

Title	Demonstrate understanding of, and operate, adjust, and maintain, a sports turf irrigation system		
Level	3	Credits	8

Purpose	<p>This unit standard is for people working in a sports turf context.</p> <p>People credits with this unit standard are able to; demonstrate understanding of the components of sports turf irrigation systems; operate, adjust, and maintain a sports turf irrigation system.</p>
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Classification	Sports Turf > Sports Turf Management
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Available grade	Achieved
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Guidance Information

- 1 Performance criteria must be consistent with all relevant procedures, guidelines, and legislation (and their subsequent amendments) which include but are not limited to:
 - Workplace procedures
 - Equipment manufacturer's guidelines and operator's manual
 - Health and Safety at Work Act 2015.
- 2 Definitions

Workplace procedures – procedures and standards set down by the client or employing organisation for operating, adjusting and maintaining a sports turf irrigation system.

In the context of this unit standard, *understanding* means that there should be evidence of a learner's thorough comprehension of a topic. A learner with a good understanding of a topic should have applied, or should be able to apply what they have learnt to a workplace situation and will be able to alter their practices to the different contexts they are applying their learning to. Assessors should be confident that the learner's understanding is embedded in their practices and behaviour.

Outcomes and performance criteria

Outcome 1

Demonstrate understanding of the components of sports turf irrigation systems.

Performance criteria

- 1.1 Describe sports turf irrigation pumps and headworks structures in terms of their application.
- Range pumps – centrifugal, submersible centrifugal, positive displacement;
headworks structures – water meter, suction pump filter, filtration unit.
- 1.2 Describe irrigation pipes and associated fittings in terms of their properties.
- Range pipes – medium density polyethelene (MDPE), polyvinyl chloride (PVC).
- 1.3 Compare irrigation sprinkler heads and valves in terms of their function and operation.
- Range sprinkler heads – gear drive, valve-in-head (VIH);
valves – solenoid, quick coupler (QCV), pressure and air release, back-flow prevention.
- 1.4 Compare control systems in terms of their function and operation.
- Range central controller, satellite controller, decoder.

Outcome 2

Operate and adjust a sports turf irrigation system.

Performance criteria

- 2.1 Programme controllers in accordance with operator's manual.
- 2.2 Determine operational characteristics in accordance with operator's manual.
- Range operational characteristics must include but are not limited to – testing irrigation cycle, measurement of quantity of water applied, calculation of coefficient of uniformity for water distribution.
- 2.3 Evaluate uniformity of application in terms of sprinkler head spacing, overlap, flow rate, water pressure, and application rate.
- 2.4 Adjust the irrigation system for maximum efficiency in accordance with workplace procedures.
- Range uniformity of application, ponding, dry patch.
- 2.5 Evaluate timing of water application in terms of efficiency of application and turf requirements in accordance with workplace procedures.
- Range day, night, wind, disease potential, syringing, duration.

Outcome 3

Maintain a sports turf irrigation system.

Performance criteria

- 3.1 Service irrigation components during the off-season in accordance with operator's manual.
- Range screens, pumps, filters, faulty or damaged sprinkler heads.
- 3.2 Drain the system where there is potential for freezing in accordance with operator's manual.
- 3.3 Procure common spare parts and the stock in accordance with workplace procedures.
- Range seals, filters, screens, sprinkler heads, springs, valves, pipe materials.
- 3.4 Carry out weekly visual checks during the irrigation season in accordance with workplace procedures.
- Range sprinkler head operation, pipe leaks.
- 3.5 Replace or repair faulty heads in accordance with manufacturer's guidelines.
- 3.6 Repair leaks in accordance with manufacturer's guidelines.

Replacement information	<p>This unit standard and unit standard 30592 were replaced by unit standard 32743.</p> <p>This unit standard and unit standard 30592 replaced unit standard 1166.</p>
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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	25 January 2018	31 December 2023
Review	2	24 June 2021	31 December 2023

Consent and Moderation Requirements (CMR) reference	0052
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.