

Title	Demonstrate knowledge of stormwater and drainage systems and their components		
Level	3	Credits	6

Purpose	People credited with this unit standard are able to describe: the purpose, operation, and inter-relationships of stormwater and drainage systems and their components; the maintenance requirements of stormwater and drainage systems and their components, and safety requirements when flooding; and stormwater components, implications for contamination, and consequences of lack of drainage.
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Classification	Water Industry > Water Reticulation
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Available grade	Achieved
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Guidance Information

- 1 Legislation and references relevant to this unit standard include: Resource Management Act 1991, Local Government Act 2002, and subsequent amendments; NZS 4404:2010 *Land development and subdivision infrastructure*, available from <http://www.standards.govt.nz>; Local authority hygiene codes.
- 2 Definition
Organisational procedures – instructions to staff, and procedures which are documented in memo or manual format and are available in the workplace. These requirements include but are not limited to – site specific requirements, manufacturers’ specifications, product quality specifications, and legislative or regulatory requirements.
- 3 Evidence for assessment against outcomes 1 and 2 must include the following systems and components – inlet structure, pumping stations, outlet structure or discharge points (beaches, rivers, lakes), open channel, siphons, intakes, water race, penstocks, floodplains, flap gates, silt ponds, retention ponds.

Outcomes and performance criteria

Outcome 1

Describe the purpose, operation, and inter-relationships of stormwater and drainage systems and their components.

Performance criteria

- 1.1 Stormwater and drainage systems and their components are described in terms of their purpose.
- 1.2 Stormwater and drainage systems and their components are described in terms of their operation.
- 1.3 Stormwater and drainage systems and their components are described in terms of their inter-relationships.

Outcome 2

Describe the maintenance requirements of stormwater and drainage systems and their components, and safety requirements when flooding.

Performance criteria

- 2.1 Stormwater and drainage systems and their components are described in terms of the reasons and frequency of maintenance in accordance with organisational procedures.

Range planned, reactive.
- 2.2 Stormwater and drainage systems and their components are described in terms of the organisational procedures for maintenance.
- 2.3 Stormwater and drainage systems and their components are described in terms of the safety requirements when flooding in accordance with organisational procedures.

Outcome 3

Describe stormwater components, implications for contamination, and consequences of lack of drainage.

Performance criteria

- 3.1 Stormwater is described in terms of its components.
- 3.2 Stormwater composition is described in terms of the implications for contamination.
- 3.3 Stormwater is described in terms of the consequences of lack of drainage.

Replacement information	This unit standard, unit standard 11312, and unit standard 22114 were replaced by unit standard 31451.
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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	19 September 2008	31 December 2018
Review	2	16 March 2017	31 December 2021
Review	3	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>.