

# Metadata management guideline

Final

November 2010

v1.0.0

PUBLIC

Queensland Government Enterprise Architecture

## Document details

Security classification	PUBLIC		
Date of review of security classification	November 2010		
Authority	Queensland Government Chief Information Officer		
Author	Policy Development, ICT Policy and Coordination Office		
Documentation status	Working draft	Consultation release	<input checked="" type="checkbox"/> Final version

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## Acknowledgements

Feedback was received from a number of staff from agencies, all of which was greatly appreciated.

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*Metadata management guideline*

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## Information security

This document has been security classified using the Queensland Government Information Security Classification Framework (QGISCF) as PUBLIC and will be managed according to the requirements of the QGISCF.

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# 1 Introduction

## 1.1 Purpose

This guideline provides information for Queensland Government agencies on the recommended practices for implementing metadata and metadata schemas.

## 1.2 Audience

This document is primarily intended for:

- business managers
- information asset custodians and information asset owners
- application and technology asset custodians and owners
- information management and technology staff.

## 1.3 Scope

This guideline supports [Information Standard 34: Metadata \(IS34\)](#).

# 2 Background

This document supports practitioners in the management of metadata describing information assets and aids in implementation of the mandatory principles of [IS34](#).

The management of metadata is one component of the overall information management discipline. This QGEA guideline provides guidance for implementing business processes to support good metadata management practice and should be read in conjunction with the following information:

- [Information Security \(IS18\)](#)
- [Internet \(IS26\)](#)
- [Retention and Disposal of Public Records \(IS31\)](#)
- [Information Access and Use \(IS33\)](#)
- [Recordkeeping \(IS40\)](#)
- [Information Asset Custodianship \(IS44\)](#)
- [Use of Copyright Materials \(IS46\)](#).

### 3 Metadata terminology

Metadata can assist managers and users of information to understand, retrieve, display, navigate, use, control and preserve data and information. These processes are enhanced when they are applied in a consistent and coordinated manner.

Metadata is important in the context of search tools, as the content of an Information Asset Register (IAR) used by search tools to discover information *is* metadata. If there is a metadata record for all Queensland Government held information, and this metadata is collected into an IAR that supports a search tool, then theoretically all information can be searched for and discovered.

In order to ensure that this document is read with a common understanding of the terminology used, this section describes some of the basic metadata terminology.

Metadata is literally 'data about data'. In other words, metadata refers to the data that describes information.

Common *metadata elements* are:

- title
- creator
- date
- publisher<sup>1</sup>.

The *metadata schema* defines which metadata elements are collected together. There are many different uses for metadata and so there are many different metadata schemas. Each metadata schema serves a specific purpose<sup>2</sup>.

An example of metadata is that which is entered into the Government Information Catalogue (figure 1, page 6). This catalogue contains metadata entries for important Queensland Government information assets.

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<sup>1</sup> These are common metadata elements generally and are not necessarily shown on Figure 1.

<sup>2</sup> The key metadata schemas used by the Queensland Government are addressed below.

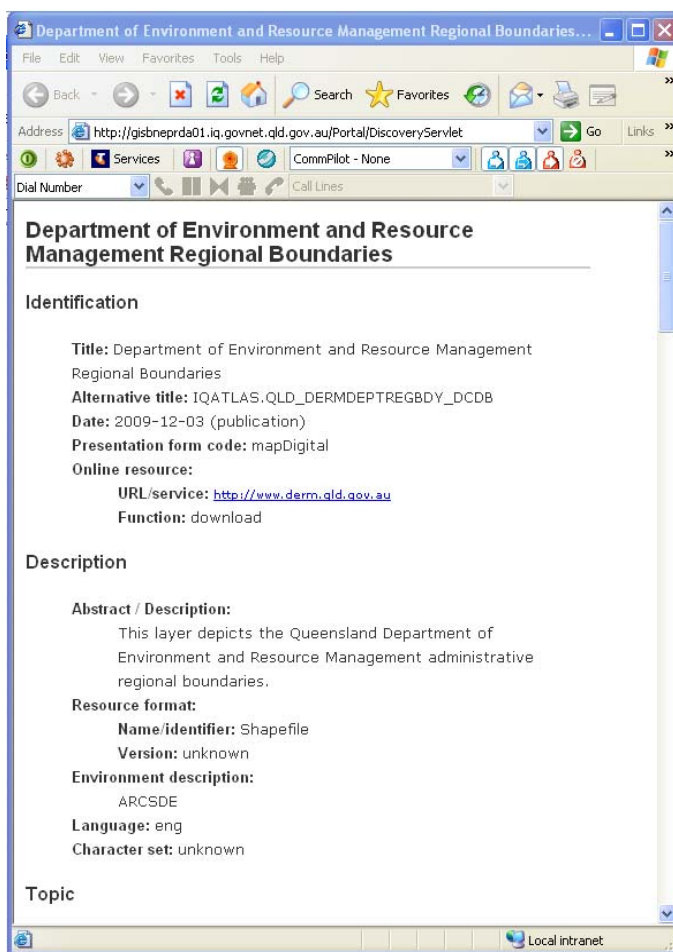


Figure 1 - Metadata example – Government Information Catalogue

## 4 Uses for metadata

The primary use of metadata is to improve resource discovery but metadata is also recorded for information assets for other reasons including:

- administrative control
- security
- personalising of information
- management information
- content rating
- rights management
- preservation.

Agencies should consider all of the uses above as part of agency metadata life cycle management.

### 4.1 Administrative metadata

There is benefit in capturing information about when metadata was created or updated, and who performed this function. This is called administrative metadata.

The Australian Government Locator Service ([AGLS](#)) does not include formal standards for administrative metadata. However, [Dublin Core Metadata](#) and [Queensland Recordkeeping Metadata standards \(QRKMS\)](#) include administrative elements.

Use of the administrative metadata elements is highly recommended but may be adopted by agencies at their own discretion.

## 4.2 Metadata levels

Metadata can be applied at a number of different levels. For example, metadata may be applied to individual information assets; to a register of information assets or to an entire business system. Agencies must determine the most appropriate level/s for the application of metadata, in line with their business needs and capabilities. This should be performed with an understanding of agency responsibilities to share and publish metadata about their information assets.

# 5 The benefit of using metadata

The use of metadata to describe information assets provides an array of benefits:

- metadata enables discovery (and retrieval in some cases) provides:
  - information to data catalogues and clearinghouses
  - flexibility in searching to support interdisciplinary usage
  - a key element in the efficient sharing of information
  - the backbone of web services and interoperability.
- metadata protects investment in data:
  - mitigates effect of staff turnover and individual memory loss
  - allows reuse and repurposing to increase return on investment
  - provides documentation of data sources and quality.
- metadata helps users understand data:
  - provides consistency in terminology and attribution
  - focuses on key discerning elements of data
  - helps user determine the data's fitness for use
  - facilitates data transfer and interpretation by new users.
- metadata can limit liability:
  - helps prevent data from being inappropriately used or provides protection if data is inappropriately used.
- metadata is evidence of prudent data stewardship
- metadata reduces workload associated with questions about data:
  - users do not have to keep asking producers questions.
- metadata cuts overall costs:
  - allows automation of tools which ease overall burden and cost of data population and maintenance.
- metadata publishing is the foundation upon which advanced distributed computing functions are being built, implementing good metadata practices today will prepare government for tomorrow.

## 6 Information Asset Life Cycle

[QGEA guideline Information Asset Lifecycle](#) describes the lifecycle of an Information Asset in detail.

The ICT asset lifecycle demonstrates typical phases and management objectives in the asset lifecycle, from planning the investment decision through to retirement or replacement of the asset. The creation and management of metadata about information assets should also be managed within the lifecycle of the asset. The lifecycle of the metadata is often similar to the lifecycle of the asset; however, there are some important differences which should be noted.

In the case of records management, a record may be archived or deleted, but some of the metadata pertaining to that record needs to be retained so there would always be a reference to that record, even though the record itself no longer exists.

### 6.1 Metadata planning

Agencies must establish effective planning processes to ensure the implementation and review of agency metadata remains consistent with agency, client and whole-of-Government requirements. Correct metadata planning involves the following activities:

- identification of the business requirements for metadata
- conducting stakeholder analysis to identify key stakeholders for metadata consumption
- identify agency metadata management roles and responsibilities
- ensure metadata custodianship is included in agency custodianship policies (supported by [IS44](#))
- identify all sources and suppliers of metadata and ensure that the agency's metadata is collectively sufficient to meet all identified business requirements
- identify the appropriate standards based<sup>3</sup> metadata schemas that will be required to meet business requirements (and are interoperable with [AGLS](#))
- identify opportunities for automatic metadata authorship to ensure that metadata is created consistently
- identify the appropriate mechanisms (such as controlled vocabularies, syntax encoding schemes or taxonomies) that can be used to ensure that metadata is created consistently
- identify support and operational requirements for metadata management
- identify training needs for metadata management and use
- identify risks and barriers to metadata use and develop strategies to mitigate risks
- identify appropriate metadata quality assurance processes
- develop or leverage rules/governance/guidelines/data entry standards to support the application of metadata
- identify technical and security requirements for metadata handling
- map metadata - to ensure alignment and compliance with schemes/applications require mapping to the relevant scheme.

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<sup>3</sup> Metadata standards are addressed in Section 7 below.

## 6.2 Metadata creation and acquisition

To facilitate seamless management of, access to, and interoperability of Queensland Government held information, agencies must ensure consistent description and classification of information through the implementation of metadata. Metadata creation or acquisition involves the following activities:

- create metadata for all agency held information – in other words, all agency information authorship processes must include metadata authorship
- create metadata for all agency held information regardless of whether the information resource is published and regardless of whether the information resource is legislatively exempt from release, all Queensland Government held information should be discoverable even if it is not releasable<sup>4</sup>
- create record keeping metadata for all agency information that is a record<sup>5</sup> – in other words, all agency information authorship processes must include record keeping metadata authorship if the information that is being described is a record
- create metadata using metadata schemas that are interoperable with the [Australian Standard 5044 AGLS Metadata Element Set](#)
- create record keeping metadata using metadata schemas that are interoperable with the [QRKMS](#)
- ensure that agency metadata meets the minimum requirements of [AGLS](#), [QRKMS](#) and that required for agency business
- use standards based metadata schemas (where appropriate) when creating metadata
- use metadata schemas that meet business requirements and reflect the context of the information being described
- use mechanisms (such as controlled vocabulary, taxonomy, thesaurus, syntax encoding standards and machine-generation to ensure that metadata is created consistently (to enable discovery and interoperability)
- automate the process of metadata authorship where appropriate – this should be done in preference to manual or human metadata authorship<sup>6</sup>
- ensure that where an extension of elements for metadata schemes is required to meet business requirements, that this extension is implemented according to the metadata extension methodology defined in the standard being used.

## 6.3 Metadata organisation and storage

To facilitate seamless management of, access to, and interoperability of Queensland Government held information, agencies must ensure effective and reliable organisation and storage of agency metadata.

## 6.4 Metadata access

To facilitate seamless management of, access to, and interoperability of Queensland Government held information, agencies must ensure that metadata about Queensland

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<sup>4</sup> Note that the metadata in the metadata records must still comply with releasability exemptions. For example, an information resource that contains classified or private information can and should be described but this must be done without breaching security and privacy provisions.

<sup>5</sup> according to the *Public Records Act 2002*.

<sup>6</sup> There will be occasions where human generated metadata is preferable. For example, where automation will not create suitable descriptive metadata to meet the business requirement.

Government held information is accessible where appropriate. Metadata access involves the following activities:

- ensure that metadata describing all agency held information are accessible to all metadata/information users
- ensure that metadata is accessible to the maximum extent possible without compromising information policy that places restrictions on access (for example, release exemptions include copyright, intellectual property, licensing, privacy, security, public interest and items exempt from release as per Schedule 3 of the [Right to Information Act 2009](#)).

## 6.5 Metadata use

Metadata instances exist to facilitate seamless management of, access to, and interoperability of, government information and services. Given the role that metadata plays in the management of information, agencies must provide appropriate support and training to users of metadata.

## 6.6 Metadata assessment and review

To facilitate seamless management of, access to, and interoperability of Queensland Government held information, agencies must conduct periodic reviews of their metadata. Metadata assessment and review involves the following activities:

- monitoring the usage and use<sup>7</sup> of metadata
- review the scope and nature of agency metadata roles and responsibilities (at least annually) to ensure that they are appropriate to agency business requirements
- review metadata appointments and delegations (at least annually) to ensure that they are appropriate, current, assigned and agreed by responsible parties
- assess opportunities to extend the use of metadata (at least annually)
- if information is reused<sup>8</sup>, do the metadata records adequately reflect all contexts in which the information is being used
- review the metadata quality and completeness (at least annually) – amongst other things, reviews must confirm that agency metadata records are fully populated, that metadata records are consistent in content, that records are not duplicated and that a metadata record exists for every information resource
- review the alignment and continuing fitness-for-purpose of existing metadata and metadata schemas (at least annually) to ensure that agency metadata continues to meet business requirements
- monitor and record the cost of maintaining metadata.

## 6.7 Metadata maintenance

To facilitate seamless management of, access to, and interoperability of, government information assets and services, agencies must take action (subject to periodic assessments) to optimise and rationalise metadata.

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<sup>7</sup> Usage and utilisation refer to the amount of use and the purpose of use respectively.

<sup>8</sup> The term reuse has been used here to describe the re-purposing of the information asset. Namely has it been used for a secondary purpose to that for which it was created originally.

## 7 Metadata standards

A catalogue of metadata records is optimised when:

- the metadata adequately describes the information resource
- the metadata distinguishes between the information resources
- each metadata instance is fully populated
- the metadata in each metadata instance has been created consistently
- metadata exists to describe each information resource.

To elaborate, each metadata instance must *describe* the information resource sufficiently for the information user to ascertain whether the described information resource is the information that they need.

Each metadata instance must also describe the information resource sufficiently for the information user to *distinguish* information resources and to allow relevant information resources to be selected.

A metadata instance can be considered ‘fully populated’ when it contains metadata for every metadata element that will serve the intended purpose of the metadata instance. For example if the purpose of the metadata is to enable discovery, then that metadata instance must include metadata for any metadata element that will be used by a search user to conduct the search. Secondly, if the purpose of the metadata instance is to enable record keeping, then that metadata record must include metadata for any metadata element used by record keeping practitioners to conduct record keeping activities.

### 7.1.1 Metadata schemas

Metadata schemas are a pre-determined set of metadata elements that serve as a guide to metadata authors as to what metadata will be needed to create an optimal metadata instance given the context and expected use of the information being described.

Each metadata schema is purpose specific. Generally, however the metadata elements within all metadata schemas can be categorised as serving one of three purposes:

- metadata elements that describe the content of the information resource
- metadata elements that describe the intellectual property attributes of the information resource
- metadata elements that describe the electronic or physical characteristics of the object that holds the information or the metadata record.

Table 2 in [Appendix A](#) (page 16) uses the [Dublin Core Metadata Element Set](#) to illustrate how metadata elements can be categorised as serving one of three purposes.

### 7.1.2 Standard metadata schemas

In many cases, metadata schemas have been ‘standardised’<sup>9</sup> to promote consistency within a particular discipline or for a specific metadata usage scenario. There are hundreds of standard metadata schemas; each metadata schema serves a specific context or purpose. The use of standard metadata schema ensures the use of a consistent set of metadata elements.

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<sup>9</sup> Some of these are formal standards and some are de facto standards.

Figure 2 (page 13) shows some key metadata schemas in use by the Queensland Government. This figure shows these metadata schemas, their relationships to each other, subject area and hierarchical relationship.

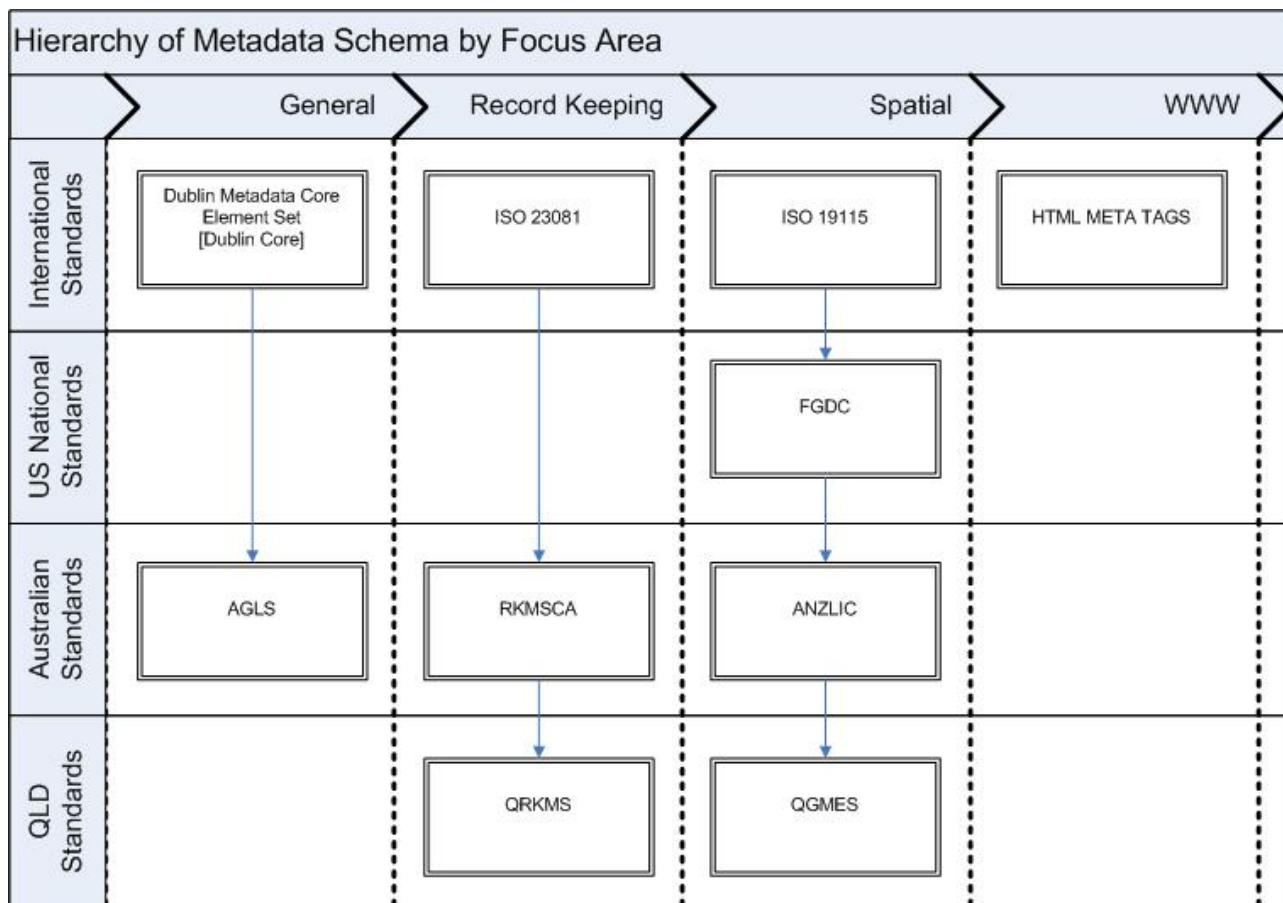


Figure 2 - Key Metadata Schemas for Queensland Government

A detailed description of [Dublin Core](#), [AGLS](#), [QRKMS](#), [Queensland Government Metadata Element set \(QGMES\)](#) and HTML Meta Tags is in Appendices A-E.

### 7.1.3 Metadata consistency

The names of metadata elements may be variable across the different metadata schemas despite having the same meaning or purpose. For example, the metadata element called ‘Author’ in the [Dublin Core Metadata Element Set](#) is called ‘Creator’ in other metadata schemas. This is true even though the two metadata elements generally serve the same purpose. The consistent population of metadata for these (differently named) metadata elements is central to achieving consistent and complete search results across metadata records generated using different schemas.

It is equally important to ensure that the approach taken to generating the metadata for each metadata element is consistent. In simple terms, automating the process of generating metadata will improve the consistency of that metadata<sup>10</sup>.

<sup>10</sup> Conversely automatic generation *may* reduce the descriptiveness of the metadata or the correlation between the metadata and (the context of) the information that it describes.

### **Case Study – Consistent Metadata Authorship**

If a Government employee is creating metadata to describe the Department of the Premier and Cabinet (DPC) and can do so by freely entering text (i.e. using natural language vocabulary), then the employee may use any of the following:

- Department of the Premier and Cabinet
- The Department of the Premier and Cabinet
- Department of Premier and Cabinet
- Department of Premier & Cabinet
- DPC

This is important because, although another Government employee would consider these terms equal (in terms of describing DPC); a computer may only be able to match the exact term used. This means that a computer-processed search may not discover all relevant information resources.

Alternatively, if the employee generates the metadata by selecting from a pre-determined list of departments, then the metadata is created consistently.

To promote the consistency of metadata authorship, the use of controlled vocabulary, controlled syntax, thesauri, taxonomies, social tagging and in particular metadata authorship automation can all be used.

#### **7.1.4 Metadata and obligation**

Some metadata schemas stipulate which metadata elements are compulsory or otherwise. If metadata elements are designated as compulsory and a metadata record contains no metadata for one of the compulsory elements, then that record is considered not to be a true and correct metadata record according to that metadata schema. This can be used to assess the quality of metadata records within a metadata catalogue. The impact of having metadata records that are not true and complete is that not all relevant information will be discovered by the search process.

#### **7.1.5 Metadata interoperability**

As stated above, the names of metadata elements may be variable across different metadata schemas despite having the same meaning or purpose. In order to allow for the use of different metadata schemas without compromising the ability to store and use all metadata records collectively; metadata managers must understand the relationships between metadata schemas and their elements.

Dublin Core Element	AGLS Element	AGLS Obligation	QGMES Element	QGMES Obligation	QRKMS Element	QRKMS Obligation
Creator	<b>Creator*</b>	Mandatory			Record Creator	Mandatory
					Record Registrar	Mandatory
Date	<b>Date*</b>	Mandatory	Metadata Date	Mandatory	Creation Date/Time	Mandatory
					Registration Date/Time	Mandatory
Description	Description	Mandatory	Abstract/Description	Mandatory	Record Description	Optional
Title	<b>Title*</b>	Mandatory	Title	Mandatory	Record Title	Mandatory
Type	Type	Mandatory	Type	Mandatory	Record Category Type	Mandatory
Subject	<b>Function* OR Subject*</b>	Mandatory			Function Descriptor/Record Subject	Mandatory/Optional
Identifier	<b>Identifier* or Availability*</b>	Mandatory	Metadata Identifier	Mandatory	Record Identifier	Mandatory
Publisher	Publisher	Conditional				
	Audience	Conditional				
Coverage	Coverage	Conditional			Record Coverage	Optional
Language	Language	Conditional	Language	Mandatory	Record Language	Optional
Contributor	Contributor	Optional				
Format	Format	Optional	Storage Format	Mandatory	Medium	Mandatory
					Data Format	Conditional (Mandatory for electronic records)
	Mandate	Optional				
Relation	Relation	Optional	Relation	Optional	Related Entity Identifier	Mandatory
					Relationship Type	Mandatory
Rights	Rights	Optional	Rights	Mandatory	Access Rights	Optional
Source	Source	Optional				
			Character Set	Mandatory		
			Distribution	Mandatory		
			Abstract/Description	Mandatory		
			Topic	Mandatory		
			Spatial Data Information	Mandatory		
			Responsible Party	Mandatory	Organisation Responsible	Mandatory
			Date	Mandatory		
			History	Mandatory		
					Security Classification	Mandatory
					Determination Date	Mandatory
					Record Category Type (see Type)	Mandatory
					Event ID	Mandatory
					Event Type	Mandatory
					Event Description	Mandatory
					Event Date/Time	Mandatory

Dublin Core Element	AGLS Element	AGLS Obligation	QGMES Element	QGMES Obligation	QRKMS Element	QRKMS Obligation
					Action Officer	Mandatory
					Current Location	Mandatory
					Store Location	Mandatory
					Location Date	Mandatory
					Disposal Authorisation	Mandatory
					Disposal Sentence	Mandatory
					Disposal Action Due	Mandatory
					Authorising Officer	Conditional (Mandatory for temporary records, once destroyed)
					Disposal Notification	Conditional (Mandatory for temporary records, once destroyed)
					Function Descriptor (see Function)	Mandatory
					Activity Descriptor	Mandatory

Table 1 - Relationship between elements of metadata schemas in Figure 2

## Appendix A Dublin Core Metadata Element Set (Dublin Core)

The [Dublin Core metadata element set](#) is a standard for cross-domain information resource description. It defines conventions for describing things online in ways that make them easy to find.

[Dublin Core](#) is widely used to describe digital materials such as video, sound, image, text, and composite media like web pages.

In the context of describing the content of web resources, [Dublin Core](#) is one of (the two) most common and widely implemented metadata schemas. HTML META tags<sup>11</sup> are the other most widely implemented.

[Dublin Core](#) was proposed as the minimum number of metadata elements required to facilitate the discovery of document-like objects in a networked environment such as the Internet.

The table below shows the 15 elements of the Simple Dublin Core schema. Qualified [Dublin Core](#) includes three additional elements. All [Dublin Core metadata elements](#) are optional.

Simplicity is both the strength and the weakness of [Dublin Core](#). Simplicity has led to [Dublin Core](#) becoming the standard reference model that many other metadata schemas are either based on or have linkages to. The common criticism of [Dublin Core](#) is that there are generally too few metadata elements to serve the purpose businesses need a metadata schema for.

Content of the Resource	Intellectual Property	Electronic or Physical Manifestation
Title	Author	Date
Subject	Publisher	Type
Description	Contributor	Format
Source	Rights	Identifier
Language		
Relation		
Coverage		

Table 2 - Elements of Simple Dublin Core Schema

<sup>11</sup> Meta tags are not strictly a metadata schema but are used to perform the function of online resource description.

## Appendix B HTML Meta Tags

HTML Meta Tags are not strictly a metadata schema. HTML is a mark up language that is used to produce web pages. The HTML is interpreted (rendered) by internet browser software to present the web page in a visual format.

Meta tags are the part of HTML used to specify the syntax used to encode metadata. These meta tags are not rendered visually by the browser and so are not immediately visible to the information user. The content of meta tags is machine-readable and is typically used to populate metadata catalogues.

HTML has some 'native' metadata elements, the three most commonly used native HTML metadata elements are the 'title', 'description' and 'keywords' tags. HTML meta tags can also be used with metadata from other metadata schema. The metadata schema that is most commonly used with HTML meta tags is [Dublin Core](#).

The following examples are taken from the [Queensland Government internet home page](#); they are examples of native HTML meta tags:

```
<title>Queensland Government</title>
<meta name='description' content='www.qld.gov.au, your gateway to Queensland
Government Internet resources.'>
<meta name='keywords' content='queensland, government, queensland
government'>
```

Meta tags can also be used to describe metadata elements from metadata schema such as [Dublin Core](#) (typically annotated as 'DC' in meta tags).

The following examples are also taken from the [Queensland Government internet home page](#). They are examples of Dublin Core meta tags encoded using the syntax specified in the HTML language specification:

```
<meta name='DC.Title' content='Queensland Government' />
<meta name='DC.Description' content='Welcome to www.qld.gov.au, your
gateway to Queensland Government Internet resources.' />
<meta name='DC.Subject' content='Queensland Government Internet gateway' />
```

## Appendix C Australian Government locator service

The [AGLS Metadata Standard](#) is a set of 19 descriptive elements that government departments and agencies can use to improve the visibility and accessibility of their Internet delivered information and services.

The [AGLS Metadata Standard](#) is published as [Australian Standard AS 5044](#) and is mandated for use by Australian Federal Government agencies.

[Dublin Core](#) has been formally accepted as the standard for the [AGLS](#). Table 2 shows the close correlation between [Dublin Core](#) and [AGLS](#).

AGLS Element	AGLS Obligation	Dublin Core Element
Creator*	Mandatory	Author
Date*	Mandatory	Date
Description	Mandatory	Description
Title*	Mandatory	Title
Type	Mandatory	Type
Function* OR Subject*	Mandatory	Subject
Identifier* OR Availability*	Mandatory	Identifier
Publisher	Conditional	Publisher
Audience	Conditional	
Coverage	Conditional	Coverage
Language	Conditional	Language
Contributor	Optional	Contributor
Format	Optional	Format
Mandate	Optional	
Relation	Optional	Relation
Rights	Optional	Rights
Source	Optional	Source

Table 3 - AGLS Elements and Dublin Core interoperability

[AGLS](#) metadata can be used to describe both online and offline resources. The intention is to use [AGLS](#) to make all government services discoverable over the internet, even if some of those services are not yet accessible over the internet<sup>12</sup>.

<sup>12</sup> <http://www.naa.gov.au/records-management/create-capture-describe/describe/AGLS/FAQs.aspx> accessed 10 Feb 09.

[AGLS](#) metadata is not required to be applied to all resources. The following list describes those resources that must have [AGLS](#) metadata describing them<sup>13</sup>:

- home pages
- topics/services in high demand by the target community the organisation serves (this can be based on usage statistics but may also include topical or publicised resources with anticipated public interest)
- information required by agency clientele to understand their entitlements to government assistance and the requirements of government that apply to them
- pages that provide an actual online service to the public (such as a payment, application forms)
- pages required to meet a prescribed community/legal/service obligation by the organisation
- entry points to specific online services and indexes (e.g. an entry point to a legal database)
- major formal publications (e.g. annual reports, corporate strategic plans, public policy and accountability documents)
- media releases
- major entry points or indexes and menus to a range of closely related topics, programs or policies
- information about agency powers affecting the public, and manuals and other documents used in decision-making affecting the public
- substantial descriptive or marketing information about agencies, their services, activities and collections.

It is noteworthy that when internet resources are specifying a metadata element name they rarely use [AGLS](#) explicitly in meta tags. Even the home page of the [AGLS](#) metadata standard<sup>14</sup> identifies just one<sup>15</sup> of the 15 [AGLS](#) metadata elements using an 'AGLS' identifier. The other 14 [AGLS](#) elements are identified using the 'DC' identifier of [Dublin Core](#). Presumably, this is because [Dublin Core](#) is more widely used than [AGLS](#) and some search engines may look for [Dublin Core metadata](#) when determining search results.

As stated previously, metadata schemas serve a specific purpose. [Dublin Core](#), HTML meta tags and [AGLS](#) are most commonly applied to published Internet resources (i.e. Web pages). In other words, the context of [Dublin Core](#), HTML meta tags and [AGLS](#) is web resource discovery.

Web pages often include (reference to) files (e.g. Microsoft Word or Portable Document Format (.pdf) files). These (referenced) files will usually include embedded metadata. Commercial search engines harvest some embedded metadata such as date created and file type and include this metadata in metadata records.

Most commercial search engines also perform full (or partial) text-indexing of web resources and referenced documents. This indexed content is probably<sup>16</sup> used to populate the metadata for a metadata element like the [AGLS](#) 'Description' element. This indexed content is undoubtedly used, (in conjunction with other factors), to determine where in the

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<sup>13</sup> <http://www.agimo.gov.au/archive/mws/metadata> accessed 23 Feb 09.

<sup>14</sup> <http://www.naa.gov.au/records-management/create-capture-describe/describe/AGLS/index.aspx>

<sup>15</sup>The AGLS function element is encoded as follows <meta name='AGLS.Function' content='JUSTICE ADMINISTRATION;Administrative law - recordkeeping standards'/>

<sup>16</sup> This is an assumption. Commercial search methods are kept secret.

list of search results each information resource is positioned. In this regard, the content of the information resource is metadata.

For further advice and detailed information regarding the use and implementation of [AGLS](#) metadata, refer to the National Archives of Australia's [AGLS](#) home page<sup>17</sup>.

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<sup>17</sup> <http://www.agls.gov.au/>

## Appendix D Queensland Recordkeeping Metadata Standard

The [QRKMS](#) specifies the metadata required to manage records and includes implementation guidelines. The purpose of the [QRKMS](#) is to provide for rich description and effective management of records over time.

A key feature that differentiates recordkeeping metadata from other types of metadata is that it is not a static profile of a document or other resource. Recordkeeping metadata initially defines a record at the point of capture, but also accrues through time to provide information on how a record has been used or managed. This characteristic of recordkeeping metadata is essential for preserving the authenticity of records.

Metadata in the recordkeeping context includes information about:

- registration: metadata gives a record its unique identity in the system
- content, structure and context: metadata can provide information about a record's content, for example title and description; structure, for example its type and format; and context, for example information about who created it and its relationship with other records
- recordkeeping processes: metadata provides information or evidence about processes a record may have undergone such as transmitting, accessing, reviewing or sentencing.

Metadata is required for records in all formats including paper and electronic records. Recordkeeping metadata should be built into the recordkeeping systems used to create and maintain records over time. The capture, creation, retention and preservation of metadata is particularly important in the electronic environment for ensuring that records provide authentic evidence of the business they document.

Implementation of the [QRKMS](#) is mandated under Principle 7 of [IS40](#) which requires public authorities to make and keep full and accurate records for as long as they are needed for business, legislative, accountability and cultural purposes. In order to achieve compliance with this principle, public authorities must capture minimum metadata as specified in the [QRKMS](#).

For further advice and detailed information regarding the use and implementation of [QRKMS](#), refer to the Queensland State Archives' recordkeeping metadata web page.

### D.1 Metadata retention

In some environments, for example resource discovery, only current metadata is required. However, metadata can form a record in its own right and may need to be retained for longer than the life of the resource it describes. In particular, some recordkeeping metadata is required to be retained permanently. This includes metadata relating to the disposal of the record, to ensure compliance with [IS31](#). For more information, see Appendix D of the [QRKMS](#) or contact [Queensland State Archives](#).

## Appendix E Queensland Government Metadata Element Set

The purpose of the [QGMES](#) is to provide discovery metadata for datasets, with the addition of some elements describing dataset quality. QGMES is interoperable with [AGLS](#) and [Australia and New Zealand Land Information Council \(ANZLIC\)](#) (the Australian/New Zealand Profile of AS/NZS ISO 19115).

In [QGMES](#) 'data' is defined as 'a representation of facts, concepts or instructions in a formalised manner, suitable for communication, interpretation or processing'. Although the terms 'data' and 'information' are often used interchangeably in [QGMES](#) they are explicitly distinguished. [QGMES](#) states 'data evolves into information through the organisation process'.

[QGMES](#) refers to Queensland Government datasets only, whether statistical or spatial. 'Datasets' in [QGMES](#) means 'structured data'. The data is referred to as 'structured' when it is maintained in such a way as to allow for querying and reporting by data types. These data typically have defined relationships to allow for querying. This is the type of data that is stored in database management systems. The context of [QGMES](#) is the discovery of structured data.

[QGMES](#) is explicit in stating that information products (such as agency web pages, publications and records) are adequately described and captured using separate metadata schemas, and therefore are excluded from its scope.