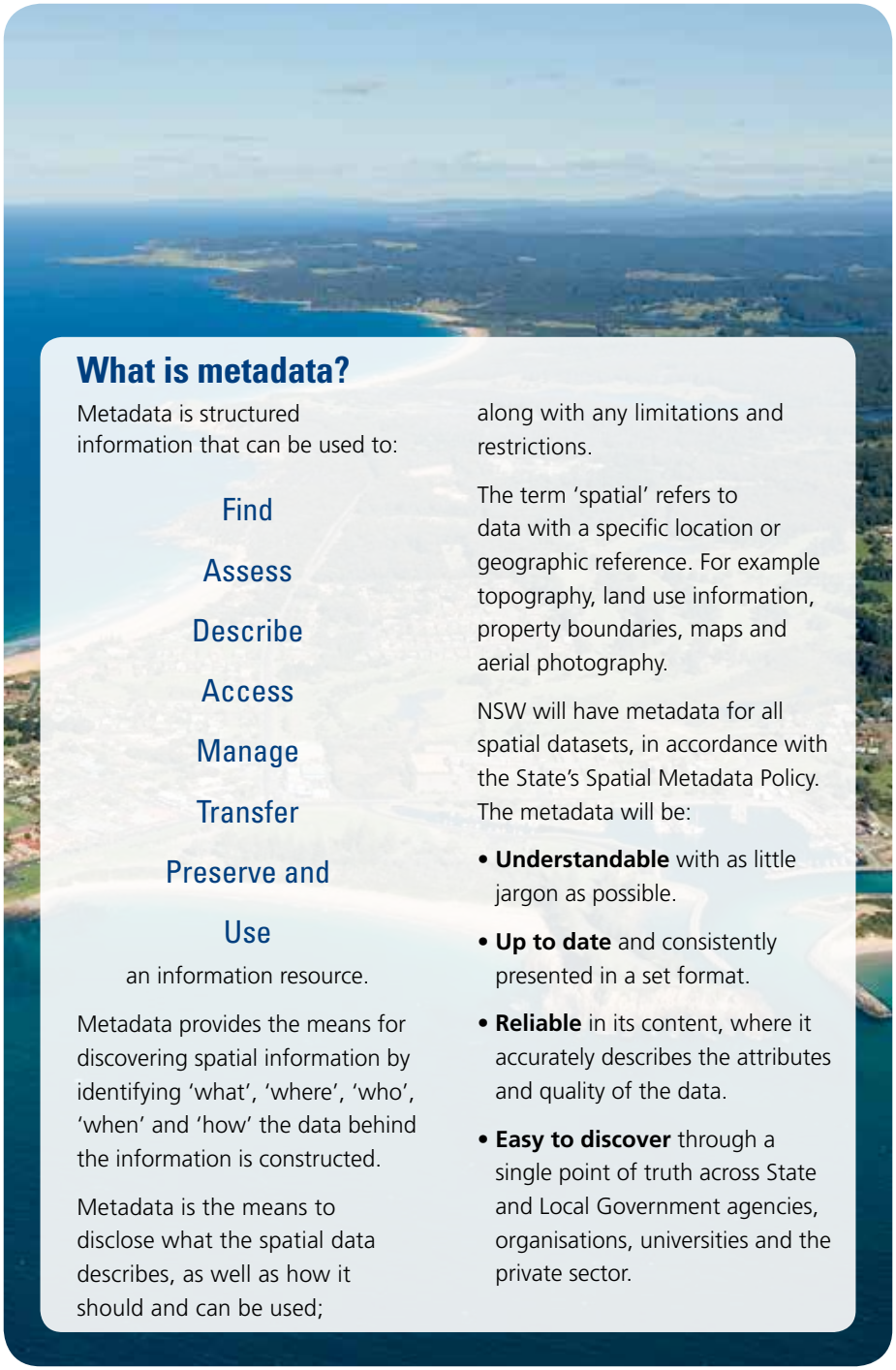
NSW GOVERNMENT Land & Property Information

A division of the Department of **Finance & Services**

SPATIAL METADATA
PROGRAM

Contents



What is metadata?

Metadata is structured information that can be used to:

Find

Assess

Describe

Access

Manage

Transfer

Preserve and

Use

an information resource.

Metadata provides the means for discovering spatial information by identifying 'what', 'where', 'who', 'when' and 'how' the data behind the information is constructed.

Metadata is the means to disclose what the spatial data describes, as well as how it should and can be used; along with any limitations and restrictions.

The term 'spatial' refers to data with a specific location or geographic reference. For example topography, land use information, property boundaries, maps and aerial photography.

NSW will have metadata for all spatial datasets, in accordance with the State's Spatial Metadata Policy. The metadata will be:

- **Understandable** with as little jargon as possible.
- **Up to date** and consistently presented in a set format.
- **Reliable** in its content, where it accurately describes the attributes and quality of the data.
- **Easy to discover** through a single point of truth across State and Local Government agencies, organisations, universities and the private sector.

Reasons to create metadata

Supermarket food packaging is a type of metadata. Imagine if you were in a supermarket aisle looking for a specific food product and discovered there were no product labels.

You wouldn't know what the products were, what they contained, how to use them, who and where they were made, the use-by date or even if they were suitable for your needs.

Spatial datasets created by State and Local Government are potentially valuable to a wide range of users. Without metadata, they could potentially sit on the 'shelf' indefinitely as there would be no accompanying information to advise users of their virtues.

Therefore, without appropriate metadata, valuable data runs the risk of being inadvertently disposed of, devalued or obscured.

If you create metadata, other people can discover and extend the value of your work.

If others create metadata, you can find their data and make informed decisions about its quality, limitations and fitness for your purpose, as well as where and how to access it.

Creating appropriate metadata – and making it available on the NSW Spatial Data Catalogue – is easy and at the same time, provides a number of tangible benefits for NSW:

- Efficiency in spatial data production, development, management and discovery and acquisition.
- Value in spatial data assets and their management.
- Collecting and re-using data multiple times which helps to avoid duplicated effort and cost.
- Effective risk management, by clearly providing quality information about the data set.
- Increasing access to government information in line with NSW 2021 Goal 31 and the requirements of the *Government Information (Public Access) Act 2009*.

What is the NSW Spatial Data Catalogue?

The NSW Spatial Data Catalogue (www.sdi.nsw.gov.au) is similar to a library catalogue for NSW State spatial data (see Figure 1).

You can use the catalogue to:

- Search for data
- Find out what data exists
- Create, upload and export metadata
- View data details in the metadata (in XML and detail display)

You can also find out:

- Where and how to access the data
- The accuracy of the data
- Who, when and how the data was created and how often it is updated
- The geographic extent of the dataset
- The rights and restrictions that apply to the dataset.

Who is responsible for creating and providing metadata?

The NSW Spatial Metadata Policy (2010) recommends all State Government agencies and Local Government authorities provide metadata for corporately significant spatial data produced, enhanced or exchanged between agencies and made publically accessible via the NSW Spatial Data Catalogue.

Figure 2 depicts the decision framework in spatial metadata creation in NSW.

Agencies and authorities should also consider publishing their spatial data on the NSW Data Catalogue www.data.nsw.gov.au.

The government also encourages academia, utilities, the private sector and the community to adopt the policy in order to realise the benefits of spatial metadata interoperability.

For more information on non-spatial data please refer to State records and the NSW Data Catalogue.

Metadata is created by exception which means if the values do not change within the dataset series, you only need to produce the one metadata statement for the entire dataset series (Figure 1).

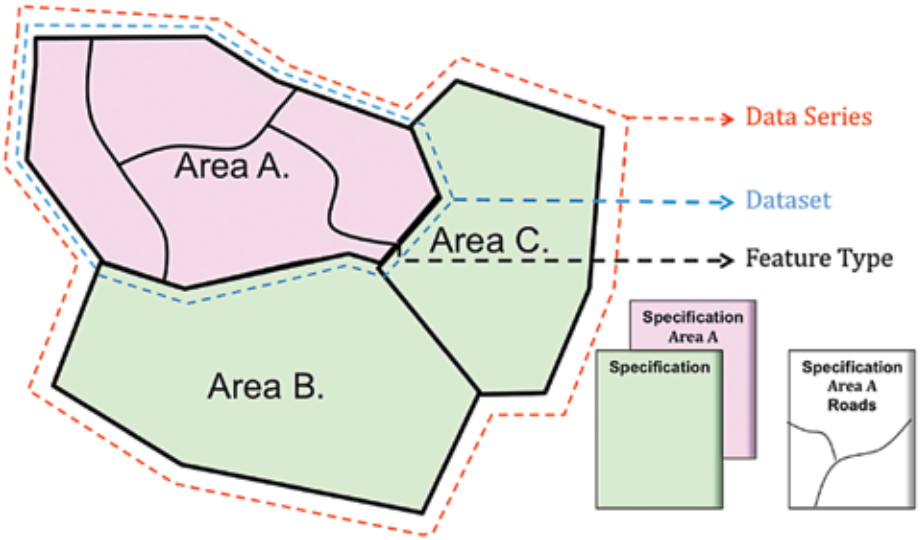


Figure 1. *Creating metadata only by exception drives efficiency.*

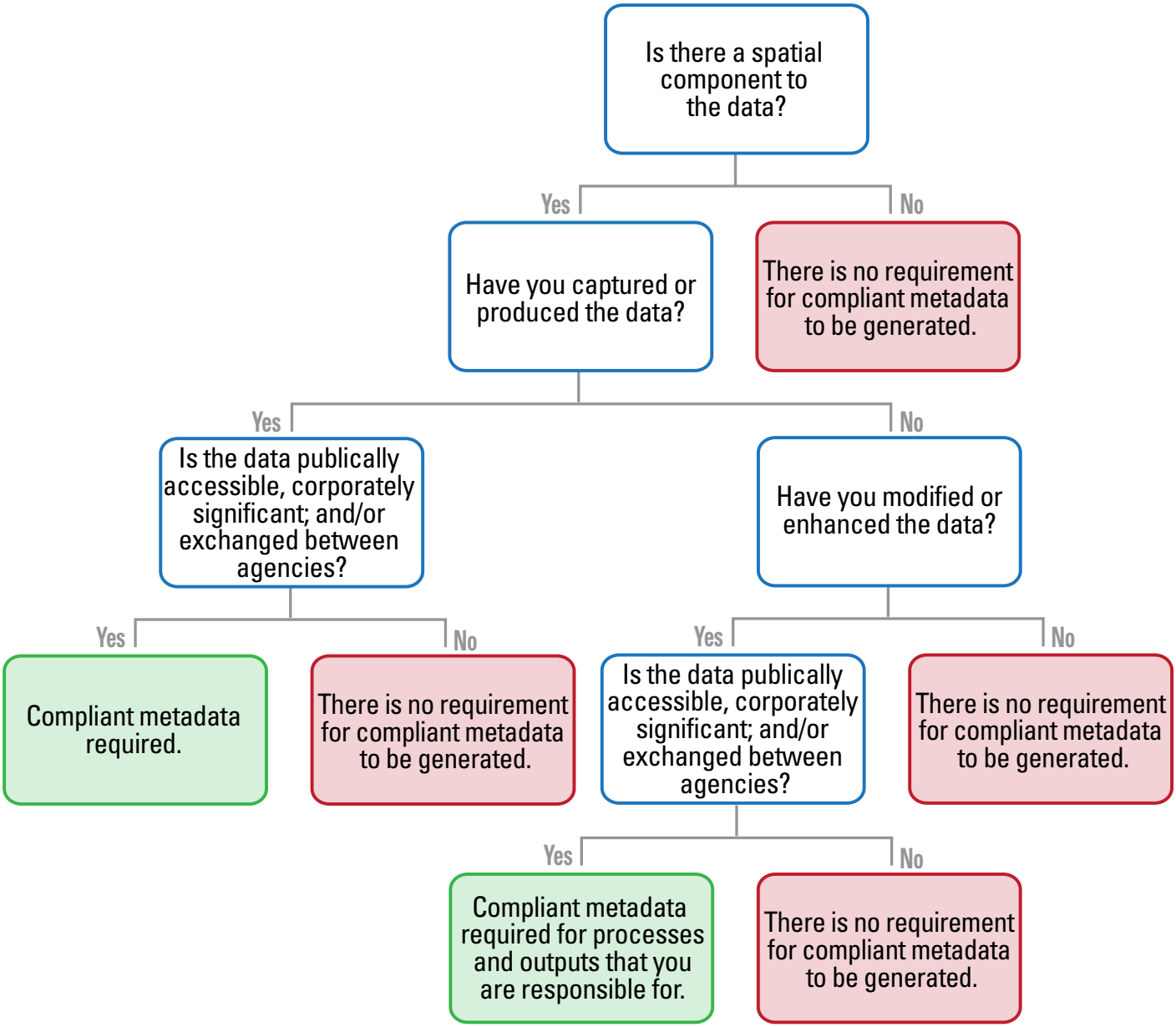


Figure 2. *Decision matrix for the creation of Spatial Metadata.*

How to create metadata

NSW uses a standard for reporting a minimum set of metadata elements based on the Australian New Zealand Land Information Council (ANZLIC) and International Organisation for Standardisation (ISO) 19115 profiles.

These elements are based on common terms, structure and a method for customising additional elements for reporting all sources of data.

The NSW Spatial Data Catalogue uses an ISO 19139 compliant XML (Extensible Mark-up Language) Metadata Statement that is uploaded to the catalogue.

The State Metadata Coordinator can assist you to do this and facilitate testing regimes to ensure compliance.

An XML Metadata statement is simply a file that is 'computer readable'. A compliant XML statement is easy to create with a number of solutions available for you to produce compliant XML metadata statements.

Please contact the NSW Metadata Co-ordinator sds.metadata@lpi.nsw.gov.au for advice and guidance on available metadata entry tools.

Metadata is easiest to create when the data is stored alongside the data it describes.

What metadata fields are mandatory?

The minimum elements for metadata in NSW are:

Minimum elements for metadata in NSW	Description
Title	The name of the data layer.
Abstract	Similar to an executive summary.
Purpose	Why the data was created and what it was meant to achieve.
Metadata contact organisation	Organisation contact details for the metadata content.
Geographic location – coordinates	The spatial extent of the data: east / west longitude. North / south latitude.
Lineage	From what other data was this data constructed and the methods used to create the dataset?
Temporal extent	Over what period was the data captured?
Distribution format	The data file format, web map service, etc: • Name • Version
Keywords	Words that can be used in a search to find the metadata record.
Maintenance frequency	How often is the data updated or maintained?
Use limitation	What are the constraints and limitations on how the data can be used?
Legal restrictions	Copyright and intellectual property permissions: access and/or use.

Where to get more information?

If you would like more information regarding metadata or you have questions, concerns or feedback, contact us at:

NSW State Metadata Coordinator
Land and Property Information
A Division of the Department of Finance and Services
Level 5, 1 Prince Albert Road
QUEENS SQUARE NSW 2000
E: sds.metadata@lpi.nsw.gov.au

There are also a range of resources and guides available for the production of metadata for NSW spatial datasets including:

- **ANZLIC**. Australian Spatial Data Directory (asdd.ga.gov.au/asdd/)
- **ANZLIC. 2011**. ANZLIC Metadata Profile Guidelines, Version 1.2. Turner ACT. www.osdm.gov.au/Metadata/ANZLIC+metadata+resources/default.aspx
- **ANZLIC. 2009a**. ANZLIC Metadata Profile Short User Guide for the ANZMet Lite.

  ANZLIC SPATIAL RESOURCE DISCOVERY AND ACCESS PROGRAM (Online Version 1.0, Nov 2009). CC-By Commonwealth of Australia. www.osdm.gov.au/Metadata/ANZLIC+metadata+resources/ANZMet+Toolkit+(final+draft+-07.2009)/default.aspx
- **ANZMet Lite**. ANZLIC SPATIAL RESOURCE DISCOVERY AND ACCESS PROGRAM (Online download, Version 1.2, June 2011, ©Commonwealth of Australia). (www.osdm.gov.au/Metadata/ANZLIC+metadata+resources/ANZMet+Toolkit+(final+draft+-07.2009)/ANZMetLiteSetup001.zip/?id=1162)
- **International Organization for Standardization** (ISO).2002. ISO 19113:2002 Geographic information -Quality principles (Vol. ISO 19113: 2002). www.iso.org/iso/home.html
- **International Organization for Standardization** (ISO). 2003a. ISO 19114:2003 Geographic information - Quality evaluation procedures (Vol. ISO 19114:2003). www.iso.org/iso/home.html
- **International Organization for Standardization** (ISO). 2003b. ISO 19115:2003 Geographic information - Metadata (Vol. ISO 19115:2003). www.iso.org/iso/home.html
- **International Organization for Standardization** (ISO).2007. ISO 19139:2007 International Standard -Geographic information - Metadata - XML schema implementation (Vol. ISO 19139:2007). Switzerland. www.iso.org/iso/home.html
- **International Organization for Standardization** (ISO). 2009. ISO 19115-2-2009(E): Geographic information - Metadata - Part 2: Extensions for imagery and gridded data (Vol. ISO 19115-2-2009(E)). www.iso.org/iso/home.html
- **Intra-Governmental Group on Geographic Information. 2004**. The Principles of Good Metadata Management. Office of the Deputy Prime Minister: London
- **Geoscience Australia. 2012**. Australian Spatial Data Directory (ASDD) (asdd.ga.gov.au/asdd/)
- **NSW Government. 2012**. NSW Data Catalogue (www.data.nsw.gov.au/)
- **NSW Government. 2011.** NSW State Plan: NSW 2021 (www.2021.nsw.gov.au)
- **NSW Government. 2009.** Government Information (Public Access) Act 2009 (www.legislation.nsw.gov.au/maintop/view/inforce/act+52+2009+cd+0+N)
- **NSW Land and Property Information (LPI). 2012**. NSW Spatial Data Catalogue (NSDC) (www.sdi.nsw.gov.au)
- **NSW Spatial Council. 2010**. NSW Spatial Metadata Policy. Sydney: Common Spatial Information Initiative (CS2i)
- **NSW Spatial Council. 2009**. NSW Metadata Element Set for Vector Datasets: User Guidelines. Sydney: Common Spatial Information Initiative (CS2i)
- **NSW State Records Authority of New South Wales** (www.records.nsw.gov.au/)

FOR MORE INFORMATION

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