

<b>Title</b>	<b>Demonstrate knowledge of planning and managing extraction to minimise environmental impacts</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>15</b>

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

- 1 Performance of the outcomes of this unit standard must comply with the following:  
Health and Safety at Work Act 2015;  
Health and Safety at Work (General Risk and Workplace Management) Regulations 2016;  
Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016;  
Health and Safety at Work (Worker Engagement, Participation, and Representation) Regulations 2016;  
approved codes of practice issued pursuant to the HSW Act;  
Resource Management Act 1991 (RMA).
- 2 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.
- 3 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 best 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).
- 4 This unit standard is intended for, but is not limited to, workplace assessment.

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## Outcomes and performance criteria

### Outcome 1

Explain 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 described for an extractive site in accordance with the RMA 1991, industry best practice, and company procedures
- 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 described for an extractive site in accordance with the RMA 1991, industry best practice, and company procedures.
- Range may include but is not limited to – dust, noise, visual, vibration, wash water, storm water runoff, settling pond residue, light vehicle and heavy vehicle movements.
- 1.3 Potential spillages are identified and the process to mitigate the spillage impacts is described for an extractive site in accordance with the RMA 1991, industry best practice, and company procedures.
- Range may include but is not limited to – waste oil, diesel, bunding, oil spill booms, spillage pads, silt ponds.
- 1.4 The planning process to mitigate the environmental, pollution, and spillage impacts is described for an extractive site, and mitigation measures for environmental and pollution impacts are described in accordance with the RMA 1991, industry best practice, and company procedures.
- 1.5 Possible contingency plans and alternative procedures are identified and described in terms of the plan to mitigate the environmental, pollution, and spillage impacts.

### Outcome 2

Demonstrate knowledge of the process for seeking resource consent for an extractive site.

**Performance criteria**

- 2.1 Criteria for resource consents are explained in accordance with the RMA 1991, territorial and local authority requirements, and company procedures.
- Range may include but is not limited to – AEE, dust emission limits, noise limits, vibration limits (blasting), purity of discharged wash water, uptake and discharge of water, flora and fauna impacts, rehabilitation, subsidence.
- 2.2 The process for application for a resource consent is explained in accordance with the RMA 1991, territorial and local authority requirements, and company procedures.
- Range may include but is not limited to – Regional Council, District Councils, Iwi, Ministry of Economic Development, NZ Transport Agency, Department of Conservation, other associated users of the area.
- 2.3 Documentation for an application is described 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.
- 3.2 Programmes to minimise or monitor impacts on the health of workers and 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 – personal protective equipment, dust suppression, acoustic control, site planning, industrial health, community health monitoring, community support.
- 3.3 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 oil collection, spillage control, dust monitoring, noise monitoring, bund construction, screening.

**Outcome 4**

Demonstrate knowledge of how to manage an extractive site to minimise environmental impacts.

**Performance criteria**

4.1 The planning process of extractive operations is described in terms of how environmental impacts are minimised in accordance with resource consents, industry best practice, and company procedures.

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, climate, operating hours.

4.2 The process for checking site extractive operations against the site environmental management plan(s) is described in accordance with resource consents, industry best practice, and company procedures.

Range may include but is not limited to – oversee, observation, testing, auditing, checklists, shift reporting.

4.3 The corrective actions that need to be initiated for non-compliant activities or impacts are described in accordance with resource consents, industry best practice, and company procedures.

4.4 Documentation and reporting requirements for the environmental impacts of an extractive operation are described in accordance with resource consents, industry best practice, and company procedures.

Range may include but is not limited to – management plans, sampling, analysis, test results, observations, checklists, non-compliance reporting, incident and hazard reporting, external notifications, community involvement, corrective actions.

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<b>Replacement information</b>	This unit standard replaced unit standard 8913.
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<b>Planned review date</b>	31 December 2022
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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	N/A
Rollover and Revision	4	25 January 2018	N/A

**Consent and Moderation Requirements (CMR) reference**

0114

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

**Comments on this unit standard**

Please contact MITO New Zealand Incorporated [info@mito.org.nz](mailto:info@mito.org.nz) if you wish to suggest changes to the content of this unit standard.