



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **DEFPH001A Contribute to environmental health operations**

**Release: 1**

## **DEFPH001A Contribute to environmental health operations**

### **Modification History**

Not applicable.

### **Unit Descriptor**

#### **Unit Descriptor**

This unit covers the competency required to contribute to field environmental health operations within the Australian Defence Force (ADF).

### **Application of the Unit**

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The application of this unit in the workplace includes formulating and providing environmental health advice to organisational commanders, implementing environmental health measures and monitoring the effectiveness of these measures to promote the health of the organisation to enable it to perform its task. This is performed subsequent to detailed health support planning which provides the health support assessment required to perform this work.

This unit of competency is applicable to environmental medicine personnel. This function is limited to the performance of tasks in accordance with organisational policies and procedures.

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable.

## Employability Skills Information

**Employability Skills** This unit contains employability skills.

**Pre-requisite Unit/s** Nil

## 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 Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

## Elements and Performance Criteria

### ELEMENT

1. **Provide support to environmental health planning**

### PERFORMANCE CRITERIA

- 1.1 *Planning briefs and activities* are attended and participated in, to contribute to the team planning task
- 1.2 *Information in support of environmental health planning* is gathered and communicated to team leader

**ELEMENT****PERFORMANCE CRITERIA****2. Provide environmental health advice**

- 2.1 **Health support assessment** is reviewed and clarified to ensure advice is based on full consideration of **health threats** identified in local operating area
- 2.2 **Research** related to environmental health advice is conducted to ensure advice is technically correct and is based on **organisational policies and procedures**
- 2.3 Need to seek the assistance of dedicated environmental health assets is identified and acted on to ensure the best service is provided according to the circumstances
- 2.4 **Environmental health measures** are identified through consideration of health threats and review of resources available to apply in the provision of environmental health measures
- 2.5 Environmental health advice is formulated and discussed with **stakeholders** to fully develop environmental health measures and to ensure coordination with other local activities
- 2.6 Environmental health advice is provided in accordance with professional and ethical guidelines to gain support and acceptance of environmental health measures

**3. Implement environmental health measures**

- 3.1 **Personal hygiene facilities** are established to ensure personnel have the means to maintain personal hygiene and clothing cleanliness
- 3.2 Establishment of **field waste facilities** is supervised to ensure collection and disposal of **field waste**, and to prevent pollution of food and water sources, and the breeding of flies and other pests
- 3.3 Quality of field water supply is monitored via application of **water quality measures** to ensure availability of water supply to support the local area organisation
- 3.4 Quality of food supply is monitored via application of **food quality measures** to ensure availability of food supply to support local area organisation
- 3.5 **Environmental injury control measures** are implemented to reduce the risk of injury and to

**ELEMENT****PERFORMANCE CRITERIA****4. Monitor environmental health measures**

- equip commanders with the information to make informed decisions regarding physical activity levels, water consumption and acclimatisation
- 3.6 Occupational health and safety (OH&S) policy and practices are promoted to promote a safe working environment and to prevent occurrence of occupational injury or illness
- 4.1 *Personnel health is monitored* to identify the spread of illness to enable early intervention of disease transmission and to limit the impact on the organisation
- 4.2 Line managers are assisted with *physical health inspections*
- 4.3 Outbreak of disease is detected to enable early intervention and implementation of *control measures*
- 4.4 Outbreak of disease is responded to, to limit the spread of disease and to protect the health of the organisation
- 4.5 Reports and returns are compiled and submitted to *relevant persons* to assist with *health surveillance* at the organisational level
- 4.6 Feedback is sought from stakeholders regarding effectiveness and acceptance of environmental health measures to enable continuous improvement and better integration of environmental health measures with organisational processes
- 4.7 Implemented environmental health measures are monitored for effectiveness and are adjusted to ensure optimal effectiveness

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required Skills

- communicate appropriately about, consult on and impart knowledge of:
- application of the permethrin/DEET repellent system
- causes of disease transmission
- causes of manpower wastage
- control measures of disease transmission
- food storage and distribution standards
- risk management principles
- water quality assurance measures
- establish and maintain administrative systems
- manage workplace issues and problems
- prioritise tasking

#### Required Knowledge

- administrative systems
- application of the permethrin/DEET repellent system
- best use of available resources
- causes of disease transmission
- causes of manpower wastage
- control measures of disease transmission
- documentation processes relevant to own workplace
- food storage and distribution standards including the Hazard Analysis and Critical Control Point (HACCP) approach to food control
- health surveillance system
- legal rights and responsibilities
- methods of establishing field hygiene and waste facilities
- organisational policies and procedures
- pathophysiology of common communicable diseases
- airborne disease such as influenza
- contact disease such as impetigo or tinea
- food and water-borne disease such as dysentery, cholera and typhoid
- vectorborne disease such as malaria or dengue fever
- planning and control systems
- process of disease
- risk management principles
- role and capabilities of other health care providers including environmental health team

## REQUIRED SKILLS AND KNOWLEDGE

- team leadership management principles
- time management strategies to set priorities
- water quality assurance measures

## Evidence Guide

### EVIDENCE GUIDE

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

Assessment must confirm the ability to:

- assess a range of common health threats within the field environment and determine the most appropriate method of control for each
- communicate technical information relating to environmental health to non-health personnel to gain their support of environmental health activities
- operate as a member of a small planning team and be responsive to the team leader
- coordinate a range of environmental health measures in a practical field setting.

#### Consistency in performance

Competency should be demonstrated on a minimum of two occasions during exposure to three common health threats that could be expected in a field setting.

#### Context of and specific resources for assessment

#### Context of assessment

Competency should be assessed in an actual workplace situation or in a simulated situation or scenario.

#### Specific resources for assessment

Access is required to:

- appropriate equipment and stores
- dependent personnel
- range of notional health threats based on recent and historical experience
- relevant organisational policies and procedures.

## Range Statement

### 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.

#### Planning briefs and activities may include

Briefs/debriefs  
 Course of action analysis  
 Intelligence Preparation of the Battlespace  
 Mission analysis  
 Orders  
 War gaming

#### Information in support of environmental health planning may include

Characteristics of the intended operating environment:

- civilian population
- climate/weather
- flora and fauna
- terrain

Force disposition:

- function of the group
- organisational structure of the group
- size of the group

Task appreciation:

- assessing range of tasks against identified health threats
- environmental health assets required to support tasks
- prioritising and sequencing of tasks

#### Health support assessment may include

Strengths:

- communication capability
- control measures
- health status of activity participants
- organisational structure

Weaknesses:

- chain of supply
- limited means of evacuation

Opportunities:

- linking into local community supply chain
- staging health support close to activity to reduce the



**RANGE STATEMENT**

<p><b>Health threats may include</b></p>	<p>risk posed by limited means of evacuation</p> <p>Threats:</p> <ul style="list-style-type: none"> <li>• ability to cope with multi trauma</li> <li>• remoteness of activity site</li> </ul>
<p><b>Research may include</b></p>	<p>Environment health threats:</p> <ul style="list-style-type: none"> <li>• animal</li> <li>• disease</li> <li>• terrain</li> <li>• vegetation</li> <li>• weather</li> </ul> <p>Occupational health threats:</p> <ul style="list-style-type: none"> <li>• industrial injury</li> <li>• road traffic accident</li> </ul> <p>Operational health threats:</p> <ul style="list-style-type: none"> <li>• chemical/biological injury</li> <li>• combat injury</li> <li>• psychiatric injury</li> </ul>
<p><b>Organisational policies and procedures may include</b></p>	<p>Accessing information from the ADF intranet</p> <p>Consulting civil health authorities</p> <p>Consulting health and ADF doctrine</p> <p>Consulting senior ADF health representative</p> <p>Referencing organisational policy manuals</p> <p>Clinical standards (state/territory and national)</p> <p>Codes of ethics</p> <p>Codes of practice</p> <p>Environmental health policy</p> <p>Health and hygiene guidelines</p> <p>Health surveillance policy documents</p> <p>Industry professional body' standards</p> <p>Industry standards (state/territory and national)</p> <p>Organisational health policy directives</p> <p>Pesticides manual</p> <p>Relevant Australian Standards</p>

**RANGE STATEMENT****Environmental health measures may include**

Relevant Commonwealth Acts  
 Workplace safety guidelines  
 Application of the permethrin/DEET repellent system  
 Assessment and development of a health support plan  
 Contributing to the conduct of health surveillance  
 Enforcing OH&S policy and practices  
 Enforcing vaccination regimes  
 Promoting and monitoring personal hygiene  
 Providing environmental health advice  
 Providing environmental injury control measures  
 Providing field waste facilities  
 Providing field water supply

**Stakeholders may include**

Activity coordinators  
 Activity participants  
 Allied health agencies  
 Health support personnel  
 Other supporting agencies

**Personal hygiene facilities may include**

Hand washing facilities  
 Laundry facilities  
 Shower facilities

**Field may include**

On an ADF exercise in Australia or overseas  
 On ADF operational deployment  
 On civil aid task  
 On training activity

**Field waste facilities may include**

Bio-hazardous waste:  
 • central collection point  
 Dry waste:  
 • central collection point  
 • inclined plane incinerator  
 Human waste:  
 • pan latrine

**RANGE STATEMENT**

	<ul style="list-style-type: none"> <li>• portaloo</li> <li>• shallow/deep bore latrine</li> <li>• shallow/deep trench latrine</li> <li>• shallow trench urinal</li> <li>• trench latrine</li> <li>• trough/funnel urinal</li> </ul>
	Waste (grey) water: <ul style="list-style-type: none"> <li>• absorption trench</li> <li>• evaporating pans</li> <li>• grease trap</li> <li>• herringbone drains</li> <li>• soakage pit</li> </ul>
<b>Field waste may include</b>	<p>Bio-hazardous waste</p> <p>Dry waste</p> <p>Grey water</p> <p>Human waste</p> <p>Wet waste</p>
<b>Water quality measures may include</b>	<p>Approving the use of alternative water distribution equipment during extreme emergencies</p> <p>Ensuring water sources have been surveyed</p> <p>Ensuring water distribution equipment is regularly surveyed by health personnel</p> <p>Organising regular water-point survey by appropriate personnel</p> <p>Recommending procedures for the maintenance of water potability</p>
<b>Food quality measures may include</b>	<p>Applying the Hazard Analysis and Critical Control Point (HACCP) approach to food control</p> <p>Assessing food handling procedures (preparation, storage, distribution)</p> <p>Assessing the environment for suitability for food preparation</p> <p>Assessing the suitability and adequacy food storage</p> <p>Contributing to inspection of a food preparation facility</p> <p>Monitoring the hygiene practices of personnel during food consumption</p>

**RANGE STATEMENT****Environmental injury may include**

Dehydration  
 Frost nip/bite  
 Heat injury  
 Hyperthermia  
 Hypothermia  
 Prickly heat  
 Sunburn  
 Trench foot

**Environmental injury control measures may include**

Acclimatisation  
 Advising appropriate clothing attire  
 Advising appropriate work/rest regime  
 Distribution of and access to sunscreen  
 Educating personnel on environmental injury prevention and early detection  
 Ensuring balanced nutrition with adequate intake of salt  
 Maintaining good means of communication to alert personnel of increasing hazard level  
 Monitoring the hazard level posed by environmental conditions  
 Promoting hydration  
 Providing easy access to potable water supply  
 Scheduling physical activity during cooler times of the day  
 Training personnel in the first aid of environmental injury

**Monitoring personnel health may include**

Assessing personnel attending primary health care clinics  
 Consulting with personnel in the workplace  
 Identifying trends from health complaints that may indicate an outbreak of disease  
 Investigating suspected outbreak of disease

**Physical health inspections may include**

An inspection conducted by line managers involving a visual inspection of personnel and questioning to identify:

**RANGE STATEMENT**

	<ul style="list-style-type: none"> <li>• blisters or skin problems</li> <li>• parasite infestation</li> <li>• presence of sunburn</li> <li>• swollen joints</li> <li>• state of morale</li> </ul> <p>An opportunity to educate personnel on the importance of personal hygiene and good health</p>
<b>Control measures may include</b>	<p>Identifying the source and removing or isolating it, to avoid transmitting the disease to others</p> <p>Breaking the path of transmission by the use of pesticides, hygiene procedures, masks or removing the habitat of the disease vector</p> <p>Protecting the target of disease with inoculation, prophylactic medication, pest repellent, clothing impregnation</p>
<b>Relevant persons may include</b>	<p>Activity commander</p> <p>Environmental health officer</p> <p>Team leader</p> <p>Technical supervisor</p>
<b>Health surveillance may include</b>	<p>Collecting health care information</p> <p>Continually assessing the operating environment</p> <p>Identifying health threats</p> <p>Providing information to control health threats</p>

**Unit Sector(s)**

Not applicable.

**Corequisite Unit/s**

**Co-requisite Unit/s** Nil