



**Tasman Extension Project
Environmental Impact Statement**

ATTACHMENT 4

**POTENTIAL INTERACTIONS BETWEEN
THE PROJECT AND OTHER MAJOR PROJECTS**

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A4 POTENTIAL INTERACTIONS BETWEEN THE PROJECT AND OTHER MAJOR PROJECTS

This Attachment provides further discussion on the potential interactions between the Tasman Extension Project (the Project) and other major projects.

A4.1 ABEL UNDERGROUND MINE AND BLOOMFIELD COAL HANDLING AND PREPARATION PLANT

A4.1.1 Existing Abel Underground Mine

Donaldson Coal Pty Ltd (Donaldson Coal) owns the Abel Underground Mine (Mining Lease 1618), which is located approximately 8 kilometres (km) north-east of the Tasman Underground Mine (Figure 1-1 of the Environmental Impact Statement [EIS]).

The Abel Underground Mine operates in accordance with Project Approval 05_0136, granted by the New South Wales (NSW) Minister for Planning in June 2007, as modified in 2010 and 2011.

Under Project Approval 05_0136 (and as modified), the Abel Underground Mine is approved to extract up to 4.5 million tonnes per annum (Mtpa) run-of-mine (ROM) coal using bord and pillar extraction methods for an approved mine life of 21 years. ROM coal from the Abel Underground Coal mine is transported approximately 4 km via sealed internal roads to the Bloomfield Coal Handling and Preparation Plant (CHPP) for processing and train loading.

A4.1.2 Bloomfield Coal Handling and Preparation Plant

Bloomfield Collieries Pty Ltd (Bloomfield) owns and operates the Bloomfield CHPP within Consolidated Coal Lease (CCL) 761. The Bloomfield CHPP is approved to operate under the Abel Underground Mine Project Approval (05_0136) until approximately December 2028 at a maximum ROM coal processing rate of 6.5 Mtpa.

In addition to ROM coal from the Abel Underground Mine, the Bloomfield CHPP processes ROM coal from the Tasman Underground Mine, Donaldson Open Cut Mine, Bloomfield Colliery and other sources.

Tailings and course rejects from the Bloomfield CHPP are disposed in the open cut voids and emplacement areas at the Bloomfield Colliery, pursuant to the Abel Underground Mine Project Approval (05_0136).

A4.1.3 Project Interaction with the Abel Underground Mine and Bloomfield Coal Handling and Preparation Plant

The Project includes the continued transport of ROM coal via public roads to the Abel Underground Mine, at an increased maximum haulage rate. ROM coal would then continue to be transported via sealed internal roads to the Bloomfield CHPP for processing and rail loadout.

Tailings and course rejects from the Bloomfield CHPP would continue to be disposed in the open cut voids and emplacement areas at the Bloomfield Colliery, pursuant to the Abel Underground Mine Project Approval (05_0136).

It should be noted that the Development Application to which this EIS relates does not seek approval for any modification to the approved Bloomfield CHPP or Abel Underground Mine.

Donaldson Coal would separately seek approval for the receipt, internal transport, handling, processing and rail loadout of coal from the Project, and management of associated rejects, as part of the Abel Upgrade Modification (Section A4.1.4).

The environmental monitoring program for the Tasman Underground Mine is integrated with the Abel Underground Mine (i.e. as detailed in the Abel Underground Coal [Integrated with Donaldson Open Cut, Tasman Underground and Bloomfield Open Cut Coal Mines] Integrated Environmental Monitoring Program), and this would continue for the Project.

Relevant cumulative impacts associated with the operation of the Project and the Abel Underground Mine (e.g. potential groundwater impacts) have been considered in the EIS.

A4.1.4 Abel Upgrade Modification

In December 2011, Donaldson Coal lodged an application for the Abel Upgrade Modification with the NSW Department of Planning and Infrastructure [DP&I] (05_0136 Mod 3).

As a component of the Abel Upgrade Modification, Donaldson Coal is seeking approval for the receipt, internal transport, handling, processing and rail loadout of coal from the Project, and management of associated rejects.

A4.2 DONALDSON OPEN CUT MINE

Donaldson Coal also owns the Donaldson Open Cut Mine, which is located approximately 10 km north-east of the Tasman Underground Mine (Figure 1-1 of the EIS).

The Donaldson Open Cut Mine operates in accordance with Development Consent (Development Application [DA] 98/01173 and DA 118/698/22), granted by the Minister for Urban Affairs and Planning in October 1999, as modified in 2005 and 2011.

Under DA 98/01173 and DA 118/698/22 (as modified), the Donaldson Open Cut Mine is approved to extract some 2.5 Mtpa of ROM coal until 31 December 2013. ROM coal from the Donaldson Open Cut Mine is transported via sealed internal roads to the Bloomfield CHPP for processing and train loading.

As described in Section 2.5.2 of the EIS, some waste rock from the construction of the new pit top facility may be trucked to the Donaldson Open Cut Mine and emplaced in the open cut. If necessary, Donaldson Coal would separately modify DA 98/01173 and DA 118/698/22 to allow for the receipt and management of Project waste rock.

Should the Project be approved, construction activities would commence in 2013, with underground mining in the West Borehole Seam commencing in 2014.

As such, there would be limited interaction between the Project and the Donaldson Open Cut Mine after construction activities at the new pit top facility are complete.

Notwithstanding, relevant cumulative impacts associated with the operation of the Project and the Donaldson Open Cut Mine (e.g. potential groundwater impacts) have been considered in the EIS.

A4.3 BLOOMFIELD COLLIERY

Bloomfield owns the Bloomfield Colliery (CCL 761), which is located approximately 10 km north-northeast of the Tasman Underground Mine (Figure 1-1 of the EIS).

Mining operations have occurred at the Bloomfield Colliery site for approximately 170 years (Bloomfield Group, 2008).

The Bloomfield Colliery currently operates in accordance with Project Approval 07_0087, granted by the NSW Minister for Planning in September 2009, as modified in 2011 and 2012.

Under Project Approval 07_0087, the Bloomfield Colliery is approved to extract up to 1.3 Mtpa ROM coal until 31 December 2021. ROM coal from the Bloomfield Colliery is transported via sealed internal roads to the Bloomfield CHPP for processing and train loading.

The environmental monitoring program for the Tasman Underground Mine is integrated with the Bloomfield Colliery (i.e. as detailed in the Abel Underground Coal [Integrated with Donaldson Open Cut, Tasman Underground and Bloomfield Open Cut Coal Mines] Integrated Environmental Monitoring Program), and this would continue for the Project.

Relevant cumulative impacts associated with the operation of the Project and the Bloomfield Colliery (e.g. potential groundwater impacts) have been considered in the EIS.

A4.4 ORICA RICHMOND VALE FACILITIES

The Orica Richmond Vale facilities, located to the immediate north of the Project, are owned by Orica Australia Pty Ltd (Orica).

Orica received planning approval from the Cessnock City Council in 1991 (DA 118/690/257) for the operation of facilities at the Technology Centre at Richmond Vale, which includes explosives research and production activities (Umwelt [Australia] Pty Limited, 2009a).

Two subsequent development consents DA118/698/53 (1998) and DA8/2006/809/1 (2006) have been granted for the construction of a quarry service depot and the construction of a training room, respectively, at the Orica Richmond Vale facilities (Umwelt [Australia] Pty Limited, 2009a).

Project Approval (09_0090) for the Orica Ammonium Nitrate Emulsion Project, located at the Orica Richmond Vale facilities, was granted by the NSW Minister for Planning in July 2010. The Ammonium Nitrate Emulsion Project included the continued use of the existing development on site and establishment of a new ammonium nitrate emulsion production facility and associated infrastructure.

There would be no direct interaction between the Orica Richmond Vale facilities and the Project, however, the proposed location of the upcast ventilation shaft and associated fan and ancillary infrastructure would be located on Orica owned land.

Relevant cumulative impacts associated with the operation of the Project and the Orica Richmond Vale facilities (e.g. potential road traffic, air quality and noise impacts) have been considered in the EIS.

A4.5 WEST WALLSEND COLLIERY

Oceanic Coal Australia Pty Ltd, a wholly owned subsidiary of Xstrata Coal Pty Limited, operates the West Wallsend Colliery, which is located approximately 5 km south-east of the Tasman Underground Mine.

Mining operations have been approved to occur at the West Wallsend Colliery since 1969 (DA B/66-69) (Umwelt [Australia] Pty Limited, 2009b).

The West Wallsend Colliery currently operates in accordance with Project Approval 09_0203, granted by the Minister for Planning and Infrastructure in January 2012.

Under Project Approval 09_0203, the West Wallsend Colliery is approved to extract up to 5.5 Mtpa ROM coal using longwall methods until the end of December 2021.

Underground mining at the West Wallsend Colliery occurs within the West Borehole Seam. Notwithstanding, there would be no direct interaction between the Project and the West Wallsend Colliery.

Potential cumulative impacts associated with the operation of the Project and the West Wallsend Colliery (e.g. potential groundwater and air quality impacts) have been considered in the EIS.

A4.6 HUNTER EXPRESSWAY

The Roads and Traffic Authority (now Roads and Maritime Services) was granted approval by the Minister for Urban Affairs and Planning in November 2001 for the F3 to Braxton Highway Link (i.e. Hunter Expressway) under section 115B(2) of the *Environmental Planning and Assessment Act, 1979* (EP&A Act).

Modifications to the approval were granted by the Minister for Planning, under section 75W of the EP&A Act, in 2006, 2007 and 2010.

The Hunter Expressway is a four-lane highway to be constructed as two sections: the eastern section (F3 Freeway to Kurri Kurri); and the western section (Kurri Kurri to Branxton).

The eastern section of the Hunter Expressway (currently under construction) is located to the north-east of the Project, running approximately parallel to George Booth Drive between the F3 Freeway and John Renshaw Drive (Figure 1-2 of the EIS).

When completed in late 2013 the Hunter Expressway would materially alter the local traffic conditions in the vicinity of the Project by providing an alternative connection between the F3 Freeway near Seahampton and New England Highway at Branxton, including an interchange with John Renshaw Drive at Buchanan, and therefore significantly reducing road traffic on George Booth Drive.

The currently approved ROM coal haulage route for the Tasman Underground Mine includes a section of George Booth Drive, north of the existing pit top facility.

Total road haulage (including ROM coal transport and waste rock from the new pit top construction) for the Project would be maintained at existing approved volumes up to 4,000 tonnes per day prior to commissioning of the Hunter Expressway.

Following commissioning of the Hunter Expressway, the Project would involve ROM coal transport of up to 6,200 tonnes per day (i.e. when non-Project related vehicles are expected to preferentially use the Hunter Expressway as opposed to George Booth Drive).

Relevant cumulative impacts associated with the operation of the Project and the Hunter Expressway (e.g. potential road transport impacts) have been considered in the EIS.

A4.7 DARACON QUARRIES

Daracon Group (Daracon) owns the Buttai and Stockrington Quarries, which are located approximately 5 km to the north and 3 km to the north-east of the Tasman Underground Mine, respectively.

The Daracon quarries are approved to operate in accordance with development approvals granted by the Cessnock City Council.

The Stockrington Quarry is a ridge gravel quarry that supplies a range of pavement materials to the Newcastle and Hunter Valley regions. The Buttai Quarry is a high quality sandstone conglomerate rock source that supplies roadbase to the Newcastle, Central Coast and Hunter Valley regions.

Development of the access road to the Project new pit top facility would involve the construction of a new intersection with George Booth Drive. The intersection would consist of a roundabout with George Booth Drive and the access road to the Daracon Buttai Quarry (Figure 2-9 of the EIS).

As an alternative to transporting waste rock from the construction of the new pit top facility to the Donaldson Open Cut Mine (Section A4.2), some Project waste rock may be trucked to Daracon's Buttai and/or Stockrington Quarries (subject to suitable commercial arrangements and relevant approvals). The waste rock would be transported via the proposed roundabout on George Booth Drive and the privately-owned Daracon Buttai Quarry access road.

Relevant cumulative impacts associated with the operation of the Project and the Daracon Quarries (e.g. potential air quality and road transport impacts) have been considered in the EIS.

The potential impacts (i.e. benefits) to the public road network associated with trucking Project waste rock to the Daracon Quarries have been assessed by GTA Consultants (2012) (Attachment 7).

A4.8 BLACK HILL EMPLOYMENT LANDS (NORTHERN ESTATES)

In July 2010 Coal & Applied Industries Ltd (Coal & Allied) submitted a Project Application (10_0093) for the Concept Plan for Black Hill Employment Lands (Northern Estates) to the DP&I, seeking approval under Part 3A of the EP&A Act (Application No. 10_0093).

The Concept Plan for Black Hill Employment Lands (Northern Estates) would involve the development of 183 hectares (ha) of the Black Hill site on John Renshaw Drive for use as employment lands, with an additional 545 ha of land on other Coal & Allied owned sites proposed to be dedicated to the NSW Government for conservation.

The use of the Black Hill site as employment lands is proposed to consist of a range of employment generating activities, including industrial facilities, transport facilities and retail outlets (Urbis Pty Ltd, 2011).

There would be no direct interaction between the Project and the Concept Plan for Black Hill Employment Lands (Northern Estates).

However, the Concept Plan for Black Hill Employment Lands (Northern Estates) would be a traffic-generating development, and as such, potential cumulative road traffic impacts have been considered in the EIS (Section 4 and Appendix H of the EIS).

A4.9 REFERENCES

- Bloomfield Group (2008) *Bloomfield Colliery Completion of Mining and Rehabilitation*, November 2008.
- GTA Consultants (2012) *Tasman Extension Project Addendum*. Letter report to Donaldson Coal Pty Limited.
- Umwelt (Australia) Pty Limited (2009a) *Orica ANE Facility and Continued Operations Environmental Assessment*, December 2009.
- Umwelt (Australia) Pty Limited (2009b) *West Wallsend Colliery Continued Operations Project Environmental Assessment*, July 2010.
- Urbis Pty Ltd (2011) *Black Hill and Tank Paddock Concept Plan Environmental Assessment*, February 2011.