



Australian Government

SISORSC006 Lead and participate in complex white water rescues

Release: 1

SISORSC006 Lead and participate in complex white water rescues

Modification History

Not applicable.

Application

This unit describes the performance outcomes, skills and knowledge required to both direct and complete complex rescues and recoveries on inland white water rivers with grade 3 and above rapids. White water rescue skills are required in a range of activity contexts which can include canoeing, kayaking and white water rafting, and techniques will vary according to the type of craft.

Complex situations may involve multiple capsized participants, multiple equipment recoveries, dealing with numerous environmental hazards, or a combination of many factors.

It applies to senior leaders, guides or instructors, and others who use discretion and judgement to manage significant problems and emergencies when they arise.

This unit applies to any type of organisation that delivers outdoor recreation activities including commercial, not-for-profit and government organisations.

No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.

Pre-requisite Unit

SISORSC004 Self rescue in white water

Competency Field

Rescue Operations

Unit Sector

Outdoor Recreation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes

1. Determine rescue requirements and

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1. Assess situation, identify hazards promptly, assess risks and manage to avoid injury to self and others.

- prepare for rescue.
- 1.2. Determine appropriate rescue methods and techniques for situation, according to degree of urgency and condition of persons in need of rescue.
- 1.3. Select rescue equipment according to requirements.
- 1.4. Assess abilities, establish a chain of command and allocate roles and responsibilities to others.
- 1.5. Provide clear and concise instructions and confirm rescue crew understanding of roles, communication protocols and rescue actions.
- 1.6. Implement rescue operations according to organisational policies and procedures for emergency response.
2. Rescue multiple persons from moving water.
- 2.1. Prioritise rescue of persons according to need, and manage rescue crew response.
- 2.2. Monitor hazards, changing circumstances and actions of rescuers and provide ongoing direction.
- 2.3. Participate in rescue in and out of water, changing position as required, to effect rescue of multiple swimmers.
- 2.4. Provide clear and concise instructions to rescuers and rescuees throughout rescue.
- 2.5. Utilise reach and throw techniques to rescue multiple swimmers in moving water.
- 2.6. Release entrapped persons, utilising methods suitable for situation.
- 2.7. Use safe contact methods, using craft, to rescue and transport a swimmer.
- 2.8. Provide both tethered and supported tows to nearest safe landing.
- 2.9. Select and use equipment and methods appropriate to situation to retrieve abandoned craft and equipment.
3. Use mechanical advantage systems.
- 3.1. Determine need for use of mechanical advantage systems.
- 3.2. Identify and promptly establish type appropriate for the rescue or recovery situation.
- 3.3. Verify manufacturers' recommendations, equipment limitations and safety margins; rig and use equipment accordingly.
- 3.4. Modify system, as required, to increase efficiency and communicate system changes to others assisting.
4. Debrief and complete reports.
- 4.1. Participate in incident management debrief and identify future response improvements.
- 4.2. Complete required incident reports according to organisational procedures.

Foundation Skills

Foundation skills essential to performance in this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

SKILLS	DESCRIPTION
Reading skills to:	interpret detailed familiar organisational policies and procedures for emergency response.
Writing skills to:	record detailed and accurate factual information about rescue responses.
Oral communications skills to:	use clear and unambiguous verbal and non-verbal communications to make intent known.
Teamwork skills to:	pro-actively and cooperatively direct and work within teams to coordinate rescue logistics, solve arising problems and effect efficient rescues.
Self-management skills to:	critically analyse all circumstances and implications to coordinate a considered response to rescue requirements.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume Implementation Guides -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1ca50016-24d2-4161-a044-d3faa200268b>

Assessment Requirements for SISORSC006 Lead and participate in complex white water rescues

Modification History

Not applicable.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- complete three simulated complex white water rescues on one or more inland white water rivers with rapids, which collectively involve the following situations:
 - a minimum of three swimmers simultaneously in the water
 - a minimum of two simultaneously entrapped persons
 - a minimum of three simultaneously abandoned craft and paddles to be recovered
- across the three rescues, collectively utilise the following techniques and methods, as relevant to the type of craft utilised:
 - reach techniques to rescue swimmers
 - reach techniques to recover paddles
 - throw techniques to rescue swimmers using throw bags and coiled ropes
 - two and four point craft on tether
 - single and double tows with paddler onboard (excluding raft rescues)
 - tyrolean rope system with craft on tether
 - contact rescue, using craft and techniques relevant to the type of craft utilised
 - use of a mechanical advantage system to recover a wrapped, pinned or breached craft
- for each rescue operation:
 - consistently negotiate river hazards safely and effectively
 - establish a chain of command, allocate and communicate roles and responsibilities to team members and participants to effectively complete rescues
 - maintain effective communication with the rescuees
 - participate in a debrief and complete an incident report.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- organisational policies and procedures for emergency response
- principles of a chain of command as relevant to rescue operations
- roles and responsibilities that can be allocated to team members and participants to effectively complete a complex white water rescue
- communication protocols for rescue operations in white water:

- calls
- hand and paddle signals
- whistles
- key considerations for determining rescue methods and techniques for complex white water rescues:
 - river topography and access to person to be rescued
 - river conditions
 - severity of river hazards
 - degree of urgency to avoid situation worsening
 - condition of persons to be rescued
 - rescue abilities of self and team members
 - availability of equipment and human resources
- typical hydrology conditions and hazards associated with complex white water rescues on grade 3 and above rivers, and techniques used to safely negotiate these:
 - currents
 - eddies
 - waves
 - strainers
 - holes
 - stoppers
 - sieves
 - rocks, including undercut rocks
 - waterfalls
 - downstream and upstream Vs
 - boils
 - pour overs
 - built objects – weirs, piers
 - steep or slippery banks or shore
 - overhanging trees
 - fallen trees on waterway
 - submerged logs, rocks and vegetation
 - sections of dark, deep or cold water
 - other boating traffic
- features, functions and operation of equipment used for complex white water rescues:
 - reach equipment, including improvised use of equipment on hand
 - throw bags
 - rope coils
 - two and or four point boat tether system
 - mechanical advantage systems to include:
 - high line tyrolean tethering system (telfer lower)

- z drags
- pig-rigs
- vector pulls
- 3:1 ratio
- 4:1 ratio
- factors that affect the selection and rigging of mechanical advantage systems
- manufacturers' specifications for equipment use
- types of anchors used in rescue systems and factors that affect selection
- types of knots used, and how to tie them, when establishing rescue systems
- techniques used to rescue swimmers in moving water:
 - reach techniques
 - throw techniques using throw bags and rope coils
 - contact techniques
- different types of entrapment encountered by rescuees and suitable methods used to extricate entrapped persons
- as relevant to the particular type of water craft, techniques used when implementing the following rescue and recovery methods:
 - T (or X) rescue
 - wedge rescue
 - deck carry
 - providing single and double tows
 - retrieving abandoned craft and equipment
 - two point tethered tow
 - four point tethered tow.

Assessment Conditions

Skills must be demonstrated on inland white water rivers with rapids which must include, as a minimum, features of grade 3 rivers:

- rapids which have fairly high waves, one to two metres tall
- broken water, strong currents and eddies
- significant obstacles including large holes, exposed rocks and small falls that require manoeuvring around
- passages through rapids are difficult to recognise from the river and inspection from the bank is usually required.

Assessments can only be completed through simulated activities. Simulations must incorporate time critical requirements.

The following resources must be available to replicate industry conditions of operation:

- first aid equipment
- communication equipment for emergency response.

Assessment must ensure use of:

- people who act as team members, participants and rescuees with whom the individual interacts during simulated rescues
- Australian Standard, or equivalent, compliant lifejackets suitable for inland river conditions
- helmets
- pea-less whistles not affected by water
- white water craft which can include canoes, kayaks and rafts
- paddles suited to type of craft
- rescue equipment:
 - throw bags
 - rope coils
 - towlines
 - static rope
 - carabiners, Prusik cords and tape sling
 - mechanical advantage systems to include high line tyrolean tethering system
 - knives
- template incident reports
- organisational policies and procedures for emergency response

Assessors must satisfy the Standards for Registered Training Organisations requirements for assessors, and:

- have a collective period of at least three years' experience as a recreational activity leader, guide or instructor; or as a rescue operator where they have applied the skills and knowledge covered in this unit of competency; the three years' experience can incorporate full and or part time experience.

Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1ca50016-24d2-4161-a044-d3faa200268b>