Watershed Enhancement Tracking System (WETS)

SPATIAL DATA STANDARD

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1. GENERAL INFORMATION

Dataset (Theme) Name: Watershed Enhancement Tracking System (WETS)
Geodatabase Tables: WETS_ACTIVITY, WETS_COST, WETS_POINT, WETS_ARC, and WETS_POLY. Related Feature Classes (spatial features): BURN_POLY, GEOBOB (GB_FAUNA_OBS), GRA_POLY, GTRN, MECH_POLY, NHD_FLOWLINE, OWNERSHIP, PROT_POLY, REVEG_POLY, STRCT_ARC, STRCT_PT, and TreatmentComponentLocation (NISIMS).

1.1 - ROLES AND RESPONSIBILITIES

Roles	Responsibilities
State Data Steward	The State Data Steward, Al Doelker (503-808-6067) 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, Bryant Mecklem (503-808-6506) works with data stewards to convert business needs into GIS applications, derive data requirements and participate 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 State Data Administrator, Eric Hiebenthal (Acting) (503-808-6565) provides information management leadership, data modeling expertise, and custodianship of the state data models. The State Data Administrator ensures that defined processes for development of data standards and metadata are followed, and that they are consistent and complete. The State Data Administrator is responsible for making data standards and metadata accessible to all users. The State Data Administrator also coordinates with data stewards and GIS coordinators to respond to national spatial data requests.
State Records Administrator	The state Records Administrator, Tamara Yingling (Acting) (503-808-6450) assists the State Data Steward to identify any privacy issues related to spatial data. The State Records Administrator 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 (FOIA) category.

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

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

1.5 - KEYWORDS

Keywords that can be used to locate this dataset include (BLM Thesaurus): Geospatial, Hydrology, Management, Range, Vegetation, and Disturbance.

Additional keywords: WETS, watershed, watershed enhancement, instream passage, instream habitat, riparian, upland, wetlands, roads, trails, culvert removal, culvert replacement, dams removed, diversions removed, fish ladder, gravel placement, boulders placed, large woody debris, channel connectivity, streambank restoration, beaver management, fencing, habitat acquired, invasive plants, grazing, off channel watering, planting, prescribed burn, stand conversion, stand thinning, drainage, stabilization, erosion, slope stabilization, fish, and IRDA.

2. DATASET OVERVIEW

2.1 - DESCRIPTION

The OR/WA BLM WETS dataset contains information on watershed restoration projects in order to track on-the-ground efforts to restore aquatic habitat and water quality conditions. The Treatments/Activities tracked in WETS include instream passage, instream habitat, riparian, road, upland and wetlands. WETS data, or subsets of WETS data, are summarized in various reports including Oregon Plan Biennial Reports, Oregon Watershed Restoration Inventory Annual Reports,

Clean Water Act Annual Reports and Pacific Coastal Salmon Recovery Fund Annual Reports to Congress.

Restoration practitioners submit project data to the WETS upon completion of restoration projects (or completed phases of projects). A complete WETS data submission consists of recorded project information (e.g. cost, outcomes) and a corresponding project location map. The full WETS dataset represents statewide restoration accomplishments across various land ownerships, although primarily on BLM lands.

Additional documentation for WETS can be found at the end of this document in Appendix B.

The WETS dataset is comprised of two tables (WETS_ACTIVITY and WETS_COST) and three feature classes (WETS_POINT, WETS_ARC and WETS_POLY). The WETS_ACTIVITY table tracks treatments or actions done to repair, protect or enhance a watershed. The WETS_COST table tracks BLM contributions and partner contributions. WETS_POINT, WETS_ARC, and WETS_POLY contain copies of spatial features that resided in the Oregon Data Framework (ODF) at the time the WETS record was created. The dataset is a one (WETS_ACTIVITY) to many (WETS_COST, WETS_POINT, WETS_ARC, WETS_POLY).

2.2 - USAGE

This dataset is linked to the spatial corporate repositories found in the Oregon Data Framework (ODF) associated with watershed restoration and enhancement treatments. This corporate approach manages core data across resource programs to portray a comprehensive record of watershed restoration and enhancement activities involving various land ownerships, although primarily on BLM lands. This dataset is used for district, state, regional, and national needs for management and query of watershed restoration and enhancement activities.

Complete and accurate watershed restoration accomplishment data in the WETS serves an important purpose. The State of Oregon uses this information in biennial reports for The Oregon Plan for Salmon and Watersheds. In addition, the State of Washington uses this data to prepare the Report on the State of Salmon in Watersheds and Reports to Congress for the Pacific Coastal Salmon Recovery Fund. These reports and others illustrate and reinforce the important role of Federal land managers as partners in watershed restoration, fish recovery, and water quality improvement. Maintaining complete accomplishment data in the WETS builds our partnerships with the States of Oregon and Washington, as well as other government agencies that utilize this information.

2.3 - SPONSOR/AFFECTED PARTIES

The sponsor for this data set is the Deputy State Director, Resource Planning, Use & Protection.

2.4 - RELATIONSHIP TO OTHER DATASETS, DATABASES or FILES

The WETS dataset contains information about watershed enhancement activities and activity cost. Spatial data from the following ODF feature classes in the publication copy of the corporate data is copied into WETS_POINT, WETS_ARC, or WETS_POLY: BURN_POLY, GEOBOB (GB_FAUNA_OBS), GRA_POLY, GTRN, MECH_POLY, NHD_FLOWLINE, OWNERSHIP, PROT_POLY, REVEG_POLY, STRCT_ARC, STRCT_PT, and TreatmentComponentLocation (NISIMS [National Invasive Species Information Management System]).

Additional documentation for WETS can be found at the end of this document in Appendix B.

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. All OR/WA resource-related data are divided into three general categories: Activities, Resources, and Boundaries. These general categories are broken into sub-categories that inherit spatial characteristics and attributes from their parent category. These sub-categories may be further broken into more specific groups until the basic data set cannot be further sub-divided. Those basic data sets inherit all characteristics of all groups/categories above them. The basic data sets are where physical data gets populated (those groups/categories above them do not contain actual data, but set parameters that all data of that type must follow). The ODF Overview (Figure 1) shows a simplified schematic of the entire ODF showing the overall organization and entity inheritance. The WETS entities are highlighted. For additional information about the ODF, contact:

Eric Hiebenthal
Acting OR/WA State Data Administrator
Bureau of Land Management
P.O. Box 2965
Portland, OR 97208
503-808-6565

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

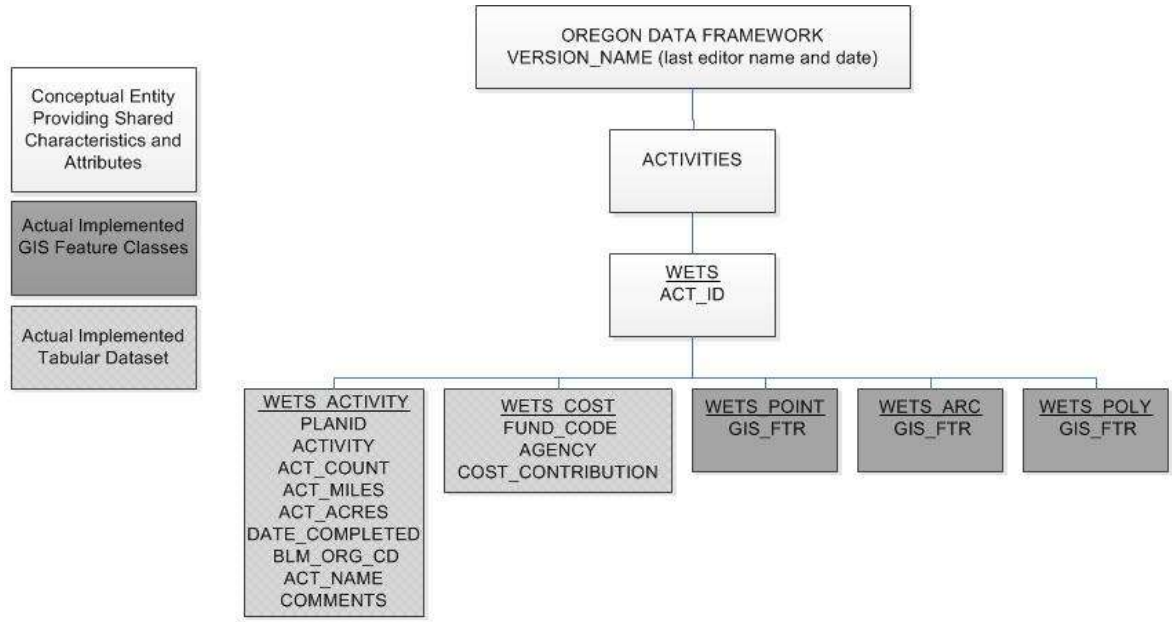
ODF
- Activities
  - WETS_ACTIVITY (table)
  - WETS_COST (table)
  - WETS_POINT
  - WETS_ARC
  - WETS_POLY

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

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

- Data Subject Area: Geospatial
- Information Class: Location

2.7 - WETS DATA ORGANIZATION/ STRUCTURE



ODF location of spatial features copied to WETS_POINT, WETS_ARC, and WETS_POLY

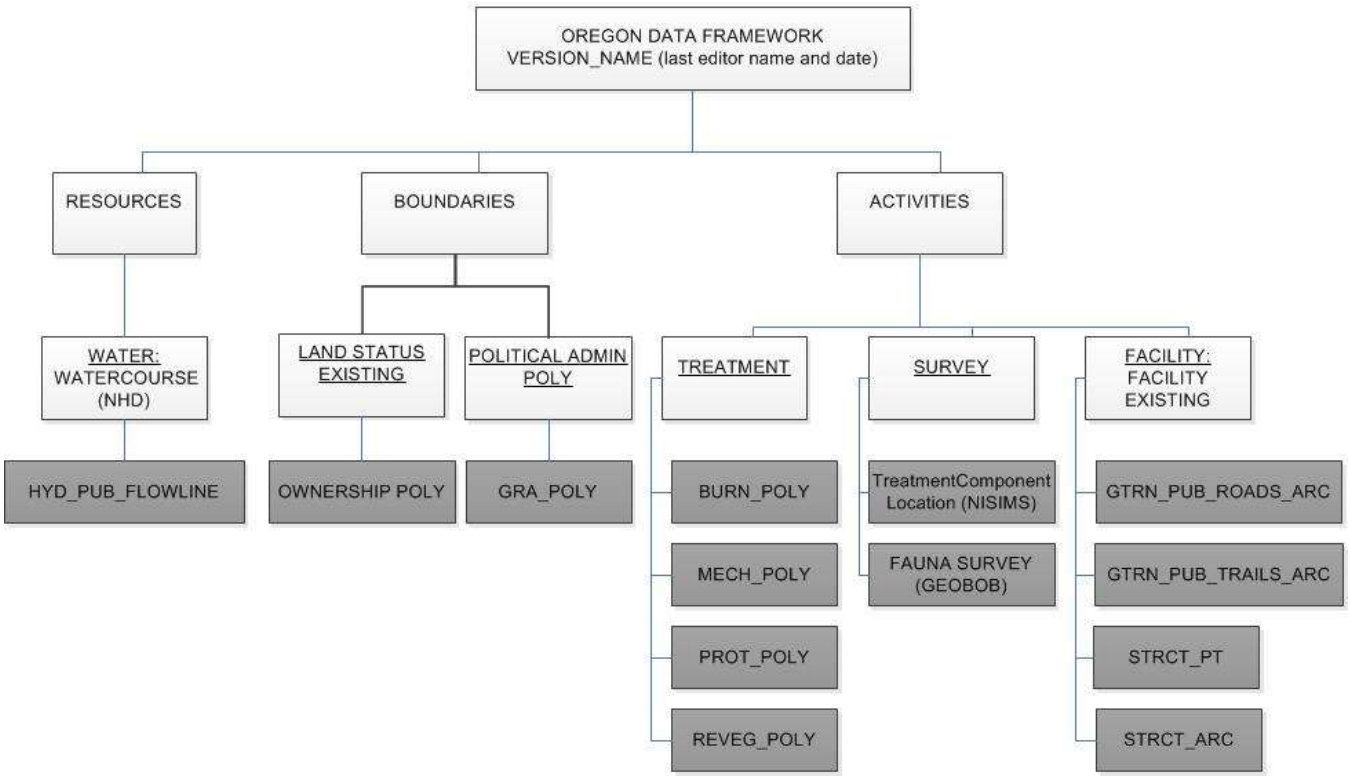


Figure 1: Data Organization Structure

3. DATA MANAGEMENT PROTOCOLS

3.1 - ACCURACY REQUIREMENTS

Spatial accuracy is determined by an existing GIS feature in the ODF. For information on accuracy requirements, see the data standard of the source. The data standards can be found online at: http://www.blm.gov/or/datamanagement/index.php

3.2 - COLLECTION, INPUT, AND MAINTENANCE PROTOCOLS

The WETS dataset obtains its spatial features from data that already exists in the ODF publication copy of the corporate data. Prior to entering the activities into WETS, information regarding the activities needs to be gathered and a spatial feature(s) that represents the location of the watershed enhancements needs to exist in the publication copy of the corporate data.

Information that needs to be gathered prior to entering the data into GIS includes:

- The BLM Plan ID the work was completed under
- The type of work completed (Activity)*
- The amount of enhancements made (Count, Miles or Acres)*
- The date the work was completed
- Where the work was completed (BLM_ORG_CD)
- The funding code the enhancement falls under
- Who provided the funding
- How much funding was provided by Activity (funding needs to be itemized by Activity)

*The WETS Activity Definition and Attribute Information spreadsheet was designed to assist with categorizing the watershed enhancement activities, provide information on how to correctly measure the benefits of the activity, and locating the correct GIS feature class that the spatial features will reside in.

Before tabular data can be entered, the spatial feature must exist in the publication copy of the corporate data in one of the following feature classes: BURN_POLY, GEOBOB (GB_FAUNA_OBS), GRA_POLY, GTRN, MECH_POLY, NHD_FLOWLINE, OWNERSHIP, PROT_POLY, REVEG_POLY, STRCT_ARC, STRCT_PT, or NISIMS. If a new feature needs to be added into one of the GIS feature classes, it can take 2-3 business days for data to be transferred from a posted EDIT version to the publication copy of the corporate data.

Once spatial features exist, use the Geocortex Essentials WETS Web Interface Viewer to enter and update the data as needed.

3.3 - UPDATE FREQUENCY AND ARCHIVAL PROTOCOLS

At the beginning of each year, an instruction memorandum (IM) is sent to the districts directing them to report their watershed restoration accomplishments in WETS. Data for WETS is to be updated throughout the year as needed.

WETS data will be captured once a year during the corporate database annual archive.

3.4 - STATEWIDE MONITORING

The State Data Steward, in conjunction with the Lead GIS Specialist, are responsible for reviewing the WETS theme across the state at least once per year. For WETS, a check for completeness and correct attributes is required. Contact the district data steward with any QA/QC questions.

4. WETS SCHEMA (SIMPLIFIED)

Attributes are listed in the order they appear in the geodatabase tables. The order is an indication of the importance of the attribute for theme definition and use. There are no aliases unless specifically noted. The domains used in this data standard can be found in Appendix A. These are the domains at the time the data standard was approved. Domains can be changed without a 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: http://www.blm.gov/or/datamanagement/index.php

For domains not listed at that site contact:

Eric Hiebenthal
Acting OR/WA State Data Administrator
BLM
P.O. Box 2965
Portland, OR 97208
503-808-6565

4.1 - WETS_ACTIVITY Geodatabase Table

Attribute Name	Data Type	Length	Default Value	Required?	Domain
PLANID	String	100		Yes	dom_PLANID
ACT_ID*	Integer	Long		Yes	
ACTIVITY	String	70		Yes	dom_WETS_ACTIVITY
ACT_COUNT	Integer	Short		No (see 7.3)	
ACT_MILES	Double	38, 8		No (see 7.5)	
ACT_ACRES	Double	38, 8		No (see 7.2)	
COMPLETED_DATE	String	8		Yes	
BLM_ORG_CD	String	5		Yes	dom_BLM_ORG_CD
ACT_NAME	String	40		No	

COMMENTS	String	100		No	
VERSION_NAME*	String	50	InitialLoad	Yes	

4.2 - WETS_COST Geodatabase Table

Attribute Name	Data Type	Length	Default Value	Required?	Domain
ACT_ID*	Integer	Long		Yes	
SUBACTIVITY	String	12		Yes	dom_WETS_SUBACTIVITY
AGENCY	String	10		Yes	dom_WETS_AGENCY
COST_CONTRIBUTION	Integer	Long		Yes	
VERSION_NAME*	String	50	InitialLoad	Yes	

4.3 - WETS_ARC

Attribute Name	Data Type	Length	Default Value	Required?	Domain
GIS_FTR	String	30		Yes	dom_WETS_ODF_FC
ACT_ID*	Integer	Long		Yes	
VERSION_NAME*	String	50	InitialLoad	Yes	

4.4 - WETS_POINT

Attribute Name	Data Type	Length	Default Value	Required?	Domain
GIS_FTR	String	30		Yes	dom_WETS_ODF_FC
ACT_ID*	Integer	Long		Yes	
VERSION_NAME*	String	50	InitialLoad	Yes	

4.5 - WETS_POLY

Attribute Name	Data Type	Length	Default Value	Required?	Domain
GIS_FTR	String	30		Yes	dom_WETS_ODF_FC
ACT_ID*	Integer	Long		Yes	

VERSION_NAME*	String	50	InitialLoad	Yes	

***Automatically Generated**

5. PROJECTION AND SPATIAL EXTENT

WETS obtains its spatial features from data that already exists within the ODF. All feature classes and feature datasets that are copied into WETS are in Geographic, North American Datum 83. Units are decimal degrees. For information on spatial extent, see the data standard for the spatial feature. The Data Standards can be found online at: http://www.blm.gov/or/datamanagement/index.php

6. SPATIAL ENTITY CHARACTERISTICS

The WETS dataset contains information on watershed restoration projects to track on-the-ground efforts to restore aquatic habitat and water quality conditions. WETS obtains its spatial features from data that already exists within the ODF. For information on a specific spatial entity's characteristic, see the data standard for the spatial feature.

The data standards can be found online at: http://www.blm.gov/or/datamanagement/index.php

7. ATTRIBUTE CHARACTERISTICS AND DEFINITION (In alphabetical order)

7.1 - ACTIVITY

Geodatabase Name	ACTIVITY
BLM Structured Name	Watershed_Enhancement_Activity_Name
Inheritance	Inherited from entity WETS
Feature Class Use	WETS_ACTIVITY table
Definition	The name of the restoration activity. (See Appendix B)
Required/Optional	Required
Domain (Valid Values)	dom_WETS_ACTIVITY
Data Type	Variable Characters (70)

7.2 - ACT_ACRES

Geodatabase Name	ACT_ACRES
BLM Structured Name	Activity_Acres_Measure
Inheritance	Inherited from entity WETS
Feature Class Use	WETS_ACTIVITY table
Definition	The area (in acres) of watershed enhancement. This measure must be manually entered by the user.
Required/Optional	Conditional: If the ACTIVITY field value is Riparian, Upland, or Wetlands

	Fresh or Coastal, then this field is required. Each ACTIVITY record is required to have one value entered into the fields ACT_ACRES, ACT_COUNT, OR ACT_MILES.
Domain (Valid Values)	No domain
Data Type	Decimal (38,8)

7.3 - ACT_COUNT

Geodatabase Name	ACT_COUNT
BLM Structured Name	Activity_Count_Measure
Inheritance	Inherited from entity WETS
Feature Class Use	WETS_ACTIVITY table
Definition	The number/count of the activities preformed.
Required/Optional	Conditional: If the ACTIVITY is Instream Passage: Fish Screens Removed or Replaced, then this field is required. Each ACTIVITY record is required to have one value entered into the fields ACT_ACRES, ACT_COUNT, OR ACT_MILES.
Domain (Valid Values)	No domain
Data Type	Short Integer

7.4 - ACT_ID

Geodatabase Name	ACT_ID
BLM Structured Name	Activity_Identifier_Number
Inheritance	Inherited from entity WETS
Feature Class Use	All tables and feature classes
Definition	A unique numeric identifier generated for each Activity. This number is unique in the Activity Table. It is not a unique number in WETS_COST, WETS_POINT, WETS_ARC or WETS_POLY.
Required/Optional	Required (generated using the Geocortex Essentials WETS Web Interface Viewer)
Domain (Valid Values)	No domain
Data Type	Long Integer

7.5 - ACT_MILES

Geodatabase Name	ACT_MILES
BLM Structured Name	Activity_Miles_Measure
Inheritance	Inherited from entity WETS

Feature Class Use	WETS_ACTIVITY table
Definition	The length (in miles) of watershed enhancement. This measure must be manually entered by the user.
Required/Optional	Conditional: If the ACTIVITY field is Instream Passage (*other than Instream Passage = Fist Screens Removed or Replaced*), Instream Habitat, or Roads/Trails, then this field is required. Each ACTIVITY record is required to have one value entered into the fields ACT_ACRES, ACT_COUNT, OR ACT_MILES.
Domain (Valid Values)	No domain
Data Type	Decimal (38,8)

7.6 - ACT_NAME

Geodatabase Name	ACTIVITY
BLM Structured Name	Activity_Name_Text
Inheritance	Inherited from entity WETS
Feature Class Use	WETS_ACTIVITY table
Definition	Free text for the local Activity name.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Variable Characters (40)

7.7- AGENCY

Geodatabase Name	AGENCY
BLM Structured Name	Agency_Name
Inheritance	Inherited from entity WETS
Feature Class Use	WETS_COST table
Definition	The name of the agency, organization or person (private) that provided the funding for the Activity.
Required/Optional	Required
Domain (Valid Values)	dom_WETS_AGENCY
Data Type	Variable Characters (10)

7.8 - BLM_ORG_CD

Geodatabase Name	BLM_ORG_CD
BLM Structured Name	Administrative_Unit_Organization_Code
Inheritance	Inherited from entity ODF

Feature Class Use	WETS_ACTIVITY table
Definition	A combination of the BLM administrative state and field office which has administrative responsibility for the spatial entity. This includes which office covers the entity for planning purposes and which office is the lead for GIS edits. Another agency or individual may have the physical management responsibility for the on-the-ground entity. This field applies particularly when a spatial entity crosses resource area or district boundaries and the administrative responsibility is assigned to one or the other rather than splitting the spatial unit. Similarly, OR/WA BLM may have administrative responsibility over some area that is physically located in Nevada, Idaho, and California and vice versa. When appropriate, the office can be identified only to the district or 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	Variable Characters (5)

7.9 - COMMENTS

Geodatabase Name	COMMENTS
BLM Structured Name	Comments_Text
Inheritance	Inherited from entity WETS
Feature Class Use	WETS_ACTIVITY table
Definition	Free-form text for comments about the Activity.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	Variable Characters (100)

7.10 - COST_CONTRIBUTION

Geodatabase Name	COST_CONTRIBUTION
BLM Structured Name	Cost_Contribution_Number
Inheritance	Inherited from entity WETS
Feature Class Use	WETS_COST table
Definition	The amount of funding (in dollars) an agency, organization or person provides for the activity.
Required/Optional	Required
Domain (Valid Values)	No domain

Data Type	Long Integer

7.11 - COMPLETED_DATE

Geodatabase Name	COMPLETED_DATE
BLM Structured Name	Completion_Date
Inheritance	Inherited from entity WETS
Feature Class Use	WETS_ACTIVITY table
Definition	The date the project was completed in (YYYYMMDD).
Required/Optional	Required
Domain (Valid Values)	No domain. Example: 20160101
Data Type	Variable Characters (8)

7.12 - GIS_FTR

Geodatabase Name	GIS_FTR
BLM Structured Name	GIS_Feature_Name
Inheritance	Inherited from entity ODF
Feature Class Use	WETS_POINT, WETS_ARC, and WETS_POLY
Definition	The name of the ODF feature that spatially represents the WETS record.
Required/Optional	Required
Domain (Valid Values)	dom_WETS_ODF_FC
Data Type	Variable Characters (30)

7.13 - PLANID

Geodatabase Name	PLANID
BLM Structured Name	Plan_Name_Text
Inheritance	Inherited from entity ODF
Feature Class Use	WETS_ACTIVITY table
Definition	The official name/identifier for the plan or project authorizing the action. Provides link to project or planning area boundary polygon.
Required/Optional	Required
Domain (Valid Values)	dom_PLANID
Data Type	Variable Characters (100)

7.14 - SUBACTIVITY

Geodatabase Name	SUBACTIVITY
BLM Structured Name	BLM_Funding_Code
Inheritance	Inherited from entity WETS
Feature Class Use	WETS_COST table
Definition	BLM's funding category tracking code.
Required/Optional	Required
Domain (Valid Values)	dom_WETS_SUBACTIVITY
Data Type	Variable Characters (12)

7.15 - VERSION_NAME

Geodatabase Name	VERSION_NAME
BLM Structured Name	Geodatabase_Version_Text
Inheritance	Inherited from entity ODF
Feature Class Use	All tables and 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. 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. Examples: sfrazier.GRA-121211-11034
Data Type	Variable Characters (50)

8. LAYER FILES (PUBLICATION VIEWS)

8.1 - General

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

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

from the master (orsoedit) data whenever necessary.

Layer files are not new data requiring storage and maintenance but, rather, 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.

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.

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

8.2 - Specific to this Dataset

Multi-part features are allowed in the publication dataset. This is to accommodate the join between the WETS_ACTIVITY table and multiple features from either the WETS_ARC, WETS_POINT or WETS_POLY feature classes. One Activity may have multiple features. The features will be merged during the publication process into a multi-part feature for each activity.

On small-scale maps, the polygons and lines in WETS_ARC and WETS_POLY are not always visible. For this cartographic reason, a centroid point representation layer is created in the publication dataset to display the enhancement area's centroid when a visible and simplified symbol is needed. Centroid points will be automatically generated from WETS_ARC and WETS_POLY. They will be merged together with WETS_POINTS and stored in the feature class WETS_CARTO_PUB_POINT.

9. EDITING PROCEDURES

9.1 - Overview

The WETS dataset is comprised of two tables (WETS_ACTIVITY and WETS_COST) and three feature classes (WETS_POINT, WETS_ARC and WETS_POLY). The WETS_ACTIVITY table tracks treatments or actions done to repair, protect or enhance a watershed. The WETS_COST table tracks BLM contributions and partner contributions. WETS_POINT, WETS_ARC, and WETS_POLY contain copies of ODF spatial features that resided in the publication copy of the corporate data at the time the WETS record was created.

WETS obtains its spatial features from data that already exists in the ODF. Before tabular data can be entered, the spatial feature must exist in the publication copy of the corporate data in one of the following feature classes, as determined by the WETS Activity Definition and Attribute Information spreadsheet: BURN_POLY, GEOBOB (GB_FAUNA_OBS), GRA_POLY, GTRN, MECH_POLY, NHD_FLOWLINE, OWNERSHIP, PROT_POLY, REVEG_POLY, STRCT_ARC, STRCT_PT, or NISIMS. If a new feature needs to be added into one of the GIS feature classes, it will take 2-3 business days for data to be transferred from a posted EDIT version to the publication copy of the corporate data.

For information on editing a spatial feature, see the data standard for that spatial feature. The data standards can be found online at: http://www.blm.gov/or/datamanagement/index.php

9.2 - Geocortex Essentials WETS Web Interface Viewer

The primary way to edit WETS is by using the Geocortex Essentials WETS Web Interface Viewer. Once spatial data exists for all activites in the publication copy of the corporate data for the current edit session, WETS data can be entered using the Geocortex Essentials WETS Web Interface Viewer, available at the following website:
http://web.gismaps.or.blm.doi.net/GIS_workspace/maptools/InteractiveMapsLaunchPage/launch_home.html

WETS_ACTIVITY table: When entering a new activity, the Geocortex Essentials WETS Web Interface Viewer will walk the user through creating a version and entering the data for the WETS_ACTIVITY table. The activity table fields are:

- PLAN_ID
- ACT_ID (unique activity ID automatically created)
- ACTIVITY (the name of the restoration activity)*
- ACT_COUNT, ACT_ACRES, or ACT_MILES (measurement)**
- COMPLETED_DATE (date the project was completed in YYYYMMDD)
- BLM_ORG_CD (BLM state or field office that has administrative responsibility)
- ACT_NAME (free text for local names)
- COMMENTS (free text for comments about the Activity)

*Use the WETS Activity Definition and Attribute Information spreadsheet to determine which WETS activity the work is classified under.
The measurements reported in WETS are not automatically derived from the spatial features. WETS reports the restoration ***benefit* for each ACTIVITY type. The area that has benefited from the watershed restoration activity can be greater than what is spatially represented. To standardize reporting measurements across districts, use the WETS Activity Definition and Attribute Information spreadsheet to calculate the restoration benefit for each ACTIVITY type.

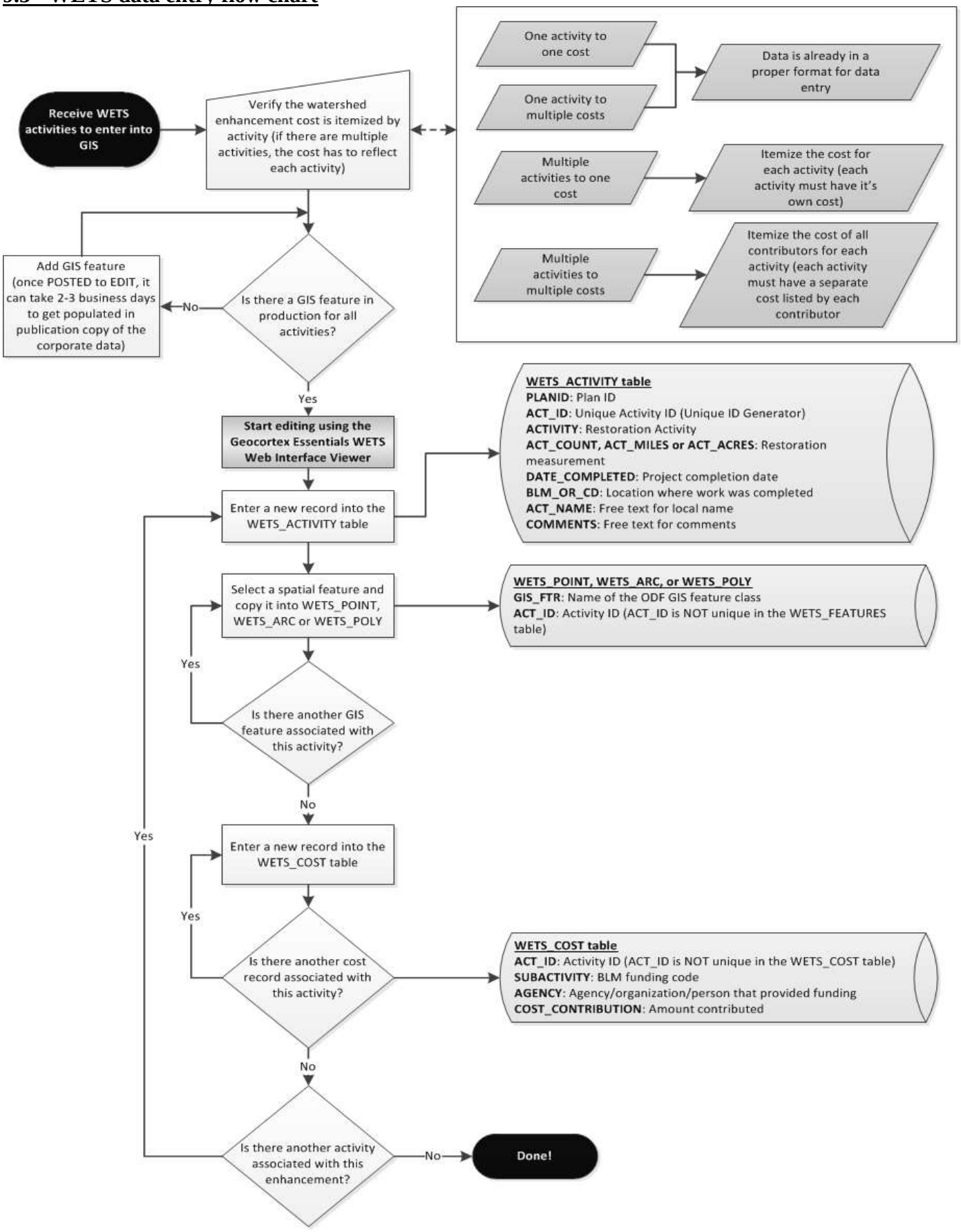
WETS_POINT, WETS_ARC, or WETS_POLY
After the Activity information has been entered, the user will be requested to enter in the type of GIS feature that represents the activity (i.e. GTRN, STRCT_PT). Once entered, the user will then locate and select the spatial feature from the ODF. The feature will copied into the appropriate spatial feature class in WETS (WETS_POINT, WETS_ARC, or WETS_POLY). If there are multiple spatial features that represent the Activity, they will need to be entered one at a time.

WETS_COST table:
Once the Activity and spatial features are entered, the Geocortex Essentials WETS Web Interface Viewer will prompt the user to enter data in the WETS_COST table. The cost table fields are:

- SUBACTIVITY (BLM's funding category tracking code)
- AGENCY (the name of the entity that provided the funding)*
- COST_CONTRIBUTION (the amount of funding that was provided)**

The WETS_ACTIVITY table and the WETS_COST table need to have all required fields populated before the version can be submitted.
*Depending on the funding sources, there may be multiple cost entries for each activity.
**To ensure the most accurate cost data when reporting, all activities and costs need to be itemized. For example, if there are two activities completed in a restoration enhancement, two records need to be entered in the WETS_ACTIVITY table and the cost must represent the amount spent on the individual activity, not the total cost for the entire restoration enhancement.

9.3 - WETS data entry flow chart



10. OREGON/WASHINGTON DATA FRAMEWORK OVERVIEW

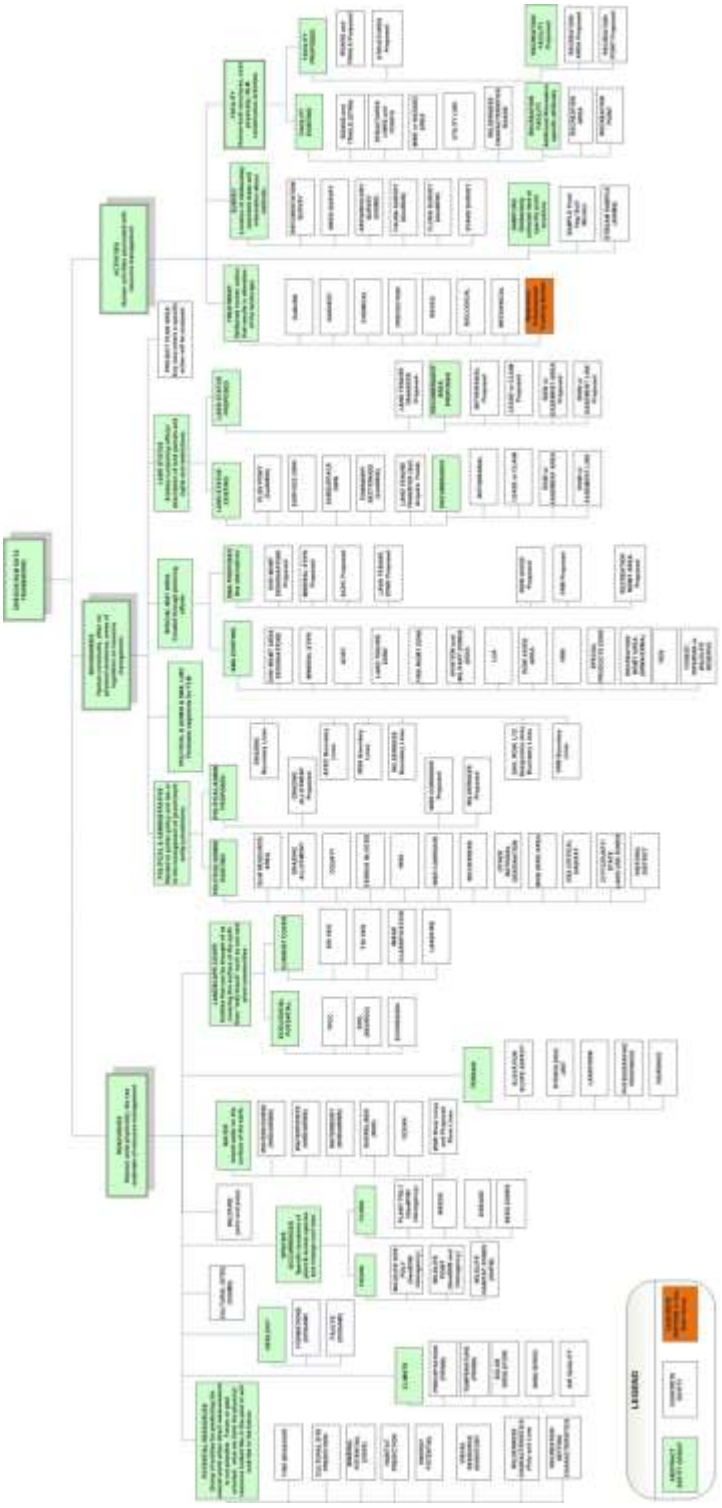


Figure 2: Oregon Data Framework Overview

11. ABBREVIATIONS AND ACRONYMS USED

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

Abbreviations	Descriptions
ARC	GIS line feature
BLM	Bureau of Land Management, U.S. Department of the Interior
DOI	Department of the Interior
FOIA	Freedom of Information Act
GIS	Geographic Information System
GTRN	Ground Transportation GIS dataset
IM	Instruction Memorandum
IRDA	Interagency Restoration Dataset
NAD	North American Datum
NHD	National Hydrography Dataset
NISIMS	National Invasive Species Information Management System
POLY	GIS polygon feature
PUB	Publication
ODF	Oregon Data Framework
OR/WA	Oregon/Washington BLM Administrative State
SDE	Spatial Database Engine
WEB	Worldwide Web (internet)
WETS	Watershed Enhancement Tracking System

Table 2: Abbreviations/Acronyms Used

APPENDIX A: DOMAINS (VALID VALUES)

These are the domains used 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: http://www.blm.gov/or/datamanagement/index.php

For domains not listed at that site contact:

Eric Hiebenthal
Acting OR/WA State Data Administrator
Bureau of Land Management
P.O. Box 2965
Portland, OR 97208
503-808-6565

A.1 dom_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

A.2 dom_PLANID (the official name for the plan or project)

This is a lengthy list of domain values. The domains are available at the following web location: http://www.blm.gov/or/datamanagement/index.php

A.3 dom_WETS_ACTIVITY

Instream Passage: Culvert Removal	Instream Passage: Culvert Removal
Instream Passage: Culvert Replacement	Instream Passage: Culvert Replacement
Instream Passage: Dams or Irrigation Diversions Removed	Instream Passage: Dams or Irrigation Diversions Removed
Instream Passage: Fish Ladder Installed	Instream Passage: Fish Ladder Installed
Instream Passage: Fish Ladder Improved	Instream Passage: Fish Ladder Improved
Instream Passage: Fish Screens Removed or Replaced	Instream Passage: Fish Screens Removed or Replaced
Instream Habitat: Gravel Placement	Instream Habitat: Gravel Placement
Instream Habitat: Boulders Placed	Instream Habitat: Boulders Placed
Instream Habitat: Large Woody Debris	Instream Habitat: Large Woody Debris
Instream Habitat: Boulders and Large Woody Debris	Instream Habitat: Boulders and Large Woody Debris
Instream Habitat: Channel Connectivity	Instream Habitat: Channel Connectivity
Instream Habitat: Streambank Restoration	Instream Habitat: Streambank Restoration
Riparian: Beaver Management	Riparian: Beaver Management
Riparian: Fencing (new or reconstructed)	Riparian: Fencing (new or reconstructed)
Riparian: Riparian/Upland Habitat Acquired	Riparian: Riparian/Upland Habitat Acquired
Riparian: Invasive Plant Management	Riparian: Invasive Plant Management
Riparian: Livestock Grazing Management	Riparian: Livestock Grazing Management
Riparian: Off Channel Watering	Riparian: Off Channel Watering
Riparian: Planting	Riparian: Planting
Riparian: Prescribed Burn	Riparian: Prescribed Burn
Riparian: Stand Conversion	Riparian: Stand Conversion
Riparian: Stand Thinning	Riparian: Stand Thinning
Roads/Trails: Eliminated	Roads/Trails: Eliminated
Roads/Trails Improved: Relocation or Upgrade	Roads/Trails Improved: Relocation or Upgrade
Roads Improved: Drainage or Stabilization	Roads Improved: Drainage or Stabilization
Upland: Erosion Structures or Slope Stabilization	Upland: Erosion Structures or Slope Stabilization
Upland: Invasive Plant Management	Upland: Invasive Plant Management
Upland: Livestock Grazing Management	Upland: Livestock Grazing Management
Upland: Stand Management	Upland: Stand Management
Wetlands Fresh or Coastal: Creation, Enhancement, or Restoration	Wetlands Fresh or Coastal: Creation, Enhancement, or Restoration

A.4 dom_WETS_AGENCY

BIA	BIA - Bureau of Indian Affairs
BLM	BLM - Bureau of Land Management
BOR	BOR - Bureau of Reclamation
BPA	BPA - Bonneville Power Admin / NW Power Plan. Council
COE	COE - Core of Engineers
EPA	EPA - Environmental Protection Agency
NGO	NGO - Non-Governmental Organization
NMFS	NMFS - National Marine Fisheries Service
NPS	NPS - National Parks Service
NRCS	NRCS - Natural Resources Conservation Service
USFS	USFS - US Forest Service
USFWS	USFWS - US Fish and Wildlife Service
Private	Private
Tribe	Tribal
State	State Government
County	County Government
Local	Local Government

A.5 dom_WETS_SUBACTIVITY

L1010	L1010 - Soil, Water, Air
L1020	L1020 - Range
L1040	L1040 - Riparian
L1110	L1110 - Wildlife
L1120	L1120 - Fish
L1150	L1150 - Threatened and Endangered Species
L1620	L1620 - Abandon Mine Lands (AML)
L1653	L1653 - Deferred Maintenance
L1660	L1660 - Annual Maintenance
L1770	L1770 - Challenge Cost Share (CCS)
L2642	L2642 - Central Hazmat Fund (CFH)
L5882	L5882 - Secure Rural Schools
L6254	L6254 - Annual Maintenance
L6310	L6310 - Forest Management
L6320	L6320 - Reforestation and Forest Development
L6333	L6333 - Soil, Water, Air
L6334	L6334 - Wildlife Habitat
L8100	L8100 – Range Improvments Public Domain Lands
L9340	L9340 - Emergency Repair of Federally Owned Roads (ERFO)
LF2200	LF2200 - Emergency Stabilization
LF3200	LF3200 - Burned Area Rehabilitation
Timber Sales	Western Oregon Timber Sales
Non BLM	Non BLM Funding

A.6 dom_WETS_ODF_FC

BURN_POLY	BURN_POLY
GEOBOB	GEOBOB
GRA_POLY	GRA_POLY
GTRN_ROADS	GTRN_ROADS
GTRN_TRAILS	GTRN_TRAILS
MECH_POLY	MECH_POLY
NHD_FLOWLINE	NHD_FLOWLINE
OWNERSHIP	OWNERSHIP
PROT_POLY	PROT_POLY
REVEG_POLY	REVEG_POLY
STRCT_ARC	STRCT_ARC
STRCT_PT	STRCT_PT
TreatmentComponentLocation	TreatmentComponentLocation

Appendix B: Supporting Documentation

This contains additional information designed to provide detailed instructions on how to enter watershed enhancements to ensure consistent reporting across districts.

B.1 WETS Activity Definition and Attribute Information

The WETS Activity Definition and Attribute Information spreadsheet contains detailed information about the WETS activity categories, activity definitions, the ODF feature classes that represent the spatial data for the watershed restoration activity, the ODF feature class field name (used to populate GIS_LINK), and information on how to properly measure the enhancements made to the watershed.

WETS Activity Definition and Attribute Information

WETS Activity	Definition	ODF Feature Class	Measure	How to Measure
Instream Passage: Culvert Removal	Removal, without replacement, of a stream crossing culvert on a fish-bearing stream.	STRCT_PT	Fish-bearing stream mile access improved above the point.	Measure the fish-bearing stream miles above the culvert until next barrier (if any). Use ARIMS or NHD to measure.
Instream Passage: Culvert Replacement	Replacing an improperly designed or improperly located stream crossing culvert with a fish passage culvert or bridge.	STRCT_PT	Fish-bearing stream mile access improved above the point.	Measure the fish-bearing stream miles above the culvert until next barrier (if any). Use ARIMS or NHD to measure.
Instream Passage: Dams or Irrigation Diversions Removed	Removal or partial removal of a dam or an irrigation diversion without replacement.	STRCT_PT	Fish-bearing stream mile access improved above the point.	Measure the fish-bearing stream miles above the dam or irrigation diversions until next barrier (if any). Use ARIMS or NHD to measure.
Instream Passage: Fish Ladder Installed	A new fish ladder installed to create or improve fish passage.	STRCT_PT	Fish-bearing stream mile access improved above the point.	Measure fish-bearing stream miles above ladder until next barrier (if any). Use ARIMS or NHD to measure.
Instream Passage: Fish Ladder Improved	Modification of an existing fish ladder to improve fish passage.	STRCT_PT	Fish-bearing stream mile access improved above the point.	Measure fish-bearing stream miles above ladder until next barrier (if any). Use ARIMS or NHD to measure.
Instream Passage: Fish Screens Removed or Replaced	Prohibiting fish from entering a diversion canal.	STRCT_PT	The number of screens.	The number of fish screens removed or replaced.
Instream Habitat: Gravel Placement	Add gravel to enhance spawning area in areas where natural gravel supplies are low due to anthropogenic disruptions.	STRCT_PT	Fish-bearing stream miles improved. One point per gravel placement site required.	For each gravel placement site record the stream miles treated (default is 0.01 miles).

WETS Activity Definition and Attribute Information

WETS Activity	Definition	ODF Feature Class	Measure	How to Measure
Instream Habitat: Boulders Placed	Projects include boulder placement and porous boulder weirs and vanes. Such activities will occur in areas where channel structure is lacking due to past stream cleaning, riparian timber harvest, and in areas where natural gravel supplies are low due to anthropogenic disruptions. These projects occur in stream channels and adjacent floodplains to increase channel stability, rearing habitat, pool formation, spawning gravel deposition, channel complexity, hiding cover, low velocity areas, and floodplain function.	STRCT_PT	Fish-bearing stream miles improved. One point per structure site required.	For activities with 5 or more structure sites per mile the stream mileage between the two furthest treatment sites is used. For activities with less than 5 structure sites per mile each site will be recorded as 0.1 mile.
Instream Habitat: Large Woody Debris	Projects include large wood placement, engineered log jams, rootwads and tree tipping. Such activities will occur in areas where channel structure is lacking due to past stream cleaning, riparian timber harvest, and in areas where natural gravel supplies are low due to anthropogenic disruptions. These projects occur in stream channels and adjacent floodplains to increase channel stability, rearing habitat, pool formation, spawning gravel deposition, channel complexity, hiding cover, low velocity areas, and floodplain function.	STRCT_PT	Fish-bearing stream miles improved. One point per structure site required.	For activities with 5 or more structure sites per mile the stream mileage between the two furthest treatment sites is used. For activities with less than 5 structure sites per mile each site will be recorded as 0.1 mile.

WETS Activity Definition and Attribute Information

WETS Activity	Definition	ODF Feature Class	Measure	How to Measure
Instream Habitat: Boulders and Large Woody Debris	Projects include large wood (LW) and boulder placement, porous boulder weirs and vanes, rootwads, and tree tipping for LW projects. Such activities will occur in areas where channel structure is lacking due to past stream cleaning (LW removal), riparian timber harvest, and in areas where natural gravel supplies are low due to anthropogenic disruptions. These projects will occur in stream channels and adjacent floodplains to increase channel stability, rearing habitat, pool formation, spawning gravel deposition, channel complexity, hiding cover, low velocity areas, and floodplain function.	STRCT_PT	Fish-bearing stream miles improved. One point per structure site required.	For activities with 5 or more structure sites per mile the stream mileage between the two furthest treatment sites is used. For activities with less than 5 structure sites per mile each site will be recorded as 0.1 mile.
Instream Habitat: Channel Connectivity	Construction or reconnection of the side channels and alcoves.	HYD_PUB_FLOWLINE	Stream miles of the side channel or alcoves from NHD.	Measure the stream mile length of the side channel or the alcove's artificial path.

WETS Activity Definition and Attribute Information

WETS Activity	Definition	ODF Feature Class	Measure	How to Measure
Instream Habitat: Streambank Restoration	Restoration implemented through bank shaping and installation of coir logs or other soil reinforcements as necessary to support riparian vegetation; planting or installing large wood, trees, shrubs, and herbaceous cover as necessary to restore ecological function in riparian and floodplain habitats; or a combination of the above methods. Such actions are intended to restore banks that have been altered through road construction, improper grazing, invasive plants, and more. In most cases bank stabilization is conducted to protect property from erosion rather than addressing concerns regarding excess sediment. For this reason, bank stability projects generally will not be considered restoration.	STRCT_PT	Stream miles of the bank restored.	Measure the stream mile length of the streambank restoration.
Riparian: Beaver Management	Activities designed to maintain or improve the distribution and the amount of beaver pond habitat. Examples include trans locating beaver(s) into unoccupied suitable habitat, beaver removal, wrapping valuable trees and shrubs with protective wiring, installing pond levelers, installing structures to encourage or discourage activity, etc.	GB_FAUNA_OBS (used for trans location and beaver removal) STRCT_PT	Acres of riparian habitat improved or created.	Westside: The district specialist estimates acres of riparian habitat improved or created within the riparian area using a minimum of 1 site potential tree height. Eastside: The district specialist estimates acres of riparian habitat improved or created within the riparian habitat conservation area.
Riparian: Fencing (new or reconstructed)	Fence construction or maintenance to exclude or deter livestock from entering the riparian area. Any fence built within the riparian habitat conservation area or to protect a spring would be a Riparian Fence.	STRCT_ARC	Acres of riparian habitat conservation area.	The district specialist estimates the riparian habitat conservation area or the spring acreage that was protected. The district specialist can use acreage from PROT_POLY or GRA_POLY if the data is spatially equivalent.

WETS Activity Definition and Attribute Information

WETS Activity	Definition	ODF Feature Class	Measure	How to Measure
Riparian/Upland: Habitat Acquired	Land acquired to protect, re-establish or enhance the watershed function.	OWNERSHIP_POLY	Acres of habitat acquired.	Acres of the land acquired.
Riparian: Invasive Plant Management	Treatments intended to establish or release desired vegetation. Methods include mechanical, chemical, prescribed fire, manual, mulching, and biological.	NISIMS Treatment from TreatmentComponentLocation (VCTR)	Acres of riparian zone within the treatment poly.	Westside: The district specialist estimates acres of riparian habitat improved or created within the riparian area using a minimum of 1 site potential tree height. Eastside: The district specialist estimates acres of riparian habitat improved or created within the riparian habitat conservation area.
Riparian: Livestock Grazing Management	Changes to the grazing season of use that improve the riparian status.	GRA_POLY	Acres of the riparian zone within the pasture polygon.	Acres of the riparian habitat conservation area, within the pasture, as estimated by the district specialist.
Riparian: Off Channel Watering	Off channel water troughs installed outside of the riparian habitat conservation area. Water developments that directly influence the distribution of livestock and are intended to move livestock away from riparian management areas. Developments include: Mechanical: examples include nose pumps (animal activated); electrical pumps including solar powered; and hydraulic ram pumps. Perennial streams are the typical water source, but wells and springs can also be used.Troughs and ponds: examples include systems that are primarily gravity fed through pipelines from streams or through physical blocking of stream channels. Perennial or intermittent streams are the typical water source. These developments may have an intermediate storage facility (above or below	STRCT_PT	Acres of the riparian habitat conservation area in the pasture that have been improved due to livestock dispersal.	Acres of the riparian habitat conservation area, within the pasture, as estimated by the district specialist.

WETS Activity Definition and Attribute Information

WETS Activity	Definition	ODF Feature Class	Measure	How to Measure
	ground tank).			
Riparian: Planting	Planting vegetation in the riparian areas to help restore riparian functions such as temperature control, bank stability, fine sediment control, natural channel morphology, and large woody debris recruitment.	REVEG_POLY	Acres of the riparian area planted.	Westside: The district specialist estimates acres of riparian habitat improved or created within the riparian area using a minimum of 1 site potential tree height. Eastside: The district specialist estimates acres of riparian habitat improved or created within the riparian habitat conservation area.
Riparian: Prescribed Burn	Reintroduction of low and moderate severity fire into the riparian areas to help restore plant species composition and structure that would occur under natural fire regimes.	BURN_POLY	Acres of the riparian area treated within the larger burn polygon.	Westside: The district specialist estimates acres of riparian habitat improved or created within the riparian area using a minimum of 1 site potential tree height. Eastside: The district specialist estimates acres of riparian habitat improved or created within the riparian habitat conservation area.
Riparian: Stand Conversion	Removing one species for a more desirable species to improve the riparian status and/or enhance fish habitat.	MECH_POLY	Acres of the riparian area treated within the larger treatment polygon.	Westside: The district specialist estimates acres of riparian habitat improved or created within the riparian area using a minimum of 1 site potential tree height. Eastside: The district specialist estimates acres of riparian habitat improved or created within the riparian habitat conservation area.

WETS Activity Definition and Attribute Information

WETS Activity	Definition	ODF Feature Class	Measure	How to Measure
Riparian: Stand Thinning	Removing selected trees to enhance desirable species growth or composition to improve the riparian function.	MECH_POLY	Acres of the riparian area treated within the larger treatment polygon.	Westside: The district specialist estimates acres of riparian habitat improved or created within the riparian area using a minimum of 1 site potential tree height. Eastside: The district specialist estimates acres of riparian habitat improved or created within the riparian habitat conservation area.
Roads/Trails Eliminated	Routes closed based on the impacts to resources and resource protection. This includes obliterated, decommissioned and full decommissioned. In the context of restoration, these are activities designed to decrease the risk of roads or trail failure and reduce chronic sediment input from roads or trails across all land uses.	GTRN_ROADS GTRN_TRAILS	Road or trail miles.	Length of the road or trail obliterated, decommissioned or fully decommissioned in miles.
Roads/Trails Improved: Relocation or Upgrade	Routes improved or relocated based on impacts to the resources and resource protection. In the context of restoration, these are activities designed to decrease the risk of roads or trail failure and reduce chronic sediment input from roads or trails across all land uses.	GTRN_ROADS GTRN_TRAILS	Road or trail miles.	Length of the road or trail relocated or upgraded in miles.
Roads Improved: Drainage or Stabilization	Drainage structures to maintain roads and reduce sediment delivery to waterbodies, e.g., relief culverts, water bars, ditch-outs.	STRCT_PT	Road miles.	Length of the road upgraded in miles. Default value of 0.02 miles (100 feet) per structure. Can be subjective to interpretation by the resource specialist.

WETS Activity Definition and Attribute Information

WETS Activity	Definition	ODF Feature Class	Measure	How to Measure
Upland: Erosion Structures or Slope Stabilization	Projects that improve the aquatic habitat by controlling the movement of sediment, nutrients, and other pollutants into surface water bodies.	STRCT_PT	Acres of at-risk downslope areas that have been protected from sediment delivery.	Project acres treated and the protected at-risk downslope areas that are outside of 1 site potential tree (Westside) or are outside of the riparian habitat conservation area (Eastside). Subjective interpretation must be made by resource specialist.
Upland: Invasive Plant Management	Treatments intended to establish or release desired vegetation. Methods include mechanical, chemical, prescribed fire, manual, mulching, and biological.	NISIMS Treatment from TreatmentComponentLocation (VCTR)	Acres of upland zone within the treatment poly.	Westside: The district specialist estimates acres of riparian habitat improved or created within the riparian area using a minimum of 1 site potential tree height. Eastside: The district specialist estimates acres of riparian habitat improved or created within the riparian habitat conservation area.
Upland: Livestock Grazing Management	Changes to the grazing season of use or fencing that improves upland status.	GRA_POLY	Acres of the upland area outside of the riparian habitat conservation area.	Acres outside of the riparian habitat conservation area, within the pasture, as estimated by the district specialist.
Upland: Stand Management	Actions designed in upland areas to minimize risk to riparian/aquatic system health and functions. Examples include juniper thinning or eradication, prescribe burning, seeding, etc.	MECH_POLY BURN_POLY REVEG_POLY	Acres of watershed improvements by treatment. It may be more or less than the treatment polygon.	Westside: The district specialist estimates acres of upland habitat improved or created outside the riparian area using a minimum of 1 site potential tree height. Eastside: The district specialist estimates acres of upland habitat improved or created outside the riparian habitat conservation area.

WETS Activity Definition and Attribute Information

WETS Activity	Definition	ODF Feature Class	Measure	How to Measure
Wetlands Fresh or Coastal: Creation, Enhancement, or Restoration	The restoration, construction or enhancement of the estuarine or freshwater wetlands designed to replace natural resource values and functions that wetlands provide.	STRCT_ARC STRCT_POINT REVEG_POLY BURN_POLY PROT_POLY	Acres of treatment.	Acres of the treatment area.