Title	**Explain concepts relating to sustainability, resource use, recycling, and the environment**		
Level	**3**	**Credits**	**8**

Purpose	People credited with this unit standard are able to explain concepts relating to sustainability, resource use, recycling, and the environment.

Classification	Resource Recovery > Resource Recovery Theory

Available grade	Achieved

Guidance Information

1 Evidence must be consistent with *The New Zealand Waste Strategy: Reducing Harm, Improving Efficiency* 2010 Ministry for the Environment, available at http://www.mfe.govt.nz.

2 Definitions
Ecosystem services are the processes by which the environment produces resources of value such as clean water, timber, scenic views, and pollination of native and agricultural plants.
NIMBY stands for not in my back yard.
The *precautionary principle* means where significant environmental damage may occur, but the knowledge on the matter is incomplete. Decisions made and measures implemented err on the side of caution.

Outcomes and performance criteria

Outcome 1

Explain concepts relating to sustainability, resource use, recycling, and the environment.

Performance criteria

1.1 The term sustainability is explained in context.

Range context – environmental, social, cultural, economic; evidence is required of two contexts.

1.2 The life cycle of a product is explained in terms of resource use and environmental cost.

Range life cycle includes – resource extraction, production, consumption, end-of-life, recycling, disposal;
product may be household or industrial;
evidence of one product is required.

1.3 Resource use is explained in terms of linear and cyclical production systems.

Range one example of each system.

1.4 Terms used for resource use are explained.

Range explanation with one example each of – renewable energy, non-renewable energy; virgin resource, recycled resource; energy use, energy efficiency.

1.5 Ecosystem services are explained in terms of value to the economy and human well-being.

1.6 The precautionary principle is explained in relation to the environmental policy of a local government and a business.

1.7 Influences on classifying material as a waste (for disposal) or a resource (for recovery and recycling) are explained in relation to a local government and/or a business.

Range influences may include – personal attitude, education, convenience, social norms, available infrastructure, cost, legal compliance;
evidence of two influences is required.

1.8 Resource or waste management practices that can enhance the sustainability of land, air, and water are explained, and real world case studies are used to show how environmental issues have been resolved.

Range environmental air issues may include – methane and other greenhouse gas emissions, CFC use, degassing of refrigerators and/or LPG cylinders, composting bio-aerosols, odour, pollution from incineration;
environmental land issues may include – landfill, toxic chemicals, volume of waste, fly tipping of waste, contaminated sites, heavy metals in soils, land degradation, windblown litter, dust, NIMBY;
environmental water issues may include – landfill leachate, liquid trade waste discharge, wastewater treatment, motor oil disposal, chemical spills, land-based treatment;
evidence is required of one issue for each of land, air, and water.

Replacement information	This unit standard was replaced by skill standard 40600.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 January 2007	31 December 2012
Revision	2	20 May 2011	31 December 2017
Review	3	16 April 2015	31 December 2022
Review	4	28 January 2021	31 December 2025
Review	5	24 April 2025	31 December 2025

Consent and Moderation Requirements (CMR) reference	0014

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.