Unit of Competency CPPHES4006 Assess household water use and efficiency improvements

Application

This unit specifies the skills and knowledge required to source and analyse information on household water use and to advise on ways to improve water efficiency and conservation in the home.

This unit is for individuals who work independently as home sustainability assessors using specialised knowledge to complete household water assessments. It involves completing routine and non-routine tasks and dealing with predictable and sometimes unpredictable problems.

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

Prerequisite Unit

None.

Competency Field

Home Sustainability.

Elements and Performance Criteria

1. Plan and organise water use assessment.	1.1	Consult with client to clarify purpose of water use assessment and respond to questions and concerns.
	1.2	Confirm assessment requirements in line with client needs, water authorities, legislation, regulations, standards, codes and government incentive programs for water efficiency.
	1.3	Plan water use assessment in consultation with client and according to work health and safety (WHS) requirements.
	1.4	Prepare documentation required to conduct energy use assessment.
	1.5	Confirm that required tools and equipment are available and in working order.
2. Compile information on household water use and costs.	2.1	Gather information from client to identify main systems and sources of water use including relevant water collection and reuse systems.
	2.2	Access and interpret water bills and seasonal usage.
	2.3	Carry out measurements and observations during on-site inspection to safely confirm main sources, systems and water usage.
	2.4	Gather information on household occupant behaviours and preferences that impact water use.
	2.6	Record gathered information using suitable data collection tool.
3. Analyse data on household water use and conservation.	3.1	Identify key features of household water use and calculate costs and greenhouse gas emissions.
	3.2	Reconcile calculated water use with water bill data.
	3.3	Identify cost effective measures and behavioural opportunities for improving water efficiency.
	3.4	Identify government rebates and other assistance programs for improving

		household water efficiency.
	3.5	Estimate water, emissions and cost savings to be gained by implementing measures for improving water efficiency.
4. Assess feasibility of using water collection and reuse measures on the property.	4.1	Identify regulatory and local government requirements for water harvesting and wastewater use.
	4.2	Source technical information on water harvesting, diversion and wastewater use technologies and evaluate suitability for the residential property in line with jurisdictional regulations.
	4.3	Calculate volume of potential water harvesting opportunity.
	4.4	Identify government rebates and other assistance programs for installing water harvesting and greywater use technologies.
	4.5	Estimate return on investment for the installation of water harvesting and greywater use technologies.
	4.6	Identify advantages and disadvantages of using property for water harvesting and greywater use technologies.
5. Report findings of household water use assessment.	5.1	Collate results, recommendations and supporting evidence of water use assessment.
	5.2	Document options, potential savings and prioritise recommendations for water efficiency measures.
	5.3	Explain report and indicative costs, potential savings and improvements in household water efficiency to client.
	5.4	Advise client of applicable regulatory or local government requirements impacting findings of household water use assessment.

Foundation Skills

Candidates require:

- oral communication skills to use language and terminology suitable to the audience
- numeracy skills to apply mathematical concepts in calculating and comparing costs and water use
- reading skills to interpret data from water meters and the outputs of water measuring tools.

Unit Mapping Information

Supersedes and equivalent to CPPHSA4003A Assess household water use.

Links

Companion Volume Implementation Guide:
https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b

Assessment Requirements for CPPHES4006 Assess household water use and efficiency improvements

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by safely conducting water use assessments and identifying efficiency improvements for three different households.

Knowledge Evidence

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

- alternative water harvesting, diversion and waste water (greywater, purple-water and blackwater) use technologies
- characteristics of external residential water services:
    - domestic irrigation and reticulation systems
    - evaporative coolers
    - greywater systems
    - recycled systems
    - swimming pools and spas
- characteristics of internal residential water services:
    - age
    - average daily use
    - capacity
    - condition
    - flow rate
    - leaks and drips
    - suitability for size of household
    - water efficiency rating
    - water saving features
- household water sources and water saving features
- impact of occupant behaviours on water consumption
- key requirements of relevant codes, standards, regulations and government incentive programs for water efficiency
- major indoor and outdoor services, systems, appliances, fittings contributing to household water use
- regulatory and jurisdictional requirements for water harvesting, recycled and greywater reuse
- relationship between greenhouse gas emissions and household water use
- safe work requirements for on-site assessments of household water use and potential hazards:
    - biological hazards associated with blackwater, purple-water and greywater
    - confined spaces

    - electricity
    - faulty appliances and electrocution
    - hazardous substances
    - types of personal protective equipment (PPE) to be used
- sources of data on domestic water use and costs:
    - water bills: units of measurement and tariffs
    - water meters: conventional and smart
- water efficiency and labelling standards (WELS) and strategies for improving household water efficiency
- water efficient gardening practices.

Assessment Conditions

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

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to:

- residential buildings to allow achievement of the performance evidence
- codes, standards, legislation and government programs relevant to water efficiency
- major internal and external residential water services, systems, appliances and fittings
- technical information on:
    - wastewater (blackwater, purple-water and greywater) use technologies
    - water services, systems, appliances and fittings
    - water harvesting diversions
- PPE and water measurement and data collection tools and documentation.

Links

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