

REFORESTATION and FOREST SURVEY

SPATIAL DATA STANDARD



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1. GENERAL INFORMATION

Dataset (Theme) Name: Reforestation and Forest Survey

Dataset (Feature Class): FOREST_SURV_POLY

1.1 ROLES AND RESPONSIBILITIES

Roles	Responsibilities
State Data Stewards	The State Data Steward, Daniel Couch, at 541-464-3215, 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.
Lead GIS Specialist	The Lead GIS Specialist, Dana Baker-Allum, at 503-808-6320, works with data stewards to convert business needs into GIS applications and derive data requirements and participates in the development of data standards. The Lead GIS Specialist coordinates with system administrators and GIS Coordinators to manage the GIS databases. The lead GIS specialist 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 Lead GIS Specialist provides technical assistance and advice on GIS analysis, query and display of the dataset.
State Data Administrator	The acting State Data Administrator, Pamela Keller at 503-808-6009, 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 acting State Records Administrator, Janice Johnson, at 503-808-6430, 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 Role and Responsibilities

1.2 FOIA CATEGORY

Public

1.3 RECORDS RETENTION SCHEDULE

General Records Schedule (GRS) BLM 20/52 (Electronic Records/Geographic Information Systems).

TEMPORARY. Delete when no longer needed for administrative, legal, audit, or other operational purposes (subject to any records freeze or holds that may be in place).

Annual snapshots are stored on line for a minimum of 12 years after which the data are copied off line, with format and readability maintained in a five year “tech refresh” cycle in order to retain full functionality.

1.4 SECURITY/ACCESS/SENSITIVITY

The Reforestation (Forest) Survey theme does not require any additional security other than that provided by the General Support System (the hardware/software infrastructure of the Oregon/Washington (OR/WA) Bureau of Land Management (BLM)).

This data is not sensitive and there are no restrictions on access to this data either from within the BLM or external to the BLM.

There are or no privacy issues or concerns associated with these data themes.

1.5 KEYWORDS

Keywords that can be used to locate this dataset include:

Forest [BLM Thesaurus]

Environment and Conservation (environment), 007 [International Organization for Standardization (ISO) Topic Categories Thesaurus]

Biology and Ecology (biota), 002 [ISO Topic Categories Thesaurus]

Forestry

Vegetation

Trees

Reforestation Survey

Harvest

Treatments

Western Oregon

Land Use Planning

Forest Regeneration

Forest Restocking

Forest

Natural Resources

2. DATASET OVERVIEW

2.1 DESCRIPTION

The Reforestation and Forest Survey dataset consists of one feature class, the `FOREST_SURV_POLY`. This dataset represents information related to surveys conducted on BLM forested lands to determine results from reforestation efforts, measure forest stand attributes, or prepare for or document treatment results. In the life cycle of a forest, these surveys provide a measure of establishment, growth, and development of a forest stand. This dataset provides limited summary results from reforestation efforts to establish a young forest (ie. stocking percentage, trees per acre) but does not contain summary data of older forest stand attributes commonly the results of a stand exam. The summary of forest stand attributes resulting from stand exam surveys reside in the `FOI-VEG` feature class (described in a different data standard). The main purpose of the Reforestation and Forest Survey dataset is to provide a record of where and what kind of reforestation and forest surveys were conducted.

There are three types of surveys (`SURV_TYPE`):

1. **Regeneration:** surveys are related to reforestation efforts and establishing a viable forest stand.
2. **Pre-Treatment:** surveys are related to measures of an established or developing forest stand and occur prior to specific treatments
3. **Post-Treatment:** surveys are related to measures of an established or developing forest stand and occur after specific treatments.

Both existing (completed) surveys and proposed (planned) surveys are included. Planning and completion status is clearly identified.

ATTRIBUTE SUMMARY

The attributes of surveys answer the basic “who,” “what,” “when,” “where,” “why,” and “how” questions. Specific attributes have different lists of valid values (domains).

- The Survey Type along with the Survey Description describe the “what” with additional detail on “how” provided by the Survey Method field. In addition, there are attributes for the results of the survey which give even more information on “what” and “why”.
- The `WORKAGENT` attribute provides information on “who” did the treatment.
- The attributes `REASON` and `BUDGET_CD` describes “why” a treatment is done.
- “When” is provided by the planned or completion date.
- “Where” is intrinsic to GIS.

Surveys are identified by a unique number (SURV_ID), a name (SURV_NAME), and an optional project name (PROJ_NAME). Planning or completion status of the survey is identified in SURV_STATUS.

The following are valid values for Regeneration (reforestation) type surveys:

- Initial PrePlanting
- PreEstablishment1
- PreEstablishment2
- PreEstablishmentAdd
- Backlog

The following are valid values for Pre-Treatment and Post-Treatment type surveys:

- PreCommercial Survey
- HardwoodShrub Survey
- Prune Survey
- Stand Exam.

2.2 USAGE

This dataset is the spatial corporate repository for forest surveys. For reforestation, this dataset is used to identify survey assessments that the BLM makes on forested public lands representing the health and survival of seedlings within a particular unit (i.e. elk or deer damage to seedlings, brush overtaking seedlings, seedling survival). For surveys associated with treatments, the dataset is a record of pre- or post-treatment stand conditions. This dataset is used as a comprehensive record of surveys for the BLM lands and to identify accomplishments and needs at the District or State level. The BLM Silviculture program of work and accomplishments is managed through changes in the treatment date (TRT_DATE) and status (TRT_STATUS) from 'Proposed' to 'Completed'.

2.3 SPONSOR/AFFECTED PARTIES

The sponsor for this data set is the Deputy State Director, Resource Planning, Use and Protection. Reforestation surveys are defined by and specific to the BLM and occur on BLM Lands. No interagency data standard exists for the current version of Forest and Regeneration Surveys.

2.4 RELATIONSHIP TO OTHER DATASETS, DATABASES or FILES

Treatment Feature Classes - (BURN_POLY, CHEM_POLY, HARV_POLY, MECH_POLY, PROT_POLY, REVEG_POLY): Any of these Treatments are often recommended or proposed as the result of a survey. Pre-Treatment surveys depict stand conditions prior to and Post Treatment surveys depict stand conditions following the treatment or serve as part of contract compliance for a treatment. When a survey status is 'Completed' for Western Oregon in the Micro*Storms 3.0 application, the user is given the option to propose any of these treatments as a result of the survey or to propose another survey as a separate action.

FOI-VEG: FOREST_SURV_POLY maintains the location of stand exam surveys proposed or completed, but the summary of forest stand attributes resulting from stand exam surveys reside in the

FOI-VEG feature class.

EcoSurvey Database: Stand exam surveys are often the result of tree and vegetation data collected and summarized with the EcoSurvey program. The EcoSurvey dataset contains tree data collected on a point by point basis. These survey points are contained in the SAMPLE_PT feature class. The EcoSurvey program can summarize and export the stand attributes to the FOI-VEG feature class.

FOREST_SURV_POLY only maintains the spatial location and the type of stand exam survey whether a pre- or post-treatment survey.

Micro*Storms (M*S): For Western Oregon BLM, the Treatment feature classes also have M*S related tables with relevant information about the treatments. Surveys may have information directly correlated to the preparation for or the results of these Treatments. For example, before doing a survey it may be beneficial to identify the different stock types and species planted in the REVEG_POLY feature class for a particular unit.

2.5 DATA CATEGORY/ARCHITECTURE LINK

These data themes are a portion of the ODF. 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, 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 you get to a basic dataset that cannot be further sub-divided. Those basic datasets inherit all characteristics of all groups/categories above them. The basic datasets 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 Reforestation and Forest Survey entities are highlighted. For additional information about the ODF, contact:

OR/WA State Data Administrator
Bureau of Land Management
P.O. Box 2965
Portland, OR 97208
503-808-6009

In the ODF, Reforestation and Forest Survey is considered an activity and categorized as follows:

FOREST_SURV Polygon:

ODF

Activities

Survey

FOREST_SURV_POLY

2.6 RELATIONSHIP TO THE DEPARTMENT OF THE INTERIOR ENTERPRISE ARCHITECTURE - DATA RESOURCE MODEL

The Department of the Interior's (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 in the section on Attribute Descriptions. Data context is addressed in the Data Organization Structure portion of this document. In addition, the DOI Data Resource Model categorizes data by use of standardized Data Subject Areas and Information Classes. For this dataset, the Data Subject Area and Information Class are:

- Data Subject Area: Geospatial
- Information Class: Location

For a complete list of all DOI Data Subject Areas and Information Classes, contact:

OR/WA State Data Administrator
Bureau of Land Management
P.O. Box 2965
Portland, OR 97208
503-808-6009

2.7 REFORESTATION SURVEY DATA ORGANIZATION / STRUCTURE

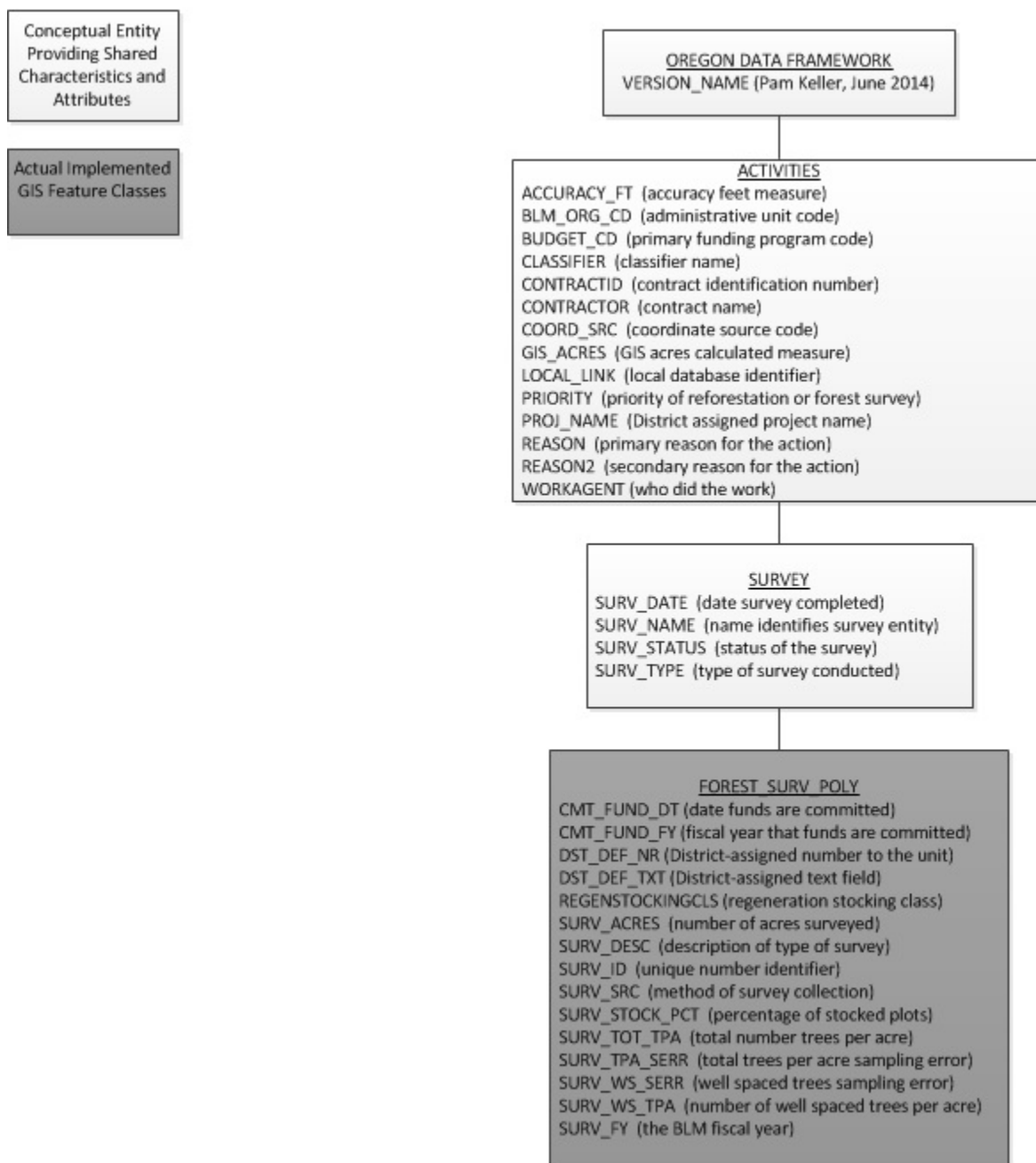


Figure 1 Data Organization Structure

3. DATA MANAGEMENT PROTOCOLS

3.1 ACCURACY REQUIREMENTS

Forest Survey boundary accuracy is determined by the programmatic requirements for the survey. These data have a wide range of accuracies. Locational accuracy is specified in the attribute `ACCURACY_FT`, but there are many instances where the value is unknown. Many features were imported from the legacy data and the attributes are very incomplete. However, newer features will have more complete information and over time the dataset will become more accurate. Although a high degree of accuracy is not required for forest surveys as the nature of surveys does not lend itself to precise boundaries.

3.2 COLLECTION, INPUT, AND MAINTENANCE PROTOCOLS

This section provides information on the digital capture of the spatial survey information. The baseline standards and guidelines for conducting regeneration surveys can be found in the *Regeneration Stocking Surveys Manual and Handbook* (Instruction Memorandum OR-2003-083).

Creating Survey Entities: Polygons are duplicated and possibly modified either from treatments or survey polygons. A new survey entity is always created if it is of a different type or description or if it occurs on a different date. Surveys can overlap (occupy the same footprint space) in whole or part.

Other attributes are attached to a survey entity and do not drive creation of new entities. Survey entities are defined by “what” was done, and “when.”

Overlapping survey polygons (polys covering the same acre of ground) are common and represent different surveys over time on the same piece of ground from initial surveys through establishment and beyond. Significant differences in survey results as indicated by the *Regeneration Stocking Class* for the same date might **split** a polygon, but not overlap the same area on the same date.

Example 1: An Initial PrePlanting survey was completed on a timber sale unit. The entire unit was planted and first and third year surveys were completed with acceptable results. In this case, the three survey polygons (Initial PrePlanting, PreEstablishment1, and PreEstablishment2) would overlap. Each would have a unique `SURV_ID`, the same `SURV_TYPE` of Regeneration, but a unique `SURV_DESC`.

Example 2: A PreEstablishment1 survey was completed on a unit. The survey results showed that the south aspect had poor seedling survival (sub-minimum stocking) and should be replanted, while the northern aspect was at target stocking. The polygon would be split on the aspect with no overlap based on the *Regeneration Stocking Class* and the trees per acre findings. The two polygons would have unique `SURV_IDs`, but the same `SURV_NAME`, `SURV_TYPE`, `SURV_DESC`, `SURV_SRC`, and `SURV_DATE`.

Survey Name, Project Name, and ID: `SURV_NAME` is required and may be duplicated for many different survey polygons. A survey unit is often called by the name of the timber sale that created the unit and this name may carry on through the life of the surveys. `SURV_ID` is unique. A new survey entity is given a new ID and every polygon will have a unique `SURV_ID`. There is an ArcMap tool to get the next available `SURV_ID`. It is important to not overwrite existing `SURV_ID`, unless the

survey is being completely removed or replaced with another Identification (ID), and all linking databases and tables have been updated accordingly. There can be many SURV_ID with the same SURV_NAME. PROJ_NAME may also be duplicated for different survey polygons. PROJ_NAME is optional.

Example 1: The “Bland Mtn. #1” unit has had multiple surveys over the years resulting in three separate survey polygons. The SURV_NAME is “Bland Mtn. #1” for all three, but each has a unique SURV_ID (e.g., 1006, 1007 and 1008). The individual survey polygons might be of the same survey type.

Example 2: All of the regeneration surveys for 2014 were completed under contract. In this case, the PROJ_NAME may be “Regen Survey Contract 2014”. The SURV_NAME for each unit may be different and identified by the timber sale name such as “Bland Mtn. #1”, “Lavadoire Creek #2”, Flea Flicker #1, etc.

Digitizing Surveys: Survey polygons can be collected and input in a variety of ways including manuscripting on maps and digitizing, Global Positioning System (GPS), on-screen digitizing using a Digital Orthophoto Quad or Digital Raster Graphic backdrop, duplicating lines from ownership, roads or stream layers, or a combination of these. Survey boundaries that are based on identifiable physical features such as roads, ridgelines, streams, or on ownership changes should utilize those source line features to illustrate the cartographic relationship.

The coordinate source of the polylines is documented in COORD_SRC, and the claimed +/-accuracy (total of all input errors) of the GIS representation compared to actual location is stored in ACCURACY_FT.

Linking Fields: For Western Oregon survey data prior to 2014, the LOCAL_LINK provides a bridge to the Forest Operations Inventory number and can be related to those Forest Operations Inventory polygons. However, after implementation of the Reforestation and Forest Survey feature class, survey polygons may not be as closely associated with the FOI-VEG polygons.

Proposed vs. Completed: As surveys move from proposed to completed, the value in SURV_STATUS is changed. Adjustments to the survey perimeter may occur based on the survey results. It is up to the district data steward to determine whether it is necessary to retain past boundaries, split units, or create a new boundary. It is important to be able to show the history of surveys from year to year. It is also important to show proposed surveys that were never completed. The silviculture program of work for surveys can be managed in this way.

3.3 ATTRIBUTE DESIGN CONSIDERATIONS

The survey type (SURV_TYPE) is the most general description for a survey. The next level of detail is provided by the SURV_DESC that represents the state of forest development or the reason for the survey. SURV_SRC describes the method used for the survey and can infer a level of detail for the survey results. If necessary, even more detail about the survey can be split out by the attributes related to the findings. Stocking percent, total trees per acre, or well spaced trees per acre all describe the results of the survey. These fields can be used to propose additional surveys or to recommend a treatment.

Surveys are undertaken with an intended benefitting resource or reason. This is captured in the REASON attribute(s). REASON will contain the most important, primary reason, and a secondary reason can be listed in REASON2. These attributes can be used to further distinguish why the survey was done or describe the stage of forest development for the stand. Standardizing these reasons for certain types of surveys would aid in consistency across the districts.

Example: A Post-Treatment HardwoodShrub Cut Survey with a Reason of “Forest Stand” would indicate the survey and treatment was completed on an accepted or established stand, while a a Post-Treatment HardwoodShrub Cut Survey with a Reason of “Forest Regeneration” would indicate an unaccepted or unestablished stand. This distinction could have implications on budget priorities.

3.4 UPDATE FREQUENCY AND ARCHIVAL PROTOCOLS

The State Data Steward and/or the program lead will establish the policy for update frequency and completeness for the Forest Survey data and the associated applications. Updates are potentially very frequent. Surveys are added frequently to keep current with planning and activities. District resource specialists work with GIS specialists to map spatial extents of the surveys. The theme is checked for spatial and attribute accuracy as data is input. Additions might be weekly, monthly, or quarterly but at least annually to follow a reporting schedule for the Program Lead. District specialists need to ensure that data in the Forest Survey theme are complimentary with associated records in the EcoSurvey and Micro*Storms applications.

3.5 STATEWIDE MONITORING

The State Data Steward, and/or the Program Lead assisted by the Lead GIS Specialist, are responsible for checking consistency across districts for the survey theme. The Program Lead is responsible for coordinating the response to state and national BLM data calls for surveys. State Office GIS specialists and the State Data Steward will work with the Program Lead to appropriately select and compile the data from the survey theme.

4. REFORESTATION SURVEY GEODATABASE 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. Attributes are listed alphabetically and more fully described in the Attribute Characteristics (Section 7), starting on page 18. 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 re-issue of the data standard so those shown in the Appendix may not be current. Many (but not all) of the domains used in this data standard are available at the following web site: <http://www.blm.gov/or/datamanagement/index.php>

For domains not listed at that site contact:

OR/WA State Data Administrator
Bureau of Land Management
P.O. Box 2965
Portland, OR 97208
503-808-6009

*Autopopulated by SDE version management

4.1 FOREST_SURV_POLY Feature Class (Reforestation and Forest_Survey_Poly)

Attribute Name	Data Type	Length	Default Value	Required	Domain
BLM_ORG_CD	String	5		Yes	dom_BLM_ORG_CD
SURV_ID	String (GUID)	40		Yes*	
SURV_NAME	String	60		Yes	
PROJ_NAME	String	100		No	
SURV_TYPE	String	30		Yes	dom_SURV_TYPE
SURV_DESC	String	30		Yes	dom_SURV_DESC
SURV_SRC	String	30		Yes	dom_SURV_SRC
SURV_STATUS	String	12		Yes	dom_TRT_STATUS
PRIORITY	String	12		No	dom_PRIORITY
SURV_DATE	String	8		Yes	
SURV_FY	String	4		Yes*	Calculated from SURV_DATE
CLASSIFIER	String	30		No	
REGENSTOCKINGCLS	String	30		No	dom_REGENSTOCKINGCLS
REASON	String	30		Yes	dom_REASON
REASON2	String	30		No	dom_REASON
WORKAGENT	String	40		Yes	dom_WORKAGENT
CONTRACTID	String	50		No	
CONTRACTOR	String	30		No	
SURV_ACRES	Decimal	16, 6		No	
GIS_ACRES	Decimal	16, 6		Yes*	

EST_COST_AC	Decimal	16, 2		No	
BUDGET_CD	String	50		No	
CMT_FUND_DT	String	8		Yes	
CMT_FUND_FY	String	4		Yes*	
LOCAL_LINK	String	30		No	
SURV_STOCK_PCT	Decimal	12, 4		No	
SURV_TOT_TPA	Integer	Short		No	
SURV_TPA_SERR	Decimal	3, 2		No	
SURV_WS_TPA	Integer	Short		No	
SURV_WS_SERR	Decimal	3, 2		No	
COORD_SRC	String	7		No	dom_COORD_SRC
ACCURACY_FT	Integer	Short		No	
DST_DEF_TXT	String	255		Yes	
DST_DEF_NR	Decimal	38, 8		Yes	
COMMENTS	String	100		No	
VERSION_NAME	String	50	InitialLoad	Yes*	

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

FOREST_SURV_POLY

Description: Instance of Survey group.

Geometry: Polygons may overlap entirely or in part. Simple polygons, not multi-part, are used.

Topology: No

Integration Requirements: None, although polygons that represent the same extent should be duplicated to avoid slivering (see Editing Procedures section).

7. ATTRIBUTE CHARACTERISTICS AND DEFINITION (In alphabetical order)

7.1 ACCURACY_FT

Geodatabase Name	ACCURACY_FT
BLM Structured Name	Accuracy_Feet_Measure
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_POLY
Definition	How close, in feet, the spatial GIS depiction is in relation 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 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) 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 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 USGS 24K topo map), 200
Data Type	Short Integer

7.2 BLM_ORG_CD

Geodatabase Name	BLM_ORG_CD
BLM Structured Name	Administrative_Unit_Organization_Code
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_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, BLM OR/WA may have administrative responsibility over some area that is physically located in Nevada, Idaho, and California and vice versa. When appropriate, the office can be identified only to the district or state level rather than to the resource area level.

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 through seven of the national code are used (leading LL and trailing zeros are dropped).
Data Type	String (5)

7.3 BUDGET_CD

Geodatabase Name	BUDGET_CD
BLM Structured Name	Funding_Program_Code
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_POLY
Definition	Primary funding program activity for a survey
Required/Optional	Optional
Domain(Valid Values)	No domain. Examples: 6310, 6320, 1040, 1220, 1060MX
Data Type	String (50)

7.4 CLASSIFIER

Geodatabase Name	CLASSIFIER
BLM Structured Name	Classifier_Name
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_POLY
Definition	Name (mixed case, first and last) of the subject matter specialist most knowledgeable about the survey (contact).
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: Joe Smith, Mary Doe
Data Type	String (30)

7.5 CMT_FUND_DT

Geodatabase Name	CMT_FUND_DT
BLM Structured Name	Commit_Funds_Date
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_POLY
Definition	Date when funds are committed for the survey.

Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 20091022, 200109
Data Type	String (8)

7.6 CMT_FUND_FY

Geodatabase Name	CMT_FUND_FY
BLM Structured Name	Commit_Funds_Fiscal_Year
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_POLY
Definition	Auto calculated fiscal year from date when funds are committed for the survey.
Required/Optional	Required (automatically calculated)
Domain (Valid Values)	No domain. Examples: 2010, 1999
Data Type	String (4)

7.7 COMMENTS

Geodatabase Name	COMMENTS
BLM Structured Name	Comments_Text
Inheritance	Inherited from Entity SURVEY
Feature Class Use	FOREST_SURV_POLY
Definition	Free text for comments.
Required/Optional	Optional
Domain (Valid Values)	No domain.
Data Type	String (100)

7.8 CONTRACTID

Geodatabase Name	CONTRACTID
BLM Structured Name	Contract_Identification_Number
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_POLY
Definition	Survey contract number if relevant to the survey

Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: FBMS format for a contract is “L”<two digits for FY>”P”<one digit Alpha><five digit numeric>, such as L14PC00568.
Data Type	String (50)

7.9 CONTRACTOR

Geodatabase Name	CONTRACTOR
BLM Structured Name	Contractor_Name
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_POLY
Definition	Contractor name for the contract identified by CONTRACTID.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: Greyback, Pacific Oasis
Data Type	String (30)

7.10 COORD_SRC

Geodatabase Name	COORD_SRC
BLM Structured Name	Coordinate_Source_Code
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	All feature classes
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	Optional
Domain (Valid Values)	dom_COORD_SRC
Data Type	String (7)

7.11 DST_DEF_NR

Geodatabase Name	DST_DEF_NR
BLM Structured Name	District_Defined_Number
Inheritance	Inherited from Entity FOREST_SURV_POLY
Feature Class Use	FOREST_SURV_POLY
Definition	This describes the number assigned for the unit by the District. Controlled by District and Regional Stewards.

Required/Optional	Optional
Domain (Valid Values)	No domain.
Data Type	Decimal (38, 8)

7.12 DST_DEF_TXT

Geodatabase Name	DST_DEF_TXT
BLM Structured Name	District_Defined_Text
Inheritance	Inherited from Entity FOREST_SURV_POLY
Feature Class Use	FOREST_SURV_POLY
Definition	District-assigned text field. Controlled by District and Regional Stewards.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: "South River Stand Exams 2013", "Third Year Surveys 2014"
Data Type	String (255)

7.13 EST_COST_AC

Geodatabase Name	EST_COST_AC
BLM Structured Name	Estimated_Cost_Per_Acre_Number
Inheritance	Inherited from Entity SURVEY
Feature Class Use	FOREST_SURV_POLY
Definition	Estimated cost per acre for the survey. THIS IS NOT THE CONTRACT COST/AC but just an estimate for budget purposes before the contract is awarded. May be based on previous years' contract costs or the user's own estimate. For costs that are typically a cost per plot, such as stand exams, convert those costs to a per acre cost for this field.
Required/Optional	Optional
Domain (Valid Values)	No domain.
Data Type	Decimal (16, 2)

7.14 GIS_ACRES

Geodatabase Name	GIS_ACRES
BLM Structured Name	GIS_Acres_Measure
Inheritance	Not Inherited
Feature Class Use	FOREST_SURV_POLY

Definition	<p>GIS_ACRES is calculated when the submitted polygon is approved for incorporation into the dataset. The standard spatial reference of Geographic (NAD 1983) cannot be used for calculating acres so the features are projected to one of three projections as determined by the BLM_ORG_CD of the record. These three projections all utilize linear units of meters, so the ESRI Geodatabase-controlled field SHAPE.AREA can be used to convert to acres with the factor based on the U.S. Survey Foot:</p> $\text{GIS_ACRES} = \text{SHAPE.AREA} * 0.0002471044$	
	District indicated by BLM_ORG_CD:	ESRI Projection used:
	Prineville	NAD 1983 USFS R6 Albers
	Coos Bay, Eugene, Lakeview, Medford, Roseburg, Salem	NAD 1983 UTM Zone 10N
	Burns, Spokane, Vale	NAD 1983 UTM Zone 11N
Required/Optional	Required (automatically generated)	
Domain (Valid Values)	No domain	
Data Type	Decimal (16,6)	

7.15 LOCAL_LINK

Geodatabase Name	LOCAL_LINK
BLM Structured Name	Local_Database_Identifier
Inheritance	Inherited from Entity SURVEY
Feature Class Use	FOREST_SURV_POLY
Definition	District legacy identifier or database link for a survey. For legacy Micro*Storms data this is the Forest Operations Inventory number used for the survey polygon.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 41022, 954869
Data Type	String (30)

7.16 PRIORITY

Geodatabase Name	PRIORITY
BLM Structured Name	Survey_Priority_Text
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_POLY
Definition	Priority of reforestation or survey.
Required/Optional	Optional

Domain (Valid Values)	dom_PRIORITY
Data Type	String (12)

7.17 PROJ_NAME

Geodatabase Name	PROJ_NAME
BLM Structured Name	Project_Name_Text
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_POLY
Definition	District-assigned name for a project that could encompass multiple survey units. It is not the same as the SURV_NAME and there may be many SURV_NAMES for one PROJ_NAME.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: "South River Stand Exams 2013", "Third Year Surveys 2014"
Data Type	String (100)

7.18 REASON

Geodatabase Name	REASON
BLM Structured Name	Primary_Reason_Benefiting_Resource_Text
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_POLY
Definition	The intended main or primary reason for the survey or benefiting resource. Only reasons or benefits that are officially acknowledged (contained in the domain) can be considered. REASON will contain the most important reason or benefit. A secondary reason or benefit can be listed in REASON2.
Required/Optional	Required
Domain (Valid Values)	dom_REASON
Data Type	String (30)

7.19 REASON2

Geodatabase Name	REASON2
BLM Structured Name	Secondary_Reason_Benefiting_Resource_Text
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_POLY

Definition	A secondary reason for the survey or benefitting resource. Only reasons or benefits that are officially acknowledged (contained in the domain) can be considered.
Required/Optional	Optional
Domain (Valid Values)	dom_REASON
Data Type	String (30)

7.20 REGENSTOCKINGCLS

Geodatabase Name	REGENSTOCKINGCLS
BLM Structured Name	Regeneration_Stocking_Class_Code
Inheritance	Inherited from Entity FOREST_SURV_POLY
Feature Class Use	FOREST_SURV_POLY
Definition	Regeneration Stocking Class is based on the density standard and the state of development for the regeneration, whether there is a high potential for juvenile mortality or whether it is past that stage. It includes a reference to whether target/minimum standards are met or not met and whether the stand is accepted or not accepted.
Required/Optional	Required
Domain (Valid Values)	dom_REGENSTOCKINGCLS
Data Type	String (30)

7.21 SURV_ACRES

Geodatabase Name	SURV_ACRES
BLM Structured Name	Surveyed_Acres_Measure
Inheritance	Inherited from Entity SURVEY
Feature Class Use	FOREST_SURV_POLY
Definition	The number of acres surveyed. Field measured and manually entered, not GIS calculated. The actual acres surveyed may be less than or equal to, but not more, than the GIS_ACRES.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples:
Data Type	Decimal (16,6)

7.22 SURV_DATE

Geodatabase Name	SURV_DATE
BLM Structured Name	Survey_Date

Inheritance	Inherited from Entity SURVEY
Feature Class Use	FOREST_SURV_POLY
Definition	Date the survey was completed or the date proposed in the future. Use YYYYMMDD or YYYYMM (if only year and month is known).
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 20091022, 200109
Data Type	String (8)

7.23 SURV_DESC

Geodatabase Name	SURV_DESC
BLM Structured Name	Forest_Survey_Description_Code
Inheritance	Inherited from Entity FOREST_SURV_POLY
Feature Class Use	FOREST_SURV_POLY
Definition	A more detailed description for the type of survey (Regeneration, Pre-, or Post-Treatment) based on the purpose and timing of the survey being done.
Required/Optional	Required
Domain (Valid Values)	dom_SURV_DESC
Data Type	String (30)

7.24 SURV_FY

Geodatabase Name	SURV_FY
BLM Structured Name	Survey_Fiscal_Year
Inheritance	Inherited from Entity FOREST_SURV_POLY
Feature Class Use	FOREST_SURV_POLY
Definition	The BLM Fiscal year the survey occurred in or is planned for. Automatically calculated from SURV_DATE.
Required/Optional	Required (automatically calculated)
Domain (Valid Values)	No domain. Examples: 2010, 1999
Data Type	String (4)

7.25 SURV_ID

Geodatabase Name	SURV_ID
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BLM Structured Name	Survey_Identifier
Inheritance	Inherited from Entity SURVEY
Feature Class Use	FOREST_SURV_POLY
Definition	Unique number identifier for the survey entity. Each survey polygon has a unique SURV_ID.
Required/Optional	Required, automatically generated.
Domain (Valid Values)	No domain.
Data Type	String (40) (GUID)

7.26 SURV_NAME

Geodatabase Name	SURV_NAME
BLM Structured Name	Survey_Name_Text
Inheritance	Inherited from Entity SURVEY
Feature Class Use	FOREST_SURV_POLY
Definition	Free text name that identifies the survey entity. Legacy data from M*S will be filled with the Unit Name which was commonly the timber sale name. Multiple survey polygons can have the same SURV_NAME.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: Deadbolt, Kernel John
Data Type	String (60)

7.27 SURV_SRC

Geodatabase Name	SURV_SRC
BLM Structured Name	Forest_Survey_Method_Text
Inheritance	Inherited from Entity SURVEY
Feature Class Use	FOREST_SURV_POLY
Definition	This field describes the method by which the survey data was collected. For example: aerial, walk-through, plots, EcoSurvey stand exam etc.
Required/Optional	Required
Domain (Valid Values)	dom_SURV_SRC
Data Type	String (30)

7.28 SURV_STATUS

Geodatabase Name	SURV_STATUS
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BLM Structured Name	Survey_Status_Text
Inheritance	Inherited from Entity SURVEY
Feature Class Use	FOREST_SURV_POLY
Definition	The status of the survey whether proposed, active or completed.
Required/Optional	Required
Domain (Valid Values)	dom_TRT_STATUS
Data Type	String (12)

7.29 SURV_STOCK_PCT

Geodatabase Name	SURV_STOCK_PCT
BLM Structured Name	Survey_Stocking_Percent
Inheritance	Inherited from Entity FOREST_SURV_POLY
Feature Class Use	FOREST_SURV_POLY
Definition	<p>The percentage of sample plots containing at least one suitable tree. Determined by the number of stocked plots divided by the total number of plots, excluding any plots which fell on non-forest land. Values from 0 to 1.</p> <p>Example: Seventeen plots are stocked out of a possible twenty plots that are capable of growing suitable trees.</p> $\text{Stocking Percent} = \frac{\text{Stocked Plots}}{\text{Total Plots}} = \frac{17}{20} = 0.85$
Required/Optional	Optional
Domain (Valid Values)	No domain.
Data Type	Decimal (4, 2)

7.30 SURV_TOT_TPA

Geodatabase Name	SURV_TOT_TPA
BLM Structured Name	Surveyed_Total_Trees_per_Acre_Measure
Inheritance	Inherited from Entity FOREST_SURV_POLY
Feature Class Use	FOREST_SURV_POLY
Definition	The actual number of suitable trees per acre determined by counting all suitable trees found on the plot. Calculated by multiplying the average number of trees found on the plots percent times the full stocking equivalent trees per acre.

	<p>Example: Where 37 trees are found on 20 plots using a regeneration plot size = 7.8' radius = 0.0044 acres = 1/229th acre</p> $\text{Total Trees per Acre} = \frac{\text{Total Trees}}{\text{Total Plots}} \times \frac{1}{\text{Plot area (acres)}} = \frac{37}{20} \times \frac{1}{0.0044} = 1.85 \times 229 = 424 \text{ trees per acre}$
Required/Optional	Optional
Domain (Valid Values)	No domain.
Data Type	Short Integer

7.31 SURV_TPA_SERR

Geodatabase Name	SURV_TPA_SERR
BLM Structured Name	Total_Trees_Per_Acre_Sampling_Error_Measure
Inheritance	Inherited from Entity SURVEY
Feature Class Use	FOREST_SURV_POLY
Definition	This describes the statistical quality of a survey by defining the range within which the “true” value of the total trees per acre lies. A confidence level of 80% should be used.
Required/Optional	Optional
Domain (Valid Values)	No domain. Values are between 0.01 and 1 which are converted to percent (i.e. 1%, 99%).
Data Type	Decimal (3,2)

7.32 SURV_TYPE

Geodatabase Name	SURV_TYPE
BLM Structured Name	Forest_Survey_Type_Code
Inheritance	Inherited from Entity FOREST_SURV_POLY
Feature Class Use	FOREST_SURV_POLY
Definition	The type of a survey conducted whether regeneration, pre-treatment, or post-treatment.
Required/Optional	Required
Domain (Valid Values)	dom_SURV_TYPE
Data Type	String (30)

7.33 SURV_WS_SERR

Geodatabase Name	SURV_WS_SERR
BLM Structured Name	Well_Spaced_Trees_per_Acre_Sampling_Error_Measure
Inheritance	Inherited from Entity FOREST_SURV_POLY
Feature Class Use	FOREST_SURV_POLY
Definition	This describes the statistical quality of a survey by defining the range within which the “true” value of the well spaced trees per acre lies. A confidence level of 80% should be used.
Required/Optional	Optional
Domain (Valid Values)	No domain. Values are between 0.01 and 1 which are converted to percent (i.e. 1%, 99%).
Data Type	Decimal (3, 2)

7.34 SURV_WS_TPA

Geodatabase Name	SURV_WS_TPA
BLM Structured Name	Well_Spaced_Trees_Per_Acre_Number
Inheritance	Inherited from Entity FOREST_SURV_POLY
Feature Class Use	FOREST_SURV_POLY
Definition	<p>The number of well spaced suitable trees per acre determined by counting only one suitable tree found per plot. Calculated by multiplying the stocking percent times the full stocking equivalent trees per acre.</p> <p>Example: Where seventeen plots are stocked out of a possible twenty plots that are capable of growing suitable trees and a regeneration plot size of 1/229th acre was used.</p> <p>Well Spaced Trees per Acre = $\frac{\text{Stocked Plots}}{\text{Total Plots}} = \frac{17}{20} = .85 \times 229 = 195$ Well Spaced Trees per Acre</p>
Required/Optional	Optional
Domain (Valid Values)	No domain.
Data Type	Short Integer

7.35 VERSION_NAME

Geodatabase Name	VERSION_NAME
BLM Structured Name	Geodatabase_Version_Text

Inheritance	Inherited from Entity ODF
Feature Class Use	All feature classes
Definition	<p>Name of the corporate geodatabase version previously used to edit the record.</p> <p>InitialLoad = feature has not been edited in ArcSDE.</p> <p>Format: username.XXX-mmddyy-hhmmss = version name of last edit (hours might be a single digit; leading zeros are trimmed for hours only). XXX=theme abbreviation.</p> <p>Example: sfrazier.FIRE_POLY-121210-111034</p> <p>Only appears in the transactional (edit) version. Public version (which is also the version used internally for mapping or analysis) does not contain this attribute.</p>
Required/Optional	Required (automatically generated)
Domain (Valid Values)	No domain Example: (see above)
Data Type	String (50)

7.36 WORKAGENT

Geodatabase Name	WORKAGENT
BLM Structured Name	Workagent_Text
Inheritance	Inherited from Entity ACTIVITIES
Feature Class Use	FOREST_SURV_POLY
Definition	“Who” did the work (or the type of procurement instrument).
Required/Optional	Required
Domain (Valid Values)	dom_WORKAGENT
Data Type	String (40)

8. LAYER FILES (PUBLICATION VIEWS)

8.1 GENERAL BACKGROUND

Master corporate feature classes/datasets maintained in the edit database (currently orsoedit) are “published” to the user database (currently orsoctr) 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.

These “Publication feature classes” are indicated by “PUB” in their name. They are created through scripts that can be 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.

All datasets are published, both internally and externally, with the attribute VERSION_NAME removed (for privacy reasons).

8.2 SPECIFIC TO THIS DATASET

Only the “Completed” surveys are to be published to the public data download site on the BLM OR/WA internet (<http://www.blm.gov/or/gis/data.php>). Proposed surveys may never happen or with a very different spatial extent.

9. EDITING PROCEDURES

9.1 MANAGING OVERLAP (General Guidance)

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

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

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

Within the FOREST_SURV_POLY feature class, an overlapping survey area is created only for a new date. Overlapping polygons are allowed. This group also includes proposed surveys which could overlap existing surveys.

9.2 EDITING AND QUALITY CONTROL GUIDELINES

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.

Where polygons are created with the buffer tool, the correct option must be selected. The default selection is “None,” which means overlap will be retained. Sometimes the overlap should be dissolved and the option changed to “All.” Lines resulting from buffer have vertices too close together, especially around the end curves. They should be generalized to thin the vertices.

If the dissolve tool is used on polygons or arcs, the “Create multipart features” should be unchecked. The GPS linework is often messy and should always be checked and cleaned up as necessary. 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. It is critical to generalize and clean up GPS lines and to find and explode multi-part polygons.

Check any features that have “0” or very small Shape Area or Shape Length. If a feature has “0” geometry and you can’t zoom to it, it is probably an inadvertently created “Null” feature and should be deleted. Very, very small features may also be unintended, resulting from messy linework.

9.3 SNAPPING GUIDELINES

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 Landlines Information (GCD 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.

9.4 EDITING GUIDANCE and QUALITY CONTROL CHECKLIST (Specific to FOREST_SURV_POLY)

Explode “multi-part” polygons. Check for “0” or very small Shape Area or Shape Length. See “Editing and Quality Control” guidance above on GPS linework and multi-part features.

Required attributes: SURV_ID, SURV_NAME, SURV_TYPE, SURV_DESC, SURV_METH, SURV_STATUS, SURV_DATE, CLASSIFIER, REGENSTOCKINGCLS (if SURV_TYPE = Regeneration), REASON, BLM_ORG_CD, WORKAGENT, FISCAL_YR, SURV_ACRES, and GIS_ACRES.

SURV_ID is unique for all polygons. Assign new SURV_IDs using the “Get Unique ID” tool.

Check that dates are valid in SURV_DATE.

If an attribute has a domain, check for invalid values.

Dependencies between attributes:

If SURV_STATUS = “Completed” then SURV_DATE cannot be future

If SURV_STATUS < > “Completed” then question if SURV_DATE is NOT future

If WORKAGENT = “Service Contract”, “IDIQ Contract”, “Stewardship”, “Purchase Order”, or “Coop Agreement” then CONTRACTID is required

If SURV_TYPE = Regeneration, then SURV_DESC must be either “Backlog”, “Initial PrePlanting”, “PreEstablishment1”, “PreEstablishment2”, or “PreEstablishmentAdd”

If SURV_TYPE = PreTreatment or PostTreatment then SURV_DESC must be either “PreCommercial Survey”, “HardwoodShrub Survey”, “Prune Survey”, or “Stand Exam”

If SURV_TYPE = Regeneration, then REGENSTOCKINGCLS is required.

Figure 2 Oregon Data Framework Overview



11. ABBREVIATIONS AND ACRONYMS USED

(does not include abbreviations/acronyms used as codes for particular data attributes)

Abbreviations	Descriptions
AC	Acres
BLM	Bureau of Land Management
CADNSDI	Cadastral National Spatial Data Infrastructure
DEM	Digital Elevation Model
DLG	Digital Line Graphs
DOI	U.S. Department of the Interior
FOIA	Freedom of Information Act
FOI	Forest Operations Inventory
FOI-VEG	Current forest stand vegetation portion of FOI
GCD	Geographic Coordinate Database
GIS	Geographic Information System
GPS	Global Positioning System
GRS	General Records Schedule
ID	Identifier
IDIQ	Indefinite Delivery/Indefinite Quantity
IM	Instruction Memorandum
M*S	Micro*Storms Application
NAD	North American Datum
ODA	Oregon Department of Agriculture
ODF	Oregon Data Framework
ODFW	Oregon Department of Fish and Wildlife
OR	Oregon
OR/WA	Oregon/Washington
SDE	Spatial Database Engine
USFS	United States Forest Service
USGS	United States Geological Survey

Table 2 Abbreviations/Acronyms Used

APPENDIX A: DOMAINS (VALID VALUES)

The domains listed below are those that were in effect at the time the data standard was approved and may not be current. Contact the State Data Administrator for current lists:

OR/WA State Data Administrator
Bureau of Land Management
P.O. Box 2965
Portland, OR 97208
503-808-6009

A.1 BLM_ORG_CD (<http://www.blm.gov/or/datamanagement/index.php>)

OR000	OR000 – Oregon/Washington BLM
ORB00	ORB00 – Burns District Office
ORB05	ORB05 – Three Rivers Field Office
ORB06	ORB06 – Andrews Field Office
ORC00	ORC00 – Coos Bay District Office
ORC03	ORC03 – Umpqua Field Office
ORC04	ORC04 – Myrtlewood Field Office
ORE00	ORE00 – Eugene District Office
ORE05	ORE05 – Siuslaw Field Office
ORE06	ORE06 – Upper Willamette Field Office
ORL00	ORL00 – Lakeview District Office
ORL04	ORL04 – Klamath Falls Field Office
ORL05	ORL05 – Lakeview Field Office
ORM00	ORM00 – Medford District Office
ORM05	ORM05 – Butte Falls Field Office
ORM06	ORM06 – Ashland Field Office
ORM07	ORM07 – Grants Pass Field Office
ORP00	ORP00 – Prineville District Office
ORP04	ORP04 – Central Oregon Field Office
ORP06	ORP06 – Deschutes Field Office
ORR00	ORR00 – Roseburg District Office
ORR04	ORR04 – Swiftwater Field Office
ORR05	ORR05 – South River Field Office
ORS00	ORS00 – Salem District Office
ORS04	ORS04 – Cascades Field Office
ORS05	ORS05 – Mary's Peak Field Office
ORS06	ORS06 – Tillamook Field Office
ORV00	ORV00 – Vale District Office
ORV04	ORV04 – Malheur Field Office
ORV05	ORV05 – Baker Field Office
ORV06	ORV06 – Jordan Field Office
ORW00	ORW00 – Spokane District Office
ORW02	ORW02 – Wenatchee Field Office

ORW03	ORW03 – Border Field Office
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A.2 COORD_SRC (<http://www.blm.gov/or/datamanagement/index.php>)

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 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
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.3 PRIORITY

High	High - High priority
Medium High	Medium High - Medium to high priority
Medium	Medium - Medium priority
Medium Low	Medium Low - Medium to low priority
Low	Low - Low priority

A.4 REASON

Riparian Veg	Riparian Veg - Improve, restore or protect
Streambank Stability	Streambank Stability - Erosion control
Wetlands	Wetlands - Improve, restore or protect
Rangeland Veg	Rangeland Veg - Improve, restore or protect
Slope Stability	Slope Stability - Erosion control
Forest Stand	Forest Stand - Improve, restore or protect an established/accepted forest stand.

Biomass Value	Biomass Value - Commodity production
Log Value	Log Value - Commodity production
Wildlife-General	Wildlife-General - Habitat improve, restore or protect
Birds-General	Birds-General - Habitat improve, restore or protect
Sage-grouse	Sage-grouse - Action benefits Sage-grouse
Bald Eagle	Bald Eagle - Action benefits Bald Eagle
Livestock	Livestock - Commodity production
Wildhorses	Wildhorses - Action benefits Wildhorses
Water Quality	Water Quality - Watershed improve, restore or protect
Water Use	Water Use - Water source and flow management
Fuels Reduction	Fuels Reduction - Ladder, Surface, Canopy
Post-Treat Cleanup	Post-Treat Cleanup - Pile, Burn
Pre-Treat Prep	Pre-Treat Prep - Soil/site preparation
Human Safety	Human Safety - Health and safety measures
Invasives Control	Invasives Control - Remove or contain invasive species. Weed control must be entered into NISIMS first.
Recreation Use	Recreation Use - Manage or enhances recreation use
Wilderness Character	Wilderness Character - Protection measure
Cultural	Cultural - Protection of cultural resources
Research	Research - Study area
Aspen	Aspen - Action protects or improves health of Aspen
Fire Rehab	Fire Rehab - Restoration after fire
Sensitive Plants	Sensitive Plants - Protect or improve individual plants or habitat
Unknown	Unknown - Reason for the action or benefiting resource not specifically identified.
EDRR	EDRR - Early Detection Rapid Response
Forest Regeneration	Forest Regeneration - Action to improve, restore, or protect the establishment of a forest stand.
Stand Conversion	Stand Conversion - Conversion of hardwoods or non-commercial species to a commercial forest stand.
Tree Disease	Tree Disease - Action to limit the spread or define the extent of a particular tree disease.
Access	Access - Road rights limit ability to obtain legal access to certain units or portions of units.
Road Access Restriction	Road Access Restriction – Road or Trail closure or blockage
Operations	Operations - Harvest operation limitations prevent reaching certain units or portions of units.
MAMU	MAMU - Marbled Murrelet habitat improve, restore, or protect.
NSO	NSO - Northern Spotted Owl habitat improve, restore, or protect.
Fish-General	Fish-General – Habitat improve, restore or protect
Sensitive Fish	Sensitive Fish – Protect or improve specific fish populations or habitat
Restore Forest Growth	Restore Growth – Actions such as late precommercial thin to improve growth of a forest stand.

A.5 REGENSTOCKINGCLS (Regeneration Stocking Class)

NonProductive	Non-Productive lands
NonStocked	Nonstocked forest lands
Regen Unaccepted Min	Regen Unaccepted Minimum - Forest lands with unaccepted regeneration occupying 60-79% of the surveyed area.
Regen Unaccepted Sub-min	Regen Unaccepted Sub-minimum - Forest lands with unaccepted regeneration occupying less than 60% of the area.
Regen Unaccepted Target	Regen Unaccepted Target - Forest lands with unaccepted regeneration occupying 80-100% of the surveyed area.
Regen Accepted Min	Regen Accepted Minimum - Forest lands with accepted regeneration occupying 60-79% of the surveyed area.
Regen Accepted Sub-min	Regen Accepted Sub-minimum - Forest lands with accepted regeneration occupying less than 60% of the surveyed area.
Regen Accepted Target	Regen Accepted Target - Forest lands with accepted regeneration occupying 80-100% of the surveyed area.

A.6 SURV_DESC

Backlog	Backlog - Survey evaluating understocked unit usually 6+ years old.
Initial PrePlanting	Initial PrePlanting - Initial survey made prior to first planting.
PreEstablishment1	PreEstablishment1 - Survey evaluating quality of planted seedlings.
PreEstablishment2	PreEstablishment2 - Second survey evaluating quality of planted seedlings.
PreEstablishmentAdd	PreEstablishmentAdd - Additional survey evaluating quality of planted seedlings.
PreCommercial Survey	PreCommercial Survey - Survey made prior to (Pre) or after (Post) a pre-commercial thinning.
HardwoodShrub Survey	HardwoodShrub Survey - Survey made prior to (Pre) or after (Post) a hardwood shrub control treatment.
Prune Survey	Prune Survey - Survey made prior to (Pre) or after (Post) a pruning treatment.
Stand Exam	Stand Exam - Survey made prior to (Pre) or after (Post) a harvest treatment.

A.7 SURV_SRC

Aerial Exam	Survey data from helicopter or fixed wing aircraft.
Photo Interpretation	Survey data from photo interpretation.
Walk through Exam	Survey data interpreted from a walk through the forest.
Stand Exam-NonEcoSurvey	Survey data from stand exam (not using EcoSurvey).
Stand Exam-EcoSurvey	EcoSurvey generated stand exam data (tree data for each plot coordinate are found in the corporate EcoSurvey database).
Stocking Survey-NonEcoSurvey	Stocking survey plot summary data not using EcoSurvey.

Stocking Survey-EcoSurvey	EcoSurvey generated stocking survey trees per acre summary data.
LiDAR	Survey summary results from Light Detection and Ranging interpolated data.
CVS Plot	Survey data from Current Vegetation Survey plot.
FIA Plot	Survey data from Forest Inventory and Analysis plot.
Stand Exam	Stand Exam (for legacy M*S data only, not a valid choice for new data).
MicroStorms	MicroStorms (for legacy M*S data only, not a valid choice for new data).
Unknown	Survey data source unknown (not a valid choice for new.

A.8 SURV_TYPE

Regeneration	Regeneration - Surveys completed during the establishment of a forest.
Pre-Treatment	Pre-Treatment - Surveys completed after forest stand established but prior to a treatment to determine next proposal.
Post-Treatment	Post-Treatment - Surveys completed after forest stand established but after a treatment to determine success of treatment.

A.9 TRT_STATUS

Completed	Completed -Treatment action completed
Proposed	Proposed -Action not yet started
Active	Active -Treatment action underway
Deferred	Deferred -Treatment deferred; Reason for deferment is given in Reason.
Suspended	Suspended -Treatment action halted
Rejected	Rejected -Considered by BLM and found unsuitable

A.10 WORKAGENT

Federal Labor	Federal Labor
Service Contract	Service Contract
IDIQ Contract	IDIQ Contract - non-Stewardship
Stewardship Contract	Stewardship Contract
Permittee	Permittee
Coop Agreement	Coop Agreement - ODFW, ODA, County, etc.
Grantee	Grantee
Volunteer	Volunteer
Timber Sale	Timber Sale
Landowner	Landowner
Purchase Order	Purchase Order
Unknown	Unknown