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| Title | Describe water reticulation asset risk, and asset maintenance for water, wastewater and stormwater | | |
| Level | 4 | Credits | 4 |

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| Purpose | People credited with this unit standard are able to describe: maintenance types, and determine their priority based on risk assessment; asset inspection programmes, asset replacement and asset maintenance options, and the procedure for recording maintenance history; hygiene issues associated with maintenance of water reticulation systems; and corrosion and pipe deterioration, and associated risk to water reticulation assets. |
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| Classification | Water Industry > Water Reticulation |
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| Available grade | Achieved |
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Explanatory notes

- 1 Legislation and references relevant to this unit standard include: Local Government Act 2002, and subsequent amendments;
 NZS 9201.7:2007 *Model general bylaws - Water supply*, available from <http://www.standards.govt.nz>;
Drinking Water Standards for New Zealand 2005 (Revised 2008), Ministry of Health, Wellington;
New Zealand Asset Management Support – www.nams.org.nz.

- 2 Definitions
Contamination – contamination affecting workers and/or the water supply when people transfer from working on wastewater systems to water systems.
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.
Water reticulation – in this context refers to all pipe systems, pumping systems, and components that contribute to the distribution of water, and collection and disposal of wastewater and stormwater.

- 3 For assessment against outcome 1, candidates are to be supplied with the results of a risk assessment. Candidates are not required to carry out risk assessment.

Outcomes and evidence requirements

Outcome 1

Describe maintenance types, and determine priority based on risk assessment.

Range unplanned, planned corrective, planned preventative, operational.

Evidence requirements

- 1.1 Maintenance types are described in terms of their procedures and requirements.
- 1.2 Maintenance types are prioritised in accordance with the results of risk assessment.

Range likelihood and consequences of asset failure, assessment of work priorities, planned and scheduled maintenance.

Outcome 2

Describe asset inspection programmes, asset replacement and asset maintenance options, and the procedure for recording maintenance history.

Evidence requirements

- 2.1 Asset inspection programmes are described in terms of their role in determining asset condition, and associated risk assessment.
- 2.2 The factors which determine replacement versus ongoing maintenance of specified assets are described in terms of cost effectiveness and asset efficiency.
- 2.3 The importance of recording procedures for maintenance history is described in terms of justifying asset replacement versus ongoing maintenance.

Outcome 3

Describe hygiene issues associated with maintenance of water reticulation systems.

Evidence requirements

- 3.1 The importance of separation, cleaning, and disinfection of tools and equipment associated with maintenance to reticulation systems is described in terms of the risk of contamination and organisational procedures.

Outcome 4

Describe corrosion and pipe deterioration, and associated risk to water reticulation assets.

Evidence requirements

4.1 Corrosion and pipe deterioration are described in terms of the causes, the physical process that occurs, resulting damage, and procedures for mitigation or prevention.

Range evidence is required for at least two causes, and two mitigation and prevention procedures.

4.2 The presence of corrosion is described in terms of risk to water reticulation assets.

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| Planned review date | 31 December 2021 |
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Status information and last date for assessment for superseded versions

| Process | Version | Date | Last Date for Assessment |
|-----------------------|---------|------------------|--------------------------|
| Registration | 1 | 26 October 2005 | 31 December 2016 |
| Rollover and Revision | 2 | 20 February 2009 | 31 December 2016 |
| Rollover | 3 | 21 July 2011 | 31 December 2018 |
| Review | 4 | 16 March 2017 | N/A |

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| Consent and Moderation Requirements (CMR) reference | 0101 |
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMRs). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the Infrastructure Industry Training Organisation qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.