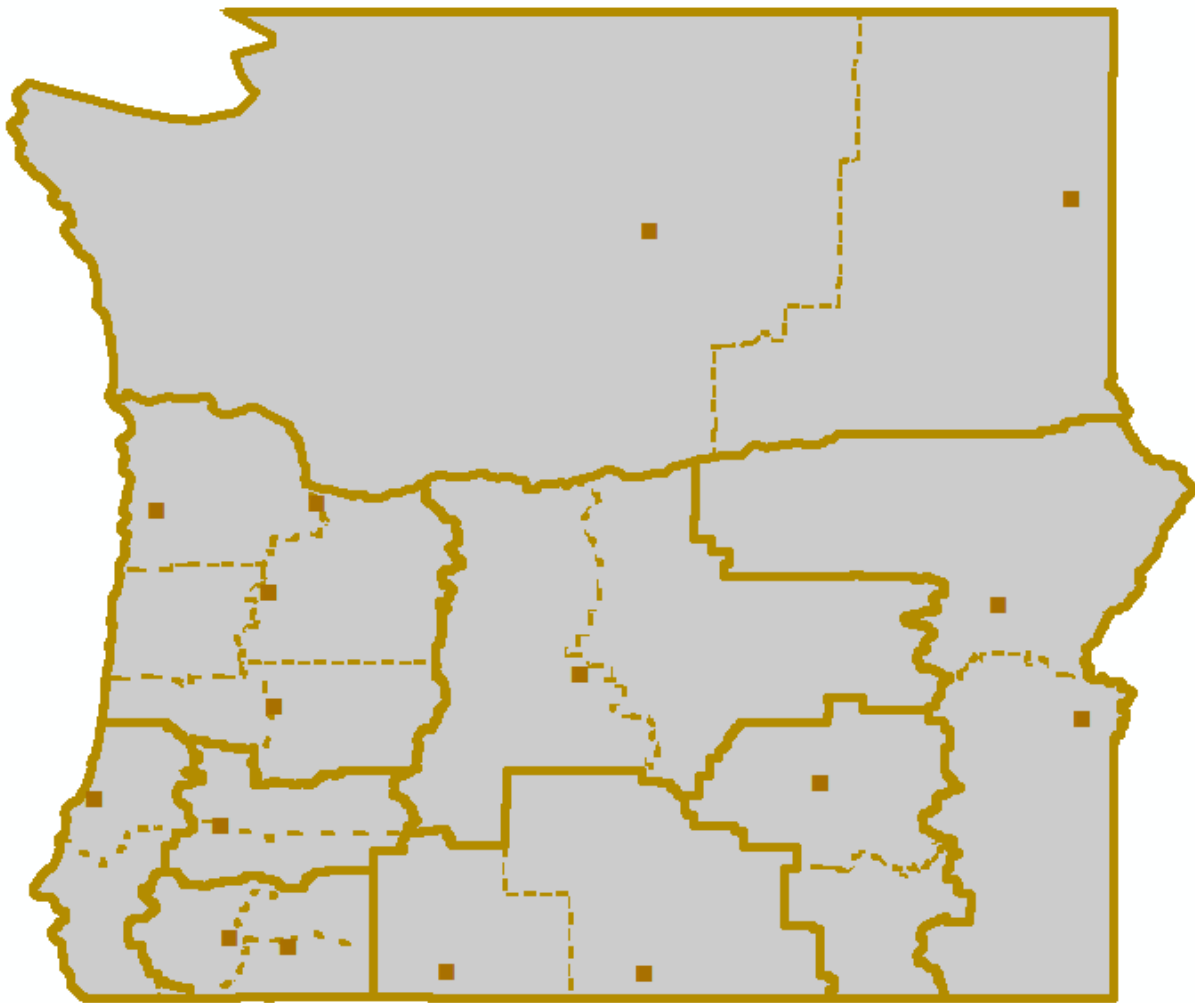




Administrative Units

Spatial Data Standard




The map above depicts the Administrative Units dataset.

Document Revisions

Revision	Date	Author	Description	Affected Pages
1.0	6/3/2021	Dana Baker-Allum, Corey Plank	Initial Release	All

Navigation



This document uses hyperlinks to display additional information on topics. External links are displayed with an underline. Internal links are blue text, not underlined. After clicking on an internal link, press the **Alt** + **left arrow** keys to return to the original location from the target location.

Contents

1	General Information	5
1.1	Roles and Responsibilities	5
1.2	FOIA Category.....	6
1.3	Records Retention Schedule.....	6
1.4	Security/Access/Sensitivity	6
1.5	Keywords	6
1.6	Subject Function Codes	7
2	Dataset Overview	8
2.1	Usage	8
2.2	Sponsor/Affected Parties	8
2.3	Relationship to Other Datasets, Databases, or Files	8
2.4	Data Category/Architecture Link.....	9
2.5	Relationship to DOI Enterprise Architecture Data Resource Model.....	12
3	Data Management Protocols	12
3.1	Accuracy Requirements	12
3.2	Collection, Input, and Maintenance Protocols	12
3.3	Update Frequency and Archival Protocols.....	13
3.4	Statewide Monitoring	13
4	Administrative Units Schema (simplified)	14
4.1	Administrative Units Feature Dataset.....	14
4.1.1	ADMU_OFc_POLY Feature Class (Administrative Unit Office Polygons).....	14
4.1.2	ADMU_OFc_ARC Feature Class (Administrative Unit Office Lines)	14
4.1.3	ADMU_OFc_PT Feature Class (Administrative Unit Office Points)	15
4.2	Administrative Units History Feature Dataset.....	15
4.2.1	ADMU_OFc_HIST_POLY Feature Class (Administrative Unit Office History Polygons)	15
4.2.2	ADMU_OFc_HIST_ARC Feature Class (Administrative Unit Office History Lines)	16
4.2.3	ADMU_OFc_HIST_PT Feature Class (Administrative Unit Office History Points)	16
5	Projection and Spatial Extent	17
6	Spatial Entity Characteristics	17
7	Attribute Characteristics and Definition (In alphabetical order)	19
7.1	ACCURACY_FT	19
7.2	ADM_UNIT_CD	19
7.3	ADMU_LABEL	20
7.4	ADMU_LNTYPE.....	20
7.5	ADMU_NAME.....	20

7.6	APPRV_DT	21
7.7	BLM_ORG_CD	21
7.8	BLM_ORG_TYPE.....	22
7.9	CHANGE_REASON	22
7.10	COORD_SRC.....	22
7.11	DEF_FEATURE	23
7.12	EFF_DT	23
7.13	END_DT	23
7.14	GLOBALID.....	24
7.15	MNGD_UNIT_CD.....	24
7.16	PARENT_CD	24
7.17	PARENT_LABEL	25
7.18	PARENT_NAME.....	25
7.19	SOURCE_LYR	25
7.20	VERSION_NAME	26
8	Layer Files (Publication Views)	27
8.1	General.....	27
8.2	Specific to This Dataset	27
8.3	National Theme Presentation.....	28
9	Editing Procedures.....	32
9.1	POLY/ARC TOPOLOGY (BOUNDARY GROUP DATASETS).....	32
9.2	Editing Quality Control.....	32
9.3	Vertical Integration	33
9.4	Theme Specific Guidance	34
10	Abbreviations and Acronyms.....	35
A	Domains (Valid Values)	36
A.1	DOM_ADM_UNIT_CD	36
A.2	dom_ADMU_LNTYPE	36
A.3	dom_BLM_ORG_CD.....	Error! Bookmark not defined.
A.4	DOM_BLM_ORG_TYPE.....	36
A.5	dom_COORD_SRC	37
A.1	dom_DEF_FEATURE.....	37

1 General Information

The Administrative Units (ADMU) data standard contains requirements for administrative boundaries within the Oregon/Washington (OR/WA) Bureau of Land Management (BLM). The OR/WA BLM State Office jurisdiction consists of Districts sub-divided into Field Offices. This dataset was formerly known as Resource Area Boundaries (RAB).

The OR/WA BLM administrative jurisdiction encompasses the entire political States of Oregon and Washington. A BLM District or Field Office may cross the political boundary between those States. The dataset includes boundary lines depicting official BLM District boundaries, as approved by the Washington Office, and those depicting administrative BLM Field Office boundaries, as approved by the OR/WA BLM State Director, where the boundary lines are not coincident with the official District line.

An example of where the Field Office is not completely within the District is the southernmost portion of the boundary between the Coos Bay and Medford Districts, where it crosses the official District boundary. The Medford District's Grants Pass Field Office manages a portion of Coos Bay District.

Coastline and Ocean islands, needed for a variety of queries and analyses, will be stored in a separate feature class, and are not included in the ADMU dataset. See the Layer Files (Publication Views) section for how they will be combined with ADMUs for analytical and display purposes.

Boundary definitions reference features or positions depicted in other GIS layers. Copied data from those layers creates the ADMU layer. Maintaining vertical integration with other layers will ensure the most accurate representation.

Prior representations of ADMUs are placed into the historic dataset.

- Dataset (Theme) Name: Administrative Unit Boundary
- Dataset (Feature Classes): ADMU_OFC_POLY, ADMU_OFC_ARC, ADMU_OFC_PT, ADMU_OFC_HIST_POLY, ADMU_OFC_HIST_ARC, ADMU_OFC_HIST_PT

1.1 Roles and Responsibilities

Table 1 Roles and Responsibilities

Roles	Responsibilities
State Data Steward	The State Data Steward responsibilities include approving data standards and business rules, developing Quality Assurance/Quality Control procedures, identifying potential Privacy issues, and managing that data as a corporate resource. The State Data Steward coordinates with field office data stewards, the State Data Administrator, Geographic Information System (GIS) coordinators, and national data stewards. The State Data Steward reviews geospatial metadata for completeness and quality.
GIS Technical Lead	The GIS Technical Lead works with data stewards to convert business needs into GIS applications and derive data requirements and participates in the development of data standards. The GIS technical lead coordinates with system administrators and GIS coordinators to manage the GIS databases. The GIS technical lead works with data editors to ensure consistency and accordance with the established data standards of data input into the enterprise Spatial Database Engine (SDE) geodatabase. The GIS technical lead provides technical assistance and advice on GIS analysis, query, and display of the dataset.
State Data Administrator	The State Data Administrator provides information management leadership, data modeling expertise, and custodianship of the state data models. The State Data Administrator ensures compliance with defined processes for development of data standards and metadata, and process consistency and completeness. The State Data Administrator is responsible for making data standards and metadata accessible to all users. The State Data Administrator coordinates with data stewards and GIS coordinators to respond to national spatial data requests.

Table 1 Roles and Responsibilities

Roles	Responsibilities
State Records Administrator	The State Records Administrator assists the state data steward to identify any privacy issues related to spatial data. The state records administrator also provides direction and guidance on data release and fees. The state records administrator classifies data under the proper records retention schedule and determines the appropriate Freedom of Information Act category.

1.2 FOIA Category

Public

1.3 Records Retention Schedule

The DRS/GRS/BLM Combined Records Schedule, under Schedule 20/52a3 (Electronic Records/Geographic Information Systems), lists this theme as one of the system-centric themes that are significant for BLM’s mission that must be permanently retained.

"PERMANENT. Cutoff at the end of each Fiscal Year (FY) or when significant changes and additions have been made, before and after the change. Use BLM 20/52a. Transfer to the National Archives every three years after cutoff. Under the instruction in 36 CFR 1235.44-50 or whichever guidance is in place at the time of the transfer. Submissions are full datasets and are in addition to, not replacements of, earlier submissions."

According to the DRS/GRS/BLM Records Schedules, Schedule 20, Item 52a3, the NOC is responsible for transfer to NARA.

Oregon/Washington (OR/WA) Bureau of Land Management (BLM) Guidebook for Management of Geospatial Data (v1) Section 15.2 - Corporate Data Online Archives prescribes:

“Vector annual archives are retained online for 12 years. Each year, data that has reached 12 years old is copied off-line to be retained until no longer needed (determined by data stewards and program leads) with format and readability maintained in a five (5) year “tech refresh” update cycle.”

1.4 Security/Access/Sensitivity

The Administrative Units theme does not require any additional security other than that provided by the General Support System (the hardware/software infrastructure of the OR/WA BLM).

This dataset is not sensitive and there are no restrictions on access to this data, either from within the BLM or external to the BLM. This dataset falls under the standard Records Access Category 1A-Public Data.

There are no privacy issues or concerns associated with these data themes. A privacy impact assessment was completed for this dataset on 3/11/2021.

1.5 Keywords

Keywords that can be used to locate this dataset include:

- BLM Thesaurus Keywords: Management
- ISO Thesaurus Keywords: boundaries

- Additional Keywords: Administrative Units, Boundaries, District, Resource Area, Field Office, Field Office Area, State Office, RAB, DOB, SOB

1.6 Subject Function Codes

BLM Subject Function codes used to describe this dataset include:

- 1283 - Data Administration
- 9160 - Mapping Sciences

2 Dataset Overview

2.1 Usage

Use this data set to depict the Administrative Units on maps. Use the PARENT_NAME attribute to dissolve ADMUs to form District boundaries. Use the Polygons created from the data for various analytical purposes, including clipping data and calculating acreage. A derived layer handles modification of the boundary for cartographic display (smoothing of convoluted coast or river lines). See Layer Files (Publication Views) section for how they will be combined with ADMUs for analytical and display purposes.

Carefully document modification of the boundary for analysis. You will find planning area boundaries in a separate feature class, Plan Area Boundary, and described by that data standard.

Usually large plan areas, such as Resource Management Plan (RMP), are based on Administrative Units with adjustments. Because it represents the extent of BLM administration units, this dataset is one of the most used and most important themes in the BLM GIS database.

2.2 Sponsor/Affected Parties

The sponsor for this data set is the Deputy State Director, Division of Resources, Lands, Minerals, and Fire.

District/ADMUs are defined by, and specific to, BLM. Matching interagency data across the landscape is not necessary. The ADMU affects our non-governmental partners and the public to the extent that ADMU indicates management responsibility on BLM lands, these partners include the U.S. Forest Service and the States of Oregon and Washington.

2.3 Relationship to Other Datasets, Databases, or Files

Use ADMU, and its derivatives, (see Section 9 - Layer Files) extensively for mapping and analysis of other datasets.

Include District and Field Office names associated with the BLM ADMU data sets in the Geographic Names Information System (GNIS).

The ADMU data standard is within the national BLM data standard for Administrative Units (ADMU). The OR/WA ADMU datasets are made available for inclusion into the national dataset on a regular basis or for specific data calls.

ADMU is related to BLM Administrative Unit Codes. A set of codes based on Federal Personnel Payroll System (FPPS) Organization Codes, the authoritative source for organization codes, but is not limited to those codes.

Administrative Units are related to the following datasets:

- ADMU, and its derivatives, (see Section 9 - Layer Files) are used extensively for mapping and analysis of other datasets.
- Geographic Names Information System (GNIS) - District and Field Office names associated with the ADMU dataset are included in this dataset.
- National ADMU Dataset - data from the OR/WA ADMU dataset is transferred to the national dataset on a regular basis or for specific data calls.
- Federal Personnel Payroll System (FPPS) - FPPS is the authoritative source for BLM Administrative Unit organizational codes.
- Other National Designations (OND) - The national BLM data standard for Administrative Units (ADMU) includes some National Monuments and other special areas. This data is stored in the OR/WA OND dataset. At some point in the future, it may be combined with OR/WA ADMU data submittals to National ADMU.

2.4 Data Category/Architecture Link

This data theme is a portion of the Oregon Data Framework (ODF) shown in Figure 1, Oregon Data Framework (ODF) Overview on page 10. The illustration is a simplified schematic of the entire ODF showing the overall organization and entity inheritance. The ODF utilizes the concept of inheritance to define specific instances of data. The ODF divides all OR/WA resource-related data into three general categories:

- Activities
- Resources
- Boundaries

These general categories are broken into sub-categories that inherit spatial characteristics and attributes from their parent category. These sub-categories may be further broken into more specific groups until the basic data set cannot be further sub-divided. Those basic data sets inherit all characteristics of all groups/categories above them. The basic data sets are where physical data gets populated. The groups/categories above them do not contain actual data but set parameters which all data of that type must follow.

For additional information about the ODF, contact the [State Data Administrator](#). The State Data Administrator’s contact information can be found at the following link: <https://www.blm.gov/about/data/oregon-data-management>.

In the ODF, ADMU is considered a boundary and categorized as follows:

ODF

Boundaries

Political & Administrative

Political & Administrative Existing

ADMU_OFC_POLY

ADMU_OFC_PT

Political & Administrative History

ADMU_OFC_HIST_POLY

ADMU_OFC_HIST_PT

Political & Administrative Line

Political & Administrative Existing

ADMU_OFC_ARC

Political & Administrative History

ADMU_OFC_HIST_ARC

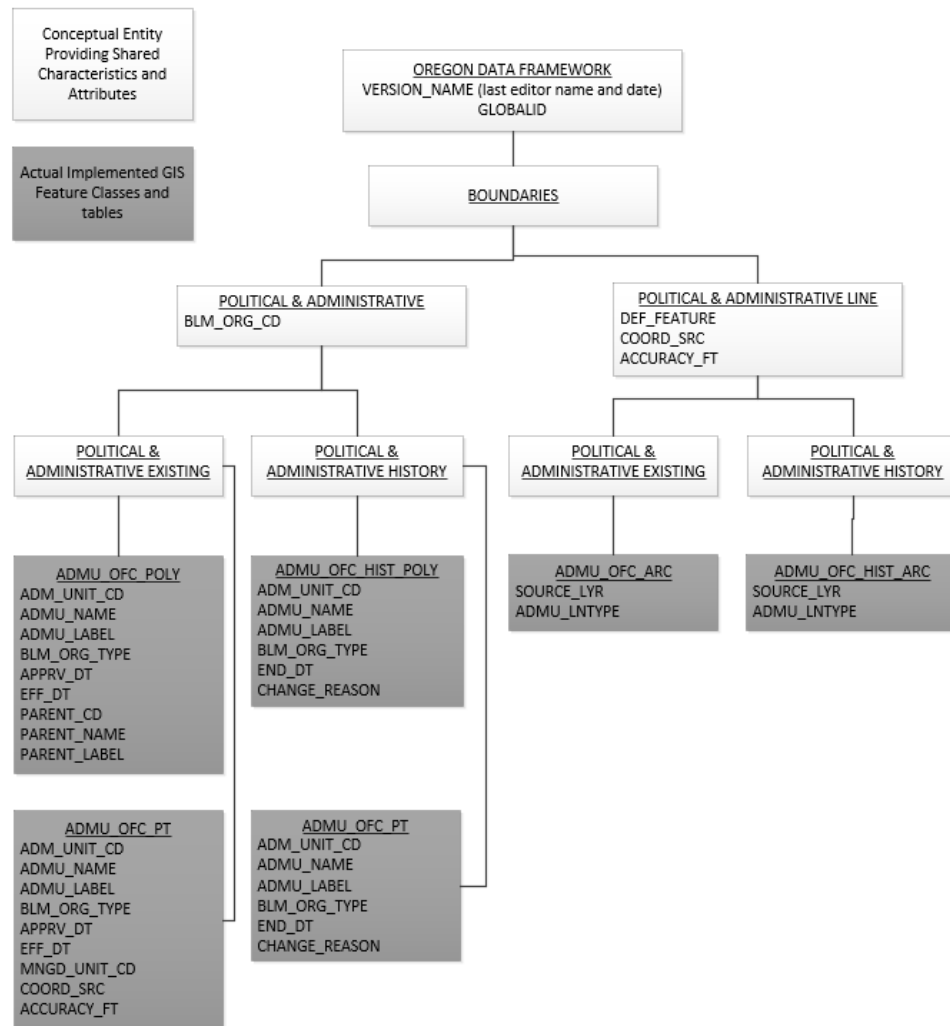


Figure 2 Data Organization Structure

2.5 Relationship to DOI Enterprise Architecture Data Resource Model

The Department of the Interior (DOI) Enterprise Architecture contains a component called the Data Resource Model. This model addresses the concepts of data sharing, data description, and data context. This data standard provides information needed to address each of those areas. Data sharing is addressed through complete documentation and simple data structures which make sharing easier. Data description is addressed through the section on Attribute Descriptions. Data context is addressed through the data organization and structure portions of this document. In addition, the DOI Data Resource Model categorizes data by use of standardized Data Subject Areas and Information Classes. For this data set, the Data Subject Area and Information Class are:

- Data Subject Area: Geospatial
- Information Class: Location

3 Data Management Protocols

3.1 Accuracy Requirements

Legal descriptions define ADMUs following natural or man-made features and survey positions. The spatial data representing the features are refined over time to capture accurately their intended position. ADMU will include the most accurate data available.

3.2 Collection, Input, and Maintenance Protocols

The State Data Steward determines the correct boundary description and works with District Data Stewards and GIS Coordinators to obtain the best GIS data. The most common definition of Administrative Unit lines is section lines or subdivisions and, therefore, the most common GIS coordinate source is Cadastral National Spatial Data Infrastructure (CADNSDI). Other sources are National Hydrography Dataset (NHD) where the boundary follows stream or water body centerlines. In some cases, ADMU follow county boundary line data. In addition, the boundary dividing Field Offices within a District may follow pasture lines in which case the GIS coordinate source will be the Grazing Allotment and Pasture theme (GRA). The GIS coordinate source is Ground Transportation (GTRN) where the boundary follows road centerlines. The west boundary of the westernmost Districts is officially the 3-mile coastal waters boundary. Once the ADMU boundaries are precisely defined, GIS line-work from the appropriate GIS theme is segmented as necessary and imported. Where lines from different GIS themes come together, the less precise boundary is snapped to the more precise. CADNSDI-based lines take precedence over other coordinate sources. Where a county (or state) boundary defines the ADMU boundary segment, the county dataset provides the lines because it is already sourced to the best coordinates.

Once created, the ADMU theme is the responsibility of the State Data Steward to ensure that themes remain current. It is the responsibility of District Data Stewards and GIS Coordinators to keep the State Data Steward apprised of improvements to the GIS source data and to assist with updates. Provide proposed changes to the State Data Steward for inclusion in the theme. Incorporate any changes occurring in the data affecting the District Boundary after Washington Office approval.

Former ADMUs are found in the ADMU_OFHC_HIST datasets. Historical ADMU are not affected by major or minor changes in boundary-defining features. Boundary or location refinements (corrections to data) are typically not a reason to move features to the history dataset. When features are moved to the history dataset, an explanation should be provided in the CHANGE_REASON field recording why the change was made. The historical dataset is not complete and is not populated with the backlog of historic data unless there is a business need to do so. However, the dataset will be available if editors wish to add data to it. The data steward should be consulted when populating the history layers.

Additional editing guidance is available in section 9 of this document.

3.3 Update Frequency and Archival Protocols

The unit of processing for updating the ADMU theme is the State. The editors will initiate transactions at the State Office. ADMU lines change very infrequently, but data that is more accurate can become available at any time for other themes used to depict the boundaries. Rebuild the ADMU to incorporate any newer data.

It is also the responsibility of the Data Steward to ensure that any database external to the Corporate GIS remains current. Since ADMU is used in most BLM management plans, analysis acres reported in planning documents will be inconsistent with acres calculated using an updated ADMU. The District Planners and District Data Stewards determine when a plan amendment is warranted.

Data is archived annually at the end of the fiscal year.

3.4 Statewide Monitoring

The State Data Steward, the GIS Technical Lead and the District Data Stewards are responsible for reviewing the ADMU theme across the state at least once per year.

4 Administrative Units Schema (simplified)

General Information: Attributes are listed in the order they appear in the geodatabase feature class. The order is an indication of the importance of the attribute for theme definition and use. There are no aliases unless specifically noted. The domains used in this data standard can be found in Appendix A. These are the domains at the time the data standard was approved. Domains can be changed without a re-issue of the data standard. Current domains are found on the internal OR/WA SharePoint data management page. Some of the domains used in this data standard are also available at the following web site: <https://www.blm.gov/about/data/oregon-data-management>. For domains not listed at that site contact: [State Data Administrator](#).

4.1 Administrative Units Feature Dataset

4.1.1 ADMU_OFC_POLY Feature Class (Administrative Unit Office Polygons)

For domain and default values, see Section 7, [Attribute Characteristics and Definition](#) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
BLM_ORG_CD	String	5		Yes	dom_BLM_ORG_CD
ADM_UNIT_CD	String	8		Yes	DOM_ADM_UNIT_CD
ADMU_NAME	String	40		Yes	
ADMU_LABEL	String	40		Yes	
BLM_ORG_TYPE	String	20		Yes	DOM_BLM_ORG_TYPE
APPRV_DT	Date		09/09/9999	Yes	
EFF_DT	Date		09/09/9999	Yes	
PARENT_CD	String	8		Yes	DOM_ADM_UNIT_CD
PARENT_NAME	String	40		Yes	
PARENT_LABEL	String	40		Yes	
VERSION_NAME	String	50	InitialLoad	Yes *	
GLOBALID	GUID			Yes *	

* Values automatically generated

4.1.2 ADMU_OFC_ARC Feature Class (Administrative Unit Office Lines)

For domain and default values, see Section 7, [Attribute Characteristics and Definition](#) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
DEF_FEATURE	String	25	UNKNOWN	Yes	DEF_FEATURE
COORD_SRC	String	7	UNK	Yes	COORD_SRC
ACCURACY_FT	Short Integer			No	
SOURCE_LYR	String	20		Conditional	
ADMU_LNTYPE	String	10		No	dom_ADMU_LNTYPE
VERSION_NAME	String	50	InitialLoad	Yes *	
GLOBALID	GUID			Yes *	

* Values automatically generated

4.1.3 ADMU_OFC_PT Feature Class (Administrative Unit Office Points)

For domain and default values, see Section 7, [Attribute Characteristics and Definition](#) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
BLM_ORG_CD	String	5		Yes	dom_BLM_ORG_CD
ADM_UNIT_CD	String	8		Yes	DOM_ADM_UNIT_CD
ADMU_NAME	String	40		Yes	
ADMU_LABEL	String	40		Yes	
BLM_ORG_TYPE	String	20		Yes	DOM_BLM_ORG_TYPE
APPRV_DT	Date		09/09/9999	Yes	
EFF_DT	Date		09/09/9999	Yes	
MNGD_UNIT_CD	String	8		Yes	DOM_ADM_UNIT_CD
COORD_SRC	String	7		Yes	COORD_SRC
ACCURACY_FT	Short Integer			No	
VERSION_NAME	String	50	InitialLoad	Yes *	
GLOBALID	GUID			Yes *	

* Values automatically generated

4.2 Administrative Units History Feature Dataset

4.2.1 ADMU_OFC_HIST_POLY Feature Class (Administrative Unit Office History Polygons)

For domain and default values, see Section 7, [Attribute Characteristics and Definition](#) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
BLM_ORG_CD	String	5		Yes	
ADM_UNIT_CD	String	8		Yes	
ADMU_NAME	String	40		Yes	
ADMU_LABEL	String	40		Yes	
BLM_ORG_TYPE	String	20		Yes	
END_DT	Date			Yes	
CHANGE_REASON	String	100		No	
VERSION_NAME	String	50	InitialLoad	Yes *	
GLOBALID	GUID			Yes *	

* Values automatically generated

4.2.2 ADMU_OFC_HIST_ARC Feature Class (Administrative Unit Office History Lines)

For domain and default values, see Section 7, [Attribute Characteristics and Definition](#) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
DEF_FEATURE	String	25		Yes	DEF_FEATURE
COORD_SRC	String	7		Yes	COORD_SRC
ACCURACY_FT	Short Integer			No	
SOURCE_LYR	String	20		Conditional	
ADMU_LNTYPE	String	10		No	dom_ADMU_LNTYPE
VERSION_NAME	String	50	InitialLoad	Yes *	
GLOBALID	GUID			Yes *	

* Values automatically generated

4.2.3 ADMU_OFC_HIST_PT Feature Class (Administrative Unit Office History Points)

For domain and default values, see Section 7, [Attribute Characteristics and Definition](#) in this document.

Attribute Name	Data	Length	Default Value	Required	Domain
BLM_ORG_CD	String	5		Yes	dom_BLM_ORG_CD
ADM_UNIT_CD	String	8		Yes	DOM_ADM_UNIT_CD
ADMU_NAME	String	40		Yes	
ADMU_LABEL	String	40		Yes	
BLM_ORG_TYPE	String	20		Yes	DOM_BLM_ORG_TYPE
END_DT	Date		09/09/9999	Yes	
CHANGE_REASON	String	100		No	
VERSION_NAME	String	50	InitialLoad	Yes *	
GLOBALID	GUID			Yes *	

* Values automatically generated

5 Projection and Spatial Extent

All feature classes and feature datasets are in Geographic, North American Datum 83. Units are decimal degrees. Spatial extent (area of coverage) includes all lands managed by the BLM OR/WA State Office in Oregon and Washington. See the metadata for this data for a more precise description of the extent.

6 Spatial Entity Characteristics

- Administrative Unit Office Polygons (ADMU_OFC_POLY)
 - Description: Instance of Political & Admin Existing group.
 - Geometry: Polygons that form a continuous "wall-to-wall" cover across OR/WA with no gaps or overlaps.
 - Topology: Yes. ADMU_OFC_POLY lines are coincident with ADMU_OFC_ARC lines.
 - Integration Requirements: ADMU_OFC arcs are commonly imported to create other GIS boundary themes (see ADMU_OFC_ARC integration requirements below). If, instead, the ADMU_OFC poly is imported then the DEF_FEATURE attribute on the corresponding ADMU_OFC arc features must be transferred to the DEF_FEATURE of the receiving theme, unless "BLM_ADMIN" is more appropriate.
- Administrative Unit Office Lines (ADMU_OFC_ARC)
 - Description: Instance of Existing Political Admin SMA Line group.
 - Geometry: Simple, non-overlapping lines that are split between endpoints as needed.
 - Topology: Yes. ADMU_OFC_POLY lines are coincident with ADMU_OFC_ARC lines.
 - Integration Requirements: ADMU_OFC_ARC lines must remain coincident with the source data indicated by attributes DEF_FEATURE and COORD_SRC through either duplication or snapping. ADMU_OFC arcs are commonly imported to create other GIS boundary themes. The DEF_FEATURE attribute is transferred to the receiving arc feature class except where "BLM_ADMIN" is the appropriate choice for DEF_FEATURE. In general, the lowest level defining feature (e.g., "SUBDIVISION" rather than "BLM_ADMIN") should be shown in the DEF_FEATURE attribute, but sometimes the boundary segment in the receiving feature class is truly defined as Administrative Unit Boundary not "SUBDIVISION" and, in that case, "BLM_ADMIN" is the appropriate choice. Any GIS theme with a DEF_FEATURE of BLM_ADMIN must be updated whenever ADMU is updated.
- Administrative Unit Office Points (ADMU_OFC_PT)
 - Description: Instance of Political & Admin Existing group.
 - Geometry: Simple point features.
 - Topology: No
 - Integration Requirements: None
- Administrative Unit Office History Polygons (ADMU_OFC_HIST_POLY)
 - Description: Instance of Political & Admin History group.
 - Geometry: Polygons may not cover the landscape or all BLM lands continuously until a complete set of current ADMU polygons have been archived. There are potentially many historic ADMUs covering the same area, so there will be overlapping polygons.
 - Topology: The ADMU_OFC_HIST_POLY lines are coincident with ADMU_OFC_HIST_ARC lines and together make the feature dataset Administrative Units History.
 - Integration Requirements: None

- Administrative Unit Office History Lines (ADMU_OFC_HIST_ARC)
 - Description: Instance of Political & Admin History group.
 - Geometry: Simple, non-overlapping lines that are split between endpoints as needed.
 - Topology: The ADMU_OFC_HIST_POLY lines are coincident with ADMU_OFC_HIST_ARC lines and together make the feature dataset Administrative Units History. The ADMU_OFC_HIST_ARC lines are not duplicated for an overlapping polygon sharing the same boundary segment; instead, the same, single line is used for both polygons.
 - Integration Requirements: None
- Administrative Unit Office History Points (ADMU_OFC_HIST_PT)
 - Description: Instance of Political & Admin History group.
 - Geometry: Simple point features.
 - Topology: No
 - Integration Requirements: None

7 Attribute Characteristics and Definition (In alphabetical order)

7.1 ACCURACY_FT

Geodatabase Name	ACCURACY_FT
BLM Structured Name	Accuracy_Feet_Measure
Inheritance	Inherited from entity POLITICAL ADMIN SMA LINE
Alias Name	Accuracy Ft
Feature Class Use/Entity Table	ADMU_OF_C_ARC, ADMU_OF_C_HIST_ARC, ADMU_OF_C_PT
Definition	How close, in feet, the spatial GIS depiction is to the actual location on the ground. There are several factors to consider in GIS error: scale and accuracy of map-based sources, accuracy of Global Positioning System (GPS) equipment, and the skill level of the data manipulators. A value of "0" indicates no entry was made. This is the correct value when the COORD_SRC is another GIS theme (Digital Line Graph, Cadastral National Spatial Data Infrastructure and Digital Elevation Model (DEM)) because the accuracy is determined by that theme. However, if COORD_SRC is MAP (digitized from a paper map) or GPS, a value of "0" indicates a missing value that should be filled in either with a non-zero number or "-1." A value of "-1" indicates that the accuracy is unknown, and no reliable estimate can be made.
Required/Optional	No
Domain (Valid Values)	No domain. Examples: 3 (for high accuracy GPS), 40 (best possible for United States Geological Survey (USGS) 24K topo map), 200
Data Type	Short Integer

7.2 ADM_UNIT_CD

Geodatabase Name	ADM_UNIT_CD
BLM Structured Name	Administrative_Unit_Code
Inheritance	Not Inherited
Alias Name	Admin Unit Code
Feature Class Use/Entity Table	ADMU_OF_C_POLY, ADMU_OF_C_HIST_POLY, ADMU_OF_C_PT, ADMU_OF_C_HIST_PT
Definition	The code that indicates the formal grouping of positions into designated units and the assignment of functions and responsibilities to those units based on the DOI structure.
Required/Optional	Required
Domain (Valid Values)	DOM_ADM_UNIT_CD Note: the domain is not applied to the history feature class: ADMU_OF_C_HIST_POLY.
Data Type	String (8)

7.3 ADMU_LABEL

Geodatabase Name	ADMU_LABEL
BLM Structured Name	Administrative_Unit_Label_Text
Inheritance	Not Inherited
Alias Name	Admin Unit Label
Feature Class Use/Entity Table	ADMU_OFC_POLY, ADMU_OFC_HIST_POLY, ADMU_OFC_PT, ADMU_OFC_HIST_PT
Definition	The user-friendly name for the organization. It may be different from the ADMU_NAME by reducing words and reformatting text. Do not add "Field Office" or "District" to labels. These words can be added programmatically to labels if needed.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: "Andrews", "Siuslaw"
Data Type	String (40)

7.4 ADMU_LNTYPE

Geodatabase Name	ADMU_LNTYPE
BLM Structured Name	Cartographic_Linetype_Code
Inheritance	Not Inherited
Alias Name	Linetype
Feature Class Use/Entity Table	ADMU_OFC_ARC, ADMU_OFC_HIST_ARC
Definition	The "highest" level boundary that will be displayed when more than one type of boundary coincides.
Required/Optional	Required
Domain (Valid Values)	dom_ADMU_LNTYPE
Data Type	String (10)

7.5 ADMU_NAME

Geodatabase Name	ADMU_NAME
BLM Structured Name	Administrative_Unit_Name
Inheritance	Not Inherited
Alias Name	Administrative Unit Name
Feature Class Use/Entity Table	ADMU_OFC_POLY, ADMU_OFC_HIST_POLY, ADMU_OFC_PT, ADMU_OFC_HIST_PT
Definition	The official name by which the organization is known. An organization may include businesses, agencies, or corporations, but not individual persons. Names in ADMU_OFC_HIST_POLY may contain "Resource Area" since these features were formerly referred to as such. This field may be used at the national level for labeling.

Required/Optional	Required
Domain (Valid Values)	No domain. Examples: "PRINEVILLE DESCHUTES FIELD OFFICE", "COOS BAY MYRTLEWOOD FIELD OFFICE"
Data Type	String (40)

7.6 APPRV_DT

Geodatabase Name	APPRV_DT
BLM Structured Name	Approval_Date
Inheritance	Not Inherited
Alias Name	Approval Date
Feature Class Use/Entity Table	ADMU_OFC_POLY, ADMU_OFC_PT
Definition	The date on which the BLM Oregon State Office, BLM Washington Office or Assistant Secretary, Land and Minerals Management approved or concurred with the change to the organization unit number, name and/or administrative unit boundaries. The default value for this field is 9/9/9999.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 1/1/2015, 2/11/2016
Data Type	Date

7.7 BLM_ORG_CD

Geodatabase Name	BLM_ORG_CD
BLM Structured Name	Administrative_Unit_Organization_Code
Inheritance	Not Inherited
Alias Name	BLM Org Code
Feature Class Use/Entity Table	ADMU_OFC_POLY, ADMU_OFC_HIST_POLY, ADMU_OFC_PT, ADMU_OFC_HIST_PT
Definition	A combination of the BLM administrative state and field office that has administrative responsibility for the spatial entity. This includes determining the office to cover the entity for planning purposes and the office that is the lead for GIS edits. Another agency or individual may have the physical management responsibility for the on-the-ground entity. This field applies particularly when a spatial entity crosses field office or district boundaries and the administrative responsibility is assigned to one or the other rather than splitting the spatial unit. Similarly, OR/WA BLM may have administrative responsibility over some area that is physically located in Nevada, Idaho, or California and vice versa. When appropriate, identify the office to the district or even the state level rather than to the field office level.
Required/Optional	Required
Domain (Valid Values)	dom_BLM_ORG_CD Note: the domain is not applied to the history feature class: ADMU_OFC_HIST_POLY.
Data Type	String (5)

7.8 BLM_ORG_TYPE

Geodatabase Name	BLM_ORG_TYPE
BLM Structured Name	BLM_Organization_Type
Inheritance	Not Inherited
Alias Name	BLM Organization Type
Feature Class Use/Entity Table	ADMU_OFC_POLY, ADMU_OFC_HIST_POLY, ADMU_OFC_PT, ADMU_OFC_HIST_PT
Definition	A name that indicates the type of organization that is being described.
Required/Optional	Required
Domain (Valid Values)	DOM_BLM_ORG_TYPE . Note: the domain is not applied to the history feature class: ADMU_OFC_HIST_POLY.
Data Type	String (20)

7.9 CHANGE_REASON

Geodatabase Name	CHANGE_REASON
BLM Structured Name	Change_Reason_Text
Inheritance	Not Inherited
Alias Name	Change Reason
Feature Class Use/Entity Table	ADMU_OFC_HIST_POLY, ADMU_OFC_HIST_PT
Definition	A brief description explaining why the boundary change was made. This information may not be available for data compiled from historic records.
Required/Optional	Optional
Domain (Valid Values)	No domain.
Data Type	String (100)

7.10 COORD_SRC

Geodatabase Name	COORD_SRC
BLM Structured Name	Coordinate_Source_Code
Inheritance	Inherited from entity POLITICAL ADMIN SMA LINE
Alias Name	Coordinate Src
Feature Class Use/Entity Table	ADMU_OFC_ARC, ADMU_OFC_HIST_ARC, ADMU_OFC_PT
Definition	The actual source of the GIS coordinates for the polylines. If the line is copied from another theme, and already has COORD_SRC, it should be reviewed and may need to be changed for use in this dataset.
Required/Optional	Required

Domain (Valid Values)	COORD_SRC
Data Type	String (7)

7.11 DEF_FEATURE

Geodatabase Name	DEF_FEATURE
BLM Structured Name	Defining_Feature_Code
Inheritance	Inherited from Entity POLITICAL ADMIN SMA LINE
Alias Name	Defining Feature
Feature Class Use/Entity Table	ADMU_OFC_ARC, ADMU_OFC_HIST_ARC
Definition	Physical feature that forms the boundary. For ADMU_OFC_ARC, the default value for this field is UNKNOWN.
Required/Optional	Required
Domain (Valid Values)	DEF_FEATURE
Data Type	String (25)

7.12 EFF_DT

Geodatabase Name	EFF_DT
BLM Structured Name	Effective_Date
Inheritance	Not Inherited
Alias Name	Effective Date
Feature Class Use/Entity Table	ADMU_OFC_POLY, ADMU_OFC_PT
Definition	The date on which an area of BLM Land becomes the responsibility of a BLM administrative unit. The default value for this field is 9/9/9999.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 1/1/2015, 2/11/2016
Data Type	Date

7.13 END_DT

Geodatabase Name	END_DT
BLM Structured Name	End_Date
Inheritance	Not Inherited
Alias Name	End Date
Feature Class Use/Entity Table	ADMU_OFC_HIST_POLY, ADMU_OFC_HIST_PT
Definition	The date when the boundary of an administered BLM Land location was superseded. The date is the same as the effective date of the replacing boundary location.
Required/Optional	Required

Domain (Valid Values)	No domain. Examples: 1/1/2015, 2/11/2016
Data Type	Date

7.14 GLOBALID

Geodatabase Name	GLOBALID
BLM Structured Name	Global_ID_Identifier
Inheritance	Not Inherited
Alias Name	None
Feature Class Use/Entity Table	All feature classes
Definition	System generated unique identifier.
Required/Optional	Required
Domain (Valid Values)	No domain.
Data Type	GUID

7.15 MNGD_UNIT_CD

Geodatabase Name	MNGD_UNIT_CD
BLM Structured Name	Managed_Administrative_Unit_Code
Inheritance	Not Inherited
Alias Name	Managed Admin Unit Code
Feature Class Use/Entity Table	ADMU_OFC_PT
Definition	The code that indicates the formal grouping of positions into designated units and the assignment of functions and responsibilities to those units based on the DOI FPPS structure.
Required/Optional	Required
Domain (Valid Values)	DOM_ADM_UNIT_CD
Data Type	String (8)

7.16 PARENT_CD

Geodatabase Name	PARENT_CD
BLM Structured Name	Parent_Administrative_Unit_Code
Inheritance	Not Inherited
Alias Name	Parent Admin Code
Feature Class Use/Entity Table	ADMU_OFC_POLY
Definition	The identifier for the administrative unit that has responsibility for other units.
Required/Optional	Required
Domain (Valid Values)	DOM_ADM_UNIT_CD

Data Type	String (8)
-----------	------------

7.17 PARENT_LABEL

Geodatabase Name	PARENT_LABEL
BLM Structured Name	Parent_Administrative_Unit_Label_Text
Inheritance	Not Inherited
Alias Name	Parent Label
Feature Class Use/Entity Table	ADMU_OFC_POLY
Definition	The user-friendly name for the parent organization. It may be different from the PARENT_NAME by reducing words and reformatting text. Do not add "Field Office" or "District" to labels. These words can be added programmatically to labels if needed.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: "Medford", "Vale"
Data Type	String (40)

7.18 PARENT_NAME

Geodatabase Name	PARENT_NAME
BLM Structured Name	Parent_Administrative_Unit_Name
Inheritance	Not Inherited
Alias Name	Parent Name
Feature Class Use/Entity Table	ADMU_OFC_POLY
Definition	The official name by which the organization is known. An organization may include businesses, agencies, or corporations, but not individual persons.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: "LAKEVIEW DISTRICT OFFICE", "SPOKANE DISTRICT OFFICE"
Data Type	String (40)

7.19 SOURCE_LYR

Geodatabase Name	SOURCE_LYR
BLM Structured Name	Source_Layer_Name
Inheritance	Not Inherited
Alias Name	Source Layer
Feature Class Use/Entity Table	ADMU_OFC_ARC
Definition	The name of the feature class from which features are duplicated. Required if Coordinate Source = SOURCECEL. Otherwise, the field is blank.

Required/Optional	Conditional
Domain (Valid Values)	No domain. Examples: "GTRN_PUB_ROADS_ARC", "HYD_PUB_FLOWLINE"
Data Type	String (20)

7.20 VERSION_NAME

Geodatabase Name	VERSION_NAME
BLM Structured Name	Geodatabase_Version_Text
Alias Name	None
Inheritance	Inherited from entity ODF
Feature Class Use/Entity Table	All feature classes
Definition	<p>Name of the corporate geodatabase version previously used to edit the record.</p> <p>InitialLoad = feature has not been edited in ArcSDE.</p> <p>Format: username.XXX-mmddy-hhmmss = version name of last edit (hours might be a single digit; leading zeros are trimmed for hours only). XXX=theme abbreviation.</p> <p>Example: sfrazier.RAB-121210-111034</p> <p>Only appears in the transactional (edit) version. Public version (which is also the version used internally for mapping or analysis) does not contain this attribute.</p>
Required/Optional	Required (automatically generated)
Domain (Valid Values)	No domain
Data Type	String (50)

8 Layer Files (Publication Views)

8.1 General

Master corporate feature classes/datasets maintained in the edit database (currently ORSOEDIT) are “published” to the user database (currently ORSOVCTR) in several ways:

- Copied completely with no changes (replicated).
- Copied with no changes except to omit one or more feature classes from a feature dataset.
- Minor changes made (e.g., clip, dissolve, union with ownership) to make the data easier to use. Feature classes that have been changed are indicated by “PUB” in their name. They are created through scripts that can be automatically executed and are easily rebuilt from the master (ORSOEDIT) data whenever necessary.

Layer files are not new data requiring storage and maintenance but point to existing data. They have appropriate selection and symbolization for correct use and display of the data. They provide the guidance for data published on the web. Layer files are created by simple, documented processes, and can be deleted and recreated at any time.

8.2 Specific to This Dataset

Layer files developed as of the date of this standard are listed below. Additional ones may be added in the future.

- District Land Area Boundaries.lyr - OR/WA BLM Districts to the coastline: does not include the 3-mile limit (official State extent into the ocean). This layer is used extensively for clipping and area calculations that do not include the Pacific Ocean.
- Field Office Land Boundaries.lyr - OR/WA BLM Field Offices to the coastline: does not include the 3-mile limit. This layer is used extensively for clipping and area calculations that do not include the Pacific Ocean.
- State Boundary.lyr - OR/WA and District boundaries including the 3-mile extent into the ocean and the ocean islands.
- Office Location Points.lyr - ADMU office points.

Publication feature datasets are derivative products of the core master data (in this case ADMU_OFC_ARC and ADMU_OFC_POLY). They may also be combined with other feature classes to create these derivative products. The field VERSION_NAME is not included in these datasets. In this case the following publication feature classes are created:

- SOB_POLY - The state office boundary created by dissolving all the polygons. None of the attributes are retained. One new attribute is created: “SOB”, with value “OR”.
- DOB_POLY - The district office boundaries created by dissolving ADMU_OFC_POLY on PARENT_CD. The following attributes are retained: PARENT_LABEL (renamed DIST_NAME), PARENT_CD (renamed DOB_ORG_CD and 3 trailing zeros removed).
- DOB_LAND_POLY - DOB_POLY with the Pacific Ocean polygon from OCEAN_POLY removed and append named islands. The following attributes are retained: DIST_NAME, DOB_ORG_CD, and ISLAND_NAME.
- FOB_LAND_POLY - The field office boundaries created by using the Symmetrical Difference of ADMU_OFC_POLY with the Pacific Ocean polygon from OCEAN_POLY and appending named islands. ADMU_OFC_POLY attributes are retained with ISLAND_NAME.

Additional steps may be required to attribute field offices that are managed by the adjacent district office.

These feature classes contain all polygons pertinent to Field Office and District Boundary query for display and analysis needs and will be the source pointed to by a variety of layer files.

For mapping purposes, when lines coincide (State Boundaries, District Boundaries, Field Office Boundaries) only the highest-level boundary is shown. A layer file may be created to standardize this representation by using the ADMU_LNTYPE attribute of ADMU_OFC_ARC.

All feature classes may be published to the public.

8.3 National Theme Presentation

Data as part of the ODF may have a different format, or schema, than that which is prescribed at the national level by the NOC. This allows for inclusion of elements required by the local State, District, or Field Offices, may streamline edit and maintenance tasks, or may be due to standards being developed at different times.

Data may be presented for inclusion into national themes by alteration or transformation into the national standard.

The preparation or transformation of ADMU for inclusion into the national ADMU theme requires the transformation described in the tables below.

National ADMU_OFC_POLY

Source (OR/WA ADMU_OFC_POLY)	Target (National ADMU)
ADM_UNIT_CD	ADM_UNIT_CD
ADMU_NAME	ADMU_NAME
BLM_ORG_TYPE	BLM_ORG_TYPE
APPRV_DT	APPRV_DT
EFF_DT	EFF_DT
Fill with "https://www.blm.gov/oregon-washington".	ADMU_ST_URL
PARENT_CD	PARENT_CD
PARENT_NAME	PARENT_NAME
Fill with "OR"	ADMIN_ST
Derive from the VERSION_NAME field and the date the edit version was posted to the corporate dataset.	CREATE_DATE
	CREATE_BY
	MODIFY_DATE
	MODIFY_BY

National ADMU_OFC_ARC

Source (OR/WA ADMU_OFC_ARC)	Target (National ADMU)
Derive from COORD_SRC. Value conversion: CADNSDI to GCD CFF to GISO DEM to GISO DIS to OTH DLG to GISO DOQ to IMG DRG to GISO GCD to GCD GPS to GPS IMG to IMG MAP to MAP MTP to MAP	COORD_SRC_TYPE

Source (OR/WA ADMU_OFC_ARC)	Target (National ADMU)
SOURCEL to GIS SRV to SRV TIGER to GISO TRS to TRS UNK to UNK WOD to OTH	
COORD_SRC	COORD_SRC2
Derive from DEF_FEATURE. Value conversion: CLOSURE to OTH COUNTY to ADMIN_BND FOREST_SERVICE_ADMIN to ADMIN_BND GRAZING_BOUNDARY to ADMIN_BND POINT-TO-POINT to OTH RIDGE to OTH_LAND ROAD to CONST_FEAT SUBDIVISION to PLSS UNKNOWN to UNK WATERCOURSE to OTH_LAND	DEF_FET_TYPE
DEF_FEATURE	DEF_FET2
ACCURACY_FT	ACCURACY_FT
Derive from ADMU_LNTYPE. Value conversion: DOB to 2 DOBEXT to 2 RAB to 3 RABEXT to 3 SOB to 1 SOBOCEAN to 1 INTER to 0	ADMU_TIER
Fill with "OR"	ADMIN_ST
Derive from the VERSION_NAME field and the date the edit version was posted to the corporate dataset.	CREATE_DATE
	CREATE_BY
	MODIFY_DATE
	MODIFY_BY

National ADMU_OFC_PT

Source (OR/WA ADMU_OFC_PT)	Target (National ADMU)
ADM_UNIT_CD	ADM_UNIT_CD
ADMU_NAME	ADMU_NAME
BLM_ORG_TYPE	BLM_ORG_TYPE
APPRV_DT	APPRV_DT
EFF_DT	EFF_DT

Source (OR/WA ADMU_OFC_PT)	Target (National ADMU)
MNGD_UNIT_CD	MNGD_UNIT_CD
Fill with "https://www.blm.gov/oregon-washington".	ADMU_ST_URL
Derive from COORD_SRC. Value conversion: CADNSDI to GCD CFF to GISO DEM to GISO DIS to OTH DLG to GISO DOQ to IMG DRG to GISO GCD to GCD GPS to GPS IMG to IMG MAP to MAP MTP to MAP SOURCEL to GIS SRV to SRV TIGER to GISO TRS to TRS UNK to UNK WOD to OTH	PT_SRC_TYPE
COORD_SRC	PT_SRC_DESC
Fill with "OR"	ADMIN_ST
Derive from the VERSION_NAME field and the date the edit version was posted to the corporate dataset.	CREATE_DATE
	CREATE_BY
	MODIFY_DATE
	MODIFY_BY

National ADMU_HIST_OFC_POLY

Source (OR/WA ADMU_OFC_HIST_POLY)	Target (National ADMU)
ADM_UNIT_CD	ADM_UNIT_CD
ADMU_NAME	ADMU_NAME
BLM_ORG_TYPE	BLM_ORG_TYPE
END_DT	END_DT
Fill with "OR"	ADMIN_ST
Derive from the VERSION_NAME field and the date the edit version was posted to the corporate dataset.	CREATE_DATE
	CREATE_BY
	MODIFY_DATE
	MODIFY_BY

National ADMU_HIST_OFC_PT

Source (OR/WA ADMU_OFC_HIST_PT)	Target (National ADMU)
ADM_UNIT_CD	ADM_UNIT_CD
ADMU_NAME	ADMU_NAME
BLM_ORG_TYPE	BLM_ORG_TYPE
END_DT	END_DT
Fill with "OR"	ADMIN_ST
Derive from the VERSION_NAME field and the date the edit version was posted to the corporate dataset.	CREATE_DATE
	CREATE_BY
	MODIFY_DATE
	MODIFY_BY

9 Editing Procedures

9.1 POLY/ARC TOPOLOGY (BOUNDARY GROUP DATASETS)

A poly/arc feature dataset means there is a polygon feature class plus an arc feature class that represents the perimeter of the polygon, and which must be kept coincident with the polyline. This requires advanced topological editing skills and in the ODF these poly/arc pair datasets are limited to the “Boundary” group of themes.

Recommended order of capture and maintenance for poly/arc datasets:

- Acquire annotated boundary maps or other sources defining the perimeters of the polygons.
- Create a line feature class with lines copied in from other sources. Fill in COORD_SRC, DEF_FEATURE and ACCURACY_FT as each set of lines is brought in. For planning designation boundary datasets start with the arcs for the planning area boundary.
- Clean up the lines:
 - Split and snap the line endpoints as needed.
 - Where there are duplicate lines, retain the line from the most accurate source.
 - Snap vertices between endpoints to the correct source.
 - Delete extra vertices or vertices too close together, especially at ends of lines.
 - Ensure that the lines are complete, with no overlap and no gaps.
 - Construct polygons from the full set of lines. Check for gaps or extra polygons (small slivers) and go back to step 3 if there is additional cleanup needed.

9.2 Editing Quality Control

Duplicate features. Checking for undesired duplicates is critical. Polygons or arcs that are 100% duplicate are easily found by searching for identical attributes along with identical Shape_Area and/or Shape_Length. Searching for partially overlapping arcs or polygons is harder, and each case must be inspected to determine if the overlap is desired or not.

To avoid overlapping polygons on the same area, polygons from different input themes are incorporated with the Union spatial overlay tool, not copied.

Union rather than Intersect is used to prevent unintended data loss.

Gap and overlap slivers. These can be hard to find if there are no topology rules. A temporary map topology can be created to find overlap slivers. Gap slivers can be found by constructing polygons from all arcs and checking polygons with very small area.

Buffer and dissolve considerations. Where polygons are created with the buffer tool, the correct option must be selected. The default option is “None,” which means overlap will be retained. Sometimes the overlap should be dissolved, and the option changed to “All.” Lines resulting from buffer have vertices too close together, especially around the end curves. They should be generalized to thin the vertices. If the dissolve tool is used on polygons or arcs, the “Create multipart features” should be unchecked.

GPS considerations. GPS linework is often messy and should always be checked and cleaned up, as necessary. Often vertices need to be thinned (generalize) especially at line ends. Multi-part polygons are sometimes inadvertently created when GPS files with vertices too close together or crossing lines or spikes are brought into ArcGIS. Tiny, unwanted polygons are created but are “hidden” because they are in a multi-part.

Be careful when merging lines. Multi-part lines will be created if there are tiny unintentional (unknown) gaps, and it can be difficult to find these unless the multi-parts are exploded.

Null geometry. Check any features that have 0 or very small Shape_Area or Shape_Length. If a feature has 0 geometry and you cannot zoom to it, it is probably an inadvertently created “Null” feature and should be deleted. Very small features may also be unintended, resulting from messy line work.

Check tolerances. In general, set Cluster Tolerance as small as possible. This is 0.000000009 Degree (0.000007 degree is approximately 1 meter).

Snapping considerations. Where line segments with different COORD_SRC meet, the most accurate or important (in terms of legal boundary representation) are kept unaltered, with other lines snapped to them. In general, the hierarchy of importance is PLSS (CadNSDI points/lines) first, with DLG or SOURCE next, then DEM, and MAP last. When snapping to the data indicated in COORD_SRC (as opposed to duplicating with copy/paste), be sure there are the same number of vertices in the target, and source theme arcs. When the DEF_FEATURE is "SUBDIVISION," snap the line segment to PLSS points, and make sure there are the same number of vertices in the line as PLSS points.

Check that all date fields contain valid dates in MM/DD/YYYY format. If an attribute has a domain, check for invalid values. The values must be exact.

Check for capitalization and spacing differences in attribute values that should be the same. Check for leading or trailing blanks what will make a different value even if it looks identical.

9.3 Vertical Integration

In the ODF, the need for vertical integration is confined to, and characteristic of, the "Boundaries" group of themes. Boundaries polygons have perimeters that are defined by other features and are *required* to stay that way. Activities and Resources polygon perimeters are "self-defining." For example, a road, ownership, or watershed line might be used to build a prescribed burn unit, but the unit perimeter is *defined* by the actual burned area.

Boundaries polylines (arcs) have attributes DEF_FEATURE and COORD_SRC which provide the information needed for vertical integration. When the GIS feature class indicated by COORD_SRC changes, the arc might need to be re-snapped.

Many boundaries are defined largely by legal land lines and therefore should be snapped to Cadastral NSDI PLSS Points. Theoretically, whenever PLSS Points are updated, all polylines with COORD_SRC = "CADNSDI" (or "GCD") should be re-snapped, but not all themes have the same need or priority. Sub-groups of ODF Boundaries provide a prioritization with the "Land Status" group being the highest priority, followed by the "Political and Administrative" group then the "Special Management Area" group.

Vertical Integration to updated legal land lines is accomplished simply by re-snapping vertices to PLSS Points and is not difficult if the polylines have vertices that coincide with PLSS points. Datasets can be updated independently of each other and partially, as time permits.

When arcs are copied from one boundary dataset to another, DEF_FEATURE may need to be changed. For example, a Field Office Boundary (FOB) polyline might be defined as "SUBDIVISION", but when it is copied to Plan Area Boundary (PLANBDY) the plan boundary is defined by Field Office and DEF_FEATURE should be changed to "BLM_ADMIN". It is important that boundary lines copied from other themes NOT be merged, even though the attributes are all the same. The splits in the original source theme should be retained to retain exact coincidence and facilitate future updates.

9.4 Theme Specific Guidance

There is much in the data standard that addresses editing and provides guidance especially in the Data Management Protocols (Section 3).

10 Abbreviations and Acronyms

Does not include abbreviations/acronyms used as codes for data attributes or domain values.

Table 2 Abbreviations/Acronyms Used

Abbreviations	Descriptions
ARC	GIS line feature
BLM	Bureau of Land Management, U.S. Department of the Interior
CADNSDI	Cadastral National Spatial Data Infrastructure
DEM	Digital Elevation Model
DLG	Digital Line Graphs
DOB	BLM District Office Boundary
FOIA	Freedom of Information Act
GIS	Geographic Information System
GNIS	Geographic Names Information System
GPS	Global Positioning System
GTRN	Ground Transportation GIS dataset
IDP	Interdisciplinary
NAD	North American Datum
NARA	National Archives and Records Administration
NEPA	National Environmental Policy Act
NOC	National Operations Center
ODF	Oregon Data Framework
OR/WA	Oregon/Washington BLM Administrative State
POLY	GIS polygon feature
PUB	Publication
RMP	Resource Management Plan
SDE	Spatial Data Engine
SMA	Special Management Area
SOB	BLM OR/WA State Office Boundary
USFS	United States Forest Service, U.S. Department of Agriculture
USGS	United States Geological Survey, U.S. Department of the Interior
SDE	Spatial Database Engine
WEB	Worldwide Web (internet)
WODDB	Western Oregon Digital Database

A Domains (Valid Values)

These are the domains at the time the data standard was approved. Domains can be changed without a re-issue of the data standard. Current domains are found on the internal OR/WA SharePoint data management page. Some of the domains used in this data standard are also available at the following web site:

<http://www.blm.gov/or/datamanagement/index.php>

For domains not listed at that site contact: contact the [State Data Administrator](#).

A.1 DOM_ADM_UNIT_CD

Administrative Unit Code. This is the national list of administrative units. This domain is inherited from the national Administrative Units data standard. This is a lengthy domain. For the full list go to:

https://gis.blm.gov/ORDownload/Domains/DOM_ADM_UNIT_CD.xlsx.

A.2 dom_ADMU_LNTYPE

BLM Administrative Unit Boundary Line Type Code. Highest level boundary displayed when more than one type coincides. Lower-level boundaries require all higher-level boundaries to display fully.

Code	Value
DOB	DOB - District Boundary
DOBEXT	DOBEXT - Coast Extension for District Boundary
FOB	FOB - Field Office Boundary
FOBEXT	FOBEXT - Coast Extension for Field Office Boundary
INTER	INTER - International Boundary (US/Mexico and US/Canada)
SOB	SOB - OR/WA State Office Boundary
SOBOCEAN	SOBOCEAN - 3 mile Offshore Boundary for State Office Boundary

A.3 dom_BLM_ORG_CD

Administrative Unit Organization Code. Standard BLM organization codes generated from the national list.

This is a lengthy domain used by multiple datasets. For the full list of values go to:

https://gis.blm.gov/ORDownload/Domains/dom_BLM_ORG_CODE.xls.

A.4 DOM_BLM_ORG_TYPE

BLM Organization Type Code. A name that indicates the type of organization that is being described. This domain is inherited from the national Administrative Units data standard.

Code	Description
State	State - Administrative State
District	District - Administrative District
Field	Field - Administrative Field Office
Other	Other - Field Stations, Monuments and Other Administrative Types

A.5 dom_COORD_SRC

Coordinate Source Code. The source of the geographic coordinates- lines, points, polygons.

Code	Value
CADNSDI	CADNSDI - Coordinates from or snapped to the CadNSDI dataset. CADNSDI is the cadastral national spatial data infrastructure publication data set for rectangular and non-rectangular public land survey system (PLSS) data.
CFF	CFF - Lines duplicated or buffered from Cartographic Feature Files (USFS)
DEM	DEM - Digital Elevation Model (30 m or better accuracy) used for creation of contours
DIS	DIS - Lines generated to connect discontinuous features
DLG	DLG - Lines duplicated or buffered from (24K scale accuracy) USGS Digital Line Graphs
DOQ	DOQ - Screen digitized linework over Digital Orthoquad backdrop
DRG	DRG - Screen digitized linework over Digital Raster Graphic backdrop
GCD	GCD - Lines snapped to Geographic Coordinate Database Points
GPS	GPS - Lines obtained from a Global Positioning System device
IMG	IMG - Linework derived from interpretation of satellite or other non-photographic imagery
LiDAR	LiDAR - LiDAR points, lines, or polygons generated through interpretation or analysis. Features containing points, lines, or polygons generated through interpretation or analysis of LiDAR point clouds, LiDAR-derived surfaces, and photos.
MAP	MAP - Digitized linework from paper map
MTP	MTP - Lines duplicated from Digital Master Title Plat
SOURCEL	SOURCEL - Source Layer from BLM GIS
SRV	SRV - Survey methods were used to create the linework (e.g., COGO)
TIGER	TIGER - Tiger Data
TRS	TRS - Coordinates only given as a legal description (township, range, section)
UNK	UNK - Unknown coordinate source
WOD	WOD - WODDB Photogrammetric

A.1 dom_DEF_FEATURE

Defining Feature Code. Physical features or administrative lines that define an official boundary.

Code	Value
BLM_ADMIN	BLM_ADMIN - Bureau of Land Management administrative boundary
COUNTY	COUNTY - County boundary
ELEVATION	ELEVATION - Line of common elevation
FENCE	FENCE - Fence line
FOREST_SERVICE_ADMIN	FOREST_SERVICE_ADMIN - Forest Service administrative boundaries
GRAZING_BOUNDARY	GRAZING_BOUNDARY - Pasture or other administrative grazing boundary

Code	Value
HU	HU - Hydrologic Unit
NLCS_BOUNDARY	NLCS_BOUNDARY - Wilderness, Wild and Scenic River, Historic District or other NLCS designation boundary
POINT-TO-POINT	POINT-TO-POINT - Boundary defined by a straight line segment between two points
POWERLINE	POWERLINE - Power transmission line
RIDGE	RIDGE - Ridge
RIGHT-OF-WAY	RIGHT-OF-WAY - A legal right of way forms boundary
RIM	RIM - Line generally follows a natural topographic barrier
ROAD	ROAD - Routes managed for use by low or high-clearance (4WD) vehicles, but not ATV's
ROAD_OFFSET	ROAD_OFFSET - Boundary is offset from a road (not a consistent buffer)
SHORELINE	SHORELINE - Lake, pond, reservoir, bay or ocean shoreline or meander line
SUBDIVISION	SUBDIVISION - Public Land Survey System derived aliquot (1/2's, 1/4's) parts and lots
TRAIL	TRAIL - Routes managed for human-powered, stock or off-highway vehicle forms of travel
UNKNOWN	UNKNOWN - Defining feature is unknown
VEGETATION	VEGETATION - Seeding boundary or other relatively permanent vegetation change
WATERCOURSE	WATERCOURSE - Stream, river, ditch, canal, or drainage centerline
WATERCOURSE_OFFSET	WATERCOURSE_OFFSET - Boundary is offset from a watercourse (not a consistent buffer)