Oregon/Washington Bureau of Land Management

Road Maintenance Operation Plans

Spatial Data Standard

Rolling, dumping, and blading asphalt. Photos by Glenn Huff, BLM Coos Bay District.

Document Revisions

Revision	Date	Author	Description	Affected Pages
1.0	4/22/2020	Dana Baker-Allum, Mellissa Rutkowski, Ryan Kelley, Shelley Moore, Tristan Holland	Initial Release	All

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

Contents

1 General Information

The Oregon/Washington Bureau of Land Management (BLM) Road Maintenance Operation Plans (RMOP) dataset contains information on planned road maintenance activities. According to the Bureau of Land Management O&C Logging Road Right-of-Way Handbook H-2812-1, road maintenance is "work and materials expended to keep a road at its construction standards in effect at the time of the original calculations of percentage shares." (USDI BLM 2009).

Road Maintenance activities include grading, brushing, culvert cleanout, slide removal, ditch maintenance, blow-down tree removal, bridge maintenance, culvert replacement, chip seal, shoulder maintenance, surfacing cleaning/sweeping, surface aggregate replacement, and hot mix patching.

The road maintenance plan is a schedule of maintenance tasks by road developed by districts annually to plan for work in the upcoming fiscal year.

- Dataset (Theme) Name: RMOP
- Dataset (Feature Class): GTRN_RMOP_ARC

1.1 Roles and Responsibilities

Table 1 Roles and Responsibilities

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

1.2 FOIA Category

This dataset falls under the standard Records Access Category 1B – BLM Records that may contain protected information that must be considered for segregation prior to release.

1.3 Records Retention Schedule

The DRS/GRS/BLM Combined Records Schedule, under Schedule 20/52a3 (Electronic Records/Geographic Information Systems), does not list this theme as one of the system-centric themes that are significant for BLM's mission that must be permanently retained.

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 offline, with format and readability maintained in a five-year "tech refresh" cycle in order to retain full functionality.
- 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

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

This dataset is not sensitive and there are no restrictions on access to this data, 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. A privacy impact assessment was submitted for this dataset on 4/9/2020.

1.5 Keywords

Keywords that can be used to locate this dataset include:

- BLM Thesaurus: Facility, Geospatial
- Additional keywords: GTRN, Maintenance, MTS (Maintenance Tracking System), FAMS
- ISO Thesaurus: transportation

1.6 Subject Function Codes

BLM Subject Function codes used to describe this dataset include:

- 1283 - Data Administration
- 2812 – O&C Right-of-Way
- 9112 – Bridges and Major Culverts
- 9113 - Roads

2 Dataset Overview

2.1 Usage

The Road Maintenance Operation Plans (RMOP) are prepared each fiscal year and prioritizes the roads the organization plans to maintain that year. The dataset portrays the RMOP. It also includes the recommended time of year for when the work can be done, shows if the work will be completed by the maintenance crew or contractors, and shows if data is associated with a timber sale haul route.

RMOPs are required to be completed by the districts for asset management planning. This dataset can be used to establish compliance with Executive Order 13327 – Federal Real Property Asset Management (https://www.govinfo.gov/content/pkg/FR-2004-02-06/pdf/04-2773.pdf).

2.2 Sponsor/Affected Parties

The sponsor for this data set is the Deputy State Director for the Division of Management Services.

2.3 Relationship to Other Datasets, Databases, or Files

This dataset is related to the following OR/WA corporate datasets:

Ground Transportation - The RMOP dataset contains information about planned road maintenance. Spatial data from the GTRN Roads publication dataset (GTRN_PUB_ROADS_ARC) is copied from the source into the RMOP dataset.

Hydrologic Units – Attributes in the RMOP are auto-calculated from intersecting features in the 5th Level Watersheds dataset (HU_BOUNDARY_WBD_ORWA_HU10_POLY).

Harvest Treatments – A list of values for the RMOP Timber Sale Route Name field is built from the Harvest Treatments dataset (HARV_POLY) name values for records associated with a BLM timber sale haul route.

Easements and Rights of Way – A list of values for the RMOP Timber Sale Route Name is built from the Easements and Rights of Way datasets (ESMTROW_ARC, ESMTROW_P_ARC, ESMTROW_POLY, ESMTROW_P_POLY) for records associated with a private timber sale haul route.

Maintenance Tracking System – Completed road maintenance is tracked in the OR/WA Maintenance Tracking System (MTS). This non-spatial system tracks attributes about the completed actions. This dataset is under-going a transition to a spatial dataset and a data standard is planned for release in Summer 2020.

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 data themes are a portion of the Oregon Data Framework (ODF). The ODF utilizes the concept of inheritance to define specific instances of data. All OR/WA resource-related data are divided into three general categories: Activities, Resources, and Boundaries.

These general categories are broken into sub-categories that inherit spatial characteristics and attributes from their parent category. These sub-categories may be further broken into more specific groups until the basic data set 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.

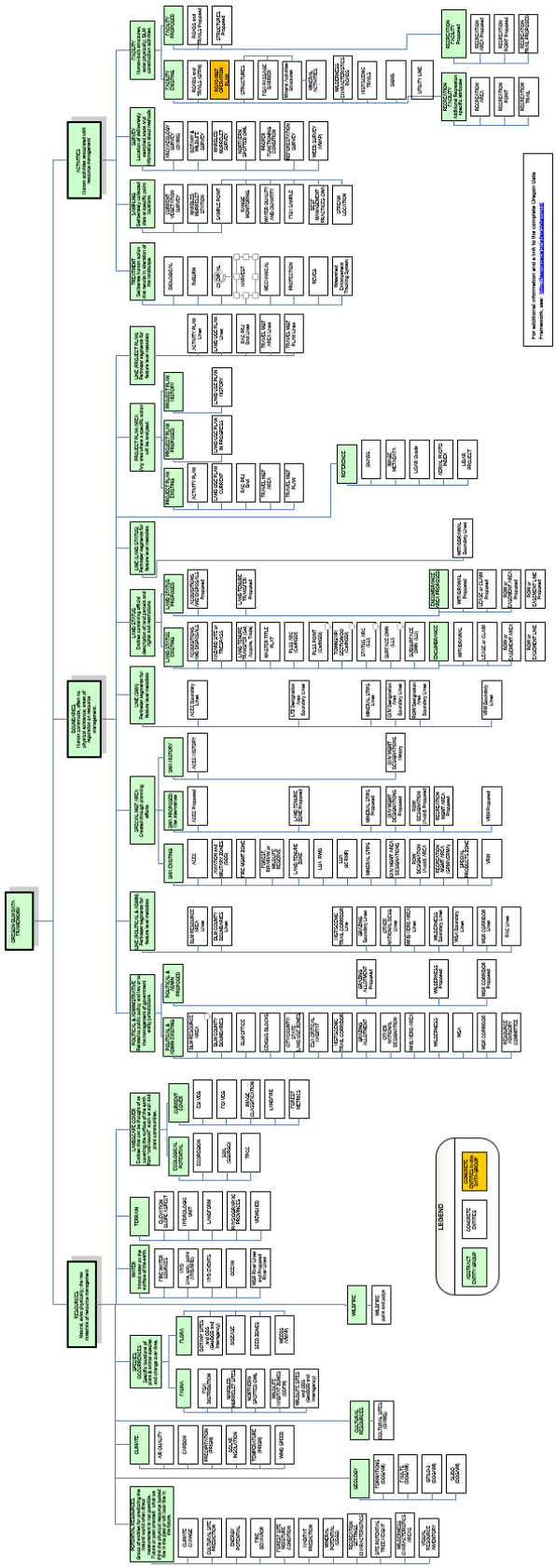

Figure 1 **Oregon Data Framework Overview**

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 RMOP 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, RMOP is considered an activity and categorized as follows:

ODF

Activities

Facility

Facility Existing

GTRN_RMOP_ARC

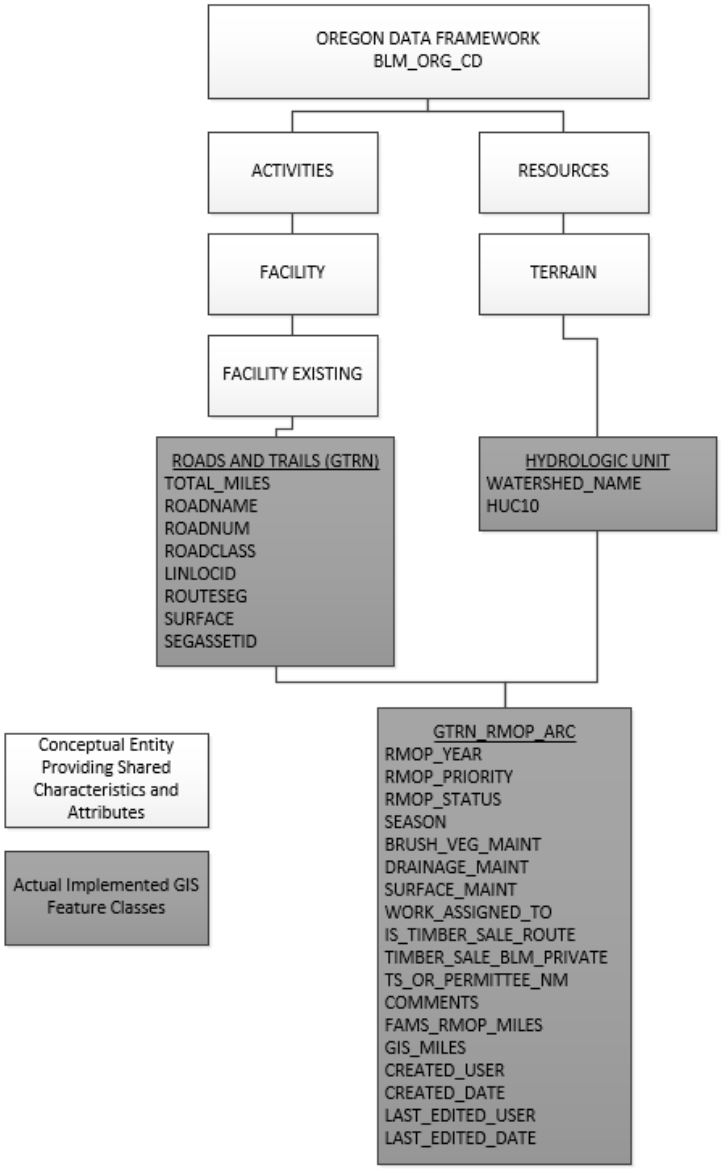

Figure 2 Data Organization Structure

2.5 Relationship to DOI Enterprise Architecture Data Resource Model

The Department of the Interior (DOI) Enterprise Architecture contains a component called the Data Resource Model. This model addresses the concepts of data sharing, data description, and data context. This data standard provides information needed to address each of those areas. Data sharing is addressed through complete documentation and simple data structures, 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

All features in the RMOP dataset are copied from existing GIS features in the GTRN dataset. Spatial accuracy is determined by the GTRN dataset. For information on the accuracy requirements, see the documentation for the source of the data. The Data Standards can be found online at: https://www.blm.gov/site-page/oregon-data-management.

3.2 Collection, Input, and Maintenance Protocols

Detailed editing guidance is available in section 9 of this document.

3.3 Update Frequency and Archival Protocols

The RMOP is a plan that is updated for each fiscal year. There are no data entry deadlines associated with this dataset.

Data is archived annually at the end of the fiscal year.

3.4 Statewide Monitoring

The State Data Stewards, assisted by the GIS Technical Lead, are responsible for checking consistency across districts for the theme. The State Data Steward is responsible for coordinating the response to national BLM and interagency data calls.

4 RMOP 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 GTRN_RMOP_ARC (Road Maintenance Operation Plan Arcs)

For domain and default values, see Section o, **None**

Attribute Characteristics and Definition (In alphabetical order)in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
RMOP_YEAR	Short Integer			Yes	
RMOP_PRIORITY	String	6		Yes	dom_RMOP_PRIORITY
RMOP_STATUS	String	20		Yes	dom_RMOP_STATUS
SEASON	String	55		Yes	dom_RMOP_SEASON
BRUSH_VEG_MAINT	String	1		Yes	dom_YN
DRAINAGE_MAINT	String	1		Yes	dom_YN
SURFACE_MAINT	String	1		Yes	dom_YN
WORK_ASSIGNED_TO	String	40		Yes	dom_RMOP_ASSIGNMENT
IS_TIMBER_SALE_ROUTE	String	3		Yes	dom_YN
TIMBER_SALE_BLM_PRIVATE	String	3		No	dom_RMOP_TS_RTE_MGR
TS_OR_PERMITTEE_NM	String	100		No	
COMMENTS	String	255	No comment	No	
TOTAL_MILES	Double			No *	
FAMS_RMOP_MILES	Double			No *	
GIS_MILES	Double			Yes *	
WATERSHED_NAME	String	120		No *	
HUC10	String	10		No *	
BLM_ORG_CD	String	5		No *	dom_BLM_ORG_CD
ROADNAME	String	50		No *	
ROADNUM	String	30		No *	
ROADCLASS	String	35		No *	dom_GTRN_ROAD_CLS
LINLOCID	String	8		No *	
ROUTESEG	String	35		No *	
SURFACE	String	35		No *	dom_FAMS_SURFACE
SEGASSETID	String	8		No *	

CREATED_USER	String	255		No *	
CREATED_DATE	Date			No *	
LAST_EDITED_USER	String	255		No *	
LAST_EDITED_DATE	Date			No *	

* Values automatically generated

5 Projection and Spatial Extent

All feature classes and feature datasets are in Geographic, North American Datum 83. Units are decimal degrees. Spatial extent (area of coverage) includes all lands managed by the BLM OR/WA. See the metadata for this data for a more precise description of the extent.

6 Spatial Entity Characteristics

- ROAD MAINTENANCE OPERATION PLAN ARCS (GTRN_RMOP_ARC)
  - Description: Each line is a segment of road that requires one or more maintenance activities.
  - Geometry: Simple line features.
  - Topology: No topology rules enforced.
  - Integration Requirements: None

7 Attribute Characteristics and Definition (In alphabetical order)

7.1 BLM_ORG_CD

Geodatabase Name	BLM_ORG_CD
BLM Structured Name	Administrative_Unit_Organization_Code
Inheritance	Inherited from entity GTRN
Alias Name	None
Feature Class Use/Entity Table	GTRN_RMOP_ARC
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 state level rather than to the resource area level. Auto-calculated from GTRN by the RMOP Geospatial Tracking System. This field is not editable by the editor within the application.
Required/Optional	Required
Domain (Valid Values)	dom_BLM_ORG_CD
Data Type	String (5)

7.2 BRUSH_VEG_MAINT

Geodatabase Name	BRUSH_VEG_MAINT
BLM Structured Name	Road_Maintenance_Operation_Plan_Brush_or_Vegetation_Mainenance_Code
Inheritance	Not Inherited
Alias Name	Brush or Vegetation Maintenance
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	Indicates if brushing or vegetation maintenance activities are needed.
Required/Optional	Required
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.3 COMMENTS

Geodatabase Name	COMMENTS
BLM Structured Name	Road_Maintenance_Operation_Plan_Comments_Text
Inheritance	Not Inherited
Alias Name	Comments
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	Comments about the road maintenance plan feature. Default value: "No comment".
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: "No comment", "Portions of road will be active haul under High Roller Timber Sale. Beyond segment C4 has been designated as purchaser maintenance under the sale."
Data Type	String (255)

7.4 CREATED_DATE

Geodatabase Name	CREATED_DATE
BLM Structured Name	Record_Created_Date
Inheritance	Not Inherited
Alias Name	None
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	Date the record was created in the database. Automatically populated by the software.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 5/23/2017, 1/1/2010
Data Type	Date

7.5 CREATED_USER

Geodatabase Name	CREATED_USER
BLM Structured Name	Record_Created_User_Name
Inheritance	Not Inherited
Alias Name	None
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	Database username for the person who created the record in the database. Automatically populated by the software.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: jdoe, msmith
Data Type	String (255)

7.6 DRAINAGE_MAINT

Geodatabase Name	DRAINAGE_MAINT
BLM Structured Name	Road_Maintenance_Operation_Plan_Drainage_Mainenance_Code
Inheritance	Not Inherited
Alias Name	Drainage Maintenance
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	Indicates if drainage maintenance activities are needed.
Required/Optional	Required
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.7 FAMS_RMOP_MILES

Geodatabase Name	FAMS_RMOP_MILES
BLM Structured Name	Road_Maintenance_Operation_Plan_FAMS_Miles
Inheritance	Not Inherited
Alias Name	FAMS RMOP Miles
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	This field is only populated for roads that are in FAMS. If the road segments are not in the FAMS database, the value in this field will be null. When all the GIS arcs associated with a FAMS segment are included in the RMOP this value will be equal to the TOTAL_MILES field. If not all the GIS arcs associated with a FAMS segment are included in the RMOP road selection this value represents the FAMS equivalent miles for the portion, or percentage, of the FAMS segment included in RMOP. This portion is calculated by comparing the aggregate, or cumulative, sum miles of all the GIS arcs associated with the FAMS segment divided by the sum miles of the select GIS arcs in RMOP multiplied by the TOTAL_MILES.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0.26, 1.75
Data Type	Double

7.8 GIS_MILES

Geodatabase Name	GIS_MILES
BLM Structured Name	GIS_Miles_Measure
Inheritance	Not Inherited

Alias Name	None
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	The length of the RMOP line feature in miles. Values are automatically calculated by the RMOP Geospatial Tracking System using the Albers Equal Area Conic projection.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 0.72, 0.56
Data Type	Double

7.9 HUC10

Geodatabase Name	HUC10
BLM Structured Name	Watershed_Boundary_Hydrologic_Unit_Code_10_Text
Inheritance	Inherited from Watershed Boundary Dataset (WBD)
Alias Name	None
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	The unique 10-digit (5th level) hydrologic unit code for the Watershed Boundary polygon that intersects the feature. Auto-calculated from the HU dataset by the RMOP Geospatial Tracking System. This field is not editable by the editor within the application.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: “1710020606”, “1710020501”
Data Type	String (10)

7.10 IS_TIMBER_SALE_ROUTE

Geodatabase Name	IS_TIMBER_SALE_ROUTE
BLM Structured Name	Road_Maintenance_Operation_Plan_Timber_Sale_Route_Code
Inheritance	Not Inherited
Alias Name	Timber Sale Haul Route Affiliation
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	Indicates if the feature affiliated with a Timber Sale Haul Route.
Required/Optional	Required
Domain (Valid Values)	dom_YN
Data Type	String (3)

7.11 LAST_EDITED_DATE

Geodatabase Name	LAST_EDITED_DATE
BLM Structured Name	Record_Last_Edited_Date
Inheritance	Not Inherited
Alias Name	None
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	Date the record was last modified in the database. Automatically populated by the software.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 5/23/2017, 1/1/2010
Data Type	Date

7.12 LAST_EDITED_USER

Geodatabase Name	LAST_EDITED_USER
BLM Structured Name	Record_Last_Edited_User_Name
Inheritance	Not Inherited
Alias Name	None
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	Database username for the person who last edited the record in the database. Automatically populated by the software.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: jdoe, msmith
Data Type	String (255)

7.13 LINLOCID

Geodatabase Name	LINLOCID
BLM Structured Name	Facility_Asset_Management_System_Location_Number_Text
Inheritance	Inherited from FAMS
Alias Name	LinLocID
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	FAMS Location Number. FAMS key value assigned to all route segments that make up a BLM inventoried route. Auto-calculated from GTRN by the RMOP Geospatial Tracking System. This field is not editable by the editor within the application.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: “L1384541”, “L1381675”
Data Type	String (8)

7.14 RMOP_PRIORITY

Geodatabase Name	RMOP_PRIORITY
BLM Structured Name	Road_Maintenance_Operation_Plan_Priority_Code
Inheritance	Not Inherited
Alias Name	Priority
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	The importance of the maintenance activity or activities. If unknown, select "Low" from the list of values.
Required/Optional	Required
Domain (Valid Values)	dom_RMOP_PRIORITY
Data Type	String (6)

7.15 RMOP_STATUS

Geodatabase Name	RMOP_STATUS
BLM Structured Name	Road_Maintenance_Operation_Plan_Status_Code
Inheritance	Not Inherited
Alias Name	RMOP Status
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	The status of the maintenance activity or activities. Defaults to "Proposed."
Required/Optional	Required
Domain (Valid Values)	dom_RMOP_STATUS
Data Type	String (20)

7.16 RMOP_YEAR

Geodatabase Name	RMOP_YEAR
BLM Structured Name	Road_Maintenance_Operation_Plan_Year_Number
Inheritance	Not Inherited
Alias Name	RMOP Year
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	The fiscal year the maintenance activities are planned to be completed.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: "2020", "2019"
Data Type	Short Integer

7.17 ROADCLASS

Geodatabase Name	ROADCLASS
BLM Structured Name	Ground_Transportation_Road_Class_Code
Inheritance	Inherited from GTRN
Alias Name	RoadClass
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	Road Functional Classification. The grouping of roads by the character of service they provide, establishes as systematic approach to road planning, design, and maintenance. Only applies to inventoried roads in GTRN. For more information about this field, see the GTRN Data Dictionary. Auto-calculated from GTRN by the RMOP Geospatial Tracking System. This field is not editable by the editor within the application.
Required/Optional	Optional
Domain (Valid Values)	dom_GTRN_ROAD_CLS
Data Type	String (20)

7.18 ROADNAME

Geodatabase Name	ROADNAME
BLM Structured Name	Ground_Transportation_Road_Name_Text
Inheritance	Inherited from GTRN
Alias Name	RoadName
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	The intent of this field is to hold the road name of the primary route owner. Auto-calculated from GTRN by the RMOP Geospatial Tracking System. This field is not editable by the editor within the application.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: “Teko Rd”, “Wallace Creek Rd”
Data Type	String (50)

7.19 ROADNUM

Geodatabase Name	ROADNUM
BLM Structured Name	Ground_Transportation_Road_Number_Text
Inheritance	Inherited from GTRN
Alias Name	RoadNum
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	The intent of this field is to hold the road number of the primary route owner.

	Auto-calculated from GTRN by the RMOP Geospatial Tracking System. This field is not editable by the editor within the application.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: “15-7-30.0”, “20-2-32.0”
Data Type	String (30)

7.20 ROUTESEG

Geodatabase Name	ROUTESEG
BLM Structured Name	Facilities_Asset_Management_System_Route_Segment_Text
Inheritance	Inherited from FAMS
Alias Name	RouteSeg
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	FAMS Route Segment. This field provides the route segment identifier for O & C routes. When combined with route number, the full route segment identifier is formed. Auto-calculated from GTRN by the RMOP Geospatial Tracking System. This field is not editable by the editor within the application.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: “A”, “B”
Data Type	String (35)

7.21 SEASON

Geodatabase Name	SEASON
BLM Structured Name	Road_Maintenance_Operation_Plan_Season_Code
Inheritance	Not Inherited
Alias Name	Season of Work
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	The suggested season of work for the maintenance activities. If unknown, select “Dry Season” from the list of values.
Required/Optional	Required
Domain (Valid Values)	dom_RMOP_SEASON
Data Type	String (55)

7.22 SEGASSETID

Geodatabase Name	SEGASSETID
BLM Structured Name	Facilities_Asset_Management_System_Asset_Number_Segment_Text

Inheritance	Inherited from FAMS
Alias Name	SegAssetID
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	FAMS Asset Number. The linking field for joining the FAMS table to a BLM inventoried route/trail. This field links to the BLM inventoried route/trail 'FAMSKEY' on each route segment. If this attribute is populated, it indicates when a RMOP record is associated with an inventoried road. Auto-calculated from GTRN by the RMOP Geospatial Tracking System. This field is not editable by the editor within the application.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: "L1487842", "L1487838"
Data Type	String (8)

7.23 SURFACE

Geodatabase Name	SURFACE
BLM Structured Name	Ground_Transportation_Surface_Code
Inheritance	Inherited from GTRN
Alias Name	Surface
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	This field describes the surface material of the road or trail as used to calculate the Current Replacement value or Annual Maintenance needs. Auto-calculated from GTRN by the RMOP Geospatial Tracking System. This field is not editable by the editor within the application.
Required/Optional	Optional
Domain (Valid Values)	dom_FAMS_SURFACE
Data Type	String (35)

7.24 SURFACE_MAINT

Geodatabase Name	SURFACE_MAINT
BLM Structured Name	Road_Maintenance_Operation_Plan_Surface_Maintenance_Code
Inheritance	Not Inherited
Alias Name	Surface Maintenance
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	Indicates if surface maintenance activities are needed.
Required/Optional	Required
Domain (Valid Values)	dom_YN

Data Type	String (1)

7.25 TIMBER_SALE_BLM_PRIVATE

Geodatabase Name	TIMBER_SALE_BLM_PRIVATE
BLM Structured Name	Road_Maintenance_Operation_Plan_BLM_or_Private_Haul_Code
Inheritance	Not Inherited
Alias Name	BLM or Private Timber Sale Haul
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	If the road is affiliated with a Timber Sale, indicates if it is a BLM or Private Timber Sale Haul.
Required/Optional	Optional
Domain (Valid Values)	dom_RMOP_TS_RTE_MGR
Data Type	String (3)

7.26 TOTAL_MILES

Geodatabase Name	TOTAL_MILES
BLM Structured Name	Ground_Transportation_Segment_Total_Miles_Number
Inheritance	Inherited from GTRN
Alias Name	None.
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	Total Miles of a FAMS Segment. Ground measured (clocked) length (miles) of the GTRN segment. This field will only be populated if the record is associated with a FAMS record (i.e. a valid SegAssetID). Auto-calculated from GTRN by the RMOP Geospatial Tracking System. This field is not editable by the editor within the application.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0.14, 0.25
Data Type	Double

7.27 TS_OR_PERMITTEE_NM

Geodatabase Name	TS_OR_PERMITTEE_NM
BLM Structured Name	Road_Maintenance_Operation_Plan_Timber_Sale_or_Permittee_Name_Text
Inheritance	Not Inherited
Alias Name	Timber Sale or Permittee

Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	If the road is affiliated with a BLM timber sale, contains the name of the sale; this name comes from the Harvest Poly treatment name. For permittee sales, this name comes from the Easements and Rights of Way right holder name.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: “Unknown or not present”, “NORTHWEST OREGON DISTRICT”
Data Type	String (100)

7.28 WATERSHED_NAME

Geodatabase Name	WATERSHED_NAME
BLM Structured Name	Watershed_Boundary_Hydrologic_Unit_Code_10_Name_Text
Inheritance	Inherited from Watershed Boundary Dataset (WBD)
Alias Name	Watershed Name
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	The GNIS name for the Watershed Boundary polygon that intersects the feature. Auto-calculated from the HU dataset by the RMOP Geospatial Tracking System.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: “North Fork Sprague River”, “Lower Suiattle River”
Data Type	String (120)

7.29 WORK_ASSIGNED_TO

Geodatabase Name	WORK_ASSIGNED_TO
BLM Structured Name	Road_Maintenance_Operation_Plan_Work_Assigned_To_Code
Inheritance	Not Inherited
Alias Name	Work Assigned To
Feature Class Use/Entity Table	GTRN_RMOP_ARC
Definition	Indicates who is responsible for completing the work.
Required/Optional	Required
Domain (Valid Values)	dom_RMOP_ASSIGNMENT
Data Type	String (40)

8 Layer Files (Publication Views)

8.1 General

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

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

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

8.2 Specific to This Dataset

This dataset is replicated as-is to a geodatabase in the OR/WA standard corporate data replication area. A layer file will be created for the Layer Browser utility to display the replicated data.

This data should not be shared on the public web as it may contain data for activities of private industry.

9 Editing Procedures

9.1 Road Maintenance Operation Plan Geospatial Tracking System

The primary way to edit RMOP data is by using the Geocortex Essentials RMOP Geospatial Tracking System (RMOP GTS). The system can be accessed by launching "Road Maintenance Operation Plan (RMOP) - Geospatial Tracking System from the Interactive Maps launch page at: https://web.gismaps.or.blm.doi.net/GIS_workspace/maptools/InteractiveMapsLaunchPage/launch_home.html.

The RMOP GTS provides functions for:

- Creating and attributing a new feature.
- Modifying the spatial extent of an existing feature.
- Modifying the attributes of an existing feature.

When creating a record using RMOP GTS, the tool makes a copy of the underlying GTRN/FAMS data and inserts the record into RMOP. Users should be aware that attributes will become static and may become out of sync with GTRN/FAMS as time goes on. Because of this, it is recommended that you do not copy a feature into multiple RMOP years all at once.

Edit permissions to RMOP GTS are controlled by the active directory group: ilmGorRMOPgeocortex-m. To be added to the group, contact the GIS Technical Lead for this dataset: Ryan Kelley.

Certain users can modify the RMOP_STATUS attribute of an RMOP record from 'Proposed' to 'Approved' or 'Completed'. This is defined in the Geocortex workflow. Users are only allowed to make this change to records within their respective district, which is based on the location of the road. Who gets allowed access to change the status is based on a conversation with the lead road engineer in each district and the lead Data Steward, Mellissa Rutkowski.

10 Abbreviations and Acronyms

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

Table 2 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
FAMS	Facilities Asset Management System
FOIA	Freedom of Information Act
FOIVEG	Forest Operations Inventory
GIS	Geographic 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
POLY	GIS polygon feature
PUB	Publication
RMP	Resource Management Plan
ODF	Oregon Data Framework
OR/WA	Oregon/Washington BLM Administrative State
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

11 References

USDI Bureau of Land Management. February 2009. O&C Logging Road Right-of-Way Handbook H-2812-1. Guidelines for the Administration of the O&C Logging Road Right-of-Way Regulations in Western Oregon. http://teamspace/or/sites/or959/Permanent%20Document%20Storage/H-2812-1.pdf

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_BLM_ORG_CD

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

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

A.2 dom_FAMS_SURFACE

Facilities Asset Management System Road Surface Code. Surface material of the road or trail.

Code	Description
Bituminous	Bituminous
Concrete	Concrete
Aggregate	Aggregate
Natural	Natural
Unknown	Unknown

A.3 dom_GTRN_ROAD_CLS

GTRN Road Classification Code. A record of the functional classification of road segment.

Code	Description
Collector	Collector
Arterial	Arterial
Not Known	Not Known
Resource	Resource
Local	Local

A.4 dom_RMOP_ASSIGNMENT

RMOP Assignment Code. Indicates who is responsible for completing the road maintenance work.

Code	Description
Road Maintenance Crew	Road Maintenance Crew
Contractor	Contractor

A.5 dom_RMOP_PRIORITY

RMOP Priority Code. The code for indicating the importance of the maintenance activity.

Code	Description
Low	Low
Medium	Medium
High	High

A.6 dom_RMOP_SEASON

RMOP Season Code. The code for indicating the importance of the maintenance activity.

Code	Description
All Seasons	All Seasons
Dry Season	Dry Season
Season Based on Watershed	Season Based on Watershed
See Comments	See Comments

A.7 dom_RMOP_STATUS

RMOP Status Code. The code for recording the status of the maintenance activity.

Code	Description
Proposed	Proposed
Approved	Approved
Completed	Completed

A.8 dom_RMOP_TS_RTE_MGR

RMOP Route Manager Code. The source of the geographic coordinates- lines, points, polygons.

Code	Description
BLM	Bureau of Land Management
PVT	Private

A.9 dom_YN

Yes/No Code. Generic domain for Yes/No/Unknown coding.

Code	Description
Y	Yes
N	No
U	Unknown