

Vickery Coal 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 Vickery Coal Project (the Project) and other major projects in the region.

References to Sections 1 to 7 in this Attachment are references to the Sections of the Main Report of the Environmental Impact Statement (EIS). Internal references within this Attachment are prefixed with an “A4”.

A4.1 WHITEHAVEN COAL MINES AND CHPP INTERACTION

A4.1.1 Whitehaven CHPP

The Whitehaven Coal Limited (Whitehaven) Coal Handling and Preparation Plant (CHPP) receives sized run-of-mine (ROM) coal from the Tarrawonga, Sunnyside and Rocglen Coal Mines (Figure 1-1 of the EIS). The Development Consent for the Whitehaven CHPP permits processing of up to 3 million tonnes per annum (Mtpa) of sized ROM coal, and permits the rail loadout facility to handle up to 4.1 Mtpa of product coal.

The Whitehaven CHPP operates in accordance with Development Consent (DA 0079.2002) issued by the Gunnedah Shire Council under delegation from the Minister for Urban Affairs and Planning on 2 October 2002, as modified by the Gunnedah Shire Council in 2008 (Modification of Consent No. 305208) and the New South Wales (NSW) Department of Planning and Infrastructure (DP&I) in 2011 (DA 0079.2002 Mod 2). The consent is valid for a period of 20 years and expires in October 2022.

The Whitehaven CHPP is also operated in accordance with Environment Protection Licence (EPL) 3637 issued under Chapter 3 of the NSW *Protection of the Environment Operations Act, 1997*.

The major components of the Whitehaven CHPP include:

- ROM coal stockpiles;
- a CHPP;
- product coal stockpiles;
- reject ponds and settlement ponds;

- coarse reject stockpile; and
- rail loadout facility.

All sized ROM coal received is stockpiled in either ROM coal stockpiles for processing in the Whitehaven CHPP, or in product stockpiles for bypass loading at the rail loadout facility.

Approximately two laden trains transporting product coal to the Port of Newcastle via the Werris Creek Mungindi Railway are dispatched from the site per day.

Coarse rejects from the Whitehaven CHPP are discharged to the reject stockpile area, where they are backloaded (in empty coal haulage trucks) to the Tarrawonga Coal Mine for placement in the open cut. Approval under the *NSW Environmental Planning and Assessment Act, 1979* (EP&A Act) has also been obtained to backload coarse rejects to the Sunnyside and Rocglen Coal Mines.

Fine rejects are pumped to a series of ponds where they are dewatered. Following dewatering, the fine rejects are loaded onto coal trucks and transported to the former Gunnedah Colliery for emplacement in the Melville Pit (approximately 6 kilometres [km] to the south-west of the Whitehaven CHPP).

In August 2011, Whitehaven submitted a modification application for the Whitehaven CHPP (Additional Reject Ponds Modification) to the DP&I seeking approval under Part 4 of the EP&A Act (Application No. DA 0079.2002 Mod 2). The Additional Reject Ponds Modification was approved by the DP&I in December 2011.

The Additional Reject Ponds Modification involved an increase to the storage capacity for fine rejects at the Whitehaven CHPP, including construction of three additional reject ponds and two additional settlement ponds. The potential environmental impacts of the proposal were assessed in the *Environmental Assessment for the Establishment of Additional Reject Ponds at the Whitehaven CHPP* (Whitehaven, 2011).

No modification to the existing Whitehaven CHPP infrastructure or operating conditions is required for the processing and handling of Project ROM coal. Separate approvals to extend the existing consent period would be sought closer to the current expiration date if required.

A4.1.2 Tarrawonga Coal Mine

The Tarrawonga Coal Mine (Development Consent DA-88-4-2005) was approved in 2005 and modified in 2010 to extract some 2 Mtpa ROM coal until 2017. Sized ROM coal from the Tarrawonga Coal Mine is trucked to the Whitehaven CHPP for processing (where required) and train loading.

In January 2012 Tarrawonga Coal Pty Ltd submitted an application for the extension and continuation of operations at the existing Tarrawonga Coal Mine (the Tarrawonga Coal Project). The application was approved on 22 January 2013.

The Tarrawonga Coal Project involves an increase in production of ROM coal to 3 Mtpa for a 17 year mine life through extensions to the open cut to the north and east of existing operations. An increase in the operational workforce to 120 people would be required.

Sized ROM coal from the Tarrawonga Coal Mine is currently hauled via the Whitehaven ROM coal road transport route (in accordance with existing approvals) to the Whitehaven CHPP. The Tarrawonga Coal Project involves the construction and use of a services corridor (including a haul road) to the Boggabri Coal Mine Infrastructure Facilities. All ROM coal generated by the Tarrawonga Coal Project would be transported to the Boggabri Coal Mine via the services corridor for processing and transport off-site via trains (i.e. no ROM coal from the Tarrawonga Coal Project would be transported by road to the Whitehaven CHPP once suitable approvals and upgrades are in place).

Haulage of ROM coal from the Project and other Whitehaven operations to the Whitehaven CHPP would be managed so as to not exceed the Whitehaven CHPP approval conditions.

No material cumulative impacts associated with Tarrawonga Coal Project have been identified for the Project.

A4.1.3 Rocglen Coal Mine

The Rocglen Coal Mine (Project Approval [PA] 06_0198) was approved in 2008 to extract some 1.5 Mtpa ROM coal for an approved mine life of 12 years. Sized ROM coal from Rocglen Coal Mine is trucked to the Whitehaven CHPP via Bluevale Road for processing (where required) and train loading.

In January 2010, Whitehaven submitted a Project Application for the Rocglen Coal Extension Project to the DP&I seeking approval under Part 3A of the EP&A Act (Project Application No. 10_0015).

The Rocglen Coal Extension Project involves an additional 4 years of mining beyond the approved mine life, with no change in the approved extraction rate of 1.5 Mtpa ROM coal or workforce levels. Sized ROM coal would continue to be trucked to the Whitehaven CHPP, with no increase in maximum daily coal trucking rates on Bluevale Road or the Kamilaroi Highway (Whitehaven, 2010).

The Rocglen Coal Extension Project was approved by the Deputy Director-General (Development Assessment and Systems Performance) of DP&I on 27 September 2011.

Up to 1.5 Mtpa of sized ROM coal from the Rocglen Coal Mine would be hauled via the Whitehaven ROM coal road transport route to the Whitehaven CHPP (in accordance with existing approvals) until such time as Project ROM coal production exceeds 3.0 Mtpa. Whitehaven would manage the ROM coal production rates from the Project and the Rocglen Coal Mines such that transport of ROM coal along the Whitehaven ROM coal road transport route would not exceed 4.5 Mtpa.

No material cumulative impacts associated with Rocglen Coal Extension Project have been identified for the Project.

A4.1.4 Sunnyside Coal Mine

The Sunnyside Coal Mine (PA 06_0308) was approved in 2008 to extract some 1 Mtpa ROM coal over a mine life of 7 years.

Whitehaven suspended operations at the Sunnyside Coal Mine indefinitely in October 2012, and the site is now in care and maintenance. As such, no potential interactions between the Project and the Sunnyside Coal Mine are anticipated.

A4.1.5 Canyon Coal Mine

Whitehaven maintains the Canyon Coal Mine site, which ceased operations in 2009, in accordance with the *Canyon Open Cut Coal Mine Closure Plan* (Whitehaven, 2009), Development Consent DA 8-1-2005 Mod 2 and EPL 10094.

The Project will involve emplacement of waste rock within part of the Canyon Coal Mine final void (i.e. the northern-most part of the Western Emplacement).

Rehabilitation of the Project Western Emplacement will integrate with the Canyon Coal Mine final landforms.

A4.2 OTHER RELEVANT MINING PROJECTS AND PROPOSALS

A4.2.1 Maules Creek Project

The Maules Creek Coal Project (Figure 1-1 of the EIS) is approved under Development Consent DA 85/1819 to produce up to 9 Mtpa product coal, however, no open cut mining operations have commenced at the site (Aston Coal 2 Pty Ltd [Aston], 2011).

In August 2010, Aston submitted a Project Application for the Maules Creek Coal Project to the DP&I seeking approval under Part 3A of the EP&A Act (Project Application No. 10_0138).

The Maules Creek Coal Project involves the development of a 21 year open cut mining operation with an extraction rate of some 13 Mtpa ROM coal, and the construction and use of associated surface infrastructure, including:

- a CHPP;
- train loading facilities; and
- a rail spur and loop connecting to the Werris Creek Mungindi Railway (with the preferred option connecting to the southern portion of the proposed Boggabri Coal Mine private rail spur).

The potential environmental impacts associated with the changes described above were assessed in the *Maules Creek Coal Project Environmental Assessment* (Aston, 2011).

There would be no direct interaction between the operation of the Maules Creek Coal Project and the Project.

No material cumulative impacts associated with Maules Creek Coal Project have been identified for the Project.

A4.2.2 Narrabri and Werris Creek Coal Mines

Whitehaven also has a controlling interest in the Narrabri Coal Mine located approximately 40 km to the north-west of the Project, and owns the Werris Creek Coal Mine (Mining Lease 1563) located some 60 km to the south-east of Gunnedah. These operations do not pose a material source of potential cumulative impacts with the Project.

A4.2.3 Vickery South Project

Whitehaven acquired the Vickery South Exploration Licence (EL) 7407 (known as the Vickery South Project), located immediately to the south of the Project, in July 2012. Whitehaven is currently reviewing the exploration data and conducting feasibility studies to determine the development potential of the Vickery South Project.

As only exploration activities are currently proposed to be conducted within EL 7407, no cumulative impacts associated with the Vickery South Project have been identified for the Project.

Any proposal to develop the Vickery South coal resource would be subject to separate assessment and approval processes.

A4.2.4 Boggabri Coal Mine

The Boggabri Coal Mine is located approximately 12 km north of the Project, immediately adjacent to the Tarrawonga Coal Mine. Operations at the Boggabri Coal Mine commenced in 2006.

The Boggabri Coal Mine received Project Approval (09_0182) in July 2012 for:

- the continuation of operations until December 2033 producing up to 8.6 Mtpa of ROM coal and 7 Mtpa of product coal;
- construction and use of a CHPP and upgrades to other mine infrastructure;
- construction and use of a private rail spur and loop;
- extension of the waste rock emplacement; and
- increase in the total workforce to up to 500 staff.

The potential environmental impacts associated with the changes described above were assessed in the *Continuation of Boggabri Coal Mine Environmental Assessment* (Boggabri Coal Pty Ltd, 2010).

There would be no direct interaction between the operation of the Boggabri Coal Mine and the Project.

No material cumulative impacts associated with Boggabri Coal Mine have been identified for the Project.

A4.3 OTHER FUTURE DEVELOPMENTS

A4.3.1 Carroona Coal Project

The Carroona EL area (EL 6505) is held by Coal Mines Australia Pty Ltd (a subsidiary of BHP Billiton) and covers an area of approximately 344 square kilometres.

EL 6505 is located to the west of Werris Creek approximately 70 km south of the Project and approximately 45 km south-west of Gunnedah.

BHP Billiton has indicated that any future development at the Carroona Coal Project would be limited to underground mining within defined exploration target areas and no open cut mining would be undertaken (Coal Mines Australia Pty Ltd, 2010).

A4.3.2 Watermark Coal Project

The Watermark Coal Project is a proposed open cut coal mine within EL 7223, adjoining the northern boundary of the Carroona EL area.

Director-General's Requirements for the Watermark Coal Project were issued to Shenhua Watermark Coal Pty Ltd in April 2012.

EL 7223 is located approximately 45 km south of the Project and approximately 20 km south of Gunnedah.

As a requirement of the recent renewal of EL 7223 any future mine plan will be restricted by (Liberal NSW, 2011):

- the retention of a minimum 150 metre horizontal barrier of natural material between mining and the Gunnedah Formation/Namoi Groundwater System in any future mine plan; and
- any potential development shall not include longwall mining underneath the deep alluvial irrigation aquifers or floodplain or open cut mining anywhere on the floodplain.

A4.3.3 Coal Seam Gas Developments

The *Namoi Catchment Water Study Independent Expert Phase 2 Report* (Schlumberger Water Services, 2011) provides an overview of coal seam gas developments in the Namoi catchment.

In summary, the majority of the Namoi catchment is subject to Petroleum Exploration Licences held by a number of companies. Progressive exploration activities including the construction of pilot test wells are being undertaken by a range of companies across the basin.

Petroleum Assessment Lease 2 and Petroleum Production Lease 3 have been issued to Eastern Star Gas Limited to the west and south-west of Narrabri.

Eastern Star Gas Limited submitted Project Applications under Part 3A of the EP&A Act in 2010 for the development of a gas field and a gas pipeline. These applications have since been withdrawn.

East Coast Power Pty Ltd also submitted a Project Application for the Narrabri Gas-Fired Power Station Project and Related Projects to the DP&I in 2006 (06-0304). This application has since been revoked.

A4.3.4 Consideration of Cumulative Assessment Issues for other Future Developments

It is considered unlikely that any significant or sustained cumulative impacts would arise from the exploration activities being undertaken by mining and coal seam gas companies in the region, as these activities are generally short-term, of a limited extent and will be closely regulated by the NSW Division of Resources and Energy (within the NSW Department of Trade and Investment, Regional Infrastructure and Services).

Environmental impact assessment for all future major projects with material impacts on the environment is required under the EP&A Act (including the projects listed above). This requirement also applies to future exploration projects that are likely to have a significant impact on the environment.

There is currently insufficient information to definitively consider the potential cumulative environmental impacts of the Project in the context of future major projects in the Gunnedah Basin, if these projects do not currently have detailed and publicly available environmental impact assessment documentation.

Environmental impact assessment documentation prepared for these future projects will be required to address potential cumulative environmental impacts, including interactions with the Project, if relevant. However, it is noteworthy that the majority of the future projects described above are sufficiently distant from the Project that any potential cumulative impacts are likely to be limited to more general population or transport growth effects in the wider region.

A4.4 REFERENCES

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Boggabri Coal Pty Ltd (2010) *Continuation of Boggabri Coal Mine Environmental Assessment*. Prepared by Hansen Bailey on behalf of Boggabri Coal Pty Ltd.

Coal Mines Australia Pty Ltd (2010) *Review of Environmental Factors for Caroon Exploration Program – EL6505 3D Seismic Survey 2010*. Prepared by Umwelt Environmental Consultants.

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Schlumberger Water Services (2011) *Namoi Catchment Water Study Independent Expert Phase 2 Report*.

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