



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
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1283 {954/950} P

March 30, 2006

Instruction Memorandum No. AK-2006-021
Expires: 09/30/2007

To: All Employees

From: State Director

Subject: Metadata Requirement and Guidance for Corporate Data, including Data used in Land Use Planning

Purpose: This instruction memorandum (IM) provides guidance on the requirements and procedures outlined in WO IM 2003-134 (attached). It also provides information and guidance on the Metadata requirements for Bureau of Land Management (BLM)-Alaska data, including data used in Land Use Planning.

This IM is effective upon receipt.

Policy/Action: Guidance is provided on the following components of Metadata development and management for BLM-Alaska data:

1. Metadata Requirements
2. Metadata Processing Steps
3. Submission of Metadata to the BLM Clearinghouse

1.0 Metadata Requirements

Metadata is the term used to describe the content, quality, condition and other characteristics of data. Executive Order 12906 (1994) requires that geospatial data used by Federal agencies be:

Accompanied by Metadata in the format set forth by the Federal Geographic Data Committee (FGDC) and be accessible to all interested parties through an FGDC node. The BLM further requires that **all data and applications used by BLM in fulfilling its**

mission are to be properly documented with Metadata and be stored in an accessible repository as directed in WO IM 2003-134.

These requirements became effective immediately upon issuance of WO IM 2003-134, and require that Metadata collection for new data sets and applications must begin immediately. Metadata creation and collection for existing data sets and applications used in major decision making activities (e.g., Land Use Planning) must be initiated and completed as soon as possible.

2.0 Metadata Processing Steps

A processing procedure for BLM-Alaska Metadata has been developed and is outlined in detail in Attachment 1. In summary, the steps are:

- a. Creation of the Metadata record
- b. Technical Review
- c. Review and verification by the designated Data Steward
- d. Optional review and verification by the State Records Administrator
- e. Submission to the BLM-Alaska Metadata Repository
- f. Submission to the BLM National Clearinghouse

The processing steps in Attachment 1 form the basis for developing Metadata and submitting it to the repository. These steps should be followed in detail to ensure compliance with both BLM National and Alaska standards.

3.0 Submission of Metadata to the BLM Clearinghouse node

Metadata should not be submitted directly to the BLM Clearinghouse by the Author or the Data Steward. Once the Metadata has been approved and submitted to the BLM-Alaska Repository, it will be packaged and submitted to the BLM Clearinghouse node.

All Metadata for both new and existing data that is used to support Land Use Planning and other major decisions must be submitted to the BLM Clearinghouse.

As outlined in the **Alaska Metadata Processing Steps** (Attachment 1), the BLM-Alaska Repository maintainer has the responsibility for submitting all Alaska Metadata to the National Clearinghouse.

If you have any questions or need more information, please contact Gary Sherman at 907-271-5502.

Signed
Julia Dougan
State Director, Acting

Authenticated
Maria Rivero-Folmar
Records Manager

4 Attachments

- 1 - Alaska Metadata Processing Steps (4 pp)
- 2 - Metadata Processing Workflow Diagram (1 p)
- 3 - Metadata Template (2 pp)
- 4 – WO IM 2003-134 {w/o attachments} (14 pp)

Alaska Metadata Processing Steps

I. Introduction

Metadata has been identified as a critical component in support of BLM programs. Documentation of data is an essential part of building workable corporate data.

II. Summary of Procedure

The following steps outline the procedure to be followed in the creation, review, approval and posting of metadata records:

A. Creation of a Metadata Record

The process begins with the creation of a metadata record. The key points related to this step are:

1. The metadata record will be created by the person most knowledgeable about the data set. (The author may or may not be the Data Steward).
2. The record must comply with the Federal Geographic Data Committee's (FGDC) Content Standards for Digital Geospatial Metadata. (www.fgdc.gov/metadata).
3. When complete, the metadata record must be saved or exported in FGDC Encoded ASCII format (.txt) format.

Metadata Authors should check their Metadata prior to submission for technical review. Resources for checking Metadata are available at http://ilmakso0ws1/dm_website/metadata.jsp. Authors should take special note of the information available on the **10 Things to Check under Author Tools**.

B. Technical review

The technical review process insures compliance with the FGDC standard and BLM minimum requirements. The review is an iterative process between the metadata author and the technical reviewer:

1. The Metadata Author sends the FGDC Encoded ASCII file and the Data Steward's email address to the Technical Reviewer (Gary_Sherman@ak.blm.gov) via email.
2. The metadata is reviewed and either approved or sent back to the Metadata Author for changes.
3. The process continues until all technical issues have been addressed.

4. When approval is granted, the Technical Reviewer notifies both the Data Steward and the Metadata Author via email.

C. Verification by the designated Data Steward

The Data Steward has the responsibility to verify that the metadata record is complete and accurate. The key aspects of this step are:

1. The Metadata Author forwards the record in HTML format to the Data Steward.
2. At a minimum, the Data Steward reviews the following:
 - a. Description of the dataset and its purpose, including the Abstract
 - b. Point of contact regarding the data
 - c. Purpose of the data
3. If necessary, the Data Steward sends the record back to the Metadata Author for modification (this action will require that technical approval be granted for the modified record).
4. When the record is correct and verified, the Data Steward informs the Metadata Author.

D. Optional verification by the State Records Administrator

Once the reviews by the Technical Reviewer and the Data Steward are complete, verification by the State Records Administrator is required if the Distribution Liability and Use Constraints differ from the standard statements supplied in the Metadata Template (Attachment 3).

1. If a determination is made that the standard use/liability statements are not included in the metadata record, the Technical Reviewer forwards the HTML file to the State Records Administrator for review and concurrence.
2. The State Records Administrator checks that:
 - a. The BLM-Alaska disclaimer is included in the Distribution Liability section.
 - b. Any datasets available to the public are not of a sensitive nature and are considered releasable (Non-discretionary or sensitive information should not be published on public websites).

- c. The following statement is found under Use Constraints: “Any hard copies or published datasets using these data shall clearly indicate their source. Any users wishing to modify the data are obligated to describe the types of modifications they have performed. User specifically agrees not to misrepresent the data, nor to imply that changes made were approved or endorsed by the BLM.”
3. The State Records Administrator sends notice of approval or changes required via email to the Technical Reviewer.

E. Submission to the BLM-Alaska Metadata Repository

Once the review process is complete, the record is submitted to the Metadata Repository.

The Metadata Author submits the following items to the BLM-AK Repository Maintainer (Gary_Sherman@ak.blm.gov):

1. The metadata record in FGDC Encoded ASCII Text (*.txt).
2. Email trail documenting the approval by the Technical Reviewer, Data Steward, and State Records Administrator (if required).

F. What happens to the Metadata after it is Submitted to the Repository

The BLM-Alaska Repository Maintainer manages the corporate metadata records for internal and external customers, as part of BLM-Alaska’s Corporate Data Infrastructure.

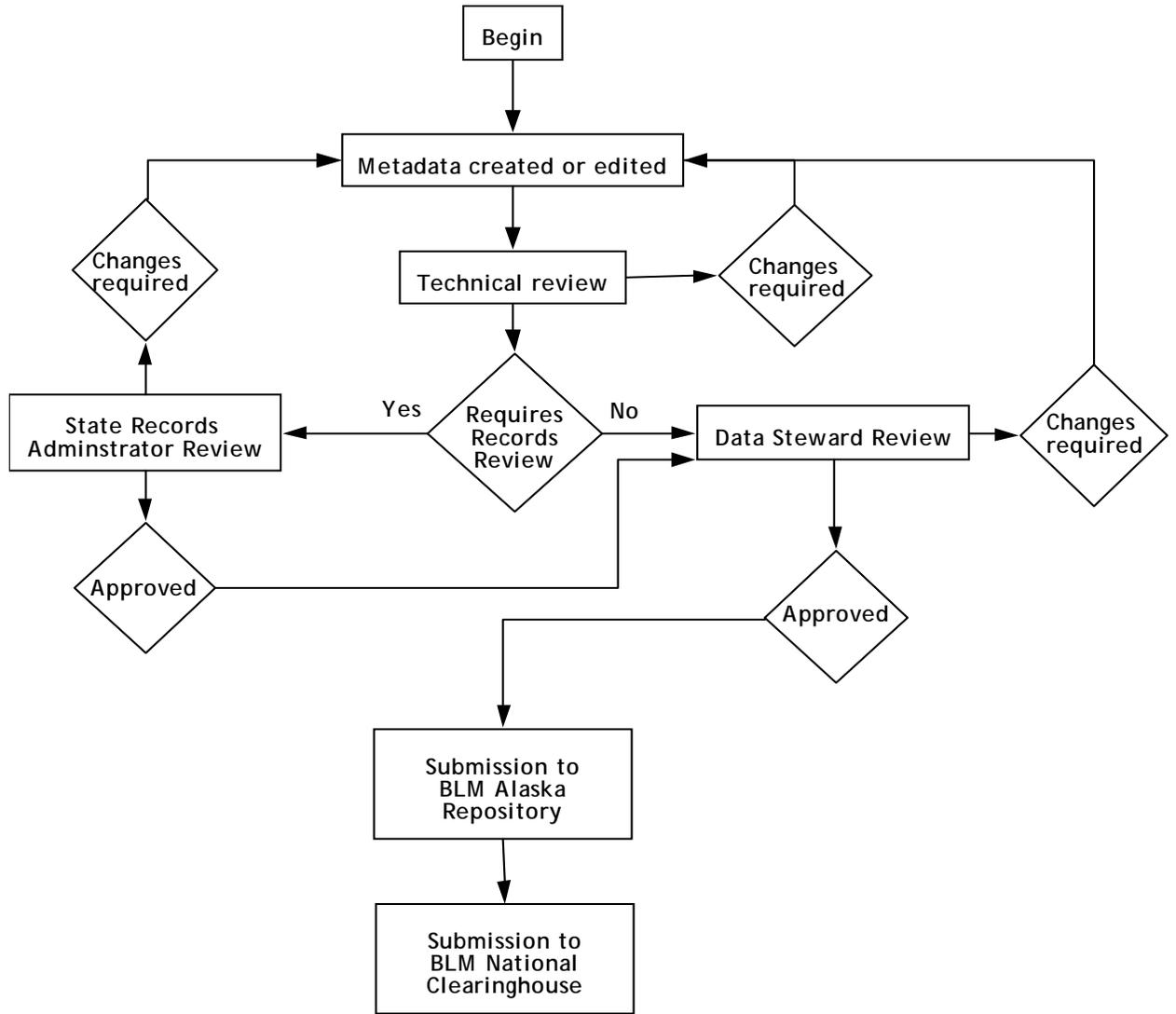
The metadata record submitted in Step 5 is loaded into the BLM-Alaska Informix metadata database. An email will be sent to the Data Steward and the Metadata Author informing them when the load process is complete. A link to the Metadata Repository can be found on the Data Administration web page (<http://web.ak.blm.gov/data/>).

If appropriate, the metadata record will be forwarded to the official BLM Clearinghouse Node (<http://www.or.blm.gov/metaweb>).

III. Procedure Details

Each of the processing steps is explained in detail below. Note that at any point in the review process, the metadata record may be referred back to the Metadata Author for modification (see the workflow diagram provided on Attachment 2).

Metadata Processing Workflow Diagram



BLM-Alaska Metadata Template

I. In addition to requirements set forth nationally, Metadata generated by BLM-AK requires the following:

A. **Identification Information** section will identify:

1. Access and Use Constraints on the dataset
2. Point of Contact as the Data Steward or the Data Stewardship Team.

B. **Distribution Information** section will identify:

1. Point of Contact as the person that actually distributes the dataset. Replace the uppercase text found between the less than and greater than symbol (<>) with the appropriate information.
2. BLM Disclaimer.

C. **Metadata Reference Information** section will identify:

Metadata author name and contact information. Replace the uppercase text found between the less than and greater than symbol (<>) with the Metadata author name and contact information.

Examples for each of these requirements are given below.

II. Identification and Distribution Information Template:

Identification_Information:

Citation:

Citation_Information:

Title: BLM-AK Metadata Template

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 20010207

Access_Constraints:

Discretionary, contains no sensitive information - generally considered releasable.

Use_Constraints: Any hardcopies or published datasets using these data shall clearly indicate their source. Any users wishing to modify the data are obligated to describe the types of modifications they have performed. User specifically agrees not to misrepresent the data, nor to imply that changes made were approved or endorsed by the BLM.

Any discrepancies or errors in this data should be reported to <PERSON RESPONSIBLE FOR DISTRIBUTING DATA>.

Distribution_Information:

Distributor:

Contact_Information:

.....Contact_Person_Primary:

..... Contact_Person: <PERSON RESPONSIBLE FOR DISTRIBUTING DATA>

Contact_Organization: Bureau of Land Management <OFFICE>

.....Contact_Position: <DISTRIBUTORS TITLE>

.....Contact_Address:

..... Address_Type: mailing and physical address

..... Address: <ADDRESS>

..... City: <CITY>

..... State_or_Province: AK

..... Postal_Code: <ZIP CODE>

..... Country: USA

.....Contact_Voice_Telephone <PHONE NUMBER WITH AREA CODE>

.....Contact_Electronic_Mail_Address: <EMAIL ADDRESS>

.....Hours_of_Service: 0800-1630

Distribution_Liability: No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

Metadata Reference Information Template

Metadata_Reference_Information:

Metadata_Date:

Metadata_Review_Date:

Metadata_Future_Review_Date:

Metadata_Contact:

Contact_Information:

.....Contact_Person_Primary:

..... Contact_Person: <METADATA AUTHOR NAME>

..... Contact_Organization: Bureau of Land Management, <OFFICE>

.....Contact_Position: <AUTHORS OFFICIAL TITLE>

.....Contact_Address:

..... Address_Type: mailing and physical address

..... Address: <ADDRESS>

..... City: <CITY>

..... State_or_Province: AK

..... Postal_Code: <ZIP CODE>

..... Country: USA

.....Contact_Voice_Telephone: <PHONE NUMBER WITH AREA CODE>

.....Contact_Electronic_Mail_Address: < EMAIL ADDRESS>

.....Hours_of_Service: 0800-1630

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

April 2, 2003

1283 (WO-570D) P

Ref. IM No. 2001-202;

IM No. 2003-077

EMS TRANSMISSION 04/03/2003
Instruction Memorandum No. 2003-134

Expires: 09/30/2004

To: All Washington Office and Field Officials

From: Assistant Director, Information Resources Management

Subject: Capturing Information about the Bureau of Land Management's Data Resource (Metadata)

Program Area: All program areas.

Purpose: To establish policy on the collection, storage, and access to information about the Bureau of Land Management's (BLM's) data resource (commonly referred to as metadata) to improve business and technical understanding of our data assets and data-related processes.

Policy/Action: All data and applications used by the BLM in fulfilling its mission are to be properly documented with metadata and that documentation is to be stored in an accessible repository. The development of metadata is the responsibility of appropriate data stewards (with assistance from data

administrators and subject matter experts). Detailed guidance on documentation and definitions are contained in Attachment 1.

A corporate metadata advisory team will be established to provide continuing leadership in this area. The proposed team charter, which includes key roles and functions as well as the make-up of the team, is contained in Attachment 2.

Metadata is a broad, all-encompassing term to mean any information that describes something else. This Directive applies only to metadata for data and applications.

Timeframe: This Instruction Memorandum (IM) becomes effective immediately. Metadata creation and collection for new data sets and applications must begin immediately. Metadata creation and collection for existing data sets and applications used in major decision making activities, such as land use planning, must be initiated and completed as soon as possible.

Budget Impact: In cases where metadata is not being created routinely, the business programs will incur short-term costs to create metadata for information that supports official actions and determinations. Currently, under Executive Order 12906, standardized metadata is routinely collected for geospatial data and products. Therefore, new metadata is required mainly for certain physical and tabular electronic information. The cost of creating metadata will decline rapidly as the steps to create it are integrated into business processes, and training is provided more widely. However, costs for creating and maintaining metadata are long-term (for the life of the data/application). Benefits will be realized immediately, and the long-term budget impact will be positive, because proper documentation of data and applications (accessible to all employees) will encourage data re-use and reduce duplication, and thus reduce costs for many planning and authorization activities.

Background: Effective data management requires the ability to find needed data, be able to understand the data, and learn how reliable that data is, why it was created, documentation of standards used, and what disclaimers or warnings apply to the data (which provides protection from misuse and abuse). This is the function that metadata plays in data management. Metadata is key in the effort to eliminate redundancy in our data resource. If no metadata exists, someone is likely to re-create the same data, since they have no way to determine whether any existing data could meet their needs. Redundant data collection, maintenance, and storage are costly, error-prone and, something that the BLM can no longer afford.

Several Executive and Legislative mandates require the BLM to perform metadata management (creation, maintenance, publication, and archiving of metadata). The Clinger-Cohen Act of 1996 requires agencies to create and maintain an enterprise architecture and manage its information resource including how data are created, maintained, accessed, and used. Executive Order 12906 (Coordinating Geographic Data Acquisition and Access) requires the collection of metadata about geospatial data resources and requires that such metadata be made available to the public. The Paperwork Reduction Act (1995) and Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 mandate that Federal agencies pay greater attention to data quality and the documentation (metadata) that helps the public understand the purpose and utility of the data that the agency disseminates.

Washington Office (WO) IM Referenced: WO IM2001-202, dated August 3, 2001, contains information on the use of the spatial data clearinghouse node. WO IM2003-077, dated January 28, 2003, Subject: Required Use of the Corporate Metadata Repository (CMR).

Manual/Handbook Sections Affected: 1283, Data Administration Manual and Handbooks.

Coordination: Data Administrators, Geographic Information System (GIS) Coordinators, Data Stewards.

Contact: Jim Horan, Bureau Data Administrator, Information Resources Management Policy and Records Group (WO-560), at (202) 452-5023.

Signed by:

Authenticated by:

Michael J. Howell

Barbara J. Brown

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Information Resources Management

2 Attachments:

[1 – Data Resource Information \(Metadata\) Guidance \(7 pp\)](#)

[2 – Corporate Metadata Advisory Team Charter \(2 pp\)](#)