

Title	Demonstrate knowledge of blockage clearance and wastewater system maintenance		
Level	2	Credits	3

Purpose	People credited with this unit standard are able to describe: the causes of blockages within wastewater collection systems; and the equipment and techniques available for clearing blockages, and preventive maintenance.
----------------	--

Classification	Water Industry > Water Reticulation
-----------------------	-------------------------------------

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 Legislation relevant to this unit standard includes: Health and Safety at Work Act 2015, Resource Management Act 1991, Hazardous Substances and New Organisms (HSNO) Act 1996, and subsequent amendments; AS 2865:2009 *Confined spaces*, available from <https://infostore.saiglobal.com/>; NZS 4404:2010 *Land Development and Subdivision Infrastructure*, available from <http://www.standards.govt.nz>.
- 2 Definition
Wastewater includes stormwater and sewage systems.

Outcomes and performance criteria

Outcome 1

Describe the causes of blockages within wastewater collection systems.

Performance criteria

- 1.1 Blockages due to wedging of objects are described in terms of the types of objects and where blockages are likely to form.
- 1.2 Blockages due to pipework defects are described in terms of the initial construction and subsequent connections or pipe displacements.

Range jointing, workmanship, pipe displacement due to tree roots and ground movement, growth of blocked material, flat grade, surface loading.
- 1.3 Blockages due to plant root intrusion are described in terms of the entry points, impacts on pipeline profile, and corrective actions.

- 1.4 Blockages due to domestic and industrial fats are described in terms of the corrective actions.

Outcome 2

Describe the equipment and techniques available for clearing blockages, and preventive maintenance.

Performance criteria

- 2.1 The use of rodding equipment is described in relation to its use in sewer maintenance and blockage clearance.
- 2.2 The use of jetting equipment, and jetting nozzle types, are described in relation to their use in sewer maintenance and blockage clearance.
- 2.3 The use of drawn equipment is described in relation to its use in sewer maintenance.
- 2.4 Blockage excavation, repair, and removal are described in terms of the processes used.
- 2.5 The use of closed circuit television (CCTV) is described in terms of blockage detection.

Replacement information	This unit standard, unit standard 19214, unit standard 19215, unit standard 22098, and unit standard 22111 were replaced by unit standard 31450.
--------------------------------	--

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	27 May 2002	31 December 2018
Review	2	19 September 2008	31 December 2018
Review	3	16 March 2017	31 December 2021
Review	4	27 September 2018	31 December 2021

Consent and Moderation Requirements (CMR) reference	0101
--	------

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