

Title	Evaluate programmes to minimise environmental impacts in the planning and managing of extraction operations		
Level	5	Credits	15

Purpose	People credited with this unit standard are able to: analyse how a plan is prepared to minimise the environmental impacts of an extractive site; explain the process for seeking resource consent for an extractive site; evaluate programmes to minimise environmental impacts at an extractive site; and explain how to manage an extractive site to minimise environmental impacts.
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Classification	Extractive Industries > Extractive Industries Management
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Available grade	Achieved
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Guidance Information

- 1 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:

- Hazardous Substances and New Organisms Act 1996;
 - Health and Safety at Work Act 2015;
 - Crown Minerals Act 1991;
 - Resource Management Act 1991 (RMA);
 - Health and Safety at Work (General Risk and Workplace Management) Regulations 2016;
 - Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2022;
 - Health and Safety at Work (Worker Engagement, Participation, and Representation) Regulations 2016;
 - Health and Safety at Work (Hazardous Substances) Regulations 2017
 - National Environment Statements (NES);
 - National Policy Statement (NPS);
- approved codes of practice issued pursuant to the HSW Act.

Any new, amended, or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.

- 2 Definitions

Company procedures mean the documented methods for performing work activities, and include health and safety, operational, environmental, and quality management requirements. They may refer to legislation, regulations, guidelines, standard operating procedures, manuals, codes of practice, or policy statements.

Industry good practice may be documented in management plans, control plans, company procedures, managers' rules, occupational health and safety policy,

industry guidelines, codes of practice, manufacturers' instructions, and safe working and/or job procedures (or equivalent).

- 3 This unit standard is intended for, but is not limited to, workplace assessment and assessment needs to reference the Resource Management Act (1991) (RMA) and be in accordance with industry good practices and company procedures.

Outcomes and performance criteria

Outcome 1

Analyse how a plan is prepared to minimise the environmental impacts of an extractive site.

Performance criteria

- 1.1 Potential impacts on the environment are assessed and explained for an extractive site.
- Range may include but is not limited to – assessment of environmental effects (AEE), natural waterways, aquatic life, flora and fauna, urban areas, rural areas.
- 1.2 Potential sources of pollution from extractive operations are identified and explained for an extractive site.
- Range may include but is not limited to – dewatering discharges, dust, noise, visual, vibration, wash water, storm water runoff, settling pond residue, light vehicle and heavy vehicle movements, lighting, blast fumes.
- 1.3 Potential spillages are identified and the process to mitigate the spillage impacts is explained for an extractive site.
- Range may include but is not limited to – waste oil, diesel, chemicals, bunding, oil spill booms, spill kits, silt ponds.
- 1.4 The planning process to mitigate the environmental, pollution, and spillage impacts is explained for an extractive site, and mitigation measures for environmental and pollution impacts are described.
- 1.5 Possible contingency plans and alternative procedures are identified and explained in terms of the plan to mitigate the environmental, pollution, and spillage impacts.

Outcome 2

Explain the process for seeking resource consent for an extractive site.

Performance criteria

- 2.1 Criteria for resource consents are explained in accordance with territorial and local authority requirements.
- Range may include but is not limited to – Assessment of Environmental Effects (AEE), dust emission limits, noise limits, vibration limits (blasting), quality of discharged wash water, uptake and discharge of water, flora and fauna impacts, rehabilitation, subsidence.
- 2.2 The processes for application for a resource consent is explained in accordance with the RMA 1991, territorial and local authority requirements including iwi and community consultation and company procedures.
- 2.3 Documentation for an application is explained and requirements itemised in accordance with company procedures.

Outcome 3

Evaluate programmes to minimise environmental impacts at an extractive site.

Performance criteria

- 3.1 Programmes to minimise visual effects are evaluated in terms of suitability for a selected site in accordance with the RMA 1991, resource consent conditions, and company procedures.
- Range may include but is not limited to – site vegetation, visual screening, regeneration of vegetation, landform design, discoloured discharges.
- 3.2 Programmes to minimise environmental impacts on the community are evaluated in terms of suitability for a selected site in accordance with the RMA 1991, resource consent conditions, and company procedures.
- Range may include but is not limited to – tree planting, waste management, spillage control, dust monitoring, noise monitoring, bund construction, screening, traffic, hours of operation.

Outcome 4

Explain how to manage an extractive site to minimise environmental impacts.

Performance criteria

- 4.1 The planning process of extractive operations is explained in terms of how environmental impacts are minimised in accordance with resource consents.
- Range may include but is not limited to – environmental management plans, life of mine plans, rehabilitation, reclamation, vegetation direct transfer (VDT), wildlife protection and relocation, traffic management, contouring, climatic conditions, operating hours, pest and weed control.

- 4.2 The process for checking site extractive operations against the site environmental management plan(s) is explained in accordance with resource consents.

Range may include but is not limited to – oversee, observation, testing, auditing, checklists, shift reporting, inspections, worker education and training.

- 4.3 The corrective actions that need to be initiated for non-compliant activities or impacts are explained in accordance with resource consents.

- 4.4 Documentation and reporting requirements for the environmental impacts of an extractive operation are explained in accordance with resource consents.

Range may include but is not limited to – management plans, standard operating procedures (SOPs), Trigger Action Response Plans (TARPS), sampling, analysis, test results, observations, checklists, non-compliance reporting, incident and hazard reporting, external notifications, community involvement, corrective actions, complaints register.

Replacement information	This unit standard replaced unit standard 8913.
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Planned review date	31 December 2029
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 January 2005	31 December 2017
Rollover and Revision	2	16 July 2010	31 December 2017
Review	3	18 June 2015	31 December 2027
Rollover and Revision	4	25 January 2018	31 December 2027
Review	5	26 June 2025	N/A

Consent and Moderation Requirements (CMR) reference	0114
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.