



RANGE MONITORING

SPATIAL DATA STANDARD



A typical location where staff perform Range Monitoring activities

DOCUMENT REVISIONS

Revision				
1.0	12/20/2017	Micah Babinski Molly Anthony Daniel Karnes Kyler Diershaw	1 st released version.	All

Table of Contents

1. GENERAL INFORMATION	10
1.1 ROLES AND RESPONSIBILITIES	10
1.2 FOIA CATEGORY	10
1.3 RECORDS RETENTION SCHEDULE	10
1.4 SECURITY/ACCESS/SENSITIVITY	11
1.5 KEYWORDS	11
1.6 SUBJECT FUNCTION CODES	11
2. DATASET OVERVIEW	13
2.1 DESCRIPTION	13
2.2 USAGE	14
2.3 SPONSOR/AFFECTED PARTIES	14
2.4 RELATIONSHIP TO OTHER DATASETS, DATABASES or FILES	14
2.5 DATA CATEGORY/ARCHITECTURE LINK	15
2.6 RELATIONSHIP TO THE DEPARTMENT OF THE INTERIOR ENTERPRISE ARCHITECTURE - DATA RESOURCE MODEL	15
2.7 RANGE MONITORING DATA ORGANIZATION / STRUCTURE	16
3. DATA MANAGEMENT PROTOCOLS	17
3.1 ACCURACY REQUIREMENTS	17
3.2 COLLECTION, INPUT, AND MAINTENANCE PROTOCOLS	17
3.3 UPDATE FREQUENCY AND ARCHIVAL PROTOCOLS	18
3.4 STATEWIDE MONITORING	18
4. RANGE MONITORING SCHEMA (simplified)	19
4.1 Range Monitoring Tables	19
4.1.1 KEY_MGT_INFO_TBL (Key Management Info Table)	19
4.1.2 COLE_BROWSE_INFO_TBL (Cole Browse Info Table)	20
4.1.3 COLE_BROWSE_DATA_TBL (Cole Browse Details Table)	21
4.1.4 HGT_WGT_INFO_TBL (Height Weight Info Table)	22
4.1.5 HGT_WGT_DATA_TBL (Height Weight Details Table)	22
4.1.6 KEY_SPECIES_TBL (Key Species Table)	23
4.1.7 LNDSCEPE_APPRNCE_TBL (Landscape Appearance Table)	24
4.1.8 LPI_INFO_TBL (Line Point Intercept Info Table)	24
4.1.9 LPI_DATA_TBL (Line Point Intercept Details Table)	25
5. PROJECTION AND SPATIAL EXTENT	25
6. SPATIAL ENTITY CHARACTERISTICS	25

7. ATTRIBUTE CHARACTERISTICS AND DEFINITION (In alphabetical order).....	26
7.1 AGE_CLASS.....	26
7.2 ALLOT_NM.....	26
7.3 ALLOT_NR.....	27
7.4 ANIMAL.....	27
7.5 ASPECT.....	28
7.6 AVAILABILITY.....	28
7.7 AVG_LEADER_USE.....	29
7.8 AVG_UNGRAZED_PLANT_HGT.....	29
7.9 AVG_UTIL_LA.....	30
7.10 AVG_UTIL_HW.....	30
7.11 COMMENTS.....	31
7.12 CULM_PRESENT.....	31
7.13 DISTRICT.....	32
7.14 ECOLOGICAL_SITE.....	32
7.15 ELEVATION.....	32
7.16 EXAMINER.....	33
7.17 FORM_CLASS.....	33
7.18 GLOBALID.....	34
7.19 GRAZED_HT.....	34
7.20 GRAZED_UNGRAZED_UOM.....	35
7.21 GROWTH_INDEX.....	35
7.22 HEDGING.....	36
7.23 KEY_MGMT_AREA_NM.....	36
7.24 KEY_SP_1.....	37
7.25 KEY_SP_2.....	37
7.26 KEY_SP_3.....	38
7.27 KEY_SP_4.....	38
7.28 KEY_SPECIES.....	38
7.29 LEADER_LENGTH_1.....	39
7.30 LEADER_LENGTH_2.....	39
7.31 LEADER_LENGTH_3.....	40
7.32 LEADER_LENGTH_4.....	40
7.33 LEADER_LENGTH_5.....	41

7.34 LEADER_LENGTH_6	41
7.35 LEADER_LENGTH_7	41
7.36 LEADER_LENGTH_8	42
7.37 LEADER_LENGTH_9	42
7.38 LEADER_LENGTH_10	43
7.39 LEADER_LENGTH_UOM	43
7.40 LEADER_USE_PCT	43
7.41 LOWER_1	44
7.42 LOWER_2	45
7.43 LOWER_3	46
7.44 NUM_LEADERS_MEASURED	47
7.45 NUM_PLANTS_FORM_CLASS_7_8	47
7.46 NUM_SAMPLED_PLANTS	47
7.47 NUM_UNGRAZED_PLANTS	48
7.48 PASTURE	48
7.49 PCT_AGE_CLASS_1	49
7.50 PCT_AGE_CLASS_2	49
7.51 PCT_AGE_CLASS_3	49
7.52 PCT_AGE_CLASS_4	50
7.53 PCT_BARE_GROUND	50
7.54 PCT_BASAL_COVER	51
7.55 PCT_CANOPY_COVER	51
7.56 PCT_FORM_CLASS_1	52
7.57 PCT_FORM_CLASS_2	52
7.58 PCT_FORM_CLASS_3	53
7.59 PCT_FORM_CLASS_4	53
7.60 PCT_FORM_CLASS_5	53
7.61 PCT_FORM_CLASS_6	54
7.62 PCT_FORM_CLASS_7	54
7.63 PCT_FORM_CLASS_8	55
7.64 PCT_UTILIZATION	55
7.65 PERIOD_USE_BEGIN	55
7.66 PERIOD_USE_END	56
7.67 PLANT_COMMUNITY	56

7.68 POINT_NUM	57
7.69 QTR_QTR_SEC	57
7.70 QTR_SEC	58
7.71 RECORDER	58
7.72 RESOURCE_AREA	58
7.73 RGE	59
7.74 SAMP_INT	59
7.75 SEC	60
7.76 SLOPE	60
7.77 SOIL_SURFACE	60
7.78 SOIL_SURFACE_PC	61
7.79 SP1_0_5	62
7.80 SP1_6_20	62
7.81 SP1_21_40	63
7.82 SP1_41_60	63
7.83 SP1_61_80	64
7.84 SP1_81_94	64
7.85 SP1_95_100	64
7.86 SP1_AVG_UTIL	65
7.87 SP2_0_5	65
7.88 SP2_6_20	66
7.89 SP2_21_40	66
7.90 SP2_41_60	66
7.91 SP2_61_80	67
7.92 SP2_81_94	67
7.93 SP2_95_100	68
7.94 SP2_AVG_UTIL	68
7.95 SP3_0_5	68
7.96 SP3_6_20	69
7.97 SP3_21_40	69
7.98 SP3_41_60	70
7.99 SP3_61_80	70
7.100 SP3_81_94	70
7.101 SP3_95_100	71

7.102 SP3_AVG_UTIL 71

7.103 SP4_0_5..... 72

7.104 SP4_6_20..... 72

7.105 SP4_21_40..... 72

7.106 SP4_41_60..... 73

7.107 SP4_61_80..... 73

7.108 SP4_81_94..... 74

7.109 SP4_95_100..... 74

7.110 SP4_AVG_UTIL..... 74

7.111 SP_GUID..... 75

7.112 STATE..... 75

7.113 STUDY_ID..... 76

7.114 TOP_CANOPY 76

7.115 TOT_AGE_CLASS_1..... 77

7.116 TOT_AGE_CLASS_2..... 77

7.117 TOT_AGE_CLASS_3..... 78

7.118 TOT_AGE_CLASS_4..... 78

7.119 TOT_FORM_CLASS_1..... 78

7.120 TOT_FORM_CLASS_2..... 79

7.121 TOT_FORM_CLASS_3..... 79

7.122 TOT_FORM_CLASS_4..... 80

7.123 TOT_FORM_CLASS_5..... 80

7.124 TOT_FORM_CLASS_6..... 80

7.125 TOT_FORM_CLASS_7..... 81

7.126 TOT_FORM_CLASS_8..... 81

7.127 TOT_HGT_UNGRAZED 81

7.128 TOT_LEADER_LENGTH..... 82

7.129 TOT_LEADER_USE_PCT_0..... 82

7.130 TOT_LEADER_USE_PCT_5..... 83

7.131 TOT_LEADER_USE_PCT_25..... 83

7.132 TOT_LEADER_USE_PCT_50..... 84

7.133 TOT_LEADER_USE_PCT_75..... 84

7.134 TOT_LEADER_USE_PCT_95..... 84

7.135 TOT_PCT_UTIL_SAMPLED_PLANTS 85

7.136	TRANSECT_AZ	85
7.137	TRANSECT_LEN.....	86
7.138	TRANSECT_LEN_UOM	86
7.139	TWP.....	87
7.140	UNGRAZED_HT	87
7.141	USAGE_0_5.....	88
7.142	USAGE_6_20.....	88
7.143	USAGE_21_40.....	88
7.144	USAGE_41_60.....	89
7.145	USAGE_61_80.....	89
7.146	USAGE_81_94.....	90
7.147	USAGE_95_100.....	90
7.148	USE_INDEX	90
7.149	VEG_TYPE.....	91
7.150	VERSION_NAME	91
7.151	VISIT_DT.....	92
7.152	VISIT_GUID.....	92
7.153	WILDLIFE_SEASON.....	93
8.	LAYER FILES (PUBLICATION VIEWS).....	93
8.1	GENERAL	93
8.2	SPECIFIC TO THIS DATASET.....	94
9.	EDITING PROCEDURES	96
9.1	MANAGING OVERLAP (GENERAL GUIDANCE)	96
9.2	POLY/ARC TOPOLOGY (BOUNDARY GROUP DATASETS).....	96
9.3	EDITING QUALITY CONTROL	96
9.4	VERTICAL INTEGRATION	96
9.5	THEME SPECIFIC GUIDANCE	96
11.	ABBREVIATIONS AND ACRONYMS USED.....	98
	APPENDIX: DOMAINS (VALID VALUES)	99
A.1	dom_BROWSE_AGE_CLASS.....	99
A.2	dom_BROWSE_AVAILABILITY	99
A.3	dom_COMPASS_DIR.....	99
A.4	dom_Degree0to359.....	99
A.5	dom_DIST_NAME.....	100

A.6 dom_FORM_CLASS 100

A.7 dom_HEDGING 100

A.8 dom_LEADER_USE_PCT..... 100

A.9 dom_LIVESTOCK_ANIMAL_TYPE 101

A.10 dom_RA_NAME..... 101

A.11 dom_SOIL_SURFACE 102

A.12 dom_UOM..... 102

A.13 dom_YN 102

1. GENERAL INFORMATION

Dataset (Theme) Name: RANGE MONITORING (RGE_MON)

Dataset (Table): COLE_BROWSE_DATA_TBL, COLE_BROWSE_INFO_TBL, HGT_WGT_DATA_TBL, HGT_WGT_INFO_TBL, KEY_MGT_INFO_TBL, KEY_SPECIES_TBL, LNDSCPE_APPRNCE_TBL, LPI_DATA_TBL, LPI_INFO_TBL

1.1 ROLES AND RESPONSIBILITIES

Roles	
State Data Stewards	The State Data Steward is responsible for approving data standards and business rules, developing Quality Assurance/Quality Control procedures, identifying potential privacy issues, and ensuring that data is managed 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 also 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 make sure data is being input into the enterprise Spatial Database Engine (SDE) database consistently and in accordance with the established data standard. 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 that defined processes for development of data standards and metadata are followed, and that they are consistent and complete. The State Data Administrator is responsible for making data standards and metadata accessible to all users. The State Data Administrator also coordinates with data stewards and GIS coordinators to respond to national spatial data requests.
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 also ensures that data has been classified under the proper records retention schedule and determines appropriate Freedom of Information Act category.

Table 1: Roles and Responsibilities

Current personnel assigned these Roles, can be found at the following link:

<https://www.blm.gov/site-page/oregon-data-management>

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 Range Monitoring 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 National Operations Center (NOC) is responsible for transfer to National Archives and Records Administration (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 Range Monitoring 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, from either within the BLM or external to the BLM. This dataset falls under the standard Records Access Category 1A-Public Data. However, since the data is highly-specific to the Range program and could potentially be misinterpreted by a casual user, the data will be distributed by request only. Requests should be made to the [State Data Administrator](#).

There are or no privacy issues or concerns associated with this data theme.

1.5 KEYWORDS

Keywords that can be used to locate this dataset include (thesaurus):

BLM Thesaurus Keywords: Range, Vegetation, Management

ISO Thesaurus Keywords: biota, economy, environment, location, farming

Additional Keywords: Monitoring, Utilization, Grazing, Livestock, Animal, Ranching

1.6 SUBJECT FUNCTION CODES

BLM Subject Function codes that can be used to describe this dataset include:

- 1283 – Data Administration
- 4010 – Range Management Program Records
- 4400 – Rangeland Inventory, Monitoring, and Evaluation
- 6515 – Wildlife—Range Management
- 9167 – Geospatial and Mapping
- 9264 – Range Management

2. DATASET OVERVIEW

2.1 DESCRIPTION

The Range Monitoring theme depicts characteristics observed by the OR/WA BLM through the monitoring of rangeland ecosystems using a variety of different methods. The methods used by the BLM are described in detail in the [Utilization Studies and Residual Measurements Technical Reference 1734-3](#), available on the BLM website and [Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems](#) (Volume 1: Core Methods). Editors, analysts, and others who will use the data contained in this theme should be familiar with the protocols used to collect the data so they can properly interpret the results.

Bear in mind that this theme does *not* include data collected as part of the BLM Assessment, Inventory, and Monitoring Strategy (AIM), which should be collected only using the Database for Inventory, Monitoring, and Assessment (DIMA). For more information on AIM and DIMA, see <https://jornada.nmsu.edu/monit-assess>.

The Range Monitoring theme is implemented in the OR/WA BLM enterprise GIS environment as a series of non-spatial tables in a relational system with the existing Sample Points feature class as the parent spatial feature. The protocols (methods) used to collect and store the Range Monitoring data include:

1. **Cole Browse:** Includes information on shrubby vegetation (browse), including browse species, age, availability, hedging, and estimated utilization. Staff use transects to collect information about each species of browse.
2. **Height-Weight:** Involves the measurement of heights of ungrazed and grazed grass or grass-like plants to determine average utilization. Measurements of plant heights recorded along transects are converted to percent of weight utilized by means of a utilization gauge.
3. **Key Species:** A combination of the Landscape Appearance Method and the Ocular Estimate Method. Utilization levels are based on an ocular estimate of the amount of forage removed by weight on individual key species and observations are recorded in one of seven utilization classes. Data are collected along a line transect or a pace transect.
4. **Landscape Appearance:** Uses an ocular estimate of forage utilization based on the general appearance of the rangeland. Utilization levels are determined by comparing observations with written descriptions of each utilization class.
5. **Line-Point Intercept:** Provides a rapid, accurate method for quantifying soil cover, including vegetation, litter, rocks, and biotic crusts. These measurements relate to wind and water erosion, water infiltration, and the ability of the site to resist and recover from degradation.

Additional Key Management Information is stored in the KEY_MGT_INFO_TBL table which is the direct child of the Sample Point feature class.

Historically, BLM range staff collected Range Monitoring data using paper forms. The Range Monitoring theme allows more efficient, streamlined collection of the data using a customized version of the [S1 Mobile Application for Android](#).

2.2 USAGE

This dataset is the spatial repository for vegetation utilization data and vegetation attribute data including foliar and basal cover, and composition. Utilization data may be used to identify livestock distribution patterns, but should not be used alone to determine stocking rates. Line-point intercept data can be collected at the same location at different points in time in order to establish trend. Trend is described as moving “towards meeting objectives”, “away from meeting objectives”, “not apparent”, or “static”. Trend data are important in determining the effectiveness of on-the-ground management actions. This dataset provides a centralized and spatial location for Range program monitoring data.

Additionally, the Range Monitoring theme will make mobile collection of the data easier. By implementing the theme in the Oregon Data Framework, range technicians will be able to collect the data using a mobile application on a smartphone or tablet, reducing the volume and weight of paper forms, GPS devices, and cameras, which must be carried into the field.

Note that the data collected and published through the Range Monitoring theme is in an unprocessed format. Users should have knowledge of the data collection methodology, protocols, and the rangeland management discipline prior to interpreting the data. Attempting to use the data without this knowledge could lead users to draw inappropriate conclusions and should be avoided.

2.3 SPONSOR/AFFECTED PARTIES

The sponsor for this data set is the Deputy State Director for Resources, Lands, Minerals, and Fire (OR930).

2.4 RELATIONSHIP TO OTHER DATASETS, DATABASES or FILES

As stated previously, the Range Monitoring theme participates in a series of relationship classes with the OR/WA Sample Points (SAMPLE_PT) dataset. Range Monitoring features inherit their spatial location and core attribution from Sample Points. The tables containing the Range Monitoring-specific attributes relate to Sample Points in the following manner:

- KEY_MGT_INFO_TBL: 1:1 (one or zero records per Sample Point feature)
- LNDSPE_APPRNCE_TBL: M:1 (zero to many records per Sample Point feature)
- COLE_BROWSE_INFO_TBL: M:1 (zero to many records per Sample Point feature)
- LPI_INFO_TBL: M:1 (zero to many records per Sample Point feature)
- HGT_WGT_INFO_TBL: M:1 (zero to many records per Sample Point feature)

Additional tables (HGT_WGT_DATA_TBL, LPI_DATA_TBL, and COLE_BROWSE_DATA_TBL) have many-to-one (M:1) relationships with their corresponding *_INFO_TBL table.

2.5 DATA CATEGORY/ARCHITECTURE LINK

These data themes are a portion of the Oregon Data Framework (ODF). The ODF utilizes the concept of inheritance to define specific instances of data. All OR/WA resource-related data are divided into three general categories: Activities, Resources, and 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 that 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 that all data of that type must follow). See the ODF Overview (figure 2) for a simplified schematic of the entire ODF showing the overall organization and entity inheritance. The Range Monitoring entities are highlighted below. 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/site-page/oregon-data-management>

In the ODF, Range Monitoring is considered an activity and categorized as follows:

ODF

 Activities

 Sampling

 Sample Points

 Range Monitoring

Figure 1 provides a graphic representation of the entities and hierarchical relationships.

2.6 RELATIONSHIP TO THE DEPARTMENT OF THE INTERIOR 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

2.7 RANGE MONITORING DATA ORGANIZATION / STRUCTURE

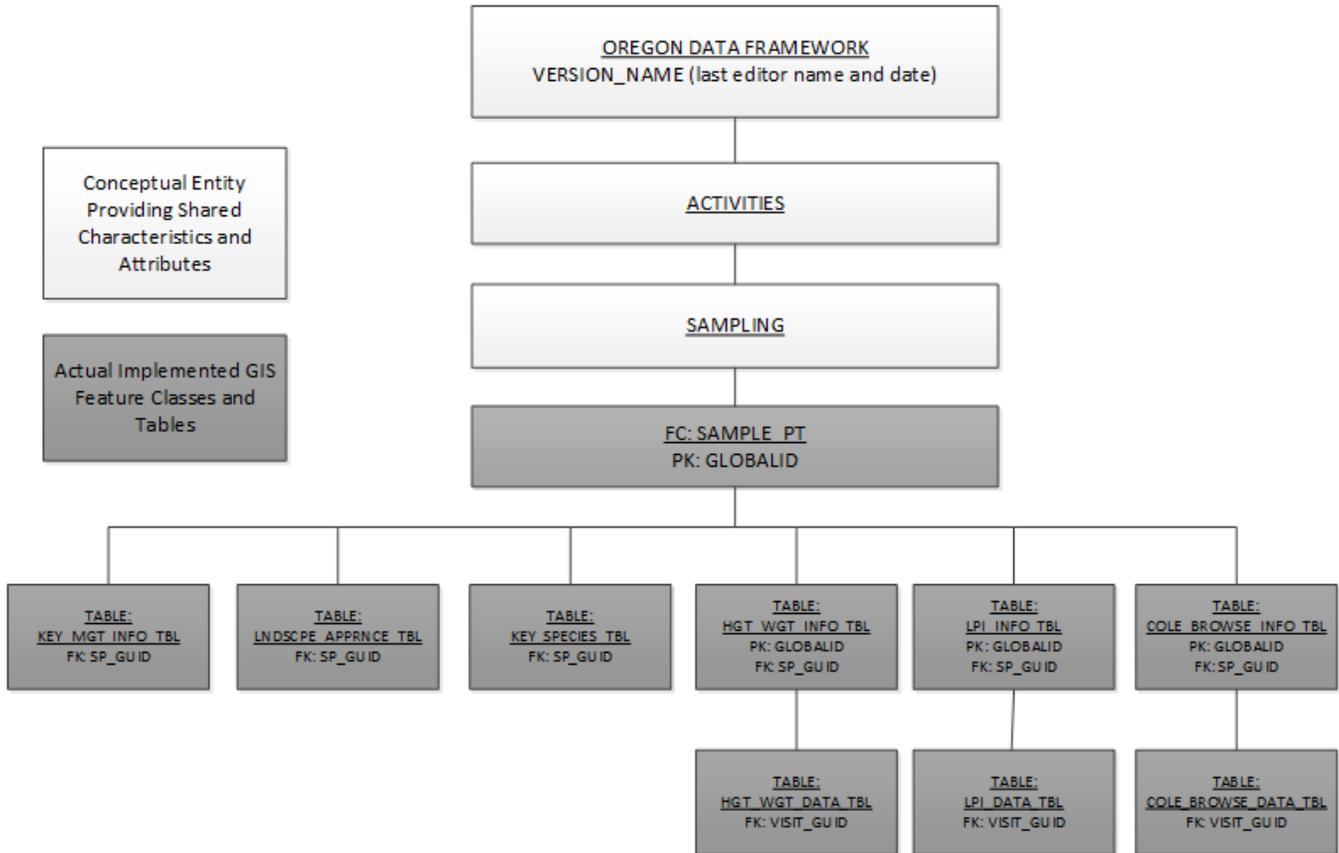


Figure 1: Data Organization Structure

3. DATA MANAGEMENT PROTOCOLS

3.1 ACCURACY REQUIREMENTS

Since Range Monitoring uses non-spatial tables related to the Sample Point feature class, it inherits spatial accuracy requirements (and the attribute accuracy requirements for the SAMPLE_PT parent feature) from the Sample Points theme. For Sample Points, required attributes should have an accuracy of at least 90 percent. Spatial accuracy should generally be within 50 feet. Since these features will be collected primarily using a Global Positioning System (GPS)-enabled mobile application (see next section), the ACCURACY_FT column will be automatically populated with measurements from the device's location service.

Attribute validity for the Range Monitoring tables should meet or exceed a 95 percent threshold. This means that the total number of records minus records with the following problems should meet or exceed 95 percent of the total:

- Blank or null values in required fields
- Attribute values outside of any applied coded-value or range domains
- Records related to the same SAMPLE_PT feature with identical (duplicate) values in all attributes except for OBJECTID, GLOBALID, or GUID attribute types, which are always unique

3.2 COLLECTION, INPUT, AND MAINTENANCE PROTOCOLS

In most cases, field-going staff will collect Range Monitoring data using a specialized version of the S1 Mobile for Android application. To collect this data, a staff member must first obtain the appropriate mobile editor user account within the BLM ArcGIS Online (AGOL) organization. Then, administrators will add Range Monitoring mobile editors to the designated group in AGOL which allows them to access the editable feature service. Specific decisions about how to manage AGOL users can be made at the District or Field Office level.

Once added to the correct group, users can log in to the S1 Mobile for Range Monitoring application and download an editable replica of the Range Monitoring dataset to their device for offline use in the field. This application allows users to create Range Monitoring points (Sample Points), select one of the protocols listed in Section 2.1 (Description), and enter their observation data into the forms as specified for each protocol.

Once the user has created a Range Monitoring Point (Sample Point), the user may add a related record to the table corresponding to the type of protocol they are using. These include:

- Cole Browse
- Line-Point Intercept
- Key Species
- Height-Weight

- Landscape Appearance

Additional information about the sampling protocol should be captured in the Key Management Info table.

When populating date fields within the Range Monitoring theme, note that there are two different date formats. In the Range Monitoring (Sample Point) parent feature, dates should be entered in the ISO 8601 format (YYYYMMDD), with partial date information (YYYY or YYYYMM) allowed. In the child Range Monitoring tables, dates are in the date time format, which integrates better with the S1 Mobile for Android application. Bear in mind that these date time fields do not allow the entry of a “partial” date value, so a full year, month, and day must be entered. Note any inconsistencies or impacts of this format on precision/accuracy in the COMMENTS field for the applicable record.

When the user returns to the office and re-establishes wireless internet connectivity on the device, they will then choose the option to sync and submit their data from the mobile application. This will add the created, updated, and/or deleted features/records to a BLM SDE Version queue. Authorized GIS specialists will then import this mobile version into ArcGIS Desktop, where they will review the data, perform any needed corrections or updates, and submit the version for automated QAQC, reconcile, and posting.

The automated QAQC process will check the version for missing values in required fields, values outside of applied range and/or coded value domains, and duplicate records.

3.3 UPDATE FREQUENCY AND ARCHIVAL PROTOCOLS

Staff will create and update Range Monitoring data as needed, but at least annually. Data administration staff will archive the datasets provided in the publication geodatabase annually at the end of the fiscal year, per ODF guidelines. Most updates will occur during the BLM’s annual “field season,” an approximate period of time during the year when the weather is warmer and conditions are best for on-the-ground sampling and management activities. For the Range program, this roughly corresponds to March through October. Data administration and GIS staff should expect a higher volume of edits during and immediately following this time period.

3.4 STATEWIDE MONITORING

Each year, the Resource Science Data team of the BLM Division of Resources Planning, Use, and Protection meets with the state data stewards for every corporate geospatial theme to conduct an annual review of the data. During the annual review, geospatial staff present the state data stewards with a report detailing QAQC results performed on the data. The QAQC checks include:

- All attribute values conform to the range or coded-value domains to which they are applied
- All attributes marked as required in the data standard have values
- Duplicate features (or records) which have the same geometry and attributes
- Invalid geometry (such as self-intersections or null geometry)
- Other checks, as necessary (can be customized according to the data standard)

In addition to this report, geospatial staff conduct a qualitative needs assessment with the data steward to identify any unmet needs or problems with the status of the data. At the conclusion of the review, the team records the data steward's approval of the datasets reviewed. Data administration staff note this approval in the official corporate metadata.

4. RANGE MONITORING 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. 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/site-page/oregon-data-management>

For domains not listed at that site contact the [State Data Administrator](#). The State Data Administrator's contact information can be found at the following link: <https://www.blm.gov/site-page/oregon-data-management>

4.1 Range Monitoring Tables

4.1.1 KEY_MGT_INFO_TBL (Key Management Info Table)

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
DISTRICT	District	String	50		Yes*	dom_DIST_NAME
STATE	State	String	2		Yes*	
RESOURCE_AREA	Resource Area	String	50		No*	dom_RA_NAME
ALLOT_NM	Allotment Name	String	50		No*	
ALLOT_NR	Allotment Number	String	5		No*	
WILDLIFE_SEASON	Wildlife Season of Use	String	50		No	
KEY_MGMT_AREA_NM	Key Management Area Name	String	50		Yes	
TWP	Township	String	3		No*	
RGE	Range	String	3		No*	
SEC	Section	String	2		No*	
QTR_SEC	Quarter Section	String	2		No*	
QTR_QTR_SEC	Quarter-quarter Section	String	2		No*	
ELEVATION	Elevation	Short Integer			No*	
SLOPE	Slope	String	50		No	
ASPECT	Aspect	String	15		No	dom_COMPASS_DIR
VEG_TYPE	Vegetation Type	String	100		No	
COMMENTS	Comments	String	255		No	
GLOBALID	GLOBALID	GlobalID			Yes*	
SP_GUID	Sample Point ID	GUID			Yes*	
ECOLOGICAL_SITE	Ecological Site	String	50		No	

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
PLANT_COMMUNITY	Plant Community	String	50		No	
VERSION_NAME	VERSION_NAME	String	255	InitialLoad	Yes*	

* Values automatically generated

4.1.2 COLE_BROWSE_INFO_TBL (Cole Browse Info Table)

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
SAMP_INT	Sampling Interval	String	50		No	
SP_GUID	Sample Point ID	GUID	38		Yes*	
ALLOT_NM	Allotment Name	String	50		No*	
ALLOT_NR	Allotment Number	String	5		No*	
PASTURE	Pasture	String	50		No*	
ANIMAL	Livestock Type	String	15		No	dom_LIVESTOCK_ANIMAL_TYPE
PERIOD_USE_BEGIN	Period of Use Beginning	Date	8		No	
PERIOD_USE_END	Period of Use End	Date	8		No	
COMMENTS	Comments	String	255		No	
TRANSECT_AZ	Transect Azimuth	SmallInteger			No	dom_Degree0to359
TRANSECT_LEN	Transect Length	SmallInteger			No	
KEY_SPECIES	Key Species	String	15		No	
TOT_FORM_CLASS_1	Total Count Form Class 1	SmallInteger			No*	
TOT_FORM_CLASS_2	Total Count Form Class 2	SmallInteger			No*	
TOT_FORM_CLASS_3	Total Count Form Class 3	SmallInteger			No*	
TOT_FORM_CLASS_4	Total Count Form Class 4	SmallInteger			No*	
TOT_FORM_CLASS_5	Total Count Form Class 5	SmallInteger			No*	
TOT_FORM_CLASS_6	Total Count Form Class 6	SmallInteger			No*	
TOT_FORM_CLASS_7	Total Count Form Class 7	SmallInteger			No*	
TOT_FORM_CLASS_8	Total Count Form Class 8	SmallInteger			No*	
TOT_AGE_CLASS_1	Total Count Age Class Seedling	SmallInteger			No*	
TOT_AGE_CLASS_2	Total Count Age Class Young	SmallInteger			No*	
TOT_AGE_CLASS_3	Total Count Age Class Mature	SmallInteger			No*	
TOT_AGE_CLASS_4	Total Count Age Class Decadent	SmallInteger			No*	
TOT_LEADER_USE_PCT_0	Total Count Leader Use 0%	SmallInteger			No*	
TOT_LEADER_USE_PCT_5	Total Count Leader Use 1% - 10%	SmallInteger			No*	
TOT_LEADER_USE_PCT_25	Total Count Leader Use 11% - 40%	SmallInteger			No*	
TOT_LEADER_USE_PCT_50	Total Count Leader Use 41% - 60%	SmallInteger			No*	
TOT_LEADER_USE_PCT_75	Total Count Leader Use 61% - 90%	SmallInteger			No*	
TOT_LEADER_USE_PCT_95	Total Count Leader Use 91% - 100%	SmallInteger			No*	
NUM_SAMPLED_PLANTS	Number of Sampled Plants	SmallInteger			No*	
TOT_LEADER_LENGTH	Total Leader Length	Double			No*	
NUM_PLANTS_FORM_CLASS_7_8	Total Plants in Form Class 7 & 8	SmallInteger			No*	

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
NUM_LEADERS_MEASURED	Total Count of Leaders Measured	SmallInteger			No*	
AVG_LEADER_USE	Average Leader Use	Double			No*	
GROWTH_INDEX	Growth Index	Double			No*	
USE_INDEX	Use Index	Double			No*	
TRANSECT_LEN_UOM	Unit of Measure (Transect Length)	String	30		No	dom_UOM
LEADER_LENGTH_UOM	Unit of Measure (Leader Length)	String	30		No	dom_UOM
PCT_FORM_CLASS_1	Percent Form Class 1	Double			No*	
PCT_FORM_CLASS_2	Percent Form Class 2	Double			No*	
PCT_FORM_CLASS_3	Percent Form Class 3	Double			No*	
PCT_FORM_CLASS_4	Percent Form Class 4	Double			No*	
PCT_FORM_CLASS_5	Percent Form Class 5	Double			No*	
PCT_FORM_CLASS_6	Percent Form Class 6	Double			No*	
PCT_FORM_CLASS_7	Percent Form Class 7	Double			No*	
PCT_FORM_CLASS_8	Percent Form Class 8	Double			No*	
PCT_AGE_CLASS_1	Percent Age Class (Seedling)	Double			No*	
PCT_AGE_CLASS_2	Percent Age Class (Young)	Double			No*	
PCT_AGE_CLASS_3	Percent Age Class (Mature)	Double			No*	
PCT_AGE_CLASS_4	Percent Age Class (Decadent)	Double			No*	
STUDY_ID	Study ID	String	60		Yes	
VISIT_DT	Visit Date	Date	8		Yes*	
EXAMINER	Examiner	String	30		Yes*	
GLOBALID	GLOBALID	GlobalID			Yes*	
VERSION_NAME	VERSION_NAME	String	255	InitialLoad	Yes*	

* Values automatically generated

4.1.3 COLE_BROWSE_DATA_TBL (Cole Browse Details Table)

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
POINT_NUM	Point Number	SmallInteger			No*	
VISIT_GUID	Visit ID	GUID			Yes*	
AVAILABILITY	Availability	String	20		No	dom_BROWSE_AVAILABILITY
HEDGING	Hedging	String	15		No	dom_HEDGING
FORM_CLASS	Form Class	SmallInteger			No	dom_FORM_CLASS
AGE_CLASS	Age Class	String	10		No	dom_BROWSE_AGE_CLASS
LEADER_USE_PCT	Leader Use (Percent)	String	15		No	dom_LEADER_USE_PCT
LEADER_LENGTH_1	Leader Length (1)	Double			No	
LEADER_LENGTH_2	Leader Length (2)	Double			No	
LEADER_LENGTH_3	Leader Length (3)	Double			No	
LEADER_LENGTH_4	Leader Length (4)	Double			No	
LEADER_LENGTH_5	Leader Length (5)	Double			No	
LEADER_LENGTH_6	Leader Length (6)	Double			No	
LEADER_LENGTH_7	Leader Length (7)	Double			No	
LEADER_LENGTH_8	Leader Length (8)	Double			No	

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
LEADER_LENGTH_9	Leader Length (9)	Double			No	
LEADER_LENGTH_10	Leader Length (10)	Double			No	
GLOBALID	GLOBALID	GlobalID			Yes*	
VERSION_NAME	VERSION_NAME	String	255	InitialLoad	Yes*	

4.1.4 HGT_WGT_INFO_TBL (Height Weight Info Table)

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
SAMP_INT	Sampling Interval	String	50		No	
SP_GUID	Sample Point ID	GUID			Yes*	
ALLOT_NM	Allotment Name	String	50		No*	
ALLOT_NR	Allotment Number	String	5		No*	
PASTURE	Pasture	String	50		No*	
ANIMAL	Livestock Type	String	15		No	dom_LIVESTOCK_ANIMAL_TYPE
PERIOD_USE_BEGIN	Period of Use Beginning	Date	8		No	
PERIOD_USE_END	Period of Use End	Date	8		No	
COMMENTS	Comments	String	255		No	
CULM_PRESENT	Culm Present	String	1		No	dom_YN
NUM_UNGRAZED_PLANTS	Total Number of Ungrazed Plants	SmallInteger			Yes*	
TOT_HGT_UNGRAZED	Total Height of Ungrazed Plants	Double			Yes*	
NUM_SAMPLED_PLANTS	Number of Sampled Plants	SmallInteger			Yes*	
TOT_PCT_UTIL_SAMPLED_PLANTS	Total Percent Utilization for Sampled Plants	Double			Yes*	
AVG_UNGRAZED_PLANT_HGT	Average Ungrazed Plant Height	Double			Yes*	
AVG_UTIL_HW	Average Utilization (Height-Weight)	Double			Yes*	
TRANSECT_AZ	Transect Azimuth	SmallInteger			No	dom_Degree0to359
TRANSECT_LEN	Transect Length	SmallInteger			No	
TRANSECT_LEN_UOM	Unit of Measure (Transect Length)	String	30		No	dom_UOM
GRAZED_UNGRAZED_UOM	Unit of Measure (Plant Height)	String	30		No	dom_UOM
KEY_SPECIES	Key Species	String	50		No	
STUDY_ID	Study ID	String	60		Yes	
VISIT_DT	Visit Date	Date	8		Yes*	
EXAMINER	Examiner	String	30		Yes*	
GLOBALID	GLOBALID	GlobalID			Yes*	
VERSION_NAME	VERSION_NAME	String	255	InitialLoad	Yes*	

* Values automatically generated

4.1.5 HGT_WGT_DATA_TBL (Height Weight Details Table)

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
VISIT_GUID	Visit ID	GUID			Yes*	
POINT_NUM	Point Number	SmallInteger			No*	
UNGRAZED_HT	Ungrazed Height	Double			No	
GRAZED_HT	Grazed Height	Double			No	
PCT_UTILIZATION	Percent Utilization	Double			Yes*	

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
GLOBALID	GLOBALID	GlobalID			Yes*	
VERSION_NAME	VERSION_N AME	String	255	InitialLoad	Yes*	

* Values automatically generated

4.1.6 KEY_SPECIES_TBL (Key Species Table)

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
SAMP_INT	Sampling Interval	String	50		No	
SP_GUID	Sample Point ID	GUID			Yes*	
ALLOT_NM	Allotment Name	String	50		No*	
PASTURE	Pasture	String	50		No*	
KEY_SP1	1st Key Species	String	15		No	
KEY_SP2	2nd Key Species	String	15		No	
KEY_SP3	3rd Key Species	String	15		No	
KEY_SP4	4th Key Species	String	15		No	
ANIMAL	Livestock Type	String	15		No	dom_LIVESTOCK_ANIMA L_TYPE
PERIOD_USE_BEGIN	Period of Use Beginning	Date	8		No	
PERIOD_USE_END	Period of Use End	Date	8		No	
SP1_0_5	SP1 No Use (0-5%)	SmallInteger			Yes*	
SP1_6_20	SP1 Slight (6-20%)	SmallInteger			Yes*	
SP1_21_40	SP1 Light (21-40%)	SmallInteger			Yes*	
SP1_41_60	SP1 Moderate (41- 60%)	SmallInteger			Yes*	
SP1_61_80	SP1 Heavy (61- 80%)	SmallInteger			Yes*	
SP1_81_94	SP1 Severe (81- 94%)	SmallInteger			Yes*	
SP1_95_100	SP1 Extreme (95- 100%)	SmallInteger			Yes*	
SP1_AVG_UTIL	SP1 Average Utilization	Double			Yes*	
SP2_0_5	SP2 No Use (0-5%)	SmallInteger			Yes*	
SP2_6_20	SP2 Slight (6-20%)	SmallInteger			Yes*	
SP2_21_40	SP2 Light (21-40%)	SmallInteger			Yes*	
SP2_41_60	SP2 Moderate (41- 60%)	SmallInteger			Yes*	
SP2_61_80	SP2 Heavy (61- 80%)	SmallInteger			Yes*	
SP2_81_94	SP2 Severe (81- 94%)	SmallInteger			Yes*	
SP2_95_100	SP2 Extreme (95- 100%)	SmallInteger			Yes*	
SP2_AVG_UTIL	SP2 Average Utilization	Double			Yes*	
SP3_0_5	SP3 No Use (0-5%)	SmallInteger			Yes*	
SP3_6_20	SP3 Slight (6-20%)	SmallInteger			Yes*	
SP3_21_40	SP3 Light (21-40%)	SmallInteger			Yes*	
SP3_41_60	SP3 Moderate (41- 60%)	SmallInteger			Yes*	
SP3_61_80	SP3 Heavy (61- 80%)	SmallInteger			Yes*	
SP3_81_94	SP3 Severe (81- 94%)	SmallInteger			Yes*	
SP3_95_100	SP3 Extreme (95- 100%)	SmallInteger			Yes*	
SP3_AVG_UTIL	SP3 Average Utilization	Double			Yes*	
SP4_0_5	SP4 No Use (0-5%)	SmallInteger			Yes*	
SP4_6_20	SP4 Slight (6-20%)	SmallInteger			Yes*	
SP4_21_40	SP4 Light (21-40%)	SmallInteger			Yes*	

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
SP4_41_60	SP4 Moderate (41-60%)	SmallInteger			Yes*	
SP4_61_80	SP4 Heavy (61-80%)	SmallInteger			Yes*	
SP4_81_94	SP4 Severe (81-94%)	SmallInteger			Yes*	
SP4_95_100	SP4 Extreme (95-100%)	SmallInteger			Yes*	
SP4_AVG_UTIL	SP4 Average Utilization	Double			Yes*	
COMMENTS	Comments	String	255		No	
ALLOT_NR	Allotment Number	String	5		No*	
TRANSECT_AZ	Transect Azimuth	SmallInteger			No	dom_Degree0to359
TRANSECT_LEN	Transect Length	Integer			No	
TRANSECT_LEN_UOM	Unit of Measure (Transect Length)	String	30		No	dom_UOM
STUDY_ID	Study ID	String	60		Yes	
VISIT_DT	Visit Date	Date	8		Yes*	
EXAMINER	Examiner	String	30		Yes*	
GLOBALID	GLOBALID	GlobalID			Yes*	
VERSION_NAME	VERSION_NAME	String	255	InitialLoad	Yes*	

* Values automatically generated

4.1.7 LNDSOCPE_APPRNC_E_TBL (Landscape Appearance Table)

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
SAMP_INT	Sampling Interval	String	15		No	
SP_GUID	Sample Point ID	GUID			Yes*	
ALLOT_NM	Allotment Name	String	50		No*	
ALLOT_NR	Allotment Number	String	5		No*	
PASTURE	Pasture	String	50		No*	
ANIMAL	Livestock Type	String	15		No	dom_LIVESTOCK_ANIMAL_TYPE
PERIOD_USE_BEGIN	Period of Use Beginning	Date	8		No	
PERIOD_USE_END	Period of Use End	Date	8		No	
USAGE_0_5	No Usage (0-5%)	SmallInteger			Yes*	
USAGE_6_20	Slight Usage (6-20%)	SmallInteger			Yes*	
USAGE_21_40	Light Usage (21-40%)	SmallInteger			Yes*	
USAGE_41_60	Moderate Usage (41-60%)	SmallInteger			Yes*	
USAGE_61_80	Heavy Usage (61-80%)	SmallInteger			Yes*	
USAGE_81_94	Severe Usage (81-94%)	SmallInteger			Yes*	
USAGE_95_100	Extreme Usage (95-100%)	SmallInteger			Yes*	
AVG_UTIL_LA	Average Utilization (Landscape Appearance)	Double			Yes*	
COMMENTS	Comments	String	255		No	
TRANSECT_AZ	Transect Azimuth	SmallInteger			No	dom_Degree0to359
TRANSECT_LEN	Transect Length	SmallInteger			No	
TRANSECT_LEN_UOM	Unit of Measure (Transect Length)	String	30		No	dom_UOM
STUDY_ID	Study ID	String	60		Yes	
VISIT_DT	Visit Date	Date	8		Yes*	
EXAMINER	Examiner	String	30		Yes*	
GLOBALID	GLOBALID	GlobalID			Yes*	
VERSION_NAME	VERSION_NAME	String	255	InitialLoad	Yes*	

* Values automatically generated

4.1.8 LPI_INFO_TBL (Line Point Intercept Info Table)

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
SAMP_INT	Sampling Interval	String	50		No	

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
SP_GUID	Sample Point ID	GUID			Yes*	
ALLOT_NM	Allotment Name	String	50		No*	
ALLOT_NR	Allotment Number	String	5		No*	
PASTURE	Pasture	String	50		No*	
COMMENTS	Comments	String	255		No	
PCT_CANOPY_COVER	Percent Canopy Cover	Double			Yes*	
PCT_BARE_GROUND	Percent Bare Ground	Double			Yes*	
PCT_BASAL_COVER	Percent Basal Cover	Double			Yes*	
TRANSECT_AZ	Transect Azimuth	SmallInteger			No	dom_Degree0to359
TRANSECT_LEN	Transect Length	SmallInteger			No	
PERIOD_USE_BEGIN	Period of Use Beginning	Date	8		No	
PERIOD_USE_END	Period of Use End	Date	8		No	
TRANSECT_LEN_UOM	Unit of Measure (Transect Length)	String	30		No	dom_UOM
RECORDER	Recorder	String	30		No	
STUDY_ID	Study ID	String	60		Yes	
VISIT_DT	Visit Date	Date	8		Yes*	
EXAMINER	Examiner	String	30		Yes*	
GLOBALID	GLOBALID	GlobalID			Yes*	
VERSION_NAME	VERSION_NAME	String	255	InitialLoad	Yes*	

*Values automatically generated

4.1.9 LPI_DATA_TBL (Line Point Intercept Details Table)

Attribute Name	Alias	Data Type	Length	Default Value	Required?	Domain
VISIT_GUID	Visit ID	GUID	38		Yes*	
POINT_NUM	Point Number	SmallInteger	2		Yes*	
TOP_CANOPY	Top Canopy	String	6		Yes	
LOWER_1	Lower Canopy Layer 1	String	6		No	
LOWER_2	Lower Canopy Layer 2	String	6		No	
LOWER_3	Lower Canopy Layer 3	String	6		No	
SOIL_SURFACE	Soil Surface	String	6		Yes	dom_SOIL_SURFACE
SOIL_SURFACE_PC	Soil Surface Plant Code	String	6		No (unless SOIL_SURFACE = 'PC')	
GLOBALID	GLOBALID	GlobalID	38		Yes*	
VERSION_NAME	VERSION_NAME	String	255	InitialLoad	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, bordered on the North by Latitude 49.5, on the South by Latitude 41.5, on the East by Longitude -116 and on the West by Longitude -125.

6. SPATIAL ENTITY CHARACTERISTICS

There are no spatial entities described in this data standard.

7. ATTRIBUTE CHARACTERISTICS AND DEFINITION (In alphabetical order)

7.1 AGE_CLASS

Geodatabase Name	AGE_CLASS
BLM Structured Name	Browse_Age_Class_Code
Alias Name	Age Class
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	Choice of one of four class values of browse plant age
Required/Optional	Optional
Domain (Valid Values)	dom_BROWSE_AGE_CLASS <ul style="list-style-type: none"> • Seedling • Young • Mature • Decadent
Data Type	String (10)

7.2 ALLOT_NM

Geodatabase Name	ALLOT_NM
BLM Structured Name	Grazing_Allotment_Name
Alias Name	Allotment Name
Inheritance	Inherited from Grazing Allotments theme
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_MGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL
Definition	Name of the grazing allotment where the monitoring takes place.
Required/Optional	Optional (automatically calculated)
Domain (Valid Values)	No domain.
Data Type	String (50)

7.3 ALLOT_NR

Geodatabase Name	ALLOT_NR
BLM Structured Name	Grazing_Allotment_Number
Alias Name	Allotment Number
Inheritance	Inherited from Grazing Allotments theme
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_MGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL
Definition	Number assigned to the grazing allotment where the monitoring takes place.
Required/Optional	Optional (automatically calculated)
Domain (Valid Values)	No domain.
Data Type	String (5)

7.4 ANIMAL

Geodatabase Name	ANIMAL
BLM Structured Name	Livestock_Type_Text
Alias Name	Livestock Type
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL
Definition	Type of animal grazing or browsing on the allotment/pasture where the monitoring is taking place
Required/Optional	Optional
Domain (Valid Values)	dom_LIVESTOCK_ANIMAL_TYPE <ul style="list-style-type: none"> • Cow • Sheep • Llama • Other • Horse • Unknown

Data Type	String (15)
-----------	-------------

7.5 ASPECT

Geodatabase Name	ASPECT
BLM Structured Name	Aspect_Measure
Alias Name	Aspect
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	The compass direction that a slope faces.
Required/Optional	Optional
Domain (Valid Values)	dom_COMPASS_DIR <ul style="list-style-type: none"> • E: E – East (67.5-112.5) • N: N – North (0-22.5 and 337.5-360) • NE: NE - Northeast (22.5-67.5) • NW: NW - Northwest (292.5-337.5) • S: S - South (157.5-202.5) • SE: SE - Southeast (112.5-157.5) • SW: SW - Southwest (202.5-247.5) • W: W - West (247.5-292.5)
Data Type	String (15)

7.6 AVAILABILITY

Geodatabase Name	AVAILABILITY
BLM Structured Name	Browse_Plant_Availability_Code
Alias Name	Availibility
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	Choice of one of four class values of browse plant availability
Required/Optional	Optional
Domain (Valid Values)	dom_BROWSE_AVAILABILITY <ul style="list-style-type: none"> • All • Partially Available • Unavailable • Dead

Data Type	String (20)
-----------	-------------

7.7 AVG_LEADER_USE

Geodatabase Name	AVG_LEADER_USE
BLM Structured Name	Average_Leader_Use_Percent
Alias Name	Average Leader Use
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Average leader use is a percentage value based on the total of the estimated leader use divided by the total number of plants sampled, minus the plants in form classes 7 or 8 (dead or unavailable). The specific calculation is: $\text{AVG_LEADER_USE} = ((5 \times \text{TOTAL_LEADER_USE_PCT_5}) + (25 \times \text{TOTAL_LEADER_USE_PCT_25}) + (50 \times \text{TOTAL_LEADER_USE_PCT_50}) + (75 \times \text{TOTAL_LEADER_USE_PCT_75}) + (95 \times \text{TOTAL_LEADER_USE_PCT_95})) / (\text{NUM_SAMPLED_PLANTS} - \text{NUM_PLANTS_FORM_CLASS_7_8}) * 100$
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.8 AVG_UNGRAZED_PLANT_HGT

Geodatabase Name	AVG_UNGRAZED_PLANT_HGT
BLM Structured Name	Average_Ungrazed_Plant_Height_Measure
Alias Name	Average Ungrazed Plant Height
Inheritance	
Feature Class Use/Entity Table	HGT_WGT_INFO_TBL
Definition	Calculated by dividing the sum of ungrazed plant heights by the total number of ungrazed plants sampled.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain

Data Type	Double (double-precision floating-point number)
-----------	---

7.9 AVG_UTIL_LA

Geodatabase Name	AVG_UTIL_LA
BLM Structured Name	Landscape_Appearance_Average_Utilization_Measure
Alias Name	Average Utilization (Landscape Appearance)
Inheritance	Not inherited
Feature Class Use/Entity Table	LNDSCPE_APPRNCE_TBL
Definition	Average Utilization is calculated by taking the count of observations for each utilization class, multiplying that number by the midpoint of the class interval for each class, and summing the products for all classes. This sum is divided by the total number of observations on the transect, then multiplying by 100 to arrive at a percentage value. The calculation is: $\text{AVG_UTIL_LA} = (((\text{USAGE_0_5} \times 2.5) + (\text{USAGE_6_20} \times 13) + (\text{USAGE_21_40} \times 30) + \text{USAGE_41_60} \times 50) + \text{USAGE_61_80} \times 70) + (\text{USAGE_81_94} \times 88) + (\text{USAGE_95_100} \times 97.5)) / (\text{USAGE_0_5} + \text{USAGE_6_20} + \text{USAGE_21_40} + \text{USAGE_41_60} + \text{USAGE_61_80} + \text{USAGE_81_94} + \text{USAGE_95_100})) \times 100$
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.10 AVG_UTIL_HW

Geodatabase Name	AVG_UTIL_HW
BLM Structured Name	Average_Utilization_Measure
Alias Name	Average Utilization (Height-Weight)
Inheritance	Not inherited
Feature Class Use/Entity Table	HGT_WGT_INFO_TBL
Definition	Calculates the average utilization for a key species by totaling the percent utilization for the individual sampled plants and dividing by the number of sampled plants of that species. The calculation is: $\text{AVG_UTIL_HW} = \text{TOT_PCT_UTIL_SAMPLED_PLANTS} / \text{NUM_SAMPLED_PLANTS}$
Required/Optional	Required (Automatically calculated)

Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.11 COMMENTS

Geodatabase Name	COMMENTS
BLM Structured Name	Comments_Text
Alias Name	Comments
Inheritance	Inherited from ODF
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL KEY_MGT_INFO_TBL
Definition	Comments pertaining to the protocol
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (255)

7.12 CULM_PRESENT

Geodatabase Name	CULM_PRESENT
BLM Structured Name	Culm_Present_Text
Alias Name	Culm Present
Inheritance	Not inherited
Feature Class Use/Entity Table	HGT_WGT_INFO_TBL
Definition	The culm is the above-ground or aerial stem of grasses and sedges. Depending on the season, culms of the species being sampled will be present or absent.
Required/Optional	Required
Domain (Valid Values)	dom_YN <ul style="list-style-type: none"> • Y: Yes • N: No • U: Unknown

Data Type	String (1)
-----------	------------

7.13 DISTRICT

Geodatabase Name	DISTRICT
BLM Structured Name	District_Text
Alias Name	District
Inheritance	Inherited from ODF
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	The name of the BLM district where the protocol is performed.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	dom_DIST_NAME
Data Type	String (50)

7.14 ECOLOGICAL_SITE

Geodatabase Name	ECOLOGICAL_SITE
BLM Structured Name	Ecological_Site_Text
Alias Name	Ecological Site
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	Type of rangeland with a specific potential natural community and special characteristics, differing from other kinds of rangeland in its ability to produce vegetation and to respond to management. Ecological sites are defined and described with soil, species composition, and production emphasis. In short, the potential vegetation community that could exist based on soil type.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (50)

7.15 ELEVATION

Geodatabase Name	ELEVATION
------------------	-----------

BLM Structured Name	Elevation_Measure
Alias Name	Elevation
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	The elevation in feet above sea level of the site where the protocol is performed.
Required/Optional	Optional (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.16 EXAMINER

Geodatabase Name	EXAMINER
BLM Structured Name	Examiner_Name
Alias Name	Examiner
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL
Definition	Name of the person who is conducting the study
Required/Optional	Optional (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	String (30)

7.17 FORM_CLASS

Geodatabase Name	FORM_CLASS
BLM Structured Name	Form_Class_Code
Alias Name	Form Class
Inheritance	Not inherited

Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	A numerical value between 1 and 8 specified by a combination of browse plant availability and degree of hedging
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	dom_FORM_CLASS Code. Form Class Description <ol style="list-style-type: none"> 1. All available, little or no hedging 2. All available, moderately hedged 3. All available, severely hedged 4. Partially available, little or no hedging 5. Partially available, moderately hedged 6. Partially available, severely hedged 7. Unavailable 8. Dead
Data Type	SmallInteger

7.18 GLOBALID

Geodatabase Name	GLOBALID
BLM Structured Name	Global_ID_Identifier
Alias Name	
Inheritance	Inherited from ODF
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_MGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL COLE_BROWSE_DATA_TBL HGT_WGT_DATA_TBL LPI_DATA_TBL
Definition	Primary key (PK) field used to link to child tables
Required/Optional	Required (populated by geodatabase)
Domain (Valid Values)	No domain
Data Type	GlobalID

7.19 GRAZED_HT

Geodatabase Name	GRAZED_HT
------------------	-----------

BLM Structured Name	Grazed_Height_Measure
Alias Name	Grazed Height
Inheritance	Not inherited
Feature Class Use/Entity Table	HGT_WGT_DATA_TBL
Definition	Records the measured height for sampled grazed plants. Unit of measure is stored in the GRAZED_UNGRAZED_UOM attribute of the HGT_WGT_INFO_TBL.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.20 GRAZED_UNGRAZED_UOM

Geodatabase Name	GRAZED_UNGRAZED_UOM
BLM Structured Name	Plant_Height_Unit_of_Measure_Text
Alias Name	Unit of Measure (Plant Height)
Inheritance	Not inherited
Feature Class Use/Entity Table	HGT_WGT_INFO_TBL
Definition	The selected unit of measure for GRAZED_HT and UNGRAZED_HT. Valid selections are Feet, Meters, Inches, or Centimeters.
Required/Optional	Required
Domain (Valid Values)	dom_UOM <ul style="list-style-type: none"> • Feet • Meters • Inches • Centimeters
Data Type	String (30)

7.21 GROWTH_INDEX

Geodatabase Name	GROWTH_INDEX
BLM Structured Name	Growth_Index_Measure
Alias Name	Growth Index
Inheritance	Not inherited

Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	The growth index is the average length of the ungrazed leaders on the sampled plants. $\text{GROWTH_INDEX} = \text{TOT_LEADER_LENGTH} / \text{NUM_LEADERS_MEASURED}$
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.22 HEDGING

Geodatabase Name	HEDGING
BLM Structured Name	Hedging_Code
Alias Name	Hedging
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	The three degrees of hedging (Little/No Hedging, Moderately Hedged, Severely Hedged) provide a measure of the relative condition of browse plants and help in assessing the short-term effects of different intensities of leader use.
Required/Optional	Optional
Domain (Valid Values)	dom_HEDGING <ul style="list-style-type: none"> • Little or None – Little or No Hedging • Moderate – Moderate Hedging • Severe – Severe Hedging
Data Type	String (15)

7.23 KEY_MGMT_AREA_NM

Geodatabase Name	KEY_MGMT_AREA_NM
BLM Structured Name	Key_Management_Area_Name
Alias Name	Key Management Area Name
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL

Definition	Key management areas are a relatively small portion of a range selected because of its location, use or grazing value as a monitoring point for grazing use. It is assumed that key areas, if properly selected, will reflect the overall acceptability of current grazing management over the range.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (50)

7.24 KEY_SP_1

Geodatabase Name	KEY_SP_1
BLM Structured Name	Key_Species_1_Name
Alias Name	1 st Key Species
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	First Plant Species selected for browse study sampling, using the PLANTS database species code (http://plants.usda.gov/), a four-letter code based on the first two letters of the genus and species, or the common name.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (15)

7.25 KEY_SP_2

Geodatabase Name	KEY_SP_2
BLM Structured Name	Key_Species_2_Name
Alias Name	2 nd Key Species
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Second Plant Species selected for browse study sampling, using the PLANTS database species code (http://plants.usda.gov/), a four-letter code based on the first two letters of the genus and species, or the common name.
Required/Optional	Optional
Domain (Valid Values)	No domain

Data Type	String (15)
-----------	-------------

7.26 KEY_SP_3

Geodatabase Name	KEY_SP_3
BLM Structured Name	Key_Species_3_Name
Alias Name	3 rd Key Species
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Third Plant Species selected for browse study sampling, using the PLANTS database species code (http://plants.usda.gov/), a four-letter code based on the first two letters of the genus and species, or the common name.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (15)

7.27 KEY_SP_4

Geodatabase Name	KEY_SP_4
BLM Structured Name	Key_Species_4_Name
Alias Name	4 th Key Species
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Fourth Plant Species selected for browse study sampling, using the PLANTS database species code (http://plants.usda.gov/), a four-letter code based on the first two letters of the genus and species, or the common name.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (15)

7.28 KEY_SPECIES

Geodatabase Name	KEY_SPECIES
------------------	-------------

BLM Structured Name	Key_Species_Name
Alias Name	Key Species
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL
Definition	Plant Species selected for Cole Browse or Height-Weight study sampling. Use the PLANTS database species code (http://plants.usda.gov/), a four-letter code based on the first two letters of the genus and species, or the common name.
Required/Optional	Required
Domain (Valid Values)	No domain
Data Type	String (15)

7.29 LEADER_LENGTH_1

Geodatabase Name	LEADER_LENGTH_1
BLM Structured Name	Leader_Length_1_Measure
Alias Name	Leader Length (1)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	Leader (current year's annual growth) Length measurements for a single plant.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.30 LEADER_LENGTH_2

Geodatabase Name	LEADER_LENGTH_2
BLM Structured Name	Leader_Length_2_Measure
Alias Name	Leader Length (2)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL

Definition	Leader (current year's annual growth) Length measurements for a single plant.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.31 LEADER_LENGTH_3

Geodatabase Name	LEADER_LENGTH_3
BLM Structured Name	Leader_Length_3_Measure
Alias Name	Leader Length (3)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	Leader (current year's annual growth) Length measurements for a single plant.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.32 LEADER_LENGTH_4

Geodatabase Name	LEADER_LENGTH_4
BLM Structured Name	Leader_Length_4_Measure
Alias Name	Leader Length (4)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	Leader (current year's annual growth) Length measurements for a single plant.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.33 LEADER_LENGTH_5

Geodatabase Name	LEADER_LENGTH_5
BLM Structured Name	Leader_Length_5_Measure
Alias Name	Leader Length (5)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	Leader (current year's annual growth) Length measurements for a single plant.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.34 LEADER_LENGTH_6

Geodatabase Name	LEADER_LENGTH_6
BLM Structured Name	Leader_Length_6_Measure
Alias Name	Leader Length (6)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	Leader (current year's annual growth) Length measurements for a single plant.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.35 LEADER_LENGTH_7

Geodatabase Name	LEADER_LENGTH_7
BLM Structured Name	Leader_Length_7_Measure
Alias Name	Leader Length (7)
Inheritance	Not inherited

Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	Leader (current year's annual growth) Length measurements for a single plant.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.36 LEADER_LENGTH_8

Geodatabase Name	LEADER_LENGTH_8
BLM Structured Name	Leader_Length_8_Measure
Alias Name	Leader Length (8)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	Leader (current year's annual growth) Length measurements for a single plant.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.37 LEADER_LENGTH_9

Geodatabase Name	LEADER_LENGTH_9
BLM Structured Name	Leader_Length_9_Measure
Alias Name	Leader Length (9)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	Leader (current year's annual growth) Length measurements for a single plant.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.38 LEADER_LENGTH_10

Geodatabase Name	LEADER_LENGTH_10
BLM Structured Name	Leader_Length_10_Measure
Alias Name	Leader Length (10)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	Leader (current year's annual growth) Length measurements for a single plant.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.39 LEADER_LENGTH_UOM

Geodatabase Name	LEADER_LENGTH_UOM
BLM Structured Name	Leader_Length_Unit_of_Measure
Alias Name	Unit of Measure (Leader Length)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Unit of measure for leader length measurement
Required/Optional	Required
Domain (Valid Values)	dom_UOM <ul style="list-style-type: none"> • Feet • Meters • Inches • Centimeters
Data Type	String (30)

7.40 LEADER_USE_PCT

Geodatabase Name	LEADER_USE_PCT
BLM Structured Name	Leader_Use_Percent_Text

Alias Name	Leader Use (Percent)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL
Definition	Leader (current year's annual growth) use percentage.
Required/Optional	Optional
Domain (Valid Values)	<p>dom_LEADER_USE_PCT</p> <ul style="list-style-type: none"> • 0: 0% • 5: 1% - 10% • 25: 11% - 40% • 50: 41% - 60% • 75: 61% - 90% • 95: 91% - 100%
Data Type	String (15)

7.41 LOWER_1

Geodatabase Name	LOWER_1
BLM Structured Name	Lower_Canopy_Layer_1_Code
Alias Name	Lower Canopy Layer 1
Inheritance	Not inherited
Feature Class Use/Entity Table	LPI_DATA_TBL
Definition	<p>First lower canopy (below top canopy) plant species intercepted, using line-point intercept sampling. Use the PLANTS database species code (http://plants.usda.gov/), a four-letter code based on the first two letters of the genus and species. If you can identify the genus, but not the species either use the PLANTS database genus code (http://plants.usda.gov) or record a number for each new species of that genus. ALWAYS define the genus portion of the code and the functional group at the bottom of the data form (<i>Artemisia</i> species = AR01). If you <i>cannot</i> identify the genus, use the following codes:</p> <p>AF# = Annual forb (also includes biennials) PF# = Perennial forb AG# = Annual graminoid PG# = Perennial graminoid SH# = Shrub TR# = Tree</p> <p>If necessary, collect a sample of the unknown plant off the transect for later identification.</p>

	The following additional codes can be used to indicate the presence of litter or lichen: HL = Herbaceous Litter WL = Woody Litter, > 5mm (~1/4 in) diameter NL = Non-vegetative Litter VL = Vagrant Lichen
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (6)

7.42 LOWER_2

Geodatabase Name	LOWER_2
BLM Structured Name	Lower_Canopy_Layer_2_Code
Alias Name	Lower Canopy Layer 2
Inheritance	Not inherited
Feature Class Use/Entity Table	LPI_DATA_TBL
Definition	<p>Second lower canopy (below top canopy) plant species intercepted, using line-point intercept sampling. Use the PLANTS database species code (http://plants.usda.gov/), a four-letter code based on the first two letters of the genus and species. If you can identify the genus, but not the species either use the PLANTS database genus code (http://plants.usda.gov/) or record a number for each new species of that genus. ALWAYS define the genus portion of the code and the functional group at the bottom of the data form (<i>Artemisia</i> species = AR01). If you <i>cannot</i> identify the genus, use the following codes:</p> <p>AF# = Annual forb (also includes biennials) PF# = Perennial forb AG# = Annual graminoid PG# = Perennial graminoid SH# = Shrub TR# = Tree</p> <p>If necessary, collect a sample of the unknown plant off the transect for later identification.</p> <p>The following additional codes can be used to indicate the presence of litter or lichen: HL = Herbaceous Litter WL = Woody Litter, > 5mm (~1/4 in) diameter NL = Non-vegetative Litter VL = Vagrant Lichen</p>

Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (6)

7.43 LOWER_3

Geodatabase Name	LOWER_3
BLM Structured Name	Lower_Canopy_Layer_3_Code
Alias Name	Lower Canopy Layer 3
Inheritance	Not inherited
Feature Class Use/Entity Table	LPI_DATA_TBL
Definition	<p>Third lower canopy (below top canopy) plant species intercepted, using line-point intercept sampling. Use the PLANTS database species code (http://plants.usda.gov/), a four-letter code based on the first two letters of the genus and species. If you can identify the genus, but not the species either use the PLANTS database genus code (http://plants.usda.gov/) or record a number for each new species of that genus. ALWAYS define the genus portion of the code and the functional group at the bottom of the data form (<i>Artemisia</i> species = AR01). If you <i>cannot</i> identify the genus, use the following codes:</p> <p>AF# = Annual forb (also includes biennials) PF# = Perennial forb AG# = Annual graminoid PG# = Perennial graminoid SH# = Shrub TR# = Tree</p> <p>If necessary, collect a sample of the unknown plant off the transect for later identification.</p> <p>The following additional codes can be used to indicate the presence of litter or lichen: HL = Herbaceous Litter WL = Woody Litter, > 5mm (~1/4 in) diameter NL = Non-vegetative Litter VL = Vagrant Lichen</p>
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (6)

7.44 NUM_LEADERS_MEASURED

Geodatabase Name	NUM_LEADERS_MEASURED
BLM Structured Name	Leaders_Measured_Count
Alias Name	Total Count of Leaders Measured
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Number of leaders (annual new growth) measured during the Cole Browse study
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.45 NUM_PLANTS_FORM_CLASS_7_8

Geodatabase Name	NUM_PLANTS_FORM_CLASS_7_8
BLM Structured Name	Plants_In_Form_Class_7_or_8_Count
Alias Name	Total Plants in Form Class 7 & 8
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Number of plants found to be in form class 7 or 8 (dead or unavailable)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.46 NUM_SAMPLED_PLANTS

Geodatabase Name	NUM_SAMPLED_PLANTS
BLM Structured Name	Sampled_Plants_Count
Alias Name	Number of Sampled Plants
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL

Definition	Total number of sampled plants using Height-Weight or Cole Browse
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.47 NUM_UNGRAZED_PLANTS

Geodatabase Name	NUM_UNGRAZED_PLANTS
BLM Structured Name	Ungrazed_Plants_Count
Alias Name	Total Number of Ungrazed Plants
Inheritance	Not inherited
Feature Class Use/Entity Table	HGT_WGT_INFO_TBL
Definition	Total number of ungrazed plants using Height-Weight measurement protocol. This is the count of UNGRAZED_HT measurements in the HGT_WGT_DATA_TBL records related to the HGT_WGT_INFO_TBL record.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.48 PASTURE

Geodatabase Name	PASTURE
BLM Structured Name	Pasture_Name
Alias Name	Pasture
Inheritance	Inherited from Grazing Allotments
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL
Definition	Name of grazing area enclosed and separated from other areas by fence or natural barrier.
Required/Optional	Optional (Automatically calculated)

Domain (Valid Values)	No domain
Data Type	String (50)

7.49 PCT_AGE_CLASS_1

Geodatabase Name	PCT_AGE_CLASS_1
BLM Structured Name	Seedling_Age_Class_Percent
Alias Name	Percent Age Class (Seedling)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	$PCT_AGE_CLASS_1 = (TOT_AGE_CLASS_1 / NUM_SAMPLED_PLANTS) \times 100$
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.50 PCT_AGE_CLASS_2

Geodatabase Name	PCT_AGE_CLASS_2
BLM Structured Name	Young_Age_Class_Percent
Alias Name	Percent Age Class (Young)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	$PCT_AGE_CLASS_2 = (TOT_AGE_CLASS_2 / NUM_SAMPLED_PLANTS) \times 100$
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.51 PCT_AGE_CLASS_3

Geodatabase Name	PCT_AGE_CLASS_3
------------------	-----------------

BLM Structured Name	Mature_Age_Class_Percent
Alias Name	Percent Age Class (Mature)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	$PCT_AGE_CLASS_3 = (TOT_AGE_CLASS_3 / NUM_SAMPLED_PLANTS) \times 100$
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.52 PCT_AGE_CLASS_4

Geodatabase Name	PCT_AGE_CLASS_4
BLM Structured Name	Decadent_Age_Class_Percent
Alias Name	Percent Age Class (Decadent)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	$PCT_AGE_CLASS_4 = (TOT_AGE_CLASS_4 / NUM_SAMPLED_PLANTS) \times 100$
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.53 PCT_BARE_GROUND

Geodatabase Name	PCT_BARE_GROUND
BLM Structured Name	Bare_Ground_Percent
Alias Name	Percent Bare Ground
Inheritance	Not inherited
Feature Class Use/Entity Table	LPI_INFO_TBL
Definition	This is based on the number of points with no canopy intercepts and soil surface that is visibly unprotected. That is, the count of all

	LPI_DATA_TBL records related to a LPI_INFO_TBL record where TOP_CANOPY, LOWER_1, LOWER_2, and LOWER_3 are all NULL and SOIL_SURFACE = 'S', divided by the count of related LPI_DATA_TBL records, times 100 to arrive at a percentage value.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.54 PCT_BASAL_COVER

Geodatabase Name	PCT_BASAL_COVER
BLM Structured Name	Basal_Cover_Percent
Alias Name	Percent Basal Cover
Inheritance	Not inherited
Feature Class Use/Entity Table	LPI_INFO_TBL
Definition	This is based on the number of points where the pin flag intercepts a plant base. That is, the count of all LPI_DATA_TBL records related to a LPI_INFO_TBL record where SOIL_SURFACE = 'PC', divided by the count of related LPI_DATA_TBL records, times 100 to arrive at a percentage value.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.55 PCT_CANOPY_COVER

Geodatabase Name	PCT_CANOPY_COVER
BLM Structured Name	Canopy_Cover_Percent
Alias Name	Percent Canopy Cover
Inheritance	Not inherited
Feature Class Use/Entity Table	LPI_INFO_TBL
Definition	This is based on the number of points where the pin flag intercepts a plant base, including hits in the top canopy layer. That is, the count of all LPI_DATA_TBL records related to a LPI_INFO_TBL record where

	'TOP_CANOPY IS NOT NULL', divided by the count of related LPI_DATA_TBL records, times 100 to arrive at a percentage value.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.56 PCT_FORM_CLASS_1

Geodatabase Name	PCT_FORM_CLASS_1
BLM Structured Name	Form_Class_1_Percent
Alias Name	Percent Form Class 1
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	$PCT_FORM_CLASS_1 = (TOT_FORM_CLASS_1 / N) \times 100$ (Where N is the total plant observations points)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.57 PCT_FORM_CLASS_2

Geodatabase Name	PCT_FORM_CLASS_2
BLM Structured Name	Form_Class_2_Percent
Alias Name	Percent Form Class 2
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	$PCT_FORM_CLASS_2 = (TOT_FORM_CLASS_2 / N) \times 100$ (Where N is the total plant observations points)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.58 PCT_FORM_CLASS_3

Geodatabase Name	PCT_FORM_CLASS_3
BLM Structured Name	Form_Class_3_Percent
Alias Name	Percent Form Class 3
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	$PCT_FORM_CLASS_3 = (TOT_FORM_CLASS_3 / N) \times 100$ (Where N is the total plant observations points)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.59 PCT_FORM_CLASS_4

Geodatabase Name	PCT_FORM_CLASS_4
BLM Structured Name	Form_Class_4_Percent
Alias Name	Percent Form Class 4
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	$PCT_FORM_CLASS_4 = (TOT_FORM_CLASS_4 / N) \times 100$ (Where N is the total plant observations points)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.60 PCT_FORM_CLASS_5

Geodatabase Name	PCT_FORM_CLASS_5
BLM Structured Name	Form_Class_5_Percent
Alias Name	Percent Form Class 5
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL

Definition	$PCT_FORM_CLASS_5 = (TOT_FORM_CLASS_5 / N) \times 100$ (Where N is the total plant observations points)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.61 PCT_FORM_CLASS_6

Geodatabase Name	PCT_FORM_CLASS_6
BLM Structured Name	Form_Class_6_Percent
Alias Name	Percent Form Class 6
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	$PCT_FORM_CLASS_6 = (TOT_FORM_CLASS_6 / N) \times 100$ (Where N is the total plant observations points)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.62 PCT_FORM_CLASS_7

Geodatabase Name	PCT_FORM_CLASS_7
BLM Structured Name	Form_Class_7_Percent
Alias Name	Percent Form Class 1
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	$PCT_FORM_CLASS_7 = (TOT_FORM_CLASS_7 / N) \times 100$ (Where N is the total plant observations points)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.63 PCT_FORM_CLASS_8

Geodatabase Name	PCT_FORM_CLASS_8
BLM Structured Name	Form_Class_8_Percent
Alias Name	Percent Form Class 8
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	$PCT_FORM_CLASS_8 = (TOT_FORM_CLASS_8 / N) \times 100$ (Where N is the total plant observations points)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.64 PCT_UTILIZATION

Geodatabase Name	PCT_UTILIZATION
BLM Structured Name	Utilization_Percent
Alias Name	Percent Utilization
Inheritance	Not inherited
Feature Class Use/Entity Table	HGT_WGT_DATA_TBL
Definition	This is based on KEY_SPECIES (in HGT_WGT_INFO_TBL) and AVG_UNGRAZED_PLANT_HGT (also in HGT_WGT_INFO_TBL). Each species has a corresponding lookup table such that inputting the GRAZED_HT value for the record in HGT_WGT_DATA_TBL outputs the percent weight utilized for that plant species. If a value is recorded in UNGRAZED_HT (i.e., the sampled plant has not been grazed), PCT_UTILIZATION is zero (0).
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.65 PERIOD_USE_BEGIN

Geodatabase Name	PERIOD_USE_BEGIN
BLM Structured Name	Period_Use_Begin_Date

Alias Name	Period of Use Beginning
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL
Definition	Date when use of a pasture or allotment for grazing begins.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Date

7.66 PERIOD_USE_END

Geodatabase Name	PERIOD_USE_END
BLM Structured Name	Period_Use_End_Date
Alias Name	Period of Use End
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL
Definition	Date when use of a pasture or allotment for grazing ends.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Date

7.67 PLANT_COMMUNITY

Geodatabase Name	PLANT_COMMUNITY
BLM Structured Name	Plant_Community_Text
Alias Name	Plant Community
Inheritance	Not inherited

Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	The assemblage of plants occurring together at any point in time, thus denoting no particular successional status (group of plants). Values can include common names or USDA plant codes.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (50)

7.68 POINT_NUM

Geodatabase Name	POINT_NUM
BLM Structured Name	Point_Number
Alias Name	Point Number
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL HGT_WGT_DATA_TBL
Definition	Individual observation point number
Required/Optional	Required (Automatically generated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.69 QTR_QTR_SEC

Geodatabase Name	QTR_QTR_SEC
BLM Structured Name	Quarter_Quarter_Section_Identifier
Alias Name	Question Section
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	Quarter-quarter section where the key management area is located.
Required/Optional	Optional (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	String (2)

7.70 QTR_SEC

Geodatabase Name	QTR_SEC
BLM Structured Name	Quarter_Section_Identifier
Alias Name	Quarter Section
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	Quarter section where the key management area is located.
Required/Optional	Optional (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	String (2)

7.71 RECORDER

Geodatabase Name	RECORDER
BLM Structured Name	Recorder_Name
Alias Name	Recorder
Inheritance	Not inherited
Feature Class Use/Entity Table	LPI_INFO_TBL
Definition	Name of person recording data. For the Line-Point Intercept method, it is customary to use a two-person team of Examiner and Recorder for reasons of efficiency.
Required/Optional	Optional (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	String (30)

7.72 RESOURCE_AREA

Geodatabase Name	RESOURCE_AREA
BLM Structured Name	Resource_Area_Text
Alias Name	Resource Area
Inheritance	Inherited from ODF

Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	The name of the BLM resource area/field office where the protocol is performed.
Required/Optional	Optional (Automatically calculated)
Domain (Valid Values)	dom_RA_NAME
Data Type	String (50)

7.73 RGE

Geodatabase Name	RGE
BLM Structured Name	Range_Identifier
Alias Name	Range
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	Range where the key management area is located.
Required/Optional	Optional (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	String (3)

7.74 SAMP_INT

Geodatabase Name	SAMP_INT
BLM Structured Name	Sampling_Interval_Text
Alias Name	Sampling Interval
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL
Definition	Distance between sampling observation points or transects.
Required/Optional	Optional

Domain (Valid Values)	No domain
Data Type	String (50)

7.75 SEC

Geodatabase Name	SEC
BLM Structured Name	Section_Identifier
Alias Name	Section
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	Section where the key management area is located.
Required/Optional	Optional (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	String (2)

7.76 SLOPE

Geodatabase Name	SLOPE
BLM Structured Name	Slope_Text
Alias Name	Slope
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	The slope of the key management area (descriptive).
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (50)

7.77 SOIL_SURFACE

Geodatabase Name	SOIL_SURFACE
BLM Structured Name	Soil_Surface_Code

Alias Name	Soil Surface
Inheritance	Not inherited
Feature Class Use/Entity Table	LPI_DATA_TBL
Definition	<p>Observation at Soil Surface intercept point. This can be one of the following:</p> <p>R = rock fragment (>5 mm (~1/4 in) diameter) BR = bedrock, M = moss LC = visible lichen crust on soil S = soil without any other soil surface code EL = embedded litter (see page 10) D = duff PC = Plant Code (Enter for Basal Hit)</p> <p>If the user selects PC, the SOIL_SURFACE_PC field will become activated (available for entry) and required.</p>
Required/Optional	Required
Domain (Valid Values)	<p>dom_SOIL_SURFACE:</p> <ul style="list-style-type: none"> • R = Rock fragment (>5 mm (~1/4 in) diameter) • BR = Bedrock, M = moss • LC = visible lichen crust on soil • S = soil without any other soil surface code • EL = embedded litter (see page 10) • D = duff • PC = Plant Code (Enter for Basal Hit)
Data Type	String (6)

7.78 SOIL_SURFACE_PC

Geodatabase Name	SOIL_SURFACE_PC
BLM Structured Name	Soil_Surface_Plant_Code
Alias Name	Soil Surface Plant Code
Inheritance	Not inherited
Feature Class Use/Entity Table	LPI_DATA_TBL
Definition	<p>A USDA plant code representing the plant found at basal level. For a full list of codes, see https://plants.usda.gov. If you can identify the genus, but not the species either use the PLANTS database genus code (http://plants.usda.gov) or record a number for each new species of that genus. ALWAYS define the genus portion of the code and the functional</p>

	<p>group at the bottom of the data form (<i>Artemisia</i> species = AR01). If you <i>cannot</i> identify the genus, use the following codes, adding sequential numbers as necessary:</p> <p>AF# = Annual forb (also includes biennials) PF# = Perennial forb AG# = Annual graminoid PG# = Perennial graminoid SH# = Shrub TR# = Tree</p> <p>If necessary, collect a sample of the unknown plant off the transect for later identification.</p>
Required/Optional	Optional (required if SOIL_SURFACE = 'PC')
Domain (Valid Values)	No domain. Values should be a valid USDA plant code or unknown plant code.
Data Type	String (6)

7.79 SP1_0_5

Geodatabase Name	SP1_0_5
BLM Structured Name	Species_1_No_Use_Count
Alias Name	SP1 No Use (0-5%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 1 with (0-5%) - No or negligible use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.80 SP1_6_20

Geodatabase Name	SP1_6_20
BLM Structured Name	Species_1_Slight_Use_Count
Alias Name	SP1 Slight (6-20%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL

Definition	Count of observations for estimated degree of utilization of key herbaceous species 1 with (6-20%) - Slight use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.81 SP1_21_40

Geodatabase Name	SP1_21_40
BLM Structured Name	Species_1_Light_Use_Count
Alias Name	SP1 Light (21-40%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 1 with (21-40%) - Light use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.82 SP1_41_60

Geodatabase Name	SP1_41_60
BLM Structured Name	Species_1_Moderate_Use_Count
Alias Name	SP1 Moderate (41-60%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 1 with (41-60%) - Moderate use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.83 SP1_61_80

Geodatabase Name	SP1_61_80
BLM Structured Name	Species_1_Heavy_Use_Count
Alias Name	SP1 Heavy (61-80%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 1 with (61-80%) - Heavy use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.84 SP1_81_94

Geodatabase Name	SP1_81_94
BLM Structured Name	Species_1_Severe_Use_Count
Alias Name	SP1 Severe (81-94%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 1 with (81-94%) - Severe use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.85 SP1_95_100

Geodatabase Name	SP1_95_100
BLM Structured Name	Species_1_Extreme_Use_Count
Alias Name	SP1 Extreme (95-100%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL

Definition	Count of observations for estimated degree of utilization of key herbaceous species 1 with (95-100%) - Severe use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.86 SP1_AVG_UTIL

Geodatabase Name	SP1_AVG_UTIL
BLM Structured Name	Species_1_Average_Utilization_Percent
Alias Name	SP1 Average Utilization
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Average utilization percent for species 1 (sum of midpoint values / total count of species 1 records)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.87 SP2_0_5

Geodatabase Name	SP2_0_5
BLM Structured Name	Species_2_No_Use_Count
Alias Name	SP2 No Use (0-5%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 2 with (0-5%) - No or negligible use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.88 SP2_6_20

Geodatabase Name	SP2_6_20
BLM Structured Name	Species_2_Slight_Use_Count
Alias Name	SP2 Slight (6-20%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 2 with (6-20%) - Slight use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.89 SP2_21_40

Geodatabase Name	SP2_21_40
BLM Structured Name	Species_2_Light_Use_Count
Alias Name	SP2 Light (21-40%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 2 with (21-40%) - Light use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.90 SP2_41_60

Geodatabase Name	SP2_41_60
BLM Structured Name	Species_2_Moderate_Use_Count
Alias Name	SP2 Moderate (41-60%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL

Definition	Count of observations for estimated degree of utilization of key herbaceous species 2 with (41-60%) - Moderate use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.91 SP2_61_80

Geodatabase Name	SP2_61_80
BLM Structured Name	Species_2_Heavy_Use_Count
Alias Name	SP2 Heavy (61-80%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 2 with (61-80%) - Heavy use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.92 SP2_81_94

Geodatabase Name	SP2_81_94
BLM Structured Name	Species_2_Severe_Use_Count
Alias Name	SP2 Severe (81-94%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 2 with (81-94%) - Severe use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.93 SP2_95_100

Geodatabase Name	SP2_95_100
BLM Structured Name	Species_2_Extreme_Use_Count
Alias Name	SP2 Extreme (95-100%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 2 with (95-100%) - Severe use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.94 SP2_AVG_UTIL

Geodatabase Name	SP2_AVG_UTIL
BLM Structured Name	Species_2_Average_Utilization_Percent
Alias Name	SP3 Average Utilization
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Average utilization percent for species 2 (sum of midpoint values / total count of species 2 records)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.95 SP3_0_5

Geodatabase Name	SP3_0_5
BLM Structured Name	Species_3_No_Use_Count
Alias Name	SP3 No Use (0-5%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL

Definition	Count of observations for estimated degree of utilization of key herbaceous species 3 with (0-5%) - No or negligible use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.96 SP3_6_20

Geodatabase Name	SP3_6_20
BLM Structured Name	Species_3_Slight_Use_Count
Alias Name	SP3 Slight (6-20%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 3 with (6-20%) - Slight use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.97 SP3_21_40

Geodatabase Name	SP3_21_40
BLM Structured Name	Species_3_Light_Use_Count
Alias Name	SP3 Light (21-40%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 3 with (21-40%) - Light use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.98 SP3_41_60

Geodatabase Name	SP3_41_60
BLM Structured Name	Species_3_Moderate_Use_Count
Alias Name	SP3 Moderate (41-60%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 3 with (41-60%) - Moderate use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.99 SP3_61_80

Geodatabase Name	SP3_61_80
BLM Structured Name	Species_3_Heavy_Use_Count
Alias Name	SP3 Heavy (61-80%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 3 with (61-80%) - Heavy use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.100 SP3_81_94

Geodatabase Name	SP3_81_94
BLM Structured Name	Species_3_Severe_Use_Count
Alias Name	SP3 Severe (81-94%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL

Definition	Count of observations for estimated degree of utilization of key herbaceous species 3 with (81-94%) - Severe use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.101 SP3_95_100

Geodatabase Name	SP3_95_100
BLM Structured Name	Species_3_Extreme_Use_Count
Alias Name	SP3 Extreme (95-100%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 3 with (95-100%) - Severe use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.102 SP3_AVG_UTIL

Geodatabase Name	SP3_AVG_UTIL
BLM Structured Name	Species_3_Average_Utilization_Percent
Alias Name	SP3 Average Utilization
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Average utilization percent for species 3 (sum of midpoint values / total count of species 3 records)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.103 SP4_0_5

Geodatabase Name	SP4_0_5
BLM Structured Name	Species_4_No_Use_Count
Alias Name	SP4 No Use (0-5%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 4 with (0-5%) - No or negligible use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.104 SP4_6_20

Geodatabase Name	SP4_6_20
BLM Structured Name	Species_4_Slight_Use_Count
Alias Name	SP4 Slight (6-20%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 4 with (6-20%) - Slight use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.105 SP4_21_40

Geodatabase Name	SP4_21_40
BLM Structured Name	Species_4_Light_Use_Count
Alias Name	SP4 Light (21-40%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL

Definition	Count of observations for estimated degree of utilization of key herbaceous species 4 with (21-40%) - Light use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.106 SP4_41_60

Geodatabase Name	SP4_41_60
BLM Structured Name	Species_4_Moderate_Use_Count
Alias Name	SP4 Moderate (41-60%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 4 with (41-60%) - Moderate use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.107 SP4_61_80

Geodatabase Name	SP4_61_80
BLM Structured Name	Species_4_Heavy_Use_Count
Alias Name	SP4 Heavy (61-80%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 4 with (61-80%) - Heavy use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.108 SP4_81_94

Geodatabase Name	SP4_81_94
BLM Structured Name	Species_4_Severe_Use_Count
Alias Name	SP4 Severe (81-94%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 4 with (81-94%) - Severe use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.109 SP4_95_100

Geodatabase Name	SP4_95_100
BLM Structured Name	Species_4_Extreme_Use_Count
Alias Name	SP4 Extreme (95-100%)
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL
Definition	Count of observations for estimated degree of utilization of key herbaceous species 4 with (95-100%) - Severe use.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.110 SP4_AVG_UTIL

Geodatabase Name	SP4_AVG_UTIL
BLM Structured Name	Species_4_Average_Utilization_Percent
Alias Name	SP4 Average Utilization
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_SPECIES_TBL

Definition	Average utilization percent for species 4 (sum of midpoint values / total count of species 4 records)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.111 SP_GUID

Geodatabase Name	SP_GUID
BLM Structured Name	Sample_Point_Globally_Unique_Identifier
Alias Name	Sample Point ID
Inheritance	Inherited from ODF
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL HGT_WGT_DATA_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_DATA_TBL KEY_MGT_INFO_TBL
Definition	Foreign Key (FK) field used to relate child records to their parent in the Range Monitoring Geodatabase
Required/Optional	Required (Automatically generated)
Domain (Valid Values)	No domain.
Data Type	GUID

7.112 STATE

Geodatabase Name	STATE
BLM Structured Name	State_Text
Alias Name	State
Inheritance	Inherited from ODF
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	The name of the State where the protocol is performed.
Required/Optional	Required (Automatically calculated)

Domain (Valid Values)	No domain
Data Type	String (2)

7.113 STUDY_ID

Geodatabase Name	STUDY_ID
BLM Structured Name	Study_Identifier
Alias Name	Study ID
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL
Definition	Local alphanumeric identifier code for applicable study protocol.
Required/Optional	Required
Domain (Valid Values)	No domain
Data Type	String (60)

7.114 TOP_CANOPY

Geodatabase Name	TOP_CANOPY
BLM Structured Name	Top_Canopy_Code
Alias Name	Top Canopy
Inheritance	Not inherited
Feature Class Use/Entity Table	LPI_DATA_TBL
Definition	Observed plant species at top canopy intercept point. Use the PLANTS database species code (http://plants.usda.gov/), a four-letter code based on the first two letters of the genus and species. For a full list of codes, see https://plants.usda.gov . If you can identify the genus, but not the species either use the PLANTS database genus code (http://plants.usda.gov) or record a number for each new species of that genus. ALWAYS define the genus portion of the code and the functional group at the bottom of the data form (<i>Artemisia</i> species = AR01). If you <i>cannot</i> identify the genus, use the following codes, adding sequential numbers as necessary: AF# = Annual forb (also includes biennials)

	PF# = Perennial forb AG# = Annual graminoid PG# = Perennial graminoid SH# = Shrub TR# = Tree If necessary, collect a sample of the unknown plant off the transect for later identification.
Required/Optional	Required
Domain (Valid Values)	No domain
Data Type	String (6)

7.115 TOT_AGE_CLASS_1

Geodatabase Name	TOT_AGE_CLASS_1
BLM Structured Name	Total_Seedling_Count
Alias Name	Total Count Age Class Seedling
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Total count of samples where plants are defined as Seedling.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.116 TOT_AGE_CLASS_2

Geodatabase Name	TOT_AGE_CLASS_2
BLM Structured Name	Total_Young_Count
Alias Name	Total Count Age Class Young
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Total count of samples where plants are defined as Young.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain

Data Type	SmallInteger
-----------	--------------

7.117 TOT_AGE_CLASS_3

Geodatabase Name	TOT_AGE_CLASS_3
BLM Structured Name	Total_Mature_Count
Alias Name	Total Count Age Class Mature
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Total count of samples where plants are defined as Mature.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.118 TOT_AGE_CLASS_4

Geodatabase Name	TOT_AGE_CLASS_4
BLM Structured Name	Total_Decadent_Count
Alias Name	Total Count Age Class Decadent
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Total count of samples where plants are defined as Decadent.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.119 TOT_FORM_CLASS_1

Geodatabase Name	TOT_FORM_CLASS_1
BLM Structured Name	Total_Form_Class_1_Count
Alias Name	Total Count Form Class 1
Inheritance	Not inherited

Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Total count of plants in form class 1.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.120 TOT_FORM_CLASS_2

Geodatabase Name	TOT_FORM_CLASS_2
BLM Structured Name	Total_Form_Class_2_Count
Alias Name	Total Count Form Class 2
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Total count of plants in form class 2.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.121 TOT_FORM_CLASS_3

Geodatabase Name	TOT_FORM_CLASS_3
BLM Structured Name	Total_Form_Class_3_Count
Alias Name	Total Count Form Class 3
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Total count of plants in form class 3.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.122 TOT_FORM_CLASS_4

Geodatabase Name	TOT_FORM_CLASS_4
BLM Structured Name	Total_Form_Class_4_Count
Alias Name	Total Count Form Class 4
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Total count of plants in form class 4.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.123 TOT_FORM_CLASS_5

Geodatabase Name	TOT_FORM_CLASS_5
BLM Structured Name	Total_Form_Class_5_Count
Alias Name	Total Count Form Class 5
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Total count of plants in form class 5.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.124 TOT_FORM_CLASS_6

Geodatabase Name	TOT_FORM_CLASS_6
BLM Structured Name	Total_Form_Class_6_Count
Alias Name	Total Count Form Class 6
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Total count of plants in form class 6.

Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.125 TOT_FORM_CLASS_7

Geodatabase Name	TOT_FORM_CLASS_7
BLM Structured Name	Total_Form_Class_7_Count
Alias Name	Total Count Form Class 7
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Total count of plants in form class 7.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.126 TOT_FORM_CLASS_8

Geodatabase Name	TOT_FORM_CLASS_8
BLM Structured Name	Total_Form_Class_8_Count
Alias Name	Total Count Form Class 8
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Total count of plants in form class 8.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.127 TOT_HGT_UNGRAZED

Geodatabase Name	TOT_HGT_UNGRAZED
------------------	------------------

BLM Structured Name	Total_Height_Ungrazed_Plants_Measure
Alias Name	Total Height of Ungrazed Plants
Inheritance	Not inherited
Feature Class Use/Entity Table	HGT_WGT_INFO_TBL
Definition	Sum of all ungrazed sampled point height measurements for a single species.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.128 TOT_LEADER_LENGTH

Geodatabase Name	TOT_LEADER_LENGTH
BLM Structured Name	Total_Leader_Length_Measure
Alias Name	Total Leader Length
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Sum of all ungrazed leader lengths for all sampled plants. That is, the sum of values in LEADER_LENGTH_1 ... LEADER_LENGTH_10 for all related COLE_BROWSE_DATA_TBL records.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.129 TOT_LEADER_USE_PCT_0

Geodatabase Name	TOT_LEADER_USE_PCT_0
BLM Structured Name	Total_Leader_Use_0_Percent
Alias Name	Total Count Leader Use 0%
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL

Definition	Sum of number of sampled plants with estimated leader use of 0%. That is, the count of related COLE_BROWSE_DATA_TBL records with a value of 0 in LEADER_USE_PCT.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.130 TOT_LEADER_USE_PCT_5

Geodatabase Name	TOT_LEADER_USE_PCT_5
BLM Structured Name	Total_Leader_Use_5_Percent
Alias Name	Total Count Leader Use 1% - 10%
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Sum of number of sampled plants with estimated leader use of 1% - 10%. That is, the count of related COLE_BROWSE_DATA_TBL records with a value of 5 in LEADER_USE_PCT.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.131 TOT_LEADER_USE_PCT_25

Geodatabase Name	TOT_LEADER_USE_PCT_25
BLM Structured Name	Total_Leader_Use_25_Percent
Alias Name	Total Count Leader Use 11% - 40%
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Sum of number of sampled plants with estimated leader use of 11% - 40%. That is, the count of related COLE_BROWSE_DATA_TBL records with a value of 25 in LEADER_USE_PCT.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain

Data Type	SmallInteger
-----------	--------------

7.132 TOT_LEADER_USE_PCT_50

Geodatabase Name	TOT_LEADER_USE_PCT_50
BLM Structured Name	Total_Leader_Use_50_Percent
Alias Name	Total Count Leader Use 41% - 60%
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Sum of number of sampled plants with estimated leader use of 41% - 60%. That is, the count of related COLE_BROWSE_DATA_TBL records with a value of 50 in LEADER_USE_PCT.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.133 TOT_LEADER_USE_PCT_75

Geodatabase Name	TOT_LEADER_USE_PCT_75
BLM Structured Name	Total_Leader_Use_75_Percent
Alias Name	Total Count Leader Use 41% - 60%
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Sum of number of sampled plants with estimated leader use of 41% - 60%. That is, the count of related COLE_BROWSE_DATA_TBL records with a value of 75 in LEADER_USE_PCT.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.134 TOT_LEADER_USE_PCT_95

Geodatabase Name	TOT_LEADER_USE_PCT_95
------------------	-----------------------

BLM Structured Name	Total_Leader_Use_95_Percent
Alias Name	Total Count Leader Use 91% - 100%
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	Sum of number of sampled plants with estimated leader use of 91% - 100%. That is, the count of related COLE_BROWSE_DATA_TBL records with a value of 95 in LEADER_USE_PCT.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.135 TOT_PCT_UTIL_SAMPLED_PLANTS

Geodatabase Name	TOT_PCT_UTIL_SAMPLED_PLANTS
BLM Structured Name	Total_Utilization_of_Sampled_Plants_Percent
Alias Name	Total Percent Utilization for Sampled Plants
Inheritance	Not inherited
Feature Class Use/Entity Table	HGT_WGT_INFO_TBL
Definition	Sum of all estimated percent utilization for all sample points. That is, the sum of the values in PCT_UTILIZATION for all related HGT_WGT_DATA_TBL records. (This value will be zero (0) for ungrazed plants.)
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.136 TRANSECT_AZ

Geodatabase Name	TRANSECT_AZ
BLM Structured Name	Transect_Azimuth_Measure
Alias Name	Transect Azimuth
Inheritance	Not inherited

Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL
Definition	Compass direction of transect line in degrees.
Required/Optional	Optional
Domain (Valid Values)	dom_Degree0to359 Range domain, 0-359
Data Type	SmallInteger

7.137 TRANSECT_LEN

Geodatabase Name	TRANSECT_LEN
BLM Structured Name	Transect_Length_Measure
Alias Name	Transect Length
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL
Definition	Length of transect line. Units are defined by value in TRANSECT_LEN_UOM.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.138 TRANSECT_LEN_UOM

Geodatabase Name	TRANSECT_LEN_UOM
BLM Structured Name	Transect_Length_Unit_of_Measure
Alias Name	Unit of Measure (Transect Length)
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL

	KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL
Definition	Unit of measure defining TRANSECT_LEN value
Required/Optional	Optional
Domain (Valid Values)	dom_UOM <ul style="list-style-type: none"> • Feet • Meters • Inches • Centimeters
Data Type	String (30)

7.139 TWP

Geodatabase Name	TWP
BLM Structured Name	Township_Identifier
Alias Name	Township
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	Township where the key management area is located.
Required/Optional	Optional (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	String (3)

7.140 UNGRAZED_HT

Geodatabase Name	UNGRAZED_HT
BLM Structured Name	Ungrazed_Height_Measure
Alias Name	Ungrazed Height
Inheritance	Not inherited
Feature Class Use/Entity Table	HGT_WGT_DATA_TBL
Definition	Records the measured height for sampled ungrazed plants. Unit of measure is stored in the GRAZED_UNGRAZED_UOM attribute of the HGT_WGT_INFO_TBL.

Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.141 USAGE_0_5

Geodatabase Name	USAGE_0_5
BLM Structured Name	No_Usage_Count
Alias Name	No Usage (0-5%)
Inheritance	Not inherited
Feature Class Use/Entity Table	LNDSCPE_APPRNCE_TBL
Definition	Count of sample points on transect where plant browse utilization was in the 0-5% utilization class.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.142 USAGE_6_20

Geodatabase Name	USAGE_6_20
BLM Structured Name	Slight_Usage_Count
Alias Name	Slight Usage (6-20%)
Inheritance	Not inherited
Feature Class Use/Entity Table	LNDSCPE_APPRNCE_TBL
Definition	Count of sample points on transect where plant browse utilization was in the 6-20% utilization class.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.143 USAGE_21_40

Geodatabase Name	USAGE_21_40
------------------	-------------

BLM Structured Name	Light_Usage_Count
Alias Name	Light Usage (21-40%)
Inheritance	Not inherited
Feature Class Use/Entity Table	LNDSCPE_APPRNCE_TBL
Definition	Count of sample points on transect where plant browse utilization was in the 21-40% utilization class.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.144 USAGE_41_60

Geodatabase Name	USAGE_41_60
BLM Structured Name	Moderate_Usage_Count
Alias Name	Moderate Usage (41-60%)
Inheritance	Not inherited
Feature Class Use/Entity Table	LNDSCPE_APPRNCE_TBL
Definition	Count of sample points on transect where plant browse utilization was in the 41-60% utilization class.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.145 USAGE_61_80

Geodatabase Name	USAGE_61_80
BLM Structured Name	Heavy_Usage_Count
Alias Name	Heavy Usage (61-80%)
Inheritance	Not inherited
Feature Class Use/Entity Table	LNDSCPE_APPRNCE_TBL
Definition	Count of sample points on transect where plant browse utilization was in the 61-80% utilization class.

Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.146 USAGE_81_94

Geodatabase Name	USAGE_81_94
BLM Structured Name	Severe_Usage_Count
Alias Name	Severe Usage (81-94%)
Inheritance	Not inherited
Feature Class Use/Entity Table	LNDSCPE_APPRNCE_TBL
Definition	Count of sample points on transect where plant browse utilization was in the 81-94% utilization class.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.147 USAGE_95_100

Geodatabase Name	USAGE_95_100
BLM Structured Name	Extreme_Usage_Count
Alias Name	Extreme Usage (95-100%)
Inheritance	Not inherited
Feature Class Use/Entity Table	LNDSCPE_APPRNCE_TBL
Definition	Count of sample points on transect where plant browse utilization was in the 95-100% utilization class.
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	SmallInteger

7.148 USE_INDEX

Geodatabase Name	USE_INDEX
------------------	-----------

BLM Structured Name	Use_Index_Measure
Alias Name	Use Index
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL
Definition	$USE_INDEX = AVG_LEADER_USE * GROWTH_INDEX / 100$
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Double (double-precision floating-point number)

7.149 VEG_TYPE

Geodatabase Name	VEG_TYPE
BLM Structured Name	Vegetation_Type_Text
Alias Name	Vegetation Type
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	The existing plant community with distinguishable characteristics described in terms of present vegetation that dominates the aspect or physiognomy of the area. In short, the dominant current vegetation on the landscape.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (100)

7.150 VERSION_NAME

Geodatabase Name	VERSION_NAME
BLM Structured Name	Geodatabase_Version_Text
Alias Name	
Inheritance	Inherited from ODF
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_MGT_INFO_TBL

	KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL COLE_BROWSE_DATA_TBL HGT_WGT_DATA_TBL LPI_DATA_TBL
Definition	Name of the corporate geodatabase version previously used to edit the record. InitialLoad = feature has not been edited in ArcSDE.
Required/Optional	Required (Automatically generated)
Domain (Valid Values)	No domain.
Data Type	String (255)

7.151 VISIT_DT

Geodatabase Name	VISIT_DT
BLM Structured Name	Visit_Date
Alias Name	Visit Date
Inheritance	Not inherited
Feature Class Use/Entity Table	COLE_BROWSE_INFO_TBL HGT_WGT_INFO_TBL KEY_SPECIES_TBL LNDSCPE_APPRNCE_TBL LPI_INFO_TBL
Definition	Date on which the protocol was performed
Required/Optional	Required (Automatically calculated)
Domain (Valid Values)	No domain
Data Type	Date

7.152 VISIT_GUID

Geodatabase Name	VISIT_GUID
BLM Structured Name	Visit_Globally_Unique_Identifier
Alias Name	Visit ID
Inheritance	Inherited from ODF
Feature Class Use/Entity Table	COLE_BROWSE_DATA_TBL

	HGT_WGT_DATA_TBL LPI_DATA_TBL
Definition	Foreign Key (FK) field used to relate child records to their parent in the Range Monitoring Geodatabase
Required/Optional	Required (Automatically generated)
Domain (Valid Values)	No domain.
Data Type	GUID

7.153 WILDLIFE_SEASON

Geodatabase Name	WILDLIFE_SEASON
BLM Structured Name	Wildlife_Season_Text
Alias Name	Wildlife Season of Use
Inheritance	Not inherited
Feature Class Use/Entity Table	KEY_MGT_INFO_TBL
Definition	The season during which the wildlife on which the Key or Crucial Management Area are concerned utilize the area.
Required/Optional	Optional
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:

- A. Copied completely with no changes (replicated).
- B. Copied with no changes except to omit one or more feature classes from a feature dataset.
- C. Minor changes made (e.g., clip, dissolve, union with ownership) in order 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

The SDE-enabled ORSOEDIT production/edit geodatabase will serve as the edit environment. When edits are posted to the default geodatabase version, the data will be replicated to the ORSOVCTR publication SDE geodatabase using the following methodology:

- Select Sample Points features with related records in one or more Range Monitoring tables
- Replicate the selected features to a Range Monitoring publication database, preserving GLOBALIDs and GUID values
- Relationship classes will be replicated into the publication geodatabase to provide user access to the Range Monitoring-specific information within the tables
- However, attachments will not carry forward into the publication geodatabase. The software being used in the collection phase allows photos or documents to be related to a geographic location as stored in the Sample Point feature. When the photos or documents are collected, they are stored as geodatabase “attachments” - a special form of geodatabase “relationship class”. When the collected data is finalized as corporate data, the attachments are removed from the edit environment and relocated to a network repository. The FILEPATH field in Sample Points will store the location of where the attachments of interest exist.

Additionally, the Range Monitoring summary tables (direct children of the SAMPLE_PT feature class) will be joined to the Sample Points feature class, and exported as stand-alone feature classes in the ORSOVCTR publication geodatabase. In cases where multiple protocols have been performed on a single SAMPLE_PT feature, the publication process will create separate point features for each related child record. These feature classes will enable simpler symbolizing, labelling, and analysis of the Range Monitoring data. The feature classes will have the following names:

- RGE_MON_CB_PT (Cole Browse Points)
- RGE_MON_HW_PT (Height-Weight Points)
- RGE_MON_LA_PT (Landscape Appearance Points)
- RGE_MON_KS_PT (Key Species Points)
- RGE_MON_LPI_PT (Line-Point Intercept Points)

Once the publication process has completed and the data is updated in ORSOVCTR, the data will be again replicated to the BLMReplication network file share in two separate file geodatabase format for consumption by desktop software applications:

1. **Range_monitoring_pub.gdb:** Contains separate point feature classes for each survey protocol conducted at a given sample point. If multiple protocols were performed at the same point location, overlapping points will be created for each protocol.
2. **Range_monitoring_edit.gdb:** Contains the SAMPLE_PT feature class with related tables

mimicking the edit environment. The relationship classes will have the same properties as in ORSOEDIT. This geodatabase will allow users to examine the fine-grained data collected as part of each survey.

All publication datasets will have the attributes potentially containing names of individuals removed to protect Personally-Identifiable Information (PII) from exposure. These attributes include RECORDER, EXAMINER, and VERSION_NAME. The geodatabase with the stand-alone feature classes will be provided to the public upon request. To initiate a request for the Range Monitoring data, contact the [State Data Administrator](#). The State Data Administrator's contact information can be found at: <https://www.blm.gov/site-page/oregon-data-management>

9. EDITING PROCEDURES

9.1 MANAGING OVERLAP (GENERAL GUIDANCE)

Refer to the ODF Sample Points data standard for managing overlap guidance for Sample Points. The data standard is available here:

https://www.blm.gov/or/datamanagement/files/Sample_Points_Spatial_Data_Standard.pdf

9.2 POLY/ARC TOPOLOGY (BOUNDARY GROUP DATASETS)

Refer to the ODF Sample Points data standard for topology guidance for Sample Points.

9.3 EDITING QUALITY CONTROL

Refer to the ODF Sample Points data standard for editing quality control guidance for Sample Points.

9.4 VERTICAL INTEGRATION

Refer to the ODF Sample Points data standard for vertical integration guidance for Sample Points.

9.5 THEME SPECIFIC GUIDANCE

Range Monitoring points should occur within a grazing allotment polygon in all cases. Specific guidance on how to edit Range Monitoring tabular data is provided on the internal Range and GIS program Sharepoint pages. For access to these documents, contact the data steward.

10. OREGON/WASHINGTON DATA FRAMEWORK OVERVIEW

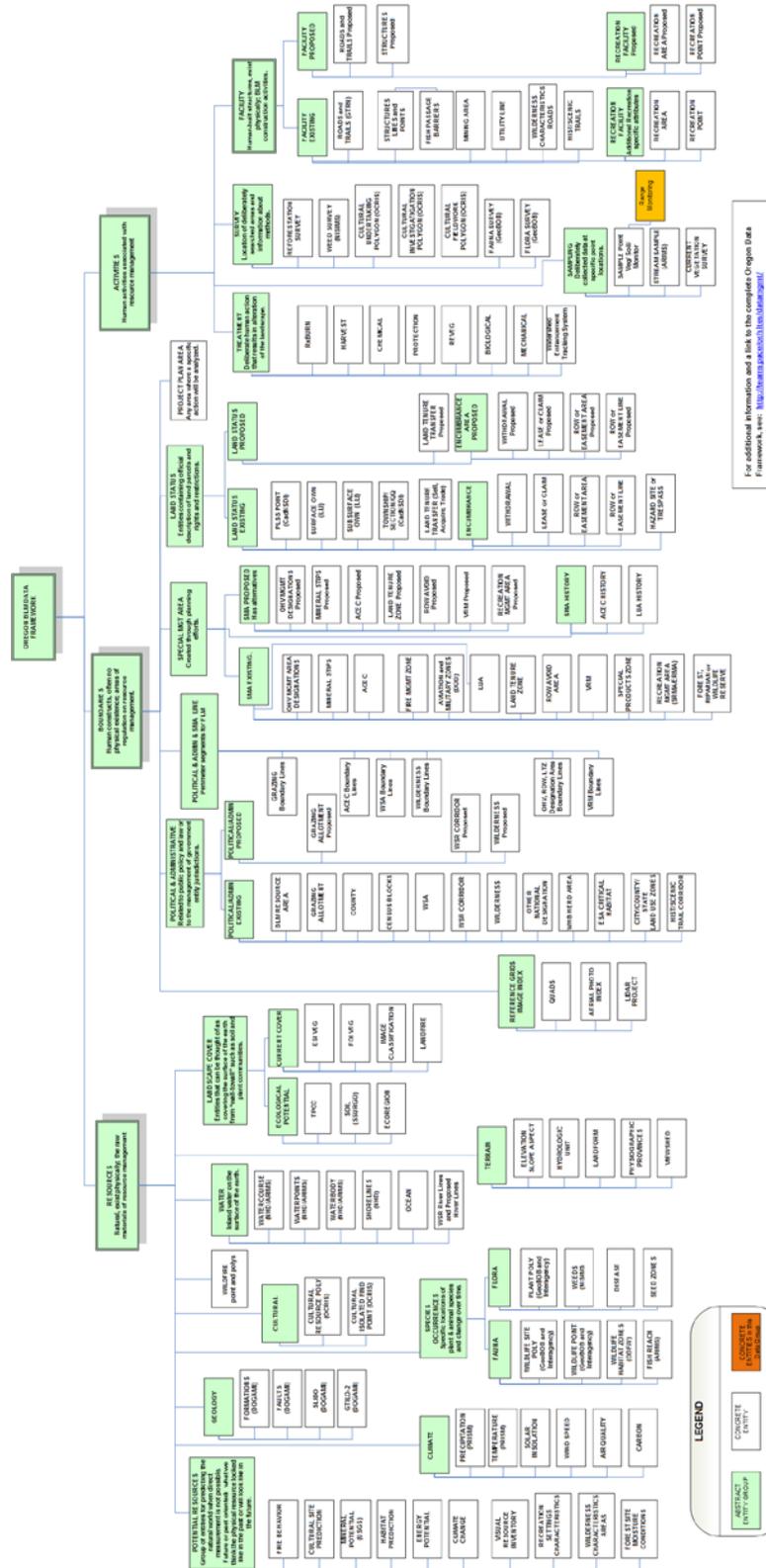


Figure 2 Oregon Data Framework Overview

11. ABBREVIATIONS AND ACRONYMS USED

(Does not include abbreviations/acronyms used as codes for particular data attributes or domain values)

AGOL
ARC
BLM
CADNSDI
DEM
FOIA
GIS
GPS
LPI
NAD
NARA
NEPA
POLY
PUB
ODF
OR/WA
SDE
WEB

Table 2 Abbreviations/Acronyms Used

APPENDIX: 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. Some of the domains used in this data standard are also available at the following web site:

<https://www.blm.gov/site-page/oregon-data-management>

For domains not listed at that site contact the [State Data Administrator](#) for current lists. The State Data Administrator's contact information can be found at:

<https://www.blm.gov/site-page/oregon-data-management>

A.1 dom_BROWSE_AGE_CLASS

Browse Age Class. Classifies the age of browsed plants.

S	Seedling
Y	Young
M	Mature
D	Decadent

A.2 dom_BROWSE_AVAILABILITY

Browse Availability. Defines the availability category of the browsed plant.

All	All Available
Partial	Partially Available
Unavailable	Unavailable
Dead	Dead

A.3 dom_COMPASS_DIR

Compass Direction. Defines the general bearing/azimuth of a transect line.

E	E - East (67.5-112.5)
N	N - North (0-22.5 and 337.5-360)
NE	NE - Northeast (22.5-67.5)
NW	NW - Northwest (292.5-337.5)
S	S - South (157.5-202.5)
SE	SE - Southeast (112.5-157.5)
SW	SW - Southwest (202.5-247.5)
W	W - West (247.5-292.5)

A.4 dom_Degree0to359

Degrees (0 to 359). Range domain defining direction in degrees.

0	Min value

A.5 dom_DIST_NAME

District Name. Name of the BLM District where the monitoring activities take place.

Lakeview District	Lakeview District
Burns District	Burns District
Vale District	Vale District
Prineville District	Prineville District
Roseburg District	Roseburg District
Medford District	Medford District
Coos Bay District	Coos Bay District
Spokane District	Spokane District
Northwest Oregon District	Northwest Oregon District

A.6 dom_FORM_CLASS

Form Class. Codes defining the degree of availability and hedging of vegetation.

1	All available, Little or no hedging
2	All available, Moderately hedged
3	All available, Severely hedged
4	Partially available, Little or no hedging
5	Partially available, Moderately hedged
6	Partially available, Severely hedged
7	Unavailable
8	Dead

A.7 dom_HEDGING

Hedging. Degree of hedging (used in Cole Browse protocol) - to compute Form Class.

Little or None	Little or No Hedging
Moderate	Moderate Hedging
Severe	Severe Hedging

A.8 dom_LEADER_USE_PCT

Leader Use Percentage. Estimate of the intensity of use (for Cole Browse protocol). The value included represents the midpoint of each percentage class.

0	0%
5	1% - 10%
25	11% - 40%
50	41% - 60%
75	61% - 90%
95	91% - 100%

A.9 dom_LIVESTOCK_ANIMAL_TYPE

Livestock Animal Type. Type of livestock using pasture.

Cow	Cow
Sheep	Sheep
Llama	Llama
Other	Other
Unknown	Unknown
Horse	Horse

A.10 dom_RA_NAME

Resource Area Name. BLM Resource Area Name.

Lakeview RA	Lakeview Resource Area
Klamath Falls RA	Klamath Falls Resource Area
Three Rivers RA	Three Rivers Resource Area
Andrews RA	Andrews Resource Area
Malheur RA	Malheur Resource Area
Baker RA	Baker Resource Area
Central Oregon RA	Central Oregon Resource Area
Deschutes RA	Deschutes Resource Area
Cascades RA	Cascades Resource Area
Marys Peak RA	Marys Peak Resource Area
Tillamook RA	Tillamook Resource Area
Siuslaw RA	Siuslaw Resource Area
Upper Willamette RA	Upper Willamette Resource Area
Swiftwater RA	Swiftwater Resource Area
South River RA	South River Resource Area
Butte Falls RA	Butte Falls Resource Area
Ashland RA	Ashland Resource Area
Glendale RA	Glendale Resource Area
Grants Pass RA	Grants Pass Resource Area
Umpqua RA	Umpqua Resource Area

Myrtlewood RA	Myrtlewood Resource Area
Border RA	Border Resource Area
Wenatchee RA	Wenatchee Resource Area

A.11 dom_SOIL_SURFACE

Soil Surface. Soil surface – description of the character and makeup of the soil surface.

R	Rock fragment >5mm or 1/4 inch in diameter
BR	Bedrock
M	Moss
LC	Visible Biotic Crust on Soil
S	Soil, without any other soil surface code
EL	Embedded Litter
D	Duff
PC	Plant Code (Enter for Basal Hit)

A.12 dom_UOM

Unit of Measurement. Unit of Measurement - Feet, Meters, Inches, or Centimeters.

Feet	Feet
Meters	Meters
Inches	Inches
Centimeters	Centimeters

A.13 dom_YN

Yes/No. Yes/No flag.

Y	Yes
N	No
U	Unknown