



**Australian Government**

# **MSL976002 Prepare plans and quality assurance procedures for environmental field activities**

**Release: 1**

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## **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 | <b>Establish the overall requirements of the field activities</b>                | 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 | <b>Scope all requirements to collect appropriate data under field conditions</b> | 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                                                  |

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|---|------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | <b>Select and adapt field protocols covering the field activities</b>  | 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 | <b>Design and document a detailed implementation plan</b>              | 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 | <b>Prepare a financial budget and staff training and work programs</b> | 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, procedures and/or workplace requirements**

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

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