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Noise Management Plan

TDC Contract No. 2720

Peel Forest Closed Landfill Remediation



Document Control

Title: Noise Management Plan - Peel Forest Closed Landfill Remediation

Principal: Timaru District Council

Contract Reference: 2720

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1	11/04/2025	For Review	Nicole Duncan	Bryce Ranger
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General

Contract Name: TDC Contract No.2720 – Peel Forest Closed Landfill Remediation
Location: Dennistoun Road, Peel Forest
Head Contractor: Rooney Earthmoving Ltd
Contract Manager: Bryce Ranger
Email: Bryce.ranger@rooneygroup.co.nz

Contract Dates

Start Date: 5/05/2025
Completion Date: 2/03/2026

Scope of Works

The Contract Works are for the removal of the landfill waste and associated impacted soils to remediate the closed Peel Forest Landfill. The remedial works include segregation and sorting of waste materials/soils (where practicable) and transportation to an appropriate facility(s) for disposal, and reinstatement of the area to its former landform as a gully. The following generally describes the work required:

- **Site establishment** including development of a contractor's yard area and installation of the erosion and sediment control measures.
- **Vegetation clearing, excavation, handling, segregation, temporary stockpiling, transportation, and disposal** of the closed Peel Forest Landfill (approx. 18,000 m³ insitu) including:
 - Management of landfill waste as asbestos-contaminated material under Class B asbestos removal works.
 - Managing hazardous materials (i.e. liquid wastes) encountered during the remedial removal works.
 - Managing any landfill leachate (perched) encountered during the works.
 - Monitoring and management of landfill gas (LFG), odour, litter, dust and rodents.
 - Identification and separation of material that can be cleaned and possibly diverted from the Class 1 landfill waste stream to an alternative disposal facility or retained on site for reuse.
 - Identification and separation of waste items that can be cleaned, compacted, and possibly diverted from the Class 1 landfill waste stream.
- **Excavation, screening, transportation, and disposal** of natural material underlying the landfill waste impacted by landfill leachate (estimated 5,000 m³).
- **Excavation, transportation, and disposal** of waste intermixed within the debris at the toe of the terrace (shall only be undertaken upon instruction by the Engineer).
- **Reinstatement of the gully** including filling, shaping, compacting, and topsoiling.
- **Site disestablishment** including reinstatement of the contractor's yard area back to its original state and any required repairs to Dennistoun Road.
- **Completing a topographic survey** of the final landform and reinstated yard area.

Contract Management

The key contacts for this contract include:

Timaru District Council Project Leader

Programme Delivery Manager	Jacky Clarke	03 687 7258	Jacky.clarke@timdc.govt.nz
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Engineer's Details

Engineer to Contract	Murray Kerr	021 921 208	Murray.Kerr@pdp.co.nz
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Engineer's Representative	David Hooke	027 220 5539	David.hooke@timdc.govt.nz
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Contractor Details

Contract Manager	Bryce Ranger	027 622 3346	Bryce.ranger@rooneygroup.co.nz
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Area Manager	Niall O'Sullivan	027 249 7015	Niall.osullivan@rooneygroup.co.nz
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Site Manager	Mig Bradley	027 232 2137	Mig.bradley@rooneygroup.co.nz
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Compliance Manager	Nicole Duncan	027 210 3375	compliance@rooneygroup.co.nz
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Health & Safety Officer	Tracy Kennedy	027 444 5807	Tracy.kennedy@rooneygroup.co.nz
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Traffic Management Manager	Khylee Gray	027 289 8077	Khylee.gray@rooneygroup.co.nz
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First Aid Responder	Mig Bradley	027 232 2137	Mig.bradley@rooneygroup.co.nz
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Introduction

This Noise Management Plan has been prepared for the Rooney Group's Peel Forest Closed Landfill Remediation Project (TDC Contract No.2720).

Purpose and Objective of the NMP

This Noise Management Plan (NMP) has been developed to effectively manage and mitigate the negative impacts of construction noise and ensure that disturbance to neighbors bordering our site is avoided or minimised throughout the duration of the project.

It identifies the performance standards for the project and outlines best practicable options (BPO) for managing noise construction.

Specifically, the NMP identifies:

- The proposed hours of work for the Project;
- The primary sources of noise
- Noise Sensitive Receivers (NSR) within 250m of the site boundaries
- Procedures to comply with the New Zealand Standard NZS 6803:1999 "Acoustics – construction Noise" (NZS 6803:1999)
- Noise measurement to check compliance against the NMP through monitoring and feedback from neighbors and others.
- Training staff will receive to increase knowledge and awareness of this NMP, and noise generated through their day-to-day activities.

Background

Rooney Earthmoving Limited (REL) has been contracted to remove landfill waste and the associated contaminated soils to remediate the closed Peel Forest Landfill. REL will utilise a variety of stationary and mobile mechanical equipment to perform this work, which may generate noise.

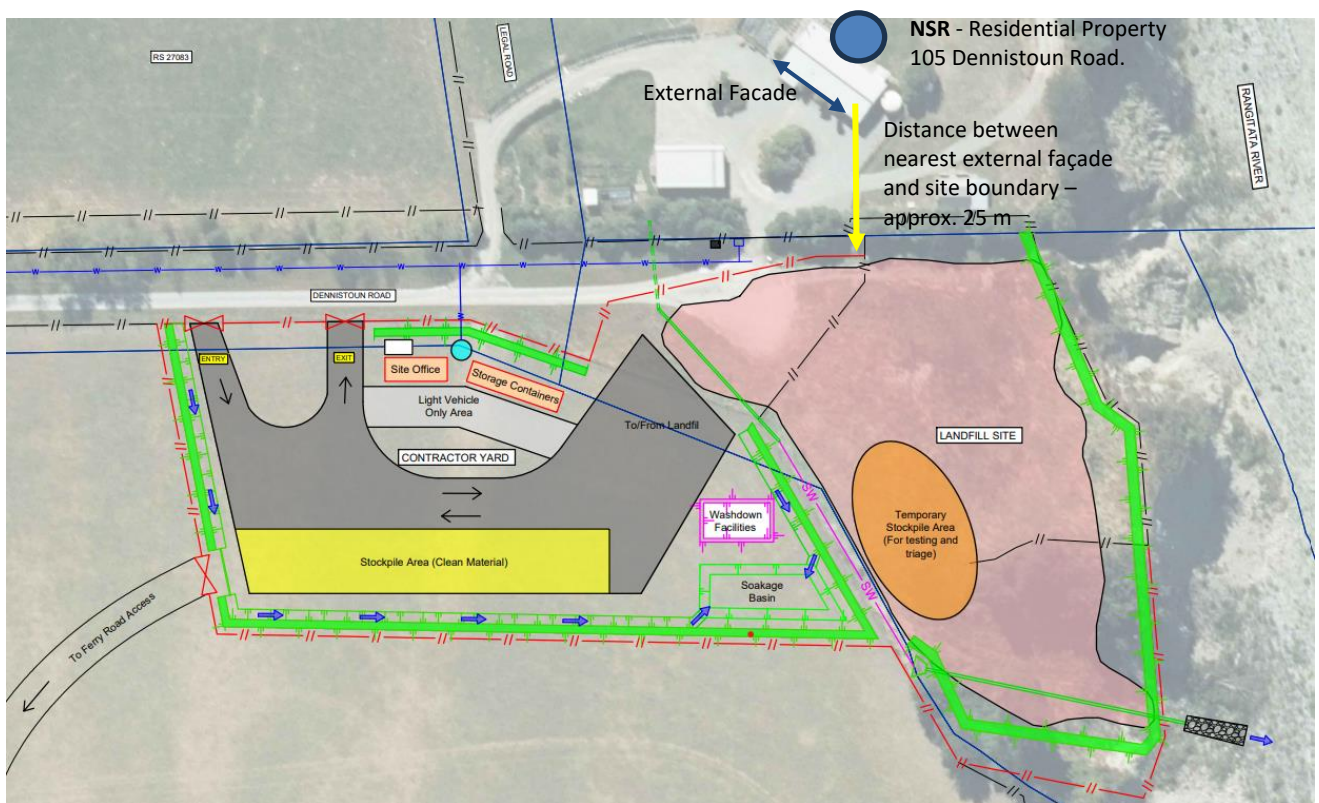
Site works will only occur as follows:

- Operation of mechanical mobile and stationery plant within the site boundary between 0730 and 1800 hrs Monday – Friday, excluding public holidays.
- Truck and trailer movements along Dennistoun Road and within the site boundary between 0730 and 1800 hrs Monday to Friday, excluding public holidays.

REL have identified 1 NSR within 250 m of the site boundary.

105 Dennistoun Road is a residential property with the closest external facade approximately 25 m from the nearest site boundary line.

Figure 1: Overall Site Plan including NSR.



Performance Standards

Noise

Construction noise must be measured and evaluated in accordance with the provisions of NZS 6803:1999. The noise limits are applicable at a distance of 1m from the external facades of occupied building.

The long duration construction noise limits in NZS 6803:1999 apply to the project as the duration will exceed 20 weeks.

Figure 2. Long duration construction noise criteria for residential buildings.

Time of week	Time Period	Noise Criteria	
		dB LAeq	LAFmax
Weekdays	0630 – 0730	55	75
	0730 – 1800	70	85
	1800 - 2000	65	80
	2000 – 0630	45	75

Sensitive Receivers

There is 1 dwelling located within 250 m of the site boundary.

- 105 Dennistoun Road is located across from the Northern boundary of the Landfill site. The nearest external facade of the dwelling is approximately 25 m from site designation boundary.

Predicted Noise Emissions

The table below provides indicative noise levels for the proposed site plant and equipment and the continuous sound pressure level at 10 m without mitigation to comply with the project noise limits.

Figure 3. Equipment Noise Levels without mitigation.

Plant and Equipment	Sound Power Level dB <i>L</i> _{WA}	Activity Equivalent continuous sound pressure level <i>L</i> _{Aeq} at 10 m
Excavator (20T)	109	81
Excavator (40T)	113	85
Generator (Petrol)	122	94
Articulated Dump Truck (30T)	110	82
Truck & Trailer Unit	113	85

Mitigation and Management

Training

All site personnel will undergo a Site-Specific Induction training session before the commencement of works, with particular emphasis on the following aspects:

- Construction noise limits
- Noise mitigation and management procedures
- The sensitivity of any receivers and any operational requirements and constraints identified through communication and consultation.

Awareness of current noise issues on or near our worksite will be addressed during regular site toolbox meetings, audits, and inspections.

Equipment Selection

When selecting plant and equipment for use near sensitive receivers, where practicable:

- Prioritise quieter work methodologies such as limiting excavator tracking and turning machines off rather than letting them idle for extended periods.
- Prioritise electric motors over diesel engines
- Prioritise rubber tracked equipment over steel tracked equipment when working near boundaries
- Ensure equipment is adequately sized for the task
- All REL excavators are late model and include the latest noise reduction technology
- Avoid tonal reversing or warning alarms (suitable substitutes may include flashing lights or reversing cameras).

Working Surfaces

To minimise vehicle noise and vibration, site roads and working areas must be maintained free of potholes and debris. A designated REL representative shall regularly inspect these surfaces. Any issues identified as part of the inspection should be recorded and actioned accordingly.

General Measures

Complaints may occur regardless of whether noise levels meet project limits. To prevent such complaints, general mitigation and management strategies include, but are not limited to, the following measures:

- Avoid unnecessary noise, such as shouting, the use of loud radios, excessive use of horns, rough handling of material and equipment, and banging or shaking excavator buckets.
- Avoid steel on steel contact during loading or trucks and other surfaces.
- Avoid excessive force with excavator bucket when scooping up solid materials such as concrete and steel.
- Avoid high engine revs through appropriate equipment selection and turn engines off when idle.
- Maintain site access ways to avoid potholes and corrugations.
- Minimise the use of plant and equipment near sensitive receivers.
- Mitigate track squeal from tracker excavators by tensioning, watering or lubricating the tracks regularly.
- Stationary equipment (e.g. generators) should be located away from noise sensitive receivers and site offices.
- Orient mobile machinery to maximise the distance between the engine exhaust and the nearest sensitive building façade.
- Utilise noise barrier in form of a 2 m high soil bund if required.
- Ensure communication and consultation is complete prior to commencing site works.
- Undertake monitoring as required.
- Enforce site speed limit restrictions.
- Engine braking should be avoided.

Noise Monitoring

Monitoring

As required by the consent conditions, regular noise monitoring shall be conducted by the following staff in accordance with:

- New Zealand Standard NZS 6803:1999 *Acoustics – Construction Noise*

The monitoring regime will include:

- Baseline monitoring during the startup phases of work.
- Monitoring to verify noise levels for new plant and equipment items.
- Regular compliance monitoring on a fortnightly basis.
- A method of reporting measurements to TDC.

Noise Monitoring staff:

- Nicole Duncan – Compliance Manager

Monitoring will be conducted as follows:

- At the start of works to verify the sound levels assumed for each item of plant and equipment and to assess the effectiveness of noise control measure and implementation of this NMP.
- At fortnightly intervals to check ongoing compliance with the construction noise criteria.
- If required, response to construction noise related complaints.
- During critical phases of works where noisy activities are within 50 m of NSR.

Following each noise survey, the results will be reported to the REL Contracts Manager with any identified issues investigated and actioned in a timely manner.

Noise Monitoring Equipment

Noise monitoring will be conducted with the following equipment:

- TSI QUEST Sound Examiner SE-402 Class 2 Sound Level Meter (SLM) Last calibration completed 15/04/2025 by IANZ accredited laboratory, Diatec Diagnostics. Calibrations are undertaken biannually.

The SLM will be stored in the compliance manager's office for the duration of the project.

Complaints

All noise-related complaints will be recorded in the complaints register which will be kept in the site office. Where a complaint is received, an investigation will be undertaken involving the following steps:

- Acknowledge receipt of the concern or complaint within 24 hours and record:
 - Time and date the complaint was received and who received it.
 - Time and date of the work subject to the complaint
 - The name and address of the complainant
 - A description of the work and its resulting effects
 - Any feedback from the complainant
- Identify the relevant activity and the nature of the of the works at the time of the complaint.
- Review noise activity levels and verify they comply with the proposed construction noise limits
- Review mitigation and management procedure to ensure they represent the BPO
- Report findings and recommendations to the Contract Manager, implement changes and update NMP as required.
- Report outcomes of investigation to the complainant.

The noise management methods outlined in this NMP are regarded as the most effective and efficient for ensuring that the noise limits specified in condition 38 are not exceeded. They will also effectively manage noise resulting from project-related vehicle movements on public roads.

Prepared by :

Nicole Duncan

Approved by:

Bryce Ranger