

Seaham Quarry Project

Traffic assessment

December 2023



Building something great



A traffic impact assessment as part of preparing the Environmental Impact Statement (EIS) is being undertaken to:

- identify the existing traffic volumes and traffic conditions on the surrounding road network (Italia Road and the Pacific Highway) including those traffic volumes generated by the existing Seaham Quarry
- identify the additional daily and peak hour traffic volumes generated by the project and the effect that this increase will have upon the road network and road safety
- identify mitigation measures including the requirements for an operational traffic management plan.

The traffic impact assessment involved traffic modelling, reviewing historic traffic assessments for the site and surrounding quarries, and traffic surveys to calculate the performance of key intersections surrounding the quarry, in particular the Italia Road and the Pacific Highway intersection.

A road safety audit was completed to assess traffic safety risks.

Key findings

The expected peak daily, average daily and peak hour vehicle movements associated with the Project is presented in the table below.

Hourly and daily traffic movements

Vehicle type	Peak daily movements		Average daily movements		Peak hour traffic generation			
	Inbound	Outbound	Inbound	Outbound	Inbound (AM)	Outbound (AM)	Inbound (PM)	Outbound (PM)
Heavy	325	325	224	224	48	48	39	39
Light	49	49	35	35	22	4	9	22
Total	374	374	259	259	70	52	48	61

The estimated forecast future daily traffic volumes for the future quarry operations are:

- for heavy vehicles there will be a maximum of 325 trucks visiting the quarry on a peak production day and 224 trucks visiting the quarry on an average production day
- for light vehicles: there will be a maximum of 49 workforce and site visitor vehicles visiting the quarry on a peak production day and 35 workforce or site visitor vehicles on an average production day.

Safety

A road safety audit was completed for Italia Road. Most safety concerns related to road signposting, delineations, pavement condition, off-road hazards (eg trees), and sight distance concerns as a result of topography/tree obstructions. These matters will be brought to the attention of Port Stephens Council to implement safety improvements.

Management/ mitigation measures – construction and future operations



- Boral has recently installed cameras at our gate to monitor trucks entering and exiting our site. Six new signs have also been installed along the exiting driveway to remind all heavy vehicles that they can only exit onto Italia Road if they have a local delivery, and they must have permission from the weighbridge before they do so.



- A traffic management plan will be developed to document behavioural requirements for quarry drivers



- Install new signs and line marking at Italia Road/Seaham Quarry site access to improve safety at this intersection

Italia Road Intersection – separate Development Application to Council

A development application was recently submitted to Port Stephens Council proposing upgrades to the Pacific Highway/Italia Road Intersection to improve safety and accommodate increased heavy vehicle movements for Boral and other proposed quarry developments in the area.

The design for the intersection was developed in consultation with TfNSW, Port Stephens Council and the Hunter Water Corporation. It involves safety upgrades to the intersection including:

- construction of a dedicated left-turn north-bound acceleration lane from Italia Road onto the Pacific Highway, which would replace the current left-turn give-way movement with a safer downstream merge movement
- widening the existing bridge over the Balickera Canal (to accommodate the north-bound acceleration lane)
- lengthening the north-bound deceleration lane into Italia Road.

Under the arrangement, heavy vehicles leaving quarries would be prohibited from using the right turn from Italia Road onto the Pacific Highway. Existing right turn movements from Italia Road to Pacific Highway would remain for light vehicles. Existing right in movements from Pacific Highway to Italia Road would remain for all vehicles.

Inbound trucks travelling from the south (e.g. Newcastle area) would be able to turn left onto Italia Road. However, outbound trucks with a destination to the south will be required to turn left at Pacific Highway and turn around at Tarean Road. Trucks entering the site from the north heading southbound (e.g. heading from Medowie) will need to use the roundabout/underpass at Raymond Terrace.

The proposed traffic arrangement would apply to all heavy vehicles, subject to approval.

The traffic impact assessment also considered impacts to the Tarean Road/Pacific Highway intersection. It concluded that the intersection would operate at a satisfactory level.

