Australian Government

Department of Education, Employment and Workplace Relations

SISOWWR403A Perform complex white water rescues and recoveries

Release: 2

SISOWWR403A Perform complex white water rescues and recoveries

Modification History

Not Applicable

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to perform rescues and recoveries in complex and non-predicable situations in rafting, canoeing or kayaking activities on water up to Grade 4 standard.

Application of the Unit

This unit applies to those working as outdoor guides in a range of activities performed on graded water. This may include those required to perform white water rescues and recoveries in complex and non-predicable situations during rafting, canoeing or kayaking activities on water up to Grade 4 standard.

This unit may also apply to outdoor recreation 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.

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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. Determine rescue and recovery technique.	1.1. ***Assess*** the ***situation*** and identify potential ***hazards*** and ***risks*** to self and others. 1.2. Identify a ***rescue and recovery method*** suitable to the situation according to ***contextual issues***, ***relevant legislation*** and ***organisational policies and procedures***. 1.3. Select ***equipment and resources*** required to perform identified rescues and recoveries in white water. 1.4. Communicate rescue and recovery plan to those assisting.
2. Undertake rescues and recoveries.	2.1. Perform rescue using a reach technique. 2.2. Use ***throw resources*** to reach a swimmer in moving water. 2.3. Demonstrate towing techniques in moving water. 2.4. Use safe contact methods to rescue and transport a swimmer. 2.5. ***Tether a craft*** in order to perform a rescue or recovery, where required. 2.6. Identify and use a range of methods to release an entrapment victim, according to the situation, type of ***entrapment*** and organisational policies and procedures. 2.7. Communicate directions to other members of the rescue team. 2.8. Hazards are avoided and managed whilst conducting a rescue or recovery according to relevant legislation and organisational policies and procedures.
3. Use mechanical advantage systems.	3.1. Identify ***situations*** requiring the use of ***mechanical advantage systems***. 3.2. Determine the type of system required according to contextual issues and organisational policies and procedures.

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ELEMENT	PERFORMANCE CRITERIA
	3.3. Establish suitable mechanical advantage systems to perform rescues and recoveries in a range of complex situations.
	3.4. Use system equipment in a safe manner according to manufacturer's recommendations and organisational policies and procedures, to ensure that design limits are not exceeded.
	3.5. Modify the system to increase efficiency where necessary, and clearly communicate system changes.
4. Conclude rescue and recovery operations.	4.1. Check and store equipment according to organisational policies and procedures and manufacturer's guidelines.
	4.2. Evaluate activity and identify improvements for future white water rescues and recoveries.

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Required Skills and Knowledge

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

Required skills

- problem-solving skills to:
  - determine rescue and recovery methods to use according to the complex situation
  - anticipate and mitigate hazards and risks
  - improvise in the construction of anchors in the event that obvious natural ones do not exist
- communication skills to:
  - inform progress
  - interact with other members of the rescue team
- teamwork skills to support others in the rescue operation and to maintain safety
- planning and organising skills to select equipment and resources to enable safe and effective rescues
- river reading skills including direction and speed of flow, currents, eddies and other hydrological features to enable safe conduct of rescue and recovery activities
- throwing skills to throw rope and throwbags to reach a swimmer in white water
- swimming skills in moving water to locate access, rescue and tow a victim and assist rescue
- towing and craft handling skills to control the craft on white water, up to Grade 4 standard
- first aid and emergency response skills appropriate to the location to enable initial response to emergencies
- craft handling skills to control a craft on white water up to grade 4 to locate, access and rescue victim
- effective knot typing skills to enable the construction of anchors and mechanical advantage systems.

Required knowledge

- understanding of the use of a 2 and 4 point tether system and its application
- identifies low to high risk rescue options
- rescue team roles and the incident command system
- legislation and organisational policies and procedures to enable safe conduct of all white water rescue and recovery activities
- rescue and recovery equipment and resource types, characteristics, advantages and disadvantages, and its care and maintenance to enable appropriate selection and use
- hydrology and river grading systems to understand how rivers work and conduct safe rescues and recoveries on white water
- hazards and risks associated with rescues and recoveries on white water up to Grade 4 standard, and how to safely negotiate or avoid these
- aggressive and defensive swimming techniques to escape hazards

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- rescue and recovery techniques suitable to the complex conditions and experience of the participant
- principles of mechanical advantage systems and contexts in which they are used
- communication systems used on rivers to make intentions clear
- first aid appropriate to location and level of responsibility
- understanding of the use of a highline tyrolean system (telfer lower) and its application
- types of artificial anchors that can be used to construct systems .

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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:

- Carry out multiple rescues ultising the full range of rescue and recovery methods, one of these being in a time critical environment
- Release and rescue a wrapped, pinned or broached craft using the full range of mechanical advantage system ensuring equalisation of load anchors to minimise damage to craft
- Safely rescue a victim or recover a craft using the full range of tethered craft
- Lead and coordinate a rescue using an incident command system.

Context of and specific resources for assessment

Assessment must ensure conduct of rescues and recoveries in complex and unpredictable white water rapids, up to Grade 4 standard, that are of sufficient breadth to demonstrate competency and consistency of performance.

Assessment must also ensure access to:

- a white water location, with up to Grade 4 standard white water
- personnel for team based rescues
- rescue, recovery, safety, first aid and activity-specific equipment and resources.

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 selecting rescue and recovery equipment according to the complex situation
- oral or written questioning to assess knowledge of rescue and recovery techniques and potential white water hazards and risks
- observation of performing rescues and recoveries of others using mechanical advantage systems and various rescue techniques
- observation of dealing with contingencies such as changing currents or weather conditions

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- 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:

- activity-specific units from activities performed on graded water such as rafting, canoeing and kayaking.

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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.

Assess may include:

- scouting hazards
- identifying the degree of urgency
- availability of physical and human resources.

Complex situation may include:

- limited physical and human resources available
- unpredictable white water, up to grade 4 standard
- more than one person or craft requiring rescue and recovery
- difficulty in establishing anchors or tensioned lines
- hazards to rescuers.

Hazards may include:

- temperature extremes
- stoppers or holes
- waves
- waterfalls
- strainers
- man made objects
- rocks
- sieves
- other river uses
- high water.

Risks may include:

- drowning
- water immersion or submersion
- injury
- entrapment
- exposure.

Rescue and recovery methods must include:

- talk
- reach
- throw
- wade
- row
- go
- tow.

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Contextual issues may include:	• resources • level of consciousness of victim • rescue situation • type of craft • season and weather • river height.
Relevant legislation may include:	• occupational health and safety • permits or permission for access • environmental regulations • marine regulations.
Organisational policies and procedures may include:	• occupational health and safety • use, maintenance and storage of equipment • risk management • communication protocols • access to medical personnel • removal of casualties • code of ethics.
Equipment and resources may include:	• rescue and recovery equipment • mechanical advantage systems • personal protective equipment • activity-specific equipment.
Throw resources may include:	• throw bags • rope coils.
Tether may include:	• two and or four point boat tether system • high line tyrolean with a craft (telfer lower).
Entrapment may include:	• limb • body • recirculation • rope entanglements.
Situations may include:	• rescue of paddler • recovery of craft • trapped paddler • recovery of other equipment • tension line across river.
Mechanical advantage systems may include:	• z drags • pig-rigs • vector pulls • 3:1 ratio • 4:1 ratio.

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Unit Sector(s)

Outdoor Recreation

Competency Field

White Water Rescue

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