

41280**Analyse environmental risks and review a farm environment plan**

Kaupae Level	4
Whiwhinga Credit	10
Whāinga Purpose	This skill standard is intended for learners working in pastoral and arable farming systems. Learners will develop the skills and knowledge to analyse environmental risks and review current farming practices to support farm environment planning and environmental management. This skill standard is aligned to the New Zealand Certificate in Agriculture (Level 4) [Ref: 5677].

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

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Analyse environmental risks for a farm to inform farm environment planning.	a. Identify key features of the surrounding catchment and inherent environmental characteristics.
	b. Carry out risk and benefit analysis for two identified land management units.
	c. Evaluate information from credible sources to provide options for mitigating the identified environmental risks.
	d. Propose environmental management practices to improve farming outcomes and inform farm environment planning, based on identified environmental risks.
2. Review current farming practices and analyse their effects on environmental outcomes.	a. Review how current farming practices align with the actions, priorities, or requirements of the farm environment plan.
	b. Analyse the effects of current farming practices on environmental outcomes, using identified risks, environmental information, and farm environment plan

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 learner's performance.

Definition:

Farm environment plan refers to a plan used to identify environmental risks, prioritise actions, and manage environmental outcomes in a farming operation. It may be formal or informal, and includes consideration of soil, water, nutrients, biodiversity, and regulatory compliance within pastoral or arable systems.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content**Risk identification and analysis**

- catchment features e.g. waterways, gullies, critical source areas, soil, climate, drainage, aspect, altitude, slope
- inherent environmental characteristics and risks e.g. soil, slope, climate, drainage patterns
- introduced risks from land use e.g. grazing, nutrient application, crop selection
- indicators of environmental risk e.g. pugging, erosion, poor ground cover, stock camps, runoff pathways after rainfall
- critical source areas and flow pathways e.g. swales, compacted tracks, gateways, areas where water concentrates and flows to waterways
- comparison of inherent and introduced risks, and their influence on environmental outcomes
- risk analysis approaches for land management units e.g. SWOT (Strengths, Weaknesses, Opportunities, Threats), NOISE (Needs, Opportunities, Improvements, Strengths, and Exceptions) analysis, risk management framework.

Management practices

- aligning environmental management practices with land management units and identified risks e.g. gullies, flat tops, effluent areas, wet areas, wintering block, cropping areas
- grazing management practices to reduce environmental risk e.g. paddock entry and exit practices, back-fencing, on/off grazing, and managing stock pressure in sensitive areas
- soil protection and land stability practices e.g. timing of cultivation, stand-off areas, retiring at-risk areas, and planting vegetation to stabilise slopes and reduce erosion

- water management practices e.g. irrigation timing and application rates to reduce runoff and leaching, and managing soil moisture conditions
- stock exclusion and waterway protection practices e.g. fencing waterways, riparian planting, and providing alternative stock water systems
- nutrient and effluent management practices e.g. application timing, buffer zones around waterways, storage capacity, and avoiding application to saturated soils
- use of identified risks, land management unit capability, and mitigation options to inform farm environment planning actions, priorities, or requirements.

Monitoring and reporting

- sources of environmental information e.g. visual soil assessment, pasture measurement, nutrient budgets or audits, photographic records over time, aerial imagery (e.g. Google Earth), eDNA, stream health assessments, regional monitoring data (e.g. LAWA)
- indicators of environmental outcomes e.g. water clarity, bank stability, pasture cover, soil condition, presence of sediment or algae
- use of environmental information to assess current conditions and trends over time
- comparing observed conditions to farm environment plan targets or expectations
- reviewing current farming practices against farm environment plan actions, priorities, requirements, targets, or expectations
- analysing how current farming practices may contribute to, reduce, or manage identified environmental risks and affect environmental outcomes
- the importance of baseline environmental data for comparison and decision-making
- monitoring timeframes e.g. seasonal, annual, ecosystem, aquifer, longer-term catchment or system changes
- interpreting environmental information to evaluate outcomes and inform management decisions.

Rauemi | Resources

- [Health and Safety at Work Act \(2015\)](#).
- [Resource Management Act \(1991\)](#).
- [Knowledge Hub](#) (Beef + Lamb NZ).
- [Resources](#) (DairyNZ).
- [Knowledge Hub](#) (Deer Industry NZ).
- [Ask FAR](#) (Foundation for Arable Research).
- [Resources](#) (IrrigationNZ).
- [Resources](#) (Fertiliser Association NZ).
- [Land, Air and Water](#) (LAWA NZ).
- [Resource Finder](#) (Our Land and Water).
- [Ground rules for farmers and growers](#) – legislation database for farmers and growers (Ministry for Primary Industries).
- [Sustainable land and water management](#) (NZ Landcare Trust).
- [LandscapeDNA](#) (LandscapeDNA.org).

- [OurEnvironment](#) – Land Use Capability mapping (Manaaki Whenua – Landcare Research).
- 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	This skill standard replaced unit standard 32012.		
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.