

Port Noise Community Meeting Minutes

East Pier Hotel: 5pm – 6:30pm, Monday 23 June 2025

1. Attendance

Napier Port: David Broad (GM Assets and Infrastructure, Napier Port), Hannah Strauss (Environmental and Sustainability Manager, Napier Port), Jay Streatfield (Graduate Environmental and Sustainability Advisor, Napier Port), Chris Lonergan (Communications Manager, Napier Port), Craig Fitzgerald (Marshall Day),

2. Welcome, Housekeeping and Brief Introductions

3. Low Frequency Noise Presentation (Craig Fitzgerald, MDA)

▪ Craig Fitzgerald's Role

- Craig Fitzgerald has worked with nearly all major ports in New Zealand and supported ports in Australia in developing best practice port noise guidelines.
- His role includes advising Napier Port on annual monitoring, validation of its noise model, mitigation strategies, and ensuring the port meets national standards.
- He conducts noise measurements and analysis, including crane-based assessments of container ships, and assists with community engagement.

▪ What is the Ship "Rumble"?

- LF (low frequency) noise is a long-standing issue, recently brought back into focus by Rio class container vessels.
- The noise is caused by some auxiliary generators powering refrigerated containers (reefers) on ships.
- These generators emit a deep, rumbling LF sound, especially noticeable inside dwellings due to inadequate façade insulation at those frequencies.
- Ships may have multiple generators running simultaneously, which can affect sound character but not necessarily overall loudness.

▪ Port Noise Standard

- NZ Port Noise Standard provides guidance for managing and assessing port noise to allow infrastructure and communities to coexist.
- Napier Port's noise model is used to predict how sound travels from port operations into surrounding residential areas. It is calibrated and validated using both fixed and attended on-site measurements to ensure accuracy.
- Ports have direct control over some sources (e.g. forklifts, alarms) and indirect influence over others (e.g. shipping lines, rail and road).

- Examples of mitigation at source include use of visual signals instead of tonal reversing alarms, investment in lower-noise equipment (e.g. eco reachstackers), and working with tenants on noise obligations.
- **Collaborative Port Approach**
 - In 2019, NZ ports adopted a more collective strategy for addressing LF ship noise.
 - Previously, individual ports had limited success engaging with shipping lines. Since combining efforts, ports have shared vessel noise data, created a Neptune scoring system, and taken a coordinated stance.
 - This unified approach has helped raise awareness within the shipping industry and encouraged better procurement decisions.
 - Craig Fitzgerald and his team play a key role in supporting this national coordination.
 - New South Wales ports are now adopting the NZ method, integrating shared data and extending the network across Australasia.

- **Noise Mitigation and Management**

- Reactive Silencer Retrofit**

- Case study: Retrofit of Rio vessel with a reactive silencer successfully eliminated LF rumble.
 - Costly and technically difficult – size of silencer equivalent to a large car.
 - Only one of four generators retrofitted; vessel now uses that generator while in port when possible.
 - Video demonstration on YouTube ([link available in presentation here](#)) allows public to compare pre- and post-mitigation noise. For the most accurate experience, viewers are encouraged to use headphones when watching the clip.
 - Retrofit received recognition from international noise industry.

- Collective Industry Action and MNZ Engagement on LF Ship Noise**

- Over 100 container vessels benchmarked using crane-mounted monitoring equipment.
 - Maritime NZ is looking at options to address low frequency noise from ships. This will include developing guidance to help operators understand and address sources of low frequency noise. It will also be engaging the International Maritime Organisation (IMO) on the question of whether international standards for low frequency noise should be set over time.
 - NZ ports maintain a shared database of vessel noise scores (Neptune ratings).

- Ports collectively engage shipping lines; however, Commerce Commission ruled a proposed mandate on ship noise mitigation anti-competitive.
- Maritime NZ (MNZ) has been slow to act despite receiving data and recommendations.
- Residents encouraged to elevate concerns to MNZ or MPs directly.

▪ **Community Questions and Responses**

The above topics included significant community interest and multiple questions, particularly regarding practical mitigation solutions, the effectiveness of retrofitted silencers, the collaborative response from New Zealand ports, and the role of Maritime New Zealand (MNZ).

- Residents asked whether all new ships are now being built with silencers. It was noted that while awareness is improving, many ships are still being built without this equipment.
- There was also a question about the additive effect of multiple generators running at once on a vessel. Craig explained that while this doesn't make the vessel materially louder, it can change the sound character.
- When asked why Napier Port or Maritime New Zealand (MNZ) can't restrict noisy ships, Hannah Strauss clarified that a Commerce Commission ruling prevents NZ ports from enforcing such standards collectively. Any regulatory action would require MNZ involvement.
- Frustration was expressed about MNZ's slow progress in addressing LF noise, and residents asked whether they could advocate directly. Residents were encouraged to write directly to MNZ or their local MPs to raise the issue.
- A question was also raised about whether the same ship generates more complaints when berthed at 6 Wharf compared to 5 Wharf. Hannah noted that this is something supported by complaint data (which was explored in more detail later in the meeting).
- Finally, residents queried why ships often appear to operate more at night. David Broad explained that operations are based on vessel schedules and berth availability, not preference, and that there is no deliberate prioritisation of night-time activity.

4. Noise Management in Port Operations (David Broad, Napier Port)

▪ **Berth Planning**

- Napier Port has limited levers to manage low-frequency noise, particularly where vessels meet operational and safety requirements.

- Where operationally feasible, noisy vessels are assigned to 5 Wharf to take advantage of the funnel orientation, which directs emissions away from residential areas.
 - Input from Napier Port's Planning Team, which works to optimise berth allocation with an awareness of noise profiles, reflects that noise is now a more deliberate consideration in operational planning.
 - Planning must also consider:
 - Weather, swell, wind and tide
 - Vessel size, draft, gangway/mooring requirements
 - Yard layout and proximity to cargo storage areas
 - Vessel schedule and berth windows
 - Cruise ship timetables and inter-port coordination
 - In peak periods (e.g. export season), port flexibility is constrained.
 - Proactive communication to affected residents is undertaken where noisy operations are anticipated. This has been well-received to date.
- **Noise Monitors**
- Permanent noise monitor located at Karaka Road. This location is considered an excellent site due to its clear line-of-sight to the port and its position within a known area of community concern, enabling consistent, long-term measurement of port noise levels.
 - Supplemented by attended monitoring across the hill to validate model accuracy.
 - A temporary noise monitor has been installed in Bay View Road for 8 weeks to provide further confidence of the noise model contours recently validated. Historically, Bay View Road hasn't been closely monitored due to its distance from port operations.
 - Craig Fitzgerald noted that recent monitoring has improved understanding of how different locations experience LF noise.

5. Open Discussion

- **Complaints and Acknowledgement**
- Complaints are a primary source of data and insight into how port noise is experienced in the community.
 - Some residents felt their historical concerns had not been fully acknowledged, especially those near 5 Wharf in Seapoint Rd.
 - Port acknowledged ongoing impacts and reaffirmed commitment to transparency.
 - Hannah Strauss explained that recent complaint analysis shows:

- 45% of complaints originated from residents on Seapoint Road
- Complaint data highlighted a clear difference in noise impact depending on where a vessel is berthed. For example, a vessel berthed at 5 Wharf on 8 separate visits generated no complaints, while the same ship at 6 Wharf led to 13 complaints on one visit.
- She also acknowledged that other areas are impacted and the Port continues to assess and respond accordingly.

▪ **Monitoring Locations**

- Residents raised concerns about the representativeness of monitor placement.
- Craig Fitzgerald reaffirmed that the port currently has one permanent noise monitor, located at Karaka Road, previously described as an excellent location. Its clear visibility to the port and placement within a known area of community concern make it particularly effective for consistent and repeatable long-term data collection, and it remains a central part of Napier Port’s continuous monitoring programme.
- Additional attended monitoring is carried out at variable locations across the hill and other parts of the community to validate the model under different conditions and capture a broader representation of how port noise is experienced in different locations.
- The most recent validation was conducted in February 2025, which coincided with the Port’s busy season, a period of calm weather and a representative container vessel berthed on 6 Wharf, providing optimal conditions for assessing noise levels in affected areas.
- Craig Fitzgerald acknowledged that operational patterns have evolved since the construction of 6 Wharf, which can affect how noise is experienced and interpreted in the community.
- Craig Fitzgerald explained that “cherry-picking” sites can distort the data, which is why monitoring location decisions are made carefully and kept consistent. The noise model itself is reviewed annually – this year’s review was appended to the last Port Noise Liaison Meeting minutes and includes an overview of the attended monitoring locations (now publicly available on Napier Port’s website).
- David Broad noted that Marshall Day Acoustics, as an independent consultant, supports the port with objective monitoring and model validation. Their role is to ensure the data speaks for itself.
- The port’s noise model incorporates real-world 3D terrain – such as hills and buildings – and is updated regularly to reflect environmental changes. This helps ensure the model stays accurate for predicting how noise is experienced in homes as the urban environment evolves.
- Craig Fitzgerald also noted that seasonal measurements provide additional insight into how environmental conditions affect noise propagation. When

combined with long-term data and attended monitoring, these contribute to building confidence in the accuracy of the port's noise model.

▪ **Broader Operational Noise Sources**

- Residents discussed disruptive noises beyond LF ship rumble:
 - Forklifts pushing timber blocks into containers
 - Container handling bangs and crashes
 - Truck movements, stormwater grates/manhole covers
- Port reiterated that detailed complaints provide the best opportunity to identify the source and take appropriate action.

▪ **Shift Timings and Cruise Ships**

- Port clarified no deliberate prioritisation of night-time operations.
- Perception influenced by vessel arrival patterns and heightened sensitivity to noise during nighttime hours. While operations are not deliberately scheduled at night, the arrival of ships outside of daytime hours – combined with quieter ambient conditions – can amplify the perceived impact of port-related noise.
- Cruise ships generally adhere to berth windows more consistently than cargo vessels. This reflects the more predictable scheduling of cruise itineraries and the need for coordination given the fixed and publicly visible nature of cruise schedules. Cargo schedules, by contrast, can be more variable and are influenced by broader supply chain dynamics, which affects arrival times and berth usage.

6. Port Processes – Noise Liaison Committee (PNLC) and Complaints Process (Hannah Strauss, Napier Port)

▪ **Committee Composition**

- 2 x Napier Port representatives
- 4 x Community representatives
- 2 x Port users
- 1 x Napier City Council
- 1 x Hawke's Bay Regional Council

▪ **Function and Process**

- Meets twice a year; minutes are publicly available.
- Key functions:

- Bridge communication between port and community on noise-related issues
- Inform mitigation and monitoring decisions
- **Complaint Handling**
 - Each complaint triggers:
 - Review of noise monitor data
 - Investigation into possible source
 - Logging in official registers (Napier Port and MNZ Ship Register)
 - Response to complainant and reporting to NCC and PNLC
 - Complaints help quantify and prioritise action. Again, specificity is helpful.

7. Resident Mitigation and Advice

- **Potential At-home Strategies**
 - Craig Fitzgerald responded to a question about strategies to manage low-frequency (LF) noise, noting that it is unpredictable and can vary significantly even within a single room.
 - Residents may try to reduce impact by:
 - Moving sleeping location within house
 - Trying different rooms
 - Introducing white noise or airflow to mask LF rumble noise

8. Closing Remarks

- Napier Port thanked attendees for their engagement and encouraged continued use of complaints process.
- Residents were invited to provide contact details to receive updates.
- Attendees thanked Napier Port for improved transparency and responsiveness.
- Meeting closed at 6:30pm.