

41279**Carry out on-farm environmental management activities**

Kaupae Level	3
Whiwhinga Credit	10
Whāinga Purpose	This skill standard is intended for learners working in pastoral, dairy, or arable farming systems. Learners will apply environmental management practices to protect and improve on-farm water and air quality, soil health, biodiversity, and waste management under limited supervision. They will also describe reporting processes and identify reliable information sources to support environmentally responsible farming practices. This skill standard is aligned to the New Zealand Certificate in Agriculture (Level 3) [Ref: 5680] and the New Zealand Certificate in Arable Farming (Level 3) [Ref: 5679].

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Identify on-farm environmental risks and management practices.	a. Identify risks to on-farm water and air quality, and soil health.
	b. Describe mitigation of risks to on-farm water and air quality, and soil health.
	c. Describe tasks that contribute to managing on-farm water and air quality, and soil health.
	d. Identify benefits of, and risks to, on-farm biodiversity.
	e. Describe tasks that contribute to managing on-farm biodiversity.
2. Carry out on-farm environmental waste management tasks.	a. Carry out tasks that contribute to managing on-farm waste as directed.
3. Identify information and reporting processes to support environmental management.	a. Describe reporting processes for environmental concerns, including when external reporting is required.
	b. Identify reliable sources for information on environmental practices appropriate to the farming system and regional regulations.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria***Assessment specifications:***

All activities must be carried out in accordance with workplace health and safety requirements, workplace procedures, and, wherever relevant, the Code of Welfare appropriate to the species and context for which the learner is being assessed.

Providers must give due consideration to embedding ngā kaupapa (principles) o Te Tiriti o Waitangi when designing delivery activities relevant to this standard. These principles are outlined in [Guidelines for Providers: Embedding Tirohanga Māori](#).

Providers must give due consideration to the needs and values of Pacific peoples and other cultural groups when designing delivery activities relevant to this standard, ensuring practices are inclusive and equitable.

Ākonga/Learners should be assessed against this standard in a real-life context using naturally occurring evidence. A verifier's checklist with appropriate comments confirming competency is acceptable if accompanied by evidence that includes examples from the ākonga/learner's performance.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

Farm environment

- land use capability
- how to protect wetlands and waterbodies e.g. livestock management, grazing management, livestock exclusion, pollution risks (*E. coli*, nitrogen, phosphorus, sediment)
- point source pollution e.g. silage pits, stock yards, farm laneways and tracks, offal pits, roads, ditches, washdown facilities, effluent ponds, chemical stores, fuel tanks. discharges from a single source (dairy milking shed, septic tank or effluent pond), fires, chemicals (spray drift)
- nonpoint source pollution e.g. pasture runoff of fertiliser, stock manure and urine, contaminated fertiliser and feed, critical source areas and subsequent pathways
- effective management of pollution – the closer to the point source, the more effective the solution
- nutrient leaching vs overland flow, and connections with soil properties
- soil moisture and soil water holding capacity e.g. effect of soil texture
- preventing damage to soil e.g. pugging, top-soil loss, cultivation practices (conventional, low-tillage, no-tillage)
- impact of crop rotation and grazing practices on the physical environment
- nutrient inputs and outputs (nitrogen cycle, methane cycle):
 - inputs e.g. feed, fertiliser, effluent, supplements, N-fixation
 - outputs e.g. product (meat, milk, wool), leaching and runoff, gases (releases to air), transfers (yards, races, tracks, stock camps), off farm (baleage/hay/crops sold off farm).

Biodiversity

- ecosystems
- biodiversity, e.g. on-farm ecosystems (waterways, exotic plantings, native bush, eDNA activity, insect sampling), soil biodiversity
- tasks that benefit on-farm biodiversity e.g. planting hedgerows, spraying to avoid bee flight times, change chemical use/alternatives to chemicals, installing culverts, beneficial pasture mixes, grading raceways to reduce sedimentation, timing of practices to be mindful of spawning/breeding of animals
- beneficial insects e.g. worms, bees, parasitic wasps
- farming systems e.g. intensive, extensive
- benefits vs risks of biodiversity:
 - benefits e.g. productivity and environmental resilience, enhanced habitats, social
 - risks e.g. pest corridors, weeds.

Waste and recycling

- on-farm waste e.g. by-products, bio-waste, silage wrap/covers, tyres, vegetation
- offal holes e.g. local rules and regulations (regional councils, MPI)
- on-farm waste management tasks:
 - recycling e.g. AgRecovery, Plasback, scrap metal, oil/contaminated fuel, batteries
 - casualty stock e.g. collection, disposal (offal hole, burial)
 - reusing resources e.g. plastic drums, tyres on silage stacks, pallets
 - skip collection of non-recyclable waste
 - reducing waste e.g. using thicker milking gloves to reduce number used, returning pallets, sharps container
 - burning e.g. only burn vegetation waste, do not burn treated timber, tyres, plastic wrap or covers.

External support

- escalation processes for environmental issues e.g. peer-to-peer conversations, catchment groups, regional or district councils' environmental hotline
- credible information sources, e.g. peak bodies, regional councils, MPI, environmental consultants.

Rauemi | Resources

- [Health and Safety at Work Act \(2015\)](#).
- [Resource Management Act \(1991\)](#).
- [Knowledge Hub](#) (Bella) (Beef + Lamb NZ).
- [Resources](#) (DairyNZ).
- [Knowledge Hub](#) (Deer Industry NZ).
- [Ask FAR](#) (Resources) (Foundation for Arable Research).
- [Ground rules for farmers and growers](#) – legislation for farmers and growers (Ministry for Primary Industries).

- [Sustainable land and water management](#) (NZ Landcare Trust).
- Local and regional councils.

Pārongo Whakaū Kouna | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Food and Fibre Industry Skills Board
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Agriculture, Forestry and Fisheries > Agriculture > Agricultural Resource Maintenance
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0052

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	30 July 2026	N/A
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	31 December 2031		

Please contact the Food and Fibre Industry Skills Board at info@foodandfibreisb.nz to suggest changes to the content of this skill standard.