAHP forms and can be obtained through the FO.
- E. The individual components of the site form (Management Data Form, component forms, maps, photographs, and other documentation) must be compiled in a single file, titled by Smithsonian number as detailed below. IFs must include the IF form and map, along with any other relevant documentation, in a single file, titled by Smithsonian number as detailed below.
- F. Forms and documents should use a font that works well for OCR. One of the following fonts is preferred: Arial, Calibri, Courier, Helvetica, Lucida Sans, Tahoma, Times New Roman, or Verdana.
- G. When submitting print copies of deliverables to other agencies (USFS, NPS, etc.), send those materials to the other agencies directly. The BLM will not forward documents on your behalf.

¹ See the BLM Colorado Handbook (revised 2022), the 2014 BLM state Protocol, the OAHP Survey Manual (2007), and any relevant BLM field office or district standards and procedures documents for other reporting requirements.

Maps

- A. Maps related to the site and/or report shall be embedded in the appropriate PDF/A version of the site form and/or report.
- B. A map, preferably on a USGS 7.5 topographic basemap at 1:24,000 scale, is required to be embedded in the site/IF form(s) and should be properly displayed to the scale listed on the map. (e.g., a 1:24,000 scaled map should be free from distortions that alter the accuracy of the scaling). An aerial image can be included but should also be at a scale of 1:24,000. Project location/survey area maps should also follow the above standards.
 - a. Maps must be appropriately labeled and include at a minimum the following information: Map title/project name, project number, legend, north star, scale, firm name/authors name, date the map produced, and a clear depiction of the land status.
 - b. Maps depicting the GPS'd location of sites boundaries can be included in the report but should be attached as an appendix and not directly in the report body.
 - c. Either a good quality hand drawn site sketch map (digitized only) or GPS/GIS produced site map are acceptable
 - d. Check with the BLM field office archaeologist for additional map documentation requirements.

File Naming Conventions

- A. Site and IF naming conventions are based on the Smithsonian trinomial; report naming conventions are based on the OAHP documentation number.
- B. Site and IF forms must adhere to the following naming conventions:

5_****.pdf (for a regular site)**
5_****_1.pdf (for a linear site)**

where **5**** is the county abbreviation (e.g., 5PA_) and ******** is the site number (and point number, if appropriate).

- C. Reports must adhere to the following naming conventions, based on the OAHP document number:

****_LM_R**** or **_LM_NR******

where the first ****** are the two-letter county code (e.g., FN), "R" for results and "NR" for no results, and the last series of ******** is a OAHP -assigned consecutive number (e.g., FN_LM_NR1 or FN_LM_R236).

Photograph Standards

- A. A photograph with a scale included is required for every recorded feature in addition to at least one site overview photo with horizon. Additionally, natural or human caused disturbances or vandalism specifically identified in the site form should be documented through photographs.
- B. Photographs should be embedded into report and site form(s). Digital copies are not generally required to be submitted to the BLM. However, the BLM may request copies of the digital photos for certain projects such as a National Register Nomination . Photographs may be submitted in either JPEG or TIFF formats and numbered using the site or isolate number, a hyphen followed by a sequential number. If photographs are printed, they will need to be printed on acid-free paper.

Document Delivery

The following outlines best practices for submitting digital site form and report content.

- A. Use an underscore rather than a period or space in file names.
- B. All records should be born digital, meaning the records are originally created and later submitted in a digital format (i.e., in Adobe Acrobat, Microsoft Word, or other digital form generator) without being printed and re-scanned. Digital creation without rescanning assures accurate digital text recognition. Any record being submitted that is not born digital, and was scanned, requires Optical Character Recognition (OCR) processing by the submitter.
- C. Data must be submitted electronically using a secure platform. Do not use generic file-sharing sites such as Dropbox, Google Drive, etc. Most BLM offices are unable to create accounts for these and will not be able to download your data.
 - a. If it is unfeasible to provide the electronic data using online file sharing, the BLM will accept encrypted USB flash drives, but will no longer accept CDs, unless specifically requested by the BLM archaeologist.

Table 1. Site Attribute Table

Recommended Field Area in green; all other fields are required.

Attribute	Type	Definition
ID	Integer	Unique sequential numeric ID for a given spatial feature. (LEAVE BLANK)
SITE_	Text	Smithsonian site number in SHPO format (ex 5ME.4000 or 5GF.342). Do not use leading zeros in site IDs (e.g., 5LR.00462). Do not use zeros or underscores in the place of the period (e.g., 5LR_462). Do not include any other descriptors (e.g., 5LR.462_IF) in the site ID.
SITE_NAME	Text	Name of resource, if any.
AGENCY_	Text	Project number unique to the BLM agency/office responsible for the data.
DOC_	Text	Unique SHPO number referring to a specific report document.
RSRCE_DATE	Date	A full date in which the resource was last recorded or updated.
ACRES	Double	Calculated area of the site in acres (must match site form information).
RES_TYPE	Text	Unique SHPO ID in order to define data access in Compass. Use [Archaeological / Historical Archaeology / Historic / Paleontological] See Table 5.
TMPRL_AFFL	Text	Prehistoric, Ethnohistoric, Historic, Multicomponent, Unknown
SITE_TYPE	Text	Use standard terminology where possible (See Tables 3 and 4).
LINEAR	Integer	Enter 1 or 0. A “1” denotes that the site is a linear site. A “0”, the default, is used for all non-linear sites.
NRHP_ELIG	Text	Resource eligibility for the NRHP. Use: [Eligible / Not Eligible / Needs Data / Supporting / Non-Supporting / Contributing / Non-Contributing / Listed]
ZONE	Integer	This is the UTM zone in which the site is located.
X	Double	The X coordinate in UTM meters of the center point of the site (can be automatically calculated by GIS but must match info on site form).
Y	Double	The Y coordinate in UTM meters of the center point of the site (can be automatically calculated by GIS but must match info on site form).
COMMENTS	Text	Any additional information not captured elsewhere.
SOURCE	Text	BLM field office name (Ex. BLM – RGFO).
BND_CMPLT	Text	Boundary completeness. Refers to the completeness of the site boundary. Values for this field will either be Y (YES, the boundary is complete) or N (NO, the boundary of the site is not complete or unknown) or 9 if the completeness of the site boundary has not been checked.
CONF	Text	Confidence given to the spatial accuracy of the digitized feature. Values for this attribute consist of LC (Low Confidence – ex: digitizing from hand drawn maps, or not field checked), HC (High Confidence – collected via GPS units in the field) or P (Paleontological).
VER	Text	(LEAVE BLANK FOR OAHP use)
DATE_	Date	Date site was digitized in GIS.
AREA	Double	Area of the spatial features in the data set. (Calculate via GIS)
PERIMETER	Double	Perimeter of spatial features in the data set. (Calculate via GIS)

Table 2. Survey Attribute Table

Recommended Field Area in green; all other fields are required.

Attribute	Type	Definition
ID	Integer	Unique sequential numeric ID for a given spatial feature. (LEAVE BLANK)
AGENCY_	Text	Project number unique to the BLM agency/office responsible for the data. If the survey is an addendum, you can populate it with the “BLM project number – addendum”.
DOC_	Text	Unique SHPO number referring to a specific report document in the appropriate format (e.g., ME.LM.R1000). Do not use zeros or underscores in the place of the period (e.g., ME_LM_R1000).
TITLE	Text	Report title.
AUTHOR	Text	Primary report author.
CMPLT_MONT	Text	The month and year in which the inventory was completed. Date format is MM-YYYY.
ACRES	Double	Acreage of the survey area calculated by the GIS from the spatial features in the data set.
SURV_TYPE	Text	Inventory strategy / Type of investigation completed. Use: [CLASS II / CLASS III / MONITORING / SITE SPECIFIC STUDY / ETHNOGRAPHIC STUDY / PALEONTOLOGICAL / OTHER / UNKNOWN]
SITE_COUNT	Integer	The total number of sites recorded during the inventory.
IF_COUNT	Integer	The total number of isolated finds recorded during the inventory.
EL_COUNT	Integer	The total number of eligible sites recorded during the inventory (a subset of SITE_COUNT).
ZONE	Integer	UTM Zone the survey is located in. If a survey crosses two zones, digitize it in the zone in which the most land is covered.
X	Double	The X coordinate in UTM meters of the center point of the survey.
Y	Double	The Y coordinate in UTM meters of the center point of the survey.
COMMENTS	Text	Any additional information not captured elsewhere.
SOURCE	Text	BLM field office name (Ex. BLM – RGFO)
CONF	Text	Confidence given to the spatial accuracy of the digitized feature. Values for this attribute consist of LC (Low Confidence – ex: digitizing from hand drawn maps, or not field checked), HC (High Confidence – collected via GPS units in the field) or P (Paleontological).
VER	Text	(LEAVE BLANK FOR OAHP use.)
DATE	Date	Date the shapefile was created.
AREA	Double	Area of the spatial features in the data set.
PERIMETER	Double	Perimeter of spatial features in the data set.

Table 3. Prehistoric Site Types

Site Type		Definition
Lithic	Open	Sites contain lithic materials located in an open topographic situation. The material culture at these sites usually consists of chipped stone tools and waste flakes. Architecture is not present on these sites.
	Sheltered	Same as Open Lithic except the lithic materials are located in rock shelters, overhangs, or alcoves.
Camp	Open	Sites are located in an open topographic situation and consist of features or artifacts indicating domestic activity. They are defined by the presence of one or more of the following: <ul style="list-style-type: none"> • Ground stone tools • Ceramics • Fire hearths • Middens In addition, waste flakes and chipped stone tools are usually located at these sites. Architecture is not present.
	Sheltered	Same as Open Architectural but the architectural features are located in rock shelters, overhangs, or alcoves.
Architecture	Open	Sites are located in open topographic situations and contain architectural features. Architectural features include: <ul style="list-style-type: none"> • Stone enclosures indicating rooms • Stone alignments • Pithouses
	Sheltered	Same as Open Architectural but the architectural features are located in rockshelters, overhangs, or alcoves.
Quarry	Stone	Location for the extraction of lithic or building material
	Clay	Extraction location for clay deposits used for ceramic production.
	Other	Any non-stone or non-clay raw material extraction location (including small sand or small gravel for pottery temper material).
Rock Art		Sites with petroglyphs and/or pictographs
Kill Site		Sites with evidence of intentional slaughter, usually of several large animals.
Game Processing or Butchering Site		Location where carcass elements, typically from large game, are further reduced for consumption or transport. Remains often include bones with butcher marks in association with cutting/chopping tools
Cambium Tree		Trees that have been culturally scarred for food procurement by removing the nourishing cambium layer.
Burial		Human remains.

Table 4. Common Historic Site Types and Features

Please refer to the OAHp form 1402m Instructions for the Historic Archaeology Component Form for additional site and feature types.

Site Type/Feature		
Adit	Hunting blind	Slag pile
Animal pen	Inscription (on tree or stone)	Soil stain (use surface stain)
Air shaft	Lean-to	Spring development
Artifact scatter (trash scatter, trash dump)	Loading chute	Stable
Berm	Log cabin (use cabin)	Still (use distillery)
Bin (ore, coal)	Marker	Stock tank
Cairn (purposeful stone marker)	Mill tailings (use tailings)	Stock driveway
Cabin	Mine (define type)	Stone circle
Cannel/Ditch	Mine shaft	Stone quarry (use quarry)
Campfire ring (use hearth)	Ore Bin	Storage building (use shed)
Cattle pen (use animal pen)	Outhouse	Surface stain
Cellar (potato, root, cold storage)	Outhouse hole	Sweat lodge
Chicken coop	Peeled tree	Tank (leaching, fuel, water, tipple)
Cemetery	Pipeline	Tailings
Chute (log, ore)	Pit	Tailings pile (use tailings)
Cinder pile	Pond	Tent platform (use campsite)
Cistern	Portal	Tent site (use campsite)
Construction debris (brick, stone, lumber)	Privy (use outhouse)	Tipi ring (use stone circle)
Corral	Post (upright piece of wood, metal, or concrete)	Trail (cattle, foot, interpretive)
Cribbing	Power line	Tram house
Depression	Prospect hole (use prospect pit)	Tramway (aerial, cable, funicular)
Ditch (use canal/ditch)	Prospect pit	Trash disposal pit (use pit)
Dump	Quarry	Trash dump (use artifact scatter or dump)
Farm equipment	Radio tower (use communication tower)	Trash scatter (use artifact scatter)
Fence	Railroad	Tree art (without writing)
Fire hearth (use hearth)	Ranch	Tree platform
Fire pit (use hearth)	Ramada	Trestle
Fire ring (use hearth)	Ramp	Trench
Fireplace	Reservoir	Tunnel (two open ends)
Flume	Retaining wall	Vision quest
Foundation	Road (toll, wagon, automobile)	Wall
Game-hanging rack	Rock alignment	Waste rock
Grave	Rock art (without writing)	Water tower
Grave marker	Rock pile (not cairn)	Water diversion (use dam or head gate)
Head frame	Root cellar (use cellar)	Well (lined hole or pipe)
Head gate	Sawmill	Wickiup
Hogan	School	Windmill
Hoist house	Schoolhouse (use school)	Workshop (use shop)
Homestead (if it represents acquisition from the public domain)	Shaft house	
Hearth	Shed	
	Shop (blacksmith, machine, etc.)	
	Sign	

Table 5. Resource Types

Resource Type	
Code	Description
Archaeological	Prehistoric/Protohistoric Site or IF
Historical Archaeology	Historic Sites with Incomplete Buildings and Historic Artifacts
	Historic Sites with Incomplete Buildings Only
	Homesteads, Mining Sites, Oil Well Sites, Seasonal Dwellings, Isolated Complete and Incomplete Buildings
	Historic Artifacts Only
	Historical IF
Historic	Complete Buildings Only*
Historical Archaeology Historic	Linear
	Complete Historic Buildings and Artifacts
	Complete and Incomplete Buildings*
	Historic cemeteries
Paleontological	Paleontological Site
Archaeological Historical Archaeology Historic Paleontological	All Types
Unknown	Unknown

*Buildings with a roof = complete buildings

*Buildings without a roof = incomplete buildings