EnergyCo

NSW GOVERNMENT

Assessment of noise and vibration impacts

Newcastle Logistics Precinct

Environmental Impact Statement | Fact Sheet | July 2026

The Newcastle Logistics Precinct will provide storage and logistics capability needed to transport large renewable energy components to Renewable Energy Zones across NSW, supporting the state's transition to renewable energy.

The Intertrade Site next to the Port of Newcastle

The existing environment

Noise impacts during construction and operation of the Newcastle Logistics Precinct are not expected to significantly impact nearby residences. We are committed to minimising construction noise and vibration impacts on potentially sensitive community members.

The project site sits amongst a heavy industrial area, with the Port of Newcastle lease area located adjacent to its north and eastern boundary, and Industrial Drive separating it from nearby residential areas to the west.

The activities that contribute to existing noise levels are a combination of industrial operating noise from the Port of Newcastle and nearby manufacturing facilities and road traffic, mainly from arterial roads, Industrial Drive and Cormorant Road, and residential noise.

Noise assessment

Technical paper 7 – the noise and vibration assessment, which is summarised in Chapter 11, assessed typical and worst-case construction and operational scenarios to determine the project's noise and vibration impacts, including during both standard construction hours and out-of-hours work.

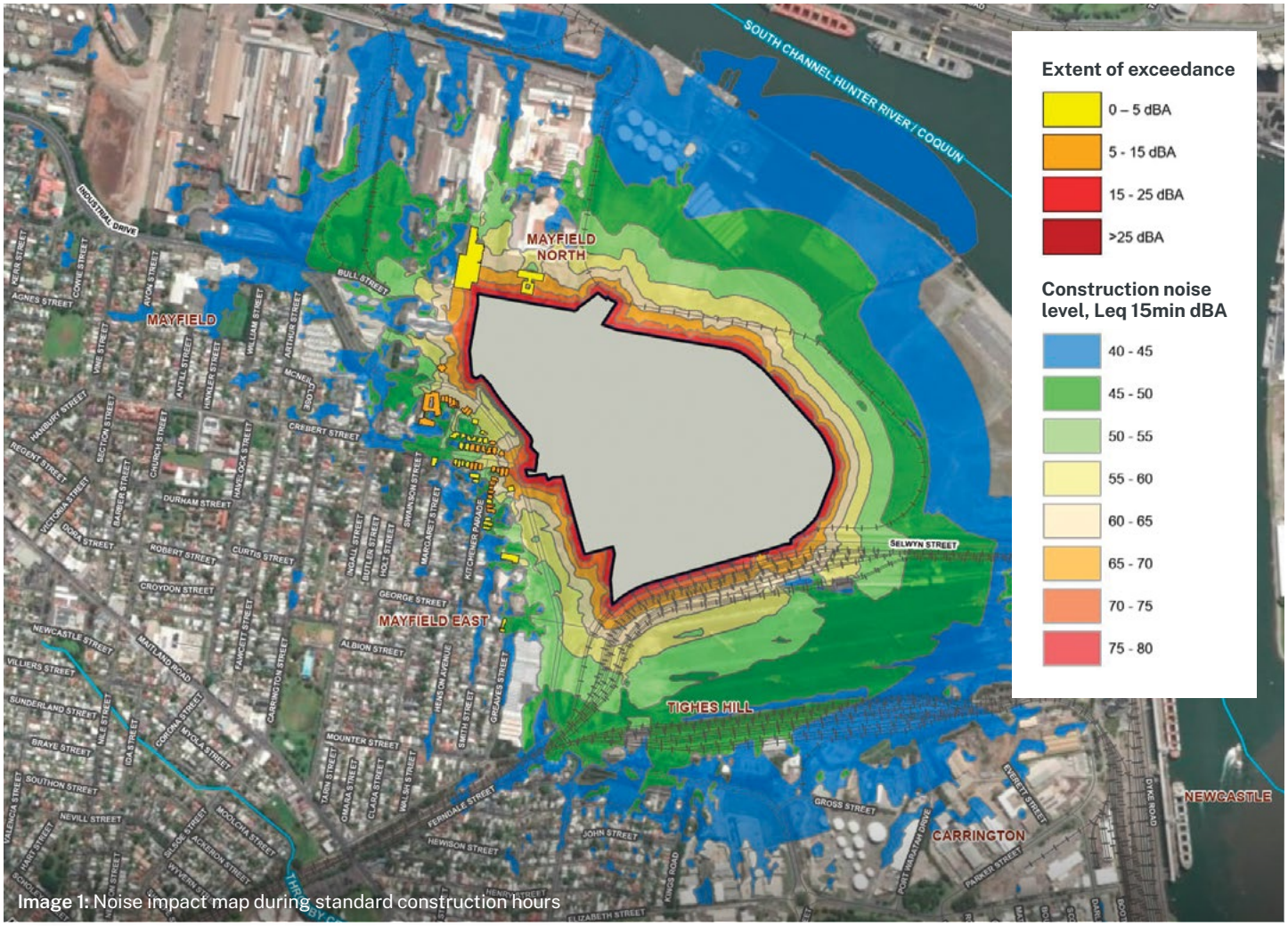

Image 1: Noise impact map during standard construction hours

Construction noise was assessed in accordance with the NSW Environment Protection Authority's (EPA) *Interim Construction Noise Guideline (ICNG)*, which provides the framework for assessing and managing construction noise impacts on noise-sensitive receivers such as residences, schools and places of worship.

The ICNG defines recommended 'standard' construction hours as defined as 7am to 6pm, Monday to Friday and 8am to 1pm Saturday. Construction work outside these hours is considered out-of-hours (OOH) work.

The ICNG also establishes Noise Management Levels (NMLs), which is the assessment criteria used to identify and manage potential construction noise impacts.

For residential receivers, the NMLs are generally based on the existing Rating Background Level (RBL), which represents typical background noise levels, with different criteria applying during standard construction hours and OOH work.

Where predicted construction noise exceeds the relevant NMLs, feasible and reasonable mitigation measures are identified to minimise impacts on nearby sensitive receivers. The ICNG also identifies a threshold for receivers that are highly noise affected during standard construction hours and applies more stringent assessment criteria to OOH work.

Vibration assessment and impact

Vibration impacts were assessed using the NSW EPA's *Assessing Vibration: A Technical Guideline*, which provides criteria for managing ground-borne vibration impacts.

Construction activities such as earthworks, asphalt paving and concrete pavement work has the potential to generate ground-borne vibration at receivers located within 100 metres of the construction footprint, including 15 receivers.

However, vibration impacts are expected to be infrequent and of low magnitude.

Where practicable, construction methods and equipment would be selected to minimise vibration impacts on nearby receivers.

Noise impacts

Daytime construction hours proposed for the project vary slightly from the recommended standard construction hours defined in the ICNG by including a full day of construction on Saturdays.

Work outside these hours (known as out-of-hours work, OOH) could be required during the evening, at night or on Sundays for the following activities:

- incidents and emergencies (or as directed by police or other emergency services)
- tie in of access roads to the existing road network
- utility relocation and adjustment works
- to optimise construction sequencing and minimise overall disruption to sensitive receivers.

During recommended standard construction hours under the ICNG, construction noise levels for those residences closest to the site are predicted to be around 50-55 dBA. This is broadly comparable to noise levels in a typical office environment.

At the closest residences, the relevant NMLs are predicted to be exceeded between 10 to 20dBA for short amounts of time when the noisiest construction activities are occurring.

Refer to image 1 which shows the predicted noise impacts associated with the construction activity modelled as generating the highest noise levels.

During OOH construction work, project noise can feel more noticeable as background noise levels are generally lower. Where work OOH is required, noise levels at the nearest sensitive receivers are predicted around 45 to 50 dBA, with exceedances of NML ranging between 5 to 25 dBA. If OOH work is required, it is carefully planned and communicated to potentially impacted sensitive receivers in advance.

Operational noise was also assessed to consider impacts once the site is operational. Operations will include activities like unloading and loading renewable energy components using cranes and trucks, and will be similar to activities and noise currently generated by surrounding industrial precinct.

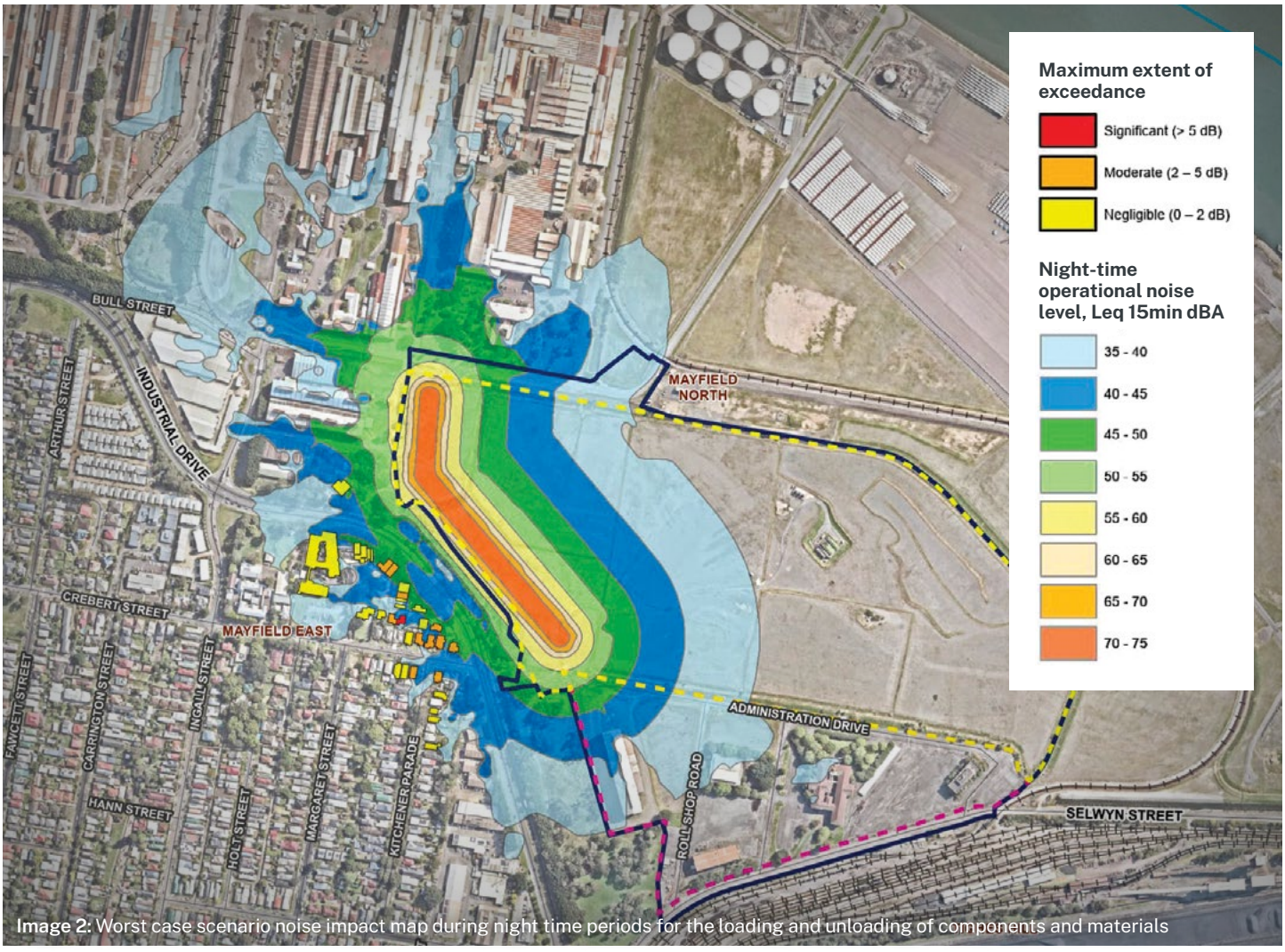

Image 2: Worst case scenario noise impact map during night time periods for the loading and unloading of components and materials

Wind farm components in storage at the Port of Newcastle

The project site is large and operational activities will move around. Image 2 shows the predicted noise impacts at nearby residences when activities are occurring on the western side of the site, closest to residential receivers. At these times, operational noise levels are predicted to be around 40 to 45 dBA, which is similar to typical indoor noise levels in a living room.

The worst-case operational scenario assessed noise impacts at the nearest point to receivers at night. This scenario represents the loading and unloading of components and materials, which is only expected to occur close to residential properties once every three months.

Common noise sources and their typical sounds

To help understand the noise levels outlined in the following section, the table below shows examples of decibel readings or everyday sounds.

Decibels (dB)	Noise source
0 dB	The faintest sound we can hear under perfect conditions
20 dB	Quiet bedroom at night or recording studio
30 dB	Quiet library or quiet location in the country
40 dB	Living room
50 dB	Typical office space or ambience in the city at night
60 dB	Normal conversational speech
70 dB	A car passing by

Noise and vibration mitigation and management measures

A Construction Noise and Vibration Management Plan will be prepared before construction commences to outline detailed mitigation measures to minimise noise and vibration impacts.

While construction hours for the project will include Saturdays, construction will mostly take place during daytime hours.

Measures to minimise noise and vibration impacts during construction and operations may include:

- using quieter equipment and alternative construction methods, where possible
- scheduling noisy activities to occur during standard work hours
- installing temporary barriers or screens on stationary noise sources where feasible
- notifying potentially affected stakeholders before noisy or vibration-intensive activities
- using vehicles with reverse cameras or proximity-based beepers instead of tonal beepers
- turning off equipment when not in use.

For more information, please refer to *Chapter 11: Noise and vibration*, and *Technical paper 7* of the EIS.

Contact us

For more information, please visit our website or get in touch with our team.

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Scan the QR code for more information. For assistance with translating and interpreting this information please call **131 450** and ask them to call **1800 849 794**.