Unit of competency

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| Release 1 | This version first released with CPP Property Services Training Package Release 15.0<br>Supersedes and is not equivalent to CPPCLO3008 Mitigate carpet water damage. |
| Unit Code | CPPCLO4104 |
| Unit Title | Restore water-damaged structures and contents. |
| Application | This unit specifies the skills and knowledge required to mitigate water damage to domestic or commercial structures and contents, including furnishings and personal effects by stopping the inflow of water, extracting water and drying out structures and contents, and making the site safe. It requires assessing the category of water ingress and applies to water ingress caused by an overflow of water from bathrooms and laundries, toilet backflows, sewerage, overflowing gutters, roof leaks, rising external waters and fire extinguishing activities. It includes removal of materials such as skirting boards, carpets and underlay, walls and sub-floors, selection of methods, equipment and cleaning agents suited to the task essential for performing the work safely and efficiently.<br><br>The unit is informed by aspects of standards set by the Institute of Inspection, Cleaning and Restoration Certification (IICRC) and relevant Australian Standards and applies to experienced technicians responding to jobs in commercial and domestic sites.<br><br>This unit is suitable for specialist cleaning industry personnel who use well-developed cognitive, technical and communication skills and a broad knowledge base to select and apply specialist methods, tools, materials and information in operational cleaning management contexts. They complete routine and non-routine activities and provide and transmit solutions to a variety of predictable and sometimes unpredictable problems.<br><br>All work must be carried out in accordance with relevant state/territory legislation and regulations, including work health and safety (WHS), and codes of practice as well as organisational procedures.<br><br>*No licensing, legislative or certification requirements apply to this unit at the time of publication.* |
| Prerequisite Unit | Nil |
| Competency Field | |
| Unit Sector | Cleaning |
| ELEMENTS | PERFORMANCE CRITERIA |

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| Elements describe the essential outcomes. | | Performance criteria describe what needs to be done to demonstrate achievement of the element. | |
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| 1 | Inspect and assess water damage. | 1.1 | Clarify site access, areas to be restored and scope of work with building owner, client, insurer or supervisor. |
| | | 1.2 | Select, check for fit and serviceability, and use personal protective equipment (PPE) according to WHS and job requirements. |
| | | 1.3 | Determine the source and presence of water, and potentially affected areas according to job and WHS requirements. |
| | | 1.4 | Assess site hazards, risks and contamination and determine control measures, including containment and engineering controls required, according to WHS requirements. |
| | | 1.5 | Investigate materials and construction of affected structure and contents to determine if disposal is required or restoration is viable. |
| | | 1.6 | Seek specialist advice, where required, according to organisational and legislative requirements. |
| | | 1.7 | Document condition of area to be restored and advise client, building owner or insurer of the results of the assessment, proposed remediation methods, risks and likely outcomes and seek approval to proceed according to organisational requirements. |
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| 2 | Prepare to undertake restoration of water-damaged area. | 2.1 | Determine restoration methods, equipment and sequence of tasks according to presence of clean or contaminated water, level of damage, and type of structure and contents. |
| | | 2.2 | Position safety signage and barriers, containment and engineering controls and confirm that area is safe to access and work in according to WHS and job requirements. |
| | | 2.3 | Eliminate or contain water source according to WHS, organisational and job requirements. |
| | | 2.4 | Remove structural elements that may impede the water restoration process according to work role, WHS and job requirements. |
| | | 2.5 | Identify and dispose of water-damaged items and materials that are unable to be remediated, including carpet and underlay affected by black water according to organisational and WHS requirements. |
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| 3 | Undertake water mitigation processes. | 3.1 | Extract and dispose of excess clean and contaminated water using required equipment and processes according to job, WHS and organisational requirements. |
| | | 3.2 | Activate in-structure drying equipment, as required, and monitor drying progress according to job, WHS and organisational requirements. |
| | | 3.3 | Treat work area with antimicrobial chemicals as needed by job, WHS and organisational requirements. |

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| 4 | Evaluate outcomes of water mitigation activities. | 4.1 | Determine the need for post-remediation testing and, if required, arrange testing according to industry accepted practice and organisational procedures. |
| | | 4.2 | Determine further action or advice required based on evaluation or test results. |
| | | 4.3 | Conduct repeat water mitigation activities, as needed, according to organisational and job requirements. |
| 5 | Complete work activities. | 5.1 | Record site restoration and water mitigation outcomes and seek independent verification or sign-off, as required, according to job and WHS requirements. |
| | | 5.2 | Remove safety signage barriers, containment and engineering controls and dispose of soil and waste according to WHS and environmental requirements. |
| | | 5.3 | Clean and/or dispose of PPE as required by organisational standards. |
| | | 5. 4 | Check equipment for faults, wear or damage and report in accordance with organisational requirements. |
| | | 5.5 | Store equipment and materials according to organisational requirements. |

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| FOUNDATION SKILLS | Foundation skills essential to performance are explicit in the performance criteria of this unit of competency. |
| UNIT MAPPING INFORMATIO N | Supersedes and is not equivalent to CPPCLO3008 Mitigate carpet water damage |
| LINKS | The Companion Volume Implementation Guide for the CPP Property Services Training Package is available at: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b. |

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# Assessment Requirements

| UNIT CODE AND TITLE | CPPCLO4104 Restore water-damaged structures and contents. |
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PERFORMANCE EVIDENCE
To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by:

- developing a plan to restore a water-damaged internal wall and hard floor at two different commercial sites where one site is contaminated by black water and one site is contaminated by grey water
- restoring a domestic carpet damaged by clean water to pre-event condition.

KNOWLEDGE EVIDENCE
To be competent in this unit, a candidate must demonstrate knowledge of:

- aspects of the following relevant to water damage remediation:
    - work health and safety (WHS) requirements
    - Safe Work Australia regulations and guidelines
    - job safety analyses (JSAs) and safe work method statements (SWMS)
    - manufacturer instructions and safety data sheets (SDS)
    - IICRC S500 Standard for Water Damage Restoration or Australian equivalent
    - AS/NZS 3733 Textile floor coverings – Cleaning maintenance of residential and commercial carpeting
    - Environment Protection Authority (EPA) and local requirements for prescribed waste disposal
- personal and site security procedures and requirements:
    - site access - security cards, codes and keys
    - areas of the worksite not to be accessed
    - alarm activation and deactivation
    - maintaining client privacy and confidentiality
    - contingencies if personal safety at risk
- health effects of exposure to microbial contamination in water-damaged buildings
- potential microorganisms present in a water-damaged site
- unintended consequential damage arising from event and mitigation
- building system considerations relevant to water remediation:
    - structural components - methods of construction and materials
    - heating, cooling and ventilation, including heating, ventilation and air conditioning (HVAC) systems
    - potential locations of not readily observable water damage - behind and under plaster walls, ceilings, pipes, appliances, insulation, panelling, wallpaper, floors, flooring, carpet, cabinetry and interstitial spaces
    - effects of humidity, airflow and temperature on drying and moisture movement through structural materials and contents
- types of hazards and risks and ways to control:
    - types of personal protective equipment (PPE) and correct selection, care, use and disposal
    - slips, trips, falls and spills
    - manual-handling techniques when carrying, lifting, pushing and

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pulling
    - identification and safe practices with asbestos on site
    - correct use of signage, barriers, containment and engineering controls and PPE
    - safe use of electrical equipment
- cleaning principles:
    - cleaning agent, time, agitation, temperature
    - significance of pH value of cleaning agents
    - sequence and direction of cleaning
    - achieve results while doing no harm
- types, characteristics and processes to identify clean, black and grey water
- class of water intrusion and mitigation methods and precautions for surface types:
    - porous
    - semi-porous
    - non-porous
- factors determining restorability:
    - classification of water and duration of exposure
    - material composition
    - cost of restoration
    - cost of replacement
    - sentimental, legal, artistic, cultural, historical value
    - potential secondary harm and waste created by restoration methods
- situations and procedure for seeking specialist advice:
    - work requiring insurance company approval
    - situations requiring waiver
    - specialised contents such as artwork
    - high value and irreplaceable items
- role, strengths and limitations of specialists who may provide advice:
    - Indoor Environmental Professional (IEP)
    - occupational hygienist
    - building professional
    - insurance representative
    - microbiologist
- indications that water-damaged carpet and underlay, and personal items should be disposed of
- strategies to promote surface evaporation and methods for extracting water and drying for:
    - carpet construction, fibre and underlay type
    - sub-flooring structures
    - building structures
- functions and features of equipment - safe operational practices, routine maintenance and storage:
    - submersible and surface pumps
    - extraction units
    - extraction tools, including light wands, weighted drag tools, stationary tools, handheld tools and self-propelled units
    - axial and centrifugal air moving equipment
    - structural cavity drying equipment
    - air filtration devices (AFDs)
    - dehumidification equipment, including refrigerant dehumidifiers, low-grain refrigerants (LGRs) and desiccants
    - heat drying systems and equipment (direct fired, indirect fired, electric, hydronic and radiant)
- functions and features of detection and monitoring instruments - safe operational practices, storage and routine maintenance:

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- thermometers
- hygrometers
- psychrometers
- manometers
- gas detectors
- particle counters
- moisture meters
- thermal imaging cameras
- psychrometric charts and calculators
- data logging devices, remote monitoring systems
- adenosine triphosphate (ATP) and e-coli testing

- types, application and limitations of moisture testing
- factors affecting moisture testing results
- types of cleaning agents - their purpose, action, correct use, precautions, safe handling, storage and disposal:
  - anti-microbial agents
  - detergents
  - disinfectants
- environmentally sustainable work practices and compliance with environmental regulations:
  - ways of minimising negative environmental impact
  - conserving energy and water
  - recycling
  - waste disposal of used materials and remediation agents
  - disposal of prescribed waste.

ASSESSMENT CONDITIONS

Assessors must satisfy the requirements for assessors contained in the Standards for Registered Training Organisations.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting where these skills and knowledge would be performed.
Candidates must have access to:

- industry-standard cleaning equipment
- appropriate PPE
- manufacturer's instructions and workplace documents.

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| LINKS | The Companion Volume Implementation Guide for the CPP Property Services Training Package is available at: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b. |

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