

# Seaham Quarry Project

## Noise and vibration

December 2023



**Building  
something  
great**



Operational noise and vibration assessments have been undertaken as part of preparing the Environmental Impact Statement (EIS) for the Project.

The noise and vibration impact assessment (NVIA) establishes the criteria for noise and predicts the likely noise levels, both in the short-term (i.e. clearing and drilling) and long-term (i.e. final pit form).

As required by the Secretary's Environmental Assessment Requirements (SEARs), the NVIA includes:

- **Noise targets** – Determined in accordance with the NSW Noise Policy for Industry (NPfI, 2017).
- **Operational noise** – Predicted “worst-case” for the current landform and proposed final pit shape. Worst-case means everything operating concurrently including peak heavy vehicle movements.
- **Sleep disturbance** – The night period includes the hours between 10pm and 7am (Monday to Saturday), and 10pm and 8am (Sundays and public holidays).
- **Road traffic** – Focused primarily along Italia Road, but also Pacific Highway.
- **Blasting** – Maintain continued compliance with vibration and overpressure limits.
- **Management** – Recommendations for monitoring and feasible and reasonable mitigation practices.

The NVIA does not include construction noise and vibration impacts. Any proposed construction activities would be assessed against (more stringent) operational noise limits if the Project is approved. Most of the significant infrastructure is already built and only some minor additions and alterations to existing fixed plant are proposed.

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### Key findings

- **Noise targets** – Background noise monitoring was completed, and minimum noise targets detailed in the NPfI are applicable to the Project.
- **Operational noise** – Exceedances of noise targets were predicted for proposed operations at up to five residences. The operational noise model is based on a “worst-case” scenario of all proposed mobile and fixed plant operating concurrently.
- **Sleep disturbance** – The Project is predicted to comply with relevant sleep disturbance targets.
- **Road traffic** – Boral have advised that northbound heavy vehicle movements on Italia Road for local deliveries will be restricted to 2 trips (4 pass-bys) per hour. Road traffic noise from heavy vehicle movements is predicted to comply with relevant noise targets.
- **Blasting** – The Quarry is historically compliant. Further information is publicly available on Boral's Seaham Quarry website.

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### Management and mitigation measures

Hours of operation for noisy activities (i.e. land clearing and blast hole drilling) will be restricted to the day period. Operations will be reduced during the evening period and further reduced during the night period.

Heavy vehicle movements northbound on Italia Road for local deliveries will be restricted.

Real-time noise monitoring to provide noise alarms when operational noise levels approach limits will be recommended.

Attended noise monitoring to ensure ongoing compliance with noise targets will be recommended.

Existing blast management practices will be maintained to ensure the Project's continued compliance with blast limits.

# Air quality



An assessment of the operational air quality impacts has been undertaken, as part of preparing the EIS for the Project. It has been developed and in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*.

The assessment included:

- Calculating emissions (i.e. dust and other particulate matter) from the proposed Quarry and neighbouring quarrying operations, including cumulative impacts
- Modelling to calculate predicted ground level dust or other emission concentrations, in the surrounding environment.



Example of air pollution detectors used for measuring air quality

## Key findings

The assessment found that emissions from the Project alone, are not predicted to result in exceedances of applicable NSW EPA impact assessment criteria.

It found that the cumulative impacts from the proposed quarry operations and the Project are not predicted to exceed the applicable NSW EPA impact assessment criteria.

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## Future tasks to be undertaken

- Assess the Greenhouse Gas emissions from the Quarry
- Review the noise, vibration and air quality mitigation and monitoring methods currently implemented at the Quarry, as part of developing recommendations for future operations.