



**Australian Government**

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

# **SISOBWG508A Apply advanced bushwalking skills in arid areas**

**Release: 2**

## **SISOBWG508A Apply advanced bushwalking skills in arid areas**

### **Modification History**

Not Applicable

### **Unit Descriptor**

This unit describes the performance outcomes, skills and knowledge required to bushwalk in arid areas and conditions, with no supervision on trips greater than two day's duration. This unit focuses on the demonstration of advanced bushwalking techniques in extreme environmental conditions.

### **Application of the Unit**

This unit applies to those working as specialist bushwalking guides in more extreme and challenging conditions, such as arid areas.

This unit may also apply to leaders working for outdoor education or adventure providers; volunteer groups; not-for-profit organisations or government agencies.

### **Licensing/Regulatory Information**

No licensing, regulatory or certification requirements apply to this unit at the time of endorsement.

### **Pre-Requisites**

Nil

### **Employability Skills Information**

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

### Elements and Performance Criteria

#### ELEMENT

#### PERFORMANCE CRITERIA

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

- |                                      |  |
|--------------------------------------|--|
| 1. Plan a bushwalk.                  | <p>1.1. Identify and plan <b><i>food and water requirements</i></b> for <b><i>arid areas and conditions</i></b> according to <b><i>principles of nutrition</i></b> and the <b><i>duration of the walk</i></b>.</p> <p>1.2. Identify and plan for emergency food and water requirements, including the need for <b><i>emergency water procurement</i></b>.</p> <p>1.3. Identify an appropriate location according to <b><i>relevant legislation</i></b> and <b><i>organisational policies and procedures</i></b>.</p> <p>1.4. Access <b><i>relevant sources</i></b> to interpret detailed <b><i>weather and environmental information</i></b> to determine activities.</p> <p>1.5. Obtain and review detailed maps for the intended walk.</p> <p>1.6. Identify possible <b><i>hazards</i></b> and <b><i>changing conditions</i></b> associated with the activity.</p> <p>1.7. Identify signs, symptoms, prevention and treatment of possible <b><i>risks</i></b>, such as hyperthermia and dehydration.</p> |
| 2. Select equipment.                 | <p>2.1. Select <b><i>equipment</i></b> according to <b><i>contextual issues</i></b> and check to ensure that it is in good working condition.</p> <p>2.2. Adjust and fit equipment to ensure comfort and safety according to organisational policies and procedures.</p> <p>2.3. Ensure pack weight is appropriate to body weight and level of fitness.</p> <p>2.4. Select personal clothing and footwear, and identify the design and or construction features that make it appropriate.</p>  |
| 3. Apply advanced bushwalking skills | <p>3.1. Approach <b><i>obstacles</i></b> and hazards in a safe manner and minimise risks to self and group where possible.</p> <p>3.2. Apply <b><i>ascending techniques</i></b> and <b><i>descending</i></b></p>   |

ELEMENT	PERFORMANCE CRITERIA
	<p><i>techniques</i> on slopes.</p> <p>3.3. Maintain an appropriate <i>walking rhythm</i> and pace according to conditions.</p> <p>3.4. Select a campsite appropriate to the team members and conditions according to relevant legislation and organisational policies and procedures.</p> <p>3.5. Pitch tents according to site and anticipated weather.</p> <p>3.6. Repair and or improvise items of essential equipment in the case of breakage or loss.</p> <p>3.7. Identify possible emergency food and water sources from animal tracks and bird flight patterns relevant to the bushwalking area.</p>
4. Navigate in an arid environment.	<p>4.1. Apply information contained on maps to plan a suitable route or course.</p> <p>4.2. Obtain <i>additional information</i> to assist in navigation from the map.</p> <p>4.3. Calculate grid and magnetic bearings using a map and compass.</p> <p>4.4. Follow a route in arid areas and conditions, demonstrating use of <i>navigation aids</i>.</p> <p>4.5. Apply and demonstrate <i>techniques for estimating distance</i> travelled.</p> <p>4.6. Maintain a compass course while bypassing an obstacle.</p>
5. Evaluate the bushwalk.	<p>5.1. Evaluate <i>relevant aspects</i> of the walk.</p> <p>5.2. Identify improvements for future walks.</p>

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills

- literacy skills to:
  - read and interpret maps
  - follow instructions and procedures
  - analyse weather and environmental information
- planning and organising skills to allocate and select relevant food, water, clothing and equipment for bushwalks greater than two day's duration in arid areas
- communication skills to interact with other participants to maintain a positive and safe environment while on the walk
- numeracy skills to navigate and calculate grid and magnetic bearings and distances using a map and compass in arid areas and conditions
- problem-solving skills to:
  - assess and negotiate hazards and changing circumstances
  - repair or improvise items of essential equipment in the case of breakage or loss
- survival skills to enable self protection in the case of extreme environmental conditions
- minimal impact camping skills using lightweight, portable equipment
- first aid and emergency response skills appropriate to the location to enable initial response to emergencies and personal health care.

### Required knowledge

- legislation and organisational policies and procedures to enable safe conduct of all bushwalking activities
- minimal impact camping and walking codes to ensure protection of environment
- equipment types, characteristics and technology used for bushwalking, the advantages and disadvantages of the range of equipment, and factors affecting appropriate selection of equipment
- packing and maintenance techniques before, during and after the activity to protect personal and group equipment and ensure prolonged life
- pack handling, packing and lifting techniques to prevent or avoid injury
- pack hauling techniques should it be necessary to lift packs vertically to navigate a vertical hazard
- clothing and footwear requirements for arid environments and conditions and factors affecting appropriate selection, such as layering and protective clothing
- principles of nutrition to maintain health during activity
- sources of food and water in emergency situations to maintain health for prolonged periods, such as emergency water procurement
- navigation in a broad range of arid areas and conditions to determine location, direction and potential hazards with no supervision and in a broad range of visibility circumstances

- weather and environmental information to ascertain possible conditions and their affect on the activity including life threatening conditions
- selection of tie-off points and anchors when using handlines to assist on steep terrain
- track signage standards, such as the current Australian Standard, to determine the suitability of the track to skill levels
- emergency procedures and potential hazards relevant to the location to ensure risk minimisation to self and group.

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

### Overview of assessment

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

Evidence of the following is essential:

- applies relevant processes to plan equipment and supply requirements according to the conditions and duration of the bushwalk
- demonstrates advanced bushwalking techniques and safety practices, and adapts to contingencies that may arise during the walk
- takes precautions to maintain physical well being of self and group during a bushwalk, and identifies possible signs, symptoms and treatments of conditions such as hyperthermia and dehydration
- evaluates and reflects on own bushwalking performance to identify strengths, weaknesses and areas that need improvement.

#### Context of and specific resources for assessment

Assessment must ensure participation in a bushwalking activity in arid areas and conditions that is of a minimum three day duration to demonstrate competency and consistency of performance.

Assessment must also ensure access to:

- resources and information, such as detailed maps and meteorological data, to plan for the bushwalk
- a suitable outdoor location with arid areas and conditions that are unmodified so that track alignment is indistinct with no clearance or signage. The track will not be managed for public risk and the onset of extreme environmental conditions may have a significant adverse impact upon the bushwalk
- bushwalking, navigation and safety equipment.

#### Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of the planning and review process
- oral and or written questioning and reports to assess knowledge of contingency procedures and relevant legislation and organisational policies and procedures to enable safe conduct of bushwalking activities

- observation of demonstrating advanced bushwalking skills, such as locating water sources from animal tracks and bird flight patterns
- observation of dealing with contingencies, such as repairing and or improvising items of essential equipment in the case of breakage or loss
- review of plan for the bushwalk
- written and or verbal self evaluation
- third-party reports from a supervisor detailing performance.

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- SISOOPS303A Interpret weather conditions in the field



## 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, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

***Food and water requirements*** may include:

- menu planning and preparation
- range of foods
- emergency food and water
- water purification and conservation.

***Arid areas and conditions*** may include:

- unmodified natural surfaces
- no clearance along the track
- unsigned
- steep sections of unmodified surfaces
- unmanaged for public risk
- risk of onset of extreme environmental conditions, such as excessive dry heat
- those that align to Class 6 tracks within the Australian Standard for Walking Tracks.

***Principles of nutrition*** may include:

- food groups
- dietary guidelines
- essential nutrients
- individual food requirements and allergies.

***Duration of the walk*** may include:

- three days
- four days
- five days
- more than five days.

***Emergency water procurement*** may include:

- creek beds
- rock formations
- trees
- dew
- transpiration method
- solar still
- distilling sea water using condensation method.

***Relevant legislation*** may include:

- occupational health and safety
- permits or permission for access
- environmental regulations.

***Organisational policies and procedures*** may include:

- occupational health and safety
- emergency procedures

- equipment use and maintenance
  - communication protocols
  - code of ethics.
- Relevant sources*** may include:
- Bureau of Meteorology
  - media
  - land managers or agencies
  - local knowledge.
- Weather and environmental information*** may include:
- satellite images
  - daily and weekly forecasts
  - maximum and minimum temperatures
  - weather warnings
  - event warnings
  - river levels
  - synoptic charts
  - high and low tide predictions
- Hazards*** may include:
- temperature extremes
  - slippery or unstable terrain
  - dangerous animals and insects
  - stinging trees and nettles
  - dense vegetation
  - group management hazards.
- Changing conditions*** may include:
- weather
  - equipment failure
  - injuries.
- Risks*** may include:
- hypothermia
  - heat exhaustion
  - injuries
  - exhaustion
  - lost party or party member
  - equipment failure.
- Equipment*** may include:
- bushwalking equipment
  - navigation equipment
  - safety and first aid equipment
  - camping equipment.
- Contextual issues*** may include:
- weather conditions, including times
  - season
  - transport
  - location
  - trip distance and duration
  - group objectives
  - group size.

- Obstacles*** may include:
- creeks
  - logs
  - rocks
  - gullies
  - exposed areas.
- Ascending techniques*** may include:
- zig-zagging
  - placing feet down flat with a deliberate step
  - resting heels on any available projections:
    - using walking aids and ropes as handlines.
- Descending techniques*** may include:
- placing toes against projections to avoid overstriding
  - avoiding placing feet down heavily
  - using flat- footed or stiff- heeled technique
  - using walking aids and ropes as handlines.
- Walking rhythm*** may include:
- maintaining same speed of pace
  - keeping hands free
  - allowing natural body swing
  - avoiding jerky movements or springing.
- Additional information*** may include:
- altitude gain or loss
  - distance
  - gradient
  - estimated travelling time.
- Navigation aids*** may include:
- maps
  - compass.
- Techniques for estimating distance*** may include:
- timing
  - pacing
  - observing surroundings.
- Relevant aspects*** may include:
- objectives
  - planning process
  - activity site
  - weather
  - equipment selection
  - clothing selection
  - food selection
  - instructional content
  - instructional technique
  - assessment technique
  - group feedback
  - directing techniques
  - rescue techniques employed.

## **Unit Sector(s)**

Outdoor Recreation

## **Competency Field**

Bushwalking