MODULE 4

MODULE 4: Spatial Data Priorities, Standards and Compliance

Building capacity to implement natural resources information management systems.

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Guide for managers

Context

One of the prerequisites for natural resources management (NRM) involves the establishment and maintenance of a good database of information in digital format. Access to reliable and up-to-date information reduces the uncertainty in planning and management by helping identify and analyse situations and issues. Strategies to overcome them may then be prepared and implemented, with the impacts monitored as part of an overall system. The value of the information and the effectiveness of the decision-making/planning processes are very closely related to the quality and completeness of the information, and the manner in which it is made available. In this respect data access, management, integration, analysis and communication are key components. Within all these components the need for standards is critical.

In recent times best practices have evolved to assist data-related tasks in NRM projects. Successful projects have generally adopted an integrated information management solution, combining leadership, people, technology, applications and data within a framework that ensures tools, procedures and standards are in place to maintain and transform data into useful information products that support operations and the decision-making process.

Most NRM agencies and regional bodies are both information providers and clients. This means they collect and use data for their own purposes, as well as making them available to other users. Standards form a key ingredient underpinning the management of data and information. Benefits of standards for data include:

- increased data sharing
- higher quality data
- improved data consistency
- increased data integration and interoperability
- better understanding of data
- improved documentation of information resources
- improved control over data updating activities and development of new versions of datasets
- improved data security.

Module 4: Spatial data priorities, standards and compliance is a guideline providing background material which will enable practitioners to appreciate the importance of standards, and some of the elements involved in their development. Such an understanding should also assist practitioners to ask the right questions when searching for data, planning their own data capture programs, or negotiating technical support for provision of data services.

Actions

Managers should focus on the need to develop standards, and to ensure they are widely communicated to, and adopted by, the user community.

Within most jurisdictions, each state, territory or discipline (e.g. land resource assessment) has its own overarching policies and standards for data collection, maintenance and classification criteria, etc. Managers need to be aware of these standards, and oversee the development of guidelines and assessment criteria (or score sheets). This will enable new datasets to be evaluated, and existing datasets assessed to ensure their appropriateness, fitness for purpose and compliance.

Acknowledgements

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Guide to symbols

The following symbols are used throughout the Toolkit as a guide to users, and draw attention to important issues and information.

	Information which readers should take particular note of
	Best practice information
	Tips for readers—based on experience and aimed at saving time and resources
	Caution—readers are advised that particular care should be taken or that the subject issue may be complex
	Additional information
	Capability raising—used to show a signpost to a higher capability level
Bold Text	Used to highlight a particular issue
Boxed Text	Highlighting of issues specifically related to ANZLIC or the Audit

4.1 Introduction

Each year throughout Australia, government agencies invest very large amounts of resources, including time and money, collecting and maintaining natural resource data. Despite this investment, different agencies (particularly in the natural resources area) often use different standards to collect, store, document and provide access to data. The resultant inconsistencies create major inefficiencies and limit effectiveness.

Inconsistent data increases the time, effort and cost to assimilate datasets which enable area comparison, solve cross-region issues or analyse trends in the status and condition of natural resources over time. These problems occur at all scales, whether working in a local catchment or undertaking a national assessment.

As more information becomes available, organisations and communities want to compare information across regions. Users of natural resource information are demanding:

- consistency between related data (e.g. the location of stream gauging stations should match the location of streams in the database)
- seamless maps not interrupted by artefacts such as map sheet boundaries, regional boundaries or state/territory borders
- consistent descriptions of similar features so that a feature is defined the same way across Australia.

Best practice procedures are available to ensure data are developed that facilitate consistency, interoperability and fulfil the minimum requirements of certain national or international standards (e.g. the Australian Spatial Data Infrastructure). This ensures agencies and the community can achieve maximum value from their investment through multiple use.

The peak body involved in the promotion and coordination of standards for spatial data in Australia is ANZLIC – the Spatial Information Council.

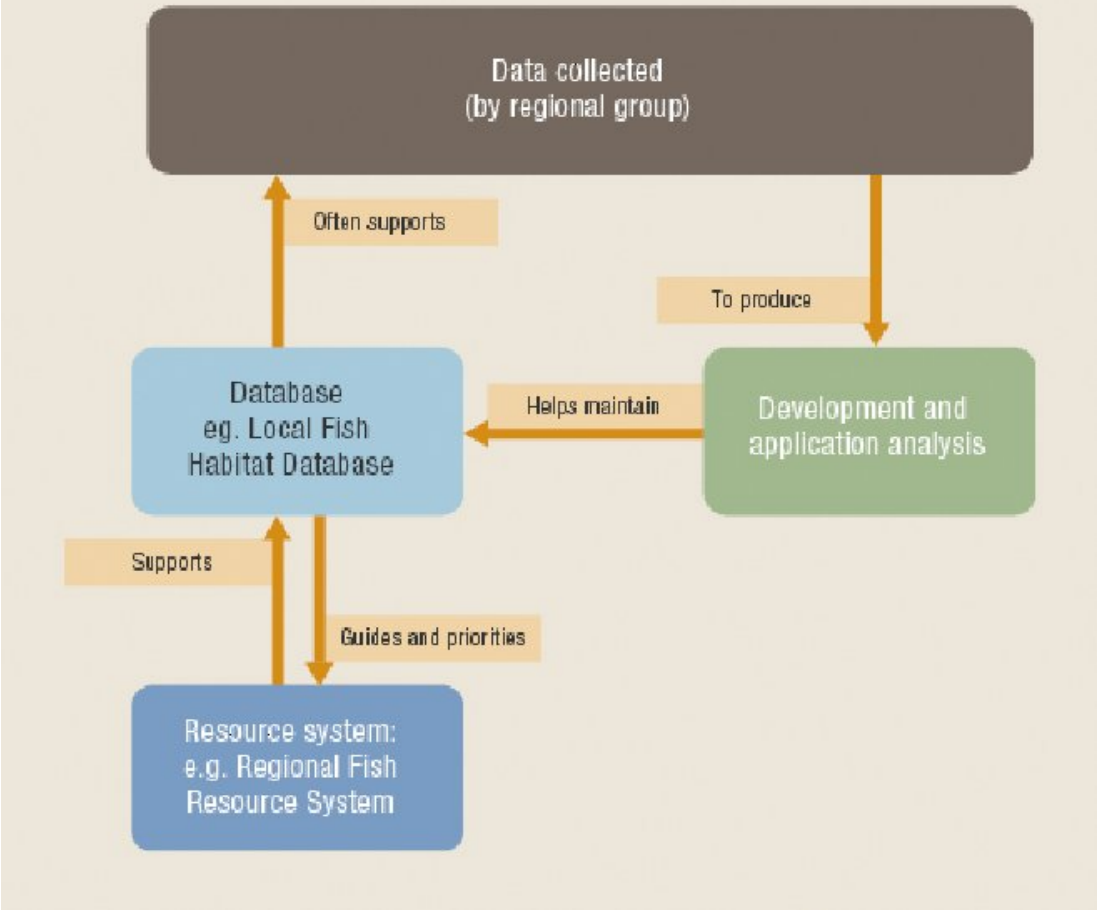
Note: The criteria by which datasets can be assessed to determine their compliance with standards for the Australian Spatial Data Infrastructure (ASDI) are currently being updated. In addition, each state or territory jurisdiction may have its own overarching criteria to which regional bodies should conform.

4.2 Determining priorities for data

Data are the most expensive component of any information management system. As a result, there is never enough money available to conduct all the data collection and preparation that might be required to support the management of natural resources. This means that priorities need to be set, and following are some of the parameters/considerations that may assist in determining such priorities:

- an understanding of key information needs and business drivers. How urgent is the need? What decisions are supported? What datasets are required to produce the required information products? (Figure 4–1)
- opportunities for partnership
- opportunities for management and maintenance
- data collection and storage systems
- practical data collection issues—availability of expertise, terrain, outside forces like weather, timing
- potential costs and available budget
- data availability, integration, sources, standards, priorities, use
- metadata and clearing houses—standards, sources, current state-of-the-art interoperability
- applications—current data collection/input tools, access tools, publishing tools, sharing, priorities
- organisational fitness—leadership, vision, resource centre, training requirements and plan, partners and participants, current and future information policy requirements (e.g. partnerships, sharing, access, usage constraints)
- technology infrastructure—network, software, computers, Internet opportunities
- key information products required/used/available.

Figure 4-1 Example of a business process supporting data maintenance.



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Individual people, departments, or NRM bodies have documented spatial data management standards, processes, policies and procedures. Document the parts of the business processes that require spatial information and cross reference to general data management requirements outlined in *Module 2: Data management principles*.

4.2.1 Data publishing considerations

Information publishing and access needs to be addressed when implementing a spatial data infrastructure or integrated information management solution. This includes ensuring that *the published data actually makes sense, is useable to those accessing it, and suitable documentation is available so users can determine whether the data may be useful and pursue steps to access them*. While this might seem obvious, the internet today is rife with examples of organisations that have focused on the system to get their data published and forgotten about their audience and its need to interpret the data. As a result, data often lack descriptive headings, legends, or they have

poor metadata/documentation and contain other inconsistencies. In its document 'Australian Natural Resources Information 2002', the Audit reported results of a review of the Australian Spatial Data Directory (ASDD). These results showed that more than 20% of the records had no information about when the data were created and less than 50% had sufficient information about the quality of the data, in turn, making it difficult for users to determine whether they may be useful.

4.3 Data standards

A wide range of support material is available on the development and application of standards as they relate to NRM datasets.

> ANZLIC has produced a series of policy documents and support material on standards (e.g. Policy Statement on Spatial Data Management and Model Data Access and Management Agreements) which serve as useful templates for regional groups. All are available from the ANZLIC website.
>
> '**Australian Natural Resources Information 2002',** produced by the Audit, also provides useful background material. This report is available on the following website:
> http://audit.ea.gov.au/anra/data/docs/national/Data_Contents.html
>
> In addition, each state/territory jurisdiction has protocol and policy documents on data standards. Regional groups should refer to these whenever they are available.

An important goal in the development of an integrated information management solution is to facilitate the development, publishing and acceptance of data standards. Such standards are a key ingredient for all users and producers of data and information. They are particularly important in any co-management, co-maintenance or partnership where data and information need to be shared or aggregated.

Data standards describe objects, features or items that are collected, automated, or affected by activities or the functions of organisations. In this respect data need to be carefully managed and organised according to defined rules and protocols.

Within any spatial information system project, there are normally a number of standard themes of data common to most NRM projects. These include elevation, soils, land use, cadastre, transportation, etc. which need to be organised according to a system that makes them useful to the broadest community.

Fitness for purpose and point of truth

Fitness for purpose and point of truth are key elements of data standards.

- Prior to using any dataset it is recommended that the user undertake an assessment to determine the appropriateness of the dataset (fitness for purpose) for the intended use. This involves assessment of such criteria as:
  - scale
  - resolution
  - accuracy
  - classification system
  - integrity of the dataset.
- Where possible (especially where more than one version of a dataset exists) users should obtain clarification from relevant state or territory jurisdictions to determine the authoritative (point of truth) dataset. Problems in using outdated or unofficial datasets can lead to major problems in analysis, confusion and a lack of interoperability and integration with other datasets.

Benefits of data standards

Benefits of data standards include:

- increased data sharing
- higher quality data
- improved data consistency
- increased data integration
- better understanding of data
- improved documentation of information resources
- improved control over data updating activities and new versions of datasets
- improved data security.

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An organisation or NRM group has developed a comprehensive suite of metrics for understanding the impact of spatial data management on their core business activities. These metrics incorporate standards, process performance, and how well the group's spatial information management operations compare with recognised Australian best practice.

4.3.1 Metadata standards

Spatial metadata is information that describes spatial datasets (i.e. the data about the datasets). This provides a consistent approach to allow the storage and retrieval of information about a particular dataset. An analogy may be the labelling of food on supermarket shelves or historical information about a motor vehicle in a second-hand car yard.

Metadata can be accessed using database and internet technologies that automate search and retrieval capabilities. This is facilitated by the ASDD (available online at: http://asdd.ga.gov.au/asdd/).

ANZLIC has developed a metadata standard, which sets out minimum requirements for metadata published in the ASDD—see http://www.anzlic.org.au/infrastructure_metadata.html#standards

For the ANZLIC Metadata Guidelines Version 2, February 2001 see: http://www.anzlic.org.au/download.html?oid=2358011755). Updated information is available from the ANZLIC Metadata Project http://www.anzlic.org.au/metadata_project.html with additional technical information available on the ASDD website: http://asdd.ga.gov.au/asdd/tech/#metadata.

The guidelines have been widely adopted and are designed for use by data custodians to assist them in creating, storing and distributing core metadata elements. The document includes introductory information on metadata, their use and management. References include sources of more detailed information that users may require as they become more experienced with metadata and their use as an aid to data management within their own organisations. Several online metadata entry tools now exist (more details are available from your jurisdictional Spatial Data Infrastructure coordination bodies).

For additional information about the ANZLIC Metadata Guidelines, the ANZLIC Metadata Entry Tool (MET) or any other metadata related issue NRM regional bodies should contact their jurisdiction's metadata contact. Details are available on the ANZLIC website:

http://www.anzlic.org.au/metadata_project.html.

4.3.2 Principles for developing standards in a multi-user environment

To an outside person, data standards often appear vague or difficult to understand, as they usually reflect the business uses and requirements of the person (or NRM regional group) that developed the dataset and not the multiple needs of different users and data collectors. When involving multiple business interests and/or parties (as is often the case in the development of regional NRM programs) the development and acceptance of data standards must be carried out in an environment of trust and 'agreed-to' principles. The following guidelines should be kept in mind when developing standards.

ANZLIC policy, as it relates to the development of standards, may be summarised as follows:

- Where possible adopt the following in order of priority:
  - international standard
  - national standard
  - regional standard

- local standard
- Where possible adopt a minimum standard—less is better than more
- Give consideration to a particular version of a standard as they are constantly being updated.

A Standard is accepted when it is broadly used

There is no merit in referring to something as a 'standard' if it is not used and adopted. Good standards are developed in an inclusive process, are well communicated and widely used. Use is facilitated by access so improving access to data will increase adoption of standards.

Standards evolve

Standards often change in parallel with changes in technology and business processes. A process with built-in continued participation and review is important so that standards evolve, rather than drop out of favour as parties find new individual approaches.

Most data are already collected to some standard

By definition all data contained in a database conform to some standard. A good 'standards' exercise begins by identifying what already exists (i.e. the 'standards' currently associated with the dataset).

Standards reflect a business need or circumstance

Datasets and their related standards exist to support business requirements. Understanding those requirements is key to broad acceptance.

A standard won't meet all business needs

Any one standard may not meet all the business requirements for the dataset. For example, a dataset might be satisfactory for broad-scale local government land-use zoning purpose, but not accurate enough for site-specific evaluation.

Look for a 'minimum standard' or key common components

Due to the range of requirements associated with various business needs, it is often feasible to achieve one broadly accepted standard for a dataset. It is often recommended that standard components (e.g. access, distribution, scale, accuracy) of the various related datasets are included in the standard.

Once adopted, these standards then become broadly accepted and form the basis of a *minimum standard*. Other users are free to add business-specific elements to the data for their own use, while sharing a minimum set of core data elements. Business processes involving multiple partners or participants should support the maintenance and development of the dataset. In the diagram presented in Figure 4–2, the minimum standard components of a land parcel database are supported through the activities of a number of different business processes.

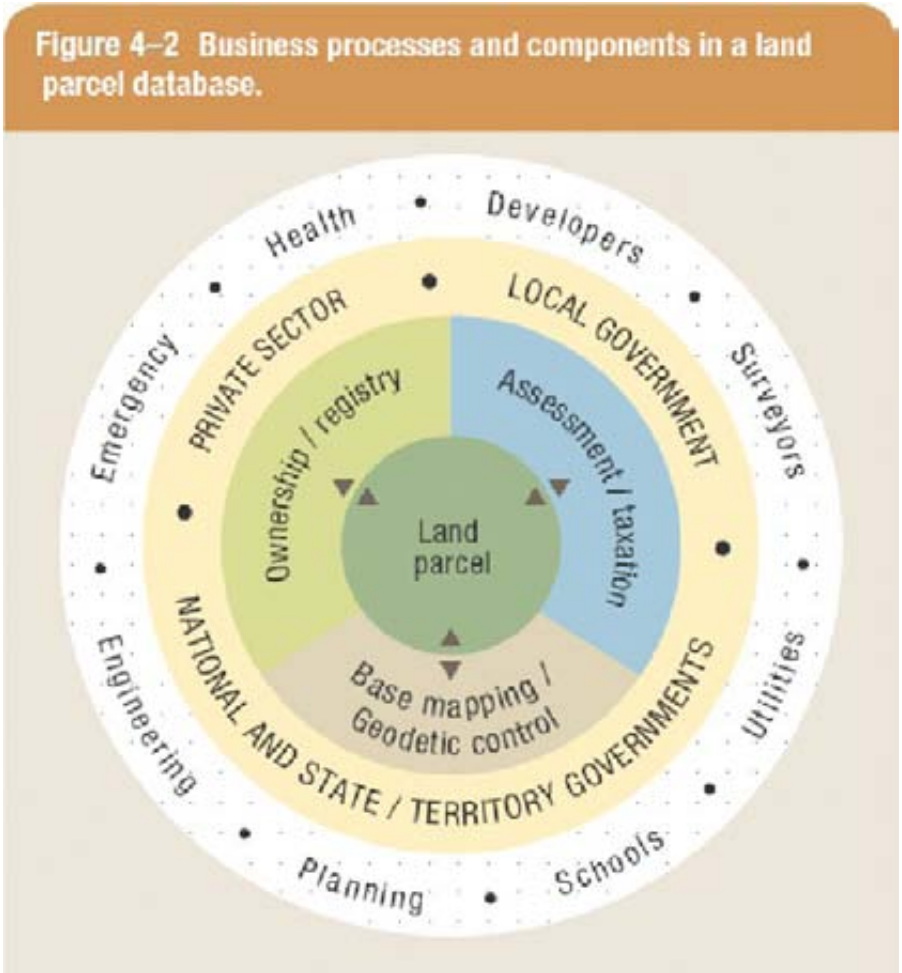

Figure 4–2 Business processes and components in a land parcel database.

The realisation of the need for data sharing and partnerships to address NRM issues has placed increased importance on standards, and emphasised the need to streamline cooperation and communication between parties. Communication is critical to the success of a data standard and the use of the data.

4.4 Data standard components

4.4.1 Spatial standards

A number of standards are involved in spatial datasets used in a spatial information system project to support NRM activities. These include standards associated with map projection, datum, the coordinate system in which the dataset is stored, and the scale and accuracy of the dataset. Such standards are needed as datasets can be rendered useless without them. For example, satellite images or vector road layers cannot be used in a spatial information system unless they match the projection and coordinate system adopted for use in the spatial information system.

The following is a list of various data standards that practitioners need to be aware of (or may encounter) when managing or searching for data.

Map projections

A *map projection* may be described as a mathematical model that transforms the spatial relationships of features on the earth's three-dimensional surface to locations on a flat map or two-dimensional surface. To achieve this, some method must be used to depict a map in two dimensions. However, a flat map does not accurately reflect the shape of the earth. For this reason, many different map projections have been developed and used in spatial analysis and mapmaking activities. Some projections preserve shape, while others preserve accuracy of area, distance or direction.

Datum

In reality the earth only approximates a sphere. For small-scale maps, such as an atlas, which often represent large areas (e.g. a country), map makers treat the earth as a sphere. For large-scale maps (which reveal far more detail for a given area compared with small-scale maps) the earth must be treated as an ellipsoid or spheroid. A *datum* is a set of parameters and control points that are used to accurately define the three-dimensional shape of the earth.

Coordinate system

A *coordinate system* provides a reference to measure horizontal and vertical distances on a map. Coordinate systems are usually defined by a map projection, a spheroid reference, a datum, and a number of other parameters (e.g. standard parallels, a central meridian and possible shifts in the x and y directions). The two most common coordinate systems in Australia are geographic and the Map Grid of Australia (MGA).

Scale and accuracy

The term *scale* refers to a statement of measure. It is often the ratio of the distance on a map as related to the true distance on the ground. In general, maps with smaller scales are less accurate and show less detail. This is also the case for spatial information system datasets, which are often derived from maps or images at given scales. Spatial information system software functionality enables the user to zoom in closely on a dataset and print it at very large scales. Please note however, that enlarging a map beyond the scale at which the data were captured does not make the map more accurate.

When considering scale and accuracy, there is also the need to distinguish between accuracy and precision for both raw and derived data. *Accuracy* is associated with the reliability of the data to a given standard and a lack of bias. In contrast, *precision* involves the ability to make fine distinctions.

Recommended spatial standards

An example of a standards document is presented in the National Land & Water Resources Information Management Manual (Version 2.0, March 2000). Adoption of these standards will ensure compatibility with projects being undertaken with funding from the Audit.

Regional groups are encouraged to contact their respective state and territory jurisdictions to obtain information on the most appropriate spatial standards.

Additional information on purchasing spatial information software that ensures compliance with key standards, including the OpenGIS® Consortium, World Wide Web Consortium in the Australian Spatial Data Infrastructure (ASDI) (as mandated within the national Interoperability Framework initiative) is provided in *Module 7: Guidelines for selecting spatial information systems software and hardware*.

A collaborative case study in the development of spatial data standards between local governments in Victoria was that coordinated by the Municipal Association of Victoria (MAV). The new international standard (GDA, the Geocentric Datum of Australia) was officially adopted in Australia on 1 January 2000 superseding the AGD66 standard. The GDA provides compatibility with satellite navigation systems, national mapping programs, and is a single standard for the collection, storage, and dissemination of spatial information at global, national and local levels. It thus allows for the efficient exchange of data.

Some states/territories have passed legislation mandating adoption of the GDA as the new standard.

There are benefits to NRM groups in coordinating the adoption of the GDA, including the following:

- reduced data translation costs
- increased use of GPS by mobile applications
- reduced risk of error and possible litigation
- reduced confusion
- better coordination between agencies.

The following plan has been proposed to assist the implementation of the GDA by local governments in Victoria:

1. distribution of a video (already available) to all councils to raise awareness
2. formation of a steering committee to oversee the transition
3. preparation of a detailed GDA conversion plan/road map at four local government associations (LGAs) using the most common systems (this road map includes the conversion steps, resourcing/costs and identification of issues). These road maps lead to preparation of a generic report, with example LGA road maps collated, which would be used as a resource for all LGAs
4. the provision of a two-day audit and planning process (facilitated by external providers) at participating councils to enable the development of an action plan for conversion to the GDA
5. scheduling of regional or vendor workshops to accelerate the sharing of knowledge between councils, as well as standard letters and general support
6. facilitation of collaboration between councils in relation to aerial photography data conversion methodologies to enable a sharing of costs.

In addition to the above approach, the MAV also provides an indication of potential costs for the GDA conversion for inclusion in Victorian councils' budget planning cycles.

4.4.2 Non-spatial standards

A number of non-spatial standards are involved in many datasets. The following provides a brief overview.

Data acquisition/collection standards

Data acquisition or collection standards include process standards for survey, collection and data capture methods. Data collection standards are the methods and processes for the collection of new data, or conversion of existing data. Numerous groups are established internationally and nationally that deal with specific standards for data acquisition or collection.

Database structure and content standards

Database structure and content standards relate to the organisation, representation and contents of database files and data elements. Data content standards provide semantic definitions of a set of objects which may be organised and presented in a data model, such as an entity-relationship model.

Data processing standards

Data processing standards are standards to which data are subjected for the purposes of data manipulation and conversion into information products.

Data quality standards

Data quality standards include, but are not exclusive of, the following:

- accuracy
- precision
- resolution
- reliability
- repeatability
- reproducibility
- currency
- relevance
- ability to audit
- completeness
- timeliness.

Database maintenance standards

Database maintenance standards relate to the process and timing of updates to datasets. This includes additions, changes and deletions to datasets. It should be noted that it is an accepted practice for organisations to have an official version of a dataset that they have released for general use while they are in the process of updating or modifying the same dataset in order to produce a new version.

Data usability standards

Data usability standards describe how to express the applicability or essence of a dataset of data elements and include data quality, accuracy, and reporting or documentation standards.

Data dissemination standards

Data dissemination standards include standards for data and information access, dissemination processes and products (e.g. maps and reports), and consideration regarding copyright, privacy and freedom of information. The Audit's Information Management Manual is an example of a document containing data dissemination standards.

Terminology/symbology standards

Terminology and symbology standards include terms or symbols which must be used or adhered to. Data symbology or presentation standards define graphic symbols.

Presentation standards

Presentation standards are the methods for displaying and formatting information from a dataset or data standard.

Quality control and assurance standards

Quality control and assurance standards are used to achieve a specified quality and to check the quality of an existing dataset. Details for accuracy and precision are often included in these standards.

Checklists and scorecards are often used to assess compliance of a dataset to a particular standard as part of quality control and assurance processes. An example of a compliance checklist can be found in the Audit's Australian Natural Resources Information 2002 report: http://www.anra.gov.au/topics/publications/national/index.html.

Compliance of the 1996/97 Land Use of Australia Map with standards for the Australian Spatial Data Infrastructure

Access

✓ ***Are the data easily accessible?***

- Land use data are available free of charge over the Internet through the Australian Natural Resources Data Library.
- Data may be mapped through the Australian Natural Resources Atlas Map Maker. Detailed regional summaries of land use for each river basin are available through the Australian Natural Resources Atlas.

✓ ***Are the data documented?***

- Summary documentation is available through the Australian Natural Resources Data Library and the Australian Spatial Data Directory.

Supply

✓ ***Are licence arrangements in place to ensure the information is accessible, while protecting copyright, intellectual property, privacy and confidentiality?***

- a licence agreement has been agreed between the Audit and ANZLIC and is supported by Australian, state and territory government agencies.

Quality

✓ ***Do the data meet national guidelines or standards?***

- Data meet the following national guidelines:
  - Spatial data are available in the Geocentric Datum of Australia (GDA94)
  - Attribute data use the *Australian Land Use Management Classification* Version 4, October 2000. The Executive Steering Committee for Australian Land Use Mapping monitors compliance with the classification.
- Download of data from the Australian Natural Resources Data Library is subject to an agreement with licence conditions.

Maintenance

✓	***Are there national coordination arrangements in place to help ensure that data are being assembled, maintained and delivered in a nationally consistent way without duplication of effort?*** ▪ The Australian Government Department of Agriculture, Fisheries and Forestry coordinates the Executive Steering Committee for Australian Land Use Mapping with representation from national, state and territory governments.
✓	***Are custodians of the data maintaining the data according to national guidelines or standards?*** ▪ The Australian Government Department of Agriculture, Fisheries and Forestry maintains the data according to the *Australian Land Use Management Classification*.

Source: National Land and Water Resources Information 2002, National Land & Water Resources Audit.

As mentioned earlier, the criteria by which datasets can be assessed to determine their compliance with standards for the Australian Spatial Data Infrastructure are being updated. Further, each state or territory jurisdiction may have its' own overarching criteria to which regional bodies should conform.

Data classification standards

Data classification standards provide groups or categories of data that serve an application, e.g. a land use or soil classification. Several groups are currently involved in determining classification methodology standards which outline the procedures to be followed when implementing a data classification standard. They describe how data are analysed to produce a classification, and the processes that are followed to achieve data precision.

Examples include:

Salinity Mapping Methods in the Australian Context: User Guide available from at: http://www.nrm.gov.au/publications/salinity-mapping/index.html

Guidelines for land use mapping in Australia: http://adl.brs.gov.au/mapserv/landuse/nat_scale_tec.html

Surveying and Mapping Nationally Significant Weeds: http://www.affashop.gov.au/PdfFiles/pc13456.pdf

Storage procedure standards

Storage procedure standards address the mechanisms and schedules for archiving or backing up data. When appropriate, storage procedures also address the storage media, e.g. streamer tape, CD or DVD—in some cases these are mandated by law.

Data analysing standards

Data analysing standards include methods for computing, comparing, contrasting, assembling, or evaluating a dataset for an application or specified product.

Data transfer standards

Data transfer standards are independent of technology and applications, and facilitate the moving of data among systems, without the prior specification of the intended end use of the data. Some transfer standards are specific to a technology, e.g. the File Transfer Protocol (FTP) as used on the internet.

4.5 Best practice for standards

Best practice procedures for information management involve the development of guidelines which detail the specific requirements an agency or organisation should adopt in relation to standards. In many cases, most of the data standard elements listed above are incorporated into a document which outlines the organisation's data principles and management guidelines.

An example of such a document, from the Herbert River Resource Information Centre, is available for download at:

http://www.hric.org.au/hric_site/hric_info/Policies/Data_princ/Data_princ.asp.

The Herbert example addresses the following areas:

- data acquisition (including flow diagrams for data acquired from both joint and non-joint venture partners, data request forms and custodian licence agreements)
- data storage (including directory naming conventions and structure, and version control)
- data capture
- data distribution (including a data distribution flow diagram)
- data licence agreements (including a flow diagram for selecting a data licence agreement)
- metadata (including a metadata template).

Other best practice procedures include the development of compliance criteria (including scorecards), and the development of guidelines for standards other than spatial data, e.g. reporting requirements, etc. The Audit's Information Management Manual (Version 2, March 2000) is an

example of this type of document providing guidelines for projects funded under the Audit. Additional draft templates to assess compliance are available from ANLIC.

Business process review for ensuring compliance with spatial data management standards, processes, policies and procedures.

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4.6 Additional support

As mentioned earlier, the criteria are available by which datasets can be assessed to determine their compliance with standards (e.g. for the Australian Spatial Data Infrastructure). In many cases each state or territory jurisdiction may have its own overarching criteria to which regional bodies should conform. In order to promote the adoption of such standards most jurisdictions have material related to data policies and standards available on their websites.

The following web sources, while not exhaustive, provide a starting point to assist regional users in the location of information relevant to their jurisdiction.

State and territory material on standards

Queensland: http://www.qsiis.qld.gov.au

Western Australia: http://www.walis.wa.gov.au/

New South Wales: http://www.canri.nsw.gov.au/policies/

Tasmania: http://www.dpiwe.tas.gov.au/

ACT: http://www.actpla.act.gov.au/tools_resources/maps_land_survey

Victoria: http://www.land.vic.gov.au/land/lcnlc2.nsf/childdocs/-418EED712A81C5AE4A256A0A0015CDC1-F31E2DE1F7D75F504A256A4F0017DA3E-B3B667568E6561444A256A5700195F0E?open

Northern Territory: http://www.ntlis.nt.gov.au/

South Australia: http://www.environment.sa.gov.au/mapland/sicom/sicom/index.html

Additional general information

Technical: http://asdd.ga.gov.au/asdd/tech/#metadata

General: For additional information about ANZLIC Metadata Guidelines, the ANZLIC Metadata Entry Tool (MET) or any other metadata related issue, NRM regional bodies should contact their jurisdictional metadata contact. Details are available on the ANZLIC website:

http://www.anzlic.org.au/metadata_project.html