Oregon/Washington Bureau of Land Management

Areas of Critical Environmental Concern

SPATIAL DATA STANDARD

Honeycombs Research Natural Area - The Honeycombs is a canyon containing a series of rock formations located on the eastern shore of Owyhee Lake in Malheur County, Oregon, north of Leslie Gulch.

Document Revisions

Revision	Date	Author	Description	Affected Pages
1.0	2/1/2008	Stan Frazier, Pam Keller, Joan Seevers	1st released version.	All
2.0	2/5/2013	Mark Mousseaux, Pam Keller	Revised version	
3.0	12/14/2016	Mark Mousseaux, Eric Hiebenthal	Revised version	All
3.1	03/31/2017	Kyler Diershaw	Update BLM ORG chart Updated State Data Administrator Updated State Records Administrator	A.5 2.5, 4.0, Appendix 1.1
3.2	4/24/2017	Micah Babinski	Approved edit to LUP_NAME domain description	Appendix A.8
3.2	7/5/2017	Eric Hiebenthal	Cleaned up formatting	All
3.3	3/14/18	Eric Hiebenthal	Corrected ACT_PL_DT, and DSG_AC as required in attribute characteristics.	7.14, 7.19
3.4	5/14/2018	Micah Babinski	Updated roles/responsibilities links to point to data management website, updated domains	1.1, 4.0
4.0	5/01/2018	Al Thompson	Reformat and edit	All
4.0	8/24/2018	Eric Hiebenthal	Updated ACEC_VALUE to Required, except where ACEC_TYPE = "Inholding"	Section 7.13
4.1	10/30/2018	Eric Hiebenthal	Corrected spelling and formatting.	All.
5.0	5/14/2020	Eric Hiebenthal Dana Baker-Allum	Split ACEC_VALUE field into 7 separate fields. Added ACEC_VALUE domain.	Many

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

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1.   General Information

This data standard contains the definition and requirements for the Areas of Critical Environmental Concern (ACEC) geospatial data themes. It contains ACEC, including Research Natural Areas (RNA) and Outstanding Natural Areas (ONA), in Oregon/Washington (OR/WA) Bureau of Land Management (BLM). It describes the design standard for existing (ACEC), proposed or potential (ACEC_P), and historic (ACEC_HIST) ACEC.

ACEC are designated areas where special management attention is needed for protections of the following values:

- Important historic

- Cultural and scenic

- Fish or wildlife resources

- Other natural systems or processes

- Human life and safety from natural hazards

ACEC are proposed for designation in a BLM Resource Management Plan (RMP). Approval by the BLM State Director of the plan or plan amendment officially designates ACEC.

To be considered as a potential ACEC, the area must require special management attention and, also, meet the criteria of relevance and importance established in BLM Manual 1613. As described in the manual, proposed ACEC that meet relevance and importance criteria and require special management attention will be placed under interim management until an RMP or RMP amendment determines designation.

Organizations outside of BLM may propose potential ACEC. The RNA are created in cooperation with the Oregon Natural Heritage Program.

Prior representations of approved ACEC are placed into the historic data set.

- Dataset (Theme) Name: Areas of Critical Environmental Concern

- Dataset (Feature Class): ACEC_POLY, ACEC_ARC, ACEC_P_POLY, ACEC_P_ARC, ACEC_HIST_POLY, ACEC_HIST_ARC

1.1.   Roles and Responsibilities

Table 1   Roles and Responsibilities

State Data Steward	The State Data Steward responsibilities include approving data standards and business rules, developing Quality Assurance/Quality Control procedures, identifying potential Privacy issues, and managing that data as a corporate resource. The State Data Steward coordinates with field office data stewards, the State Data Administrator, Geographic Information System (GIS) coordinators, and national data stewards. The State Data Steward reviews geospatial metadata for completeness and quality.
GIS Technical Lead	The GIS Technical Lead works with data stewards to convert business needs into GIS applications and derive data requirements and participates in the development of data standards. The GIS technical lead coordinates with system administrators and GIS coordinators to manage the GIS databases. The GIS technical lead works with data editors to ensure the consistency and accordance with the established data standards of data input into the enterprise Spatial Database Engine (SDE) geodatabase. The GIS technical lead provides technical assistance and advice on GIS analysis, query, and display of the dataset.

State Data Administrator	The State Data Administrator provides information management leadership, data modeling expertise, and custodianship of the state data models. The State Data Administrator ensures compliance with defined processes for development of data standards and metadata, and process consistency and completeness. The State Data Administrator is responsible for making data standards and metadata accessible to all users. The State Data Administrator coordinates with data stewards and GIS coordinators to respond to national spatial data requests.
State Records Administrator	The State Records Administrator assists the state data steward to identify any privacy issues related to spatial data. The state records administrator also provides direction and guidance on data release and fees. The state records administrator classifies data under the proper records retention schedule and determines the appropriate Freedom of Information Act category.

1.2. FOIA Category

This data theme, in its whole form, is considered non-Public due to the inclusion of archeological information, which is exempt from release under Exemption 3 of the FOIA (information that is exempted by other statutes). However, the data may be subset to omit the archeological features and attribution in order to release it to the public. See Section 8.2 Specific to This Dataset on page 34 for methodologies approved by the Data Steward.

1.3. Records Retention Schedule

The DRS/GRS/BLM Combined Records Schedule, under Schedule 20/52a3 (Electronic Records/Geographic Information Systems), lists Areas of Critical Concern (ACEC) as one of the system-centric themes that are significant for the Bureau of Land Management's (BLM) mission that must be permanently retained.

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

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

Oregon/Washington (OR/WA) 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 ACEC set of themes do not require any additional security other than that provided by the General Support System (the hardware/software infrastructure of the OR/WA BLM).

This dataset is sensitive and may have restricted access, from either within the BLM or external to the BLM. This dataset falls under the standard Records Access Category 1B- Public Review Data (data that must be reviewed for potential protected information prior to release).

There are no privacy issues or concerns associated with these data themes. A Privacy Impact Assessment has been completed.

1.5. Keywords

Keywords used to locate this dataset include:

- BLM Thesaurus: Areas of Critical Environmental Concern, ACEC, Outstanding Natural Area, ONA, Research Natural Area, and RNA.
- Additional keywords: Off-Highway Vehicle Designation Areas, Transportation Planning
- ISO 19115 Topic Categories: Thesaurus Keywords: biota, economy, environment, location, farming

1.6. Subject Function Codes

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

- 1283 - Data Administration
- 1610 - Resource Management Planning

2.   Dataset Overview

2.1. Usage

The Federal Land Policy and Management Act (FLPMA) requires that BLM give priority to designation and protection of ACEC. The ACEC designation may place restrictions on use of BLM lands. Even a potential ACEC may require temporary management considerations. The ACEC boundaries are frequently used in geospatial analysis for natural resource management planning. The ACEC management prescriptions and restrictions apply only to BLM lands and "inholdings" are not uncommon. It is important that these non-BLM polygons be appropriately excluded in analysis. The ACEC polygons should only capture BLM lands. Inholdings, either federal or private, should not be part of the polygon designated as the ACEC, creating an island or 'bay' effect in some cases. Use the historic data set to identify areas once designated as ACEC.

2.2. Sponsor/Affected Parties

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

The ACEC are defined by, and specific to, the BLM. Matching interagency data across the landscape is not necessary. ACEC effects our non-governmental partners and the public to the extent that ACEC are land allocations on federal lands that determine BLM management of those lands. Implementation of an RMP that includes ACEC designations may preclude certain activities within the designation and in surrounding federal lands because of potential impact to the ACEC. Our partners, who were involved in the creation and designation of ACEC, have an interest in accurate maintenance of the GIS themes. Accurate representation and maintenance of RNA boundaries is especially important to the Oregon Natural Heritage Program and other research entities.

2.3. Relationship to Other Datasets, Databases, and Files

RNA in OR/WA may also be Instant Study Areas (ISA) found in the Wilderness Study Area dataset. There were five at the time this data standard was updated. The ISA boundary may not be identical to the current RNA boundary, which may have changed since the ISA designation. RNA may also exist in Wilderness Areas.

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

There are no external files or databases currently associated with the ACEC data sets. Restrictions on activities within ACEC may be found in the designating RMP document and/or by overlaying relevant GIS themes, e.g. harvest, minerals, Off-Highway Vehicle (OHV). These restrictions may be saved in a table then associated (linked) to ACEC.

2.4. Data Category/Architecture Link

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

- Activities

- Resources

- Boundaries

These general categories are broken into subcategories that inherit spatial characteristics and attributes from their parent categories. These subcategories may be further broken into groups that are more specific until you get to a basic dataset. Those basic datasets inherit all characteristics of all groups/categories above them and cannot be subdivided. Physical data populates the basic datasets. The groups/categories above them do not contain actual data but set parameters that all data of that type must follow.

Figure 1   **Oregon Data Framework (ODF) Overview**

Physical data is populated in the basic data sets. Those groups/categories above them do not contain actual data but set parameters that all data of that type must follow. See Figure 2, Data Organization Structure for a simplified schematic of the entire ODF showing the overall organization and entity inheritance. The Areas of Critical Environmental Concern entities are highlighted. For additional information about the ODF, contact the State Data Administrator. The State Data Administrator's contact information can be found at the following link:

https://www.blm.gov/about/data/oregon-data-management
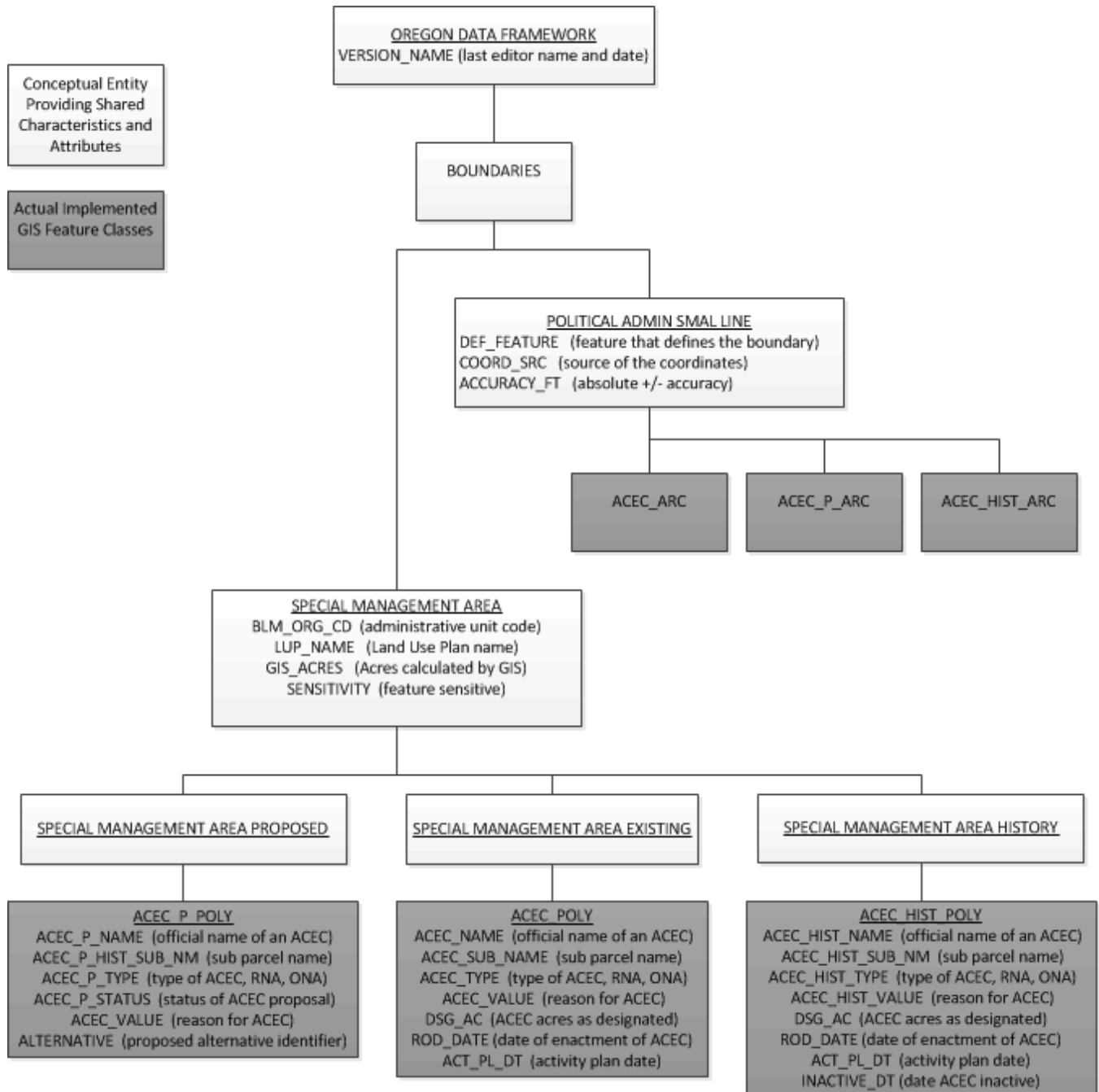
Figure 2   **Data Organization Structure**

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

ACEC_POLY

    ODF

        Boundaries

            Special Management Areas

            Special Management Areas Existing

                ACEC_POLY

            Special Management Areas Proposed

                ACEC_P_POLY

            Special Management Areas History

                ACEC_HIST_POLY

ACEC_ARC

    ODF

        Boundaries

            Political Admin SMA Line

                ACEC_ARC

                ACEC_P_ARC

                ACEC_HIST_ARC

2.5. Relationship to DOI Enterprise Architecture Data Resource Model

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

- Data Subject Area: Geospatial

- Information Class: Location

3.   Data Management Protocols

3.1. Accuracy Requirements

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

GIS very accurately defines and represents the ACEC boundary definition (DEF_FEATURE). This GIS representation (COORD_SRC and ACCURACY_FT) is a combination of sources and is dependent on the accuracy of these components but should be maintained at the highest accuracy practical.

3.2. Collection, Input, and Maintenance Protocols

The district Data Steward defines the ACEC boundary and works with the GIS specialist to ensure that the appropriate GIS coordinate sources are used and that only federal land is included. The most common method of ACEC line capture is to import and create buffers from or snap to existing GIS data, especially Cadastral National Spatial Data Infrastructure (CADNSDI) parcels. Other methods are to manuscript boundary lines using large-scale paper maps or Orthophoto background for orientation. Try to populate the arc defining feature code attribute (DEF_FEATURE) with a defining feature code; use the "UNKNOWN" code as little as possible.

All three ACEC themes (ACEC, ACEC_P, and ACEC_HIST) may be found in the regular corporate database archives.

- The ACEC polygons do not cover all BLM lands and are often relatively small, making maintenance easier. Except for minor adjustments, ACEC change only through an RMP or RMP Amendment. Minor changes are small boundary line adjustments resulting from better digital data or corrections.

- Proposed ACEC (ACEC_P) are more dynamic and need to be checked for currency throughout the nomination, consideration and proposal process. If designated, the relevant ACEC polygons and associated boundary arcs are moved from ACEC_P to ACEC. A former ACEC proposal (for example, considered, but not designated) can be retained on ACEC_P (with the appropriate ACEC_P_STATUS) at the discretion of the Data Steward.

- Formerly designated ACEC are found in the ACEC_HIST datasets. Historical ACEC (ACEC_HIST) are not affected by major or minor changes in boundary-defining features and are not updated when those features are adjusted. Boundary refinements (corrections to data) are typically not a reason to move polygons to the history dataset.

The RMP planning process develops proposed or potential ACEC (ACEC_P), but nomination and consideration can happen at any time. Nominations are often received from organizations outside the BLM.

There will likely be different boundaries proposed for different RMP alternatives. The proposed boundaries may overlap each other distinguished by different value in the ALTERNATIVE attribute. Within an alternative, however, it is advisable to have no overlap between adjacent ACEC polygons. Proposed ACEC boundaries may simply be a small reshaping of existing ACEC and may include proposals to remove an ACEC or part of one. During the RMP planning process, the proposed boundaries captured on ACEC_P represent a complete set of ACEC for each alternative, so there may be extensive overlap with existing ACEC.

Once the RMP is signed, the current ACEC boundaries are moved to ACEC_HIST and replaced using the ACEC_P boundaries for the selected alternative and the attributes (name, values, designated acres, etc.) finalized. The ACEC_P is then archived, along with the rest of the RMP development data, and ACEC is maintained in the corporate SDE.

The ACEC data tracks the date and RMP that established a designated polygon rather than the current plan

applicable to the polygon. ACEC does not update with plan amendments unless the amendment changes the ACEC or RNA designation in some way.

The line feature class pair for ACEC polygons is required, but existing ACEC data for OR/WA districts (at the time this standard was first adopted) was loaded into SDE without populating the attributes. Future ACEC update and capture will require populating the line attributes.

Boundary segment lines of current ACEC should be replaced with more accurate representations of the boundary defining feature as these become available (for example, updated CADNSDI). Minor changes like these will change the ACEC polygon acres in GIS, but the designated acres (DSG_AC) attribute should not be changed. Wording in the RMP may allow for other minor updates. Other boundary changes are not allowed without an RMP Plan Amendment. Any change to the boundary segments must be approved by the district Data Steward and, if appropriate, State Data Steward.

It is also the responsibility of the Data Steward to ensure that any database external to the GIS remains current. The district GIS Coordinator will approve update processes and provide assistance and oversight. At this time, there are no digital databases associated with ACEC, but this responsibility extends to paper records. Reports or tables containing GIS-derived ACEC acres may need to be updated to reflect the current GIS theme.

The unit of processing for updating the ACEC theme is the individual ACEC. Each ACEC is managed as a unit and matching across districts is not required. ACEC may be comprised of many subparts, parcels that are spatially separate or non-contiguous, identified by ACEC_SUB_NM. Most ACEC are a single parcel and the use of subparts is an exception. When using subparts, the field ACEC_NAME is used to identify all polygons that are part of the same ACEC. All attributes for those subparts in the polygon themes shall have the same values, except for ACEC subpart name (ACEC_SUB_NAME, ACEC_P_SUB_NAME, ACEC_HIST_SUB_NAME) and GIS calculated acres (GIS_ACRES) fields.

Transactions will be initiated by editors within the districts to update the themes. Editors will check-out their district's ACEC theme features. They will then add, delete, or modify the features prior to check-in. The district GIS Coordinator will approve update processes and provide assistance and oversight.

The ACEC_DOM_SENS_CD field for all themes is a required field. This field determines if data is made available to the public. 'UNK' is an allowed value for editing purposes but should be considered a temporary or interim value until a determination can be made on whether the features are allowed for public viewing or not. For the purpose of making the data available to the public, a value of UNK in the ACEC_DOM_SENS_CD field shall require that the feature be handled the same as those with the RES value (data for restricted viewing) and are not made available to the public.

Sensitivity determination should be based on a legal mandate to protect the information, such that exists for archeological resources. For example, 16 U.S.C. § 470hh (Archaeological Resources Protection Act of 1979) restricts information pertaining to the nature and location of certain archaeological resources. This has been found to qualify under FOIA Exemption 3 (information that is prohibited from disclosure by another federal law).

3.3. Update Frequency and Archival Protocols

Data is updated as needed, but annual review and needed updates shall take place before the end of November each year and be ready for annual data call by each December.

The OR/WA ACEC data standard is within the national BLM data standard for ACEC. The OR/WA ACEC dataset is made available for inclusion into the national dataset after each change. It is the NOC's responsibility to include the data into a national theme produced on a monthly basis or for a specific data call.

Once the ACEC theme has been created for a district, it is the responsibility of the district Data Steward to ensure that it remains current. The ACEC themes are relatively static. Former designated ACEC boundaries are found in the ACEC_HIST datasets, as well as in the standard annual data archives. Within the RMP process, ACEC_P and ACEC datasets are archived at the date of the draft and at the date of the Record of Decision, prior to implementation of the new ACEC boundaries.

3.4. Statewide Monitoring

The State Data Steward, in conjunction with the GIS Technical Lead and district Data Stewards, are responsible for reviewing the ACEC theme across the state at least once per year. For ACEC, a relatively quick check for completeness and correct attributes is required.

4.   Areas of Critical Environmental Concern (ACEC) Schema

Attributes are listed in the order they appear in the geodatabase feature class. The order is indicative of the importance of the attribute for theme definition and use. There are no aliases unless specifically noted. The domains used in this data standard can be found in the Appendix. These are the domains at the time the data standard was approved. Domains can be changed without a reissue 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 t the following web site: https://www.blm.gov/site-page/oregon-data-management. For additional information about the ODF, contact the State Data Administrator .

4.1.   ACEC Feature Dataset

4.1.1. ACEC_ARC Feature Class (ACEC Lines)

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

    *   Automatically generated

4.1.2. ACEC_POLY Feature Class (ACEC Polygons)

Attribute Name	Data Type	Length	Default Value	Required	Domain
ACEC_NAME	String	50		Yes	dom_ACEC_NAME
ACEC_SUB_NM	String	50		No	
ACEC_TYPE	String	10	ACEC	Yes	dom_ACEC_TYPE
ACEC_VALUE1	String	4		Yes**	dom_ACEC_VALUE
ACEC_VALUE2	String	4		No	dom_ACEC_VALUE
ACEC_VALUE3	String	4		No	dom_ACEC_VALUE
ACEC_VALUE4	String	4		No	dom_ACEC_VALUE
ACEC_VALUE5	String	4		No	dom_ACEC_VALUE
ACEC_VALUE6	String	4		No	dom_ACEC_VALUE
ACEC_VALUE7	String	4		No	dom_ACEC_VALUE
BLM_ORG_CD	String	5	OR000	Yes	dom_BLM_ORG_CD
LUP_NAME	String	100		Yes	dom_LUP_NAME
DSG_AC	Decimal	10.2		Yes	
ROD_DATE	String	8		Yes	
GIS_ACRES	Decimal	12,6		Yes*	
ACT_PL_DT	String	8		Yes	
SENSITIVITY	String	3	UNK	Yes	ACEC_DOM_SENS_CD

VERSION_NAME	String	50	InitialLoad	Yes*	
GLOBALID	GUID			Yes*	

*   Automatically generated
**   Enforced during quality control

4.2. Areas of Critical Environmental Concern Historic Feature Dataset

4.2.1. ACEC_HIST_ARC (ACEC History Lines)

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

*   Automatically generated

4.2.2. ACEC_HIST_POLY (ACEC History Polygons)

Attribute Name	Data Type	Length	Default Value	Required	Domain
ACEC_HIST_NAME	String	50		Yes	
ACEC_HIST_SUB_NM	String	50		No	
ACEC_HIST_TYPE	String	10	ACEC	Yes	dom_ACEC_TYPE
ACEC_VALUE1	String	4		No	
ACEC_VALUE2	String	4		No	
ACEC_VALUE3	String	4		No	
ACEC_VALUE4	String	4		No	
ACEC_VALUE5	String	4		No	
ACEC_VALUE6	String	4		No	
ACEC_VALUE7	String	4		No	
BLM_ORG_CD	String	5	OR000	Yes	dom_BLM_ORG_CD
LUP_NAME	String	100		Yes	dom_LUP_NAME
DSG_AC	Decimal	10.2		Yes	
ROD_DATE	String	8		Yes	
GIS_ACRES	Decimal	12,6		Yes*	
ACT_PL_DT	String	8		Yes	
SENSITIVITY					ACEC_DOM_SENS_CD
INACTIVE_DATE	String	8		Yes	
VERSION_NAME	String	50	InitialLoad	Yes*	

Attribute Name	Data Type	Length	Default Value	Required	Domain
GLOBALID	GUID			Yes*	

* Automatically generated

4.3. Areas of Critical Environmental Concern Proposed Feature Dataset

4.3.1. ACEC_P_ARC Feature Class (ACEC Proposed Lines)

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

* Automatically generated

4.3.2. ACEC_P_POLY Feature Class (ACEC Proposed Polygons)

Attribute Name	Data Type	Length	Default Value	Required?	Domain
ACEC_P_NAME	String	50		Yes	
ACEC_P_SUB_NM	String	50		No	
ACEC_P_TYPE	String	10	ACEC	Yes	dom_ACEC_TYPE
ACEC_P_STATUS	String	20		Yes	dom_ACEC_P_STATUS
ACEC_VALUE1	String	4		No	dom_ACEC_VALUE
ACEC_VALUE2	String	4		No	dom_ACEC_VALUE
ACEC_VALUE3	String	4		No	dom_ACEC_VALUE
ACEC_VALUE4	String	4		No	dom_ACEC_VALUE
ACEC_VALUE5	String	4		No	dom_ACEC_VALUE
ACEC_VALUE6	String	4		No	dom_ACEC_VALUE
ACEC_VALUE7	String	4		No	dom_ACEC_VALUE
BLM_ORG_CD	String	5	OR000	Yes	dom_BLM_ORG_CD
LUP_NAME	String	100		No	dom_LUP_NAME
ALTERNATIVE	String	10		No	
GIS_ACRES	Decimal	12,6		Yes*	
SENSITIVITY	String	3	UNK	Yes	ACEC_DOM_SENS_CD
VERSION_NAME	String	50	InitialLoad	Yes*	
GLOBALID	GUID			Yes*	

* 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 OR/WA BLM, but only a small percentage of BLM lands are designated ACEC. See the metadata for this data set for more precise description of the extent.

6.   Spatial Entity Characteristics

- Areas of Critical Environmental Concern POLYGON (ACEC_POLY)

  - Description: Instance of Special Management Area Existing group. The ACEC are designated by an RMP.

  - Geometry: Polygons do not form a continuous "wall-to-wall" cover across BLM lands. Polygons do not overlap but may have gaps and "inholding" donut holes. ACEC Polygons can only occur on BLM Federal lands and may not include other Federal lands (e.g. Bureau of Reclamation, US Forest Service, etc.), or private/non-Federal lands (e.g. State lands, County parks, Nature Conservancy, etc.).

  - Topology: The ACEC_ POLY lines are coincident with ACEC_ARC lines and, together, make the feature dataset, Areas_of_Critical_Environmental_Concern.

  - Integration Requirements: The ACEC is created from merging together many different input themes. Attributes on the ACEC_ARC provide the information needed to update lines using the correct sources (either by replacement or snapping) and maintain integration across feature classes.

- Areas of Critical Environmental Concern LINE (ACEC_ARC)

  - Description: Instance of Political Admin Surface Management Agency (SMA) Line group. Lines making up the area perimeters of ACEC polygons and segmented, as needed, to indicate a change in either what defines the section of boundary and/or the source of the actual GIS coordinates.

  - Geometry: Simple, non-overlapping lines that are split between endpoints, as needed.

  - Topology: The ACEC_ POLY lines are coincident with ACEC_ ARC lines and, together, make the feature dataset, Areas_of_Critical_Environmental_Concern.

  - Integration Requirements: Line segments must be coincident with the source data indicated by attributes DEF_FEATURE and COORD_SRC, either through duplication or snapping.

- Areas of Critical Environmental Concern PROPOSED POLYGON (ACEC_P_POLY)

  - Description: Instance of Special Management Area Proposed group. Proposed ACEC as defined are finalized in the RMP planning process.

  - Geometry: Polygons may overlap other ACEC_P polygons. Proposed ACEC removals (rare) may overlap ACEC polygons. Gaps and donut holes are allowed. ACEC_P Polygons can only occur on BLM Federal lands and may not include other Federal lands (e.g. Bureau of Reclamation, US Forest Service, etc.), or private/non-Federal lands (e.g. State lands, County parks, Nature Conservancy, etc.).

  - Topology: The ACEC_P_POLY lines are coincident with ACEC_P_ ARC lines and, together, make the feature dataset, Areas_of_Critical_Environmental_Concern_Proposed.

- o   Integration Requirements: The ACEC_P is created from merging together many different input themes. Attributes on the ACEC_P_ ARC provide the information needed to update lines using the correct sources (either by replacement or snapping) and maintain integration across feature classes.

- Areas of Critical Environmental Concern PROPOSED LINE (ACEC_P_ARC)

    - o   Description: Instance of Political Admin SMA Line group. Lines making up the area perimeters of ACEC_P and segmented, as needed, to indicate a change in either what defines the section of boundary and/or the source of the actual GIS coordinates.

    - o   Geometry: Simple, non-overlapping lines that are split between endpoints as needed.

    - o   Topology: The ACEC_P_ POLY lines are coincident with ACEC_P_ARC lines and, together, make the feature dataset, Areas_of_Critical_Environmental_Concern_Proposed.

    - o   Integration Requirements: Line segments must be coincident with the source data indicated by attributes DEF_FEATURE and COORD_SRC, either through duplication or snapping.

- Areas of Critical Environmental Concern **HISTORY POLYGON (ACEC_HIST_POLY)**

    - o   Description: Instance of Special Management Area Existing group. The ACEC are undesignated by an RMP.

    - o   Geometry: Polygons do not form a continuous "wall-to-wall" cover across BLM lands. Polygons may overlap other ACEC_HIST polygons, may have gaps and donut holes.

    - o   Topology: The ACEC_HIST_ POLY lines are coincident with ACEC_HIST_ARC lines and, together, make the feature dataset, Areas_of_Critical_Environmental_Concern_History.

    - o   Integration Requirements: The ACEC_HIST is created from updates to the ACEC theme. Attributes on the ACEC_HIST_ARC provide the information of what features defined the historical ACEC.

- Areas of Critical Environmental Concern **HISTORY LINE (ACEC_HIST_ARC)**

    - o   Description: Instance of Political Admin Surface Management Agency (SMA) Line group. Lines making up the area perimeters of ACEC_HIST polygons and segmented, as needed, to indicate a change in either what defines the section of boundary and/or the source of the actual GIS coordinates.

    - o   Geometry: Simple, non-overlapping lines that are split between endpoints, as needed.

    - o   Topology: The ACEC_HIST_POLY lines are coincident with ACEC_HIST_ARC lines and, together, make the feature dataset Areas_of_Critical_Environmental_Concern_History.

    - o   Integration Requirements: None.

7. Attribute Characteristics and Definition (In alphabetical order)

7.1. ACCURACY_FT

Geodatabase Name	ACCURACY_FT
BLM Structured Name	Accuracy_Feet_Measure
Alias Name	None
Inheritance	Inherited from entity POLITICAL ADMIN SMA LINE
Feature Class Use/Entity Table	ACEC_ARC, ACEC_P_ARC, ACEC_HIST_ARC
Definition	How close, in feet, the spatial GIS depiction is to the actual location on the ground. There are several factors to consider in GIS error: scale and accuracy of map-based sources, accuracy of Global Positioning System (GPS) equipment, and the skill level of the data manipulators. A value of "0" indicates no entry was made. This is the correct value when the COORD_SRC is another GIS theme (Digital Line Graph, Cadastral National Spatial Data Infrastructure and Digital Elevation Model (DEM)) because the accuracy is determined by that theme. However, if COORD_SRC is MAP (digitized from a paper map) or GPS, a value of "0" indicates a missing value that should be filled in either with a non-zero number or "-1." A value of "-1" indicates that the accuracy is unknown and no reliable estimate can be made.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 3 (for high accuracy GPS), 40 (best possible for United States Geological Survey (USGS) 24K topo map), 200
Data Type	Short Integer

7.2. ACEC_HIST_NAME

Geodatabase Name	ACEC_HIST_NAME
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_History_Name
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_HIST_POLY
Definition	The official name of the historic ACEC. It may contain spaces, plus a combination of upper and lower case alpha characters. Polygons of non-BLM managed land surrounded by BLM land within the proposed ACEC should be labeled "INHOLDING" (and not included in any GIS acres calculations).
Required/Optional	Required
Domain (Valid Values)	No domain
Data Type	String (50)

7.3. ACEC_HIST_SUB_NM

Geodatabase Name	ACEC_HIST_SUB_NM
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_History_Subparcel_Name
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_HIST_POLY
Definition	The name of the historic ACEC sub-parcel. It may contain spaces, plus a combination of upper and lowercase alpha characters.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (50)

7.4. ACEC_HIST_TYPE

Geodatabase Name	ACEC_HIST_TYPE
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Type_Code
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_HIST_POLY
Definition	The type of ACEC designation for this area. Types include primary ACEC, ONA, and RNA.
Required/Optional	Required
Domain (Valid Values)	dom_ACEC_TYPE
Data Type	String (10)

7.5.   ACEC_NAME

Geodatabase Name	ACEC_NAME
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Name
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY
Definition	The official name of the ACEC. It may contain spaces, plus a combination of upper and lowercase alpha characters. Polygons of non-BLM managed land, or areas not designated, surrounded by and within the ACEC should be labeled "INHOLDING" (and not included in any GIS acreage calculation). The ACEC names must be unique within OR/WA.
Required/Optional	Required
Domain (Valid Values)	dom_ACEC_NAME
Data Type	String (50)

7.6.   ACEC_P_NAME

Geodatabase Name	ACEC_P_NAME
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Proposed_Name
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_P_POLY
Definition	The official name of the proposed ACEC. It may contain spaces, plus a combination of upper and lower case alpha characters. Polygons of non-BLM managed land, or areas not designated, surrounded by and within the proposed ACEC should be labeled "INHOLDING" (and not included in any GIS acres calculations).
Required/Optional	Required
Domain (Valid Values)	No domain
Data Type	String (50)

7.7. ACEC_P_STATUS

Geodatabase Name	ACEC_P_STATUS
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Proposed_Status_Code
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_P_POLY
Definition	The status or phase of the ACEC proposal. The progression of a proposal is from nomination to consideration to designation. An ACEC might be nominated but not considered and, if considered, may or may not meet the relevance and importance or the management requirement. And, even if it has been considered and "meets," it may not be designated. If designated, the ACEC polygon(s) and corresponding arcs move to the ACEC_POLY/ARC dataset. An ACEC or portion of an ACEC might also be proposed for removal.
Required/Optional	Required
Domain (Valid Values)	dom_ACEC_P_STATUS
Data Type	String (20)

7.8. ACEC_P_SUB_NM

Geodatabase Name	ACEC_P_SUB_NM
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Proposed_Subparcel_Name
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_P_POLY
Definition	The name of the proposed ACEC sub-parcel. It may contain spaces, plus a combination of upper and lowercase alpha characters.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (50)

7.9. ACEC_P_TYPE

Geodatabase Name	ACEC_P_TYPE
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Proposed_Type_Code
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_P_POLY
Definition	The type of ACEC proposed designation for this area. Types include primary ACEC, ONA, and RNA.

Required/Optional	Required
Domain (Valid Values)	dom_ACEC_TYPE
Data Type	String (10)

7.10. ACEC_SUB_NM

Geodatabase Name	ACEC_SUB_NM
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Subparcel_Name
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY
Definition	The name of the ACEC sub-parcel. It may contain spaces, plus a combination of upper and lowercase alpha characters.
Required/Optional	Required
Domain (Valid Values)	dom_ACEC_NAME
Data Type	String (50)

7.11. ACEC_TYPE

Geodatabase Name	ACEC_TYPE
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Type_Code
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY
Definition	The type of ACEC designation for this area. Types include primary ACEC, ONA, and RNA.
Required/Optional	Required
Domain (Valid Values)	dom_ACEC_TYPE
Data Type	String (10)

7.12. ACEC_VALUE1

Geodatabase Name	ACEC_VALUE1
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Value_1_Code
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY, ACEC_P_POLY, ACEC_HIST_POLY
Definition	First value requiring special management attention that factored into the area being designated an ACEC.
Required/Optional	Required, except where ACEC_TYPE = "Inholding". Enforced during quality control. This field is not required in ACEC_HIST_POLY.
Domain (Valid Values)	dom_ACEC_VALUE, except for ACEC_HIST_POLY.
Data Type	String (4)

7.13. ACEC_VALUE2

Geodatabase Name	ACEC_VALUE_2
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Value_2_Code
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY, ACEC_P_POLY, ACEC_HIST_POLY
Definition	Second value requiring special management attention that factored into the area being designated an ACEC.
Required/Optional	Optional
Domain (Valid Values)	dom_ACEC_VALUE, except for ACEC_HIST_POLY.
Data Type	String (4)

7.14. ACEC_VALUE3

Geodatabase Name	ACEC_VALUE3
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Value_3_Code
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY, ACEC_P_POLY, ACEC_HIST_POLY
Definition	Third value requiring special management attention that factored into the area being designated an ACEC.
Required/Optional	Optional
Domain (Valid Values)	dom_ACEC_VALUE, except for ACEC_HIST_POLY.
Data Type	String (4)

7.15. ACEC_VALUE4

Geodatabase Name	ACEC_VALUE4
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Value_4_Code
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY, ACEC_P_POLY, ACEC_HIST_POLY
Definition	Fourth value requiring special management attention that factored into the area being designated an ACEC.
Required/Optional	Optional
Domain (Valid Values)	dom_ACEC_VALUE, except for ACEC_HIST_POLY.
Data Type	String (4)

7.16. ACEC_VALUE5

Geodatabase Name	ACEC_VALUE5
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Value_5_Code
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY, ACEC_P_POLY, ACEC_HIST_POLY
Definition	Fifth value requiring special management attention that factored into the area being designated an ACEC.
Required/Optional	Optional
Domain (Valid Values)	dom_ACEC_VALUE, except for ACEC_HIST_POLY.
Data Type	String (4)

7.17. ACEC_VALUE6

Geodatabase Name	ACEC_VALUE6
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Value_6_Code
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY, ACEC_P_POLY, ACEC_HIST_POLY
Definition	Sixth value requiring special management attention that factored into the area being designated an ACEC.
Required/Optional	Optional
Domain (Valid Values)	dom_ACEC_VALUE, except for ACEC_HIST_POLY.
Data Type	String (4)

7.18. ACEC_VALUE7

Geodatabase Name	ACEC_VALUE7
BLM Structured Name	Areas_Of_Critical_Environmental_Concern_Value_7_Code
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY, ACEC_P_POLY, ACEC_HIST_POLY
Definition	Seventh value requiring special management attention that factored into the area being designated an ACEC.
Required/Optional	Optional
Domain (Valid Values)	dom_ACEC_VALUE, except for ACEC_HIST_POLY.
Data Type	String (4)

7.19. ACT_PL_DT

Geodatabase Name	ACT_PL_DT
BLM Structured Name	Activity_Plan_Date
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY, ACEC_HIST_POLY
Definition	The date of the monitoring, land use plan, or activity plan (if any) for the particular ACEC. Use YYYYMMDD format. Provide as much date information as is available but must include, at a minimum, the year (YYYY).
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (8)

7.20. ALTERNATIVE

Geodatabase Name	ALTERNATIVE
BLM Structured Name	Alternative_Text
Alias Name	None
Inheritance	Inherited from entity SPECIAL MANAGEMENT AREA PROPOSED
Feature Class Use/Entity Table	ACEC_P_POLY
Definition	Identifier for the Special Management Area alternative during the planning process (e.g., A, B, C, D, E). Free choice values for different plans, can be concatenated when same polygon applies to multiple alternatives (BCD, ACD, etc.)
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: "A", "1", "B3", "B3A1C"
Data Type	String (10)

7.21. BLM_ORG_CD

Geodatabase Name	BLM_ORG_CD
BLM Structured Name	Administrative_Unit_Organization_Code
Alias Name	None
Inheritance	Inherited from Entity SPECIAL MANAGEMENT AREA
Feature Class Use/Entity Table	ACEC_POLY, ACEC_P_POLY, ACEC_HIST_POLY
Definition	A combination of the BLM administrative state and field office which has administrative responsibility for the spatial entity. This includes which office covers the entity for planning purposes and which office is the lead for GIS edits. Another agency or individual may have the physical management responsibility for the on-the-ground entity. This field applies particularly when a spatial entity crosses resource area or district boundaries and the administrative responsibility is assigned to one or the other, rather than splitting the spatial unit. Similarly, OR/WA BLM may have administrative responsibility over an area that is physically located in Nevada, Idaho, or California and vice versa. When appropriate, the office can be identified only to the district or even the state level, rather than to the resource area level.
Required/Optional	Required
Domain (Valid Values)	dom_BLM_ORG_CD Domain is a subset of the BLM national domain for organization codes. Only positions three thru seven of the national code are used (leading LL and trailing zeros are dropped).
Data Type	String (5)

7.22. COORD_SRC

Geodatabase Name	COORD_SRC
BLM Structured Name	Coordinate_Source_Code
Alias Name	None
Inheritance	Inherited from entity POLITICAL ADMIN SMA LINE
Feature Class Use/Entity Table	ACEC_ARC, ACEC_P_ARC, ACEC_HIST_ARC
Definition	The actual source of the GIS coordinates for the polylines. If the line is copied from another theme, and already has COORD_SRC, it should be reviewed and may need to be changed for use in this dataset.
Required/Optional	Required
Domain (Valid Values)	dom_COORD_SRC
Data Type	String (7)

7.23. DEF_FEATURE

Geodatabase Name	DEF_FEATURE
BLM Structured Name	Defining_Feature_Code
Alias Name	None
Inheritance	Inherited from Entity POLITICAL ADMIN SMA LINE
Feature Class Use/Entity Table	ACEC_ARC, ACEC_P_ARC, ACEC_HIST_ARC
Definition	Physical features or administrative lines that define an official boundary.
Required/Optional	Required
Domain (Valid Values)	dom_DEF_FEATURE
Data Type	String (25)

7.24. DSG_AC

Geodatabase Name	DSG_AC
BLM Structured Name	Designation_Acres_Measure
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY, ACEC_HIST_POLY
Definition	The official designated acres of the ACEC, as recorded in the Federal Register. This is not the GIS derived acres and does not change.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Decimal (10,2)

7.25. INACTIVE_DATE

Geodatabase Name	INACTIVE_DATE
BLM Structured Name	Record_Of_Decision_Date
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_HIST_POLY
Definition	The calendar date on which the ACEC designation was either removed or its GIS representation was changed to reflect more accurate information. Business Rules: ACEC with End Dates are a separate feature class from Designated ACEC. The date will be in standard 8 character format, YYYYMMDD.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 20100315, 20131205
Data Type	String (8)

7.26. GIS_ACRES

Geodatabase Name	GIS_ACRES
BLM Structured Name	GIS_Acres_Measure
Alias Name	None
Inheritance	Inherited from entity SPECIAL MANAGEMENT AREA
Feature Class Use/Entity Table	ACEC_POLY, ACEC_P_POLY, ACEC_HIST_POLY
Definition	The area of a polygon, as calculated by GIS, in acres. Must be recalculated with every edit submission. The acres will be automatically calculated when the feature classes are published. The BLM_ORG_CD will be used to determine the appropriate projection.
Required/Optional	Required
Domain (Valid Values)	No domain
Data Type	Decimal (12,6)

7.27. LUP_NAME

Geodatabase Name	LUP_NAME
BLM Structured Name	Land_Use_Planning_Boundary_Name_Text
Alias Name	None
Inheritance	Inherited from Entity SPECIAL MANAGEMENT AREA
Feature Class Use/Entity Table	ACEC_POLY, ACEC_P_POLY, ACEC_HIST_POLY
Definition	The official name of the land use plan that originally created the Special Management Area or the name of the plan amendment that has actually changed the designation in some way.
Required/Optional	Required. Optional in "Proposed" feature class
Domain (Valid Values)	dom_LUP_NAME
Data Type	String (100)

7.28. ROD_DATE

Geodatabase Name	ROD_DATE
BLM Structured Name	Record_Of_Decision_Date
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY, ACEC_HIST_POLY
Definition	The date on which the decision is signed by the person who has approval authority for the decisions. The ROD signing date of the monitoring or activity plan, if any, for the particular ACEC. The date will be in standard 8 character format, YYYYMMDD.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 20100315, 20131205
Data Type	String (8)

7.29. SENSITIVITY

Geodatabase Name	SENSITIVITY
BLM Structured Name	Sensitivity_Code
Alias Name	None
Inheritance	Not inherited
Feature Class Use/Entity Table	ACEC_POLY, ACEC_P_POLY, ACEC_HIST_POLY
Definition	A code that designates the sensitivity of the information on the ACEC (data for public viewing vs. data for restricted viewing), based on FOIA Exception. Example: 16 U.S.C. § 470hh (Archaeological Resources Protection Act of 1979). Information pertaining to the nature and location of certain archaeological resources which has been found to qualify under FOIA Exemption 3; Information that is prohibited from disclosure by another Federal law.
Required/Optional	Required, default value "UNK"
Domain (Valid Values)	ACEC_DOM_SENS_CD
Data Type	String (3)

7.30. VERSION_NAME

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

8.   Layer Files (Publication Views)

8.1. General

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

- Copied completely with no changes (replicated);

- Copied with no changes except to omit one or more feature classes from a feature dataset;

- Minor changes made (e.g., clip, dissolve, union with ownership) in order to make the data easier to use. These "Publication feature classes" 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 ACEC data sets do not need to be clipped to BLM lands for display, but this is often desirable. The display label can either be a concatenation of ACEC_NAME and ACEC_TYPE or just ACEC_NAME with the type indicated by different symbology.

Layer files created for internal use shall categorize ACEC by ACEC_DOM_SENS_CD so as to convey to the user the possible presence of data in these categories.

Only ACEC features that are flagged for public viewing may be released to the public and posted on the web, for ACEC, ACEC_P, and ACEC_HIST data sets (SENSITIVE = "PUB").

The themes ACEC_ARC, ACEC_P_ARC and ACEC_HIST_ARC are not available for general internal use and are not distributed to the public.

9. Editing Procedures

9.1. Managing Overlap (General Guidance)

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

The POLY/ARC feature dataset means that there is a polygon feature class with an arc feature class that represents the perimeter of the polygon, and must be kept coincident with the polyline.

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

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

- Overlapping Polygons where polygons are part of a POLY/ARC feature dataset. Topology rules apply only to the POLY/ARC relationship. (Polylines in the POLY feature class covered by arcs in the ARC feature class and vice versa; arcs must not have dangles, intersect, self-overlap, or overlap adjacent arcs.) In the ODF, this occurs only in AVY_PLAN where any number of projects or plans might overlap or in proposed boundary datasets (like ACEC_P). Where a portion of a new activity plan or a proposed boundary is the same as another, the same line segment(s) are used for both polygons; in other words, one line, not duplicate lines on top of each other. In AVY_PLAN, a new PLANID creates a new polygon which may overlap an existing activity plan. In proposed boundary datasets, different alternatives might create polygons that overlap each other.

- Overlapping Polygons where polygons are a stand-alone feature class. No topology rules. Examples from the ODF include:

  o Species Occurrence Group: These are distinct sites defined by species and time. A different species creates a new polygon which may overlap another site in whole or part. A change in time (new visit date) will create a new polygon if it is desired that the old spatial extent and date is retained (as historic). Additionally, for wildlife, a different season/type of use (e.g., winter range vs. spring breeding) will create new a polygon that may overlap others.

  o Survey Group: Within each feature class, a new survey is created only for a new date. This group might also include proposed surveys in separate feature classes.

  o Treatment Activity Group: Within each feature class, an overlapping treatment area is created only for a new date, and sometimes for a different method, if it is not possible to SPLIT the treatment area by method and if it is important to capture more than one method applied to the same area on the same day. This group also includes proposed treatments which could overlap existing treatments and have additional overlap created by different treatment alternatives.

  o Land Status Encumbrances Group: A new polygon is created for a change in case file number even if it is the same area.

- Overlapping Arcs where arcs are a stand-alone feature class. There are no topology rules for this situation. In the ODF, this only occurs in feature class ESMTROW_ARC.

- Overlapping Points, which are not generally a problem because they have no spatial extent, but still should be checked, and duplicates deleted.

9.2. POLY/ARC Topology (Boundary Group Datasets)

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

- Acquire annotated boundary maps or other sources defining the perimeters of the polygons.

- Create a line feature class with lines copied in from other sources. Fill in COORD_SRC, DEF_FEATURE and ACCURACY_FT as each set of lines is brought in. For planning designation boundary datasets, start with the arcs for the planning area boundary.

- Clean up the lines:
  - Split and snap the line endpoints as needed.
  - Where there are duplicate lines, retain the line from the most accurate source.
  - Snap vertices between endpoints to the correct source.
  - Delete extra vertices or vertices too close together, especially at ends of lines.
  - Ensure that the lines are complete, with no overlap and no gaps.

- Construct polygons from the full set of lines. Check for gaps or extra polygons (small slivers) and go back to Step C if there is additional cleanup needed.

- Attribute the polygons.

9.3. Editing Quality Control

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

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

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

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

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

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

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

- Null geometry. Check any features that have "0" or very small Shape_Area or Shape_Length. If a feature has no (0) geometry and you can't zoom to it, it is probably an inadvertently created "Null" feature and should be deleted. Very small features may also be unintended, resulting from messy linework.

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

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

- Check that all date fields contain valid dates in YYYYMMDD, YYYYMM or YYYY format. If an attribute has a domain, check for invalid values. The values must be exact.

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

9.4. Vertical Integration

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

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

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

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

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

9.5. Theme Specific Guidance

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

10. Abbreviations and Acronyms Used

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

Table 2   **Abbreviations and Acronyms Used**

Abbreviations	Descriptions
ACEC	Areas of Critical Environmental Concern
BLM	Bureau of Land Management
CADNSDI	Cadastral National Spatial Data Infrastructure
DEM	Digital Elevation Model
DLG	Digital Line Graphs
FOIA	Freedom of Information Act
GIS	Geographic Information System
IDP	Interdisciplinary
NAD	North American Datum
NARA	National Archives and Records Administration
ODF	Oregon Data Framework
OHV	Off-Highway Vehicle
ONA	Outstanding Natural Area
OR/WA	Oregon /Washington
RMP	Resource Management Plan
RMPA	Resource Management Plan Amendment
RNA	Research Natural Area
ROD	Record of Decision
SDE	Spatial Database Engine
USFS	United States Forest Service

A.   Domains (Valid Values)

These are the domains at the time the data standard was approved. Domains can be changed without a reissue 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 current lists, contact the State Data Administrator.

A.1   dom_ACEC_NAME

Areas of Critical Environmental Concern Name. The official name of a current Areas of Critical Environmental Concern (ACEC). This is a lengthy list of domain values. The domains are available at the following web location, or contact the State Data Administrator for a copy. https://www.blm.gov/site-page/oregon-data-management

A.2   dom_ACEC_P_STATUS

Areas of Critical Environmental Concern Proposed Status Code. The status or phase of an ACEC proposal.

Code	Value
NOMINATED	NOMINATED – An area that has been nominated to be an ACEC.
NOM_NOT_ CONS	NOM_NOT_CONS – An area that was nominated to be an ACEC but not considered during the planning process.
CONSIDERED	CONSIDERED – An area that is being considered for designation as an ACEC.
CONS_NOT_DSG	CONS_NOT_DSG – An area that was considered but not designated as an ACEC.
PROPOSED_REMOVAL	PROPOSED_REMOVAL – An ACEC that is being proposed to be removed from ACEC status.
UNKNOWN	UNKNOWN – ACEC status is not known.

A.3   dom_ACEC_TYPE

Areas of Critical Environmental Concern Type Code. Type of special management area.

Code	Value
ACEC	ACEC – Primary Areas of Critical Environmental Concern
ONA	ONA – Outstanding Natural Area
RNA	RNA – Research Natural Area
INHOLDING	INHOLDING – Non-ACEC Allocated Lands

A.4   dom_ACEC_VALUE

Areas of Critical Environmental Concern Value Code. The special values (in general terms) that places the area into a special management category.

Code	Value
CULT	Cultural
FRSC	Fish Resource
HAZ	Natural Hazards
HIST	Historical

Code	Value
NAT	Generic natural processes including hydrological, of FRSC, NPRO, WRSC not specified
NPRO	Natural Process
NSYS	Natural System
SCEN	Scenic
WRSC	Wildlife Resource

A.5 dom_BLM_ORG_CD

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

This is a lengthy domain used by multiple datasets. For the full list of values go to:
https://gis.blm.gov/ORDownload/Domains/dom_BLM_ORG_CODE.xls.

A.6 dom_COORD_SRC

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

Code	Value
CADNSDI	CADNSDI – Lines from or snapped to the CADNSDI dataset
CFF	CFF – Lines duplicated or buffered from Cartographic Feature Files
DEM	DEM − Digital Elevation Model (30m or better accuracy) used for creation of contours
DLG	DLG − Lines duplicated or buffered from (24K scale accuracy) USGS Digital Line Graphs Typical Accuracies: 40 feet
DIS	DIS – Lines generated to connect discontinuous features
DLG	DLG – Lines duplicated or buffered from USGS Digital Line Graphs
DOQ	DOQ – Screen digitized linework over Digital Orthoquad backdrop
DRG	DRG − Screen digitized linework over Digital Raster Graphic (USGS) backdrop
GCD	GCD − Lines snapped to Geographic Coordinate Database Points
GPS	GPS − Lines obtained from a Global Positioning System device
IMG	IMG – Linework derived from interpretation of non-photographic imagery
LiDAR	LiDAR - LiDAR points, lines, or polygons generated through interpretation or analysis.
MAP	MAP − Digitized line work from hardcopy map
MTP	MTP − Lines duplicated from Digital Master Title Plat
SOURCEL	SOURCEL − Source layer from BLM GIS
SRV	SRV − Survey methods were used to create the linework
TIGER	TIGER – Tiger data
TRS	TRS – Coordinates only given as a legal description (township, range,section)
UNK	UNK − Unknown coordinate source
WOD	WOD – WODDB (Western Oregon Digital Database) Photogrammetric

A.7 dom_DEF_FEATURE

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

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

A.8   dom_LUP_NAME

Land Use Planning Boundary Name Text. The official name of a land use plan and plan amendments, whether final, in progress or historic.

Code	Value
Andrews Management Unit RMP 2005	Andrews Management Unit RMP 2005
Baker RMP 1989	Baker RMP 1989
Brothers/LaPine RMP 1989	Brothers/LaPine RMP 1989
Cascade-Siskiyou National Monument RMP 2008	Cascade-Siskiyou National Monument RMP 2008
Coos Bay District RMP 1995	Coos Bay District RMP 1995
Eugene District RMP 1995	Eugene District RMP 1995
John Day Basin RMP 2015	John Day Basin RMP 2015
John Day Resource Area RMP 1985	John Day Resource Area RMP 1985
Klamath Falls Resource Area RMP 2008	Klamath Falls Resource Area RMP 2008
Klamath Falls Resource Area RMP 1995	Klamath Falls Resource Area RMP 1995
Lakeview Resource Area RMP 2003	Lakeview Resource Area RMP 2003
Lower Deschutes River Management Plan 1993	Lower Deschutes River Management Plan 1993
Medford District RMP 1995	Medford District RMP 1995
Northwestern and Coastal Oregon RMP 2016	Northwestern and Coastal Oregon RMP 2016
NW Forest Plan 1994	NW Forest Plan 1994
Roseburg District RMP 1995	Roseburg District RMP 1995
Salem District RMP 1995	Salem District RMP 1995
Southeastern Oregon RMP 2002	Southeastern Oregon RMP 2002
Southwestern Oregon RMP 2016	Southwestern Oregon RMP 2016
Spokane District RMP 1992	Spokane District RMP 1992
Steens Mountain Cooperative Management and Protection Area RMP 2005	Steens Mountain Cooperative Management and Protection Area RMP 2005
Three Rivers Resource Area RMP 1992	Three Rivers Resource Area RMP 1992
Two Rivers Resource Area RMP 1986	Two Rivers Resource Area RMP 1986
Upper Deschutes Resource Area RMP 2005	Upper Deschutes Resource Area RMP 2005
Upper Klamath Basin-Wood River Ranch RMP 1995	Upper Klamath Basin-Wood River Ranch RMP 1995

A.9   ACEC_DOM_SENS_CD

ACEC View Sensitivity Code. A code that designates the sensitivity of the information on the ACEC (data for public viewing vs. data for restricted viewing).

Code	Value
PUB	PUB – Data for public viewing

Code	Value
RES	RES – Data for restricted viewing
UNK	UNK – Unknown