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Metadata Management at WSDOT

Andy Everett, Information and Metadata Architect, WSDOT



Metadata Management at WSDOT

Andy Everett

Metadata Librarian/Taxonomist

Information Architect

Lead Technical Steward – WSDOT Data Library

Washington State DOT

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Agenda

WSDOT Information Strategy

Goals for Data Management

What is Metadata?

What is a Metadata Repository?

WSDOT Metadata Core Schema

Role of Common Vocabularies

Reference and Open Data Schema

DOTS as an Open Data Catalog

The Goal

The Five Rs

Right Information

Right People

Right Language

Right Format

Right Time

Words Matter

Managing WSDOT language to help people (knowledge workers, employees, searchers) predictably find trusted information, in support of business decision making and, through connectedness, foster collaboration and common understanding.

Goals

Provide a tool for Data Management:

- Harvest the Physical Database Inventory (What data do we have?)
- Understand data—Discover the actual meaning of data. (What is it?)
- Find data—Discover the data that is available for a subject. (Where is it?)
- Find people—Discover who is the data steward is (Who is responsible?)

Data As A Corporate Asset

- Shift in the perception of data as a component of IT to the Business
- Data is no longer “owned” by IT
- Active Stewardship of the Data by the Business

What is Metadata?

Data describing context, content, and structure of documents and records and their management through time. Metadata pertains to all types of data and information. Metadata can also be applied to any level of aggregation of information – a section in a manual, a paragraph in a report, a question in an FAQ, an entire report, or a box collection of archived documents.

Source: World Bank and ISO 15489

Purpose of Metadata

- 1) Identifies and distinguishes objects;**
- 2) supports discovery and organization;**
- 3) helps manage use**
- 4) supports compliance management.**

Types of Metadata

Identification & Distinction - Ensures the persistent and unique identification of resources by providing a unique description of each resources and the assignment of a persistent unique identifier

Discovery and Organization - Facilitates discovery of resources by bringing similar resources together, providing access points which match the way that users would look for information

Use Management - Enables use by those who are permissioned and prevents use by those who are not permissioned. Defines and enforces copyright ownership and prevents unauthorized re-use or re-distribution of content

Compliance Management - Supports records management and long-term availability of important business information, including designation of records status

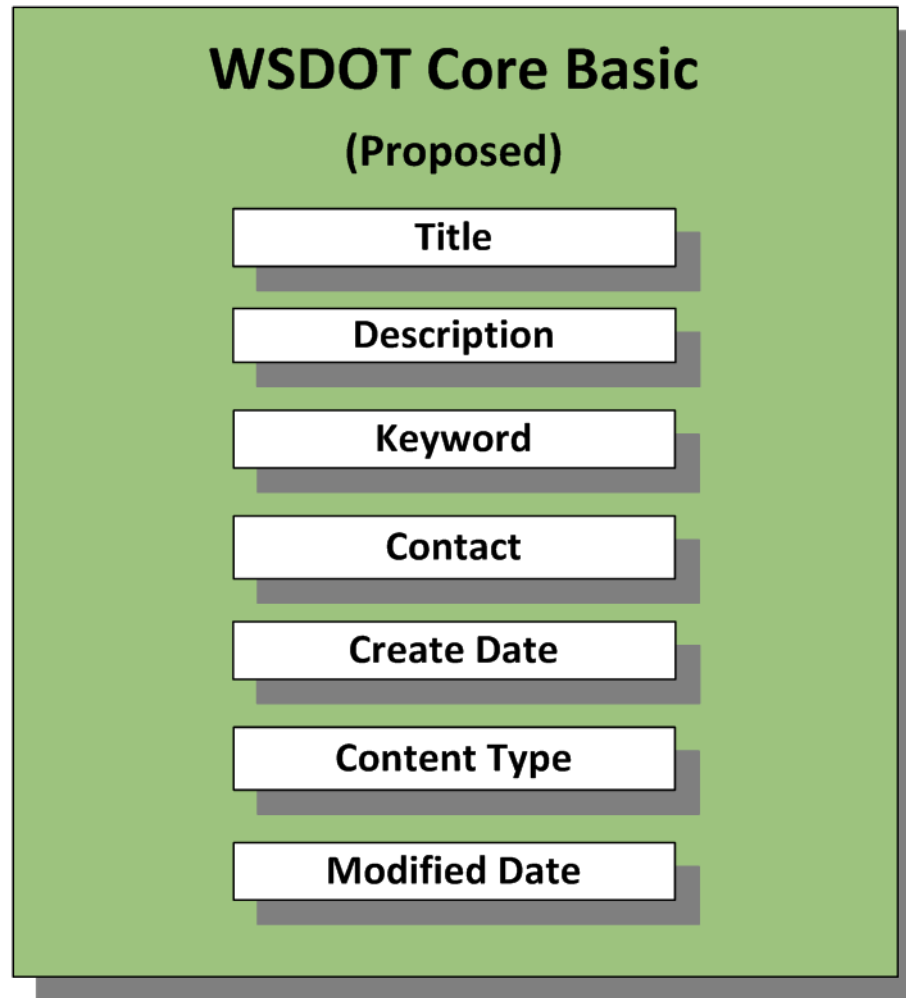
What is a Metadata Repository?

A metadata repository is a collection of information that documents data assets. It tells what data we have, where they are located, what they mean, who collects the data, who is responsible for the data quality and how to get access to the data. A good metadata repository works like a card catalog system for a library—helping you to inventory, organize, research, and easily find your information assets and application components

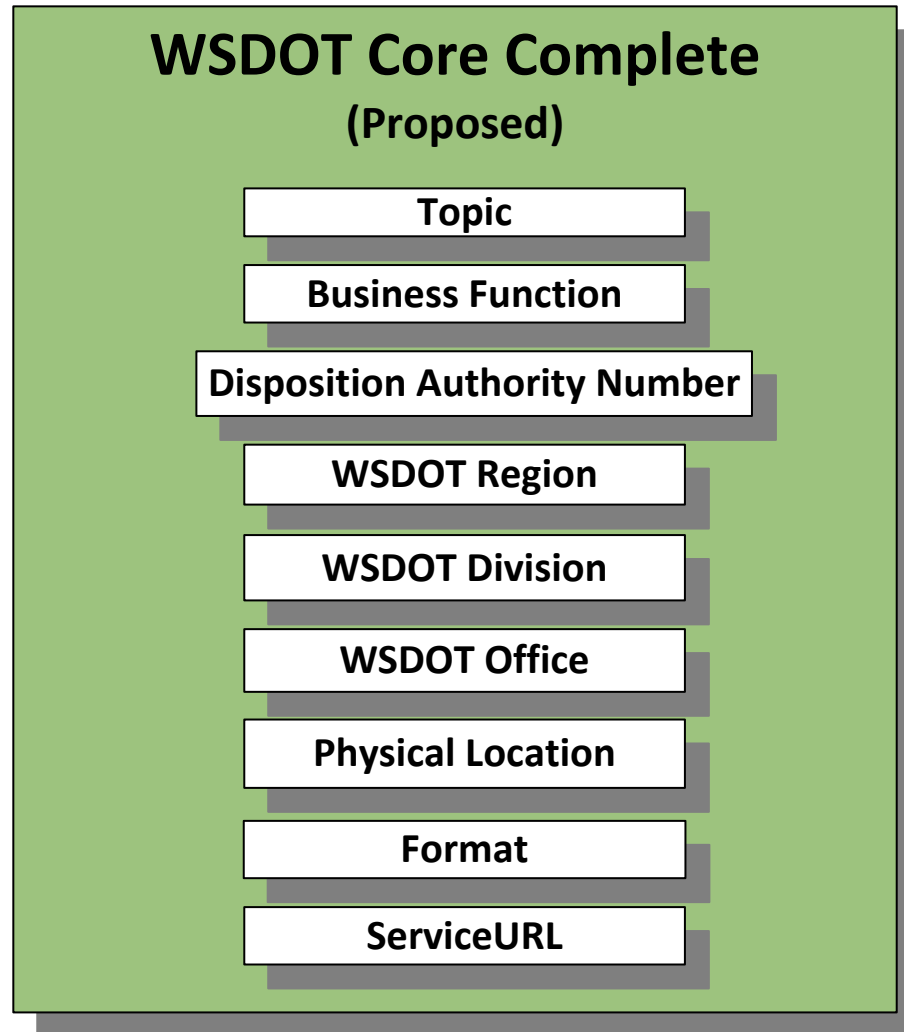
What is in the Metadata Repository

- Terms, Synonyms and Definitions
- Controlled Vocabularies
- Business and Technical Stewards by Name/Business Area
- Business Rules
- Technical Metadata – structure of the data, physical name
- Descriptive Metadata
- Use Metadata – how to use it, where to find the actual data
- Data Security Classification

Describing Information Resources



WSDOT Metadata Core Complete



WSDOT Reference and Open Data Metadata

Metadata Element	Source/Vocabulary
Title	Dublin Core/Project Open Data
Description	Dublin Core/Project Open Data
Business Topic	WSDOT Business Topic Classification
Keyword	WSDOT Subject Thesaurus
Create Date	Dublin Core/Project Open Data
Content Type	WSDOT Content Type Taxonomy
Posting Frequency	Dublin Core/Project Open Data as accuratePeriodicity
Data Sharing Agreement Flag	WSDOT
Period of Time	WA State OCIO Open Data Metadata Schema
accessLevel	Dublin Core/Project Open Data CV: WA State OCIO Security Guideline
Contact	
Distribution	Adapted from Project Open Data

WSDOT Reference and Open Data Metadata Schema Contact

Metadata Element	Source/Vocabulary
Contact Name	Dublin Core/Project Open Data
Contact Role	WSDOT Contact Role
Contact Job Title	
Contact Email	
Contact WSDOT Office	WSDOT Office Names Controlled List
Contact WSDOT Division	WSDOT Division Names Controlled List

WSDOT Reference and Open Data Metadata Schema Distribution

Metadata Element	Source/Vocabulary
Title	Dublin Core/Project Open Data
Description	WSDOT Contact Role
Service Category	ESRI Service Category
Geometry Type	ESRI Geometry Type Controlled List
Service URL	Project Open Data/ WA State OCIO
GeospatialMetadataURL	URL to FGDC Metadata Record
DescribedBy	Project Open Data
DescribedByType	Project Open Data
Format	Dublin Core/Project Open Data
MediaType	Dublin Core/Project Open Data

Demo Search

D Advanced Data Object Search

Advanced Search

Host/Server: Keyword:

Any Lifecycle: Yes No Any Platform: Yes No Any Group: Yes No Any Data Category: Yes No

Select one or more:

- Open Data
- Reporting
- Primary Source
- Reference
- Redundant
- Unclassified

+ Flags:

Demo Results

+ Databases (1)

+ Tables (27)

+ Columns (1,356)

- Views (94)

Name	Full Path
Activity	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.Activity
Agency	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.Agency
Appropriation	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.Appropriation
CadastralFWCountyBoundry	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.CadastralFWCountyBoundry
WSDOTPopulatedPlace	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.WSDOTPopulatedPlace
WSDOTRegion	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.WSDOTRegion
WSDOTRegion24K	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.WSDOTRegion24K
WSDOTRegionCounty	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.WSDOTRegionCounty
WSDOTRegionMaintArea	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.WSDOTRegionMaintArea
WSDOTTribalLand	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.WSDOTTribalLand
WSDOTUrbanArea	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.WSDOTUrbanArea
WSDOTUrbanGrowthArea	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.WSDOTUrbanGrowthArea
ZipCodeAll	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.ZipCodeAll
ZipCodeCityCountyState	HQOLYMSQL09P\MSSQLSERVER.WSDOTDataLibrary.dbo.ZipCodeCityCountyState

Demo

- + WSDOTMaintenanceArea
- + WSDOTOrgCurrentYearBudgetOrgFiltere
- + WSDOTPopulatedPlace
- + WSDOTRegion
- + WSDOTRegion24K
- + WSDOTRegionCounty
- + WSDOTRegionMaintArea
- + WSDOTRoadwayFederalFunctionalClassif
- + **WSDOT Tribal Land**
- + WSDOTUrbanArea
- + WSDOTUrbanGrowthArea
- + ZipCodeAll
- + ZipCodeCityCountyState
- drm
 - + Activity
 - + Agency
 - + Appropriation
 - + AreaGeography
 - + AreaGeometry
 - + BMPDesignation
 - + BMPTYPE
 - + ControlSection

Save Expand All Collapse All Delete Add Column

+ View Information

NEW LOST ARCH

Table Name: WSDOT Tribal Land

Schema Name: dbo

Business Term: None [EDIT](#)

Definition: None

Contains State Data Classification Level: Category 1 - Public

Data Category: Reference

Requires Special Handling: No **Data Sharing Agreement:** No

Notes:

+ **Technical Stewards (1)** [EDIT](#) [EMAIL STEWARDS](#)

+ **Special Handling**

+ **Administrative Information**

+ **Business Intelligence Metadata**



+ **Attachments (2)** [ADD](#)

+ **Update Information**

Save

Demo

 **Attachments (2)** ADD

	Title	Category	Action
	Tribal Lands of Washington State	Geospatial Metadata	DELETE
	WSDOTtribalLand.xml	Data Set Metadata	DELETE

<http://hqolymgis28p:6080/arcgis/rest/services/PoliticalAdminBoundaries/PoliticalAdminBoundaries/FeatureServer/10>

Data Set Metadata

```
<dc:title>Tribal Lands of Washington State</dc:title>
<dc:description> Boundaries of Tribal Lands recognized by the U.S. Bureau of Indian Affairs</dc:description>
<wdl:Topic>Political and Administrative Boundaries</wdl:Topic>
<wdl:keywords>Tribal Lands</wdl:keywords>
<wdl:keywords>Washington State</wdl:keywords>
<wdl:keywords>Indian Reservations</wdl:keywords>
<dcterms:created>2015-10-14</dcterms:created>
<wdl:ContentType>Reference Data Set</wdl:ContentType>
<wdl:PostingFrequency>Nightly</wdl:PostingFrequency>
<wdl:DataSharingAgreementFlag>>false</wdl:DataSharingAgreementFlag>
<wdl:accessLevel>Category 1 - Public</wdl:accessLevel>
-<wdl:Contact>
<wdl:ContactName>Jason Stambaugh</wdl:ContactName>
  <wdl:ContactRole>Geospatial Data Steward</wdl:ContactRole>
  <wdl:ContactJobTitle>GIS DBA Administrator</wdl:ContactJobTitle>
  <wdl:ContactEmail>StambaJ@wsdot.wa.gov</wdl:ContactEmail>
  <wdl:ContactWSDOTOffice>Data Resource Management</wdl:ContactWSDOTOffice>
  <wdl:ContactWSDOTDivision>Information Technology Division</wdl:ContactWSDOTDivision>
</wdl:Contact>
+<wdl:Contact>
```

Distribution Metadata

ArcGIS REST Service

```
<wdl:WSDOTDistribution>  
  <dc:title>ArcGIS REST service Distribution</dc:title>  
  <dc:description>Tribal Land Boundaries for Washington State with Polygon in ArcGIS REST service  
  format</dc:description>  
  <wdl:ServiceCategory>PoliticalAdminBoundaries</wdl:ServiceCategory>  
  <wdl:ServiceGeometryType>GEOMETRYPOLYGON</wdl:ServiceGeometryType>  
  <wdl:AccessURL>  
  http://hqolymgis28p:6080/arcgis/rest/services/PoliticalAdminBoundaries/PoliticalAdminBoundaries/FeatureServer/10  
  </wdl:AccessURL>  
  <wdl:GeospatialMetadataURL>  
  http://www.wsdot.wa.gov/mapsdata/geodatacatalog/Maps/noscale/DOT\_Cartog/TribalLands.htm  
  </wdl:GeospatialMetadataURL>  
  <dc:format>ArcGIS REST service</dc:format>  
</wdl:WSDOTDistribution>
```

Access URL

ArcGIS REST Services Directory

[Home](#) > [services](#) > [PoliticalAdminBoundaries](#) > [PoliticalAdminBoundaries \(FeatureServer\)](#) > [PoliticalAdminBoundaries.DBO.TribalLands](#)

[JSON](#)

Layer: PoliticalAdminBoundaries.DBO.TribalLands (ID: 10)

View In: [ArcGIS.com Map](#)

Name: PoliticalAdminBoundaries.DBO.TribalLands

Display Field: NAME

Type: Feature Layer

Geometry Type: esriGeometryPolygon

Description:

Definition Expression: N/A

Copyright Text:

Default Visibility: false

MaxRecordCount: 100000

Supported Query Formats: JSON, AMF

Min Scale: 0

Max Scale: 0

Supports Advanced Queries: true

Supports Statistics: true

Use Standardized Queries: true

Extent:

XMin: 606806.3805221319

YMin: 109904.06738497317

XMax: 2431419.4855537266

YMax: 1344003.2638798058

Spatial Reference: 2927 (2927)

Geospatial Metadata URL

Tribal Lands of Washington State

[Identification Information](#)

[Data Quality Information](#)

[Spatial Data Organization Information](#)

[Spatial Reference Information](#)

[Entity and Attribute Information](#)

[Distribution Information](#)

[Metadata Reference Information](#)

Identification Information

[Section Index](#)

Citation:

Citation Information:

Originator: Washington State Department of Transportation

Publication Date: 201311

Title: Tribal Lands of Washington State

Geospatial Data Presentation Form: vector digital data

Publication Information:

Publication Place: Olympia, Washington, USA

Publisher: Washington State Department of Transportation

Description:

Abstract: Boundaries of Tribal Lands recognized by the U.S. Bureau of Indian Affairs (see supplemental information regarding the Yakama Indian Reservation boundary).

Purpose: This data set is used as a reference layer for geographic information systems at the Washington State Department of Transportation (WSDOT).

Supplemental Information:

Distribution Metadata Database View

```
-<wdl:WSDOTDistribution>  
  <dc:title>WSDOTTribalLand</dc:title>  
  <dc:description>  
    MS SQL View within the WSDOT Data Library. For Data Dictionary See View  
    Detail in DOTS or refer to Geospatial Metadata  
  </dc:description>  
  <wdl:GeospatialMetadataURL>  
    http://www.wsdot.wa.gov/mapsdata/geodatacatalog/Maps/noscale/DOT\_Cartog/  
TribalLands.htm  
  </wdl:GeospatialMetadataURL>  
  <dc:format>MS SQL View</dc:format>  
</wdl:WSDOTDistribution>
```



Andy Everett
Washington State Department of Transportation
Andy.everett@wsdot.wa.gov
360-705-7622