Oregon/Washington Bureau of Land Management

Fish Passage

Spatial Data Standard

Photo of fish in the Salmon River. Photo by Maria Thi Mai and Michael Campbell, BLM, taken on September 9, 2014.

Document Revisions

Revision	Date	Author	Description	Affected Pages
1.0	5/16/2017	Dana Baker-Allum, Scott Lightcap, Shelley Moore, Micah Babinski	1st released version.	All
1.2	3/6/2019	Eric Hiebenthal	Addition of create user and data, and last user and date.	Section 4,7.
1.3	1/22/2020	Al Thompson	Update format	All
1.4	12/10/2020	Dana Baker-Allum	Added Classifier Field, Changed FPBFYCRIT to allow nulls	4.1, 7.1, 7.19
2.0	12/12/2023	Dana Baker-Allum	Reformatted document to meet Section 508 standards and match the latest data standard template. Change name from Fish Passage Barriers to Fish Passage. Changed document cover photo. Updated FOIA category, keywords, and subject function codes. Updated architecture diagrams. Section 2.3 Removed text regarding appending NHD measures to data when sharing with ODFW. Section 3.2 to adjust text about managing attachments. Added default values for required fields. Modified edit tracking field names to match current ODF conventions. Adjusted domain names to better reflect ODF conventions. Added Appendix B to document fields that are visible for data entry. Added Unknown code to dom_FP_ORGNTR_NM domain.	All

Navigation

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

This document uses hyperlinks to display additional information on topics. External links are displayed with an underline.

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Contents

1 General Information

The Fish Passage (FPB) dataset represents basic information about existing and potential barriers to fish passage in watercourses, e.g., dams, culverts, bridges, tide gates, and weirs. In addition to basic information about barriers, the dataset provides general passage status. This standard does not include dikes, levees, burns, or water quality / quantity-related barriers that are not associated with in-stream features.

- Dataset (Theme) Name: Fish Passage
- Dataset (Feature Class): FISH_PASSAGE_TBL

1.1 Roles and Responsibilities

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

- State Data Steward - the State Data Steward responsibilities include approving data standards and business rules, developing Quality Assurance/Quality Control procedures, identifying potential Privacy issues, and managing that data as a corporate resource. The State Data Steward coordinates with field office data stewards, the State Data Administrator, Geographic Information System (GIS) coordinators, and national data stewards. The State Data Steward reviews geospatial metadata for completeness and quality.
- GIS Technical Lead - the GIS Technical Lead works with data stewards to convert business needs into GIS applications and derive data requirements and participates in the development of data standards. The GIS technical lead coordinates with system administrators and GIS coordinators to manage the GIS databases. The GIS technical lead works with data editors to ensure the consistency and accordance with the established data standards of data input into the enterprise Spatial Database Engine (SDE) geodatabase. The GIS technical lead provides technical assistance and advice on GIS analysis, query, and display of the dataset.
- State Data Administrator - the State Data Administrator provides information management leadership, data modeling expertise, and custodianship of the state data models. The State Data Administrator ensures compliance with defined processes for development of data standards and metadata, and process consistency and completeness. The State Data Administrator is responsible for making data standards and metadata accessible to all users. The State Data Administrator coordinates with data stewards and GIS coordinators to respond to national spatial data requests.
- State FOIA/Privacy Act Team Lead - the State FOIA/Privacy Act team lead assists the state data steward to identify any privacy issues related to spatial data. The State FOIA/Privacy Act team lead also provides direction and guidance on data release, fees, and classification under the appropriate Freedom of Information Act exemption.
- State Records Administrator - the state records administrator classifies data under the proper records retention schedule.

1.2 FOIA Category

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

1.3 Records Retention Schedule

The DRS/GRS/BLM Combined Records Schedule, under Schedule **20/52a5** (Electronic Records/Geographic Information Systems), lists this theme, **Infrastructure**, as one of the system-centric themes that are significant for BLM's mission that must be permanently retained.

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

Oregon/Washington (OR/WA) Bureau of Land Management (BLM) Guidebook for Management of Geospatial Data (v1) Section 15.2 - Corporate Data Online Archives prescribes:

Vector annual archives are retained online for 12 years. Each year, data that has reached 12 years old is copied off-line to be retained until no longer needed (determined by data stewards and program leads) with format and readability maintained in a five (5) year "tech refresh" update cycle."

1.4 Security/Access/Sensitivity

This theme does not require any additional security other than that provided by the General Support System (the hardware/software infrastructure of the OR/WA BLM).

This dataset is sensitive and there are restrictions on access to this data, either from within the BLM or external to the BLM. These data fall under the standard Records Access Category 1B - BLM Records that may contain protected information that must be considered for segregation prior to release.

There are no privacy issues or concerns associated with these data themes. A privacy impact assessment was signed for this dataset on 12/4/2023.

1.5 Keywords

Keywords that can be used to locate this dataset include:

- BLM Thesaurus: Hydrology, Wildlife, Disturbance
- Additional keywords: Fish Passage, Fish Passage Barriers
- ISO Thesaurus: biota, environment, structure

1.6 Subject Function Codes

BLM Subject Function codes used to describe this dataset include:

- 1283 - Data Administration
- 6720 – Aquatic Resource Management
- 6762 – Stream Management
- 9167 - Geographic Information System (GIS)

2 Dataset Overview

2.1 Usage

Use this dataset to depict road stream crossings on fish bearing streams, to identify fish passage restoration needs, and to assess fish passage restoration actions.

2.2 Sponsor/Affected Parties

The sponsor for this dataset is the Deputy State Director, Resource Planning, Use and Protection.

Affected parties include the Oregon Department of Fish and Wildlife (ODFW) who BLM shares this data with.

2.3 Relationship to Other Datasets, Databases, or Files

The FPB dataset is related to the OR/WA Structures dataset. FPB inherits its spatial location and core attributes from Structures. There is a 1:1 relationship between the Structures feature class and the Fish Passage Barrier table (i.e., a structure point may have zero or one related Fish Passage Barrier records).

FPB is aligned to the State of Oregon Fish Passage Barrier Standard Version 1.1 (2010). This data standard is available at http://www.oregon.gov/geo/standards/Fish%20Passage%20Barrier%20Standard,%20v%201.1%20(pdf).pdf.

Note: Six fields that appear in the Oregon Fish Passage Barrier Standard do not appear in the OR/WA BLM FPB table. This is because there are corresponding fields in the Structures feature class that meets those data needs. Those fields are:

- Fish Passage Barrier Location Accuracy (fpbLocAccu) crosswalks to the Structures ACCURACY_FT field.
- Fish Passage Barrier Feature Type (fpbFtrTy) crosswalks to the Structures STRCT_PT_TYPE field.
- Fish Passage Barrier Feature Name (fpbFtrNm) crosswalks to the Structures STRCT_NAME field.
- Fish Passage Barrier Reach Code (ReachCode) crosswalks to the Structures NHD_REACHCODE field.
- Fish Passage Barrier Origin Year (fpbOrYr) crosswalks to the Structures COMPLT_DT field.
- Fish Passage Barrier Owner (fpbOwn) crosswalks to the Structures FAC_ADMIN field.

Data will be shared annually with the Oregon Department of Fish and Wildlife.

2.4 Data Category/Architecture Link

This data theme is a portion of the Oregon Data Framework (ODF) shown in Figure 1, Oregon Data Framework (ODF) Overview on page 9. The illustration is a simplified schematic of the entire ODF showing the overall organization and entity inheritance. The ODF utilizes the concept of inheritance to define specific instances of data. The ODF divides all OR/WA resource-related data into three general categories:

- Activities
- Resources
- Boundaries

These general categories are broken into sub-categories that inherit spatial characteristics and attributes from their parent category. These sub-categories may be further broken into more specific groups until the basic data set cannot be further sub-divided. Those basic data sets inherit all characteristics of all groups/categories above them. The basic data sets are where physical data gets populated. Those groups/categories above them do not contain actual data but set parameters which all data of that type must follow.

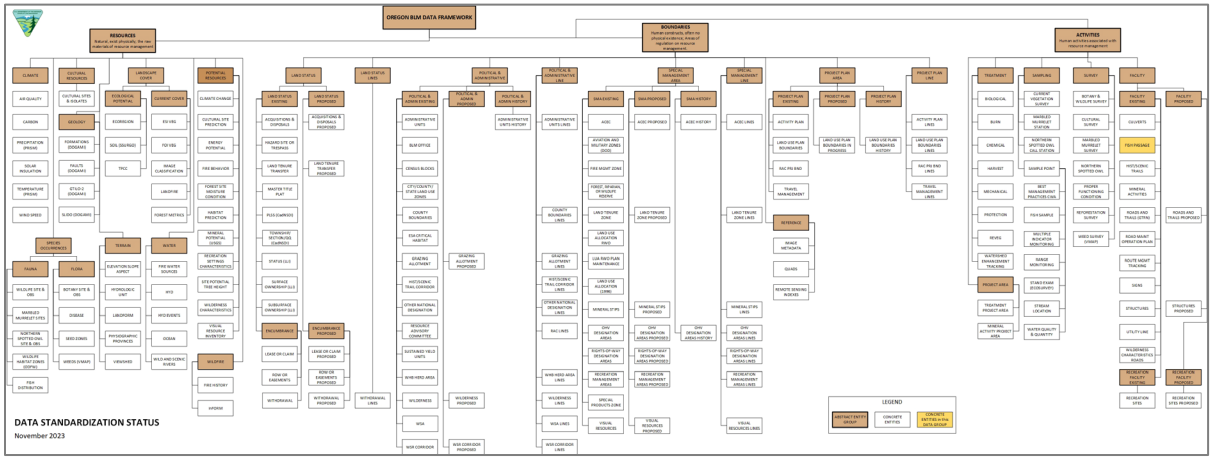

Figure 1 Oregon Data Framework Overview

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

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

In the ODF, Fish Passage is considered an Activity and categorized as follows:

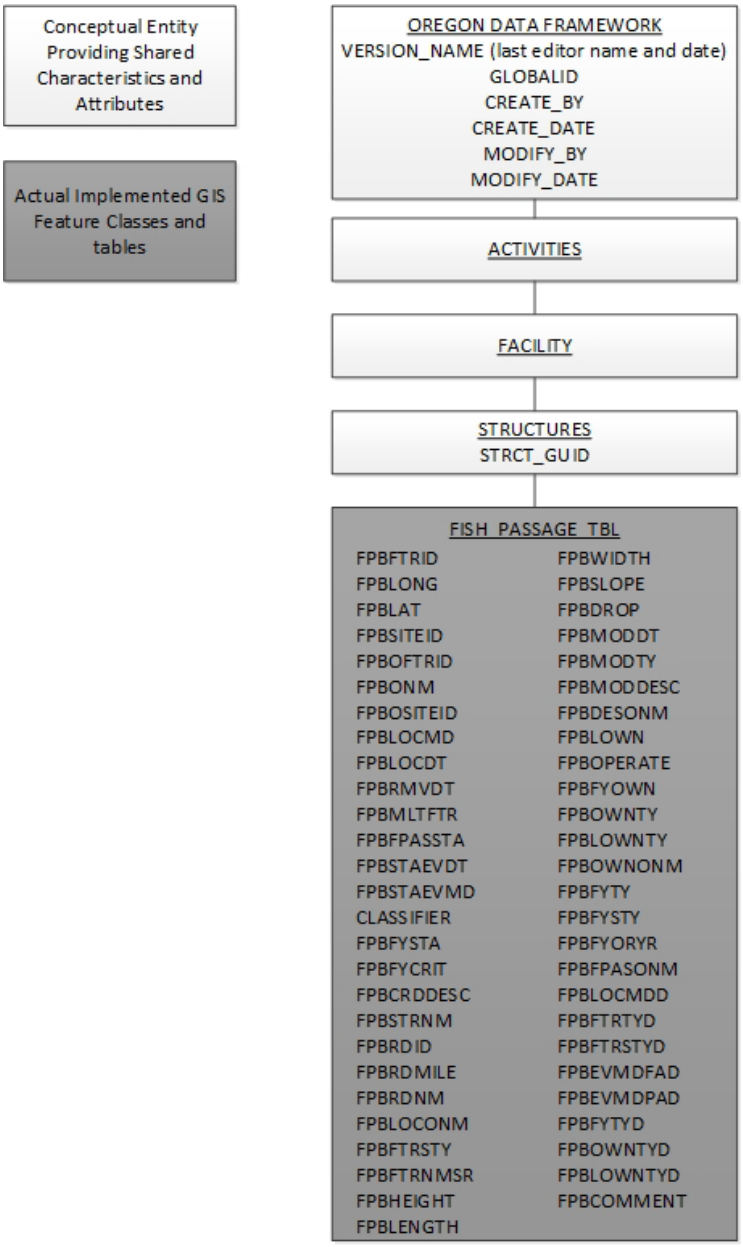

Figure 2 Data Organization Structure

2.5 Relationship to DOI Enterprise Architecture Data Resource Mode

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

- Data Subject Area: Geospatial
- Information Class: Location

3 Data Management Protocols

3.1 Accuracy Requirements

Since structures have a physical existence on the ground, it is possible to map their locations with a high degree of accuracy. Accuracy is, however, variable because of a wide variety of sources. The claimed +/- range is captured in the attribute ACCURACY_FT. Over time, the accuracy will continue to improve as you note structure locations using the Global Positioning System (GPS) or carefully mapped. Features should be snapped to a stream and a road if the feature exists at a stream/road intersection. The ACCURACY_FT field should capture the accuracy of the GPS coordinates, if you capture coordinates, and not the accuracy of the point in the GIS.

3.2 Collection, Input, and Maintenance Protocols

Create fish passage barriers as needed by natural resources and GIS staff using GIS software. Trained editors will use the BLM SDE Version Management extension to automatically load the correct editable layers to the user's map document and perform a wide range of valuable background processes to improve data integrity. The version check-in process leverages the Data Reviewer extension for ArcGIS.

Only editors approved by the data stewards and BLM GIS staff will edit fish passage barriers. Do not create fish passage barriers where fish are not present or historically present on the stream. Fish passage barrier records should only be created for structures that are (or historically were) a barrier to fish passage and should not be created for all culverts.

An important aspect of fish passage barriers is that they maintain coincidence with GTRN roads and hydrography features. Populate the existing NHD_REACHCODE and FAMSKEY attributes in the ODF Structures feature classes, where possible. This information will aid the QAQC processes designed for Fish Passage Barriers by OR/WA BLM staff.

The ArcGIS software allows you to attach photos to the input coordinates. The photos are stored as geodatabase "attachments", which utilizes a "related table" that is linked to the spatial record. The ArcGIS software, not GIS editors, manages this table directly. Attachments are extracted from the data automatically during the edit version reconcile and post process and the network location of the photo is stored in the FILEPATH attribute.

3.3 Update Frequency and Archival Protocols

Update data as needed, but at least annually. Capture data once a year during the corporate database annual archive, which occurs at the end of the calendar year.

3.4 Statewide Monitoring

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

- Checks that all attribute values conform to the range or coded-value domains to which they are applied.
- Checks that all attributes marked as required in the data standard have values.
- Checks for multipart polygons if they are forbidden by the data standard.
- Checks for duplicate features which have the same geometry and attributes.
- Checks for overlapping features if forbidden by the data standard.

- Checks for invalid geometry (such as self-intersections)
- Checks for slivers
- Other checks as necessary (can be customized according to the data standard)

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

In addition to the annual data QAQC process described above, develop a separate process to identify features that are not coincident with Hydrography and GTRN. Run this process on a schedule to be determined in the future.

4 Fish Passage Schema (simplified)

General Information: Attributes are listed in the order they appear in the geodatabase feature class. The order is an indication of the importance of the attribute for theme definition and use. There are no aliases unless specifically noted. The domains used in this data standard can be found in Appendix A. These are the domains at the time the data standard was approved. Domains can be changed without a re-issue of the data standard. Current domains are found on the internal OR/WA SharePoint data management page. Some of the domains used in this data standard are also available at the following web site: https://www.blm.gov/about/data/oregon-data-management.

For domains not listed at that site contact: State Data Administrator.

4.1 FISH_PASSAGE_TBL Table (Fish Passage Table)

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

Attribute Name	Data Type	Length	Default Value	Required	Domain
STRCT_GUID	GUID			Yes ***	
FPBFTRID	Long Integer			No	
FPBLONG	Double		0	Yes *	
FPBLAT	Double		0	Yes *	
FPBOSITEID	Long			No	
FPBOFTRID	String	40		Yes	
FPBONM	String	30	Unknown	Yes	dom_FP_ORGNTR_NM
FPBOSITEID	String	40		Yes	
FPBLOCMD	String	15	Unknown	Yes	dom_FP_LOC_MTHD
FPBLOCDT	String	8	00000000	Yes	
FPBRMVDT	String	8		Conditional	
FPBMLTFTR	String	7	unknown	Yes	dom_FP_FLAG
FPBFPASSTA	String	8	Unknown	Yes	dom_FP_PASS_STTS
FPBSTAEVDT	String	8	00000000	Yes	
FPBSTAEVMD	String	20	Unknown	Yes	dom_FP_STTS_EVAL_MTHD
CLASSIFIER	String	30		No	
FPBFYSTA	String	20	No fishway	Yes	dom_FP_FSHWY_STTS
FPBFYCRIT	String	7		No	dom_FP_FLAG
FPBCRDDESC	String	254		No	
FPBSTRNM	String	50		No	
FPBRDID	String	13		No	
FPBRDMILE	Double			No	
FPBRDNM	String	50		No	
FPBLOCONM	String	30		No	
FPBFTRSTY	String	30		No	dom_FP_FTR_SEC_TYPE
FPBFTRNMSR	String	5		No	

Attribute Name	Data Type	Length	Default Value	Required	Domain
FPBHEIGHT	Double			No	
FPBLENGTH	Double			No	
FPBWIDTH	Double			No	
FPBSLOPE	Double			No	
FPBDROP	Double			No	
FPBMODDT	String	8		No	
FPBMODTY	String	10		No	dom_FP_MOD_TYPE
FPBMODDESC	String	254		No	
FPBDESONM	String	30		No	
FPBLOWN	String	60		No	
FPBOPERATE	String	60		No	
FPBFYOWN	String	60		No	
FPBLOWNTY	String	15		No	dom_FP_OWN_TYPE
FPBOWNONM	String	30		No	
FPBFYTY	String	15		No	dom_FP_FSHWY_TYPE
FPBFYSTY	String	20		No	dom_FP_FSHWY_SEC_TYPE
FPBFYORYR	String	4		No	
FPBFPASONM	String	30		No	
FPBLOCMDD	String	100		No	
FPBFYTYD	String	100		No	
FPBFTRSTYD	String	100		No	
FPBEVMDFAD	String	100		No	
FPBEVMDPAD	String	100		No	
FPBFYTYD	String	100		No	
FPBLOWNTYD	String	100		No	
FPBLOWNTYD	String	100		No	
FPBCOMMENT	String	254		No	
VERSION_NAME	String	50	InitialLoad	Yes **	
GLOBALID	GUID			Yes *	
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	

* Values automatically generated

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

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

5 Projection and Spatial Extent

There are no spatial entities described in this data standard.

6 Spatial Entity Characteristics

There are no spatial entities described in this data standard.

7 Attribute Characteristics and Definition (In alphabetical order)

7.1 CLASSIFIER

Geodatabase Name	CLASSIFIER
BLM Structured Name	Classifier_Name
Alias	Classifier
Inheritance	Inherited from entity ACTIVITIES
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Name (mixed case, first and last) of the subject matter specialist most knowledgeable about the construction project (contact). Simple name of a person has been determined not to be a privacy issue, so these attribute values are published with the web-based downloadable data.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: Mary Smith, John Doe
Data Type	String (30)

7.2 CREATE_BY

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

7.3 CREATE_DATE

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

7.4 FPBCOMMENT

Geodatabase Name	FPBCOMMENT
BLM Structured Name	Fish_Passage_Barrier_Comment_Text
Alias Name	Comments
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Additional, relevant information about the fish passage barrier feature, passage conditions, modifications, etc. that supplements the existing required and optional attribute elements.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: “Inadequate passage, blocks juvenile salmon.”, “Location of culvert uncertain - likely on side trib to W Fk Cow Cr (ODFW QA review) Inadequate passage, blocks juvenile salmon.”
Data Type	String (254)

7.5 FPBCRDDESC

Geodatabase Name	FPBCRDDESC
BLM Structured Name	Fish_Passage_Barrier_Coordinate_Description_Text
Alias Name	Coord Desc
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Identifies exact location to which coordinates refer (e.g., centerline of road-stream crossing for a culvert).
Required/Optional	Optional
Domain (Valid Values)	No Domain. Example: “Approximate location of barrier feature.”

Data Type	String (254)

7.6 FPBDESONM

Geodatabase Name	FPBDESONM
BLM Structured Name	Fish_Passage_Barrier_Description_Data_Source_Originator_Name_Text
Alias Name	Desc Src Originator Name
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Name of description data source originator/entity (if different from identification data originator). Description data includes the following attribute elements: fpbFtrTy, fpbWidth, fpbFtrSTy, fpbSlope, fpbFtrNm, fpbDrop, fpbRmvDt, fpbOrYr, fpbMltFtr, fpbModDt, fpbHeight, fpbFtrTyD, fpbLength. Data originators have the option of submitting separate source information for the location, description, ownership, and fish passage-related elements of a fish passage barrier feature. If all elements of the record come from the same source (fish passage barrier originator name), then each of four "other" originator fields can be populated with a value = "same."
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: "MPRA Salem District BLM", "same"
Data Type	String (30)

7.7 FPBDROP

Geodatabase Name	FPBDROP
BLM Structured Name	Fish_Passage_Barrier_Drop_Number
Alias Name	Drop
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Distance from culvert outlet to the water surface of the pool below (feet, 1 decimal).
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: 1.6, 8.5
Data Type	Double

7.8 FPBEVMDFAD

Geodatabase Name	FPBEVMDFAD
BLM Structured Name	Fish_Passage_Barrier_Status_Full_Evaluation_Method_Description_Text
Alias Name	Status Full Eval Mth Desc

Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage status evaluation method – description for “other full assessment”.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: “ODFW Barrier Status Criteria”, “ODFW Evaluation Method”
Data Type	String (100)

7.9 FPBEVMDPAD

Geodatabase Name	FPBEVMDPAD
BLM Structured Name	Fish_Passage_Barrier_Status_Partial_Evaluation_Method_Description_Text
Alias	Status Partial Eval Mth Desc
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage status evaluation method – description for “other partial assessment”.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Example: “Professional judgement”
Data Type	String (100)

7.10 FPBFPASONM

Geodatabase Name	FPBFPASONM
BLM Structured Name	Fish_Passage_Barrier_Data_Source_Originator_Name_Text
Alias	Fish Pass Data Source
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Name of Fish Passage data source originator / entity (if different from identification data originator). Passage data include the following attribute elements: fpbFPasSta, fpbStaEvDt, fpbStaEvMd, fpbFySta, fpbFyTy, fpbFySTy, fpbFyOrYr, fpbEvMdFAD, fpbEvMdPAD, fpbFyTyD. Data originators have the option of submitting separate source information for the location, description, ownership, and fish passage-related elements of a fish passage barrier feature. If all elements of the record come from the same source (fish passage barrier originator name), then each of these four “other” originator fields can be populated with a value = “same.”
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: “Siuslaw Watershed Council”, “same”
Data Type	String (30)

7.11 FPBFPASSTA

Geodatabase Name	FPBFPASSTA
BLM Structured Name	Fish_Passage_Barrier_Fish_Passage_Status_Code
Alias Name	Passage Status
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Status of Fish Passage at the fish passage barrier feature. Tracks passage status general to all species present and is not intended to store species-specific passage status information.
Required/Optional	Required
Domain (Valid Values)	dom_FP_PASS_STTS
Data Type	String (8)

7.12 FPBFTRID

Geodatabase Name	FPBFTRID
BLM Structured Name	Fish_Passage_Barrier_Feature_Identifier
Alias Name	Ftr Id
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Framework unique identifier for the fish passage barrier features that obstruct or potentially obstruct fish passage. Generated by the Horizontal Steward – Oregon Department of Fish and Wildlife. Features such as fishways, designed to facilitate passage at an obstruction, will not have a separate passage identifier (FPBFTRID) value assigned. Track fishways via an attribute that is associated with a specific fish passage barrier feature.
Required/Optional	Optional
Domain (Valid Values)	No Domain.
Data Type	Long Integer

7.13 FPBFTRNMSR

Geodatabase Name	FPBFTRNMSR
BLM Structured Name	Fish_Passage_Barrier_Feature_Name_Source_Text
Alias Name	Ftr Name Src
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature name source (GNIS or other).
Required/Optional	Optional

Domain (Valid Values)	No Domain. Examples: “other”
Data Type	String (5)

7.14 FPBFTRSTY

Geodatabase Name	FPBFTRSTY
BLM Structured Name	Fish_Passage_Barrier_Feature_SubType_Code
Alias Name	Barrier Feature Subtype
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature subtype. Captures additional detail for dams, culverts, tide gates and fords. Tide gate codes are not mutually exclusive. Assign the code for mechanically controlled tide gates first, then choose from the remaining categories.
Required/Optional	Optional
Domain (Valid Values)	dom_FP_FTR_SEC_TYPE
Data Type	String (30)

7.15 FPBFTRSTYD

Geodatabase Name	FPBFTRSTYD
BLM Structured Name	Fish_Passage_Barrier_Feature_Subtype_Description_Text
Alias Name	Ftr Subtype Desc
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature subtype – description for “other”.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Example: “Oval”
Data Type	String (100)

7.16 FPBFTRTYD

Geodatabase Name	FPBFTRTYD
BLM Structured Name	Fish_Passage_Barrier_Feature_Type_Description_Text
Alias Name	Ftr Type Desc
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature type – description for “other”.
Required/Optional	Optional

Domain (Valid Values)	No Domain. Example: “Low water crossing”
Data Type	String (100)

7.17 FPBFYCRIT

Geodatabase Name	FPBFYCRIT
BLM Structured Name	Fish_Passage_Barrier_Fishway_Passage_Criteria_Code
Alias Name	Fishway Passage?
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Description of whether fishway meets fish passage criteria. This field should only be populated if the FPBFYSTA indicates there is a fishway.
Required/Optional	Optional
Domain (Valid Values)	dom_FP_FLAG
Data Type	String (7)

7.18 FPBFYORYR

Geodatabase Name	FPBFYORYR
BLM Structured Name	Fish_Passage_Barrier_Origin_Year_Text
Alias Name	Origin Year
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	The year the fishway was built or installed (origin year).
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: “1962”, “2008”
Data Type	String (4)

7.19 FPBFYOWN

Geodatabase Name	FPBFYOWN
BLM Structured Name	Fish_Passage_Barrier_Fishway_Owner_Text
Alias Name	Fishway Owner
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Owner of the fishway.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: “USFS”, “The Nature Conservancy”

Data Type	String (60)

7.20 FPBFYSTA

Geodatabase Name	FPBFYSTA
BLM Structured Name	Fish_Passage_Barrier_Fishway_Status_Code
Alias Name	Fishway Status
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fishway status. When fishway status is coded as “none”, then the fishway type (FPBFYTY) and fishway subtype (FPBFYSTY) should be coded as null.
Required/Optional	Required
Domain (Valid Values)	dom_FP_FSHWY_STTS
Data Type	String (20)

7.21 FPBFYSTY

Geodatabase Name	FPBFYSTY
BLM Structured Name	Fish_Passage_Barrier_Fishway_Subtype_Code
Alias Name	Fishway Subtype
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fishway subtype. Associate fishways with a culvert if there is an additional structure for fish passage purposes such as fish ladder, full-spanning weirs, or a roughened channel that is not within or under the culvert barrel.
Required/Optional	Optional
Domain (Valid Values)	dom_FP_FSHWY_SEC_TYPE
Data Type	String (20)

7.22 FPBFYTY

Geodatabase Name	FPBFYTY
BLM Structured Name	Fish_Passage_Barrier_Fishway_Type_Code
Alias Name	Fishway Type
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fishway type. Culverts, even if they provide fish passage, are not considered fishways. Associated a fishways with a culvert if there is an additional structure for fish passage purposes such as a fish ladder, full-spanning weirs, or a roughened channel that is not within or under the culvert barrel.

Required/Optional	Optional
Domain (Valid Values)	dom_FP_FSHWY_TYPE
Data Type	String (15)

7.23 FPBFYTYD

Geodatabase Name	FPBFYTYD
BLM Structured Name	Fish_Passage_Barrier_Fishway_Type_Description_Text
Alias Name	Fishway Type Desc
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fishway type – description for “other”.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: “Unspecified ladder”, “Concrete jump pools”
Data Type	String (100)

7.24 FPBHEIGHT

Geodatabase Name	FPBHEIGHT
BLM Structured Name	Fish_Passage_Barrier_Height_Number
Alias Name	Height (ft)
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature height (feet, 1 decimal).
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: 1.5, 2.5
Data Type	Double

7.25 FPBLAT

Geodatabase Name	FPBLAT
BLM Structured Name	Fish_Passage_Barrier_Latitude_Number
Alias Name	Lat
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Latitudinal planar component of point location on earth’s surface, in a known projection system (documented in metadata).
Required/Optional	Required

Domain (Valid Values)	No Domain. Examples: 44.9743, 44.207
Data Type	Double

7.26 FPBLENGTH

Geodatabase Name	FPBLENGTH
BLM Structured Name	Fish_Passage_Barrier_Length_Number
Alias Name	Length (ft)
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature length (feet, 1 decimal). This distance is the measure between the furthest upstream and furthest downstream parts of the feature. Most commonly it is measured for culverts but could also apply to other feature types.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: 20, 27
Data Type	Double

7.27 FPBLOCDT

Geodatabase Name	FPBLOCDT
BLM Structured Name	Fish_Passage_Barrier_Location_Date_Text
Alias Name	Loc Date (YYYYMMDD)
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Most recent date of location data collection (YYYYMMDD). Data originators should populate date elements as completely as possible; however, partial date information will be accepted. If the month and year are known, use zeros to populate the day portion of the date element. If only the year is known, use zeros to populate the month and day portion of the date element. If the date is unknown, use zeros to populate the entire element (e.g., 20011200, 20010000, 00000000).
Required/Optional	Required
Domain (Valid Values)	No Domain. Examples: “20130401”, “00000000”
Data Type	String (8)

7.28 FPBLOCMD

Geodatabase Name	FPBLOCMD
BLM Structured Name	Fish_Passage_Location_Method
Alias Name	Loc Method

Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Method used to collect or generate location information.
Required/Optional	Required
Domain (Valid Values)	dom_FP_LOC_MTHD
Data Type	String (15)

7.29 FPBLOCMDD

Geodatabase Name	FPBLOCMDD
BLM Structured Name	Fish_Passage_Barrier_Location_Method_Description_Text
Alias Name	Loc Method Desc
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature location collection method – description for "other".
Required/Optional	Optional
Domain (Valid Values)	No Domain. Example: "Digitally derived (GIS road and stream intersections) with (resource grade) Field – GPS"
Data Type	String (100)

7.30 FPBLOCONM

Geodatabase Name	FPBLOCONM
BLM Structured Name	Fish_Passage_Barrier_Location_Data_Source_Originator
Alias Name	Loc Src Originator
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Name of location data source originator / entity (if different from identification data originator). Location data include the following attribute elements: fpbLong, fpbLat, fpbLocMthd, fpbLocAccu, fpbLocDt, fpbCrdDesc, fpbLocMdD, fpbStrID, fpbStrMeas, fpbStrNm, fpbRdID, fpbRdMeas, fpbRdNm. Data originators have the option of submitting separate source information for the location, description, ownership, and fish passage-related elements of a fish passage barrier feature. If all elements of the record come from the same source (fish passage barrier originator name), then each of four "other" originator fields can be populated with a value = "same."
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: "same", "BLM"
Data Type	String (30)

7.31 FPBLONG

Geodatabase Name	FPBLONG
BLM Structured Name	Fish_Passage_Barrier_Longitude_Number
Alias Name	Long
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Longitudinal planar component of point location on earth's surface, in a known projection system (documented in metadata).
Required/Optional	Required
Domain (Valid Values)	No Domain. Examples: -123.513, -123.4271
Data Type	Double (8,4)

7.32 FPBLOWN

Geodatabase Name	FPBLOWN
BLM Structured Name	Fish_Passage_Barrier_Landowner_Text
Alias Name	Land Owner
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Owner of the land where the fish passage barrier feature is located.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: "USBLM", "Private"
Data Type	String (60)

7.33 FPBLOWNTY

Geodatabase Name	FPBLOWNTY
BLM Structured Name	Fish_Passage_Barrier_Feature_Landowner_Type_Code
Alias Name	Landowner Type
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature landowner type.
Required/Optional	Optional
Domain (Valid Values)	dom_FP_OWN_TYPE
Data Type	String (15)

7.34 FPBLOWNTYD

Geodatabase Name	FPBLOWNTYD
BLM Structured Name	Fish_Passage_Barrier_Feature_Landowner_Type_Description
Alias Name	Landowner Type Desc
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature landowner type – description for “other”.
Required/Optional	Optional
Domain (Valid Values)	No Domain.
Data Type	String (100)

7.35 FPBMLTFTR

Geodatabase Name	FPBMLTFTR
BLM Structured Name	Fish_Passage_Barrier_Multiple_Features_Code
Alias Name	Multiple Features?
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Flag for multiple fish passage barrier features at a site (yes / no / unknown). Identifies the existence of multiple culvert barrels at a single road–stream crossing.
Required/Optional	Required
Domain (Valid Values)	dom_FP_FLAG
Data Type	String (7)

7.36 FPBMODDESC

Geodatabase Name	FPBMODDESC
BLM Structured Name	Fish_Passage_Barrier_Feature_Modification_Description_Text
Alias Name	Mod Desc
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Detailed description of the fish passage barrier feature modification.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: “boulder placement”, “culvert improvement”
Data Type	String (254)

7.37 FPBMODDT

Geodatabase Name	FPBMODDT
BLM Structured Name	Fish_Passage_Barrier_Feature_Modification_Date_Text
Alias Name	Mod Date (YYYYMMDD)
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature modification date (YYYYMMDD). Track passage modifications via records that are stored in the database. Though partial date information is acceptable, data originators should populate date elements as completely as possible. If only the month and year are known, populate the day portion of the date element with zeros. If only the year is known, populate the month and day portion of the date element with zeros. If the date is unknown, use zeros to populate the entire element (e.g., 20011200, 20010000, 00000000).
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: “19980900”, “20140205”
Data Type	String (8)

7.38 FPBMODTY

Geodatabase Name	FPBMODTY
BLM Structured Name	Fish_Passage_Barrier_Feature_Modification_Type_Code
Alias Name	Mod Type
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Type of modification made to the fish passage barrier feature to improve fish passage.
Required/Optional	Optional
Domain (Valid Values)	dom_FP_MOD_TYPE
Data Type	String (10)

7.39 FPBOFTRID

Geodatabase Name	FPBOFTRID
BLM Structured Name	Fish_Passage_Barrier_Originator_Feature_Identifier
Alias Name	Originator Ftr ID
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Unique ID for each fish passage barrier feature at a site, generated by the source originator / entity that provides the data. If the data originator identifies a site as having multiple features, it will be required to uniquely identify each of the fish passage barrier features at the

	site using the FPBOFTRID. If the site does not have multiple features, the FPBOSITEID and the FPBOFTRID may be the same.
Required/Optional	Required
Domain (Valid Values)	No Domain. Examples: “BLMEug2485”, “BLMMed22372122168-B”
Data Type	String (40)

7.40 FPBONM

Geodatabase Name	FPBONM
BLM Structured Name	Fish_Passage_Barrier_Originator_Name_Text
Alias Name	Originator Name
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Name of source originator / entity that provides the data.
Required/Optional	Required
Domain (Valid Values)	dom_FP_OWN_TYPE
Data Type	String (30)

7.41 FPBOPERATE

Geodatabase Name	FPBOPERATE
BLM Structured Name	Fish_Passage_Barrier_Feature_Operator
Alias Name	Operator
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Operator of the fish passage barrier feature.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Example: “Oregon Department of Fish & Wildlife”
Data Type	String (60)

7.42 FPBOSITEID

Geodatabase Name	FPBOSITEID
BLM Structured Name	Fish_Passage_Barrier_Owner_Site_Identifier
Alias Name	Owner Site ID
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Unique ID for each fish passage barrier site, generated by the data originator

Required/Optional	Required
Domain (Valid Values)	No Domain. Examples: “BLMRos50”, ”5091”
Data Type	String (40)

7.43 FPBOWNONM

Geodatabase Name	FPBOWNONM
BLM Structured Name	Fish_Passage_Barrier_Ownership_Data_Originator_Name_Text
Alias Name	Ownership Originator Name
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Name of ownership data source originator / entity (if different from identification data originator). Ownership data include the following attribute elements: fpbOwn, fpbLOwn, fpbOperate, fpbFyOwn, fpbOwnTy, fpbLOwnTyD
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: “MPRA Salem District BLM”, “USFS”
Data Type	String (30)

7.44 FPBOWNTY

Geodatabase Name	FPBOWNTY
BLM Structured Name	Fish_Passage_Barrier_Feature_Owner_Type_Code
Alias Name	Owner Type
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature owner type.
Required/Optional	Optional
Domain (Valid Values)	dom_FP_OWN_TYPE
Data Type	String (15)

7.45 FPBOWNTYD

Geodatabase Name	FPBOWNTYD
BLM Structured Name	Fish_Passage_Barrier_Feature_Owner_Type_Description_Text
Alias Name	Owner Type Desc
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature owner type – description for “other”.

Required/Optional	Optional
Domain (Valid Values)	No Domain.
Data Type	String (100)

7.46 FPBRDID

Geodatabase Name	FPBRDID
BLM Structured Name	Fish_Passage_Barrier_Road_Identifier_Text
Alias Name	Road ID
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Road route identifier (Framework – OR Road Centerline).
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: 21, 21-4-20
Data Type	String (13)

7.47 FPBRDMILE

Geodatabase Name	FPBRDMILE
BLM Structured Name	Fish_Passage_Barrier_Road_Mile_Number
Alias Name	Road Mile
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Field measurement of road mile point (miles to 3 decimal places).
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: 3.879, 27.779
Data Type	Double

7.48 FPBRDNM

Geodatabase Name	FPBRDNM
BLM Structured Name	Fish_Passage_Barrier_Road_Name
Alias Name	Road Name
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Road name from GNIS.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: “Snail Canyon Road”, “Beals Creek Road”

Data Type	String (50)

7.49 FPBREVDT

Geodatabase Name	FPBREVDT
BLM Structured Name	Fish_Passage_Barrier_Revision_Date_Text
Alias Name	Revision Date (YYYYMMDD)
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Date of data entry into or revision of the Framework dataset (YYYYMMDD). This will be populated as a complete date. Any change to the record would necessitate an update to the fish passage barrier data revision date (FPBREVDT) field. This field is only included in the publication dataset and is calculated from the version posted date.
Required/Optional	Required
Domain (Valid Values)	No Domain. Examples: “20140124”, “20090729”
Data Type	String (8)

7.50 FPBRMVDT

Geodatabase Name	FPBRMVDT
BLM Structured Name	Fish_Passage_Barrier_Removed_Date_Text
Alias Name	Removed Date (YYYYMMDD)
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Date that fish passage barrier feature was removed (required only if removed). Note: fish passage barrier features that are removed will be tracked via previous records that are stored in the database. Data originators should populate date elements as completely as possible; however, partial date information will be accepted. If the month and year are known, use zeros to populate the day portion of the date element. If only the year is known, use zeros to populate the month and day portion of the date element. If the date is unknown, use zeros to populate the entire element (e.g., 20011200, 20010000, 00000000).
Required/Optional	Conditional
Domain (Valid Values)	No Domain. Examples: “20140124”, “20090729”
Data Type	String (8)

7.51 FPBSITEID

Geodatabase Name	FPBSITEID
BLM Structured Name	Fish_Passage_Barrier_Site_Identifier
Alias Name	Site ID
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Framework unique identifier for the fish passage barrier site (generated by Framework data steward). Multiple, associated fish passage barrier features may constitute a single site. Each site must contain at least one fish passage barrier feature.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: 3, 4, 5
Data Type	Long Integer (9)

7.52 FPBSLOPE

Geodatabase Name	FPBSLOPE
BLM Structured Name	Fish_Passage_Barrier_Slope_Number
Alias Name	Slope %
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature slope (percent, 1 decimal).
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: 1.5, 2
Data Type	Double

7.53 FPBSTAEVDT

Geodatabase Name	FPBSTAEVDT
BLM Structured Name	Fish_Passage_Barrier_Status_Evaluation_Date_Text
Alias Name	Status Eval Date (YYYYMMDD)
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Date Fish Passage status was last evaluated. Data originators should populate date elements as completely as possible; however, partial date information will be accepted. If the month and year are known, use zeros to populate the day portion of the date element. If only the year is known, use zeros to populate the month and day portion of the date element. If the date is unknown, use zeros to populate the entire element (e.g., 20011200, 20010000, 00000000).

Required/Optional	Required
Domain (Valid Values)	No Domain. Examples: “19980900”, “00000000”, “20050000”
Data Type	String (8)

7.54 FPBSTAEVMD

Geodatabase Name	FPBSTAEVMD
BLM Structured Name	Fish_Passage_Barrier_Status_Evaluation_Method_Code
Alias Name	Status Eval Mthd
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish Passage status evaluation method. Where passage status (FPBFPASSTA) = “Unknown”, populate the FPBSTAEVMD element as “NA”.
Required/Optional	Required
Domain (Valid Values)	dom_FP_STTS_EVAL_MTHD
Data Type	String (20)

7.55 FPBSTRNM

Geodatabase Name	FPBSTRNM
BLM Structured Name	Fish_Passage_Barrier_Stream_Name_Text
Alias Name	Stream Name
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Stream name from GNIS.
Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: “Hamilton Creek”, “HAMBLOCK CREEK”
Data Type	String (50)

7.56 FPBWIDTH

Geodatabase Name	FPBWIDTH
BLM Structured Name	Fish_Passage_Barrier_Width_Number
Alias Name	Width (ft)
Inheritance	Inherited from Oregon Fish Passage Barriers
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Fish passage barrier feature width (feet, 1 decimal). This distance is the measure between stream banks. This includes dam crest length.

Required/Optional	Optional
Domain (Valid Values)	No Domain. Examples: 2, 2.5
Data Type	Double

7.57 GLOBALID

Geodatabase Name	GLOBALID
BLM Structured Name	Global_ID_Identifier
Inheritance	Inherited from entity ODF
Alias Name	None
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	System generated unique identifier.
Required/Optional	Required (automatically generated)
Domain (Valid Values)	No domain
Data Type	GUID

7.58 MODIFY_BY

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

7.59 MODIFY_DATE

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

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

7.60 STRCT_GUID

Geodatabase Name	STRCT_GUID
BLM Structured Name	Structures_Global_Unique_Identifier
Inheritance	Not Inherited
Alias Name	Structure Unique Identifier
Feature Class Use/Entity Table	STRCT_PT, STRCT_ARC
Definition	Unique number identifier for the structure entity. Automatically generated.
Required/Optional	Required
Domain (Valid Values)	No domain.
Data Type	GUID

7.61 VERSION_NAME

Geodatabase Name	VERSION_NAME
BLM Structured Name	Geodatabase_Version_Text
Inheritance	Inherited from entity ODF
Alias Name	Version Name
Feature Class Use/Entity Table	FISH_PASSAGE_TBL
Definition	Only appears in the transactional (edit) version. Public version (which is also the version used internally for mapping or analysis) does not contain this attribute. Name of the corporate geodatabase version previously used to edit the record. InitialLoad = feature has not been edited in ArcSDE. Format: username.XXX-mmddyy-hhmmss = version name of last edit (hours might be a single digit; leading zeros are trimmed for hours only). XXX=theme abbreviation.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (50)

8 Publication Views

8.1 General

Master corporate feature classes/datasets maintained in the edit database are "published" to the user database in several ways:

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

8.2 Specific to This Dataset

A publication dataset will be created for internal use where:

- Data is joined to the Structure Points ***internal*** publication feature class.
- The attribute VERSION_NAME removed because it has no meaning outside of the internal editing environment.
- Edit tracking fields (CREATE_BY, CREATE_DATE, MODIFY_BY, MODIFY_DATE) are removed.

A publication dataset will be created for external use where:

- Data is joined to the Structure Points external publication feature class.
- The attribute VERSION_NAME removed because it has no meaning outside of the internal editing environment.
- Edit tracking fields (CREATE_BY, CREATE_DATE, MODIFY_BY, MODIFY_DATE) are removed.
- Attribute FPBCOMMENT is removed for privacy reasons.

8.3 Layer Files

Layer files are not new data requiring storage and maintenance but point to existing data. They have appropriate selection and symbolization for correct use and display of the data. They provide the guidance for data published on the web. Layer files are created by simple, documented processes, and can be deleted and recreated at any time.

9 Editing Procedures

9.1 Editing Quality Control

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

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

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

9.2 Theme Specific Guidance

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

Snap Fish Passage structure features to GTRN roads and Hydrography features where possible, where those features should represent fish passage structures that occur on streams where fish are present or historically present. Remove features in this theme to enforce coincidence with reference datasets. The original coordinates stored at the time of feature collection are stored in the FPB_LONG and FPB_LAT attributes.

9.2.1 Calculation Data Rules

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

There are no calculation data rules for this dataset.

9.2.2 Constraint Data Rules

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

- FPBONM – Value “Unknown” must be changed to a valid value before version can be submitted.

10 Abbreviations and Acronyms

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

Table 1 Abbreviations/Acronyms Used

Abbreviations	Descriptions
ARC	GIS line feature
BLM	Bureau of Land Management, U.S. Department of the Interior
CADNSDI	Cadastral National Spatial Data Infrastructure
DEM	Digital Elevation Model
DLG	Digital Line Graphs
FOIA	Freedom of Information Act
FOIVEG	Forest Operations Inventory
GIS	Geographic Information System
GNIS	Geographic Names Information System
GPS	Global Positioning System
GTRN	Ground Transportation GIS dataset
IDP	Interdisciplinary
NAD	North American Datum
NARA	National Archives and Records Administration
NEPA	National Environmental Policy Act
ODF	Oregon Data Framework
OR/WA	Oregon/Washington BLM Administrative State
POLY	GIS polygon feature
PUB	Publication
RMP	Resource Management Plan
USFS	United States Forest Service, U.S. Department of Agriculture
USGS	United States Geological Survey, U.S. Department of the Interior
SDE	Spatial Database Engine
WEB	Worldwide Web (internet)
WODDB	Western Oregon Digital Database

A Domains (Valid Values)

These are the domains at the time the data standard was approved. Domains can be changed without a re-issue of the data standard. Current domains are found on the internal OR/WA SharePoint data management page. Some of the domains used in this data standard are also available at the following web site: http://www.blm.gov/or/datamanagement/index.php

For domains not listed at that site contact: contact the State Data Administrator.

A.1 dom_FP_FLAG

Fish passage barrier flag code. This domain is named fpbFlag in the ODFW dataset.

Code	Description
yes	yes
no	no
unknown	unknown

A.2 dom_FP_PASS_STTS

Passage status code. This domain is named dom_fpbFPasSta in the ODFW dataset.

Code	Description
Blocked	Not passable
Partial	Partially passable - a barrier to at least some fish at some time.
Passable	Completely passable
UnkAnad	Unknown passage, within the range of anadromy
Unknown	Unknown

A.3 dom_FP_FTR_SEC_TYPE

Fish Passage Barrier feature secondary type code. This domain is named fpbFtrSTy in the ODFW dataset.

Code	Description
DamPermanent	Dam that is permanent throughout the year.
DamSeasonal	Dam that is in place for only part of the year.
OpenArch	Culvert, Open arch
OpenBox	Culvert, Open box
Round	Culvert, Round
PipeArch	Culvert, Pipe arch
Full Box	Culvert, Full Box
SideHingedAluminum	TideGate, Side-hinged orientation, aluminum material, not mechanically controlled
TopHingedIronSteel	TideGate, Top-hinged orientation, iron or steel material, not mechanically controlled
TopHingedWood	TideGate, Top-hinged orientation, wood material, not mechanically controlled

Code	Description
MechanicallyControlled	TideGate, Mechanically controlled.
Concrete	Ford, Concrete
Asphalt	Ford, Asphalt
NativeMaterial	Ford, On-site, native material
Off-site rock	Ford, Off-site rock
Other	Other
Unknown	Unknown

A.4 dom_FP_FSHWY_STTS

Fishway status code. This domain is named fpbFySta in the ODFW dataset.

Code	Description
FuncOkay	Functioning, passes fish
NeedsMaint	Not properly functioning, needs repair or maintenance
Abandoned	Abandoned fishway - no longer needed (e.g. fishway at natural falls)
None	No fishway
NoneMitigation	No fishway - mitigation provided
NoneExempt	No fishway - negligible current benefit
NoneConflict	Fishway not wanted - conflicts with other native fish management needs
Unknown	Unknown

A.5 dom_FP_FSHWY_SEC_TYPE

Fishway secondary type code. This domain is named fpbFySTy in the ODFW dataset.

Code	Description
PoolVertSlot	Vertical slot
PoolAndWeir	Pool and weir
PoolWeirOrifice	Weir and orifice
PoolSecChan	Engineered secondary channel
PoolOther	Pool -other
BChuteAKSteep	Alaska Steeppass
BChuteDenil	Denil
BChuteSecChan	Engineered secondary channel
BChuteOther	Baffled chute - other
HybridPoolChute	Pool and chute
HybridSecChan	Engineered secondary channel

Code	Description
HybridOther	Hybrid - other
FlSpanRockWeir	Rock weirs
FlSpanLogWeir	Log weirs
FlSpanConcreteWeir	Concrete weirs
FlSpanOtherWeir	Full spanning - other weirs
FlSpanRoughChan	Roughened channel
FlSpanHybridChan	Hybrid channel
FlSpanOtherChan	Full spanning - other channel
TrapPass	Trap and pass - includes mechanical lifts / locks.
TrapHaul	Trap and haul

A.6 dom_FP_FSHWY_TYPE

Fishway type code. This domain is named fpbFyTy in the ODFW dataset.

Code	Description
Pool	Pool style fishways have a series of distinct pools in which the energy of the flow entering each one is entirely dissipated prior to flowing to the next.
BaffledChute	Chutes or flumes with roughness, designed to reduce velocity, allowing fish passage.
Hybrid	Combination of multiple fishway types.
FullSpanning	A fishway that crosses the entire stream channel.
Trap	Structures that direct the stream flow to attract upstream migrants into holding (impoundment) areas.
Other	Other known fishway type
Unknown	Unknown fishway type

A.7 dom_FP_LOC_MTHD

Fish passage barrier feature location collection method. This domain is named fpbLocMd in the ODFW dataset.

Code	Description
FieldGPS	Field - GPS
FieldQuad	Field - Record location on 7.5' quad map
FieldOther	Field - other
DigDerive	Digitally derived (e.g. located on-screen using DOQ or DRG)
ExtInv	External inventory (e.g. National Inventory of Dams, GNIS)
ProfJudge	Located on map via professional judgement (first-hand knowledge of feature location)
Other	Other

Code	Description
Unknown	Unknown

A.8 dom_FP_MOD_TYPE

Fish passage barrier modification type. This domain is named fpbModTy in the ODFW dataset.

Code	Description
Baffles	Baffles - feature added to a culvert to increase the hydraulic roughness
StreamSim	A channel that simulates characteristics of the adjacent natural stream channel
Weirs	Weirs - feature built across a stream to raise its level
Other	Other
Unknown	Unknown

A.9 dom_FP_ORGNTR_NM

Originator Name. This domain is named fpbONm in the ODFW dataset.

Code	Description
USBLM-OR-Burns	USBLM-OR-Burns
USBLM-OR-CoosBay	USBLM-OR-CoosBay
USBLM-OR-Lakeview	USBLM-OR-Lakeview
USBLM-OR-Medford	USBLM-OR-Medford
USBLM-OR-NWOregon	USBLM-OR-NWOregon
USBLM-OR-Prineville	USBLM-OR-Prineville
USBLM-OR-Roseburg	USBLM-OR-Roseburg
USBLM-OR-Vale	USBLM-OR-Vale
Unknown	Unknown – this value is for editing default value only and must be corrected before the version is submitted.

A.10 dom_FP_OWN_TYPE

Owner type and Landowner type. This domain is named fpbOwnTy in the ODFW dataset.

Code	Description
Federal	Federal
State	State
Tribal	Tribal
Private	Private
PubUtility	Public Utility
PubSpDistrict	Special district - water control, irrigation, drainage

Code	Description
County	County
City	City
Other	Other

A.11 dom_FP_STTS_EVAL_MTHD

Passage status evaluation method. This domain is named fpbStaEvMd in the ODFW dataset.

Code	Description
USFSBLMFullAssess	USFS / BLM full passage assessment (e.g. FishXing)
OtherFullAssess	Other full passage assessment
USFSBLMPartialAssess	USFS / BLM partial passage assessment (coarse screen filter)
OtherPartialAssess	Other partial passage assessment (including professional judgement)
ByDesign	By evaluation of design plans
Unknown	Unknown
NA	Not applicable

B Data Collection and Editing Configuration

B.1 Visible Fields

By default, only the following fields are visible (turned on) for mobile data collection and desktop editing. For desktop editing, the editor may manually adjust field visibility for the table properties in the map.

STRCT_GUID

FPBLONG

FPBLAT

FPBOFTRID

FPBONM

FPBOSITEID

FPBLOCMD

FPBLOCDT

FPBMLTFTR

FPBFPASSTA

FPBSTAEVDT

FPBSTAEVMD

CLASSIFIER

FPBFYSTA

FPBFYCRIT

FPBHEIGHT

FPBLENGTH

FPBWIDTH

FPBSLOPE

FPBDROP

FPBCOMMENT