Oregon/Washington Bureau of Land Management

Visual Resources

Spatial Data Standard

View from Steens Loop Road on the way to Kiger Gorge. Photo taken by Gary Kegel, BLM Volunteer, on 10/1/2019.

Document Revisions

Revision	Date	Author	Description	Affected Pages
1.0	03/02/2007	Margaret Wolf, Stan Frazer, Pam Keller	Initial Release	All
1.1	03/10/2017	Kyler Diershaw	Updated contact information for State Data Administrator, State Records Administrator. Added Document Revision Table.	Section 1.1, 2.4, 4.0, A
1.2	03/22/2017	Kyler Diershaw	Added automatic TOC. Updated BLM_ORG_CD. Update Records Retention Schedule text	This page
1.4	07/13/2018	Dan Karnes	Adjusted document to interface with national visual resources data standard and updated table of contents	TOC, A.1, and 1.3
2.0	09/01/2018	Al Thompson	Reformat and reorganize to fit new template.	3, 5, 6, 11, 17, 18, 20, 24
2.0	10/26/2018	Jerry Magee, Craig Ducey	Added Interim VRM class codes to VRM Class Code domain.	All
3.0	12/12/2023	Dana Baker-Allum	Reformatted document to meet Section 508 standards and match the latest data standard template. Updated General Information section to add language that was previously in a different section of the document. Updated FOIA category, keywords, and subject function codes. Updated architecture diagrams. Added field aliases, edit tracking fields, default values for required fields, and constraint rules. Modified BLM_ORG_CD to show it is auto calculated on data entry. Added attribute rules to editing procedures. Changed document cover photo.	All

Navigation

This document is easier to view if the Microsoft Word Navigation pane is displayed (View -> Navigation Pane). If viewing in PDF format, open the document in Acrobat and click the Contents button. 

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

This Visual Resource data standard contains requirements for Visual Resource (VR) Inventory (VRI) and Visual Resource Management (VRM) themes.

The VRI theme classifies land polygons as the result of the evaluation of areas for their visual potential based on several criteria. Visual Resources are a landscape characteristic and are evaluated using a baseline of the natural, unaltered landscape. The VRI applies ratings to the landscape for Scenic Quality (visual appeal) and Sensitivity Level (measure of public concern for scenic quality) within Distance Zones (three zones based on relative visibility from travel routes or observation points). These three values are combined, and areas (polygons) delineated according to the final VRI class. This data standard adopts the National VRI Data Standard by reference to implement feature classes and standalone tables, attributes, and relationship classes as described at https://doimspp.sharepoint.com/:b:/r/sites/blm-oc-drs-branch-of-resource-data-com/Established%20Data%20Standards/VRI_Implementation_Guidelines.pdf?csf=1&web=1&e=3rnR4w. These feature classes, tables, and relationship classes are maintained in the edit database. A 'publication view' polygon feature class, summarizing and flattening the feature classes and related tables, is published to the user database to support ease of use in viewing the VRI theme.

The VRM theme classifies lands for the management of visual resources as defined in a Resource Management Plan (RMP). VRM starts with the underlying VRI and overlays it with areas of disturbance as well as areas of protection or restriction. Final management class ratings are based on the degree to which each area is either allowed to depart or has already departed from the natural landscape condition. VRM Proposed (VRM_P) is VRM prior to the signing of the RMP. It is identical to VRM except that it will probably have different final class ratings for the different RMP alternatives.

- Dataset (Theme) Name: Visual Resources
- Dataset (Feature Class): VRM_POLY, VRM_ARC, VRM_P_POLY, VRM_P_ARC

1.1 Roles and Responsibilities

To find the latest contact information for the employees assigned to these roles, see https://www.blm.gov/about/data/oregon-data-management.

- 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 the 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.
- State FOIA/Privacy Act Team Lead - the State FOIA/Privacy Act team lead assists the state data steward to identify any privacy issues related to spatial data. The State FOIA/Privacy Act team lead also provides

direction and guidance on data release, fees, and classification under the appropriate Freedom of Information Act exemption.

- State Records Administrator - the state records administrator classifies data under the proper records retention schedule.

1.2 FOIA Category

These data fall under the standard Records Access Category 1B - BLM Records that may contain protected information that must be considered for segregation prior to release. See section 8 for more information on which data are available to the 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, **Visual Resources**, 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."

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 Visual Resources (VR) set of themes do 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.

1.5 Keywords

Keywords that can be used to locate this dataset include:

- BLM Thesaurus: Management
- Additional keywords: Visual Resources, Visual Resource Inventory, Visual Resource Management, Land Use Planning, VRI, VRM, Areas of Critical Environmental Concern, ACEC, Outstanding Natural Area, ONA, Research Natural Area, and RNA.
- ISO Thesaurus: environment

1.6 Subject Function Codes

BLM Subject Function codes used to describe this dataset include:

- 1283 - Data Administration
- 8400 - Visual Resource Management
- 9167 - Geographic Information System (GIS)

2 Dataset Overview

2.1 Usage

VRI is used as a planning input to the VRM theme, which is how visual resources must be interpreted for BLM lands. It could provide the base visual resource data for other purposes such as analyzing viewsheds on a broad scale but does not establish management direction. VRI Classes and their underlying component assessments are used in Environmental Assessment and Impact Statements as part of the NEPA analysis of alternatives. Activities with a large visual impact such as energy and mineral development have more Visual Resource analysis, but most activity plans must address the VRI classes and component values. VRM Classes are used to assess projects for land use plan conformance with the objectives associated with each VRM Class designation, typically using the Visual Contrast Rating System. The VRM DSG_REASON attribute (see below) is important because it tells the user the dominant reason that determined the VRM Class rating for a particular area. VRM Classes are only relevant for BLM lands present at the time of the RMP. VRI can be applied across the landscape although it is focused on BLM lands.

2.2 Sponsor/Affected Parties

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

VRM is defined by and specific to BLM. Matching interagency data across the landscape is not necessary. Our non-governmental partners and the public are affected to the extent that VRM is part of the RMP that determines management on BLM lands. Implementation of an RMP may preclude certain activities in certain areas because of potential impact to the visual resource.

2.3 Relationship to Other Datasets, Databases, or Files

There are no external files or databases currently associated with the VRM data sets.

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 9. 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. Those groups/categories above them do not contain actual data but set parameters which all data of that type must follow.

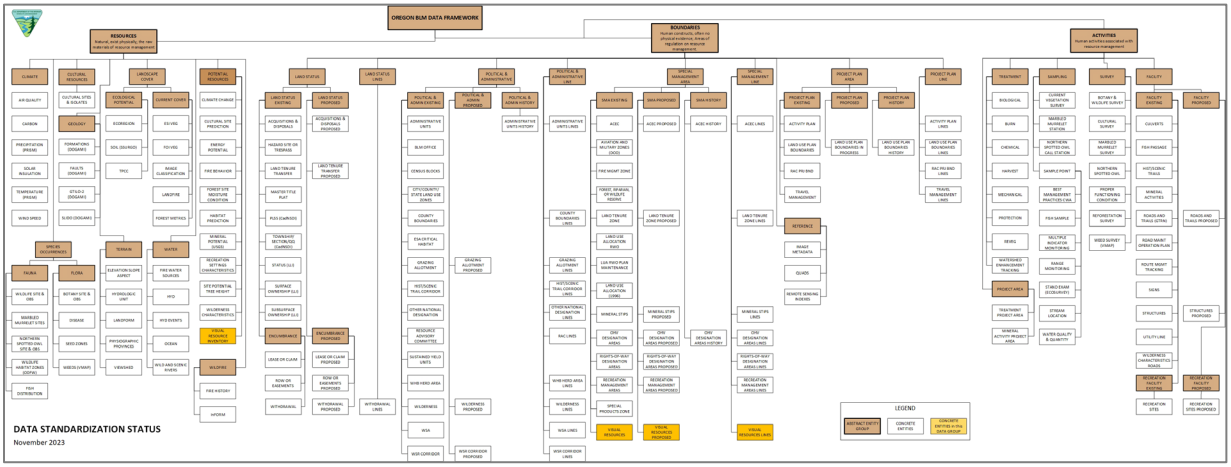

Figure 1 Oregon Data Framework Overview

For an easier to view version of the Oregon Data Framework diagram, go to: https://gis.blm.gov/ORDownload/DataFramework/BLM_ODF_Model_Mini_Status.pdf.

Physical data is populated in the basic data sets. Those groups/categories above them do not contain actual data but set parameters that all data of that type must follow. See Figure 2, Data Organization Structure for a simplified schematic of the entire ODF showing the overall organization and entity inheritance. The Visual Resources entities are highlighted. 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, Visual Resources is considered a Boundary and categorized as follows:

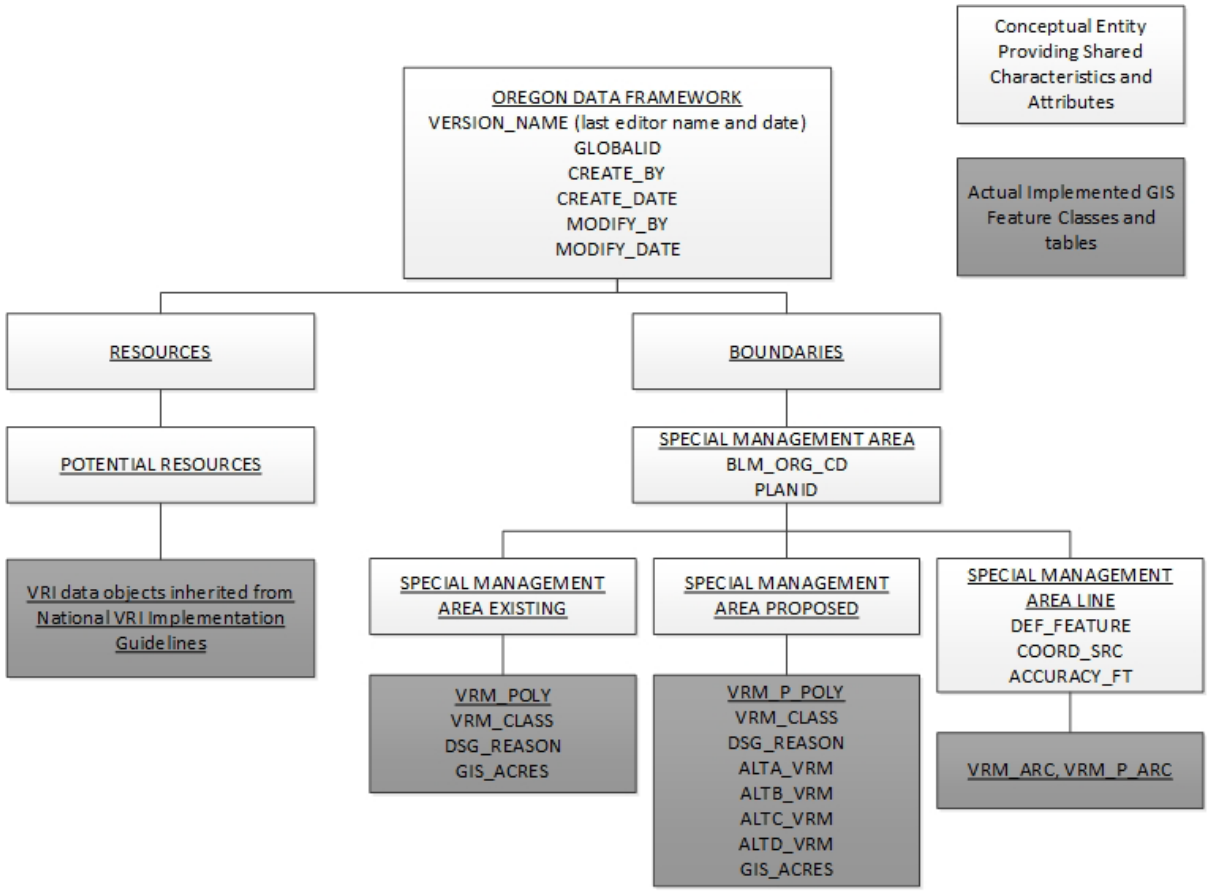

Figure 2 Data Organization Structure

2.5 Relationship to DOI Enterprise Architecture Data Resource Mode

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

Boundary themes (VRM is a boundary theme) often require a higher level of accuracy than other themes. This is because those boundaries often divide very different management and regulation. Some boundaries can by their nature or definition be accurately located and others cannot. Special Management Area (including VRM) and Political and Administrative boundary perimeter lines must be defined and segmented accordingly. Individual boundary segment attributes (Feature Level Metadata) provide the information needed to answer questions about why a boundary line is where it is and how accurately it is located. These theme groups therefore require feature class pairs (feature datasets), polygons for the area and lines for the perimeter.

VRM, because it can determine land management and restriction, demands high accuracy. VRM, however, is the result of combining several to multiple other themes and is dependent on the accuracy of these components. Usually, the themes providing lines and areas to VRM have widely varying accuracy.

3.2 Collection, Input, and Maintenance Protocols

3.2.1 Collection and Input Protocols

The District Data Steward will develop standard field data collection methods and work with the GIS Coordinator to develop corresponding standard GIS input methods. The most common methods of visual resources line capture are:

- Manuscript lines onto paper maps of various scales and digitize.
- Use DEM to determine distance zones.
- Use Orthophoto as a backdrop to delineate disturbance areas.
- Use DLG roads and other existing data for buffer (distance) zones.
- Import designated special management areas and other existing data.

The protocol for development of VRI polygons is laid out in the 1986 VRI Handbook, H-8410-1. The protocol for development of VRM polygons is also described in this Handbook. Most important is to understand that VRM is tied to a particular RMP. There are many possible influences on the final VRM class. The District Data Steward and GIS Coordinator work together with the appropriate Interdisciplinary Team members to determine the inputs to VRM including Wilderness Study Areas (WSAs) and other designations, seedings and other visual disturbances, plus VRI. Because the inputs will probably overlap for any given acre of ground, the stewards must also decide which has priority. These decisions are captured in the DSG_REASON polygon attribute.

Proposed VRM (VRM_P) is developed during the planning process. It is identical to VRM except that it will probably have different VRM class ratings for the different plan alternatives. Once the RMP is signed, VRM is created from VRM_P using the selected alternative. VRM_P is then archived along with the rest of the RMP development data and VRM is maintained in the corporate SDE.

As per the BLM's VRI and Land Use Planning Handbooks, VRM Class designations should be based on consideration of VRI Classes and component values. As such, and in accordance with FLPMA Section 201 (Keeping resource inventories current) and 202 (Use of inventories in land use planning), new land use planning starts assess whether visual resource inventories can be deemed "current" for planning support purposes.

The line feature class pair for VRM polygons is required, but existing VRM data for OR/WA Districts will be loaded into SDE without populating the attributes. Future VRM capture will require populating the line attributes.

3.2.2 Maintenance Protocols

Characteristic of Special Management Areas like VRM is that the designations are only valid on BLM lands. It is, however, difficult to maintain themes that are clipped to ownership since these lines change (both due to exchanges and to data corrections/improvement). In addition, analysis is difficult and more error-prone, if many themes clipped to ownership are combined rather than combining many themes and clipping to ownership as a final step. The maintenance problem can be ameliorated if the VRI theme is more "wall to wall" and kept updated so that management class polygons can be created or modified as needed by going back to these lines.

All BLM administered lands are initially assigned a VRM Class through the RMP process. Over time and changes in land status, there might be BLM land with no VRM. These areas can be attributed with "No VRM" until a new RMP. However, to see the true extent of BLM lands with no VRM Class, an overlay with current surface jurisdiction should be performed. If needed for assessing plan conformance for project proposals in "No VRM" areas, the VRI Handbook (Section V, part D) addresses development of "Interim VRM Classes" based on pertinent management decisions in the existing RMP. These Interim VRM Classes would be depicted as described in dom_VRM_CLASS and should be replaced with designated VRM Classes during the next RMP Revision.

3.2.3 Update Transactions

The unit of processing for updating the VRI theme is the district. For the VRM theme, it is the planning unit (usually a district or resource area). Transactions will be initiated by editors within the districts to update the themes. Editors will "check-out" their district's VR theme features. They will then add, delete or modify the features prior to "check-in". The district GIS Coordinator will approve update processes and provide assistance and oversight. Any new VR or changes along edges that match an adjoining district's VR must be coordinated with that district.

3.3 Update Frequency and Archival Protocols

Once the VR themes have been created for a district, it is the responsibility of the District Data Steward to ensure that the themes remain current. The VR themes are relatively static. VRI changes only if a new inventory is undertaken. Except for minor corrections, VRM changes only through an RMP or RMP Amendment. It is important to understand which changes fall in the "minor" category and which require a plan amendment. Minor changes are small boundary line adjustments resulting from better digital data or corrections. Wording in the RMP may allow for other minor updates such as extension of a VRM polygon into adjacent BLM land acquired after the RMP Record of Decision date.

It is also the responsibility of the Data Steward to ensure that any database external to the GIS remains current. The district GIS Coordinator will approve update processes and provide assistance and oversight. At this time, there are no digital databases associated with VR, but this responsibility extends to paper records. Reports or tables containing VRM acreages must be checked against the GIS acres and should come directly from the GIS that supplied the official VRM class acres for the relevant RMP.

3.4 Statewide Monitoring

The State Data Steward in conjunction with the Lead GIS Specialist and District Data Stewards are responsible for reviewing the VR themes across the state at least once per year. For VRM, all that is required is a relatively quick look at the final VRM classes to check for the following:

- Data gaps and holes due to BLM land acquisitions.
- Incorrect classifications due to changes in protected or disturbed areas or program policy.

4 Visual Resources 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 Visual Resource Management Feature Dataset

4.1.1 VRM_POLY Feature Class (Visual Resource Management Polygons)

For domain and default values, see Section 7 Attribute Characteristics and Definition (In alphabetical order) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
VRM_CLASS	String	6	No VRM	Yes	dom_VRM_CLASS
DSG_REASON	String	10	UNK	Yes	dom_DSG_REASON
PLANID	String	100	Unknown	Yes	dom_PLANID
BLM_ORG_CD	String	5	OR000	Yes *	dom_BLM_ORG_CD
GIS_ACRES	Double			Yes *	
VERSION_NAME	String	50	InitialLoad	Yes ***	
GLOBALID	GUID			Yes *	
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	

* Values automatically generated

** Enforced during quality control, may appear in data as not required

*** Maintained through versioning tools, may appear not required in database

4.1.2 VRM_ARC Feature Class (Visual Resource Management Lines)

For domain and default values, see Section 7 Attribute Characteristics and Definition (In alphabetical order) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
DEF_FEATURE	String	25	UNKNOWN	Yes	dom_DEF_FEATURE
COORD_SRC	String	7	UNK	Yes	dom_COORD_SRC
ACCURACY_FT	Short Integer			No	
VERSION_NAME	String	50	InitialLoad	Yes ***	
GLOBALID	GUID			Yes *	

Attribute Name	Data Type	Length	Default Value	Required	Domain
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	

* Values automatically generated

** Enforced during quality control, may appear in data as not required

*** Maintained through versioning tools, may appear not required in database

4.2 Visual Resource Management Proposed Feature Dataset

4.2.1 VRM_P_POLY Feature Class (Visual Resource Management Proposed Polygons)

For domain and default values, see Section 7 Attribute Characteristics and Definition (In alphabetical order) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
VRM_CLASS	String	6	No VRM	Yes	dom_VRM_CLASS
DSG_REASON	String	10	UNK	Yes	dom_DSG_REASON
ALTA_VRM	String	6	No VRM	Yes	dom_VRM_CLASS
ALTB_VRM	String	6	No VRM	Yes	dom_VRM_CLASS
ALTC_VRM	String	6	No VRM	Yes	dom_VRM_CLASS
ALTD_VRM	String	6	No VRM	Yes	dom_VRM_CLASS
PLANID	String	100	Unknown	Yes	dom_PLANID
BLM_ORG_CD	String	5	OR000	Yes *	dom_BLM_ORG_CD
GIS_ACRES	Double			Yes *	
VERSION_NAME	String	50	InitialLoad	Yes ***	
GLOBALID	GUID			Yes *	
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	

* Values automatically generated

** Enforced during quality control, may appear in data as not required

*** Maintained through versioning tools, may appear not required in database

4.2.2 VRM_P_ARC Feature Class (Visual Resource Management Proposed Lines)

For domain and default values, see Section 7 Attribute Characteristics and Definition (In alphabetical order) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
DEF_FEATURE	String	25	UNKNOWN	Yes	dom_DEF_FEATURE
COORD_SRC	String	7	UNK	Yes	dom_COORD_SRC
ACCURACY_FT	Short Integer			No	
VERSION_NAME	String	50	InitialLoad	Yes ***	
GLOBALID	GUID			Yes *	
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	

* Values automatically generated

** Enforced during quality control, may appear in data as not required

*** Maintained through versioning tools, may appear not required in database

5 Projection and Spatial Extent

All feature classes and feature datasets are in Geographic, NAD83. Units are decimal degrees. Spatial extent (area of coverage) includes all lands managed by the Bureau of Land Management in the states of Oregon and Washington. See the metadata for this data set for more precise description of the extent.

6 Spatial Entity Characteristics

- Visual Resource Management Existing Polygon (VRM_POLY)
    - Description: Instance of Special Management Area Existing group. Visual Resource Management classes as defined by an RMP.
    - Geometry: Polygons that form a continuous "wall-to-wall" cover across BLM lands with no gaps or overlaps.
    - Topology: Yes. VRM_POLY lines are coincident with VRM_ARC lines and together make the feature dataset, Visual_Resource_Management. There are no allowed exceptions.
    - Integration Requirements: VRM is created from merging together many different input themes. Attributes on the VRM_ARC provide the information needed to update lines using the correct sources (either by replacement or snapping) and maintain integration across feature classes.
- Visual Resource Management Existing Line (VRM_ARC)
    - Description: Instance of Political Admin SMA Line group. Lines making up the area perimeters of VRM and segmented as needed to indicate a change in either what defines the section of boundary and/or the source of the actual GIS coordinates.
    - Geometry: Simple, non-overlapping lines that are split between endpoints as needed.

  - Topology: Yes. VRM_POLY lines are coincident with VRM_ARC lines and together make the feature dataset, Visual_Resource_Management. Line features must not have dangles and must not intersect, self-overlap, or overlap adjacent lines. There are no allowed exceptions.
  - Integration Requirements: Line segments must be coincident with the source data indicated by attributes DEF_FEATURE and COORD_SRC either through duplication or snapping.

- Visual Resource Management Proposed Polygon (VRM_P_POLY)
  - Description: Instance of Special Management Area Proposed group. Proposed Visual Resource Management classes as defined in the RMP planning process.
  - Geometry: Polygons that form a continuous "wall-to-wall" cover across BLM lands with no gaps. Polygons can overlap for different alternatives.
  - Topology: Yes. VRM_P_POLY lines are coincident with VRM_P_ARC lines and together make the feature dataset, Visual_Resource_Management_Proposed. There are no allowed exceptions.
  - Integration Requirements: VRM_P is created from merging together many different input themes. Attributes on the VRM_P_ARC provide the information needed to update lines using the correct sources (either by replacement or snapping) and maintain integration across feature classes.
- Visual Resource Management Proposed Line (VRM_P_ARC)
  - Description: Instance of Political Admin SMA Line group. Lines making up the area perimeters of VRM_P and segmented as needed to indicate a change in either what defines the section of boundary and/or the source of the actual GIS coordinates.
  - Geometry: Simple, non-overlapping lines that are split between endpoints as needed.
  - Topology: Yes. VRM_P_POLY lines are coincident with VRM_P_ARC lines and together make the feature dataset, Visual_Resource_Management_Proposed. Line features must not have dangles and must not intersect, self-overlap, or overlap adjacent lines. There are no allowed exceptions.
  - Integration Requirements: Line segments must be coincident with the source data indicated by attributes DEF_FEATURE and COORD_SRC either through duplication or snapping.

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 Special Management Area Line
Alias Name	Accuracy (ft)
Feature Class Use/Entity Table	VRM_ARC, VRM_P_ARC
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	Optional
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 ALTA_VRM

Geodatabase Name	ALTA_VRM
BLM Structured Name	Alternative_A_VRM_Class_Code
Inheritance	Inherited from entity Special Management Area Proposed
Alias Name	Alternative A
Feature Class Use/Entity Table	VRM_P_POLY
Definition	VRM class proposed for Alternative A of proposed VRM designations. VRM classes are assigned through the RMP process. The assignment of VRM classes is ultimately based on the management decisions made in RMP's. The four classes have different objectives: • Class 1 (VRM 1) has the objective to preserve the existing character of the landscape. • Class 2 (VRM 2) objective is to retain the existing character of the landscape and management activities should cause only small changes that don't attract the attention of the casual observer. • Class 3 (VRM 3) objective is to partially retain the existing character of the landscape but allow moderate changes that may attract attention but not dominate the view. • Class 4 (VRM 4) objective is to allow management activities, which require major modification of the existing landscape. Areas of BLM

	administered land where VRM has not yet been determined or where designation is not applicable may be flagged with "No VRM".
Required/Optional	Required
Domain (Valid Values)	dom_VRM_CLASS
Data Type	String (6)

7.3 ALTB_VRM

Geodatabase Name	ALTB_VRM
BLM Structured Name	Alternative_B_VRM_Class_Code
Inheritance	Inherited from entity Special Management Area Proposed
Alias Name	Alternative B
Feature Class Use/Entity Table	VRM_P_POLY
Definition	VRM class proposed for Alternative B (or 2nd alternative), if any, of proposed VRM designations. VRM classes are assigned through the RMP process. The assignment of VRM classes is ultimately based on the management decisions made in RMP's. The four classes have different objectives: • Class 1 (VRM 1) has the objective to preserve the existing character of the landscape. • Class 2 (VRM 2) objective is to retain the existing character of the landscape and management activities should cause only small changes that don't attract the attention of the casual observer. • Class 3 (VRM 3) objective is to partially retain the existing character of the landscape but allow moderate changes that may attract attention but not dominate the view. • Class 4 (VRM 4) objective is to allow management activities, which require major modification of the existing landscape. Areas of BLM administered land where VRM has not yet been determined or where designation is not applicable may be flagged with "No VRM".
Required/Optional	Required
Domain (Valid Values)	dom_VRM_CLASS
Data Type	String (6)

7.4 ALTC_VRM

Geodatabase Name	ALTC_VRM
BLM Structured Name	Alternative_C_VRM_Class_Code
Inheritance	Inherited from entity Special Management Area Proposed
Alias Name	Alternative C
Feature Class Use/Entity Table	VRM_P_POLY
Definition	VRM class proposed for Alternative C (or 3rd alternative), if any, of proposed VRM designations. VRM classes are assigned through the RMP process. The assignment of VRM classes is ultimately based on the

	management decisions made in RMP's. The four classes have different objectives: • Class 1 (VRM 1) has the objective to preserve the existing character of the landscape. • Class 2 (VRM 2) objective is to retain the existing character of the landscape and management activities should cause only small changes that don't attract the attention of the casual observer. • Class 3 (VRM 3) objective is to partially retain the existing character of the landscape but allow moderate changes that may attract attention but not dominate the view. • Class 4 (VRM 4) objective is to allow management activities, which require major modification of the existing landscape. Areas of BLM administered land where VRM has not yet been determined or where designation is not applicable may be flagged with "No VRM".
Required/Optional	Required
Domain (Valid Values)	dom_VRM_CLASS
Data Type	String (6)

7.5 ALTD_VRM

Geodatabase Name	ALTD_VRM
BLM Structured Name	Alternative_D_VRM_Class_Code
Inheritance	Inherited from entity Special Management Area Proposed
Alias Name	Alternative D
Feature Class Use/Entity Table	VRM_P_POLY
Definition	VRM class proposed for Alternative D (or 4th alternative), if any, of proposed VRM designations. VRM classes are assigned through the RMP process. The assignment of VRM classes is ultimately based on the management decisions made in RMP's. The four classes have different objectives: • Class 1 (VRM 1) has the objective to preserve the existing character of the landscape. • Class 2 (VRM 2) objective is to retain the existing character of the landscape and management activities should cause only small changes that don't attract the attention of the casual observer. • Class 3 (VRM 3) objective is to partially retain the existing character of the landscape but allow moderate changes that may attract attention but not dominate the view. • Class 4 (VRM 4) objective is to allow management activities, which require major modification of the existing landscape. Areas of BLM administered land where VRM has not yet been determined or where designation is not applicable may be flagged with "No VRM".
Required/Optional	Required
Domain (Valid Values)	dom_VRM_CLASS
Data Type	String (6)

7.6 BLM_ORG_CD

Geodatabase Name	BLM_ORG_CD
BLM Structured Name	Administrative_Unit_Organization_Code
Inheritance	Inherited from entity Special Management Area
Alias Name	BLM Org Code
Feature Class Use/Entity Table	VRM_POLY, VRM_P_POLY
Definition	A combination of the BLM administrative state and field office which has administrative responsibility for the spatial entity. This includes which office covers the entity for planning purposes and which office 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 resource area 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, and California and vice versa. When appropriate, the office can be identified only to the district or state level rather than to the resource area level. This field is auto calculated on record creation. However, it can be changed to correct the value.
Required/Optional	Required
Domain (Valid Values)	dom_BLM_ORG_CD
Data Type	String (5)

7.7 COORD_SRC

Geodatabase Name	COORD_SRC
BLM Structured Name	Coordinate_Source_Code
Inheritance	Inherited from entity Special Management Area Line
Alias Name	Coordinate Source
Feature Class Use/Entity Table	VRM_ARC, VRM_P_ARC
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)	dom_COORD_SRC
Data Type	String (7)

7.8 CREATE_BY

Geodatabase Name	CREATE_BY
BLM Structured Name	Record_Created_By_Text
Inheritance	Inherited from entity ODF
Alias Name	Created By
Feature Class Use/Entity Table	All feature classes and tables
Definition	The BLM login ID of the person who entered the data. The default value for this field is UNK. This field is auto populated during editing.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: jdoe, msmith
Data Type	String (50)

7.9 CREATE_DATE

Geodatabase Name	CREATE_DATE
BLM Structured Name	Record_Created_Date
Inheritance	Inherited from entity ODF
Alias Name	Created Date
Feature Class Use/Entity Table	All feature classes and tables
Definition	The date the record was entered. The default value for this field is 1/1/8888. This field is auto populated during editing.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 1/5/1999, 10/15/2021
Data Type	Date

7.10 DEF_FEATURE

Geodatabase Name	DEF_FEATURE
BLM Structured Name	Defining_Feature_Code
Inheritance	Inherited from entity Special Management Area Line
Alias Name	Defining Feature
Feature Class Use/Entity Table	VRM_ARC, VRM_P_ARC
Definition	Physical features or administrative lines that define an official boundary.
Required/Optional	Required
Domain (Valid Values)	dom_DEF_FEATURE
Data Type	String (25)

7.11 DSG_REASON

Geodatabase Name	DSG_REASON
BLM Structured Name	Designation_Reason_Code
Inheritance	Not Inherited
Alias Name	Designation Reason
Feature Class Use/Entity Table	VRM_POLY, VRM_P_POLY
Definition	The dominant reason for the major ROW designation. The attribute identifies the entity that was used to create the polygon, and, therefore, acts as polygon feature-level metadata.
Required/Optional	Optional
Domain (Valid Values)	dom_DSG_REASON
Data Type	String (10)

7.12 GIS_ACRES

Geodatabase Name	GIS_ACRES
BLM Structured Name	GIS_Acres_Measure
Inheritance	Not Inherited
Alias Name	GIS Acres
Feature Class Use/Entity Table	VRM_POLY, VRM_P_POLY
Definition	GIS_ACRES is calculated when the submitted polygon is approved for incorporation into the dataset. The standard spatial reference of Geographic (NAD 1983) cannot be used for calculating acres, so the features are projected as determined by the BLM_ORG_CD of the record. These projections all utilize linear units of meters, so the ESRI Geodatabase-controlled field SHAPE.AREA can be used to convert to acres with the factor based on the U.S. Survey Foot: GIS_ACRES = SHAPE.AREA * 0.0002471044. GIS_ACRES is calculated using the NAD 1983 Albers Equal Area project except for the following OR/WA Districts: Prineville: NAD 1983 USFS R6 Albers Coos Bay, Eugene, Lakeview, Medford, Roseburg, Salem: NAD 1983 UTM Zone 10N Burns, Spokane, Vale: NAD 1983 UTM Zone 11N
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 2.4, 46.1, 350.5
Data Type	Double

7.13 GLOBALID

Geodatabase Name	GLOBALID
BLM Structured Name	Global_Unique_Identifier
Inheritance	Inherited from entity ODF
Alias Name	None
Feature Class Use/Entity Table	All feature classes and tables
Definition	An alpha-numeric code that serves as the universal and unique identifier for each feature within the feature class or table of a geodatabase. Software generated value. A field of type UUID (Universal Unique Identifier) in which values are automatically assigned by the geodatabase when a row is created. This field is not editable and is automatically populated when it is added for existing data.
Required/Optional	Required
Domain (Valid Values)	No domain. Example: {4747B796-44B4-4628-B069-2D496422E59F}
Data Type	GUID

7.14 MODIFY_BY

Geodatabase Name	MODIFY_BY
BLM Structured Name	Record_Last_Modified_By_Text
Inheritance	Inherited from entity ODF
Alias Name	Modified By
Feature Class Use/Entity Table	All feature classes and tables
Definition	The BLM login ID of the person who last edited the data. The default value for this field is UNK. This field is auto populated during editing.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: jdoe, msmith
Data Type	String (50)

7.15 MODIFY_DATE

Geodatabase Name	MODIFY_DATE
BLM Structured Name	Record_Last_Modified_Date
Inheritance	Inherited from entity ODF
Alias Name	Modified Date
Feature Class Use/Entity Table	All feature classes and tables
Definition	The date the record was last edited. The default value for this field is 1/1/8888. This field is auto populated during editing.
Required/Optional	Optional

Domain (Valid Values)	No domain. Examples: 1/5/1999, 10/15/2021
Data Type	Date

7.16 PLANID

Geodatabase Name	PLANID
BLM Structured Name	Plan_Name_Text
Inheritance	Inherited from entity Special Management Area
Alias Name	Plan ID
Feature Class Use/Entity Table	VRM_POLY, VRM_P_POLY
Definition	The name of the Project Plan Area for the plan associated with an activity, filled in when the plan is final.
Required/Optional	Required
Domain (Valid Values)	dom_PLANID
Data Type	String (100)

7.17 VERSION_NAME

Geodatabase Name	VERSION_NAME
BLM Structured Name	Geodatabase_Version_Text
Inheritance	Inherited from entity ODF
Alias Name	Version Name
Feature Class Use/Entity Table	All feature classes and tables
Definition	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. Name of the corporate geodatabase version previously used to edit the record. InitialLoad = feature has not been edited in ArcSDE. Format: username.XXX-mmddyy-hhmmss = version name of last edit (hours might be a single digit; leading zeros are trimmed for hours only). XXX=theme abbreviation.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (50)

7.18 VRM_CLASS

Geodatabase Name	VRM_CLASS
BLM Structured Name	VRM_Class_Code
Inheritance	Not Inherited
Alias Name	VRM Class
Feature Class Use/Entity Table	VRM_POLY, VRM_P_POLY
Definition	VRM Classes are assigned through the RMP process. The assignment of VRM classes is ultimately based on the management decisions made in RMP's. The four classes have different objectives. Class 1 (VRM 1) has the objective to preserve the existing character of the landscape. Class 2 (VRM 2) objective is to retain the existing character of the landscape and management activities should cause only small changes that don't attract the attention of the casual observer. Class 3 (VRM 3) objective is to partially retain the existing character of the landscape but allow moderate changes that may attract attention but not dominate the view. Class 4 (VRM 4) objective is to allow management activities, which require major modification of the existing landscape. Areas of BLM administered land where VRM has not yet been determined or where designation is not applicable may be flagged with "No VRM".
Required/Optional	Required
Domain (Valid Values)	dom_VRM_CLASS
Data Type	String (6)

8 Publication Views

8.1 General

Master corporate feature classes/datasets maintained in the edit database are "published" to the user database 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 data whenever necessary.

8.2 Specific to This Dataset

A publication dataset will be created for internal and external use where:

- Named visual_resources_management.gdb
- Includes only the vrm_pub_poly and vri_pub_poly feature classes.
- The attribute VERSION_NAME is removed (for privacy reasons).
- The edit tracking attributes CREATE_BY, CREATE_DATE, MODIFY_BY, and MODIFY_DATE are removed.
- The vri_pub_poly feature class is created for publication by flattening and summarizing the feature classes, standalone tables, and relationships in the edit database. The feature class contains the following attributes:

Attribute Name	Data Type	Length	Domain
VRI_CLASS	String	3	dom_VRM_CLASS
DISTANCE_ZONE	String	3	dom_DISTANCE_ZONE
VRI_SCENIC	String	1	dom_VRI_SCENIC
VRI_SENSITIVITY	String	4	dom_VRI_SENSITIVITY
VRI_AREA_ID	String	15	
BLM_ORG_CD	String	5	dom_BLM_ORG_CD
GIS_ACRES	Double		

A publication dataset will be created for internal use where:

- Named visual_resources_management_proposed.gdb
- Includes only the vri_p_pub_poly feature classes.
- The attribute VERSION_NAME is removed (for privacy reasons).
- The edit tracking attributes CREATE_BY, CREATE_DATE, MODIFY_BY, and MODIFY_DATE are removed.
- This geodatabase is not published to the public web.

8.3 Layer Files

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.

Layer files for Visual Resources should be symbolized on the Class rating.

9 Editing Procedures

9.1 Managing Overlap (General Guidance)

"Overlap" means there are potentially more than one feature in the same feature class that occupies the same space ("stacked" polygons). Depending on the query, acres will be double counted.

In this discussion, an area entity may consist of more than one polygon, and a line entity may consist of more than one arc. They would have multiple records in the spatial table (with identical attributes). Multi-part features are not allowed. Multi-part features are easily created inadvertently and not always easy to identify. If they are not consciously and consistently avoided, feature classes will end up with a mixture of single and multi-part features. Multi-part features can be more difficult to edit, query, and select, along with impacting overall performance.

Overlap is only allowed in the ODF in limited and controlled scenarios. In each case, the "cause" of the overlap (the attribute changes that "kick off" a new feature which may overlap an existing feature) is carefully defined and controlled. In other words, in feature classes that permit overlap for a change in spatial extent, there is always a new feature created which may overlap an existing feature, but in addition there are certain attribute(s) that will result in a new feature even if there is no spatial change. The feature classes (and the one feature dataset) that allow overlap, and the attributes that lead to a new, possibly overlapping feature, are described below.

9.1.1 Overlapping Polygons where polygons are part of a POLY/ARC feature dataset.

Topology rules apply only to the POLY/ARC relationship (Polylines in the POLY feature class covered by arcs in the ARC feature class and vice versa; Arcs must not have dangles, intersect, self-overlap or overlap adjacent arcs). The AVY_PLAN dataset allows any number of plans or projects to overlap; a new PLANID creates a new polygon. For all other POLY/ARC feature datasets, overlap is only allowed if there is a dataset for proposed entities, for example proposed ACEC (ACEC_P POLY/ARC dataset) or wilderness (WLD_P POLY/ARC dataset).

9.2 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.

9.3 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 can't 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.

Snapping considerations. Where line segments with different COORD_SRC meet, the most accurate or important (in terms of legal boundary representation) are kept unaltered, and other lines snapped to them. In general, the hierarchy of importance is PLSS (CadNSDI points/lines) first, with DLG or SOURCEL 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.

9.4 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 Resource Area Boundary (RAB) polyline might be defined as "SUBDIVISION", but when it is copied to Plan Area Boundary (PLANBDY) the plan boundary is defined by Resource Area 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.

9.5 Theme Specific Guidance

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

9.5.1 Calculation Data Rules

The following are a list of calculation rules that occur during editing. Calculation rules are used to automatically populate attributes in a field. These are in addition to the default values defined in Sections 4 and 7.

There are no calculation data rules for this theme.

9.5.2 Constraint Data Rules

The following are a list of data constraint rules that are enforced during editing. Constraint rules specify allowable combinations of values between two or more fields in a record. They are used to ensure that specific conditions are met.

There are no constraint data rules for this theme.

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
ACEC	Areas of Critical Environmental Concern
ADMNSITE	Administrative Site
BLM	Bureau of Land Management, U.S. Department of the Interior
CMPA	Cooperative Management and Protection Area
CULT	Cultural (archeological) site
DEM	Digital Elevation Model
DLG	Digital Line Graphs
FOIA	Freedom of Information Act
GIS	Geographic Information System
HIST	Historic district or designated site
NAD	North American Datum
NARA	National Archives and Records Administration
ODF	Oregon Data Framework
OR/WA	Oregon / Washington
RECSITE	Recreation Site
RMP	Resource Management Plan
RMPA	Resource Management Plan Amendment
ROD	Record of Decision
ROW	Utility Corridor or site
SCENICCORR	Scenic Corridor
SDE	Spatial Database Engine
SEEDING	Seeding
SRMA	Special Recreation Management Area
VR	Visual Resources
VRM	Visual Resources Management
VRI	Visual Resources Inventory
VRM_P	Visual Resource Management Proposed
WILD	Wilderness
WJMAI	Wildlands Juniper Management Area Inside 1/2 Mile Steens Loop Road Buffer
WJMAO	Wildlands Juniper Management Area Outside 1/2 Mile Steens Loop Road Buffer
WSA	Wilderness Study Area
WSR	Wild and Scenic River Corridor

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_BLM_ORG_CD

Administrative Unit Organization Code. Standard BLM organization codes generated from the national list. This is a subset of OR/WA administrative offices and those in other states that border.

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.2 dom_COORD_SRC

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

Code	Description
CADNSDI	CADNSDI - Lines from or snapped to the CADNSDI dataset
CFF	CFF - Lines duplicated or buffered from Cartographic Feature Files (USFS)
DEM	DEM - Digital Elevation Model (30m or better accuracy) used for creation of contours
DGPS	DGPS - Feature obtained from a Global Positioning System device with Real Time Correction (SBAS)
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 orthophotography backdrop (DOQ, NAIP, OSIP, or others)
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.
MAP	MAP - Digitized coordinates from hardcopy map or onto a map backdrop
MTP	MTP - Lines duplicated from Digital Master Title Plat
SOURCEL	SOURCEL - Coordinates duplicated from a BLM GIS source layer.
SOURCEX	SOURCEX - Source Layer from non-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)

Code	Description
UNK	UNK - Unknown coordinate source
WOD	WOD - WODDB Photogrammetric

A.3 dom_DEF_FEATURE

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

Code	Description
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
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)

A.4 dom_DSG_REASON

Designation Reason Code. The primary reason that a special management area was designated.

Code	Description
ACEC	ACEC - Areas of Critical Environmental Concern
ADMNSITE	ADMNSITE - Administrative Site
BIGGAME	BIGGAME - Big game winter range
BLM	BLM - Default for BLM land not receiving its designation for a particular resource or special management reason.
BLMOPEN	BLMOPEN - Meets Bureau policy for open use
BRIDHAB	BRIDHAB - Pygmy rabbit habitat
CMPA	CMPA - Cooperative Management and Protection Area
CULT	CULT - Cultural (archeological, historic, paleontological) site
ERMA	ERMA - Extensive Recreation Management Area
FEDLIST	FEDLIST - Federally listed species habitat
HAZMAT	HAZMAT - Hazardous materials area
HIST	HIST - Historic district or designated site
HMA	HMA - Wildhorse and Burro Herd Management Area
LEK	LEK - Sage-grouse lek, buffered
LOWVALUE	LOWVALUE - Minimal public resource values.
MANAGEABILITY	MANAGEABILITY - Isolated or otherwise unmanageable parcel.
MINWDL	MINWDL - Mineral withdrawal
NM	NM - National Monument
NONBLM	NONBLM - Not BLM surface or subsurface.
NSHT	NSHT - National Scenic and Historic Trail
OND	OND - Other National Designation
OPENMMS	OPENMMS - Area specifically declared open for mineral materials
OPENPLAY	OPENPLAY - Area specifically declared OHV open area
RAPTOR	RAPTOR - Raptor areas
RECSITE	RECSITE - Recreation Site
RIPARIAN	RIPARIAN - Wetland or Riparian
ROADW	ROADW - road cherry-stemmed out of WSA or Wilderness
ROW	ROW - Utility Corridor or site
SCENICCORR	SCENICCORR - Scenic road corridor including designated highways and BLM Backcountry Byways
SEEDING	SEEDING - Seeding
SGHAB	SGHAB - Sage-grouse habitat, may extend beyond lek areas.
SOIL	SOIL - Fragile soils

Code	Description
SRMA	SRMA - Special Recreation Management Area
SSFAUNA	SSFAUNA - Special status (but not federally listed) animal species
SSFLORA	SSFLORA - Special Status (but not federally listed) plant species.
UNK	UNK - Unknown reason
VRI	VRI - original Visual Resource Inventory class determines the designation
VRM	VRM - Visual Resource Management class determines the designation
WILD	WILD - Wilderness
WILDCHAR	WILDCHAR - Wilderness Characteristics
WILDHAB	WILDHAB - Wildlife Habitat, if a more specific choice is not appropriate.
WJMAI	WJMAI - Wildlands Juniper Management Area Inside 1/2 Mile Steens Loop Road Buffer
WJMAO	WJMAO - Wildlands Juniper Management Area Outside 1/2 Mile Steens Loop Road Buffer
WSA	WSA - BLM Wilderness Study Area
WSR	WSR - Wild and Scenic River Corridor

A.5 dom_PLANID

Plan Name Text. The Plan Name Text refers to the official name for the plan or project. This is a lengthy list of domain values. The domain is available at the following web location: https://www.blm.gov/site-page/oregon-data-management

A.6 dom_VRM_CLASS

VRM Class Code. Visual Resource Management classes that denote the amount of disturbance to the viewshed that is allowed in a particular area.

Code	Description
VRM 1	VRM 1 - Preserve the existing character of the landscape
VRM 2	VRM 2 - Largely retain the existing character of the landscape
VRM 3	VRM 3 - Partially retain the existing character of the landscape
VRM 4	VRM 4 - Modification of the character of the landscape is allowed
Interim VRM 1	Interim VRM 1 - Preserve the existing character of the landscape
Interim VRM 2	Interim VRM 2 - Largely retain the existing character of the landscape
Interim VRM 3	Interim VRM 3 - Partially retain the existing character of the landscape
Interim VRM 4	Interim VRM 4 - Modification of the character of the landscape is allowed
No VRM	No VRM - VRM classification not yet determined