| Title | Install an irrigation system for landscape work |         |   |
|-------|---|---------|---|
| Level | 4   | Credits | 5 |

| Purpose | People credited with this unit standard are able to: identify water requirements from a given landscape plan; identify the requirements of an irrigation system to meet site needs, and order system components; and install an irrigation system to achieve application rates required. |
|---------|--|
|---------|--|

| Classification | Horticulture > Landscape |
|----------------|--------------------------|
|                |                          |

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

#### **Guidance Information**

- 1 Legislation relevant to this unit standard includes but is not limited to:
  - Hazardous Substances and New Organisms Act 1996;
  - Health and Safety at Work Act 2015;
  - Resource Management Act 1991; and any subsequent amendments.

## 2 Definition

Workplace procedures refer to the procedures and standards set by the client or employing organisation for irrigation system installation and must be consistent with plans and specifications and equipment manufacturers guidelines.

3 All evidence presented in this unit standard must be in accordance with workplace procedures.

# Outcomes and performance criteria

#### **Outcome 1**

Identify water requirements from a given landscape plan.

# Performance criteria

1.1 Identify the delivery system of water available for the irrigation system in terms of the characteristics of the source.

Range may include but is not limited to – pressure, volume, pumping requirements.

1.2 Identify water requirements for individual elements of the soft landscape plan.

NZQA unit standard 1020 version 7
Page 2 of 3

1.3 Calculate total application requirements for the site from individual element requirements.

- 1.4 Determine water application rates with regards to plant requirements and prevention of potential soil problems.
- 1.5 Identify water delivery rates in terms of the effects of pipe diameter, length, and type, and water pressure.

#### Outcome 2

Identify the requirements of an irrigation system to meet site needs, and order system components.

#### Performance criteria

- 2.1 Identify pumping or storage modifications from the water source required to provide the volume and pressure to meet calculated application needs, and identify and describe the methods of achieving these modifications.
  - Range may include but is not limited to capacity, type, installation requirements.
- 2.2 Select the method of application for each element of the soft landscape to enable water to be applied to meet the correct watering requirement.
- 2.3 Select distribution elements for the system to provide the required application rates for the landscape site.
- 2.4 Order irrigation material and/or system element needs from plans or specifications.

### **Outcome 3**

Install an irrigation system to achieve application rates required.

#### Performance criteria

- 3.1 Install all elements of the system.
- 3.2 Check and confirm electrical connections to the system.
- 3.3 Trial and adjust the completed watering system to achieve required coverage and application rates.
- 3.4 Protect watering system elements from damage by weather, traffic, or other work.
- 3.5 Select, prepare and use tools and equipment appropriate for the task.

NZQA unit standard 1020 version 7
Page 3 of 3

- 3.6 Work safely around other people and machinery on site.
- 3.7 Remove surplus material and reinstate the site on completion of the job.

| Planned review date | 31 December 2026 |
|---------------------|------------------|
|---------------------|------------------|

Status information and last date for assessment for superseded versions

| Process      | Version | Date              | Last Date for Assessment |
|--------------|---------|-------------------|--------------------------|
| Registration | 1       | 11 January 1994   | 31 December 2019         |
| Review       | 2       | 28 November 1997  | 31 December 2019         |
| Revision     | 3       | 19 July 2001      | 31 December 2019         |
| Revision     | 4       | 13 March 2003     | 31 December 2019         |
| Review       | 5       | 25 September 2006 | 31 December 2019         |
| Review       | 6       | 29 March 2018     | 31 December 2025         |
| Review       | 7       | 24 March 2022     | N/A                      |

| Consent and Moderation Requirements (CMR) reference | 0052 |
|---|------|
|---|------|

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

# Comments on this unit standard

Please contact Muka Tangata - People, Food and Fibre Workforce Development Council <a href="mailto:qualifications@mukatangata.nz">qualifications@mukatangata.nz</a> if you wish to suggest changes to the content of this unit standard.