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Attention:	Joanne Dowd	Project No.:	20240460		
From:	Brendon Shanks	No. Pages:	4	Attachments:	No
Subject:	Response to Peer Review				

We have reviewed the peer review prepared by Styles Group. This memo presents the key issues raised by Styles Group (shown in *Blue*), and we give our response and recommendations for discussion with the Dunedin City Council and peer reviewer.

We have not explicitly assessed noise at potential future dwellings

- 1) The inclusion of the date-stamp in Proposed Condition 68 deviates from the way the 2GP applies noise limits at all notional boundaries. The 2GP applies noise limits at any notional boundary to provide noise sensitive receivers with an adequate level of noise amenity. The Proposal seeks to exempt the activity from meeting any noise limits at future notional boundaries. The Noise Assessment does not recognise the potential noise effects on neighbouring vacant land and fails to assess the impact it may have on activities on neighbouring land that are anticipated and provided for by the 2GP. In effect, the Proposal to remove all noise limits across vacant land (irrespective of how it might be developed) amounts to the Proposal using adjacent land as a buffer for its noise emissions;*

Mitchell Daysh has confirmed that the only nearby site that doesn't already have a principal dwelling on it is 291 Dukes Road North, which is owned by the JV. SLPL will provide affected party approval for the noise limit to be breached on this property. Based on this, the application applies noise limits at any permitted dwellings in the area. Any new dwellings closer to the site would require a resource consent, which would need to consider reverse sensitivity effects on activities in the area.

We have recommended consent conditions that include higher noise limits at some dwellings

- 2) The proposed conditions will allow noise levels and effects that are potentially significantly greater than the noise levels that are permitted by the 2GP standards;*

This comment is partly based on the risk of new dwellings being built closer to the site (addressed above) and the proposed night-time noise limit of 45 dB L_{Aeq} at all dwellings.

The proposed night-time limit is 5 decibels higher than the current 2GP limit at some properties to the east (we propose a change from 40 dB L_{Aeq} to 45 dB L_{Aeq}). This higher limit is consistent with properties within 350m of an industrial zone and is within the range of what is considered reasonable in a rural environment (including being considered appropriate by NZS 6802 and the World Health Organisation).

The increased night-time limit has been included to allow flexibility with the operation of the site. Just because the site can comply with the lower limits, does not mean that is the appropriate standard to hold the activity to. We consider that 45 dB L_{Aeq} is an appropriate and reasonable night-time noise limit for this activity.

3) *The proposed operational noise limits seek to authorise noise levels that are:*

- a. *Higher than the permitted noise levels prescribed by the 2GP for the surrounding zones, with no night-time L_{Amax} limit to protect noise sensitive receivers from impact noise that may cause sleep disturbance;*

We discussed the difficulty with confirming compliance with the L_{Amax} limit because it is highly variable and indicated that on-site management is the best way to reduce potential effects. The peer review is concerned with a lack of certainty around this approach.

We suggest we add the L_{Amax} limit back in. With appropriate management in place, I believe this is a low risk for non-compliance. The proposed conditions have been updated to reflect this.

- b. *Higher than the predicted noise rating levels in the Noise Assessment*

See response to 2. above.

A more detailed assessment has been requested

As part of the recommendations in the peer review, it has been suggested that the following elements are missing from our assessment and should be included:

- *An assessment of the effects of noise from the Proposal against the measured or likely residual and background sound environments*
- *An assessment of the likely audibility and intrusiveness of the sound of interest against the residual and background sound environment*

We have presented the measured background noise levels within the report (Section 5.0). In our assessment of effects, we have included discussion on the audibility of noise from the site, including reference to periods of very low background noise levels (Section 10.2):

“There are times when existing background noise levels are very low, so night-time activity is likely to be audible at times, albeit at a reasonable level.”

- *An assessment of the potential nighttime noise effects in the absence of any requirement to comply with night time L_{AFmax} noise limits*

This will be addressed by reinstating the L_{Amax} limit (see comment 3.a.).

- *An assessment of the character, level, timing and duration of noise exceedances against the relevant 2GP objectives and policies.*

The following objective/policy relates to activity on the SLIP site.

- Objective 9.2.2 - Land use, development and subdivision activities maintain or enhance people's health and safety.
 - Policy 9.2.2.1 - Require activities to be designed and operated to avoid adverse effects from noise on the health of people or, where avoidance is not practicable, ensure any adverse effects would be insignificant.

This policy refers to adverse effects on health of people. We have assessed the predicted noise levels against guidance from the NZS 6802 and the World Health Organisation (Section 10.6). The predicted L_{Aeq} levels are below the guideline threshold levels for the potential on set of health effects. We consider that any effects on health from the proposed operation would be insignificant.

We will provide the requested additional data on noise sources

- 4) *The Noise Assessment has not been supplemented with the input data for the noise model for all noise sources;*

Table 1 presents the sound power levels that were used in our noise modelling. The activity scenarios for the different stages are included in Appendix B of our report.

Table 1: Noise source sound power levels

Item	Noise source	Sound Source Levels
1	Workshop	103 dB L _W
2	Washpad Water Blasting + pumps	101 dB L _W
3	Road truck	85 dB L _{AE} at 10 metres
4	Reach Stacker	111 dB L _W
5	Straddle Carrier	104 dB L _W
6	100 Refrigeration Units (2.4m Height)	105 dB L _W
7	Reverberant noise within Canopies	85 dB L _{prev}
8	Locomotive engine idling	106 dB L _W
9	Train arriving/exiting the site	113 dB L _W

Noise from rail activity is exempt from 2GP noise limits

- 5) *Rail network activities within the SLIP land that is outside the KiwiRail designation have not been assessed. These effects must be assessed if rail activities outside the KiwiRail designation are not subject to the exemption in Rule 9.3.6 3.q.*

The exemption applies to rail activity on sidings outside the designated rail corridor. The wording of the exemption specifically references noise from the trains in “railway yards, railway sidings or stations” and does not specify that this must be inside a rail designation. In contrast, the exemption for roads specifies that it only applies to “vehicles on public roads”.

Notwithstanding this, we have assessed noise from a train passing dwellings, in Table 11 of our report. This represents the worst case of a train passing with line of sight to the dwellings.

We have assessed noise from rail activity on the site. We have predicted the noise from a locomotive moving on the SLIP site and a locomotive idling on the site, at the closest dwellings. These levels are less than the levels presented in Table 11 of our noise assessment report, due to the effect of mitigation measures (noise barriers) while the train is on the SLIP site and the slower speed of the train while on site.

Table 2: Train noise while on SLIP site

Receiver	Noise from train on site	
	Arriving/exiting the site	Locomotive idling
231 Dukes Rd North	45 dB L _{Aeq}	38 dB L _{Aeq}
273 Dukes Rd North	51 dB L _{Aeq}	44 dB L _{Aeq}

The predicted noise levels indicated that rail movements onto the site are likely to be audible during periods of low background noise. However, noise from the rail activity on the site will be infrequent and of relatively short duration.

At other nearby receivers, noise from the rail movements in the rail corridor will be significantly greater than rail movements on the site (as detailed in Table 11 of the noise assessment report). The effect of these movements has been covered in our assessment report (Section 10.4).

Some more detail of mitigation and management measures can be included

- 6) *The proposed conditions require the implementation of ongoing physical and management-based noise mitigation measures require modification to ensure they are effective, clear, certain and enforceable.*

We have recommended that an operational noise management plan is prepared and submitted prior to commencement of operational activity for each stage. We consider that this is the most appropriate method for ensure the best practicable option management and mitigation measures are adopted.

This recommendation has been adopted in the following condition:

An operational noise management plan (ONMP) will be prepared and implemented at the Southern Link Inland Port. The purpose of the ONMP is to establish the best practicable option management and mitigation measures necessary to achieve compliance with the noise limits in Condition 66. The ONMP shall include the following:

- (a) Physical mitigation measures (e.g. acoustic walls);
- (b) A requirement for driver training i.e. drivers who are stacking containers onsite are to complete training which demonstrates best practice measures for reducing container stacking noise effects;
- (c) Identification of sensitive areas of the site (e.g. site boundaries near dwellings) where noisy night-time activities should be avoided (where practicable);
- (d) A requirement for motorised vehicle equipment and plant utilised at the Southern Link Inland Port to be fitted with broadband “squawker” reversing alarms (where practicable); and
- (e) Details of active onsite noise monitoring to capture high noise events (being any onsite activities that exceed 75 dB LA_{max} at the notional boundary of any dwelling), with a procedure to implement further training for any repeat occurrences by an individual driver.
- (f) A mechanism to update the ONMP in the event of material changes to the operation of the site.

The ONMP shall be provided to the Council for certification at least 20 days prior to commencement of operations for each stage.

Advice Note: Active onsite noise monitoring will utilise noise monitors in proxy positions for the monitoring of effects on nearby dwellings.



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Document Control

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APPENDIX A GLOSSARY OF TERMINOLOGY

1.0 INTRODUCTION

Marshall Day Acoustics (MDA) has been engaged by Southern Link Property Limited (SLPL) to prepare a Construction Noise Management Plan (CNMP) for the proposed Southern Link Inland Port (SLIP). The SLIP will include areas of container storage, warehousing, vehicle access routes, and a rail siding.

This CNMP is required to satisfy the (proposed) Consent Conditions for the project. It identifies the performance standards for the Project and sets out best practicable options (BPO) for noise management.

The objectives of the CNMP are to:

- a) Set out the specific works that are proposed to be undertaken during construction activities outside the standard hours, including the location of the works, the general nature of the works and the general nature of the plant and machinery that will be required; and
- b) Set out the procedures to identify and adopt the best practicable options for minimising construction noise effects;

This CNMP will be implemented throughout the construction period. It should be considered a 'living document' that will be expanded and updated as the Project progresses. It is the primary tool for managing the Project's construction noise effects.

A glossary of terminology is included in Appendix A.

2.0 PROJECT DESCRIPTION

2.1 Overview

The works involve earthworks to clear the site and prepare for concrete pads/roading/rail siding, pouring of concrete (including potential night pours), internal road formation, rail pad construction, and construction of warehouse buildings.

Site maps showing works areas and durations of specific activities will be added this report when a more detailed methodology is developed.

The construction works are scheduled non-continuously over three stages, between 2026 and 2036. This means that the long-duration construction noise limits apply (Section 4.0).

Typical construction hours will be 0700 – 1900 hrs, Monday to Saturday, excluding public holidays, with night-time works only where necessary e.g. large continuous concrete pours.

2.2 Construction Methodology

Here is a summary of the construction methodology:

2.2.1 Stage 1 - Initial establishment of the Inland Port's core operational infrastructure

Works include:

- Site clearance and earthworks
- Container storage concrete pad
- Rail siding and container service area
- Warehouses
- Internal roading, parking and loading areas
- Road widening and new intersection on Dukes Road North
- Stormwater attenuation pond and Silver Stream stormwater outlets
- Servicing infrastructure

- Flood management measures
- Landscaping
- Acoustic barriers and eastern bund
- Lighting

2.2.2 Stage 2 - Expand the port's operational capacity

Expected 3-5 years following commencement of site activity. Works include:

- Container storage concrete pad
- Warehouses and ancillary offices
- Internal roading, parking and loading
- Emergency egress onto Dukes Road North
- Expansion of the stormwater attenuation pond
- Extension of servicing infrastructure
- Landscaping
- Lighting

2.2.3 Stage 3 - Complete the development by extending into the eastern portion of the site

Expected 5-10 years following commencement of site activity. Works include:

- Clearance of the eastern area, including the eastern acoustic bund
- Break bulk hardstand areas
- Internal roading, parking and loading
- Extension of servicing infrastructure
- Landscaping
- Lighting

2.3 Contact Details

Contact details for the relevant personnel are listed in Table 1. The **Project Manager** is responsible for implementing this CNMP.

Table 1: Contacts

Role	Name	Organisation	Phone	Email
Project Manager	TBC	TBC	TBC	TBC
Engagement	TBC	TBC	TBC	TBC
Acoustic Specialist	Brendon Shanks	Marshall Day Acoustics		

2.4 Conditions of Consent

This CNMP is required to satisfy the following (proposed) Conditions of Consent:

4. Plan requirement

No later than the submission timeframe referred to for the relevant plan, the following documents must be submitted to the Dunedin City Council via email to rcmonitoring@dcc.govt.nz for certification:

The purpose and detail requirements of each document are provided in the consent conditions.

....

Plan	Submission timeframe
Construction Noise Management Plan	At least 20 working days prior to the commencement of construction activities outside of the standard hours set out in Condition 27.

26. Construction noise

Construction noise shall be measured and assessed in accordance with New Zealand Standard NZS 6803:1999 "Acoustics - Construction Noise" and comply with the following Project Standards at any occupied building housing a noise sensitive activity unless otherwise provided for in the CNMP (condition 2).

Day	Period	dB L _{Aeq}	dB L _{AFmax}
Weekdays	0630 – 0730	55	75
	0730 – 1800	70	85
	1800 – 2000	65	80
	2000 – 0630	45	75
Saturdays	0730 – 1800	70	85
	1800 – 0630	45	75
Sundays and public holidays	0730 – 1800	55	85
	1800 – 0630	45	75

27. Hours of construction activity

Construction activities will typically be undertaken during the hours of 7am – 7pm, Monday to Saturday (excluding public holidays), with the exception of:

- Works associated with maintaining plant or amenities (e.g. cleaning activities);
- Works associated with the supply and placement of concrete; and
- Low noise generating activities (e.g. painting, installation of lighting fittings, or activities that require no or minimal power tools).

29. Construction Noise Management Plan (CNMP)

At least ten working days prior to the commencement of any works undertaken outside the standard hours set out in Condition 27, the Consent Holder must submit a Construction Noise Management Plan (CNMP) to Dunedin City Council for written certification in accordance with Condition 4 of this consent.

The objectives of the CNMP are to:

- a) Set out the specific works that are proposed to be undertaken during construction activities including those to be completed outside the standard hours, including the location of the works, the general nature of the works and the general nature of the plant and machinery that will be required; and
- b) Set out the procedures to identify and adopt the best practicable options for minimising construction noise effects;

The CNMP must be prepared by a Suitably Qualified and Experienced Person with reference to Annex E of NZS 6803:1999 Acoustics –Construction Noise and the Association of Australasian Acoustical Consultants Guideline for Interpreting and Applying NZS 6803-1999, and must include the following information:

- i. The construction noise limits for the project;
- ii. Identification of surrounding noise sensitive receivers;
- iii. Details for advising the occupiers of the neighbouring buildings of any works that will be completed outside the standard hours, including when the highest noise levels can be expected for works;
- iv. A general outline of the activities to be undertaken outside the standard hours, including duration, hours of work, and any timing restrictions on noisy activities that have been agreed through consultation with neighbours;
- v. The methods and procedures that must be adopted to ensure that the noise limits for works outside of standard hours in Condition 27 are complied with at all times (except for concrete pours);
- vi. If there are temporary instances where the limits set out in Condition 26 may be exceeded, then the measures that will be implemented to manage the effects of any temporary exceedances;
- vii. Specifications for any temporary construction noise barriers or localised screening that might be required;
- viii. Procedures for responding to concerns from neighbours and dealing with any complaints (including the provision of contact details for any concerns regarding noise);
- ix. Procedures for noise monitoring and for applying any corrective action measures; and
- x. Procedures for ensuring that all contractors and operators on site are aware of the construction noise limits and the requirement to minimise noise effects as far as practicable on the neighbouring sites when working outside of standard hours.

3.0 NEARBY NOISE SENSITIVE RECEIVERS

The nearby noise sensitive receivers are listed in Table 2 and shown as red circles in Figure 2.

Table 2: Distance to nearby dwellings

Receiver address	Approx. distance to site (m)	Zone
273 Dukes Road North	55	Rural
54 Rutherford Road	180	Rural
231 Dukes Road North	275	Rural
50 Rutherford Road	300	Rural
55 Rutherford Road	305	Rural
340 Dukes Road North	325	Rural
243 Puddle Alley	365	Rural
176 Puddle Alley (Duncan South Limited)	465	Rural

Figure 1: Nearby dwellings



4.0 CONSTRUCTION NOISE LEVELS

This section provides indicative noise levels from construction activities and the likely noise effect that could arise.

4.1 Predicted Noise Levels

Table 3 and Table 4 show predicted levels for high-noise construction activities with and without noise barriers in place. They can be used to identify the equipment that requires mitigation and/or management and the source-receiver distances where the risk begins. It will be kept up to date by the Acoustic Specialist when new information becomes available, e.g. through noise monitoring (Section 7.2).

Table 3: Indicative noise levels at 1m from a building façade¹ - with effective noise barriers²

Equipment	Sound power level (dB L _{WA})	Setback to achieve compliance	
		70 dB L _{Aeq} (daytime)	45 dB L _{Aeq} (night-time)
Excavator (40T)	105	10m	120m
Vibratory roller	103	8m	100m
Plate compactor	108	14m	158m
Concrete truck and pump discharging	103	8m	100m
Bulldozer (41T)	108	14m	158m
Hand tools	103	8m	100m
Mobile Crane (100T) operating	99	5m	69m
Truck and trailer unit delivery ³	98	4m	63m

Table 4: Indicative noise levels at 1m from a building façade¹ - with no noise barrier

Equipment	Sound power level (dB L _{WA})	Setback to achieve compliance	
		70 dB L _{Aeq} (daytime)	45 dB L _{Aeq} (night-time)
Excavator (40T)	105	28m	>200m
Vibratory roller	103	25m	>200m
Plate compactor	108	40m	>200m
Concrete truck and pump discharging	103	25m	>200m
Bulldozer (41T)	108	40m	>200m
Hand tools	103	25m	>200m
Mobile Crane (100T) operating	99	16m	160m
Truck and trailer unit delivery ⁴	98	14m	100m

¹ In accordance with the requirements of NZS 6803: 1999 (Section 4.0), inclusive of 3 decibels façade reflection

² Assuming 10 decibels shielding from effective noise barriers (Section 5.5)

³ Includes 5 decibels of averaging allowing for the time component of deliveries.

⁴ Includes 5 decibels of averaging allowing for the time component of deliveries.

Based on the setbacks shown above, noise from the predicted activities can comply with the daytime noise limits at all nearby receivers, with or without a barrier in place.

4.2 Noise Effects

The noise level received inside a sensitive space (e.g. bedroom, office, living room) will depend on the external noise level, the façade performance (particularly the glazing) and the acoustics of the room. These factors can vary widely.

NZS 6803 states that, where it is not possible to measure at 1 metre from the façade, an internal assessment can be done instead assuming a façade sound level difference of 20 decibels. However, 20 decibels is conservative (i.e. low) for modern buildings and most buildings will perform better than this.

With knowledge of the façade glazing type, typical façade performance can be estimated as follows:

- Partially open windows (all buildings) 15 decibels
- Closed windows (historic lightweight house) 20 decibels
- Closed windows (modern lightweight house) 25 decibels
- Closed windows (modern masonry apartment or commercial building) 30 decibels

Table 5 provides guidance on daytime noise effects inside different types of buildings based on the external noise level and typical the glazing types.

Table 5: Daytime noise levels in commercial & industrial buildings and habitable rooms in dwellings

External Noise Level (dB L _{Aeq})	Estimated Internal Noise Level (dB L _{Aeq})			
	Sealed glazing (office building)	Closed windows (modern building)	Closed windows (older building)	Open windows (all buildings)
90 – 95	60 – 65	65 – 70	70 – 75	75 – 80
85 – 90	55 – 60	60 – 65	65 – 70	70 – 75
80 – 85	50 – 55	55 – 60	60 – 65	65 – 70
75 – 80	45 – 50	50 – 55	55 – 60	60 – 65
70 – 75	40 – 45	45 – 50	50 – 55	55 – 60

The responses of building occupants vary, but with effective prior engagement (Section 6.0) can be summarised as follows:

- < 45 dB L_{Aeq} Noticeable, but unlikely to interfere with daily activities
- 45 – 50 dB L_{Aeq} Typically acceptable, but concentration and communication would begin to be affected
- 50 – 55 dB L_{Aeq} Annoyance for some occupants and personal conversations would require a slightly raised voice
- 55 – 60 dB L_{Aeq} Generally unacceptable and occupants would actively seek respite for any extended periods
- > 60 dB L_{Aeq} Unacceptable for extended periods

4.3 Night-time concrete pours may exceed noise limits at the closest dwelling

The predicted noise from concrete pours would exceed the night-time noise limit of 45 dB L_{Aeq} when within 100m of a dwelling. Some areas of the site where concrete pours may be required at night are within 100m of the dwelling at 273 Dukes Road North.

Predicted noise levels from concrete pouring at this dwelling are up to 51 dB L_{Aeq} . This exceeds the night-time noise limit of 45 dB L_{Aeq} . With windows closed, the anticipated noise level inside the dwelling would be up to 31 dB L_{Aeq} during concrete pouring activity.

5.0 MITIGATION AND MANAGEMENT

5.1 Training

All staff will participate in an induction training session before starting work on the construction, with attention given to the following matters:

- Activities with the potential to generate high levels noise
- Mitigation and management measures (Section 5.0)
- Sensitive receivers and any agreements made through engagement (Section 6.0)
- Monitoring requirements (Section 7.0)

As the construction progresses, any updates of noise matters will be addressed during regular site meetings and/or 'toolbox' training sessions.

5.2 Equipment Selection

When selecting construction equipment:

- Use electric motors rather than diesel engines where practicable
- Use rubber tracked equipment rather than steel tracked equipment where practicable
- Use equipment that is suitably sized for the task
- Maintain equipment well to minimise rattles, squeaks etc
- Fit engines with exhaust silencers and engine covers where practicable
- Avoid tonal reversing or warning alarms (beepers). Alternatives include broadband alarms (squawkers/quackers), flashing lights, proximity sensors, reversing cameras and spotters

5.3 Scheduling

Avoid night works unless it can be demonstrated to be the BPO.

Scheduling is an important management tool, particularly where a receiver expresses concern about construction works at a certain time of day. Where necessary, high noise noisy works will be programmed to minimise disturbance.

Scheduling activities to be undertaken when nearby sensitive receiver buildings are unoccupied is the most effective measure as it avoids the effect. For example, piling works could be undertaken during the daytime when occupants of a dwelling are at work/school.

Scheduling should be considered as the first measure for all activities which are predicted to exceed the relevant noise limits. If scheduling is not practicable, then other measures such as noise barriers, revising methodology and temporary relocation should be considered.

5.4 General Measures

Complaints can arise even if the noise levels comply with the Project limits. To minimise complaints, the following common mitigation measures are recommended:

- Avoid unnecessary noise. This means managing the site to ensure:
 - o No shouting
 - o No unnecessary use of horns
 - o No loud site radios
 - o No rough handling of material and equipment
 - o No banging or shaking excavator buckets
 - o No unnecessary steel on steel contact (e.g. during the loading of scaffolding on trucks)
 - o No high engine revs. This includes choosing the right sized equipment and turning engines off when idle.
- Mitigate track squeal from tracked equipment, such as excavators. This may include tensioning and watering or lubricating the tracks regularly
- Locate stationary equipment (e.g. generators) away from noise sensitive receivers and/or screen them behind site buildings and material stores
- Orient mobile machinery to maximise the distance between the engine exhaust and the nearest sensitive building façade (e.g. excavators)
- Utilise noise barriers where appropriate (Section 5.5)
- Engagement is complete (Section 6.0) prior to commencing high-noise activities
- Undertake monitoring (Section 7.0)

5.5 Noise Barriers

5.5.1 Permanent Noise Barriers

The site will include noise barriers around boundaries facing toward noise sensitive receivers. These will be installed as soon as practicably possible in the construction programme to mitigation noise from construction activity.

Effective noise barriers typically reduce the received noise level by 10 decibels. However, based on the predicted noise levels and set back distances in Table 3 and Table 4, these barriers are not required to comply with the daytime noise limits at the nearby dwellings.

5.5.2 Temporary Noise Barriers

Should any higher noise works be necessary that require temporary noise barriers, the following barrier designs should be used. Where practicable, the following guidelines will be used in designing and installing temporary noise barriers:

- The panels will have a minimum surface mass of 6.5 kg/m². Suitable panels include 12 mm plywood or the following proprietary 'noise curtains':
 - o SealedAir 'WhisperFence 24dB' (www.sealedair.com)
 - o Hushtec 'Premium Series Noise Barrier' (www.duraflex.co.nz)
 - o Soundbuffer 'Performance Acoustic Curtain' (soundbuffer.co.nz)
 - o Hoardfast 'Fast Wall Premium PVC partition panels' (www.ultimate-solutions.co.nz)

- Safesmart 'Acoustic Curtain 6.5kg/m²' (www.safesmartaccess.co.nz)
- Alternatives will be approved by a suitably qualified and experienced acoustic specialist
- The panels will be a minimum height of 2 m, and higher if practicable to block line-of-sight
- The panels will be abutted, battened or overlapped to provide a continuous screen without gaps at the bottom or between panels
- Barriers will be positioned as close as practicable to the high-noise activity to block line-of-sight between the activity and noise sensitive receivers. A site hoarding at the boundary may not be effective for all receivers. Add extra barriers close to high-noise activities to ensure effective mitigation for sensitive receivers on upper floors.

6.0 ENGAGEMENT

6.1 Communication

6.1.1 Before construction

Written communication (e.g. newsletter) will be provided to building occupants within 100 m of the site at least 1 week prior starting construction. It will include:

- Details of the overall works, its timing and duration
- Contact details and names of personnel whose job is to receive complaints and enquiries (should also match a person identified in Section 2.3)
- Acknowledge that some activities (listed in this document) are predicted to generate high noise levels and may result in disturbance for short periods

6.1.2 During construction

Once construction has begun, ongoing communication is important. Regular communication during the works will include:

- Public site signage that includes contact details
- Details of upcoming activities that may result in disturbance
- Any changes to scheduled timing and duration of activities

Occupants of buildings within 100m of night works will be advised at least 5 days prior to the works commencing.

6.2 Complaints Response

Complaints will be acknowledged immediately where practicable and responded to within one day. If a more detailed response is needed, it will be provided within a timeframe agreed with the complainant.

All construction noise complaints will be recorded in a complaints file that is available to affected parties and Council on request. For each complaint, an investigation will be undertaken as soon as practicable using the following steps:

- Acknowledge receipt of the concern or complaint and record:
 - The name, address and contact details of the complainant (unless they elect not to provide)
 - Time and date the complaint was received and who received it
 - Time and date of the activity that caused the complaint (estimated where not known)
 - The complainant's description of the activity and its resulting effects

- Any relief sought by the complainant (e.g. scheduling of the activity)
- Identify the relevant activity and review the activity log to verify the complaint (or otherwise)
- If a complaint relates to building damage, inform the on-duty site manager as soon as practicable and stop the relevant works pending an investigation. In most cases, stopping the activity will provide immediate relief. But in some cases, this may not be practicable for safety or other reasons, in which case the complainant will be kept updated regularly during the time it takes to stop the activity.
- Review data from monitoring (if available) to identify the time in question and, if possible, verify exceedance
- Review the predicted noise levels to determine if the activity was identified. Consider attended monitoring to verify the underlying reference level assumptions
- Review the mitigation and management measures in place to ensure the BPO has been applied (Section 5.0). Review the relief sought by the complainant. Adopt further mitigation and management measures as appropriate.
- Review the potential residual effects if predicted to continue to exceed the relevant performance standards
- Report the findings and recommendations to the Project Manager, implement changes and update this CNMP as appropriate
- Report the outcomes of the investigation to the complainant, identifying where the relief sought by the complainant has been adopted or the reason(s) otherwise.

7.0 MONITORING

7.1 Overview

7.1.1 Attended monitoring

This is where a suitably qualified acoustic engineer visits the site and measures levels in real time. This enables:

- Review the implementation of this CNMP, including the mitigation and management measures in Section 5.0 and engagement in Section 6.0
- Verify the predicted levels are representative and the response protocols are appropriate for the resulting effects
- Determine compliance

7.1.2 Long-term monitoring

This is where noise monitors are installed in suitable locations and measure continuously for a long period of time. They are setup to send a message to the Project Manager (or nominated person) when levels exceed a pre-set alert threshold. An alert triggers review of the BPO measures (Section 5.0) and attended monitoring (Section 7.1.1) to inform compliance.

Based on the predicted noise levels readily complying with daytime noise limits, long term monitoring is not considered necessary for this site.

7.2 Noise monitoring

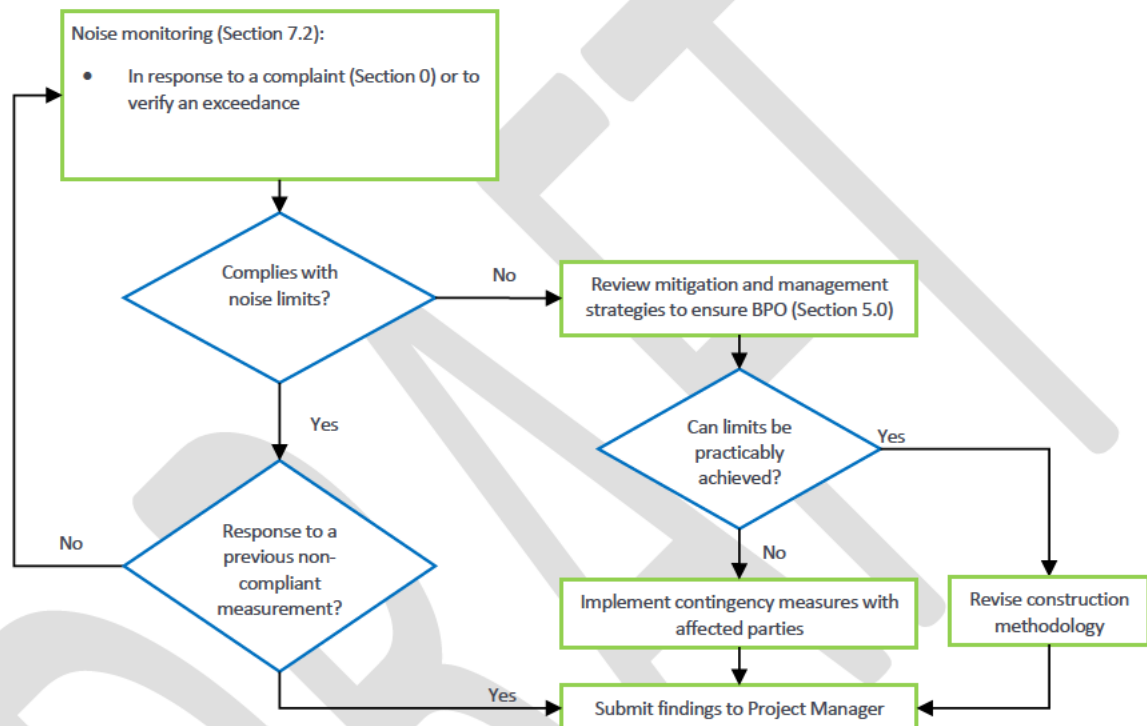
Construction noise will be monitored:

- In response to a reasonable noise complaint

- At 1m from the building façade facing the construction site, or a proxy position adjusted for distance
- By a suitably qualified and experienced specialist (e.g. Member of the Acoustical Society of New Zealand) in accordance with the requirements of New Zealand Standard NZS 6803: 1999 *"Acoustics - Construction Noise"*
- For an appropriate duration, reported with the measured level (e.g. 65 dB L_{Aeq} (30min))
- The results will be used to update Section 4.1 if appropriate

A noise monitoring flowchart is presented in Figure 2.

Figure 2: Noise Monitoring Flow Chart



APPENDIX A GLOSSARY OF TERMINOLOGY

Noise	A sound that is unwanted by, or distracting to, the receiver.
dB	Decibel (dB) is the unit of sound level. Expressed as a logarithmic ratio of sound pressure (P) relative to a reference pressure (Pr), where $dB = 20 \times \log(P/Pr)$.
dB(A)	The unit of sound level which has its frequency characteristics modified by a filter (A-weighted) to more closely approximate the frequency bias of the human ear. A-weighting is used in airborne acoustics.
$L_{Aeq}(t)$	The equivalent continuous (time-averaged) A-weighted sound level commonly referred to as the average level. The suffix (t) represents the period, e.g. (8 h) would represent a period of 8 hours, (15 min) would represent a period of 15 minutes and (2200-0700) would represent a measurement time between 10 pm and 7 am.
L_{AFmax}	The A-weighted maximum noise level. The highest noise level which occurs during the measurement period.
NZS 6803:1999	New Zealand Standard NZS 6803: 1999 "Acoustics - Construction Noise"



MARSHALL DAY
Acoustics

**SOUTHERN LINK INLAND PORT
DRAFT OPERATIONAL
NOISE MANAGEMENT PLAN**

Rp 003 20240460 | 17 June 2026



Project: SOUTHERN LINK INLAND PORT

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1.0 PURPOSE AND SCOPE

This Operational Noise Management Plan (ONMP) sets out the measures Southern Link Property Limited (SLPL) will implement to manage, monitor, and minimise noise generated by operations at the Southern Link Inland Port (the Site). It is a living document that will be maintained and updated over the life of the consent.

The ONMP applies to all SLPL operational activities at 270–292 Dukes Road North, Mosgiel, including container handling, warehousing, truck movements, rail siding operations, and ancillary activities. It does not apply to construction activities, which are managed under the Construction Noise Management Plan.

1.1 Objectives

- Ensure operational noise complies with the conditions of the DCC land use consent at all times.
- Protect the amenity and health of residents at nearby noise-sensitive receivers.
- Provide a clear framework for staff, contractors, and operators to manage noise at source.
- Establish a robust monitoring programme to demonstrate ongoing compliance and identify areas of potential improvement.
- Provide an effective and transparent complaints management process.
- Implement the best practicable option (BPO) for noise mitigation throughout all stages of the development.

1.2 Certification

This document has been prepared in accordance with the (proposed) resource consent conditions for the Southern Link Inland Port, under the Fast-track Approvals Act 2024. It must be submitted to the Dunedin City Council for certification prior to commencement of operational activities.

2.0 SITE DESCRIPTION AND CONTEXT

2.1 Location and Layout

The Southern Link Inland Port is located at 270–292 Dukes Road North, Mosgiel, on approximately 40 hectares of land zoned Taieri Plain Rural under the Dunedin City Second Generation District Plan (2GP). The site is at the eastern edge of an established industrial precinct that includes the Fonterra Mosgiel processing site, a timber mill, an existing container storage area, and the eastern end of the Taieri Aerodrome/Otago Aero Club.

The site is a joint venture between Port Otago Limited and Dynes Transport, trading as Southern Link Property Limited (SLPL). It is designed to provide bulk container storage, logistics and distribution functions, and road/rail interchange to serve the wider Otago freight network, relieving capacity constraints at Port Chalmers and central Dunedin logistics hubs.

2.2 Surrounding Land Uses and Sensitive Receivers

Land to the north, east, and south of the site is predominantly rural farmland containing a small number of dwellings. The nearest noise-sensitive receivers and their approximate distances from the site boundary are set out below.

Table 1: Distance to nearby dwellings

Receiver address	Approx. distance to site (m)	Zone
273 Dukes Road North	55	Rural
54 Rutherford Road	180	Rural
231 Dukes Road North	275	Rural
50 Rutherford Road	300	Rural
55 Rutherford Road	305	Rural
340 Dukes Road North	325	Rural
243 Puddle Alley	365	Rural
176 Puddle Alley (Duncan South Limited)	465	Rural

NOTE: 245 Puddle Alley is owned by SLPL and is not assessed as a sensitive receiver. Industrial sites (Fonterra, Odlins Place) to the west are subject to industrial noise limits.

3.0 CONSENT NOISE LIMITS

3.1 Fast-track Approvals Act 2024

The site is pending approval under the Fast-track Approvals Act 2024 (FTAA). The DCC land use consent and its conditions are the primary regulatory instrument governing operational activities, including noise. This ONMP is required by, and must be certified under, the terms of that consent.

3.2 Operational Noise Limits at Dwellings

In accordance with the DCC consent conditions, all operational activities must be conducted so that noise does not exceed the following limits at the notional boundary of any existing noise-sensitive receiver (dwelling), measured and assessed in accordance with New Zealand Standard NZS 6801:2008 *Acoustics – Measurement of environmental sound* and New Zealand Standard NZS 6802:2008 *Acoustics - Environmental Noise*:

Table 2: Proposed consent condition noise limits – Notional boundary of dwellings

Time period	Hours	Noise limit	L _{Amax} limit
Daytime	7:00am – 7:00pm	55 dB L _{Aeq} (15min)	—
Evening	7:00pm – 10:00pm	50 dB L _{Aeq} (15min)	—
Night-time	10:00pm – 7:00am	45 dB L _{Aeq} (15min)	75 dB L _{Amax}

NOTE: These limits apply at the notional boundary of any existing dwelling. Some dwellings are within 350m of the Industrial Zone (Rule 9.3.6 1.c) and would have a base 2GP night limit of 45 dB L_{Aeq}. For dwellings outside this 350m area (base limit 40 dB L_{Aeq} under 2GP Rule 9.3.6 1.b), the consent applies a consistent 45 dB L_{Aeq} night limit across all dwellings, reflecting the mixed rural/industrial context and the WHO guidelines. The 2GP site boundary limit (Rule 9.3.6 1.d) of 60 dB L_{Aeq} does not apply under these conditions.

3.3 Noise Limits at Industrial Boundaries

At the boundary of any adjacent industrial site (including the Fonterra site and 1 Odilins Place), noise must not exceed:

Table 3: Proposed consent condition noise limits – Industrial zone

Time period	Noise limit
All times (day, evening, and night)	65 dB L _{Aeq} (15min)

3.4 Special Audible Characteristics

Where any noise source contains a special audible characteristic (SAC) as defined in NZS 6802:2008 (including tonality or impulsiveness), a +5 dB adjustment is applied to the measured noise level before assessing compliance with the limits in sections 4.1 and 4.2. A SAC adjustment applies to tonal reversing alarms on road trucks. SLPL will therefore require broadband (non-tonal) "squawker" reversing alarms on all on-site plant and equipment and will request that visiting road trucks use broadband reversing alarms, particularly during evening and night-time periods.

3.5 Rail Siding Noise

Noise from train movements on the SLIP rail siding is exempt from the 2GP noise limits pursuant to Rule 9.3.6 3.q, which covers noise from trains in railway yards, railway sidings, or stations (including sidings outside a designated rail corridor).

Notwithstanding this exemption, SLPL will manage rail siding operations as set out in Section 8 of this Plan, and all train movements to and from the site must operate between 7:00am and 10:00pm unless otherwise approved in writing by DCC (consent condition).

Predicted noise from a locomotive operating on the SLIP site (with noise barriers in place) is lower than noise from trains travelling along the main line corridor, due to the slower speed on-site and the screening effect of the noise barriers.

3.6 Resource Management Act 1991

In addition to the noise limits in the consent conditions, the Resource Management Act 1991 (RMA) provides the overarching legislative framework. Section 16 of the RMA places a duty on every occupier of land to adopt the best practicable option to avoid unreasonable levels noise.

In essence, this requires SLPL to continue to manage and mitigate noise from the operation of the site to reduce noise where practicable. This ONMP provides the framework for achieving this.

4.0 OPERATION OF NOISE SOURCES

4.1 Development Staging

The site is developed in three stages:

- **Stage 1** –Establishment of container stacking areas, onsite rail siding, some warehouse buildings. Road and rail freight movements commence. No scheduled night-time operations initially.
- **Stage 2** –Additional warehousing and container stacking. Moderate increase in vehicle movements.
- **Stage 3** –Full build-out. Progressive increase in warehousing, container stacking, break-bulk hardstand areas, and vehicle movements. Night-time freight deliveries introduced.

Operational noise sources at the Southern Link Inland Port include the following categories:

4.2 Container Handling Equipment

Container handling is the primary noise-generating activity. Key sources include reach stackers (stacking/unstacking containers in hardstand areas), straddle carriers (transferring containers between exchange areas and stacking zones), and side-loaders. These generate noise from diesel engines, hydraulics, and occasional container-on-container contact. The noise assessment has assumed the following operational scenarios:

- 2 reach stackers or straddle carriers operating 50% of the time during Stage 1 (daytime).
- Up to 4 straddle carriers and 3 straddle carriers operating 50% of the time during Stage 3, including night-time operations.
- Container stacking impacts can cause high L_{Amax} events and require active management.

4.3 Forklift Operations

Electric forklifts operate within enclosed warehouse loading areas ("tunnels"). The tunnel enclosure provides significant acoustic screening. Activity levels include:

- Up to 13 electric forklifts during Stage 1 daytime, increasing to 41 forklifts in warehouse areas and 6 in break-bulk areas during Stage 3.
- Electric forklifts produce lower noise than diesel equivalents; the enclosed loading tunnel design further reduces external noise impact.

4.4 Road Truck Movements

Road trucks are the dominant source of noise at the site boundary during peak traffic periods. Exchange areas handle import and export containers. Key considerations include:

- Stage 1 peak: up to 14 trucks per hour at Exchange 1 and 12 at Exchange 2 (daytime only). No night-time truck activity during Stage 1.
- Stage 3 night-time: up to 4 trucks per hour at Exchange 1 and 1.6 per hour at warehouse areas.
- Tonal reversing alarms attract a +5 dB SAC adjustment under NZS 6802:2008. Broadband reversing alarms are required on all site plant; visiting trucks with tonal alarms should be avoided during evening/night periods where practicable.

4.5 Rail Siding Operations

Rail movements include locomotive arrivals and departures, shunting on the siding, and coupling/uncoupling of wagons. Noise characteristics include:

- Locomotive engine noise (moving and idling).
- Wheel/rail interaction at junctions and crossings (highly variable L_{Amax}).
- Warning horns and bell assemblies (as required by KiwiRail standards).
- Proposed: 4 rail movements per day, none during night-time (10pm–7am).

4.6 Outdoor Workshop and Container Wash/Repair

The outdoor workshop (welding, hand tools) and container wash operations (water blasters) are modelled at 100% operation during daytime with no night operations for Stage 1, and 100% operation (day and night) for Stages 2 and 3. These are located in central/western parts of the site and are partially screened by warehouse buildings.

4.7 Fixed Plant

Fixed plant includes air compressors, mechanical ventilation, and refrigeration units (reefer plugs for refrigerated containers). All fixed plant must be enclosed or fitted with acoustic treatment where necessary to achieve the noise limits in Section 3.

5.0 PHYSICAL NOISE MITIGATION MEASURES

The SLIP has been designed with noise mitigation measures integrated from the outset. These physical measures represent the best practicable option (BPO) and are not negotiable — they must be in place and properly maintained at all times.

5.1 Site Layout

Warehouse buildings are positioned along the northern and eastern site boundaries to provide acoustic screening between outdoor container-handling activities and the nearest residential receivers.

5.2 Enclosed Loading Areas

Loading and unloading of warehouses is carried out within enclosed "tunnel" structures built into the warehouse design. These tunnels confine forklift noise within the building envelope, substantially reducing noise at site boundaries.

5.3 Noise Barriers and Earth Bunds

Perimeter noise barriers and bunds are provided at the site boundaries adjacent to sensitive receivers. Key specifications are:

Table 4: Physical mitigation

Barrier type	Height	Location	Stage
Type A acoustic barrier	5 m	Northern/eastern boundaries facing residential receivers	Stages 1, 2, 3
Type B acoustic barrier	3 m	Eastern/south-eastern boundaries	Stages 1, 2, 3
Earth bund	3 m	Eastern boundary (Break Bulk Hardstand areas)	Stages 1 and 2
Type B acoustic barrier (replacing bund)	3 m	Eastern boundary (Break Bulk Hardstand 3A/3B/3C)	Stage 3

- Barriers achieve approximately 10 dB noise reduction by blocking direct line-of-sight between noise sources and sensitive receivers.
- Barrier construction: no gaps permitted (except operational water flow flaps). Minimum surface mass of 12 kg/m² throughout.
- Water flow flaps in the north-eastern corner: designed to cover gaps during normal operation; minimum surface mass of 10 kg/m². Must close automatically when water is not flowing.
- Barrier integrity must be inspected monthly (see Section 9). Any damage must be repaired within five working days of identification.

6.0 OPERATIONAL NOISE MANAGEMENT MEASURES

6.1 Hours of Operation

The following hours of operation apply to the SLIP. Operations outside these hours require approval from DCC or are subject to the conditions noted.

Table 5: Proposed hours of operation

Activity	Permitted hours	Notes
General site operations (forklifts, reach stackers, trucks)	No restriction in consent (noise limits apply at all times)	Stage 1: daytime only initially. Stage 3: night-time operations introduced subject to noise limits
Train movements on rail siding	7:00am – 10:00pm	Outside these hours requires DCC written approval (consent condition)
Outdoor workshop / container wash/repair	Daytime preferred; avoid night-time where practicable	No consent restriction but noise limits apply

6.2 Training and Awareness

Noise management training must be integrated into site inductions and ongoing operational training. The following minimum requirements apply:

- All new staff and contractors must complete a noise awareness component as part of their site induction before commencing work. This must cover: the consent noise limits, the hours of operation requirements for rail movements, the reversing alarm requirements, the container stacking restrictions at night, and the complaints contact details.
- Plant operators must receive documented training on low-noise operating techniques for reach stackers and straddle carriers before operating on site, and refresher training at intervals not exceeding 12 months.
- Rail operators (KiwiRail shunters) working on the SLIP siding must be briefed on the site's noise management requirements (Section 8) at each induction.
- Records of inductions and training must be retained and available for inspection.
- The Site Manager must conduct a noise management toolbox talk for all site staff at least every six months, covering recent performance, any complaints received, and any operational changes with noise implications.

6.3 Reversing Alarms

To minimise tonal noise that attracts a +5 dB SAC adjustment under NZS 6802:2008:

- All SLPL-owned and operated plant (reach stackers, straddle carriers, forklifts, site vehicles) must be fitted with broadband ("squawker") reversing alarms — not tonal beepers.
- Contractors and third-party operators working on site must also comply with this requirement. Tonal reversing alarms are not permitted on any site equipment.
- Visiting road trucks entering the site during evening (7pm–10pm) or night-time (10pm–7am) periods should preferably use broadband reversing alarms. Where a truck with a tonal alarm arrives during these periods, the site operator should direct reversing activities away from the nearest residential boundaries where practicable.
- Compliance with reversing alarm requirements must be checked as part of the induction of all new plant operators and at each equipment maintenance service.

6.4 Container Stacking Management

Container stacking and handling is the most variable noise source and the most significant cause of high L_{Amax} events. The following measures apply:

- All reach stacker and straddle carrier operators must complete site-specific noise awareness training prior to operating on site (see Section 10).
- Operators must use smooth, controlled lifting and placement techniques to minimise container-on-container impact noise.
- During night-time (10pm–7am), high-stacking activities (stacking containers above two high) adjacent to the northern and eastern boundaries should be avoided where practicable. Supervisor authorisation is required for any high-stacking activities near boundaries at night.
- Repeated noise complaints or noise monitoring exceedances related to specific operators must be investigated promptly; persistent issues may result in retraining or removal from night-shift duties.

6.5 Truck Movement Management

The exchange areas are designed to minimise reversing movements within the site. The following management measures also apply:

- Engine idling: trucks must not idle for more than five minutes while stationary at exchange or warehouse areas. Drivers should be instructed on the site's anti-idling policy at the gatehouse.
- Engine braking (Jake brakes) is prohibited on Dukes Road North and within the site at all times.
- Scheduling: where practicable, night-time truck deliveries should be distributed throughout the night rather than concentrated at the start of the night-time window (10pm), to minimise cumulative noise impact.

6.6 Fixed Plant and Reefer Units

Fixed plant (compressors, ventilation, refrigeration) must be acoustically treated or enclosed where required to achieve compliance with the limits in Section 4.

Individual reefer (refrigerated container) units must be positioned centrally within the site and away from northern/eastern boundaries where practicable during night-time operation. The location of the large scale reefer storage area benefits from shielding provided by warehouse buildings. This area should not be relocated without consideration of noise propagation from the site.

Noisy reefer units with known defects must be repaired or relocated before being plugged in during the night-time period.

7.0 RAIL SIDING NOISE MANAGEMENT

7.1 Overview

The SLIP rail siding connects the site to the main KiwiRail South Island Main Trunk (SIMT) corridor. While noise from trains on the siding is exempt from 2GP noise limits under Rule 9.3.6 3.q, SLPL is committed to managing rail siding noise in accordance with best practicable option and the KiwiRail operating standards. The consent conditions require that all train movements occur between 7:00am and 10:00pm unless otherwise approved by DCC in writing.

7.2 Hours of Rail Operations

- All train arrivals and departures from the SLIP site must occur between 7:00am and 10:00pm.
- Any requirement for rail movements outside these hours (e.g. timetable changes, emergency resupply) must be approved by DCC in writing before such movements occur.
- Planned train movement schedules must be communicated to the Site Manager at least 24 hours in advance to allow coordination with other noise-generating activities.

7.3 Locomotive Operations on Site

- Locomotive speed on the SLIP siding must be kept to the minimum operationally safe speed. Lower speeds reduce wheel/rail noise and locomotive engine noise at receivers.
- Locomotive idling within the site should be minimised. Where a locomotive is waiting on site for more than 15 minutes, the engine should be shut down unless KiwiRail operational requirements prevent this.
- Locomotive horn/whistle sounding on site must comply with KiwiRail operational requirements. Where discretion exists, horn use within 50m of the site boundary facing residential receivers should be minimised during evening hours (7pm–10pm).

7.4 Shunting and Wagon Coupling

- Shunting speed must be the minimum operationally safe speed. Aggressive coupling (high-speed buffer impacts) must be avoided.
- Where practicable, all coupling and uncoupling activities should be completed before 9:00pm to minimise high-impact noise events near the end of the permitted operating window.
- Rail operators and shunters must be briefed on the site's noise management requirements at each site induction.

7.5 Infrastructure Maintenance

Rail track, switches, and crossings within the site must be maintained in good condition to minimise wheel/rail interaction noise. Defects such as flat spots on wheels or surface irregularities in rail must be reported and rectified promptly.

7.6 Coordination with KiwiRail

SLPL will liaise with KiwiRail to ensure rail operations at the SLIP are consistent with this plan. Any changes to locomotive type, train frequency, or operating windows that could affect noise at surrounding receivers must be notified to the Site Manager and the acoustics adviser for assessment before implementation.

8.0 NOISE MONITORING PROGRAMME

8.1 Purpose

Noise monitoring serves to verify ongoing compliance with the consent noise limits, detect emerging issues before they result in complaints, and provide data for investigating complaints when they arise. A combination of periodic attended measurements and continuous unattended monitoring will be used.

8.2 Permanent Monitoring

A permanent noise monitor must be installed at the site boundary near the rail loading area (as recommended by MDA in their peer review response). This monitor will capture continuous noise level data and allow attribution of noise events to specific operational activities or rail movements. Requirements:

- Weather-rated sound level meter or noise monitoring unit (IEC 61672 Class 1 or Class 2) with data logging capability.
- Data logged at a minimum of 15-minute L_{Aeq} intervals with L_{Amax} capture.

8.3 Periodic Attended Monitoring

In addition to the permanent monitor, attended noise monitoring must be carried out:

Table 6: Attended noise monitoring

Monitoring trigger	Frequency	Who	Locations
Baseline (commencement of Stage 1 operations)	Once, within 3 months of Stage 1 commencing	Suitably qualified acoustics consultant (e.g. MDA)	At or near the notional boundary of the closest receivers: 273 Dukes Rd North and 54 Rutherford Rd
Routine compliance monitoring	At least annually (or more frequently if complaints received)	Suitably qualified acoustics consultant	Rotating selection of nearest receivers, including at least one night-time measurement
Night-time operations (Stage 3 introduction)	Prior to and within 6 weeks of commencement of regular night operations	Suitably qualified acoustics consultant	273 Dukes Rd North, 54 Rutherford Rd, 231 Dukes Rd North
Following a complaint	Within 5 working days of receiving a reasonable noise complaint	Site Manager (initial) + acoustics consultant where required	Vicinity of complainant property
Following a consent review	As directed by DCC	Suitably qualified acoustics consultant	As directed

8.4 Measurement Methodology

- All noise measurements must be conducted and assessed in accordance with New Zealand Standard NZS 6801:2008 *Acoustics – Measurement of environmental sound* and New Zealand Standard NZS 6802:2008 *Acoustics - Environmental Noise*.
- Measurements must be made at the notional boundary of the relevant dwelling (or at a representative position as agreed with the DCC).

- Weather conditions must be recorded at the time of measurement (wind speed and direction, temperature, precipitation). Measurements must not be taken during rain or when wind speed exceeds 5 m/s at the measurement location.
- Any SAC adjustments applied must be documented in monitoring records.

8.5 Barrier Integrity Inspections

The physical noise barriers are critical to achieving compliance. In addition to acoustic monitoring:

- Noise barriers must be visually inspected annually to identify gaps, damage, or settlement that could reduce acoustic performance.
- Water flow flaps in the north-eastern corner must be checked monthly to confirm they are closing correctly when no water is flowing.
- Any defects must be logged in the maintenance register and repaired within five working days.

8.6 Records and Reporting

- All monitoring data (attended and unattended) must be retained for a minimum of five years.
- Monitoring results must be summarised in an annual compliance report submitted to DCC.
- Monitoring records must be made available to DCC within five working days of a written request.

9.0 COMPLAINTS MANAGEMENT

9.1 Complaints Contact Point

SLPL will maintain a publicly available complaints contact point (phone number and email) for receiving noise complaints from neighbouring residents. This contact information must be:

- Published on the SLPL website and provided to all immediately neighbouring landowners prior to the commencement of Stage 1 operations.
- Monitored during all operational periods, with an after-hours mechanism for urgent complaints.
- Staffed or monitored by a person with authority to direct operational changes if a complaint relates to an ongoing noise issue.

9.2 Complaints Register

All complaints received must be recorded in a written complaints register within 24 hours of receipt. In accordance with consent conditions, the register must record:

- Date, time, and nature of the complaint.
- Name, phone number, and address of the complainant (unless the complainant wishes to remain anonymous).
- Steps taken by SLPL to investigate the complaint.
- Actions taken by SLPL to remedy the matters identified, if appropriate.
- Any equipment failure and remedial action taken.
- Weather conditions at the time of the complaint, including wind direction, wind strength, and temperature.
- Date and name of the person making the register entry.
- A copy of the complaints register must be made available to DCC within 5 working days of request.

9.3 Investigation and Response Process

The investigation/response process detailed below shall be followed for all reasonable complaints.

Table 7: Complaint investigation/reasons process

Step	Action	Timeframe	Responsible
1	Receive complaint and log in register; acknowledge receipt to complainant.	Same day / within 24 hours	Site duty manager
2	Investigate the likely cause: review operational logs, weather conditions, and ongoing activities at the time of the complaint.	Within 48 hours	Site Manager
3	Undertake initial noise check or arrange attended measurement if required.	Within 5 working days	Site Manager / Acoustics consultant
4	Identify corrective actions where noise is confirmed as the cause.	Within 5 working days of investigation	Site Manager

Step	Action	Timeframe	Responsible
5	Implement corrective actions (operational changes, equipment adjustments, additional mitigation).	As soon as practicable	Site Manager / Operations
6	Report outcome to complainant and record in register.	Within 10 working days of complaint receipt	Site Manager
7	Review effectiveness of corrective action.	Within 30 days	Site Manager / Acoustics consultant

9.4 Escalation

Where a complaint cannot be resolved through the standard process, or where multiple complaints are received about the same issue within a 30-day period, the matter must be escalated to SLPL senior management and the acoustics adviser. DCC must be notified of persistent unresolved issues. Where a pattern of complaints indicates a systemic operational problem, a review of this ONMP must be initiated (see Section 11).

9.5 Proactive Community Liaison

In addition to responding to complaints, SLPL will proactively notify immediately adjacent landowners of any planned activities that are likely to generate significantly elevated noise (e.g. first rail siding operation, night-time operation commencement) at least five working days in advance, providing a contact number for queries.

10.0 ROLES AND RESPONSIBILITIES

Role	Noise management responsibilities
SLPL Site Manager	Overall accountability for ONMP implementation. Receives complaints, authorises corrective actions, coordinates monitoring. Day-to-day contact for DCC. Maintains complaints register and monitoring records. Approves any deviations from standard operating procedures that may affect noise.
SLPL Operations Supervisor	Day-to-day supervision of container handling, truck exchange, and rail siding operations. Ensures operators comply with noise management requirements. Conducts shift briefings referencing noise obligations. First point of escalation for operator noise issues.
Plant Operators (reach stackers, straddle carriers, forklifts)	Follow trained operating techniques to minimise noise. Report equipment defects (reversing alarms, mechanical noise) to supervisor promptly. Comply with night-time stacking restrictions near boundaries.
Site Security / Gate Staff	Inform visiting truck drivers of the anti-idling and broadband reversing alarm requirements. Record non-compliant vehicles. First point of contact for after-hours complaints.
KiwiRail (train operator)	Operate locomotives and shunting in accordance with Section 8 of this plan and the agreed Rail Siding Management Protocol. Notify SLPL of any changes to rail timetable, locomotive type, or operating practices.
Acoustics Adviser (Marshall Day Acoustics or equivalent)	Undertake periodic compliance monitoring and report to SLPL. Advise on corrective actions where noise limits are at risk. Support complaint investigations. Review and update the ONMP as required. Attend DCC consent review meetings as needed.
Dunedin City Council	Receive and certify the ONMP. Conduct consent reviews (annually from one year after site commencement). Receive complaints register on request. Investigate potential consent breaches.

11.0 PLAN REVIEW AND UPDATE

11.1 Scheduled Reviews

This ONMP must be reviewed:

- One year after the commencement of operations at the SLIP (to coincide with the first DCC consent review under Section 128 of the RMA).
- Annually thereafter, in conjunction with each annual consent review.
- Prior to the commencement of each new development stage (Stage 2 and Stage 3).
- Following any significant change to site operations that may affect noise performance.

11.2 Triggered Reviews

A review of this ONMP may also be triggered by:

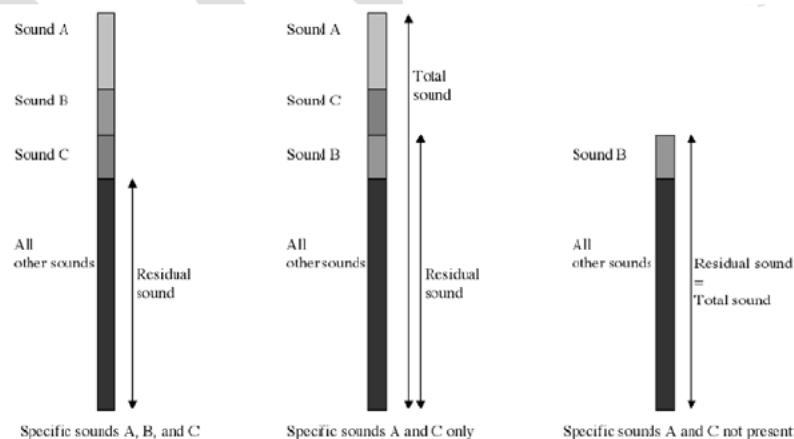
- Three or more reasonable noise complaints from the same receiver within any 30-day period.
- A confirmed exceedance of any consent noise limit.
- A change to KiwiRail operations materially affecting rail noise at the site.
- A direction from DCC.

11.3 Amendment Process

Proposed amendments to this ONMP must be submitted to DCC for recertification in accordance with the consent conditions. Works associated with the amendment must not commence until recertification has been obtained. All onsite copies must be updated within five working days of any amendment being certified.

APPENDIX A GLOSSARY OF TERMINOLOGY

A-weighting	A set of frequency-dependent sound level adjustments that are used to better represent how humans hear sounds. Humans are less sensitive to low and very high frequency sounds. Sound levels using an “A” frequency weighting are expressed as dB L_A. Alternative ways of expressing A-weighted decibels are dBA or dB(A).
Background sound	The sound that is continuously present in a room or outdoor location. Often expressed as the A-weighted sound level exceeded for 90 % of a given time period i.e. L_{A90}.
dB	Decibel. The unit of sound level.
L_{A90}	The A-weighted sound level exceeded for 90 % of the measurement period, measured in dB. Commonly referred to as the background noise level.
L_{Aeq}	The equivalent continuous A-weighted sound level. Commonly referred to as the average sound level and is measured in dB.
L_{Amax}	The A-weighted maximum sound level. The highest sound level which occurs during the measurement period. Usually measured with a fast time-weighting i.e. L_{AFmax}.
Noise	A subjective term used to describe sound that is unwanted by, or distracting to, the receiver.
Notional boundary	A line 20 metres from any side of a dwelling, or the legal boundary where this is closer to the dwelling. This definition is from NZS 6802:2008.
Rating level	A derived level used for comparison with a noise limit. Takes into account any and all corrections described in NZS 6801 and NZS 6802, e.g. duration, special audible character, residual sound etc. This definition is from NZS 6802:2008.
Special audible characteristics	Distinctive characteristics of a sound that make it more likely to cause annoyance or disturbance. A penalty of up to 5 decibels can be applied when assessing sounds with SAC Examples are tonality – a hum or a whine) and impulsiveness – bangs or thumps.
Total sound Or Ambient sound	The totally encompassing sound in a given situation at a given time, from all sources near and far, including the Specific Sound. See also Residual Sound.



This definition is from NZS 6802:2008.

APPENDIX B NOISE MONITORING LOG TEMPLATE

The following template must be used for all attended noise monitoring. Records to be retained for a minimum of five years.

Table 8: Noise monitoring log template

Field	Entry
Date of measurement	
Time (start – end)	
Measurement location / address	
Distance from site boundary (m)	
Weather: wind speed (m/s)	
Weather: wind direction	
Weather: temperature (°C)	
Weather: precipitation	
Instrument make/model/serial no.	
Calibration check (before/after)	
Operational activities during measurement period	
$L_{Aeq(15min)}$ measured (dB)	
L_{Amax} measured (dB)	
SAC adjustment applied (if any)	
Rating level ($L_{Aeq} + SAC$) (dB)	
Applicable consent limit (dB)	
Compliance status (pass/fail/marginal)	
Comments / observations	
Measured by (name and qualifications)	

APPENDIX C COMPLAINTS REGISTER TEMPLATE

The following template must be used for all noise complaints. The register must be available to DCC within 48 hours of any request.

Table 9: Complaints register template

Field	Entry
Complaint reference number	
Date received	
Time received	
Nature of complaint (noise type, activity)	
Complainant name	
Complainant phone number	
Complainant address	
Anonymous? (Y/N)	
Weather at time of complaint (wind, temp)	
Site operational activity at time	
Investigation steps taken	
Findings of investigation	
Corrective action taken	
Equipment failure identified? (Y/N – details)	
Date complainant informed of outcome	
Follow-up required? (Y/N)	
Date register entry made	
Name of person making entry	

APPENDIX D KEY CONTACTS

Role	Organisation	Contact name	Phone	Email
SLIP Site Manager	SLPL	[Insert]	[Insert]	[Insert]
SLIP Operations Supervisor	SLPL	[Insert]	[Insert]	[Insert]
Community complaints line	SLPL	[Insert]	[Insert]	[Insert]
Acoustics Adviser	Marshall Day Acoustics	Brendon Shanks	[Redacted]	[Redacted]
DCC Consent Manager	Dunedin City Council	[Insert]	[Insert]	[Insert]
DCC Duty Environmental Officer	Dunedin City Council	[Insert]	03 477 4000	[Insert]
KiwiRail Operations (SMT)	KiwiRail	[Insert]	[Insert]	[Insert]