



Australian Government

Department of Education, Employment and Workplace Relations

LGAEHRH302B Undertake water sampling and routine reporting

Release 2

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Modification History

LGAEHRH302B Release 2: Layout adjusted.

LGAEHRH302B Release 1: Primary release.

Unit Descriptor

This unit covers the sampling of water in areas or enterprises designated by council, and checking standards to council or agency specifications. The unit also involves the reporting of water testing results and issues that require further strategic response.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance within councils of varying size and locations. Knowledge of the legislation and regulations within which councils must operate is essential. The role of council staff, elected members and management in protecting and managing the natural and built environment 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. Establish sites for sampling	1.1 <i>Water sampling sites</i> are selected according to council or agency requirements, ensuring representative sites are selected. 1.2 Water monitoring programs are developed for a range of water sampling sites with reference to specific <i>site conditions</i>.
2. Undertake sampling and sample despatch	2.1 Relevant <i>equipment</i> is gathered and prepared for sampling activities. 2.2 Required <i>samples</i> are taken at the specified time and location. 2.3 Integrity of <i>sampling procedures</i> is maintained and required recording is completed in accordance with relevant <i>council guidelines</i>. 2.4 Samples are despatched for testing.
3. Establish and report results	3.1 Confirmation is obtained that testing has been undertaken according to correct procedures as outlined in council public health plan requirements or other operating agreements. 3.2 Results are compiled within agreed time frames and reported to designated officers.
4. Raise and action issues of concern requiring strategic response	4.1 Results that do not comply with water quality guidelines or criteria are raised with appropriate council officers. 4.2 Enquiries are handled according to council procedures and legislative guidelines and discussion with, or release of information to, members of the public is in accordance with agreed communication strategies.

Required Skills and Knowledge

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

Required Skills

- preparing, collecting, labelling and preserving water samples
- disposing of waste and spent samples correctly
- producing reports and logs
- planning work activities
- working effectively as part of a team
- performing task-related calculations
- identifying and obtaining resources
- following plans and instructions
- applying procedures and standards
- communicating work requirements
- using literacy skills in regard to verbal and written communication in the workplace
- using personal protective equipment
- maintaining databases
- compiling reports

Required Knowledge

- types and purposes of water samples
- procedures and techniques for water sampling
- water sample preparation, including:
 - prevention of contamination
 - volume of sample
 - appropriate containers
 - preservation
 - location selection
 - location maintenance
 - equipment
 - transportation
- documentation procedures for water samples
- chain of custody issues pertinent to water quality investigations, such as outbreaks of Legionella
- disposal procedures for waste and excess water samples
- task-related calculations
- legislative and organisational policies, procedures and standards
- communication systems
- work planning processes
- effects of weather and conditions on work
- sampling techniques and protection protocols
- relevant local area geography

- relevant enterprise licensing regulations

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 unit's skill and knowledge requirements 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

The demonstrated ability to:

- take samples from agreed and valid testing sites
- ensure sampling methods are in accordance with appropriate guidelines
- ensure sampling procedures avoid risk of contamination or misreporting
- undertake analysis in accordance with policy and procedures
- raise concerns to ensure appropriate response

Context of assessment

On the job or in a simulated workplace environment.

Method of assessment

The following assessment methods are suggested:

- observation of the learner performing a range of workplace tasks over sufficient time to demonstrate handling of a range of contingencies
- written and 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 a period of time across a range of variables.

Resource implications

Access to a workplace or simulated case study that provides the following resources:

- relevant legislation, guidelines, council public health plan, agreements and communication procedures
- water sampling equipment and sites
- test results

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.

<i>Water sampling sites</i> may include:	• water supplies • watercourses • lakes and beaches • swimming pools and spas • drainage and treatment outlets • cooling towers
<i>Site conditions</i> may include:	• water levels • tides • wind • seasonal and other conditions
<i>Equipment</i> may include:	• protective equipment • sample bottles • frames and tubes • dip tubes • automatic samplers
<i>Samples</i> may include:	• programmed samples • ad hoc samples taken in response to a concern or complaint • grab, composite or flow-weighted composite samples for: • microbiological testing • testing for chemical and physical characteristics • grab, integrated or concentrated samples for blue-green algae: • identification • enumeration • toxicity testing
<i>Sampling procedures</i> must be conducted using consistent and valid methodology, regarding:	• sterile containers • location • protection and refrigeration • labelling • storage • safe despatch • record of activity
<i>Recording</i> may include:	• word processing • spreadsheets • maintaining databases • diary keeping

Council guidelines may
include:

- storage and backup of records
- public health plan
- procedures
- legislation
- environmental and sustainable practices
- joint agency agreements or protocols

Unit Sector(s)

Health and Environment