Australian Government

PUASAR033 Perform land based swiftwater and floodwater rescue and recovery

Release 2

INDUSTRY
SKILLS
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PUASAR033 Perform land based swiftwater and floodwater rescue and recovery

Modification History

Release	TP Version	Comments
2	PUA12 V2.1	Editorial changes.
1	PUA12 V2	New unit.

Unit Descriptor

This unit covers the competency required to perform land-based swiftwater and floodwater rescues and recoveries as a member of a specialist team.
No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

This unit applies to personnel who perform a narrow range of land based rescues from a swiftwater and floodwater environment while applying fundamental operational knowledge and working under direct supervision.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

HLTFA311A Apply first aid

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 Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare and respond to the rescue	1.1 Operation and task information is obtained from communication centre or supervisor.
	1.2 *Rescue equipment/resources* are identified and selected based on incident information as directed by supervisor.
	1.3 *Personal protective equipment* is selected based on nature of the rescue operation.
	1.4 Any further details of the nature of the rescue are received en route.
	1.5 Anticipated *situational and environmental hazards* are discussed with rescue team members while on approach.
2 Participate in assessing the rescue scene	2.1 Information is collected from *relevant persons* at scene and observations are made of the scene to determine location, number, *entrapment* and condition of casualties.
	2.2 Potential situational and environmental hazards to self and others are identified and reported to supervisor.
	2.3 Control procedures are implemented as directed by supervisor.
	2.4 Based on assessment of rescue scene, personal capabilities and limitations are recognised and referred to supervisor.
	2.5 Need for additional personnel and/or specialist equipment is reported through the recognised chain of command.
	2.6 *Communication* with other team members is maintained using situation-appropriate techniques and terminology.
3 Participate in developing primary and secondary rescue plans	3.1 *Rescue and recovery techniques* suitable to the casualty condition, entrapment, location and swiftwater and floodwater conditions are identified.
	3.2 Primary and secondary rescue plans are formulated in consultation with other team members and *other agencies on site*, and communicated.
	3.3 Equipment and resources required to perform identified land based rescues and recoveries in swiftwater and floodwater as identified by the rescue plan are selected.
	3.4 In conjunction with the primary plan, deployment of

		the secondary rescue plan downstream is implemented and acted upon.
4	**Gain access and perform rescue on casualty**	4.1 *Isolation techniques* are used to stabilise positioning of casualty to assist in extrication and management of conscious casualty/s.
		4.2 Land based rescue techniques and equipment are deployed to gain access to the casualty as identified in the rescue plan.
		4.3 Rescue plan is implemented and casualty is extricated from entrapment or secured by using rescue techniques and equipment.
5	**Remove casualty from swiftwater and floodwater**	5.1 Casualties are retrieved from swiftwater and floodwater using *recognised techniques for removal* and in accordance with *organisational policies and procedures.*
		5.2 Casualties are *packaged and handled* in accordance with organisational emergency care procedures, or as directed by *first aid or medical personnel.*
6	**Conclude swiftwater and floodwater rescue**	6.1 Prior to leaving the scene, equipment is recovered, cleaned and maintained in accordance with manufacturer's guidelines and organisational procedures.
		6.2 During cleaning of rescue equipment and personal protective equipment, hygiene procedures are followed in accordance with organisational procedures.
		6.3 Where identified, signs and symptoms of operational stress in self and others are recognised and reported to appropriate personnel.
		6.4 *Operational debrief* is participated in and *documentation* is completed to *organisational standards* and job role.

Required Skills and Knowledge

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

Required Skills

- anticipate and mitigate hazards and risks
- determine rescue and recovery methods using yell/talk, reach and throw strategies
- identify changes in casualty condition and position
- identify changes in water flow, currents, eddies and other hydrological features

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- identify hazards and risks
- inform appropriate people of progress based on organisational procedures
- interact with other members of the rescue team, casualty and others
- provide first aid select equipment and resources
- swim defensively
- throw equipment to reach a swimmer in swiftwater and floodwater
- use equipment to reach a swimmer in swiftwater and floodwater
- work as part of a team and support others in the rescue operation

Required Knowledge

- aggressive and defensive swimming techniques to escape hazards
- basic knots and anchors
- basics of swiftwater and floodwater hydrology and meteorology, and the impact this will have on the water flow
- behaviour of vehicles trapped in swiftwater and floodwater
- composition of team, and roles and responsibilities of team members
- hazards and risks associated with land-based swiftwater and floodwater rescues and recoveries
- organisational communication techniques used during rescue operation
- patient handling and packaging including the treatment of spinal injuries in the context of a swiftwater and floodwater incident
- potential contaminants in water and their potential impact on the rescuer and casualty
- principles of dynamic risk assessment
- principles of entrapment
- psychological considerations of swiftwater and floodwater rescue for the rescuer, casualty (normal survivor behaviour, panic, counter-panic casualty, instinctive drowning response), onlookers and the potential need for support resources
- relevant legislation and organisational policies and procedures to enable safe conduct of all swiftwater and floodwater rescues and recovery activities (e.g. rescue rating system relating to land-based rescues for swiftwater and floodwater)
- rescue and recovery equipment, characteristics, advantages and disadvantages, and its care and maintenance to enable appropriate selection and use
- search techniques

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Critical aspects for	Assessment must confirm the ability to:

assessment and evidence required to demonstrate competency in this unit	- assess rescue situation to identify potential hazards and risks, and determine efficient rescue and recovery techniques - select and use rescue equipment and resources, in a variety of swiftwater and floodwater rescue and recovery situations - communicate with other members of the rescue team and adapt to problems or issues that may arise during swiftwater and floodwater rescues and recoveries to ensure safety of self and group - evaluate and reflect on own rescue and recovery performance to identify strengths, weaknesses and areas that need improvement **Consistency in performance** Competency should be demonstrated over time in a range of actual or simulated workplace environments.
Context of and specific resources for assessment	**Context of assessment** Competency should be assessed in swiftwater and floodwater relevant to the job role. **Specific resources for assessment** Access is required to: - simulated swiftwater and floodwater location - personnel for team based rescues - rescue, recovery, safety, first aid and activity-specific equipment and resources
Method of assessment	Assessment should be conducted by direct observation in either the workplace (through recorded subject matter supervision and/or mentoring) or the training environment. Assessment may occur in an operational environment or in an industry-approved simulated work environment. Forms of assessment that are typically used include: - direct observation - interviewing the candidate - journals and workplace documentation - third party reports from supervisors - written or oral questions

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.

Rescue equipment/resources must include:	- personal floatation devices - portable radios - safety and first aid equipment - throw bags - vehicle
And may also include:	- carabiners - cyalume sticks - descenders - electrical detection devices - float ropes - harnesses - helicopters - hose inflators and encaps - life rescue ropes - line throwing device - loud hailer - pulleys - sledge hammer - steel pickets for anchoring - stretchers - strobe lighting
Personal protective equipment must include:	- appropriate footwear - helmet appropriate for swiftwater and floodwater - personal floatation devices - whistles
And may also include:	- eye protection - gloves - headlamps - knives - overalls - torches - wet weather gear
Situational and environmental hazards may include:	- adverse water conditions - availability of assistance - below surface debris hazards - biological contaminants

	- boat wraps - confluence - cushions and/or stacked water cushions - culverts - diseases and infections - downstream and upstream v's - eddies - entrapment hazards - haystacks and standing waves - holes, stoppers and keepers - inundation - lightning - low visibility - manholes - overhead hazards - rocks - snakes and other dangerous animals - strainers - surface debris hazards - undercuts - utilities – electrical - water contaminants - water borne hazards - water depth - water hydraulics - waterfalls - weirs
Relevant persons may include:	- bystanders - other agencies - other casualties
Entrapment may include:	- body - Person in/on vehicle in water - Person static on object (eg tree) - Person with limb pinned - recirculation - rope entanglements
Communication may include:	- hand signals - radio - verbal - whistle signals - written documents

Rescue and recovery techniques must include:	• reach rescue techniques (e.g. inflatable fire hose technique) • throwing bag rescue technique • yelling to give safety or rescue directions
Other agencies may include:	• ambulance service • fire services • interagency departments • police • state emergency service
Isolation techniques may include:	• hand signals • yelling
Recognised techniques for removal may include:	• manual carry • spine board • stretcher
Organisational policies and procedures may include:	• access to medical personnel • code of ethics • communication protocols • emergency care • manufacturer's design specifications and recommendations for equipment use • occupational health and safety • removal of casualties • use, maintenance and storage of equipment
Packaging and handling casualties may include:	• extrication device • stiff neck collar
First aid or medical personnel may include:	• doctors • first aider • nurses • paramedics
Operational debrief may include:	• areas where improvements can be made • organisational strengths that can be built on • validation of the participation of teams and individuals
Documentation may include:	• accident/injury report • incident report forms • risk assessment forms
Organisational standards may include:	• documentation to meet another agency's operational requirements

Unit Sector(s)

Not applicable.