



Australian Government

DEFPH001A Contribute to environmental health operations

Release 2

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Modification History

Release	TP Version	Comments
2	DEF12V2	Layout adjusted. No changes to content.
1	DEF12V1	Primary release.

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

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

This unit contains employability skills.

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

PERFORMANCE CRITERIA

- | | |
|--|---|
| 1. Provide support to environmental health planning | 1.1 <i>Planning briefs and activities</i> are attended and participated in, to contribute to the team planning task.
1.2 <i>Information in support of environmental health planning</i> is gathered and communicated to team leader. |
| 2. Provide environmental health advice | 2.1 <i>Health support assessment</i> is reviewed and clarified to ensure advice is based on full consideration of <i>health threats</i> identified in local operating area.
2.2 <i>Research</i> related to environmental health advice is conducted to ensure advice is technically correct and is based on <i>organisational policies and procedures</i> .
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 <i>Environmental health measures</i> 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 <i>stakeholders</i> 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 equip commanders with the information to make informed decisions regarding physical activity levels, water consumption and acclimatisation.
- 3.6 Work health and safety (WHS) policy and practices are promoted to promote a safe working environment and to prevent occurrence of occupational injury or illness.

4. Monitor environmental health measures

- 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

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

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

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.

<p><i>Planning briefs and activities</i> may include:</p>	<ul style="list-style-type: none"> • Briefs/debriefs • Course of action analysis • Intelligence Preparation of the Battlespace • Mission analysis • Orders • War gaming
<p><i>Information in support of environmental health planning</i> may include:</p>	<ul style="list-style-type: none"> • Characteristics of the intended operating environment: <ul style="list-style-type: none"> • civilian population • climate/weather • flora and fauna • terrain • Force disposition: <ul style="list-style-type: none"> • function of the group • organisational structure of the group • size of the group • Task appreciation: <ul style="list-style-type: none"> • assessing range of tasks against identified health threats • environmental health assets required to support tasks • prioritising and sequencing of tasks
<p><i>Health support assessment</i> may include:</p>	<ul style="list-style-type: none"> • Strengths: <ul style="list-style-type: none"> • communication capability • control measures • health status of activity participants • organisational structure • Weaknesses: <ul style="list-style-type: none"> • chain of supply • limited means of evacuation • Opportunities: <ul style="list-style-type: none"> • linking into local community supply chain • staging health support close to activity to reduce the risk posed by limited means of evacuation • Threats: <ul style="list-style-type: none"> • ability to cope with multi trauma

	<ul style="list-style-type: none"> • remoteness of activity site
<i>Health threats</i> may include:	<ul style="list-style-type: none"> • Environment health threats: <ul style="list-style-type: none"> • animal • disease • terrain • vegetation • weather • Occupational health threats: <ul style="list-style-type: none"> • industrial injury • road traffic accident • Operational health threats: <ul style="list-style-type: none"> • chemical/biological injury <ul style="list-style-type: none"> • combat injury • psychiatric injury
<i>Research</i> may include:	<ul style="list-style-type: none"> • Accessing information from the ADF intranet • Consulting civil health authorities • Consulting health and ADF doctrine • Consulting senior ADF health representative • Referencing organisational policy manuals
<i>Organisational policies and procedures</i> may include:	<ul style="list-style-type: none"> • Clinical standards (state/territory and national) • Codes of ethics • Codes of practice • Environmental health policy • Health and hygiene guidelines • Health surveillance policy documents • Industry professional body' standards • Industry standards (state/territory and national) • Organisational health policy directives • Pesticides manual • Relevant Australian Standards • Relevant Commonwealth Acts • Workplace safety guidelines
<i>Environmental health measures</i> may include:	<ul style="list-style-type: none"> • Application of the permethrin/DEET repellent system • Assessment and development of a health support plan • Contributing to the conduct of health surveillance • Enforcing WHS policy and practices • Enforcing vaccination regimes • Promoting and monitoring personal hygiene • Providing environmental health advice

	<ul style="list-style-type: none"> • Providing environmental injury control measures • Providing field waste facilities • Providing field water supply
Stakeholders may include:	<ul style="list-style-type: none"> • Activity coordinators • Activity participants • Allied health agencies • Health support personnel • Other supporting agencies
Personal hygiene facilities may include:	<ul style="list-style-type: none"> • Hand washing facilities • Laundry facilities • Shower facilities
Field may include:	<ul style="list-style-type: none"> • On an ADF exercise in Australia or overseas • On ADF operational deployment • On civil aid task • On training activity
Field waste facilities may include:	<ul style="list-style-type: none"> • Bio-hazardous waste: <ul style="list-style-type: none"> • central collection point • Dry waste: <ul style="list-style-type: none"> • central collection point • inclined plane incinerator • Human waste: <ul style="list-style-type: none"> • pan latrine • portaloo • shallow/deep bore latrine • shallow/deep trench latrine • shallow trench urinal • trench latrine • trough/funnel urinal • Waste (grey) water: <ul style="list-style-type: none"> • absorption trench • evaporating pans • grease trap • herringbone drains • soakage pit
Field waste may include:	<ul style="list-style-type: none"> • Bio-hazardous waste • Dry waste • Grey water • Human waste • Wet waste
Water quality measures may	<ul style="list-style-type: none"> • Approving the use of alternative water distribution

include:	<p>equipment during extreme emergencies</p> <ul style="list-style-type: none"> • Ensuring water sources have been surveyed • Ensuring water distribution equipment is regularly surveyed by health personnel • Organising regular water-point survey by appropriate personnel • Recommending procedures for the maintenance of water potability
<i>Food quality measures</i> may include:	<ul style="list-style-type: none"> • Applying the Hazard Analysis and Critical Control Point (HACCP) approach to food control • Assessing food handling procedures (preparation, storage, distribution) • Assessing the environment for suitability for food preparation • Assessing the suitability and adequacy food storage • Contributing to inspection of a food preparation facility • Monitoring the hygiene practices of personnel during food consumption
<i>Environmental injury</i> may include:	<ul style="list-style-type: none"> • Dehydration • Frost nip/bite • Heat injury • Hyperthermia • Hypothermia • Prickly heat • Sunburn • Trench foot
<i>Environmental injury control measures</i> may include:	<ul style="list-style-type: none"> • 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

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

Unit Sector(s)

Not applicable.