



Australian Government

MSL975011 Design and supervise complex environmental field surveys

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSL975011A Design and supervise complex environmental field surveys

Application

This unit of competency covers the ability to design and supervise complex field surveys for a wide range of environmental systems. This unit covers confirming survey requirements, designing and organising field surveys to achieve their purpose, and supervising the field survey according to a defined plan.

This unit of competency is applicable to technical officers working in the environmental industry sector. All operations must comply with relevant standards, appropriate procedures and/or workplace requirements.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

MSL974007 Undertake environmental field-based monitoring

Competency Field

Testing

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Confirm survey requirements with senior staff	1.1	Confirm the purpose and objectives of the field survey activities with senior management and details of information required
		1.2	Clarify the purpose and objectives of the field survey activities with all stakeholders within the context of the workplace's overall environmental program
		1.3	Identify and accurately interpret all external statutory requirements and workplace protocols that relate to the defined field survey activities
		1.4	Analyse drivers and constraints that may influence field survey activities
		1.5	Document the type, quantity and quality of data needed to meet the defined objectives
		1.6	Refine and document the detailed objectives of the field activities with senior management and stakeholders
2	Design field survey activities	2.1	Develop and document details of the field survey methodology and, if appropriate, trial and refine them under field conditions
		2.2	Discuss and confirm survey methodology with senior staff and external experts or stakeholders, as appropriate
		2.3	Develop work program, including timetable and staff roles and responsibilities for the total field survey, and all related activities
		2.4	Ensure that work program conforms to workplace requirements covering risk management, data quality procedures, safety, environmental and emergency requirements
		2.5	Document work program, address all administration requirements and obtain appropriate approvals

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| 5 | Supervise close-down of field activities | <table border="0"><tr><td style="vertical-align: top; padding-right: 20px;">5.1</td><td>Arrange for the checking, packaging and transportation of all samples, equipment and instruments back to base</td></tr><tr><td style="vertical-align: top; padding-right: 20px;">5.2</td><td>Ensure that site is left in accordance with workplace and environmental requirements</td></tr><tr><td style="vertical-align: top; padding-right: 20px;">5.3</td><td>Monitor dispatch of collected samples for subsequent laboratory analyses</td></tr><tr><td style="vertical-align: top; padding-right: 20px;">5.4</td><td>Ensure that all equipment and instruments are tested and decontaminated before final storage, as necessary</td></tr><tr><td style="vertical-align: top; padding-right: 20px;">5.5</td><td>Ensure all field data is stored appropriately for subsequent analysis</td></tr><tr><td style="vertical-align: top; padding-right: 20px;">5.6</td><td>Report results, any anomalies and recommendations to data analysers, users and/or supervisor</td></tr></table> | 5.1 | Arrange for the checking, packaging and transportation of all samples, equipment and instruments back to base | 5.2 | Ensure that site is left in accordance with workplace and environmental requirements | 5.3 | Monitor dispatch of collected samples for subsequent laboratory analyses | 5.4 | Ensure that all equipment and instruments are tested and decontaminated before final storage, as necessary | 5.5 | Ensure all field data is stored appropriately for subsequent analysis | 5.6 | Report results, any anomalies and recommendations to data analysers, users and/or supervisor |
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Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian, national and international standards, guidelines and codes covering labelling of workplace substances; storage, handling and transport of dangerous goods; and environmental management
- national work health and safety (WHS) standards and codes of practice, and occupational protective equipment
- government policy and regulations covering environmental management, sustainable development and impact assessment, and environmental protection measures
- industry-specific codes, regulations and guidelines, such as animal welfare legislation and codes of practice, and Australian Quarantine and Inspection Service (AQIS) Export Control (Orders) Regulations and Import Guidelines
- standard methods for conducting field monitoring and surveys, specific environmental standards, survey plans, site-specific requirements, stakeholder consultation protocols, permits for access to land (e.g. Aboriginal reserves), and wildlife capture and handling
- workplace documents, such as ethics committee approval, standard operating procedures (SOPs), data quality procedures, equipment manuals and warranties, supplier catalogue and handbooks, calibration and maintenance schedules, material safety data sheets (MSDS) and safety procedures, safety and accident/injury/emergency plans, survey/laboratory schedules, workplace recording and reporting procedures, and waste minimisation and safe disposal procedures

Field survey activities Field survey activities, but are not limited to, include one or more of:

- climate and meteorology
- geology, soils and geomorphology
- hydrology and water quality
- noise
- land resources, vegetation, wildlife and conservation
- land uses, agriculture, forestry, mining and recreation

Clients and stakeholders

Clients and stakeholders include, but are not limited to, one or more of:

- Commonwealth, state/territory and local government agencies
- organisations with monitoring and/or survey responsibilities
- regulatory authorities
- private companies
- developers
- land owners and leaseholders

The purpose or objective of the field survey

The purpose or objective of field surveys include, but are not limited to, one or more of:

- part of workplace environmental management plan
- statutory requirements
- environmental impact assessment for major development
- environment audit
- pollution control activity
- general environmental and ecological surveys
- research studies

Administrative requirements and approvals

Administrative requirements and approvals include, but are not limited to, one or more of:

- travel requisitions
- authority for use of vehicles and equipment
- insurance
- permits

Field procedures

Field procedures include, but are not limited to, one or more of:

- sampling
- field testing (validated and authorised)
- animal trapping (and release), tagging and keeping
- emergency response, safety and survival aspects
- data collection, analysis and reporting
- protection of the environment

WHS and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be

compromised at any time

- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

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Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>