

**Utah Bureau of Land Management**  
**Digital Data Standards**  
**August 2018**

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**Reports**

Reports will include all cover pages, site forms, a table of isolated resources, photographs and maps. Reports and all associated documentation shall be clear, legible and printed on high quality paper.

Standard forms to be included in the report:

Utah SHPO Coversheet

UT-8110-3 BLM Cover Page

**Digital Data Submission**

Format

In addition to the required “hard copy” of the report and associated documentation, an identical digital copy will also be submitted in PDF/A format at a resolution of 300 ppi or higher. Paper documents are considered the standard for archival purposes, however, digital copies allow documents to be easily searched, reduce impacts to archival paper copies from less handling, and provide a backup in the event the paper document is lost or destroyed.

Born Digital

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. OCR allows full text searching of the record within our content management system.

Reports

Reports shall be formatted in an Archival Portable Document Format (PDF/A) with Optical Character Recognition (OCR) PDF files required as they allow the document to be searchable. The PDF/A report should be a mirror image of the paper submission. Utah Archaeology Site Forms (UASF) will not be included with the report file, but submitted as separate PDF/A files. The PDF/A report file name will consist of the State Antiquities Project number (no hyphens or land status identifiers).

Example: U95IG456.pdf

## UASF Site Forms

Each UASF site form will be submitted as a separate PDF/A file. The PDF/A site form should be identical to the paper site form submitted. The file should include all relevant parts of the UASF form including a site sketch, artifact illustrations, photograph, and site map. The naming convention for site PDF files shall be the Smithsonian Trinomial with county abbreviations capitalized. No leading zeros.

Amendments or updates for the same site will consist of the Smithsonian Trinomial followed by a hyphen and a sequential number.

If more than one site form is being submitted, please put all the site form pdfs in a single zip file

Example: 42BE205.pdf or 42BE205-1.pdf or U95IG0456\_Siteforms.zip

## Photos

Photographs relating to the site and/or report shall be embedded in the appropriate PDF/A version of the report and site form. In addition, a separate image file must be included with the final data submitted in the form of a .jpg or .TIFF file.

## Tabular Data

A spreadsheet in .xlsx or .tsv format containing key tabular data corresponding with each site form submitted must also be included in submissions. The spreadsheet contains 21 data points across 37 fields. The spreadsheet must be structured the same as the template provided by the Utah SHPO, which is located on the SHPO website at <https://heritage.utah.gov/history/archaeology-records>. One spreadsheet for each project is required. Each site located during the project will constitute one row. Please name the excel file with all the sites as shown below.

Example: U95IG0456\_tabular.xlsx

## GIS Data

GIS Data must be submitted in the form of shapefiles or a file geodatabase. Shapefiles should consist of one shapefile of the area inventoried and a separate shapefile for archaeological site boundaries. Spatial data must meet the following specifications listed below:

### **GIS Data – Sites**

- File will be named with the state project number preceded by a 's'. Ex. sU18UC0001.shp.
- All file components must be zipped into one file titled as stated above.
  
- One shapefile or geodatabase should include all project site boundaries, versus one shapefile per site

- Include a field named “Smith\_Tri” where the site number is stored without leading zeros (e.g. 42SL100 not 42SL00100)
- NAD 83 datum required
- Only polygon features are accepted. Polygons must depict actual, ground verified site boundaries
- A new polygon should be provided for any new site recording or updated site submitted with an updated site form. For updated sites, a duplication of the previous site boundary is acceptable if no boundary has changed. Sites revisited, but not updated, should not be included in the submitted spatial data.

### **GIS Data – Projects**

- File will be named with the state project number preceded by a ‘p’. Ex. pU18UC0001.shp.
- All file components must be zipped into one file titled as stated above.
- Include a field named “StateProj” where the state project number is stored with no hypens/dashes or landowner suffixes.
- NAD 83 datum required
- Polygons required
- Different survey intensity should be clearly denoted with different record attributing.
- Accurate and clear representation of surveyed area (vs APE)

### Maps

Maps related to the site and/or report shall be embedded in the appropriate PDF/A version of the site and/or report. If the size or scale of the map is such that including the map in the PDF document would in some way be detrimental to the document, the map may be submitted as a separate PDF file. All map images should be properly displayed to the scale listed on the Map. For example a 1:24,000 scaled map should be free from distortions that alter the accuracy of the scaling.

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 map produced, and a *clear* depiction of the area surveyed and/or sites recorded.

Maps depicting the GPS’d location of sites and project boundaries on the appropriate USGS 7.5’ Quadrangle shall be included in the report. Good quality hand drawn site sketch maps or GPS produced site maps are acceptable.

## Digital Media Format

Data must be submitted on high quality CDs or DVDs along with the required number of hard copy documents requested. **One copy of the CD or DVD's and one hard copy of all documents are required.**

Files should be organized in the following manner:

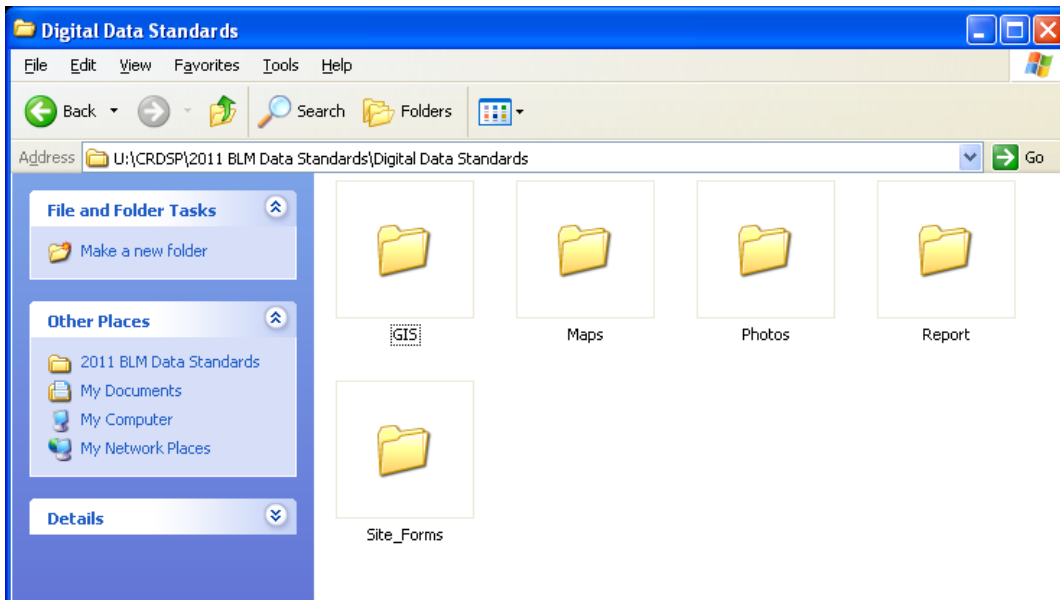
Reports and appendices to be placed in a folder named "Report"

UASF forms to be placed in a folder named "Site\_Forms"

GIS Data to be placed in a folder named "GIS"

Photos to be placed in a folder named "Photos"

Maps to be placed in a folder named "Maps"



## **GPS/GIS Standards**

### **Field Observation Standards**

- Site boundaries shall be recorded as polygons. Acreage cannot be calculated for linear or point features in GIS. In addition, a polygon best represents the size and shape of a site.
- For linear sites, a single linear feature down the centerline may be appropriate with the width of the feature noted in the site form and/or metadata. If possible, a linear site may be recorded as a line in the field then appropriately buffered and converted to a polygon using GIS.
- At a *minimum*, a site datum (located near the approximate center of the site) and site boundary must be recorded with a GPS unit for each site. Features and other site detail may be recorded with a GPS unit, however, how such details are recorded is at the archaeologist's discretion.

### **Projection Standards**

- All horizontal position data shall be reported in the NAD 1983 datum in UTM coordinates in the appropriate zone.

### **Accuracy Standards**

Any type or model of GPS unit may be used so long as it meets the following standards:

- The positional accuracy should be within +/- **3 meters**.
- GPS data will require real time or post processed differential correction to ensure data accuracy. Data must be differentially processed using a base station closer than 200 miles.
- PDOP less than or equal to 6.
- Minimum of 4 satellites (3D) for every position.
- In situations where GPS observations are not practical or possible due to geography, vegetation, satellite availability, or the presence of hazardous materials, the recorder should locate the resource using GPS offset equipment and capabilities, map coordinates, or a combination of GPS and other techniques. Such non-GPS methods must be described in the site form, report, and/or metadata.

### **Feature Attribute Standards**

- Points, lines, or polygon boundaries for cultural resources must be associated with attributes that describe these cultural resources in accordance with the tabular data required.

Submitted data must conform to the attribute names assigned for the tabular data submitted for the sites. Data should be collected using the same attribute names or the names may be assigned later. A base BLM database with these specific fields is available upon request.

## **Photograph Standards**

### Printed Photographs

Photos should be embedded in reports and site forms. Photos must be printed on acid-free paper. A maximum of two photos per page with captions is acceptable. Photographs may be back to back, so long as the caption is visible without having to remove the photo. Captions should include at a minimum the site number, project number, date, direction facing, and a brief description.

### Digital Images

In addition, a digital copy of each photograph should be submitted with other digital documentation in the appropriately labeled folder (Photos). 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.

## Attachment 1. Utah BLM Base Data Dictionary

### **Inventory Boundary** “Mapped Extent of Inventory”

**TempID** “Temporary Project Number”

**State\_Project\_Number** “Antiquities State Project Number”

**Level of Inventory** “Level of Effort”

- A. Class III
- B. Class II
- C. Other

### **Inventory Line** “Mapped Linear Inventory”

**TempID** “Temporary Project Number”

**State\_Project\_Number** “Antiquities State Project Number”

**Maximum\_Entity\_Width** “Maximum width of linear inventory in Meters”

**Level of Inventory** “Level of Effort”

- A. Class III
- B. Class II
- C. Other

### **Site Boundary** “Mapped Extent of Site”

**TempID** “Temporary Field Identification Number”

**Smith\_Tri** “Smithsonian Trinomial”

**State\_Project\_Number** “Antiquities State Project Number”

**NR** “National Register Status”

- A. NR Listed Site
- B. Nominated to NR
- C. NR Quality
- D. Non-Significant
- E. Other
- F. Reg. w/District
- G. NR site - absent
- H. Historic Landmark
- I. Determined Elig.
- J. Disputed Elig.
- O. Other Register
- Z. Undetermined

**Date\_Entered** “Date Recorded”

**Comment**

### **Site Line** “Linear Site Centerline”

**TempID** “Temporary Field Identification Number”

**Smith\_Tri** “Smithsonian Trinomial”

**State\_Project\_Number** “Antiquities State Project Number”

**Maximum\_Entity\_Width** “Maximum width of linear site in Meters”

**NR** “National Register Status”

- A. NR Listed Site
- B. Nominated to NR
- C. NR Quality
- D. Non-Significant
- E. Other
- F. Reg. w/District
- G. NR site - absent
- H. Historic Landmark
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**Date\_Entered** “Date Recorded”

**Comment**