



Australian Government

Department of Education, Employment and Workplace Relations

LGAPLEM610A Manage data within council's geographic information system

Release 2

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Modification History

LGAPLEM610A Release 2: Layout adjusted.

LGAPLEM610A Release 1: Primary release.

Unit Descriptor

This unit covers capturing, updating, storing, validating and upgrading both data and systems and ensuring their integrity.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the legislation and regulations within which councils must operate is essential. The unique nature of councils, as a tier of government directed by elected members and reflecting the needs of local communities, must be appropriately reflected.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Determine data requirements	1.1 Business needs are identified in consultation with all functional areas of council. 1.2 Data requirements are defined in accordance with business needs.
2 Implement data standards	2.1 Appropriate <i>data standards</i> are implemented consistent with industry standards. 2.2 All data complies with implemented standards. 2.3 Opportunities for continuing improvement are investigated, assessed and implemented.
3 Coordinate data capture and conversion	3.1 Data acquisition strategies are developed to meet defined requirements. 3.2 A range of appropriate <i>technologies</i> for data acquisition is used. 3.3 Data is converted using appropriate technical interfaces. 3.4 The effects of spatial and temporal resolution of the information content of remote-sensed data are taken into account in assessing the data.
4 Implement data maintenance and validation procedures	4.1 Routines for data validation and maintenance are developed and implemented. 4.2 Versions of data and related systems are documented to ensure reliable historical tracking and accessibility. 4.3 Appropriate data is collated into one system for transfer and integration into other systems.
5 Develop and implement data quality and security assurance procedures	5.1 Quality procedures for data acquisition, storage and supply are developed and implemented. 5.2 Meta-data standards are developed and implemented in line with industry best practice. 5.3 Regular audits of data quality are performed and followed up with appropriate advice. 5.4 Systems for archiving and backing up the data resource are implemented.
6 Provide input into council systems development	6.1 Timely advice and forecasting of data storage capacity, processing capability and other requirements are provided to management to ensure council's geographic information systems (GIS) requirements are recognised and considered in the budget. 6.2 Input is provided to upgraded or new council systems.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- planning sequence of work
- management of data process
- judgement relating to suitability of data
- quality management

Required Knowledge

- professional and legal liability certificate issued using GIS as part of basis for issue
- use and physics of remote sensing technologies, including aerial photography
- data input technologies, including digitising, scanning and remote sensing
- effects of spatial and temporal resolution of the information content of remote-sensed data
- database management technologies
- data output and distribution technologies including scripting, query languages, macro development, graphic interfaces, networks and remote access
- quality standards
- information management techniques
- complex spatial information technologies, spatial phenomena and data
- legislation relating to land tenure, environmental planning, surveying, infrastructure and natural and built resources
- current standards across the organisation and the industry
- quality improvement practices
- broad knowledge of different function areas of council

Evidence Guide

Overview of assessment requirements	A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work practices that underpin the performance of the unit are also required to be demonstrated.
Critical aspects of evidence to be considered	<ul style="list-style-type: none">• High level of proficiency in both managing tasks and carrying them out directly• Business needs are met by data requirements.• Reliable, timely and cost-effective information is provided
Context of assessment	On the job or in a simulated work environment.
Method of assessment	The following assessment methods are suggested: <ul style="list-style-type: none">• observation of the learner performing a range of workplace tasks over sufficient time to demonstrate handling of a range of contingencies• written and/or oral questioning to assess knowledge and understanding• completion of workplace documentation• third-party reports from experienced practitioners• completion of self-paced learning materials including personal reflection and feedback from trainer, coach or supervisor
Evidence required for demonstration of consistent performance	Evidence will need to be gathered over time across a range of variables.
Resource implications	Access to a workplace or simulated case study that incorporates the following resources: <ul style="list-style-type: none">• complex spatial information technologies including digitising, scanning, remote sensing, aerial photography, spatial phenomena and data• data output and scripting technologies including scripting, query languages, macro development, graphic interfaces, networks and remote access• legislation relating to land tenure, environmental planning, surveying and natural and built resources• information management systems

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

- Data input technologies*** may include:
- remote sensing including:
 - aerial photography
 - digitising
 - scanning
 - coordinate geometry
- Data standards*** may include:
- standards relating to acquisition, storage and quality as determined by user requirements

Unit Sector(s)

Planning Units