



Australian Government

MSL976002 Prepare plans and quality assurance procedures for environmental field activities

Release: 1

MSL976002 Prepare plans and quality assurance procedures for environmental field activities

Modification History

Release 1. Supersedes and is equivalent to MSL976002A Prepare plans and quality assurance procedures for environmental field activities

Application

This unit of competency covers the ability to use a systematic planning process to develop plans and quality assurance procedures covering multiple environmental field monitoring or survey activities for a wide range of environmental systems. The unit covers both defining the purpose of the environmental field activities and establishing their overall requirements. These requirements will involve the collection of appropriate data, the monitoring/survey methodologies to be used, and the design and documentation of a final overall implementation plan that includes budget, training and resource requirements. This unit of competency does not cover the development of monitoring or survey protocols.

This unit of competency is applicable to laboratory supervisors and managers 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

MSL975011 Design and supervise complex environmental field surveys

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 | Establish the overall requirements of the field activities | 1.1 | Identify key stakeholders along with their potential interests, sensitivities, roles and responsibilities |
| | | 1.2 | Clarify the purpose and general objectives of the field activities with stakeholders and the level/detail of information required |
| | | 1.3 | Identify and accurately interpret all statutory requirements that apply to the field activities |
| | | 1.4 | Identify and interpret all existing workplace requirements associated with field monitoring and/or survey activities |
| | | 1.5 | Analyse drivers and constraints that may influence field activities |
| | | 1.6 | Refine and document the detailed objectives of the field activities with senior management and key stakeholders |
| | | | |
| 2 | Scope all requirements to collect appropriate data under field conditions | 2.1 | Identify the type, quantity and quality of data needed to meet the defined objectives |
| | | 2.2 | Identify sites or areas and resources required for all planned field activities |
| | | 2.3 | Define data quality procedures that must be incorporated in all field activities |
| | | 2.4 | Identify risks, environmental and safety issues associated with field activities |
| | | 2.5 | Inspect all sites or areas and assess them against defined requirements and any standards that apply to the field activities |
| | | 2.6 | Refine and document all requirements necessary to collect appropriate field data |
| | | | |
| 3 | Select and adapt field protocols covering the field activities | 3.1 | Identify field protocols that may be suitable for the defined field activities |
| | | 3.2 | Review and select the most appropriate field protocol for the defined field activities |

- | | | | |
|---|--|-----|--|
| | | 3.3 | Develop and document detailed methodologies, risk management plans and general time schedules covering all the planned field activities |
| 4 | Design and document a detailed implementation plan | 4.1 | Define all staff tasks, roles and responsibilities and the overall staff work program |
| | | 4.2 | Identify and list all resources needed to undertake all planned field activities and associated pre- and post-field activities |
| | | 4.3 | Design and document an overall implementation plan covering all workplace field activities |
| | | 4.4 | Meet with all staff involved and clearly outline the objectives, field methodologies and data quality procedures covered in the implementation plan |
| 5 | Prepare a financial budget and staff training and work programs | 5.1 | Develop a detailed budget, including contingencies covering all planned field activities |
| | | 5.2 | Develop detailed staff work programs for individual field activities in the context of the implementation plan |
| | | 5.3 | Identify competencies required to undertake all field activities and, if appropriate, develop appropriate training programs for all staff involved in field activities |

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, Standards, codes, procedures and/or workplace requirements include

**procedures and/or
workplace
requirements**

the latest version of one or more of:

- Australian 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
- legislation, regulations and government policy covering environmental management, sustainable development and impact assessment, and environmental protection measures
- industry-specific codes, regulations and guidelines, such as (captured) animal welfare legislation, animal care and ethics regulations 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), permits and/or licences to undertake specific field activities (e.g. animal trapping), and wildlife capture and handling methods
- workplace documents, such as ethics committee approval, standard operating procedures (SOPs), data quality procedures, equipment manuals and warranties, supplier catalogue and handbooks, field instrument operating instructions, calibration and maintenance schedules, instrument fault-finding procedures, general maintenance and repair procedures, 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 sampling plans, field monitoring or survey plans, and industry-based sampling and/or monitoring protocols
- field test procedures (validated and authorised)

**Environmental field
activities**

Environmental field activities include, but are not limited to, investigation of one or more of:

- meteorology, geology, hydrology and ecology
- water quality, industrial waste streams, air quality, noise and vibration
- soils, flora, weeds, native fauna, exotic or pest species and threatened species
- land use and cultural sites

Clients and stakeholders

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

- fee-for-service clients
- Commonwealth, state/territory and local government agencies
- workplaces with monitoring and/or survey responsibilities
- private companies
- regulatory authorities
- environment protection agencies
- developers

The purpose or objectives of environmental field activities

The purpose or objectives of environmental field activities will define and target information needs and include, but are not limited to, one or more of:

- part of workplace environmental management plan
- statutory requirements
- general environmental monitoring or surveys
- research studies

Staff field tasks and roles

Staff field tasks and roles include, but are not limited to, one or more of:

- team or project leader and survey coordinator
- field sampling officer, field monitoring officer and data management officer
- safety and/or environmental officer
- field camp supervisor, field assistant or field-hand
- driver
- any combination of the above

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

Release 1. Supersedes and is equivalent to MSL976002A Prepare plans and quality assurance procedures for environmental field activities

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL976002 Prepare plans and quality assurance procedures for environmental field activities

Modification History

Release 1. Supersedes and is equivalent to MSL976002A Prepare plans and quality assurance procedures for environmental field activities

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- developing at least one (1) set of plans and quality assurance procedures covering multiple environmental field monitoring or survey activities
- defining both the purpose of the environmental field activities and establishing their overall requirements
- identifying and accurately interpreting relevant policy and statutory requirements
- analysing drivers and constraints that may influence field activities
- identifying the type, quality and quantity of data needed for defined field activities
- clearly documenting the objectives and data quality procedures for field activities
- reviewing and selecting appropriate field protocols, monitoring and survey methods
- undertaking reconnaissance and evaluation of field sites
- responding effectively to changes or unforeseen circumstances
- negotiating effectively with stakeholders about multiple issues to reach satisfactory agreements
- designing and documenting a final overall implementation plan that includes a budget, work program, quality procedures, training and resource requirements
- clearly communicating the details of plans to staff, clients, stakeholders and other relevant parties.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- requirements of environmental legislation, regulations, policies, planning and assessment procedures relevant to field activities
- terminology relevant to defined field activities
- the purpose of the field activities, including:
 - information and analysis required
 - end users of information
 - significance of outcomes for broader programs
- general field monitoring and survey protocols
- common drivers and constraints, such as:
 - political agendas, social and economic issues

- new monitoring protocols
- recent environmental impact assessments or audits
- media or public concerns
- recent judicial decisions
- field safety or accident issues
- competencies and availability of staff
- time available to plan and implement field activities
- site-specific field monitoring and survey practices and techniques, data quality procedures for the field activities
- current developments in field instrumentation, communication equipment and data storage/analysis systems relevant to field activities
- rights and responsibilities of employers and employees in terms of relevant legislation such as work health and safety (WHS), environmental impact assessment and environmental protection
- staff training procedures.

Assessment Conditions

- Judgment of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL916002 Manage and develop teams
 - MSL916005 Manage complex projects
- Holistic assessment methods include:
 - review of monitoring and survey plans, quality assurance procedures, field implementation plan and budget prepared by the candidate
 - feedback from stakeholders that their input was sought and considered by the candidate
 - feedback from staff and supervisors that plans were clear, comprehensive and able to be implemented effectively and that any training was effective

- oral and written questions to assess required knowledge of statutory and workplace requirements for field activities, relevant policies, procedures, protocols and codes of practice
- review of the candidate's responses to simulation exercises, such as management of risks, constraints and resources
- observation of the candidate explaining details of plans and field activities to staff and/or conducting training.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - legislation, regulations, policies, codes of practice, workplace procedures and field protocols
 - resources required for field activities.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>