



Supplemental B

Cultural Resource Management (CRM) *(Security Classification: Sensitive)*

DATA STANDARD REPORT

May 21, 2019
Version 1.3.1

**United States Department of the Interior
Bureau of Land Management
National Operations Center
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Table of Contents

INTRODUCTION	3
<i>Purpose of the Data Standard Report</i>	3
<i>Data Standard Development Overview</i>	3
DATASET CHARACTERISTICS	4
<i>Overall Security</i>	4
<i>Data Privileges</i>	4
DATA MAINTENANCE	5
<i>Data Maintenance Processes</i>	5
<i>Data Quality</i>	6
<i>Accuracy Requirements</i>	6
<i>Relationship to Other Standards and/or Systems</i>	7
DATA CHARACTERISTICS	7
<i>Conceptual Data Model</i>	7
<i>Conceptual Data Dictionary</i>	8
BUSINESS RULES	13
OTHER MATERIAL	13
APPENDIX A: BLM DATA FRAMEWORK	14
<i>BLM Keywords for This Data Standard</i>	15
APPENDIX B: LOGICAL DATA MODEL	16
<i>Logical Data Dictionary</i>	17
<i>Location Logical Data Model</i>	28
APPENDIX C: READING A LOGICAL DATA MODEL	28
APPENDIX D: BUSINESS QUESTIONS AND NEEDS	28
APPENDIX E: AREAS TO ADDRESS IN FUTURE ITERATIONS	37
APPENDIX F: ADDITIONAL REFERENCES	38
REVISION HISTORY	39

INTRODUCTION

Purpose of the Data Standard Report

The Data Standard Report is the document to use when creating or revising a National Data Standard. The Department of the Interior (DOI) data standards process requires certain pieces of information to be documented for a data standard to be considered valid. The Data Standard Report is the tool Bureau of Land Management (BLM) uses to accomplish this documentation. The completed Data Standard Report is distributed for review and comment on the content of the data standard. Comments are gathered and resolutions are developed through working with the appropriate data stewards and other Subject Matter Experts. More iterations can occur depending on comments and complexity of the data standard. Once all comments are resolved, the Data Standard Report is then finalized.

Data Standard Development Overview

The BLM Cultural program investigates, evaluates, and manages cultural resources on BLM-administered public lands and in areas of BLM responsibility. The BLM management of cultural resources (archaeological, historic and socio-cultural properties) is in accordance with the provisions of the National Historic Preservation Act (NHPA) of 1966, as amended, and other applicable legislation as identified in Appendix F.

The Cultural Resource Management (CRM) data standard applies most directly to historic and prehistoric resources. Such resources are generally fifty years old or older. BLM defines a cultural resource in Manual 8100 as “a definite location of human activity, occupation, or use identifiable through field inventory (survey), historical documentation, or oral evidence”. The term includes archaeological, historic, or architectural sites, structures, 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 as defined by the NHPA and implementing regulations, 36 CFR 800.

The CRM data standard provides a common data format for compiling spatial and non-spatial data about cultural resources and the investigations associated with those cultural resources. Data collected in accordance with a standardized data format are more useful and convenient for cultural analysis and land management by a wider variety of programs and individuals. The CRM data standard provides the ability to determine where investigations have occurred, when they occurred, and what area was covered. The CRM data standard provides the ability to determine where resources have been identified in an area, what type of resources were found, and the regulatory status of each resource.

The CRM data standard was developed and initially tested as part of the Colorado Plateau Pilot Project (CPPP). The CPPP project included assembling data from four states (Arizona, California, New Mexico, Utah). The CRM data standard was further prototyped in 2016-2017 by the National Heritage Solution Pilot (NHSP) during which included assembling data from 11 BLM administrative states (Alaska, Arizona, California, Colorado, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Wyoming). All modifications to the data standard identified during these prototyping efforts are reflected in this version of the data standard. The NHSP effort was tasked with creating a landscape- and interstate-level database for cultural resources site and inventory data, which can be employed to consider cultural resources at high level-planning, such as Programmatic Environmental Impact Statements (PEISs), Resource Management Plans (RMPs), Rapid Ecoregional Assessments (REAs), and Focal Area analyses. The core attributes identified within this document serve to answer business questions and the BLM’s landscape analysis needs for

planning, multistate regional analysis, and national level cultural resource management issues. Some state and field office business needs may not be met by this national data standard. Each state and field office may extend their CRM implementation to meet their specific business needs as long as the core attributes identified in this data standard report are implemented in accordance with this data standard.

Previous work to create data standards, conducted by the Cultural Resources Data Sharing Partnership (CRDSP) and the Federal Geographic Data Committee (FGDC), provides background for the content and metadata standards for BLM's CRM data standard. The BLM's CRM data standard addresses the business needs of the BLM as distinct from other state and federal agencies.

DATASET CHARACTERISTICS

Overall Security

a. Identify Security Level

The public will have no access to the data due to its sensitive nature. Secondary or derived products may be made available to the public. BLM access will be restricted to cultural resource specialists and managers.

b. Privacy Information

No Personal Identifiable Information (PII) in this data standard.

Data Privileges

Data privileges are based on the assumption that the data are on the BLM system.

Cultural Resources Specialists: Read

National Cultural Resources Data Steward: Create/Read/Update/Delete data

State Cultural Resources Data Steward: State specific

State Cultural Data Representatives: Read

Planners: No direct access to data. Can use secondary or derived products.

State Historic Preservation Office (SHPO): No direct access to data. Can use secondary or derived products.

Tribes: No direct access to data. Can use secondary or derived products.

Permitted Consultants: May have Create/Read/Update access under direction of BLM.

Consulting Parties: No direct access to data. Can use secondary or derived products.

Cooperating Agencies: No direct access to data. Can use secondary or derived products.

Field Office Managers: Read

Definitions of Create/Read/Update/Delete:

- Create = User has the ability to insert/add data for the first time into the dataset (via any method).
Read = User can view the data but make no changes, can't enter new data or delete existing data.
Update = User can make changes to the data but can't enter new data or delete existing data.
Delete = User can remove data but can't enter new data or update existing data.

DATA MAINTENANCE

Data Maintenance Processes

a. Location Accuracy Requirements

The accuracy is determined by the source data acquired by the state offices. This will be documented in the feature level metadata when available.

Spatial Accuracy: SEGMENT SPATIAL ACCURACY METER MEASURE

b. Data Content Accuracy Requirements

The expected accuracy (quality) of the data values will be at least 95%. The Quality Control (QC) processes will produce error reports in order to help each state achieve this requirement.

c. Collection & Input Protocols

There is currently no single method for data collection and input for the CRM data set. Data may be collected and entered from a variety of sources as long as those data sources are documented in the feature level metadata.

It is expected that initially the majority of the BLM administrative states will work with their SHPOs to provide data on a regular basis, probably every 6 months or annually, to the National Operations Center (NOC). This data will be subjected to an extraction, transformation, and loading (ETL) process which will put it into the CRM data standard specified in this document.

Over time, the plan is that the states will begin to store their cultural data in accordance with the CRM data standard specified in this document and the ETL process will no longer be necessary.

d. Update Procedures

An update frequency needs to be determined based on the needs of the BLM for this dataset. On an annual basis, the data steward will review state office compliance with the standard and policy, including any reports as appropriate, which will be published as needed.

Data Quality

a. Transaction Level Data Quality

ETL processes will be used to replace the data at the national level. At the national level, there will be no transaction level editing.

Various data quality checks will be performed during the ETL process to validate business rules identified later in this document. QC reports will be provided to each state and it is recommended that they be reviewed by each state and subsequent corrections should be made at the SHPO and originating BLM state/field offices.

b. Monitoring Level Data Quality

Geographic Information System (GIS) Specialists, and State Cultural Resource Data Stewards and Representatives should both review the data for quality upon entry and completion during annual reviews. If the CRM data is placed into replication, various data quality checks will be performed to validate business rules identified later in this document. It is recommended that the QC reports be reviewed by each state and subsequent corrections should be made at the SHPO and originating BLM state/field office.

c. Certification

Initial data certification will be done after the initial ETL process is applied to all participating states' data and the data is aggregated into a national dataset. Subsequent data certifications may be necessary as the dataset develops and matures during the initial years of adoption. Recertification is recommended if significant changes are made to the ETL process, after state data cleanup efforts or anytime the process changes such that the data should be reviewed for accuracy and completeness. The goal is to reach a steady state where the Quality Assurance (QA)/QC processes necessary to maintain data quality and accuracy are in place such that data recertification is not necessary except in the case of data standard updates.

Accuracy Requirements

a. Location

This data is obtained from sources outside the BLM, so there are no specific accuracy requirements. The information about the accuracy should be collected from the entity responsible for the maintenance of the data if it is available.

b. Data Content

The expected overall accuracy (correctness) of the non-spatial data values in the required attribute fields should be 95%. This accuracy is a target and is dependent on data from a variety of sources. Each section of attributes may be measured separately but the overall accuracy target is 95% for the data values. The NOC performs QC checks on a regular basis that include QA/QC checks.

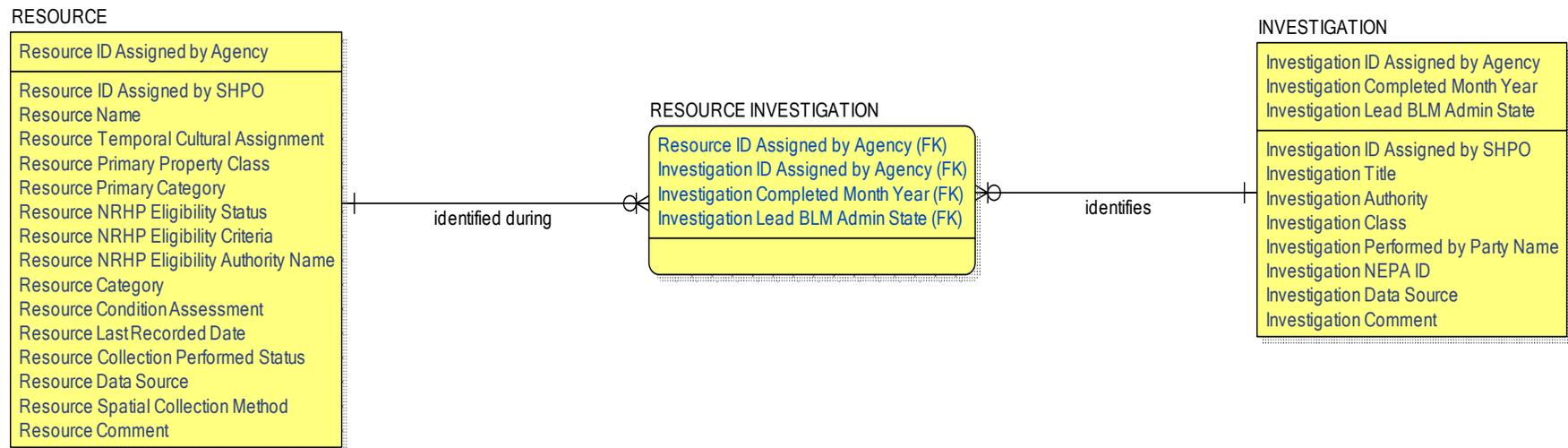
Relationship to Other Standards and/or Systems

Areas of Critical Environmental Concern (ACEC), Land Use Plans (LUP), Recreation (RECS), National Landscape Conservation System (NLCS)

DATA CHARACTERISTICS

Each data standard is to be supported by a data model which includes entities and relationships between entities. The logical data model (LDM) with its associated data dictionary is included in Appendix B.

Conceptual Data Model



Conceptual Data Dictionary

The following is a list of the data elements and associated metadata relevant to the data standard. Design considerations for these data elements are included in the implementation guidelines. Naming conventions can be found in the BLM Manual 8100.

RESOURCE

Logical Data Element Name	Logical Data Type (Size)	Physical Data Element Alias	Physical Attribute Name	Req'd in Physical	Key*	Logical Data Element Definition
RESOURCE AGENCY IDENTIFIER	Char(50)	Agency Resource Identifier	RSRCE_ID_AGENCY	Y	PK	The alphanumeric identifier for the resource assigned by the managing agency. This identifier is usually assigned by the BLM at the Field Office level. However, the ID may also be assigned by consultants as a working/temporary identifier.
RESOURCE ID ASSIGNED BY SHPO IDENTIFIER	Char(50)	SHPO Database Resource Identifier	RSRCE_SHPO_ID	Y	PK	The BLM administrative state assigned identifier for the resource.
RESOURCE NAME	Char(255)	Resource Name	RSRCE_NM	N		The name given to the cultural resource.
RESOURCE TEMPORAL CULTURAL ASSIGNMENT TEXT	Char(50)	Resource Temporal Cultural Assignment	RSRCE_TMPRL_CLTRL_ASSIGNMNT	Y		The general age category and cultural affiliation of the resource.
PROPERTY CLASSIFICATION NAME	Char(30)	Resource Primary Property Class	RSRCE_PRIMARY_PRPTY_CL	Y		The primary classification type of the property which conveys management implications.
RESOURCE CATEGORY NAME	Char(30)	Resource Primary Category Name	RSRCE_PRIMARY_CTGRY_NM	Y		The primary, most prevalent general purpose or pattern of use that created the resource. May be known as "site type".
LEGAL STATUS NAME	Char(50)	Resource NRHP	RSRCE_NRHP_ELGBLE_STTS	Y		Indicates if during the most recent evaluation, the resource was determined to be eligible for listing on the National Register of Historic Places (NRHP).

Logical Data Element Name	Logical Data Type (Size)	Physical Data Element Alias	Physical Attribute Name	Req'd in Physical	Key*	Logical Data Element Definition
		Eligibility Status				
LEGAL STATUS NAME	Char(35)	NRHP Eligibility Criteria	RSRCE_NRHP_ELGBLE_CRTRA	Y		The criteria under which the determination of NRHP eligibility was made.
PARTY IDENTIFIER	Char(35)	Resource NRHP Eligibility Authority Name	RSRCE_NRHP_ELGBLE_AUTH_NM	N		The authority or process under which the NRHP eligibility was made. Provides information about the level of trust that can be placed in the NRHP eligibility determination.
CONDITION ASSESSMENT NAME	Char(50)	Resource Condition Assessment	RSRCE_CNDTN_ASSMNT	Y		The resource condition in terms of its natural or unnatural degradation.
RESOURCE RECORDED DATE	Char (4)	Resource Last Recorded Date	RSRCE_LAST_RCRD_DT	Y		The calendar year in which the resource was last recorded or updated.
N/A	Char(20)	Resource Collection Performed Status	RSRCE_CLCTN_PRFRM_STS	Y		Indicates if a documented collection has ever been performed on this resource.
RESOURCE DATA SOURCE NAME	Char(25)	Resource Data Source	RSRCE_DATA_SRCE	Y		The source of the digital data from which the information about this resource was taken.
N/A	Char(30)	Resource Spatial Collection Method	RSRCE_SPTL_CLCTN_MTHD	Y		The method or manner in which the spatial data regarding the location of the resource was collected.

Logical Data Element Name	Logical Data Type (Size)	Physical Data Element Alias	Physical Attribute Name	Req'd in Physical	Key*	Logical Data Element Definition
RESOURCE COMMENT TEXT	Char(2000)	Resource Comments	RSRCE_CMT	N		A comment field that allows the user to provide more information about the site, artifacts or features.

INVESTIGATION

Logical Data Element Name	Logical Data Type (Size)	Physical Data Element Alias	Physical Attribute Name	Req'd in Physical	Key *	Logical Data Element Definition
INVESTIGATION AGENCY IDENTIFIER	Char(50)	Agency Investigation Unique Identifier	INVSTGTN_AGCY_ID	Y	PK	The identifying alphanumeric for the investigation assigned by the managing agency. This number is usually assigned by the BLM at the Field Office level. However, the number may also be assigned by consultants as a working or temporary identifier. If a resource has multiple managers, there may be more than one agency number.
INVESTIGATION COMPLETED DATE	Char(10)	Investigation Completed Month/Year	INVSTGTN_CMPLTE_MONTH_YR	Y	PK	The month and year in which the inventory was completed.
INVESTIGATION LEAD BLM ADMINISTRATIVE STATE	Char(2)	Investigation Lead BLM Administrative State	INVSTGTN_LEAD_BLM_ADMIN_ST	Y	PK	Lead BLM administrative state having primary responsibility for the investigation.
INVESTIGATION TITLE NAME	Char(255)	Investigation Title	INVSTGTN_TITLE_NM	Y		The name by which the investigation is known.
INVESTIGATION SHPO IDENTIFIER	Char(50)	SHPO Database Investigation Identifier	INVSTGTN_SHPO_ID	Y	PK	The identifier of the investigation as assigned by BLM administrative state.

Logical Data Element Name	Logical Data Type (Size)	Physical Data Element Alias	Physical Attribute Name	Req'd in Physical	Key *	Logical Data Element Definition
INVESTIGATION AUTHORITY NAME	Char(50)	Investigation Authority	INVSTGTN_AUTH	Y		The authority or framework under which the investigation occurred.
INVESTIGATION CLASS NAME	Char(30)	Investigation Class	INVSTGTN_CL	Y		The type of investigation completed. Indicates the level of detail and complexity of the investigation. Each state defines its definition of the values.
PARTY IDENTIFIER	Char(50)	Investigation Authority	INVSTGTN_PRFRM_PARTY_NM	Y	FK	The name of the contractor, company, agency or office that performed the investigation.
INVESTIGATION NEPA IDENTIFIER	Char(50)	Investigation NEPA Identifier	INVSTGTN_NEPA_ID	N		The identifier of the National Environmental Policy Act (NEPA) document which triggered the investigation or the Cultural Resources Management Plan that generated the investigation.
INVESTIGATION DATA SOURCE NAME	Char(25)	Investigation Data Source	INVSTGTN_DATA_SRCE	Y		The source of the digital data from which the information about this inventory was taken. Intended to show if the data came from the legacy SHPO database, an external source or from within the BLM once the new system is put into place.
INVESTIGATION COMMENT TEXT	Char(2000)	Investigation Comments	INVSTGTN_CMT	N		A comment field that allows the user to provide more information about the investigation.

RESOURCE INVESTIGATION

Logical Data Element Name	Logical Data Type (Size)	Physical Data Element Alias	Physical Attribute Name	Req'd in Physical	Key *	Logical Data Element Definition
RESOURCE AGENCY IDENTIFIER	Char(50)	Agency Resource Identifier	RSRCE_AGCY_ID	Y	FK	The alphanumeric identifier for the resource assigned by the managing agency. This identifier is usually assigned by the BLM at the Field Office level. However, the ID may also be assigned by consultants as a working/temporary identifier.
RESOURCE SHPO IDENTIFIER	Char(50)	SHPO Database Resource Identifier	RSRCE_SHPO_ID	Y	FK	The BLM administrative state assigned identifier for the resource.
INVESTIGATION AGENCY IDENTIFIER	Char(50)	Agency Investigation Unique Identifier	INVSTGTN_AGCY_ID	Y	FK	The identifying alphanumeric for the investigation assigned by the managing agency. This number is usually assigned by the BLM at the Field Office level. However, the number may also be assigned by consultants as a working or temporary identifier. If a resource has multiple managers, there may be more than one agency number.
INVESTIGATION LEAD BLM ADMINISTRATIVE STATE	Char(2)	Investigation Lead BLM Administrative State	INVSTGTN_LEAD_BLM_ADMIN_ST	Y	FK	Lead BLM Administrative state having primary responsibility for the investigation.
INVESTIGATION COMPLETED DATE	Char(10)	Investigation Completed Month/Year	INVSTGTN_C MPLTE_MONTH_YR	Y	FK	The month and year in which the inventory was completed.

BUSINESS RULES

Documentation about the Business Rules is available on the [BLM National Data Standards SharePoint](#). Instructions are provided below for navigating to the Business Rules document on this SharePoint page.

For further details about domains specific to this standard, please refer to the document entitled “CRM_Business_Rules”:

- Established Data Standards and Datasets > Development Type: Data Standard > Project (Standard): CRM-Cultural Resource Management > Business Rules

OTHER MATERIAL

Supporting material that aids in the understanding or use of the data standard:

- 1) http://en.wikipedia.org/wiki/National_Register_of_Historic_Places_property_types
- 2) http://en.wikipedia.org/wiki/National_Register_of_Historic_Places
- 3) <https://www.nps.gov/subjects/nationalregister/index.htm>
- 4) <http://www.nps.gov/nr/publications/index.htm>
- 5) <http://www.nps.gov/nr/regulations.htm>
- 6) [How to Apply the National Register Criteria for Evaluation](#)," (PDF), National Register Bulletins, *National Park Service*.
- 7) “Creating a Cultural Resources Metadata Standard for the Western United States”, Eric E. Ingbar, et al., March 1999, U.S. Geological Survey, Federal Geographic Data Committee
- 8) BLM Manual 8100, The Foundations for Managing Cultural Resources.
- 9) Prehistoric and Historic Resource Category Types sourced from “Cultural Resource Model and Class III Inventory for Owyhee Land Exchange” (pg. 25-29, 34)
- 10) NM Cultural Resources Information System (NMCRIS):
<http://www.nmhistoricpreservation.org/assets/files/arms/NMCRISUserGuide20131116.pdf>
- 11) WO IM 2003-149 Data Management Roles and Responsibilities

APPENDIX A: BLM DATA FRAMEWORK

The BLM Taxonomy includes categories of information that support the mission of the Bureau. According to the United States Department of the Interior Data Standardization Procedures, April 2006, one or more categories must be identified for a data standard. Select each of the 2nd Level Taxonomy Categories that apply.

Major Taxonomy	2 nd Level Taxonomy	Yes/No	Examples
Activity	Mission Activity	No	Planning, Management Action, Authorized Use, Fire
	Operational Activity	No	Budget, Human Resources, Public Affairs
Natural / Cultural Resource	Climate	No	
	Cultural	Yes	Archaeology, Paleontology, Tribal, Native American
	Fauna	No	Habitat
	Flora	No	Vegetation, Forest
	Geology	No	
	Mineral	No	Fluid, Solid
	Soil	No	
	Visual	No	Inventory
	Water	No	
Lands & Realty	Land	No	
	Right / Easement	No	
Asset (Resource)	Mission Asset	No	Recreation Facilities
	Operational Asset	No	Employees, Contractors, Equipment

BLM Keywords for This Data Standard

The Thesaurus of BLM Keywords provides a common set of terms to tag BLM data and will be applied to all dataset metadata. These high-level keywords improve search and discovery of BLM data.

For BLM keywords, please refer to the document entitled “BLM Keyword Thesaurus vers 1.2:

- [Washington Office Data Management SharePoint](#) > Reference Materials > Metadata >

For ISO keywords, please refer to PDF entitled “Metadata QuickGuide”, pg. 8, on the Federal Geographic Data Committee (FGDC) website:

- <https://www.fgdc.gov/metadata/documents/MetadataQuickGuide.pdf>

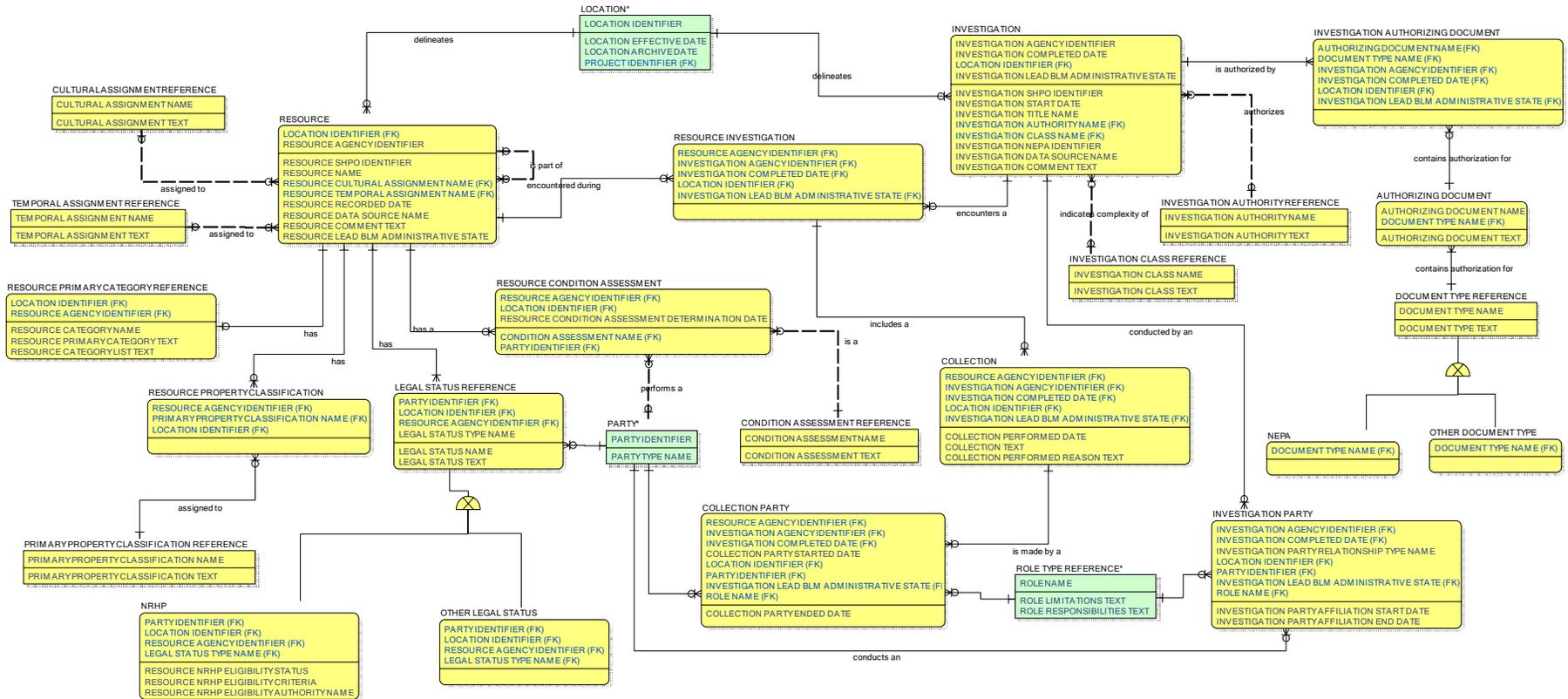
BLM Keywords: Management, Anthropology

ISO Keywords: planning Cadastre, society, structure

APPENDIX B: LOGICAL DATA MODEL

The entities in green are not part of this standard and do not need to be reviewed. They are provided to show context and provide relationships to other data only. To improve viewing, zoom to 200%; to print a larger version, use the 11"x17" model on the same webpage as this document.

Legend: See Appendix C



Logical Data Dictionary

This lists entities and attributes (in alphabetical order, not hierarchical or chronological order) in the logical data model shown above.

Entity(s) of Model "BLM Enterprise Logical Model"	
Entity Name	Entity Definition
AUTHORIZING DOCUMENT	The document which is produced as the result to comply with a regulatory process. Examples might include NEPA document.
COLLECTION	The action of gathering artifacts for a museum collection.
COLLECTION PARTY	The relationship between a collection and the party.
CONDITION ASSESSMENT REFERENCE	The determination of a resource physical condition.
CULTURAL ASSIGNMENT REFERENCE	The assignment of something or someone in relation to the ideas, customs, and social behavior of a society.
DOCUMENT TYPE REFERENCE	The types of documents that exist. Examples include NEPA.
INVESTIGATION	An event or activity resulting in the identification, documentation, restoration, rehabilitation or preservation of cultural properties. Investigations may, or may not (in the case of "negative" identification efforts), relate to one or more cultural properties. Common examples of investigations include inventory, excavation, documentation, and restoration activities.
INVESTIGATION AUTHORITY REFERENCE	The authority or framework under which the investigation occurred.
INVESTIGATION AUTHORIZING DOCUMENT	The relationship between the documents under which the investigation was conducted.
INVESTIGATION CLASS REFERENCE	The type of investigation completed. Indicates the level of detail and complexity of the investigation. Each state defines its definition of the values.
INVESTIGATION PARTY	The relationship between a party and the investigation which indicates their role in the investigation. Examples: a party may physically perform the investigation, another party may be in charge of/lead the investigation.
LEGAL STATUS REFERENCE	The standing of things or persons in a society according to law.
LOCATION*	A defined place that requires a way to locate it by some means. Note: Entities linked to Location have the potential for a geospatial aspect. *APPROVED ENTITY: BLM
NEPA	A document created to document the decisions made in support of National Environmental Policy Act (NEPA).
NRHP	National Register of Historic Places (NRHP) - The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.
OTHER DOCUMENT TYPE	All of the document types, except NEPA.
OTHER LEGAL STATUS	The standing of things or persons in a society according to law exclusive of the National Register of Historic Places (NRHP).
PARTY*	General information (the name) about the individuals and organizations (agencies, companies, etc.) which interact with the BLM. *APPROVED ENTITY: BLM
PRIMARY PROPERTY CLASSIFICATION REFERENCE	The primary classification type of the property which conveys management implications.
RESOURCE	A resource shows the historic property constituting the smallest unit of management considered by the NRHP; it may be an individual building, structure, object or site.
RESOURCE CONDITION ASSESSMENT	The relationship between a resource and its physical condition.
RESOURCE INVESTIGATION	The relationship between resources and investigations. This is the record of a resource as it was during the investigation and vice-versa.
RESOURCE PRIMARY CATEGORY REFERENCE	The primary, most prevalent general purpose or pattern of use that created the resource. May also be known as "site type".
RESOURCE PROPERTY CLASSIFICATION	The relationship between a resource and the property classification.
ROLE TYPE REFERENCE*	The domain of valid values of roles for an individual or organization. *APPROVED ENTITY: BLM
TEMPORAL ASSIGNMENT REFERENCE	The general age category of the resource.

Attribute(s) of Entity "AUTHORIZING DOCUMENT"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
AUTHORIZING DOCUMENT NAME	VARCHAR(25)	Not Null	false	true	The name which identifies the document which authorized the action.
AUTHORIZING DOCUMENT TEXT	VARCHAR(100)	Null	false	false	The text which describes the authorizing document name and provides clarity to improve the ability to pick the appropriate value.
DOCUMENT TYPE NAME	VARCHAR(25)	Not Null	true	true	The name of the document type.

Attribute(s) of Entity "COLLECTION"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
COLLECTION PERFORMED DATE	DATE	Null	false	false	The date on which the collection occurred.
COLLECTION PERFORMED REASON TEXT	CHAR(20)	Null	false	false	The text of the reason why a collection occurred.
COLLECTION TEXT	CHAR(50)	Null	false	false	The text which describes the artifact and how it is represented in the collection.
INVESTIGATION AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the investigation assigned by the managing agency. This identifier is usually assigned by the BLM at the Field Office level. However, the number may also be assigned by consultants as a working or temporary identifier. If a resource has multiple managers, there may be more than one agency number.
INVESTIGATION COMPLETED DATE	DATE	Not Null	true	true	The date on which the investigation was completed.
INVESTIGATION LEAD BLM ADMINISTRATIVE STATE	CHAR(2)	Not Null	true	true	An administrative unit that identifies the state or geographic area which has administrative jurisdiction over lands and cases. The land for a case may not be physically located in the associated administrative state. Only those states that are BLM administrative states are in the domain for this entity. Example: Montana is the administrative state for public lands in the geographic states of Montana, South and North Dakota.
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
RESOURCE AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the resource assigned by the managing agency.

Attribute(s) of Entity "COLLECTION PARTY"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
COLLECTION PARTY ENDED DATE	DATE	Null	false	false	The date on which the relationship between the collection and the party ENDED. This might refer to the date the collection was transferred to another party, etc.
COLLECTION PARTY STARTED DATE	DATE	Not Null	false	true	The date on which the relationship between the collection and the party began. This might refer to the date the person performed the collection, the date on which a collection was transferred to another party, etc.
INVESTIGATION AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the investigation assigned by the managing agency. This identifier is usually assigned by the BLM at the Field Office level. However, the number may also be assigned by consultants as a working or temporary identifier. If a resource has multiple managers, there may be more than one agency number.
INVESTIGATION COMPLETED DATE	DATE	Not Null	true	true	The date on which the investigation was completed.
INVESTIGATION LEAD BLM ADMINISTRATIVE STATE	CHAR(2)	Not Null	true	true	An administrative unit that identifies the state or geographic area which has administrative jurisdiction over lands, and cases. The land for a case may not be physically located in the associated administrative state. Only those states that are BLM administrative states are in the domain for this entity. Example: Montana is the administrative state for public lands in the geographic states of Montana, South and North Dakota.
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
PARTY IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
RESOURCE AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the resource assigned by the managing agency.
ROLE NAME	CHAR(20)	Not Null	true	true	The name of the role that the individual or organization plays in relationship to another entity or function.

Attribute(s) of Entity "CONDITION ASSESSMENT REFERENCE"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
CONDITION ASSESSMENT NAME	CHAR(25)	Not Null	false	true	The name of the value which indicates the condition of a resource determined during an assessment.
CONDITION ASSESSMENT TEXT	CHAR(100)	Null	false	false	The text which describes the condition assessment name and provides clarity to improve the ability to pick the appropriate value.

Attribute(s) of Entity "CULTURAL ASSIGNMENT REFERENCE"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
CULTURAL ASSIGNMENT NAME	CHAR(50)	Not Null	false	true	The name of the value which indicates the culture of someone or something in relation to the ideas, customs and social behavior of a society.
CULTURAL ASSIGNMENT TEXT	CHAR(50)	Not Null	false	false	The text which describes the cultural assignment name and provides clarity to improve the ability to pick the appropriate value.

Attribute(s) of Entity "DOCUMENT TYPE REFERENCE"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
DOCUMENT TYPE NAME	VARCHAR(25)	Not Null	false	true	The name of the document type.
DOCUMENT TYPE TEXT	VARCHAR (100)	Null	false	false	The text which describes the document type name and provides clarity to improve the ability to pick the appropriate value.

Attribute(s) of Entity "INVESTIGATION"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
INVESTIGATION AGENCY IDENTIFIER	CHAR(50)	Not Null	false	true	The identifier for the investigation assigned by the managing agency. This identifier is usually assigned by the BLM at the Field Office level. However, the number may also be assigned by consultants as a working or temporary identifier. If a resource has multiple managers, there may be more than one agency number.
INVESTIGATION AUTHORITY NAME	CHAR(50)	Not Null	true	false	The name of the authority or framework under which the investigation occurred.
INVESTIGATION CLASS NAME	CHAR(30)	Not Null	true	false	The name of the class or type of investigation completed. The level of detail and/or complexity of an investigation can generally be inferred from the investigation type or classification.
INVESTIGATION COMMENT TEXT	CHAR(2000)	Null	false	false	The text that contains the comments that allow the user to provide more information about the investigation.
INVESTIGATION COMPLETED DATE	DATE	Not Null	false	true	The date on which the investigation was completed.
INVESTIGATION DATA SOURCE NAME	CHAR(25)	Not Null	false	false	The name that represents the source of the digital data from which the information about this inventory was taken.
INVESTIGATION LEAD BLM ADMINISTRATIVE STATE	CHAR(2)	Not Null	false	true	An administrative unit that identifies the state or geographic area which has administrative jurisdiction over lands and cases. The land for a case may not be physically located in the associated administrative state. Only those states that are BLM administrative states are in the domain for this entity. Example: Montana is the administrative state for public lands in the geographic states of Montana, South and North Dakota.
INVESTIGATION NEPA IDENTIFIER	CHAR(50)	Null	false	false	The identifier that represents the NEPA document which triggered the investigation or the Cultural Resources Management Plan that generated the investigation.
INVESTIGATION SHPO IDENTIFIER	CHAR	Null	false	false	The identifier of the investigation as assigned by the State Historical Preservation Office (SHPO).
INVESTIGATION START DATE	DATE	Null	false	false	The date on which the investigation commenced.
INVESTIGATION TITLE NAME	CHAR(255)	Null	false	false	The name by which the investigation is known.
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.

Attribute(s) of Entity "INVESTIGATION AUTHORITY REFERENCE"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
INVESTIGATION AUTHORITY NAME	CHAR(50)	Not Null	false	true	The name of the authority or framework under which the investigation occurred.
INVESTIGATION AUTHORITY TEXT	CHAR(50)	Null	false	false	The text which describes the investigation authority name and provides clarity to improve the ability to pick the appropriate value.

Attribute(s) of Entity "INVESTIGATION AUTHORIZING DOCUMENT"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
AUTHORIZING DOCUMENT NAME	VARCHAR(25)	Not Null	true	true	The name which identifies the document which authorized the action.
DOCUMENT TYPE NAME	VARCHAR(25)	Not Null	true	true	The name of the document type.
INVESTIGATION AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the investigation assigned by the managing agency. This identifier is usually assigned by the BLM at the Field Office level. However, the number may also be assigned by consultants as a working or temporary identifier. If a resource has multiple managers, there may be more than one agency number.
INVESTIGATION COMPLETED DATE	DATE	Not Null	true	true	The date on which the investigation was completed.
INVESTIGATION LEAD BLM ADMINISTRATIVE STATE	CHAR(2)	Not Null	true	true	An administrative unit that identifies the state or geographic area which has administrative jurisdiction over lands, and cases. The land for a case may not be physically located in the associated administrative state. Only those states that are BLM administrative states are in the domain for this entity. Example: Montana is the administrative state for public lands in the geographic states of Montana, South and North Dakota.
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.

Attribute(s) of Entity "INVESTIGATION CLASS REFERENCE"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
INVESTIGATION CLASS NAME	CHAR(30)	Not Null	false	true	The name which identifies the type of investigation completed. An inference about the level of detail and complexity of the investigation can be made based on the investigation class.
INVESTIGATION CLASS TEXT	CHAR(30)	Null	false	false	The text which describes the investigation class name and provides clarity to improve the ability to pick the appropriate value.

Attribute(s) of Entity "INVESTIGATION PARTY"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
INVESTIGATION AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the investigation assigned by the managing agency. This identifier is usually assigned by the BLM at the Field Office level. However, the number may also be assigned by consultants as a working or temporary identifier. If a resource has multiple managers, there may be more than one agency number.
INVESTIGATION COMPLETED DATE	DATE	Not Null	true	true	The date on which the investigation was completed.
INVESTIGATION LEAD BLM ADMINISTRATIVE STATE	CHAR(2)	Not Null	true	true	An administrative unit that identifies the state or geographic area which has administrative jurisdiction over lands, and cases. The land for a case may not be physically located in the associated administrative state. Only those states that are BLM administrative states are in the domain for this entity. Example: Montana is the administrative state for public lands in the geographic states of Montana, South and North Dakota.
INVESTIGATION PARTY AFFILIATION END DATE	DATE	Null	false	false	The date on which the relationship ended between the party and the investigation.
INVESTIGATION PARTY AFFILIATION START DATE	DATE	Null	false	false	The date on which the relationship started between the party and the investigation.
INVESTIGATION PARTY RELATIONSHIP TYPE NAME	CHAR(100)	Not Null	false	true	The name which identifies the type of relationship that the party has with respect to the investigation. Examples include, but are not limited to Leads, Performs, Assists, and Funds.
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
PARTY IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
ROLE NAME	CHAR(20)	Not Null	true	true	The name of the role that the individual or organization plays in relationship to another entity or function.

Attribute(s) of Entity "LEGAL STATUS REFERENCE"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
LEGAL STATUS NAME	CHAR(50)	Not Null	false	false	The name which identifies the legal standing.
LEGAL STATUS TEXT	CHAR(2000)	Null	false	false	The text which describes the standing of things or persons in a society according to law and provides clarity to improve the ability to pick the appropriate value.
LEGAL STATUS TYPE NAME	CHAR(50)	Not Null	false	true	The name which identifies the type of standing of things or persons in a society according to law.
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
PARTY IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
RESOURCE AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the resource assigned by the managing agency.

Attribute(s) of Entity "LOCATION*"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
LOCATION ARCHIVE DATE	DATE	Null	false	false	The date which is the calendar year, month, and day when the position of the Location is considered no longer valid but has historical value.
LOCATION EFFECTIVE DATE	DATE	Not Null	false	false	The date which is the calendar year, month, and day when the position of the Location was produced.
LOCATION IDENTIFIER	CHAR	Not Null	false	true	The designed primary key that will uniquely identify a single occurrence of the entity.
PROJECT IDENTIFIER	CHAR(12)	Null	true	false	The designed primary key that will uniquely identify a single occurrence of the entity.

Attribute(s) of Entity "NEPA"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
DOCUMENT TYPE NAME	VARCHAR(25)	Not Null	true	true	The name of the document type.

Attribute(s) of Entity "NRHP"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
LEGAL STATUS TYPE NAME	CHAR(50)	Not Null	true	true	The name which identifies the type of standing of things or persons in a society according to law.
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
PARTY IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
RESOURCE AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the resource assigned by the managing agency.
RESOURCE NRHP ELIGIBILITY AUTHORITY NAME	CHAR(35)	Null	false	false	The name that represents the authority or process under which the NHRP eligibility was made.
RESOURCE NRHP ELIGIBILITY CRITERIA	CHAR(35)	Null	false	false	The criteria under which the determination of NRHP eligibility was made.
RESOURCE NRHP ELIGIBILITY STATUS	CHAR(12)	Null	false	false	The status that indicates if, during the most recent evaluation, the resource was determined to be eligible for listing on the National Register of Historic Places (NRHP).

Attribute(s) of Entity "OTHER DOCUMENT TYPE"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
DOCUMENT TYPE NAME	VARCHAR(25)	Not Null	true	true	The name of the document type.

Attribute(s) of Entity "OTHER LEGAL STATUS"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
LEGAL STATUS TYPE NAME	CHAR(50)	Not Null	true	true	The name which identifies the type of standing of things or persons in a society according to law.
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
PARTY IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
RESOURCE AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the resource assigned by the managing agency.

Attribute(s) of Entity "PARTY*"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
PARTY IDENTIFIER	CHAR	Not Null	false	true	The designed primary key that will uniquely identify a single occurrence of the entity.
PARTY TYPE NAME	CHAR(12)	Not Null	false	false	The name that categorizes whether this is a subtype of individual or organization.

Attribute(s) of Entity "PRIMARY PROPERTY CLASSIFICATION REFERENCE"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
PRIMARY PROPERTY CLASSIFICATION NAME	CHAR(30)	Not Null	false	true	The name of the classification of the primary property which conveys management implications.
PRIMARY PROPERTY CLASSIFICATION TEXT	CHAR(2000)	Null	false	false	The text which describes the primary property classification name and provides clarity to improve the ability to pick the appropriate value.

Attribute(s) of Entity "RESOURCE"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
RESOURCE AGENCY IDENTIFIER	CHAR(50)	Not Null	false	true	The identifier for the resource assigned by the managing agency.
RESOURCE COMMENT TEXT	CHAR(2000)	Null	false	false	The text that describes the comments that allow the user to provide more information about the resource.
RESOURCE CULTURAL ASSIGNMENT NAME	CHAR(50)	Not Null	true	false	The name of the value which indicates the culture of someone or something in relation to the ideas, customs and social behavior of a society.
RESOURCE DATA SOURCE NAME	CHAR(25)	Not Null	false	false	The name that represents the source of the digital data from which the information about this resource was taken.
RESOURCE LEAD BLM ADMINISTRATIVE STATE	CHAR(2)	Not Null	false	false	An administrative unit that identifies the state or geographic area which has administrative jurisdiction over lands, and cases. The land for a case may not be physically located in the associated administrative state. Only those states that are BLM administrative states are in the domain for this entity. Example: Montana is the administrative state for public lands in the geographic states of Montana, South and North Dakota.
RESOURCE NAME	CHAR(255)	Null	false	false	The formal name of an individual building, structure, object or site.
RESOURCE RECORDED DATE	DATE	Null	false	false	The date on which the resource was identified.
RESOURCE SHPO IDENTIFIER	CHAR(50)	Null	false	false	The identifier of the resource as assigned by the State Historical Preservation Office (SHPO).
RESOURCE TEMPORAL ASSIGNMENT NAME	CHAR(50)	Not Null	true	false	The name of the value which indicates the age category of the resource.

Attribute(s) of Entity "RESOURCE CONDITION ASSESSMENT"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
CONDITION ASSESSMENT NAME	CHAR(25)	Not Null	true	false	The name of the value which indicates the condition of a resource determined during an assessment.
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
PARTY IDENTIFIER	CHAR	Null	true	false	The designed primary key that will uniquely identify a single occurrence of the entity.
RESOURCE AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the resource assigned by the managing agency.
RESOURCE CONDITION ASSESSMENT DETERMINATION DATE	DATE	Not Null	false	true	The date on which the determination of the condition of the resource occurred.

Attribute(s) of Entity "RESOURCE INVESTIGATION"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
INVESTIGATION AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the investigation assigned by the managing agency. This identifier is usually assigned by the BLM at the Field Office level. However, the number may also be assigned by consultants as a working or temporary identifier. If a resource has multiple managers, there may be more than one agency number.
INVESTIGATION COMPLETED DATE	DATE	Not Null	true	true	The date on which the investigation was completed.
INVESTIGATION LEAD BLM ADMINISTRATIVESTATE	CHAR(2)	Not Null	true	true	An administrative unit that identifies the state or geographic area which has administrative jurisdiction over lands, and cases. The land for a case may not be physically located in the associated administrative state. Only those states that are BLM administrative states are in the domain for this entity. Example: Montana is the administrative state for public lands in the geographic states of Montana, South and North Dakota.
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
RESOURCE AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the resource assigned by the managing agency.

Attribute(s) of Entity "RESOURCE PRIMARY CATEGORY REFERENCE"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
RESOURCE AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the resource assigned by the managing agency.
RESOURCE CATEGORY LIST TEXT	CHAR(2000)	Null	false	false	The category list that contains a non-standard list of values that are interpreted to determine a value for Resource Primary Category text field.
RESOURCE CATEGORY NAME	CHAR(30)	Not Null	false	false	The name of the primary purpose or pattern of use that created the resource.
RESOURCE PRIMARY CATEGORY TEXT	CHAR(2000)	Null	false	false	The domain of values which describe the resource primary category name and provides clarity to improve the ability to pick the appropriate value.

Attribute(s) of Entity "RESOURCE PROPERTY CLASSIFICATION"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
LOCATION IDENTIFIER	CHAR	Not Null	true	true	The designed primary key that will uniquely identify a single occurrence of the entity.
PRIMARY PROPERTY CLASSIFICATION NAME	CHAR(30)	Not Null	true	true	The name of the classification of the primary property which conveys management implications.
RESOURCE AGENCY IDENTIFIER	CHAR(50)	Not Null	true	true	The identifier for the resource assigned by the managing agency.

Attribute(s) of Entity "ROLE TYPE REFERENCE*"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
ROLE LIMITATIONS TEXT	CHAR(200)	Not Null	false	false	A description of any limitations imposed on the responsibilities.
ROLE NAME	CHAR(20)	Not Null	false	true	The name of the role that the individual or organization plays in relationship to another entity or function.
ROLE RESPONSIBILITIES TEXT	CHAR(200)	Not Null	false	false	A general description of responsibilities of this role.

Attribute(s) of Entity "TEMPORAL ASSIGNMENT REFERENCE"					
Logical Attribute Name	Datatype/Size	Nullability	Is FK	Is PK	Attribute Definition
TEMPORAL ASSIGNMENT NAME	CHAR(50)	Not Null	false	true	The name of the value which indicates the age category of the resource.
TEMPORAL ASSIGNMENT TEXT	CHAR(50)	Not Null	false	false	The text which describes the age category and provides clarity to improve the ability to pick the appropriate value for the resource.

Location Logical Data Model

The data model that provides information on standard attributes for any type of location (either a description or a geospatial reference) and feature level metadata. It is **not part of this data standard** and does not need to be reviewed for the data standard, merely provides more information and relationships.

http://teamspace/sites/blmnds/Standards%20Support%20Information/Location_LDM_and_DataDictionaryReport_ERwinFormat.docx

The Location LDM and Data Dictionary document is also available on the [BLM National Data Standards SharePoint](#). Instructions are provided below for navigating to the Location LDM and Data Dictionary document on this SharePoint page.

For further details about domains specific to this standard, please refer to the document entitled “Location LDM and Data Dictionary Report for use in DSRs”:

- Standards Support Information > Document Type: Reference > Subject: Logical Modeling

APPENDIX C: READING A LOGICAL DATA MODEL

For information on reading a logical data model, please refer to the document entitled “Appendix C Diagram - How to Read a Logical Data Model for DSRs”:

- Standards Support Information > Document Type: Reference > Subject: Logical Modeling

APPENDIX D: BUSINESS QUESTIONS AND NEEDS

Note: Conceptual data element names are used in the solutions for each question. Please refer to Data Elements chart below to translate conceptual data element names to physical attribute names. Values identified in the solutions below are defined in the Domain Document and as such are not part of the data standard. The values may change in the future without requiring an update of this data standard.

#	QUESTION or MAP NEED	SOLUTION
1	Has a collection been done for resource <XXX>?	<p>If a collection has been performed for a particular resource, the Resource Collection Performed Status attribute will contain a value of “Yes” and the Resource Name will contain the value of “XXX”.</p> <p>In the physical database, this question is answered by querying for the resources where Resource Name = ‘XXX’ and Resource Collection Performed Status = ‘Yes’.</p>

#	QUESTION or MAP NEED	SOLUTION
2	When was the information about Resource 'XYZ' last reported?	Resource Name = 'XYZ' and Resource Last Recorded Date
3	Is there a public land statistics report and if so, does it get any information from this dataset?	Yes, information for the Preserve America Report could be pulled from this data standard.
4	Would this dataset be used to provide data for the Secretary's report?	Yes. The following are of value in completing the annual report to the Secretary of the Interior: total number of resources, total number of eligible resources, number of special status resources, number of investigations, and number of acres investigated.
5	From a planning perspective, does this resource potentially require a difficult or expensive alternative? Is this resource a "showstopper"?	See attribute fields: Resource NHRP Eligibility Status, Resource NHRP Eligibility Criteria
6	Show the national historic landmark from this data standard? (NPS managed data, but not geospatial)	See attribute fields: Resource NHRP Eligibility Status, Resource NHRP Eligibility Criteria
7	How many investigations did agency <XXX> complete in <YYYY>?	See attribute fields: Investigation Agency ID, Investigation Completed Year
8	Who performed the investigation?	See attribute fields: Investigation Performing Party Name
9	Is this resource a high potential site or segment of a national historic trail?	National Historic Trail information is beyond the scope of this data standard. Please refer to the National Trails database or Ground Transportation Linear Features (GTLF) database.
10	What period of time does this site fit into at a high level?	See attribute fields: Resource General Temporal & Cultural Assignment
11	What was the main activity at this site?	See attribute fields: Resource Primary Category
12	What was the complexity of the site?	See attribute fields: Resource Primary Category
13	What is the potential for this site to yield information?	See attribute fields: Resource Primary Category
14	What is the diversity of artifacts expected at this site?	See attribute fields: Resource Primary Category

#	QUESTION or MAP NEED	SOLUTION
15	Under what authority or framework was the investigation undertaken?	See attribute fields: Investigation Authority Name
16	Which investigations were done under Section 106?	See attribute fields: Investigation Authority Name
17	Annual Report Question: Indicate total number of non-Section 106 data recovery occurred.	Investigation Authority Name does not equal 'Section 106', Investigation Completed Month Year BETWEEN <'09-YYYY'> AND <'08-YYYY'> Data recovery is indicated by investigation class.
18	Show me the Class I inventories.	Class I inventories are not within scope of the CRM data standard.
19	Where are Cultural priority areas for management consideration?	Resource Primary Property Class, Resource Special Status, NRHP Eligibility Status, geospatial info
20	Where have inventories/investigations occurred?	Information about investigations, including inventories, is available in the Investigations entity.
21	What sites or areas represent the most valuable cultural resources?	See attribute fields: Resource Primary Property Class, Resource NRHP Eligibility Status, Resource Special Status
22	Are valuable cultural resources likely to be impacted by an undertaking?	The spatial boundaries of resources can be overlaid with a spatial map of the undertaking boundaries. To determine if a resource is considered "valuable" is a subjective decision. The Resource Primary Property Class, Resource NRHP Eligibility Status, Resource NRHP Eligibility Criteria, and Resource Special Status attributes all provide information which may be used to determine if the resource is "valuable".
23	Where are Cultural predicted Abandoned Mining Lands (AML) priority areas for management consideration?	See attribute fields: Resource Primary Property Class, Resource Special Status, Resource NRHP Eligibility Status
24	What NRHP criterion is the resource eligible under?	See attribute fields: Resource NRHP Eligibility Criteria
25	From planning perspective, does this resource potentially require a difficult or expensive alternative? In other words is there a significant resource or resources that would present a potential barrier to a specific plan or strategic goal?	See attribute fields: Resource Special Status; Resource NRHP Eligibility Status; Resource NRHP Eligibility Criteria

#	QUESTION or MAP NEED	SOLUTION
26	Did the proposed land use action go forward and, if so, did the resource suffer destruction (with or without data recovery) under the action?	Resource Condition Assessment will provide the information regarding condition of the resource as of the Resource Last Recorded Date. Using the date of the land action, it would be possible to determine the archived version of the CRM dataset which would indicate the condition of the Resource prior to the land use action. Comparison of the Resource Condition Assessment from the archive and the most recent Resource Condition Assessment, assuming it has been updated since the land action completed, would provide the answer. If the Resource Condition Assessment has not been updated since the land action completed, it will not be possible to determine if the resource suffered damage through the use of this dataset.
27	What BLM project is the investigation associated with?	The BLM project an investigation is associated with is beyond the scope of this data standard. If populated, the Investigation NEPA ID might indicate the associated undertaking. However, this field is optional.
28	What is the spatial extent of the resource?	Refer to the geospatial information for the resource in question which may be identified using Resource Name, Resource Agency ID, and/or Resource State ID.
29	What is the spatial extent of the investigation?	Refer to the geospatial information for the investigation in question which may be identified using Investigation Title, Investigation Agency ID, and/or Investigation SHPO ID.
30	What is the current condition of Resource '123'?	Resource Name = '123' and Resource Condition Assessment
31	What is the resource's NRHP status?	See attribute fields: Resource NRHP Eligibility Status
32	Where can I find the items collected from Resource 'XYZ'?	The location of collections is not within scope of this data standard. This information is maintained in external sources. The BLM State Office and Field Office where the resource was found should have the information regarding which repository received the collected items. Each repository is required to report their holdings but the completeness of those reports is unknown.

#	QUESTION or MAP NEED	SOLUTION
33	Where can I find the items collected during Investigation 123?	<p>The location of collections is not within scope of this data standard. This information is maintained in external sources. The BLM State Office and Field Office where the resource was found should have the information regarding which repository received the collected items. Each repository is required to report their holdings but the completeness of those reports is unknown.</p> <p>However, the dataset will indicate if a collection was made on a resource identified during a particular investigation. From there, the user would contact the BLM state or field office to determine which repository received the collection.</p>
34	Are there any guidelines for naming Investigations?	No national naming conventions exist for cultural resource investigations titles and none were identified for this data standard except that the investigation title should be no more than 200 characters long.
35	How do I find information about Class I inventories?	Class I inventories are not within scope of this data standard. Information about Class I inventories can be found at the BLM State or Field Office where the investigation occurred.
36	<p>Annual Report: Section I. Inventory (8110): Question B</p> <p>Number of undertakings on BLM and non-BLM lands for which Class III field inventories were completed.</p>	<p>Use overlays to identify the investigations that happened on BLM and Non-BLM lands. Once you have that subset of information, isolate the records where a Class III inventory happened (stored in the Investigation Class attribute) and the investigation finished for the year in question (stored in Investigation Completed Month Year attribute).</p> <pre>SELECT COUNT (DISTINCT State Investigation ID) FROM investigations WHERE Investigation Class = 'Class III' AND Investigation Completed Year BETWEEN <'MM-YYYY'> AND <'MM-YYYY'>;</pre>
37	<p>Annual Report: Section I. Inventory (8110): Question D</p> <p>Total acres of BLM-administered surface inventoried at the Class III level.</p>	<p>Use overlays to identify the investigations that happened on BLM administered lands. Once you have that subset of information, isolate the records where a Class III inventory happened (stored in the Investigation Class attribute) and the investigation finished for the year in question (stored in Investigation Completed Month Year attribute).</p>

#	QUESTION or MAP NEED	SOLUTION
38	Annual Report: Section I. Inventory (8110): Question E Total acres of non-BLM-administered surface inventoried at the Class III level.	Similar to Business Question 36 but will use geospatial information to determine total acres inventoried. Use the same logic as for Business Question 36 to determine the Class III investigations completed on non-BLM lands during the fiscal year in question.
39	Annual Report: Section I. Inventory (8110): Question F Total number of cultural properties recorded on BLM-administered surface for which site records were completed.	Query on the CRM dataset to find the resources which are associated to an investigation completed during the year in question. Overlay this result set with the Surface Management Agency (SMA) data layer to identify the BLM administered land. The resultant dataset will show you the resources which were investigated during the year in question and are located on BLM administered lands.
40	Annual Report: Section I. Inventory (8110): Question G Total number of cultural properties recorded on non-BLM administered surface for which site records were completed.	Query on the CRM dataset to find the resources which are associated to an investigation completed during the year in question. Overlay this result set with the Surface Management Agency (SMA) data layer to identify the non-BLM administered land. The resultant dataset will show you the resources which were investigated during the year in question and are located on non-BLM administered lands where an investigation record was created.
41	Annual Report: Section I. Inventory (8110): Question H Total number of locations of the cumulative number of archaeological sites discovered to date are mapped using a GIS or CAD system.	The count of all resources on BLM lands in the dataset.
42	Annual Report: Section II. National Register of Historic Places (8110): Question A Total number of BLM "historic properties" (sites, districts, and discontinuous districts) listed in the National Register of Historic Places (NRHP) during the reporting year.	Resource Last Recorded Date is this year, Resource NRHP eligibility site = 'Y' and Resource Primary Property Class IN ('Site', 'District') However, this won't tell you if it was just listed this year but that it was eligible that year, no indication if that status was new this year. This list could be used to go back to the state and determine if the determination was new.

#	QUESTION or MAP NEED	SOLUTION
43	<p>Annual Report: Section II. National Register of Historic Places (8110): Question C</p> <p>Total number of BLM properties that were determined eligible for the NRHP by the Keeper of the Register, through agency-SHPO concurrence, or under the National Programmatic Agreement.</p>	<p>Resource Last Recorded Date is this year, Resource NRHP Eligible Site = 'Yes' and Resource Authority Name IN ('Keeper of the National Register', 'SHPO Concurrence', 'Managing Agency', 'Managing Agency Under Protocol')</p> <p>NOTE: This dataset does NOT capture information about non-BLM properties.</p>
44	<p>Annual Report: Section II. National Register of Historic Places (8110): Question D</p> <p>Total number of properties that were determined not eligible for the NRHP by the Keeper of the Register, through agency-SHPO concurrence, or under the National Programmatic Agreement.</p>	<p>Same logic as previous question. When we answer question 43, use the same logic but change NRHP Eligible Site = 'No'</p>
45	<p>Annual Report: Section III. Physical and Administrative Protection (8120): Question 1</p> <p>Monitoring: Number of cultural properties visited on-the-ground for the purpose of monitoring property condition that resulted in at least minimal level of documentation.</p>	<p>Assumption: minimal level of documentation means there is an Investigation record.</p> <p>Select investigation records where Investigation Completed Month Year BETWEEN <'MM-YYYY'> AND <'MM-YYYY'> And there is at least 1 resource associated to the Investigation record and the Investigation Class = 'Monitoring'</p>
46	<p>Annual Report: Section IV. Avoidance, Mitigation, and/or Data Recovery (8130): Question B</p> <p>Total number of completed data recovery projects for purposes of complying with Section 106.</p>	<p>Investigation Authority = 'Section 106' and Investigation Completed Month Year BETWEEN <'MM-YYYY'> AND <'MM-YYYY'> and Investigation Class = 'Site Specific Study'</p>

#	QUESTION or MAP NEED	SOLUTION
47	Annual Report: Section IV. Avoidance, Mitigation, and/or Data Recovery (8130): Question G Total number of completed non-Section 106 data recovery projects (e.g., research proposals).	Investigation Authority not = 'Section 106' and Investigation Completed Month Year BETWEEN <'MM-YYYY'> AND <'MM-YYYY'>
48	I'm interested in more information about Investigation 'ABC'. Who should I contact?	Investigation Title to find the record(s) associated with a particular investigation. Lead BLM Admin State will point to the state to contact for the info. Agency Investigation ID will identify the Investigation record within the BLM. This number will point to the correct investigation report which should provide point of contact information.
49	I'm interested in more information about Resource 'ABC'. Who should I contact?	Resource Agency ID and Resource SHPO ID should lead to the appropriate BLM office and/or record in the SHPO-run inventory for the state. If all else fails, the BLM or the SHPO inventory staff may be able to use the Resource Name to find more information.
50	Who did we get this record from?	See attribute fields: Resource Data Source, Investigation Data Source
51	How was this boundary collected?	See attribute fields: Resource Spatial Collection Method
52	What Land Use Plan area does the discovery occur within?	The geospatial data should lead to the BLM administrative unit which should lead to the Land Use Plan.
53	Was this investigation done to test or support, in whole or in part, a particular predictive model?	Field investigations can occur for a variety of reasons, one of which is to formulate or test an archaeological predictive model. The data standard does not specifically distinguish field investigations done for the purpose of archaeological predictive modelling.

#	QUESTION or MAP NEED	SOLUTION
54	Is this investigation an archaeological predictive model, with or without associated fieldwork?	Archaeological predictive models forecast where resources with particular characteristics are likely to be present or absent. Predictive models are a form of investigation, in that they examine where resources occur on the landscape. However, the data standard does not currently include predictive models as a form of investigation, just as it does not include Class I overviews. Future versions of the data standard may include the overall model area (linked to the specific model study) and/or the specific forecast geographies (e.g., high to low likelihood of resources being present).

APPENDIX E: AREAS TO ADDRESS IN FUTURE ITERATIONS

1. Add a business rule detailing how to handle possibility of multiple resource IDs as a result of multiple agencies identifying the same resource.
2. The source data ID fields need to be understood in terms of maintenance processes and how or if those are used as unique ID's.
3. Identify how to handle agency resource ID when the resource is on the border between two field offices and will have multiple resource IDs (one from each field office).
4. Identify how to handle overlapping polygons for a resource that crosses borders. Example: resource is on the border between two field offices. Each field office data has a polygon for the same resource. An individual investigation or resource that crosses state lines will initially be imported into this geodatabase as multiple polygons, possibly with different ID's since data will be coming from each state. The duplication should be eliminated once a lead BLM state has been identified and populated into the record. The editing process to ensure that these corrections have been made has yet to be determined.
5. The list of Business Questions in the CRM NHSP Data Migration Status Report were developed earlier in the CRM development process. In the CRM NHSP Data Migration Status Report, those questions were evaluated as to whether or not they could be answered with the data that was migrated during the NHSP project. It is recommended that these questions be evaluated during the next phases of the project to determine if the CRM data that is collected meets those business needs. Conversely, those Business Questions should also be re-evaluated for relevancy.
6. Business Question 39 has an outstanding question regarding if the term PROPERTY in the context of the question mean ELIGIBLE + UNEVALUATED only or all resources? If the latter, then the answer needs the following added to it: "This dataset must then be queried for all resources with a National Register status of ELIGIBLE or UNEVALUATED.
7. Revisit storing the actual date a resource was declared eligible for the NRHP. The eligibility of a resource may change over time.
8. Most states do not maintain a primary category for each resource polygon and have several resource categories for each polygon. The resource category values will need to be manually interpreted on an individual basis to determine a primary category. The primary category is needed to determine the most prevalent general purpose or pattern of use that created the resource. Coordination with the SHPO is required to ensure that this information is collected and maintained in a standardized format going forward.
9. Discussions will be necessary if information relating to Archaeological Predictive Modeling (APM) is needed in the data standard. Initially discussed and determined to be beyond the scope of the data standard at this time. If an indicator is needed to indicate the investigation was done in sufficient detail to support APM, then an option may be to add APM as another Investigation Class. Planners might find the information regarding APM useful.
10. There is a potential need to monitor undertakings in order to evaluate their effects on cultural resources. The resource condition would be tracked over time, and the information would be evaluated before and after the undertaking to determine the effect on the resource. This would require tracking the condition of the resource over time rather than just storing the most recent condition in the database.

APPENDIX F: ADDITIONAL REFERENCES

- 1) "An Act for the Preservation of American Antiquities," also known as the Antiquities Act of 1906 (P.L. 59-209; 34 Stat. 225; 16 U.S.C. 432, 433)
- 2) Recreation and Public Purposes Act of 1926 (P.L. 69-386; 44 Stat. 741; 43 U.S.C. 869)
- 3) Historic Sites Act of 1935 (P.L. 74-292; 49 Stat. 666; 16 U.S.C. 461) declares national policy to identify and preserve "historic sites, buildings, objects and antiquities" of national significance, authorizing the National Historic Landmarks program of the National Park Service and providing a foundation for the later National Register of Historic Places (see .O3E).
- 4) Reservoir Salvage Act of 1960, as amended by Archeological and Historic Preservation Act of 1974 (P.L. 86-523; 74 Stat. 220, 221; 16 U.S.C. 469; P.L. 93-291; 88 Stat. 174; 16 U.S.C. 469)
- 5) National Historic Preservation Act of 1966 (P.L. 89-665; 80 Stat. 915; 16 U.S.C. 470),
- 6) National Environmental Policy Act of 1969 (P.L. 91-190; 83 Stat. 852; 42 U.S.C. 4321)
- 7) Executive Order 11593 ("Protection and Enhancement of the Cultural Environment," 36 C.F.R. 8921, May 13, 1971)
- 8) Federal Land Policy and Management Act of 1976 (P.L. 94-579; 90 Stat. 2743; 43 U.S.C. 1701; "FLPMA")
- 9) American Indian Religious Freedom Act of 1978 (P.L. 95-431; 92 Stat. 469; 42 U.S.C. 1996)
- 10) Archaeological Resources Protection Act of 1979 (P.L. 96-95; 93 Stat. 721; 16 U.S.C. 470aa et seq.) as amended (P.L. 100-555; P.L. 100-588)
- 11) Native American Graves Protection and Repatriation Act of 1990 (P.L. 101-601; 104 Stat. 3048; 25 U.S.C. 3001)
- 12) National Trails System Act of 1968 (P.L. 90-543; 16 U.S.C. 1241 et. seq. as amended through P.L. 107-325, December 4, 2002)
- 13) Executive Order 13007 ("Indian Sacred Sites," 61 F.R. 104, May 24, 1996)
- 14) Executive Order 13287 ("Preserve America" 68 F.R. 43, March 5, 2003)

REVISION HISTORY

VERSION NO.	VERSION TYPE	DATE	PURPOSE
1.0	Original Pilot		
1.1	Revision	09/16/2015	Update implementation guide to reflect changes made as a result of data migration. Document will be presented to SMEs.
1.2	Second Pilot	5/19/2017	Modified proposed data standard from CPPP project as a result of migrating 11 states data into the standard (NHSP project).
1.3	Final	02/14/2018	Finalized the first revision of the data standard.
1.3.1	Final	05/21/2019	Document updated to match what was implemented in the National Heritage Solution contract.