



Australian Government

Department of Education, Employment and Workplace Relations

AHCNAR502A Conduct biological surveys

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the processes involved with conducting biological surveys and defines the standard required to: identify the scope, objectives and constraints for a biological survey according to client requirements, the biological components to be surveyed and enterprise policy; assess the availability of current data and determine data collection and processing needs; identify biological indicators that are repeatable and statistically representative; document survey methods and indicators as a survey plan; schedule survey activities and establish access to the site; conduct a biological survey with data collection staged and recorded according to the survey plan; produce a biological survey report with detailed analysis and conclusion, including a description and assessment of the specified biological components.
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Application of the Unit

Application of the unit	This unit applies to land restoration managers.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
1. Carry out preliminary design activities for the biological survey	1.1. Survey scope, objectives and constraints are identified according to client requirements, biological components to be surveyed and enterprise policy. 1.2. All current data relevant to survey requirements is sourced, collated and evaluated according to enterprise policy. 1.3. Processes for data collection are developed, consistent with the survey scope, objectives and constraints. 1.4. Processes for data processing are developed, consistent with the survey scope, objectives and constraints. 1.5. A survey design that reflects client requirements and survey scope, objectives and constraints is developed and presented to the client for discussion and approval.
2. Determine requirements of the biological survey	2.1. Survey indicators are identified and constraints and opportunities for data collection identified and evaluated. 2.2. Data collection points are identified that are repeatable and statistically representative for the biological survey. 2.3. OHS hazards associated with conducting a biological survey are identified; risks assessed and controls developed according to enterprise guidelines, costed and documented in the survey design. 2.4. Tools, equipment and machinery required for the biological survey are identified, costed and availability confirmed with suppliers, contractors and appropriate personnel. 2.5. Scheduling of survey activities and surveyor access are determined according to the survey design. 2.6. Survey procedures and schedules are documented according to scientific conventions and the survey scope and objectives, and are presented to appropriate personnel and the client for briefing and acceptance.
3. Conduct the biological survey	3.1. Field visits are conducted to verify and consolidate previously collected data and to gather further information on species frequency, distribution, and health and/or habitat values.

ELEMENT	PERFORMANCE CRITERIA
	3.2. The biological survey is conducted according to the survey design and enterprise policy. 3.3. Survey activities are monitored for accuracy, compliance to the survey design and out-of-specification procedures or events. 3.4. Staged data collection is undertaken according to survey design, survey scheduling and surveyor access requirements. 3.5. All monitoring and survey data is recorded promptly and accurately, according to the specifications of the survey design.
4. Compile a biological survey report	4.1. Analysis of collected data is undertaken according to industry policies and guidelines. 4.2. Conclusions about the biological survey are drawn from relevant information and are based on appropriate evidence and reasoned arguments. 4.3. A biological survey report is produced which conforms to industry standards for presentation, structure and content, and is presented to the client for acceptance. 4.4. The report describes biological survey findings according to the survey scope and objectives, identifies areas requiring remedial action for improvement and details recommendations for action.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- research and evaluate information
- assess survey findings and produce written reports and conclusions based on appropriate evidence and reasoned arguments
- comply with legislative requirements
- use literacy skills to fulfil job roles as required by the organisation. The level of skill may range from reading and understanding documentation to completion of written reports

REQUIRED SKILLS AND KNOWLEDGE

- use oral communication skills/language competence to fulfil the job role as specified by the organisation including questioning, active listening, asking for clarification, negotiating solutions and responding to a range of views
- use numeracy skills to estimate, calculate and record complex workplace measures
- use interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- biological classification systems
- plant/animal recognition
- environmental factors that impact on vegetation/animal populations
- ecological principles and terminology
- energy flows and trophic structures of communities
- legal requirements relating to the protection and clearance of vegetation and/or animal species
- assessment, reporting and client liaison procedures and best practice techniques
- enterprise work team management guidelines
- Occupational Health and Safety (OHS) legislative requirements and Codes of Practice
- hazard identification, assessment and control.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following:

- identify the scope, objectives and constraints for a biological survey according to client requirements, the biological components to be surveyed and enterprise policy
- assess the availability of current data and determine data collection and processing needs
- identify biological indicators that are repeatable and statistically representative
- document survey methods and indicators as a survey plan
- schedule survey activities and establish access to the site
- conduct a biological survey with data collection staged and recorded according to the survey plan
- produce a biological survey report with detailed analysis and conclusion, including a description and assessment of the specified biological components.

Context of and specific resources for assessment

Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole.

RANGE STATEMENT

The scope of biological surveys may include:

- the size of the area to be surveyed
- the type of plant/animal community and the quantity and species within the community that are to be directly surveyed
- regularity and replication of survey periods
- the extent of analysis and recommendations required.

Unit Sector(s)

Unit sector	Natural area restoration
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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