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BUREAU OF LAND MANAGEMENT

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Subject

1283 - DATA ADMINISTRATION AND MANAGEMENT

1. Explanation of Material Transmitted: This release revises Bureau of Land Management Manual Section 1283 - Data Administration in its entirety. The revised Manual incorporates changes in policies resulting from the passage of the Paperwork Reduction Act of 1995 and subsequent amendments, including Section 515 of the "Treasury and Consolidated Agencies Appropriations Act of 2001".

2. Reports Required: None

3. Materials Superseded: The Manual material superseded by this release is listed under "Remove" below. No other directives are superseded.

4. Filing Instruction: File as directed below

REMOVE

All of BLM Manual Section 1283
(Total: 23 Sheets)

Insert

1283
(Total 17 Sheets)

Assistant Director,
Information Resources Management

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.01 Purpose. This Manual Section provides policies and guidelines to direct Bureau of Land Management (BLM) efforts in the effective management of data collected and used to support the BLM mission. The BLM, as an information resource, needs to ensure that the data it collects, uses, and disseminates relates to its mission requirements, is applied and used objectively, and has appropriate controls to protect privacy, proprietary, and confidential information. This policy requires a system of controls in place to establish standards, quality control, and assurance for data oversight and monitoring of BLM's data resources. The goal is to ensure that the BLM's information system produces quality information that meets legal compliance requirements to support BLM program decisions, assure resource program integrity, and provide service to BLM employees and the public.

.02 Objectives. The objective of BLM's Data Administration/Resources Management program is the effective management of information. Data Administration includes the concepts of data quality, data privacy, data security, and database integrity. To accomplish this, BLM will standardize data definitions to reduce ambiguity and data disparity, facilitate reusability and sharing of data across BLM Programs, cooperate with other Federal and State Agencies to promote use of equivalent interagency data standards and data sharing, and provide appropriate Data Administration/Data Resources Management and Data Stewardship training for employees to maintain their technical competency. The BLM will rely on designated data stewards at the all levels to designate standards for the definition, collection, maintenance and access to information to meet its mission and program requirements. Those data stewards will be supported by trained data specialists who are trained in the best practices in data resources management.

.03 Authority. Section 515 of the Treasury and General Governmental Appropriation Act of 2001 (Public Law [P.L.] 106-554), The Clinger-Cohen Act (Information Technology [IT] Management Reform Act) of 1996 (P.L. 104-106), the Paperwork Reduction Act of 1995, as amended (44 United States Code [U.S.C.] 3501-3520), the Government Paperwork Elimination Act (44 U.S.C. 3501-3504), The Computer Matching and Personal Privacy Act of 1988 (P.L. 100-503), as amended, the Privacy Act of 1974, as amended (5 U.S.C. ' 552a (1994 and Supp. IV 1998), and Freedom of Information Act (FOIA) of 1966, as amended (5 U.S.C. 522) contain requirements that Federal agencies collect and manage their data as information resources according to defined standards involving the collection, creation, storage, use, transmission, handling, and dissemination of automated and non-automated data. These standards are to be used to ensure the quality, objectivity, utility, and integrity of information maintained and disseminated by the BLM.

This Manual implements additional guidance published in:

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Executive Order 12906 Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure	Executive Order 13011, July 16, 1996: Federal Information Technology
Federal Information Resource Management Regulations (FIRMR) (41 CFR Chapter 201)	Office of Management and Budget (OMB) Circular A-16: Coordination of Surveying, Mapping, and Related Spatial Data Activities,
OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities (February 10, 1998)	OMB Circular A-123: Internal Control Systems
OMB Circular A-130: Management of Federal Information Resources	Department of the Interior Manual (DM) 375, 376, 378, 511
OMB M-01-05 Memorandum for Heads of Executive Departments and Agencies Subject: Guidance on Inter-Agency Sharing of Personal Data - Protecting Personal Privacy	
Federal Register (67 F.R. 8452) February 22, 2002 <i>Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies</i>	

.04 Responsibility. BLM policy requires that every employee is responsible for the quality, integrity, relevancy, accuracy, and currency of the data he/she creates, collects, or maintains, whether the data are in manual or automated format. Managers need to employ good data management practices to manage the data collected and maintained by their program specialists. The program specialist who uses, manages, and distributes the data must ensure that they are collected according to the standards of his/her profession and maintained to ensure accuracy and integrity. This section identifies specific responsibilities in support of the data resources management program.

A. The Director and the Deputy Director, as the Chief Executive Officers (CEOs), are responsible for ensuring that information resources are available to BLM to meet its strategic mission requirements.

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B. The Assistant Director (AD), Information Resources Management (IRM), as the BLM's Chief Information Officer (CIO), administers the overall IRM program, including Data Administration, which includes providing Bureauwide policy and direction for its information assets. The AD-IRM coordinates IRM goals, objectives, and activities using a Life Cycle Management (LCM) methodology.

C. Assistant Directors, designate the National Data Stewards for the programs under their jurisdiction and are responsible to coordinate Data Administration/Data Resources Management activities within the BLM's Directorate. ADs function as part of the BLM's Management team, providing overall program direction and executive oversight necessary to identify and document Bureauwide data management requirements.

1. IRM Advisors are charged by the ADs with supporting data management in the program areas under their jurisdiction. They function as the portfolio manager to their respective program area, which also places them in an oversight capacity in terms of data management for the projects within their portfolios.

D. BLM State Directors, National Interagency Fire Center (NIFC) Director, Directors for the National IRM Center (NIRMC), National Business Center (NBC), National Human Resources Management Center (NHRMC), and National Science and Technology Center (NSTC) manage the Data Administration/Data Resources Management program within their jurisdiction and ensure the program is carried out within BLM and Departmental guidelines.

E. The IRM Policy and Records Group is responsible for major information policy areas, including BLM's Data Administration/Data Resources Management program.

1. The Bureau Data Administrator position within the IRM Policy Group oversees the management of the BLM's Data Administration/Data Resources Management program and ensures BLM's compliance with the OMB, General Services Administration (GSA), Department of the Interior, and other Federal policies, regulations, and standards within the areas of data management, data standards, data analysis, customers, training, and documentation. The Data Administrator also facilitates the coordination of data management activities with other agencies through the Federal Geographic Data Committee (FGDC) and other information clearing houses.

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F. The System Coordination Office (SCO) provides support to the Bureau Data Administrator in developing data standard operating procedures (SOPs) for defining, creating, processing, and storing Corporate BLM data within the framework of the Bureau Enterprise Architecture (BEA).

1. The Data Management Group within the SCO also serves as the monitor and change coordinator of the BLM Corporate Metadata Repository (CMR) and is responsible for its accuracy and timeliness. The SCO coordinates Technical Data Support, which supplies a number of technically trained and skilled personnel who provide expertise in the analysis of data from customer requests or BLM needs. This data support includes loading applications metadata, business rules and architecture information into the CMR, maintaining CMR, providing CMR customer reports and analysis, defining and implementing the BLM data architecture (including enterprise data models and information stores and tools), reviewing IT Investments against data requirements, and creating Common Data Elements as part of the Architecture.

G. The Director, National Training Center (NTC) assists in development of training courses, training plans, course outlines and descriptions, and training materials to enhance Data Administration/Data Resources Management skills and employee development. The NTC Director is also responsible for the quality and content of courses, and providing the infrastructure for their delivery.

H. BLM Field Office (FO) Managers are responsible to provide executive oversight and direction to the data administration/data resource management program within their areas of jurisdiction. They formally approve and designate all FO Data Stewards and FO Data Administrators who have been identified by their respective first level Manager(s). They have overall FO responsibilities for the proper management, security, and protection of all their FO's Corporate Data and Applications.

I. Data Stewards at the National, Center, State, and Field Offices are experts for a business subject area, (e.g., geothermal, forestry, wild horse and burros, soils), and responsible for data requirements, standards, access rules, data quality, and other data activities on a national level for that subject area.

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1. The National Data Steward for a particular subject area is determined by the respective Group Manager in the Washington Office (WO). The Data Steward determines data requirements, standardization, and quality control processes for related data in an automated environment. The Data Steward ensures that the content and accuracy of automated data are representative of the BLM's policies and procedures. Data Stewards lead data standard development projects for his/her subject area, and maintain a consensus list of priorities for standards development. Data Stewards participate in committees supporting data consistency within the agency and among our data-sharing partners.

2. State Program leads have data stewardship responsibilities at the State program level. State Data Stewards are appointed by State level managers and report to the National Data Stewards on issues affecting data standards, definitions, and quality for particular data sets or themes. The assignment of a data steward may be made at different organizational levels within the State. While organizationally linked to specific programs or offices, data stewards will be required to work across organizational boundaries to include the majority of customers for a particular data set or theme.

3. Field Office Data Stewards are resource specialist and subject matter expert designated by management, responsible for implementing data requirements, standards, access rules, and other data specific activities needed for a particular business or activity. They define the FO's business value, scope, standards and services of the organization's data within the context of their state procedures. They are a primary resource for the State Data Steward. They work to ensure data quality. It is also that person's responsibility to create FGDC-compliant quality spatial data.

J. The State and Center Data Administrators (SDAs) implement a Data Administration/Data Resources Management program within their States/Centers. They participate in the development of Bureauwide policies, strategies, and guidance for effective and efficient use of the BLM's data and more specific procedures for their own State or Center office. They provide critical linkage and communication among all BLM offices within their area of data management jurisdiction and between their office and the WO.

K. BLM Program Specialists are responsible to verify that the alphanumeric and spatial data, which they collect and enter into their applications, comply with established standards, are verified to be authentic and truly representative of their resource and correctly entered.

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L. GIS Specialist is a technical expert in a resource subject area discipline and GIS technology. Their responsibilities include coordinating geo-spatial data management, implementing state/bureau data standards, creating and maintaining spatial metadata and working with the data stewards to interpret business needs into GIS applications.

M. Application Owners are individual BLM employees who identify, develop and use their own manual and automated data programs or applications. They are responsible for ensuring that their application is in concert with the respective Data Steward's and Data Administrator's guidance and procedures for management of the relevant data and its standards. Application owners are the "grass roots" personnel who apply data administration and management "on-the-ground" through manual and/or automated applications. Application Owners and Data Stewards can be one and the same person.

N. Group Managers are ultimately responsible for the programs under them and also designate who the national data stewards are for what subject areas.

.05 References. The following Departmental Manuals and guidance, and Bureau Manual and Handbooks as listed below to ensure proper adherence to data resources management program components.

- Federal Information Processing Standard Publication (FIPS PUB) 76: Guideline for Planning and Using a Data Dictionary System.
- FIPS PUB 88: Guideline on Integrity Assurance and Management of Database Applications.
- FIPS PUB 110: Guideline for Choosing a Data Management Approach.
- Departmental Manual (DM) Section 375 IRM Program Management
- Departmental Manual (DM) Section 376 Automated Data Processing
- Departmental Manual (DM) Section 378 Data Administration
- Departmental Manual (DM) Section 380 Records Management
- Departmental Manual (DM) Section 511 Coordination with State and Local Governments
- BLM Handbook H-1270-2, Rel. 1-1631, Cost Recovery
- BLM Manual 1220, Rel. 1-1645, Records and Information Management
- BLM Manual 1261, Rel. 1-1612, Automation/Information Resources Management/Modernization and Life Cycle Management
- BLM Manual 1264 Information Technology Security
- BLM Manual 1270, Records Administration,.35 - Records Access & .4 Records Security

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- BLM Manual H-1270-1, Electronic Records Administration
- BLM Manual 1270-2, Rel. 1-1630, Cost Recovery
- BLM Manual 1271, Rel. 1-1641, BLM Information Access Center
- BLM Manual 1274, Rel. 1-1339, Serialized Case File System
- BLM Manual 1275, Rel. 1-1380, Land Status Records
- BLM Manual 1278, Rel. 1-1627, External Access To BLM Information
- BLM Manual 9160, Rel. 9-341, Mapping Sciences

.06 Policy. The BLM recognizes that its data and the processed information derived from them are a very significant and valuable resource. The BLM will protect its investment in data and its derived applications to ensure that they are efficiently managed and accessible in useful forms. The BLM will actively exchange and share appropriate information with: other agencies, State and Tribal governments, local governments and, outside organizations, where this can reduce duplication of effort and costs and ensure that the best quality data, outputs, and applications are being produced and used. The BLM's guidelines with respect to managing data are as follows:

A. Data collected in the course of doing business in all organizational units of the BLM are owned by the BLM. These data represent information assets of the BLM and are critical to its ability to achieve successful implementation of the strategies outlined in the Mission Strategic Plan and Annual Work Plans.

B. The BLM's policy of stewardship extends to the use and care of its data resources. Data Stewardship requires the active involvement and participation of employees from every program and office level within the BLM. The responsibility for the management of data resides within the program that defines, identifies, collects, maintains or changes the data, the data standards, and any derived corporate data applications. This responsibility includes the protection of the integrity of the data from unauthorized tampering or access. All employees of the BLM are responsible for quality and integrity of the data assets under their control.

C. Data includes any information that BLM collects, maintains, or disseminates, regardless of whether it is manual or automated and stored or displayed in alphanumeric or spatial data formats.

D. The BLM will collect data according to existing, approved, and accepted data standards and procedures and will adopt other data standards where those standards adequately address a data requirement.

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E. Data standards and management activities will be in accordance with the Life Cycle Methodology and the IT Investment Management process.

F. The BLM will adhere to the DOI guidelines to ensure the quality, objectivity, utility and integrity of information that it disseminates. These guidelines are published to implement the Paperwork Reduction Act of 1995, as amended by section 515 of the Treasury and General Governmental Appropriations Act for Fiscal Year 2001.

G. The BLM will use the BEA as a guide to determine its data requirements, standards, and definitions.

H. Data quality controls include the collection, maintenance, management, random sampling, and testing of derived applications and disposal (archiving) of data.

I. The BLM will preserve the privacy rights of individuals as mandated by the Privacy Act (PA) and/or Freedom of Information Act (FOIA), and will not collect information from the public without a compelling legal or programmatic requirement.

J. The BLM will maintain spatial and geographic information according to the standards established by the FGDC.

K. Metadata will be maintained by the BLM in a CMR, which will include complete metadata descriptions about how we collect, identify, create, retrieve, update, delete (CRUD), and distribute data in an automated fashion.

L. The BLM adheres to the principles outlined in “Best Management Practices for Data in Projects” in collecting, converting, and managing data in automated projects. Those practices are listed at the website for the Systems Coordination Office and are considered part of this Manual guidance.

.061 Policy Implementation: Tools and guidance are being provided as Manual Supplements or Handbooks to assist in implementing a data management strategy. Supplemental Bureauwide guidance can be found beginning at Section .11 of this Manual. Other specific long term State, Center, or Field Office guidance resides in their respective Data Administration Manual Supplements and Handbooks.

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07. File and Records Maintenance. See BLM Manual parts 1270 through 1278 for guidance on the creation, maintenance, use, retrieval, access, security, and disposition of records. Additional questions regarding records activities/tasks will be directed to the Bureau's Records Administrator and Bureau's Records Manager. Details of records requirements are spelled out in subsequent procedural guidance/directives. The following records will be directed and generated by these releases:

A. Decision Documents. The following records are decision documents issued through the directives system. The released directive is maintained by the central records or directives office; whereas the originating office maintains the original decision document and supporting documentation which led to the final decisions. These decision documents are official BLM permanent records and must be retained in accordance with the BLM Records Schedule, Schedule 16, Item 1.

1. The BLM Architecture, including the Enterprise Data Model and the Technical Reference Models, are maintained by the BLM IT Architect. The BLM Architecture will also describe the Common Data Elements using the standards recorded in CMR.

2. The BLM Data Administration Documentation and Official Records, including Data Flow Diagrams (DFD), Entity Relationship Diagrams (ERD), Narrative Business Documentation, and Applications' data dictionaries are managed by Data Administration Analysts and Data Administrators in cooperation with the designated National, State, Center, or FO Data Stewards. Those responsible individual data personnel are also designated as Official Records Custodians for Corporate Data Applications.

3. The BLM Mission Strategic Plan and Annual Performance Plans are consolidated and maintained in the WO Business and Fiscal Resources Directorate.

4. The IRM Strategic and Tactical Plans are maintained by the WO IRM Directorate and are filed under subject code 1280.

5. Data Standards are adopted and approved through the National Data Stewards for Corporate Data and their Applications and are issued through Instruction Memoranda, Information Bulletins, or included in User Guides, Manuals Sections, and Handbooks issued through the Directives System. Approved data standards will be accessible through the BLM's CMR.

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6. Data Quality Assurance Plans include procedural and maintenance guidance and responsibilities issued by the BLM resource program areas by means of the Directives System. Data quality results may require filing with or cross referencing Official Agency Record Documentation and should be contained in the respective BLM Office's Records Inventory and Data Quality Assurance Plan, along with their Quality Control procedures. See BLM Handbook H-1270-1 and BLM Manual Section 1270.

B. Training Course Material. NTC will maintain the official BLM record copy of course material in accordance with the BLM Records Schedule, Schedule 1, Item 29(a)(1).

C. System Documentation. The system or application owner with the assistance of the Records Manager will maintain and dispose of the following records support system documentation as described below. These records are filed in accordance with BLM Manual 1220 and retained in accordance with the same records schedule authority as the records that are being automated. (Example: file system documentation for a directives automated system under Subject Code 1221 would be retained in accordance with BLM Records Schedule, Schedule 16, Item 1.)

D. Data Repositories, Data Standards, Data Quality Assurance Plans, Information Analysis, Data Flow Diagrams, and Entity Relationship Diagrams. The system or application owner maintains and disposes of the official record copy of these documents. The Data Administrator maintains a working copy, which can be disposed of when no longer needed. The local IRM staff maintains the official LCM files for all corporate data systems it develops and manages.

E. Inventory. Data inventory information is to be contained within the originating office's official records inventory. The disposition authority for this record is the General Records Schedule, Schedule 16, Item 2b.

F. Land, Resource, Management Plans and Information Resource Management (IRM) Plans. These plans support project activities and system management improvement for a program area of concern, e.g., wilderness. Management plans are filed in accordance with the associated subject code number and disposed of in accordance with BLM Records Schedule 16, Item 5. IRM Plans cover a period of 3 to 5 years, and, as such, all input documents from program offices and States/Centers are considered temporary records and should be disposed of in accordance with the BLM MS-1200 - Appendix 2, GRS/BLM Combined Records Schedule.

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.08 Coordination Requirements. Data management requirements shall be coordinated and disseminated through the designated Data Administrators at the WO, National Centers, State Office (SO), and FO levels. Data management is a responsibility placed on all BLM employees who collect, maintain, and exchange data. Designated Data Stewards, at the National Program level, are charged with tracking BLM Corporate data requirements, definitions, standards, and controls on collection and management for the benefit of the Program leader or Project Manager. While they are not ultimately responsible for data accuracy, the Data Stewards are responsible for bringing data anomalies and changed or new data standards to the attention of senior management, data administrators, application owners, program leads, and other appropriate parties.

A. Project/Program managers shall provide a data management plan for all IT efforts within their approval jurisdiction. Audits shall be conducted to ensure that the requirements of sound data management are met. The Data Resources Management Group, currently under the SCO, shall be in contact with the Project Manager or his/her designated data manager to coordinate data activities, monitor data management plans and assess whether the goals of the individual data management plans have been met, according to the Best Management Practices for Data in Projects. Additionally, management control reviews for BLM programs will include measures for ensuring that the data captured and maintained by the BLM conforms to legal requirements and is consistent with the BLM's data management policies. Policy conflicts will be resolved at the senior management level, as necessary.

B. The data management program participates actively in the BLM IT Architecture development to consolidate data requirements, expand, and refine data standards and definitions to include all BLM programs, reduce the instances of redundant data collection and maintenance, and to relate only the most critical business-related information directly to BLM's business needs. The "Data" layer of the BLM IT Architecture is developed and coordinated with the BLM's Data Administrator and data management staff.

.081 Program Evaluation and Audit Trails. Audits of data will be conducted as part of the resources program review process including Management Control Reviews and office-wide management reviews. In addition, data administration and data resources management is part of the project control and evaluation process required of every IT project. The documentation associated with those reviews and audits will be made available to the BLM Data Administrator.

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A. The BLM shall conduct periodic assessments and evaluations of systems to assure that data management and technical controls are appropriate and functioning effectively under the guidelines of OMB Circular A-123. The BLM shall provide to DOI the results of program and management evaluations and will provide information on the data resources management efforts conducted as part of the evaluations of IRM projects and systems documentation submitted in accordance with the Clinger-Cohen Act.

.09 Relationship with Other BLM Programs. The BLM Data Administration/Data Resources Management Program is a support program for all of the Directorates within BLM. As such, it is dependent on these Directorates for identification of their data management requirements, including: data entity and element definitions, accuracy requirements, data quality procedures and assurance plan needs, review criteria, and overall responsibilities associated with data stewardship. Implementation of data quality controls is a responsibility of the Data Steward for the particular data set.

A. The BLM Data Administration/Data Resources Management Program is part of the overall data resources management program at the Department of the Interior, under the DOI CIO. Data policies are referenced in Departmental Manual (DM) 378. The Office of the Inspector General (OIG) provides independent oversight through audit and evaluation of the Department's resources management program in accordance with the "Inspector General's Act of 1978."

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Appendix 1
Data Quality Implementation

1.1 Overview. This section includes instructions and templates designed to implement the guidance provided in BLM Manual Section 1283. All IRM investments are considered federal information resources and must contain data with quality standards appropriate to meet the mission needs of the BLM. In accordance with the Paperwork Reduction Act of 1995, as amended, the BLM programs will follow Departmental guidelines to ensure the integrity, objectivity, utility, and quality of data they collect and maintain.

The Data Resources Management Program has developed templates, and other aids to facilitate the collection and maintenance of data under controls that ensure its integrity; enhance information flexibility, utility to mission requirements, are objective in nature and outlook, and are readily available to the public through the BLM's Information Access Centers (IAC) and to other target audiences at a reasonable cost.

1.2 Data Management Planning Requirement. Planning is essential for efficient and cost-effective management of information systems environments, including the information (data) itself as well as related resources such as personnel, equipment, technology, and funds. The BLM operates under a Mission Strategic Plan, which outlines its strategic goals and the 5-year plan to achieve those goals. This Mission Strategic Plan forms the basis for the BLM's IT Architecture, which maps the business processes BLM uses to meet its mission requirements, the data needed to support those business processes, and the applications and technology support to facilitate those processes wherever possible. An IRM Strategic Plan and an IT Capital Asset Plan detail the information resources and technology needed to accomplish the mission strategic plan. Data Planning involves the recognition that data are corporate resources and, as such, must be effectively managed to promote interoperability, data sharing, data access, data standardization, universal data access, flexible and adaptable systems, and reduction in the number of systems and the amount of data necessary to accomplish the mission requirements of the BLM.

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The BLM requires that a data management plan be prepared in advance in order for any proposed information systems to be developed and any existing information system that is undergoing enhancement or modification. These plans will be reviewed during the project approval phase and as part of the general management control review process established by the BLM. The data management plan forms the basis for evaluating the data management activities in the project.

1.3 Use of Life Cycle Planning. All data management activities must follow the Life Cycle Methodology of Requirements analysis, definition, systems selection and acquisition, systems design, testing, implementation, maintenance, enhancement, and retirement. The GAO's IT investment model of Select, Control, and Evaluate is used as the basis for BLM's procurement of IT resources. Data Management is an essential component of the LCM policies of the BLM. The Data Administrators will participate in the LCM process to ensure that data management is part of that process and an integral part of IT Project Management and control.

1.4 Data Management Roles, Responsibilities, and Competencies
Reserved

1.5 Adoption and Adherence to Data Standards. Data standards refer to the name, definition, presentation, and business rules governing data sets. They are based on the known data requirements and are set by the stakeholders who need the data. As such, they can cross organizational boundaries. Data standards will be maintained at the BLM level and available to all BLM employees. BLM programs will be required to establish and maintain data standards and will be evaluated based on their adherence to the standards.

1.5.1 Data Standards Procedures
Reserved

1.6 Procedures for Managing Data
Reserved