NSW Custodianship Guidelines for Spatial Data

May 2018
Under Review

Contents

1. Purpose

These Guidelines have been produced to support the NSW Data and Information Custodianship Policy. They address specific issues related to the implementation of custodianship principles for spatial data.

The NSW spatial community has adopted the custodianship principles as a means of ensuring greater accountability and efficiency in the care and maintenance of spatial data. As such, there can be increased confidence that the information within government is fit-for-purpose, complete, identifiable and accessible.

2. Introduction

2.1   Information Management Framework

A key initiative of the NSW Government ICT Strategy is the development of an Information Management Framework to support the way government administers and uses data and information.

The Framework is a set of standards, policies, guidelines and procedures which are implemented either manually or, where possible, automated through technology. This will allow data and information to be managed in a secure, structured and consistent manner.

It will ensure data and information can be appropriately shared or re-used by agencies, individual public sector staff, the community or industry for better services, improved performance management and a more productive public sector.

2.2   NSW Data and Information Custodianship Policy

The NSW Data & Information Custodianship Policy defines a set of principles for the management and maintenance of the State's core data and information assets. The principles align with national and international best practice, industry standards and practices.

The policy directs the development, implementation and management of data and information custodianship roles and responsibilities and the formal arrangements that create those roles and responsibilities, for the NSW public sector. Its implementation and adherence to the principles will facilitate compliance with the NSW Information Management Framework and the NSW Foundation Spatial Data Framework (see section 2.4), which together provide a set of agreed policies, standards and guidelines.

The custodianship model is based on defined roles and responsibilities as described in the policy. As such, individuals and/or organisations may

provide one or more functions. Specific definitions, including that for a custodian, are provided at Appendix A.

A custodian may delegate any or all of its responsibilities for a dataset in its care to another organisation. It will, however, still remain accountable for the integrity of the dataset. The day to day operation of the custodial responsibilities may be delegated or contracted to other parties, but the overall responsibility rests with the nominated data custodian at an agency level.

2.3   Custodian for Spatial Data

There are few areas of any economy, which do not rely either directly or indirectly on spatial data for planning, maintaining or managing activities. Spatial data plays a significant role in addressing and resolving regional issues associated with environmental management, the mitigation of natural disasters and economic growth within the context of sustainable development.

Spatial data can be used for a variety of purposes, including the development of new applications as user needs become the main driving force in the consumer marketplace. These trends are reflected by the increase of spatial search mechanism alternatives, the expansion of spatial web services and the increase of complementary spatial services such as online mapping.

An increasingly demanding and technologically sophisticated client base is challenging the spatial community to supply and manage a wider range of spatial products and have them remain accessible and useable in an efficient, effective and timely manner.

A custodianship framework is central to improving governance arrangements to allow access to spatial data across the NSW community. Custodianship is particularly important for spatial data because:

- **Spatial data is valuable**, not only to the organisation that creates and maintains it but to others. Being able to visualise your own information in the context of other infrastructure, features or land use brings more certainty, better decisions and improved communication;
- **Spatial data is often duplicated**, both within and between organisations. By identifying the 'authoritative source' of data (the Custodian), we eliminate the need for others to duplicate their work and the resulting inefficiencies, less reliable decisions, project delays and increased cost.
- **Spatial data is Big Data**, which means it can drive additional value through analysis or through integration with other types of data, but it also requires special technology and skills to utilise and manage.

- NSW spatial data and infrastructure represent a valuable resource for government, community and the private sector. They also represent a major investment on the part of the State. To ensure that this resource is used to its full potential, it is important that all spatial products are viewed and managed as an asset of the State of NSW and as such are managed effectively and efficiently in order to derive the maximum economic, social and environmental benefits to the people of NSW.

2.4   NSW Foundation Spatial Data Framework

The NSW Spatial Data Custodianship Guidelines aligns with the ANZLIC National Spatial Information Management Policies – Custodianship and the ANZLIC 'Guidelines for Custodianship' 1998.

The NSW Foundation Spatial Data Framework (FSDF) provides a common point of reference for the assembly and maintenance of foundation level spatial data held by NSW Government agencies. It contains the best available, most current, authoritative source of foundation spatial data under ten foundation themes.

3. Scope

The NSW Spatial Custodianship Guidelines apply to the management and maintenance of spatial data and information assets within:
- NSW State Government agencies.

These guidelines are recommended for adoption by NSW:
- State-owned corporations (SOCs);
- Public Trading Entities (PTEs);
- Entities funded by the NSW Government; and
- Local Government authorities.

The content scope of the Guidelines comprises:
- Spatial data;
- Spatial information; and,
- Spatial services.

For convenience, these are generally referred to throughout the Guidelines as 'spatial data'.

4. Objective

The objectives of the Guidelines are to:

- **Maintain** a consistent and transparent custodianship framework for NSW spatial data, information and services;
- **Identify** appropriate custodial arrangements for NSW spatial data, information and services;
- **Comply** with custodianship requirements contained in applicable policies, legislation and regulations;
- **Align** with national and international standards for best practice management of spatial data; and,
- **Develop** awareness of custodianship practices through the responsible and transparent handling of spatial data in the NSW public sector.

5. Implementing Custodianship

The following sections provide guidance to support implementation of the custodianship principles. It is anticipated that agencies will research and develop custodian practices that match their business needs and apply sound data management practices to all datasets, information products and services under their care.

The NSW Spatial Data Custodianship Guidelines should be read in conjunction with the NSW Data and Information Custodianship Policy.

5.1 Planning and Definition

5.1.1 Product Specification

Spatial data and information products should be identified as an initial step before custodianship is assigned. This process enables the specification as early as possible of the precise form and content of the reporting products and ensures roles and responsibilities are identified and agreed upon.

5.1.2 Standard Setting

Spatial data should be compatible in terms of format, reference system, projection, resolution and quality. A primary objective of standards is to lower transaction costs of using spatial data. Standards can be applied at various levels of spatial data within an agency. Refer to the Policy for the relevant standards.

Custodial agencies should:
- Seek input from users to assist in defining appropriate standards

for information in their custody and propose standards for regional ratification;

- Define standards for access, collection, classification, description, accuracy, quality, format, metadata and structure of the datasets (Appendix C);
- Create, maintain and publish statements (within the metadata) regarding quality, source, reliability, accuracy, completeness and currency;
- Define and publish statements regarding the long term use and management requirements of the datasets, including requirements for the sustainability of any required point in time views of the data;
- Implement quality ISO compliant testing regimes for the metadata;
- Maintain up-to-date quality and standards of the foundation datasets assigned to them;
- Engage in collaboration and funding discussions with users if standards exceed the custodian's business requirements or ability to deliver; and,
- Keep informed of current standard developments and comply with those adopted by the Australian Government.

5.1.3 Accessing and licensing

Spatial data custodians are advised that licensing arrangements between custodians and users, custodians and other agencies, should be undertaken within the NSW Open Data Policy.

The Australian Governments Open Access and Licensing Framework (AUSGOAL) has been adopted as the default option for licensing arrangements in NSW. The Creative Commons (CC) licenses suite, including CC-BY (Attribution) is available under this Framework. Although CC-BY is the nominal default option, consideration must be given to security, privacy and third party licensing restrictions. For example, specialised satellite imagery may be acquired and used under restricted licensing between a Government agency and a private sector provider. There may be restrictions in place that prevent Government agencies from providing the imagery under CC-BY, therefore an alternative licence would require implementation.

Spatial data custodianship frameworks should be designed to facilitate data access, irrespective of what form it takes. The custodian has the responsibility to facilitate the publication, transfer and sharing of NSW Government data. For long term value spatial data, custodians may also need to support government and community access to certain legacy datasets.

There are existing examples of current practice that facilitates appropriate access to spatial data. This may be of use for custodian agencies in determining the most appropriate means of access for their spatial datasets, this includes:

- NSW Spatial Data Catalogue: the spatial data catalogue is used as a discovery tool for access to metadata relating to spatial datasets in addition to the tools and templates associated with metadata creation and publication.
- Data.nsw.gov.au: the data.nsw.gov.au platform should be used as an access platform for potential users of spatial data for a custodial agency to facilitate and promote access.

5.1.4 Prepare Metadata

The preparation of metadata for a spatial dataset is the responsibility of the producer of the dataset . Custodian agencies should ensure the producer of the dataset is informed about this responsibility and ensure that the metadata is ANZLIC compliant.

Metadata shall be recorded for all datasets subject to these Guidelines and the metadata shall be made freely available at no cost. The metadata statements must adhere to NSW Guide to Metadata Creation (2012).

Custodians should use the following:
- NSW Metadata Element Set User Guidelines for Vector Datasets
- ANZLIC Metadata Profile 1.2 and ANZLIC Metadata Profile User Guidelines
- Provide new and updated metadata records to the NSW Spatial Data Catalogue as soon as possible after the creation of a dataset and in accordance with the NSW Guide to Metadata Creation (2012). The NSW Spatial Data Catalogue is the accepted register in which all metadata for NSW spatial data should be lodged.
- Establish documented processes and procedures for the creation, management and use of metadata.
- Copies of the NSW Guide to Metadata Creation (2012) and NSW Metadata Element Set User Guidelines for Vector Datasets are available from the NSW Spatial Data Catalogue . Copies of the ANZLIC Metadata Profile 1.2, including the ANZLIC Metadata Profile User Guidelines are available from the Australia New Zealand Land Information Council (ANZLIC) website.

5.1.5 Prepare a NSW Spatial Dataset Profile

Custodian agencies are required to complete a spatial dataset profile (Appendix D). The profile fulfils the custodian agencies responsibility of ensuring that a single point of contact for customer enquiries in relation to the dataset is nominated and published in the dataset profile. The profile will be published on the NSW Spatial Data Catalogue.

The spatial dataset profile is a non-specialist overview of the spatial dataset that sits above the metadata statement. The format of the profile is

consistent with the NSW Foundation Spatial Data Framework Theme and Dataset profiles and this provides conformity at a national level with the ANZLIC 'One ANZ Foundation Spatial Data Framework.' Completed spatial dataset profiles must be submitted to the secretariat of the NSW Location Leadership Group.

5.1.6 Privacy and Personal Information

Custodian agencies are responsible for ensuring that access to spatial data does not compromise privacy and personal information rights of affected parties. Adherence should be given to the Government Information (Public Access) Act 2009 (NSW) (GIPA Act) and the Privacy and Personal Information Protection Act 1998 (NSW) (PPIP Act) prior to the release of spatial data.

Custodians should consider the following questions:

- Does the spatial data contain personal information per PPIPA and/or Health Records and Information Privacy Act 2002 (NSW) (HRIPA)?
- Does the spatial data contain confidential information?
- Is there an overriding public interest against disclosure that would prevent this spatial data being released?

Refer to the NSW Information and Privacy Commission website for further details and guidance. The considerations in this section should be observed in conjunction with 5.1.3. Accessing and Licencing.

5.1.7 Pricing

Custodian agencies are responsible for ensuring, monitoring and maintaining the pricing of their spatial datasets. Prices should be set according to internal agency business standards and procedures responsible for pricing arrangements. Creative Commons licensing does not necessarily mean free.

5.1.8 Accountability for data and information quality

Custodian agencies hold overall accountability and responsibility for the dataset . A custodian may delegate any or all its responsibilities for a foundation dataset in its care to another agency. It will still remain accountable for the integrity and accountability of the foundation dataset. Legal risks must be managed and controlled. In addition custodial agencies manage spatial datasets and product intellectual property for the Crown in right of NSW, enabling community use and integration of spatial data.

All datasets and information assets that are products of NSW public sector bodies fall under the requirements of the State Records Act 1998. The information creation and management principles within this legislation should be supported by custodial arrangements to ensure good data governance for the NSW community and government.

Under the State Records Act 1998, custodians are responsible for the creation, management, protection and maintenance of their datasets, even when these management responsibilities have been delegated to another agency. To mitigate potential breaches of the State Records Act, custodianship agreements that outline all necessary data management requirements must be in place.

Risk mitigation can be achieved through:

- Implementation and execution of appropriate licensing agreements;
- Appropriate metadata statements;
- Disclaimers (see Appendix E);
- Terms & Conditions of Use.

In order to ensure that custodians and distributors protect the State from any liability issues that may arise with the use of a third party product derived from State data, agencies should seek legal advice on appropriate wording and include a disclaimer in their licence agreements. Disclaimers will not eliminate complete risk; however a combined metadata statement, licensing agreement and disclaimer is a suitable method for risk mitigation.

Refer to an example of a disclaimer in Appendix E. Note, the example is a guide only and agencies should seek legal advice when developing a disclaimer.

5.1.9 Selection and Assignment of Custodianship

The NSW Data and Information Custodianship Policy specifies the general criteria for selecting a custodian.

5.1.9.a.1   Assignment of Custodianship

Custodianship will be assigned by party agreement at an agency level, rather than a division or business unit of an agency. The agency head, such as a Director-General, Chief Executive or Executive Director, will hold overall accountability and responsibility for the agency. The ultimate responsibility of custodianship lies with an agency on behalf of the State. However, an agency can assign different elements of responsibility to one or more agencies, government or non-government, for whole datasets, or different levels of detail, data items or geographic coverage.

Custodians will establish a suitable management framework within their agencies to effectively implement the associated custodial roles and responsibilities.

5.1.9.a.2   Transfer of Custodianship

In the interest of maintaining completeness in the information holdings within NSW, the party transferring its custodianship has the responsibility of working with another agency to take on the role of custodian.

A custodial agency needing to transfer its custodial responsibilities for a nominated dataset needs agreement by relevant custodian agencies involved. Documentation, licenses, records, metadata and databases necessitate amendment to reflect the new custodial arrangements. All parties affected by the new changes should be notified. Any issues relating to data and information management, including any transfer of funding, will need to be addressed at an agency level. This responsibility is particularly important in the situation where the information has the status of being a foundation spatial dataset.

5.1.9.a.3   Spatial Data Management: Data Management Plan

Custodians must be aware that spatial data is a long term asset of the State and so access arrangements must be managed to support ongoing data access into the future. Data management plans (refer to Appendix F) may also need to reflect existing national frameworks when defining business needs for spatial datasets.

A data management plan assists in the management of a custodian agency dataset over the data lifecycle, recognising the roles and responsibilities required to manage a particular dataset.

Consult with the NSW Location Leadership Group (LLG) chair and/or Executive Director – Spatial Services for further details and advice.

5.2   Collecting and Validating Spatial Data

5.2.1 Collection

Data collection and maintenance is undertaken in a cooperative environment (co-production) in accordance with the standards and principles as defined in the NSW Data and Information Custodianship Policy, and with the aim of firstly meeting the custodial agency's statutory and core business requirements.

The collection standards and procedures of spatial data should be captured in the data management plan by the custodian agency. Custodian agencies are responsible for ensuring the data that has been assigned to their agency conforms to appropriate agreed standards . The custodian should publish the priorities for data collection and preservation consistent with its budget

constraints. The custodian is also responsible for negotiating the terms and conditions under which other agencies collect and maintain data on its behalf.

Custodians are responsible for all aspects of data collection and maintenance. Custodians should:

- Consult users prior to developing or defining collection and maintenance programs. Custodians should understand and accommodate users' need for information;
- Inform users of data collection and maintenance plans and their progress;
- Avoid duplication of capture by ensuring that data to be captured is not already held in the format required;
- Ensure appropriate storage, maintenance, security and archival procedures for the information in their custody; and,
- Correct faulty data brought to their attention and notify affected parties.

Custodian agencies are responsible for negotiating the terms and conditions under which other agencies collect and maintain the information on their behalf, usually within a reciprocal exchange agreement. This includes ensuring the contract asserts that any copyright is maintained by the State, if appropriate. Depending on the long term value of the data, the custodian may also be responsible for ultimately taking responsibility for information management on their behalf or for ensuring agencies maintain and support data long term.

If the spatial data being acquired is a compilation of existing data over which others have copyright, the ownership of the copyright in the integrated data is a matter for negotiation and agreement between the custodian and the data providers.

5.2.2 Data Maintenance

Custodians must also be aware that spatial data is a long term asset of the State and so data maintenance arrangements must support long term data accessibility and use. Data maintenance plans must also support government and community needs to access point in time or historic data views. A record of the dataset prior to changes or updates taking effect should be made in order to preserve the legacy of the dataset.

5.2.3 Quality Assurance

Data quality assurance should be undertaken at the data collection stage, custodian agencies have a responsibility to ensure that the data assigned to them is fit for purpose prior to its release. It is suggested a fitness for use statement clearly stating the quality parameters of the spatial data be

prepared and available for users when requested. An example of a fitness for use statement can be found in the WALIS Custodianship Guidelines.

The custodian agency should ensure the data received from a producer is of a level of confidence that data quality will be assured and obvious data errors will be recognised and removed prior to making the data available to users.

5.3   Publishing, Communication and User Feedback

5.3.1 Publishing

Custodian agencies must ensure metadata is freely available to all discoverable, accessible and current data.

Custodian agencies are responsible for the publication of the following:

- ANZLIC compliant metadata
- NSW Spatial Dataset Profile(s)

Metadata can be published using an online metadata entry tool or using the ANZMet Lite tool enabling ANZLIC compliant metadata to be exported. The NSW Spatial Dataset Profile should be completed by the custodian agency of a spatial dataset for publication on the NSW Spatial Data Catalogue.

The discoverability of the dataset should be a consideration of the custodian agency via large search engine sites of their dataset.

5.3.2 Communication and Engagement

Custodian agencies should ensure appropriate communication is established and facilitated between the custodian and the users of spatial data throughout the lifecycle of the dataset.

This encompasses consultation over:
- Spatial data collection priorities;
- Spatial data specifications and standards;
- Appropriate spatial data formats;
- Spatial data quality assurance regarding currency, fitness, quality and reliability of the data; and
- Error reporting.

It should be noted that the criteria for determining the priority for the collection of spatial data is at the discretion of individual agencies. The recommendations contained throughout this document are intended as a guideline only. Those agencies without standards for spatial data collection are advised to refer to the Appendix C for an example of a standard for

data collection. Otherwise contacting the NSW LLG Chair and/or Executive Director – Spatial Services for further assistance and direction.

5.3.3 User Feedback

Custodian agencies should ensure appropriate mechanisms for user feedback including error reporting, data gap identification and collection requirements are in place. The purpose of providing user feedback is to ensure the relevancy of the spatial dataset and for continuous improvements over time, ensuring the dataset is still 'fit for purpose'.

Custodian agencies should ensure mechanisms for informing users of updates and planned data maintenance are established. Due to the nature of foundation spatial data, there is a heightened need to notify users of changes, updates and the likes.

Custodial agencies need to ensure users, producers, aggregators, distributors and contributors have clear feedback processes in place that facilitate the reporting of errors. Once an error has been reported, organisations have an obligation to correct faulty data and notify affected parties.

6. Register of Custodians

The LLG will maintain and provide access to a register of NSW spatial custodians and of the datasets for which the custodians are responsible. The data for the register will be drawn from spatial dataset records. The register of custodians and the information within it will be published.

7. Review

The procedures are to be reviewed in conjunction with the NSW Data and Information Custodianship Policy at least every two (2) years, or as appropriate.

8. Further Information

Further information can be obtained through the NSW LLG Secretariat by contacting:

The Director
DFSI Spatial Services, Spatial Operations
346 Panorama Avenue Bathurst NSW 2795
Ph: (02) 6332 8410
E: ss-spatialoperations@finance.nsw.gov.au

9. Appendix A – Glossary

TERM	DEFINITION
Aggregator	Any agency involved in compiling and maintaining data from multiple sources for production into a seamless dataset.
ANZLIC	The peak intergovernmental organisation providing leadership in the collection, management and use of spatial information in Australia and New Zealand. The Commonwealth, New Zealand and each State and Territory of Australia are represented on ANZLIC by a senior official which responsibilities for the coordination of spatial data management in their respective jurisdictions.
Custodian	The agency, body or position designated with the Custody of a specified Dataset or Information asset. The custodian is primarily responsible for: • the development, management, care and maintenance of a specified Dataset or Information asset; • ensuring that all legal, regulatory and policy requirements are met in relation to the management of the specified Dataset or Information asset; and • determining the conditions for appropriate use, sharing and distribution of the specified Dataset or Information asset.
Custodianship	The state of being assigned with custody of specified dataset or information asset. The responsibilities associated with being a designated custodian.
Custody	The possession, control of and/or responsibility for a specified dataset or information asset – regardless of its physical or virtual location.
Data	The representation of facts, concepts or instructions in a formalised (consistent and agreed) manner suitable for communication, interpretation or processing by human or automatic means. Typically comprised of numbers, words or images. The format and presentation of data may vary with the context in which it is used. Data is not Information until it is utilised in a particular context for a particular purpose. (Office of the Australian Information Commissioner (OAIC), 2013) Data is typically considered to be conceptually at the lowest level of abstraction.
Dataset	An identifiable collection of Data. Most commonly a dataset corresponds to the contents of a single database table, or a single statistical data matrix. The term can also be used to refer to the data in a collection of closely related tables. A dataset may comprise a smaller grouping (or subset) of data which, though limited by some constraint or feature type, is located physically within a larger dataset.
Distributor	A third party who distributes information on behalf of the custodian, or who adds value to information and on sells it to others.

Foundation Spatial Dataset	Foundation Spatial Dataset is geographic information that adds significant value to any other information. The ANZLIC 'One ANZ Foundation Spatial Data Framework' (2012) classifies such information as having a number of defining characteristics: • essential for public safety and wellbeing; • critical for a national and state or government function; • contributes significantly to economic, social and environmental sustainability; and • enable innovation by government, industry, research and academic sectors.
HRIPA	Health Records Information Privacy Act 2002 (NSW).
Information	Any collection of Data that is processed, analysed, interpreted, classified or communicated in order to serve a useful purpose, present fact(s) or represent knowledge in any medium or form. This includes presentation in electronic (digital), print, audio, video, image, graphical, cartographic, physical sample, textual or numerical form. (Office of the Australian Information Commissioner (OAIC), 2013). Information is typically considered to be at a higher level of abstraction than Data.
ISO	International Organization for Standardization.
Metadata	Data that defines or describes the content, quality, format or structure of a Dataset or Information asset; data that defines or describes the system, location and context in which the dataset or information was produced, collected, processed or stored. Metadata allows Datasets or Information assets to be found, understood, controlled and managed.
Metadata element	Individual instance of a metadata label (and value pair).
NSW Location Leadership Group	A high level non-statutory body chaired by the Director General, Department of Finance and Services to coordinate the development of the New South Wales Spatial Data Infrastructure (SDI).
NSW Spatial Data Catalogue	The central search and discovery portal for spatial metadata in NSW (http://www.sdi.nsw.gov.au). The NSW Spatial Data Catalogue holds metadata statements harvested from agencies across NSW.
PPIPA	Privacy and Personal Information Protection Act 1998 (NSW).
Producer	An individual or business enterprise that generates products or services for sale. A producer may create and maintain spatial data on behalf of the custodian.
Spatial data	Data that identifies a geographic location, is usually stored as coordinates, and can be mapped (also known as geospatial data).
Spatial information	Information that can be geographically referenced, i.e. describing a location or any information that can be linked to a location (also known as geographic information). Spatial information is defined within the section 3A Surveying and Spatial Information Act 2002 (NSW).
Spatial service	Mechanisms for the discovery, browsing, and querying of metadata and/or delivery of spatial datasets and other resources via the Internet or any other media devices e.g. hard drives.
Policy	NSW Data and Information Custodianship Policy.
User	End consumer of information resource; those who use information as input to solve problems and/or make decisions.

10. Appendix B – Links to Resources

The following table provides links to legislation, guidelines and procedures mentioned throughout these guidelines.

	Resource	Link
Custodianship Guidelines within Australia	ANZLIC	http://www.anzlic.org.au/policies_guidelines
	Commonwealth Spatial Data Committee (CSDC)	http://spatial.gov.au/sites/default/files/legacy/osdm.gov.au/CustodianshipGuidelines73b2.pdf?ID=195
	Queensland: Queensland Spatial Information Council (QSIC)	http://www.qsic.qld.gov.au/initiatives/custodianship.html
	Western Australia: Western Australia Land Information System (WALIS)	http://www.walis.wa.gov.au/resources/policies/custodianship
	Victoria: Victorian Spatial Council (VSC)	http://victorianspatialcouncil.org/page/resources/custodianship-program
	Tasmania: Land Information System Tasmania (LIST)	http://www.thelist.tas.gov.au/docs/licc/LIST_Data_Content_Policy_and_Guidelines.htm
Metadata	ANZLIC Metadata Profile Guidelines 1.2	http://spatial.gov.au/system/files/public/resources/anzlic/ANZLICmetadataProfileGuidelines_v1-2.pdf
	NSW Guide to Metadata Creation (2012)	www.sdi.nsw.gov.au
	NSW Metadata Element Set User Guidelines for Vector Datasets	www.sdi.nsw.gov.au
Legislation	Surveying and Spatial Information Act 2002 (NSW)	http://www.legislation.nsw.gov.au/inforcepdf/2002-83.pdf?id=c5a2a5ff-3db2-4df6-d82f-fb48cbe4da8d

11. Appendix C – Example Standard For Data Collection

The following is to be referred to as an example only and has been provided by the former NSW Department of Natural Resources (currently Office of Environment and Heritage).

Category	Description
Data Set	Soil Landscape Mapping Version: Data Custodian:
Application	Data standard relevant for supporting the department's functions including natural resource planning and management.
a) Technical Mapping Requirements	
Base Maps	1:100,000 mapping - 1:25,000 scale topographic sheets (1:50,000 if unavailable). 1:250,000 mapping - 1:100,000 scale topographic sheets.
Data Sources	Field investigation, previous soil surveys, topographic maps, aerial photographs, geological maps, vegetation maps, erosion/land-use maps, land capability maps, airborne gamma radiometrics and satellite images, scientific literature and local knowledge from advisory officers and land owners/managers.
Data Resolution and Spatial Precision	Data resolution based on smallest geographic entity that can be mapped at a given scale and able to be presented at published scale. Observation density is the number of point observations required and includes brief geo-referenced, unique, numbered notes and detailed soil profile descriptions recorded on SALIS Soil Data Cards.

Location	Mapping Scale	Minimum Mapping Unit	Spatial Resolution	Recommended Observation Density Ranges (per map sheet)		
				Total Obs.	Brief Obs. 75%	Detailed profiles (SALIS) 25 %
Coast Tablelands and areas of Intensive development	1:100,000	40 ha	100 m	2500 – 1250	1875 – 938	625 – 312
Tablelands Slopes and Plains	1:250,000	250 ha	250 m			

Category	Description
Sampling Location	Describe each dominant soil type and suite of soil materials within each mapping unit. Include changes in parent material, landform element, aspect and variations due to geomorphological processes.
Laboratory Analysis	Representative type profiles for each dominant soil type and associated soil materials, within each soil landscape unit, are to have a full suite of the department's physical and chemical analysis. To be undertaken at DNR or Dept of Lands soil laboratory or a certified NATA laboratory registered to undertake the department's standard soil survey tests.

Mapping Procedure	1. Collation of existing data and discussion with local experts 2. Reconnaissance survey undertaken and map of potential soil landscape units with summary prepared 3. Map/field audit or reconnaissance map and summary by DNR Soils Quality Officer (SQO) 4. Mapping of provisional soil landscape spatial boundaries based on existing information and reconnaissance survey 5. 1st field edit by the department's experienced soil survey officer 6. Field data collection, collation and collection of soil samples of main soil types (type profiles) 7. Laboratory analysis of type profiles and dominant soil materials 8. Report preparation 9. 2nd field edit by the department's experiences soil survey officer 10. Corrections to data 11. Spatial capture 12. Scientific editing of report and map by SQO and review by CMA representative 13. Corrections to data 14. Technical and General Editing 15. Design and Printing 16. Distribution and Promotional Activity.
Quality Assurance	Pre-field audit, 2 field audits, 1 scientific edit, 1 technical and format edit are undertaken to ensure data meets required standards and accuracy. Agreement reached between soil surveyor and soils quality officer on technical issues.
b)	**Technical Output Requirements**
Map data	Topologically correct ESRI format (personal geo-database) in AGD66 DATUM (Projection AMG; Zone 54,55 or 56) or GDA94 (Projection MGA; Zone 54,55 or 56). Layout to the department's soil landscape mapping series standard.
Point data	To the department's SALIS requirements.
Report format	Microsoft Word document as per the department's soil landscape mapping series.
Laboratory Analysis	The department's soil survey testing procedures undertaken at NATA registered laboratory or equivalent.
Metadata	After ANZLIC metadata standards.

References

Anon, unpubl., Guide for Authors of the 1:100,000 Soil Landscape Series, Department of Natural Resources, Sydney.

Anon (2005) Soil Survey Standard Test Methods www.dlwc.nsw.gov.au/care/soil/soil_pubs/soil_tests/soil_test_methods.html (accessed 06-Sep-2005).
Anon, unpubl., 1:100,000 Soil Landscape Series Report Template, Department of Natural Resources, Sydney.

Gunn, R.H., Beattie, J.A., Reid, R.E. and van der Graaff, R.H.M. (1988) Australian Soil and Land Survey Handbook: Guidelines for Conducting Surveys. Inkata Press, Melbourne. (Australian Soil and Land Survey Handbooks Series Volume 2).

Milford, H.B., McGaw, A.J.E. and Nixon, K.J. (eds.) 2001, Soil Data Entry Handbook (3rd Edition), NSW Department of Land and Water Conservation, Sydney.

http://www.dlwc.nsw.gov.au/care/soil/SALIS/pdfs/salis_soil_data_entry_handbook.pdf
Munsell Color Company 1994, Munsell Soil Color Charts, Munsell Color. Macbeth Division of Kollmorgen Corporation, Maryland, USA.

12. Appendix D – Dataset Profile Template

Custodians of spatial datasets are required to complete a Custodianship Record for each of the datasets it has been assigned.

Note: For spatial datasets, the dataset profile differs from the metadata statement in providing a high level overview of the spatial dataset in question. It sits above a metadata statement and enhances the communication and promotion of spatial datasets to non-specialists.

Dataset/Product Title:	
[Insert Image of dataset/product if applicable]	
Dataset/Product Description	Provide a brief description on your dataset/product. Include what is 'out of scope' for the dataset/product.
Dataset Uses	Explain the key uses of the dataset/product. Describe any internal and/or external provisions e.g. non-commercial use.
Relationship to Other Datasets	Describe any related datasets and the nature of the relationship.
Current Status	Describe current database/product status of completion, accuracy and currency. If applicable, describe timeframes for database/product finalisation.
Standards & Specifications	Insert any dataset/product standards e.g. metadata standards, quality and management and maintenance standards.
Access and Licensing	Insert any access, licensing and intellectual property arrangements applicable to this dataset/product e.g. open access, restricted licensing.
URL (if published)	Identify and provide a hyperlink to the publicly available dataset.
Metadata	Identify and provide a hyperlink to any relevant metadata statements that apply to the dataset/product.
Updates	Describe dataset/product update frequency e.g. weekly, monthly.
Custodian Agency & Contact	Identify relevant department/agency and business division.
Aggregator(s)	Identify relevant department/agency. There may be more than one aggregator if so describe each of their responsibilities.
Distributor(s)	Identify relevant department/agency. There may be more than one distributor if so describe each of their responsibilities.
Additional Comments	Provide further details/information. Where applicable consider including any outputs from the dataset/product and any strategic business linkages. Remember the more details you provide the clearer it is to understand your dataset/products.

Dataset Producers and Contributors - Identify all relevant department/agencies including Federal, State and Local Government, private and industry sector organisations. If more than one producer or contributor, describe the data they provide in the below table.

Data Producer/Contributor Name	Data Supplied	Contribution Frequency

13. Appendix E – Example Disclaimer

The following has been provided as an example disclaimer and should be treated as a guide only. Agencies should seek legal advice when developing a disclaimer.

Disclaimer

"Copyright in the [insert agency name] material on the site is owned by Department of [insert agency name] for and on behalf of the New South Wales State Government. While the material has been created with all due care, [insert agency name] does not warrant or represent that the material is free from errors or omission, or that it is exhaustive. Because the material is designed to promote the free exchange of information only, [insert agency name] cannot and does not make any claim as to the accuracy, authenticity, currency, completeness, reliability or suitability of any material, especially material supplied by third parties or linked to third party sites.
The material is provided on the basis that the user is responsible for assessing the relevance of its content. [insert agency name] will not accept liability for any loss, damage, cost or expense that the user may incur as a result of the use of or reliance upon the material on this Site or any linked sites. Please also note the material may change without notice and the user should use the current material from this Site and not rely on material previously printed or stored by the user. It should be noted that some datasets are only being hosted by [insert agency name]. Ownership of this data resides with other organisations, and the right to reproduce this data must be obtained from the relevant authority…"

14. Appendix F – Example Data Management Plan

The following is a data management plan from the Natural Resources Information Management Strategy (NRIMS), former NSW Department of Natural Resources (currently NSW Office Environment and Heritage).

By following a data management plan similar to this example, custodians will provide adequate protection and management for their datasets, enabling them to serve as useful and accountable information assets and ensuring legislative management requirements, such as the State Records Act, are met.
Please note the plan has been altered from the original, for the entire data management plan contact the NSW LLG secretariat, Spatial Services.

Part 1- About the dataset

Date plan updated:
Date plan created:
Lifecycle Status:
Next Review Date:

Dataset title	
ANZLIC Identifier (ANZNS)	ANZNS
Data purpose	Primary/original data use, file size? Duplicates metadata? Agency as internal custodian as licensee?
NRIMS thesaurus classification	NRIMS Thesaurus Class
Significance	
Highest level of data sensitivity	
Contains personal information?	
Business priority	
Legislation reference	
File number	
Data Aggregator	
Data Distributor	
Data Custodian	
Position	
Agency	
Division	
Email	
Telephone	

1.1   Dataset

Document	Location (URL or File path)	Last update
Dataset Management Plan		
Business case		
Benefits realisation report	BRR	
Quality plan (Standards listed)	QP	
Quality plan (Benchmarks set)		
Security plan	SP	

1.2.   Definition Phase

Document	Location (URL or File path)	Last update
Data model		
Data dictionary		
Business rules		
Data flow diagram		
Application documentation		
(tools, specs)	Specifications	

1.3.   Communication documentation

Document	Location (URL or File path)	Last update
Correspondence log		
Feedback analysis reports		
Training policy		
Data presentation protocols		
Stakeholder list	See Part 2 of this Dataset Management Plan	

1.4.   Collection

Document	Location (URL or File path)	Last update
Collection policy		
Collection procedures		
Collection manual		
Analysis procedures		

1.5 Storage

Document	Location (URL or File path)	Last update
Storage policy		
Data maintenance and retention policy		
User manual		
Contingency policy		
Exceptions reports		
Quality assessment reports		

1.6 Access and Use

Document	Location (URL or File path)	Last update
Access and distribution plan		
Usage reports		
Change log	See Part 3 of this Dataset Management Plan	
Promotion plan		

1.6 Disposal and Archive

Document	Location (URL or File path)	Last update
Archive/disposal policy		
Archive procedure		
Archive reports		

Part 2 – Management

2.1. Data management roles

Individual	Role	Phase

2.2. Stakeholders

2.2.1. Custodial agency

Business unit or individual	Role	Phase

2.2.2. Other

Group	Role	Phase

2.3 Roles in Phases Diagram

Definition & Planning

Data Collection

Data Collection

Data Collection
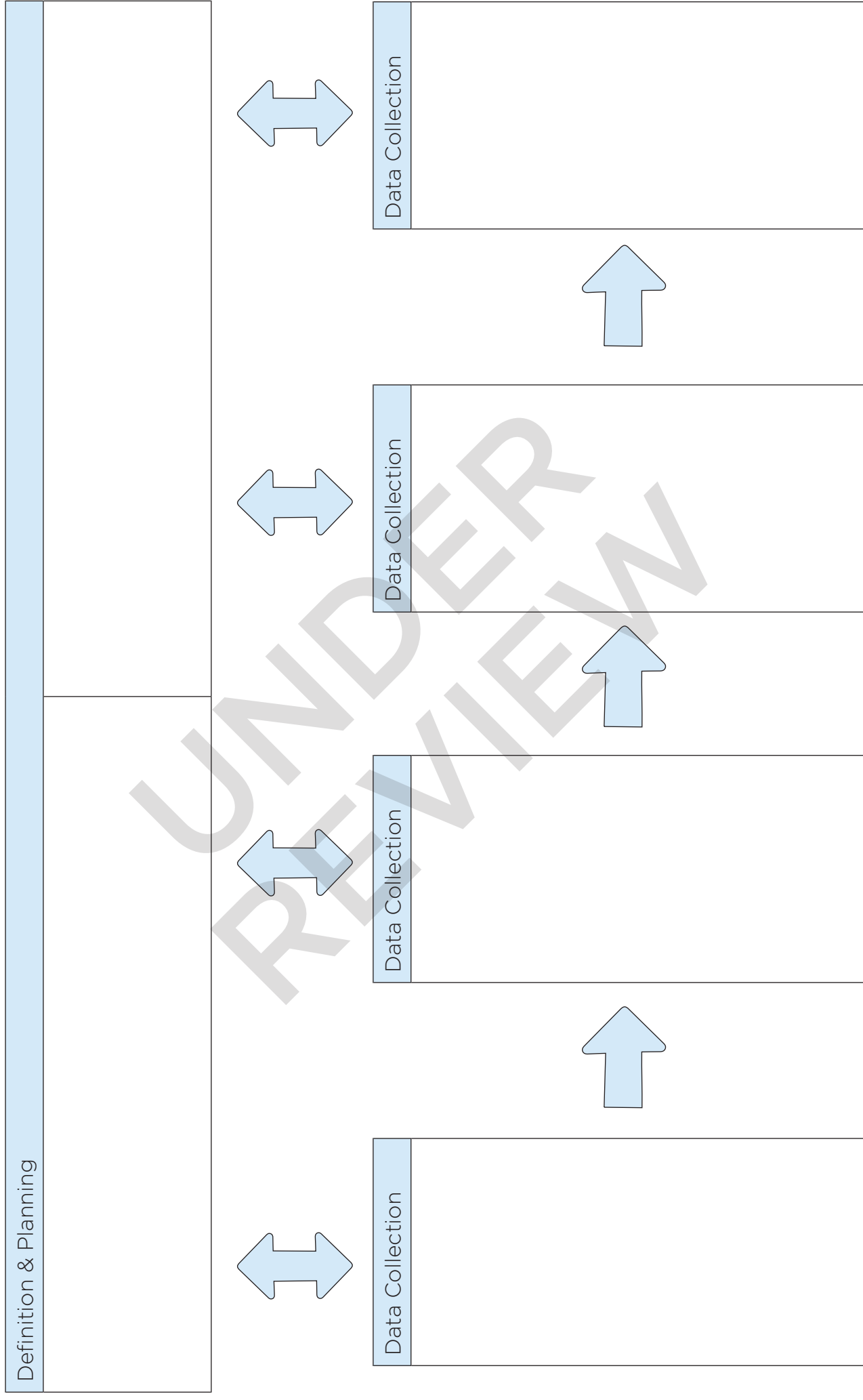
Data Collection

2.4. Resource Analysis

Financial resources available	$k	Available to (yr)
Recurrent funding		
External funding		
Income from data		
Total	0	

Estimated resources needed	HR needed (FTE)	HR available (FTE)	$k reqd	Shared
Collection				No
Storage & Maintenance				No
Income from data				No
Access & Use				No
Archive & Disposal				No
Planning & Definition				No
Total	0	0	0	0

Balance	($k)
Total	0

2.5. Data management tools and products

Data management/query tools	
Entry tools	
Storage	
Access tools & reports	
Archive	

2.6. Storage details

Storage location	
Database type	
Database Version (number)	
Is Data stored in corporately supported database?	
Storage size (MB)	
Update frequency	

Part 3 – Action List

Part 3 is for the documentation of ongoing issues associated with the management of the dataset. For example, issues detailed in a data quality investigation would be recorded in Part 3 of the data management plan.

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