

# Policy & Standard Background

**Name:** 161.01 Geodetic Control Standard

**New, Update or Sunset Review?** Sunset Review

## What is the business case for the policy/standard?

Geodetic control refers to ways we measure our round world. Washington State has a standard way of making the round world flat so that the distortion of that process is consistent and appropriate for Washington.

These standards establish and reference Geodetic Control Data Standards for vertical datum, horizontal datum, and the state's coordinate system used for agency geospatial data, geographic information systems, and data exchanges.

They are designed to improve data quality and accuracy, and simplify the exchange of geodetic control data among state agencies, local, tribal, state, and federal users and producers.

## What are the key objectives of the policy/standard?

This was a sunset review of the standard. During that review, the team updated specific reference language to more clearly designate the codes to use for geospatial data.

## How does policy/standard promote or support alignment with strategies?

The need for this standard still exists to facilitate data exchanges among state, local, tribal, and federal users of geospatial data.

## What are the implementation considerations?

The impact on most agencies should be minimal since the standard is not changing. The only changes were to clarify reference codes for Washington. This standard will need to be reviewed again in the next 2 years due to expected changes in Washington RCW that will align Washington geodetic standards to the federal standards to be implemented in 2022. DNR is leading that effort.

## How will we know if the policy is successful?

This is already a successful policy.

CURRENT POLICY  
w/ PROPOSED  
REVISIONS

Office of the Chief Information Officer, Washington State  
Standard No. 161.01

## Standard Number 161.01

Effective Date: ~~January 13, 2011~~ July 2019

## Geodetic Control Data Standard

### Related Documents:

- Geospatial Procedure Process
- Waiver Process

### See Also:

RCW 43.105.041 details the powers and duties of the Technology Services Board (TSB), including the authority to develop statewide or interagency information services and technical policies, standards, and procedures.

RCW 58.20 details the Washington Coordinate System, established by the National Geodetic Survey for defining and stating the positions or locations of points on the surface of the earth within the state of Washington.

## Purpose

These standards establish and reference Geodetic Control Data Standards for vertical datum, horizontal datum, and the state's coordinate system used for agency geospatial data, geographic information systems, and data exchanges.

They are designed to improve data quality and accuracy, and simplify the exchange of geodetic control data among state agencies, local, tribal, state, and federal users and producers.

## Statutory Authority

The provisions of RCW 43.105.041 detail the powers and duties of the Technology Services Board (TSB), including the authority to develop statewide or interagency information services and technical policies, standards, and procedures.

## Scope and Exemptions

These standards apply to state of Washington executive branch agencies, agencies headed by

separately elected officials, and institutions of higher education referred to as “agencies” throughout this document. Academic and research applications at institutions of higher education are exempt.

### Standard

Agencies shall use the following Geodetic Control Data Standards for significant new or redesigned agency geospatial datasets, geographic information systems, and data exchanges.

Geodetic Control	State Standard	Owner/ Primary Steward
Horizontal Datum	NAD 83/91 - North American Datum of 1983, with 91 adjustments	NGS
State Plane Coordinate System	Washington Coordinate System of 1983	DNR
Vertical Datum	NAVD 88 - North American Vertical Datum of 1988	NGS

#### 1. Horizontal Datum

The North American Datum 1983 (NAD 83), with 1991 (NAD 83/91) adjustments shall be the state standard for Horizontal Datum.

- Reference datum and adjustments in metadata.

#### 2. Projected Coordinate System (PCS)

##### 2.1. State Plane Coordinate System (SPCS)

- The Washington Coordinate System of 1983 shall be the coordinate system in Washington, per RCW 58.20.120, System designation – Permitted uses.

##### 2.2. Unit of Measure and Conversion

Office of the Chief Information Officer, Washington State  
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- The Standard unit of measure is the U.S. Survey Foot.
- For conversion of coordinates between the meter and the United States survey foot, the meter shall equal exactly 39.37 inches, per RCW 58.20.190 Conversion of coordinates - Metric.

### **~~2.3. South Zone for Statewide Layers~~**

- ~~Use South Zone for Statewide Layers – For geospatial data maintained as a statewide layer or a regional layer crossing zones, agencies shall use the Washington State Plane Coordinate System 83 South Zone.~~

#### 2.3. South Zone (FIPS: 4602; WKID: 2927)

- Use South Zone for Statewide Layers and for layers that are in both the South and North Zones.
- Use South Zone for layers that are not in the North Zone. The area now included in the following counties shall constitute the south zone: Adams, Asotin, Benton, Clark, Columbia, Cowlitz, Franklin, Garfield, that part of Grant lying south of parallel 47° 30' north latitude, Grays Harbor, Kittitas, Klickitat, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, Wahkiakum, Walla Walla, Whitman and Yakima.

#### 2.4. North Zone (FIPS: 4601; WKID: 2926)

- Use North Zone for layers that are not in the South Zone. The area now included in the following counties shall constitute the north zone: Chelan, Clallam, Douglas, Ferry, Island, Jefferson, King, Kitsap, Lincoln, Okanogan, Pend Oreille, San Juan, Skagit, Snohomish, Spokane, Stevens, Whatcom, and that part of Grant lying north of parallel 47° 30' north latitude.

### **3. Vertical Datum**

The North American Vertical Datum of 1988 (NAVD 88) shall be the state standard for Vertical Datum.

### **Conversion and Adjustment Tools**

- NGS Geodetic Tool Kit provides various free online interactive and downloadable software programs and tools for computing, converting, and adjusting geospatial data. <http://www.ngs.noaa.gov/>
- VDatum is a free software tool designed to vertically transform geospatial data among a variety of tidal, orthometric and ellipsoidal vertical datums.
- <http://vdatum.noaa.gov/>

## References

- Washington Coordinate System, Chapter 58.20  
RCW <http://apps.leg.wa.gov/rcw/default.aspx?cite=58.20>
- National Geodetic Survey (NGS) <http://www.ngs.noaa.gov/>
- Geographic Information Framework Data Content Standard, Part 4: Geodetic Control, 2008  
[http://www.fgdc.gov/standards/projects/FGDC-standards-projects/framework-data-standard/GI\\_FrameworkDataStandard\\_Part4\\_GeodeticControl.pdf](http://www.fgdc.gov/standards/projects/FGDC-standards-projects/framework-data-standard/GI_FrameworkDataStandard_Part4_GeodeticControl.pdf)
- State Plane Coordinate System of 1983, NOAA  
[http://www.ngs.noaa.gov/PUBS\\_LIB/ManualNOSNGS5.pdf](http://www.ngs.noaa.gov/PUBS_LIB/ManualNOSNGS5.pdf)
- NAD83 (NSRS2007) National  
Readjustment, [http://www.ngs.noaa.gov/NationalReadjustment/adjustment\\_faq.html](http://www.ngs.noaa.gov/NationalReadjustment/adjustment_faq.html)
- Environmental Systems Research Institute (ESRI) <http://resources.esri.com>
- Washington North Zone/ South Zone map: <https://geo.wa.gov/datasets/washington-stateplane-north-south-zones>

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## Key Terms

**Geodetic Control** – Set of control points whose coordinates are established by geodetic surveying methods such as classical line-of-sight triangulation, traverse, geodetic leveling, and gravimetric or satellite surveys such as Doppler or GPS.

The newer technologies have resulted in more accurate horizontal and vertical control points on the earth's surface and serve as the basis for current vertical and horizontal datum.

**Horizontal Datum** – A reference surface against which locations on the earth are described, most commonly using latitude and longitude coordinates. They serve as the basis for coordinate systems including the Washington State Plane Coordinate System.

**Geographic Coordinate Systems (GCS)** – Use a three-dimensional spherical surface to define locations on the earth. A point is referenced by its longitude and latitude values.

**Projected Coordinate Systems (PCS)** - Are defined on a flat, two-dimensional surface and always based on a GCS.

**State plane coordinate systems (SPCS)** - Are PCS designed for applications within a state. Washington is divided into two zones - North and South.

**Vertical Datum** – A reference surface against which elevation and depth are measured on the earth's surface.

## Revision History

Date	Version	Editor	Action taken
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Office of the Chief Information Officer, Washington State  
Standard No. 161.01

December 21, 2010	1.0	Joy Paulus, DIS	Assigned a standards number and adopted by the Information Services Board
<a href="#">September 4, 2018</a>	<a href="#">1.1</a>	<a href="#">Joanne Markert, OCIO</a>	<a href="#">DRAFT adjustment to language regarding north and south zones.</a>

### Contact Information

For questions about this standard, please contact your OCIO Geospatial Program Office.

### Approving Authority

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Chief Information Officer  
Chair, Technology Services Board

Date





# Policy & Standard Background

**Name:** 161.02 Geospatial Metadata Standard

161.05 Geospatial Application & Data Services Metadata Standard

**New, Update or Sunset Review?** Sunset Review / Rescind

**What is the business case for the policy/standard?**

There were three separate standards for metadata at the state. These metadata standards are proposed for rescission, with the salient components included in a revised standard for 187.10.

**What are the key objectives of the policy/standard?**

The need for documentation of our state data, applications and data services are still needed, but were streamlined into a single standard to facilitate agency compliance.

**How does policy/standard promote or support alignment with strategies?**

This change simplifies the standards that agencies need to comply with and will treat geospatial data similar to non-spatial data regarding documentation.

**What are the implementation considerations?**

The impact on most agencies should be minimal. Will discuss implementation during discussion of revised standard 187.10.

**How will we know if the policy is successful?**

This is already a successful policy, but needs to be simplified.



# Policy & Standard Background

**Name:** 161.03 Hydrography Data Standard

**New, Update or Sunset Review?** Sunset Review

## What is the business case for the policy/standard?

Hydrography generally refers to rivers, lakes, streams and shorelines. The data is critical base data used to support Washington State's mission of protecting the environmental quality of the water resources of Washington State. The objective of this standard is to designate a single, common hydrography data model for agency geospatial data, geographic information systems, and data exchanges. Geospatial data that is built on common technical standards:

- Facilitates data exchanges for key datasets
- Reduces staff time spent converting between differing alignments, route systems and measures
- Minimizes error introduction brought on by the need to convert between differing alignments, route systems and measures

The standard is designed to improve data quality and accuracy, and simplify the exchange of hydrography data among state agencies, local, tribal, state, and federal users and producers.

## What are the key objectives of the policy/standard?

This was a sunset review of the standard. During that review, the team clarified language and updated hyperlinks.

## How does policy/standard promote or support alignment with strategies?

The need for this standard still exists to facilitate data exchanges among state, local, tribal, and federal users of hydrography data.

## What are the implementation considerations?

The impact on most agencies should be minimal since the standard is not changing.

## How will we know if the policy is successful?

This is already a successful policy.

CURRENT POLICY  
w/ PROPOSED  
REVISIONS

## Standard Number 161.03

Effective Date: ~~January~~ ~~July 13,~~ 201~~9~~1

## Hydrography Data Standard

### Related Documents:

- Geospatial Procedure Process
- Waiver Process

### See Also:

RCW 43.105.041 details the powers and duties of the Technology Services Board (TSB), including the authority to develop statewide or interagency information services and technical policies, standards, and procedures.

## Purpose

Hydrography data is critical base data used to support Washington State's mission of protecting the environmental quality of the air, land, and water resources of Washington State. The objective of this standard is to designate a single, common hydrography data model for agency geospatial data, geographic information systems, and data exchanges. Geospatial data that is built on common technical standards:

- Facilitates data exchanges for key datasets,
- Reduces staff time spent converting between differing alignments, route systems and measures,
- Minimizes error introduction brought on by the need to convert between differing alignments, route systems and measures, and
- Enables on the fly integration of distributed and separately maintained geo-datasets.

The standard is designed to improve data quality and accuracy, and simplify the exchange of hydrography data among state agencies, local, tribal, state, and federal users and producers.

## Statutory Authority

The provisions of RCW 43.105.041 detail the powers and duties of the Technology Services Board (TSB), including the authority to develop statewide or interagency information services and technical policies, standards, and procedures.

## Scope and Exemptions

These standards apply to state of Washington executive branch agencies, agencies headed by separately elected officials, and institutions of higher education referred to as “agencies” throughout this document. Academic and research applications at institutions of higher education are exempt.

## Standard

The U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) shall be the data standard for all surface water (hydrography) geospatial datasets in Washington state.

The current published version of the National Hydrography Dataset (NHD) stewarded by the Washington Dept. of Ecology (ECY) will be the official state version for line work, points, areas, stream routing, and NHD defined attributes representing surface water hydrography.

Agencies shall use the NHD for all existing and/or any newly designed or significantly redesigned agency geographic information systems.

Agencies shall use NHD Data Dictionary that provides common structure to promote data sharing [https://nhd.usgs.gov/NHDv2.2.1\\_poster\\_081216.pdf](https://nhd.usgs.gov/NHDv2.2.1_poster_081216.pdf) (~~[http://nhd.usgs.gov/NHDv2.0\\_poster\\_6-2-2010.pdf](http://nhd.usgs.gov/NHDv2.0_poster_6-2-2010.pdf)~~).

The update frequency of the statewide published version of NHD will be determined by [Ecology and other state users as appropriate.](#) ~~the Washington State Hydrography Steering Committee.~~

Each published version will be identified by a unique version datenumber. ECY will make retired versions available for use by stakeholders for no less than ~~12 months~~ 2 years from the date of retirement.

Under this standard, agencies may use alternative surface water conventions and structures provided:

- The agency maintains a version of hydrographic features which preserve spatial consistency with NHD geometry currently published by ECY.
- Any hydrographic variations introduced by the agency are posted to the USGS managed National NHD repository and made available in the next publication cycle.

- The agency maintains a version of hydrography related attributes for ~~GIS~~-defined significant geo-datasets which can be accurately mapped to the Reach Code routing system contained in the currently published ECY version of the NHD.

Geospatial Layers	State Standard	Owner/Primary Steward
Hydrography – all surface water features	National Hydrography Dataset (NHD)	USGS

### USGS National Hydrography Dataset (NHD)

The NHD is a comprehensive set of digital spatial data representing the surface waters of the United States using common features such as lakes, ponds, streams, rivers, canals, and oceans. These data are designed to be used in general mapping and in the analysis of surface-water systems using geographic information systems (GIS). The NHD is a set of digital geospatial data that encodes information about naturally occurring and constructed bodies of water, paths through which water flows, and related entities.

The U.S. Geological Survey (USGS) is the owner and primary data steward of the NHD. USGS roles and responsibilities for maintaining the NHD are included in a Memorandum of Understanding between the Pacific Northwest Hydrography Framework (PNWHF) and the USGS. To review the MOU, go to <https://nhd.usgs.gov/stewardship.html> ~~<http://webhosts.cr.usgs.gov/steward/>~~, click on WA State, and the select the link to view the MOU document.

The NHD data model was designed to allow local stewards to improve upon the existing NHD and keep it continuously updated. Input from local stewards, knowledgeable about the hydrography in their local area, assures that the NHD is accurate, current, and meets the objectives of the user community.

### Maintenance of the NHD as Washington State’s Common Hydrography Dataset

Since the NHD is a national dataset used and maintained by many state, federal and local organizations, changes to the data can be made at many locations. Agreement by the appropriate local agency stewards is required before edits are made in areas where agencies may have land management or regulatory responsibilities. These agreements or Memorandums of Understanding are necessary to assure that stewardship responsibilities are recognized and respected prior to performing edits on the NHD. ~~Current agreements for maintaining the NHD are included or~~

~~referenced in the GIS Hydrography Data Standards Business Case.~~

### **NHD Datasets, Tools, and Support**

The National Hydrography Dataset (NHD) is stored in a versioned geodatabase implementation of the NHD model. NHD data, tools, and technical support are available through NHD.

<https://nhd.usgs.gov/index.html>

### **NHD Data**

Current NHD hydrography data for any location within Washington State is always available at

~~<https://nhd.usgs.gov/data.html>~~ ~~<http://nhd.usgs.gov/data.html>~~. [The Washington Stateplane South version can be found by searching for NHD at geo.wa.gov.](#)

### **NHD Tools**

~~NHD provides tools such as Re-projection, Event Management, and Network Builder. General tools for use with the NHD are available at <http://nhd.usgs.gov/tools.html>.~~

~~Tools dedicated to NHD maintenance are available to certified stewards at <https://my.usgs.gov/confluence/display/hdc/http://webhosts.cr.usgs.gov/steward>.~~

### **Technical support**

#### **NHD Technical References**

~~<http://nhd.usgs.gov/techref.html>~~

#### **Web based customer support**

~~<http://nhd.usgs.gov/techsupport.html>~~

### **References**

US Geological Survey (USGS)

~~<http://nhd.usgs.gov/index.html>~~

PNW Hydrography Framework

~~<http://www.pnwhf.org>~~

### **Revision History**



Date	Version	Editor	Action taken
January 13, 2011	1.0	Joy Paulus, OCIO	Assigned policy number and adopted by the Information Services Board
<a href="#">October, 2018</a>	<a href="#">1.1</a>	<a href="#">Joanne Markert, OCIO</a>	<a href="#">Updating standard based on input from Ecology and Geospatial Portal Steering Committee.</a>

### Contact Information

For questions about this standard, please contact your OCIO Geospatial Program Office.

### Approving Authority

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Chief Information Officer  
Chair, Technology Services Board

Date



# Policy & Standard Background

**Name:** 187.10 Metadata Standard

**New, Update or Sunset Review?** Update

**What is the business case for the policy/standard?**

Metadata is how we document basic information about datasets, for example, title, description, data format, or publication date. Metadata is especially important when we are sharing data among agencies and with the public via open data portals so that customers can evaluate the suitability for their purposes and hopefully avoid creating duplicate data.

**What are the key objectives of the policy/standard?**

Previous to this review, Washington had three standards relating to metadata, two for geospatial data and a separate one for open data. This update consolidates those three standards into a single metadata standard.

**How does policy/standard promote or support alignment with strategies?**

These updates standardize the metadata required for geospatial and non-geospatial data shared via open data portals.

**What are the implementation considerations?**

This standard should simplify implementation for agencies by following a single standard for all open data. Geospatial data will require additional information in metadata than non-geospatial data and are referenced as guidelines in the updated standard. The Geospatial Portal Steering Committee and Geographic Information Technology Committees are currently developing, testing and approving implementation of the guidelines to encourage compliance by agencies.

**How will we know if the policy is successful?**

This is already a successful policy.

# CURRENT POLICY



## SCOPE

This standard applies to state of Washington executive branch agencies, agencies headed by separately elected officials, and institutions of higher education referred to as “agencies” throughout this document. Institutions of higher education are exempt but are invited to conform where feasible.

## PURPOSE

Establishes the requirement for documenting agency applications and data services through the creation and use of metadata. Metadata plays a fundamental role in the successful management of information and services. The objective of this standard is to protect the states investment in significant information assets through standardized documentation.

## STANDARD

The Dublin Core and FGDC Metadata Elements described below constitute the minimum metadata elements and are required for all state applications and data services.

Unstructured data, narrative documents, or materials in records retention or archival storage are not required to comply with this standard.

## Dublin Core Basic Standard

*All Washington State Agency information systems are expected to include the following data elements in each of the following categories:*

### Identification Information

<i>Element</i>	<i>Description</i>	<i>Format/Example</i>
Title	A name given to the resource.	Format: Character Example: Water Rights Applications
Description / Abstract	An account, description or overview of the service or resource	Format: Character Example: Pending Water Right Applications in Washington State. Includes both applications for new water rights and to change existing water rights.
Service URL	Standard web address to access or link to the service or resource.	Format: Character Example: <a href="https://data.wa.gov/Natural-Resources-Environment/Water-Right-Applications/9ubz-5r4b">https://data.wa.gov/Natural-Resources-Environment/Water-Right-Applications/9ubz-5r4b</a> <sup>[1]</sup>

<b>Format</b>	The nature or genre of the resource. To describe the file format, physical medium or dimension of the resource.	Format: Character Example: OGC KML XML, REST
<b>Originator</b>	The entity responsible for publishing the service or resource.	Format: Character Example: Water Quality Program Manager, Washington Department of Ecology, PO box 42222 Olympia, WA 98504-9999
<b>Publication Date</b>	The date the service or resource was made available.	Format: Date Example: Oct 11, 2012
<b>Metadata language</b>	The language the service or resource is published.	Format: Character Example: English

## Data Theme

<i>Element</i>	<i>Description</i>	<i>Format/Example</i>
<b>Theme Topic</b>	Identifies which of the 19 ISO Data Categories that the service or resource falls	Format: Character Example: Economic, Environmental, Public Safety

## Data Time Period

<i>Element</i>	<i>Description</i>	<i>Format/Example</i>
<b>Period of Time</b>	The timeframe of data available in the dataset.	Format: Character Example: July 1, 2015-June 30 2016
<b>Posting Frequency</b>	Planned refresh or update cycle. This is a goal, not a guarantee. Corresponds to Dublin Core value "Coverage (Temporal)"	Format: Character Example: Annually Example: Hourly

## References

- The Dublin Core Metadata Element Set. <http://www.dublincore.org/documents/dces/><sup>[2]</sup>
- Federal Geographic Data Committee FGDC-STD-001-1998 Content Standard for Digital Geospatial Metadata. <http://www.fgdc.gov/metadata/csdgm><sup>[3]</sup>

- <sup>[3]</sup>ISO 15836:2009, Information and Documentation –The Dublin Core metadata element set. [http://www.iso.org/iso/catalogue\\_detail.htm?csnumber=52142](http://www.iso.org/iso/catalogue_detail.htm?csnumber=52142) <sup>[4]</sup>
- The Singapore Framework for Dublin Core Application Profiles. <http://dublincore.org/documents/singapore-framework/> <sup>[5]</sup>

## Definitions

*Note: In order to keep policies clear and short, definitions are not part of the published policy. The section below is published with the draft but the terms defined will be removed to the common OCIO policy on definitions.*

- **Metadata** – data about data. Metadata is a summary document providing content, quality, type, creation and spatial information about a data set or other resource (for example, MP3 files, books, reports, websites, satellite images or GIS datasets).
- **Dublin Core Metadata Element Set** – establishes a standard for cross-domain resource description and has been standardized as the ISO Standard 15836:2009.
- **ISO** – the International Organization for Standardization. They develop and publish international standards.
- **Resource** – refer to any objects of interest such as books, reports, datasets, services, applications, websites, satellite images, videos, etc.

## CONTACT INFORMATION

For questions about this policy, please send an email to the [OCIO Policy mailbox](#) <sup>[6]</sup>.

## REVISION HISTORY

Date	Action taken
October 14, 2015	Adopted by State CIO
December 9, 2015	Approved by Technology Services Board

## APPROVING AUTHORITY

/s/ Michael Cockrill  
 State Chief Information Officer  
 Chair, Technology Services Board

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Source URL: <https://ocio.wa.gov/policies/metadata-standard>

Links:

- [1] <https://data.wa.gov/Natural-Resources-Environment/Water-Right-Applications/9ubz-5r4b>
- [2] <http://www.dublincore.org/documents/dces/>
- [3] <http://www.fgdc.gov/metadata/csdgm>
- [4] [http://www.iso.org/iso/catalogue\\_detail.htm?csnumber=52142](http://www.iso.org/iso/catalogue_detail.htm?csnumber=52142)
- [5] <http://dublincore.org/documents/singapore-framework/>
- [6] <mailto:ocio.policy@ocio.wa.gov?subject=Metadata%20Standard>
- [7] <https://ocio.wa.gov/policies/187-open-data-planning>
- [8] <https://ocio.wa.gov/initiatives/open-data/guidance-open-data-definitions>
- [9] <https://ocio.wa.gov/initiatives/open-data/guidance-agency-open-data-plans>
- [10] <https://ocio.wa.gov/policies/16000-spatial-data-management-policy-standards/16105-application-data-services-metadata>
- [11] <http://dublincore.org/documents/2012/06/14/dcmi-terms/>
- [12] [http://www.iso.org/iso/home/store/catalogue\\_tc/catalogue\\_detail.htm?csnumber=52142](http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=52142)





# PROPOSED UPDATES TO POLICY

## Standard Number 187.10

Effective Date: [July 2019](#)

## Metadata Standard

### Related Documents:

- [Waiver Process](#)

### See Also:

RCW 43.105.041 details the powers and duties of the Technology Services Board (TSB), including the authority to develop statewide or interagency information services and technical policies, standards, and procedures.

## Purpose

Establishes the requirement for documenting agency applications, data and data services through the creation and use of metadata. Metadata plays a fundamental role in the successful management of information and services. The objective of this standard is to protect the states investment in significant information assets through standardized documentation.

## Statutory Authority

The provisions of RCW 43.105.041 detail the powers and duties of the Technology Services Board (TSB), including the authority to develop statewide or interagency information services and technical policies, standards, and procedures.

## Scope and Exemptions

This standard applies to state of Washington executive branch agencies, agencies headed by separately elected officials, and institutions of higher education referred to as “agencies” throughout this document. Institutions of higher education are exempt but are invited to conform where feasible. This standard applies to those data shared via state open data portals.

## Standard

The Metadata Elements described below (based on Dublin Core and ISO) constitute the minimum metadata elements and are required for all open data state applications, data and data services.

Standard No. 187.10

For geospatial data, application and data services, the minimum metadata elements are extended to include additional fields as outlined in the “Washington Guideline for Geospatial Metadata” as approved by the Geospatial Information Technology Committee. Geospatial data, applications and data services include explicit coordinates or spatial geometry.

Non-geospatial data may include location elements that communicate the general location (e.g. fields for county, legislative district, address) and are not required to follow the “Washington Guidelines for Geospatial Metadata”.

Unstructured data, narrative documents, or materials in records retention or archival storage are not required to comply with this standard.

### Metadata Basic Standard

All Washington State Agency information systems shared to open data portals are expected to include the following data elements in each of the following categories. Agencies are strongly encouraged to include documentation in plain language about the attributes in a dataset when possible.

#### Identification Information

<i>Element</i>	<i>Description</i>	<i>Format/Example</i>
<b>Title</b>	A name given to the resource.	Format: Character Example: Water Rights Applications
<b>Description / Abstract</b>	An account, description or overview of the service or resource.	Format: Character Example: Pending Water Right Applications in Washington State. Includes both applications for new water rights and to change existing water
<b>Service URL</b>	Standard web address to access or link to the service or resource.	Format: Character Example: <a href="https://data.wa.gov/Natural-Resources-Environment/Water-Right-">https://data.wa.gov/Natural-Resources- Environment/Water-Right-</a>

<b>Format</b>	The nature or genre of the resource.  To describe the file format, physical medium or dimension of the resource.	Format: Character  Example: OGC KML XML, REST
<b>Originator</b>	The entity responsible for publishing the service or resource.	Format: Character  Example: Water Quality Program Manager, Washington Department of Ecology, PO box 42222 Olympia, WA 98504-9999
<b>Publication Date</b>	The date the service or resource was first made available.	Format: Date  Example: Oct 11, 2012
<b>Metadata language</b>	The language in which the service or resource is published.	Format:Character  Example: English

**Data Theme**

<i>Element</i>	<i>Description</i>	<i>Format/Example</i>
<b>Theme Topic</b>	Identifies the most applicable 19 ISO Data Categories.	Format: Character  Example: Economic, Environmental, Public Safety

**Data Time Period**

<i>Element</i>	<i>Description</i>	<i>Format/Example</i>
<b>PeriodofTime (optional)</b>	The timeframe of the data content available in the dataset.	Format: Character  Example: July 1, 2015-June 30 2016
<b>Posting Frequency</b>	Planned refresh or update cycle. This is a goal, not a guarantee. Corresponds to Dublin Core value "Coverage (Temporal)".	Format: Character  Example: Annually  Example: Hourly

## References

- The Dublin Core Metadata Element Set. <http://www.dublincore.org/documents/dces/> [2]
- Federal Geographic Data Committee FGDC-STD-001-1998 Content Standard for Digital Geospatial Metadata. <http://www.fgdc.gov/metadata/csdgm> [3]
- ISO 15836:2009, Information and Documentation –The Dublin Core metadata element set. [http://www.iso.org/iso/catalogue\\_detail.htm?csnumber=52142](http://www.iso.org/iso/catalogue_detail.htm?csnumber=52142) [4]
- The Singapore Framework for Dublin Core Application Profiles. <http://dublincore.org/documents/singapore-framework/> [5]

## Key Terms

Note: In order to keep policies clear and short, definitions are not part of the published policy. The section below is published with the draft but the terms defined will be removed to the common OCIO policy on definitions.

- Metadata – data about data. Metadata is a summary document providing content, quality, type, creation and spatial information about a data set or other resource (for example, MP3 files, books, reports, websites, satellite images or GIS datasets).
- Dublin Core Metadata Element Set – establishes a standard for cross-domain resource description and has been standardized as the ISO Standard 15836:2009.
- ISO – the International Organization for Standardization. They develop and publish international standards. Resource – refer to any objects of interest such as books, reports, datasets, services, applications, websites, satellite images, videos, etc.

## Revision History

Date	Editor	Action taken
Oct 14, 2015		Adopted by State CIO
Dec 9, 2015		Approved by Technology Services Board
Feb 25, 2019		Updates from Geospatial Metadata Workgroup. Standard supersedes existing standard 187.10 and deprecates geospatial standards 161.02 & 161.05
July 2019	Joanne Markert, OCIO	Updated based on CIO review and comments.

Office of the Chief Information Officer, Washington State  
Standard No. 187.10

## Contact Information

For questions about this standard, please contact your OCIO Geospatial Program Office.

## Approving Authority

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Chief Information Officer  
Chair, Technology Services Board

Date

**Geospatial Data Standards - CIO Review – Comment Reconciliation Document**

Name	Org	Standard	Comment	Disposition
Cammy Webster	OCIO	161.01; 161.03; 187.10	Standardize format – discuss with Cammy and Sue following comment period	Used standard formatting.
Bryce Carlen	OIC	161.01; 161.03; 187.10	No issues from OIC’s perspective. Thanks for the clear overview. Helped a lot in being able to focus in on the document that actually had changes.	None
Steve Young	OSPI	161.01; 161.03; 187.10	OSPI has no comments.	None
Morgan McLemore	DAHP	161.01; 161.03; 187.10	These look great and DAHP does not have any comments.	None
James Gutholm	PDC	187.10	After reviewing, my only feedback is that the ISO 19115 topic categories seem limiting when applied to open data generally. My limited knowledge is that they are intended for geographic information. In particular, the category “society” feels overly broad for open data.	Will be working with State Library on this over the next year or so.
Michelle Morgan	WSDOT	187.10	Provided a track changes Word document. Minor wording changes. Requested a sentence encouraging (but not requiring) agencies to also include attribute definitions in metadata.	Modified standard to include these changes.