

Results of Environmental Review

- (1) Reference Number
19-039
- (2) Project Name
Export of construction machinery for production increase of existing mine
- (3) Project Site
New South Wales, Australia
- (4) Project Outline
Export of construction machineries for production increase of existing mine
- (5) Category
B
- (6) Reason of Categorization
The project falls into the mining sector. However an increase in production is not large scale. Although it includes sensitive characteristics under the Environmental Guidelines, additional impact which results from production increase is likely to be limited. It is not located in or near a sensitive area nor has significant impact on human rights. Its potential adverse impact is therefore not likely significant.
- (7) Environmental Permission / Approval by the Environmental Authority
The Environmental and Social Impact Assessment report was made under the laws and regulations in Australia, and a conditional approval was issued by environmental authority in 2013.
- (8) Pollution Prevention
Appropriate measures are being implemented for impact mitigation regarding air quality, water quality, noise and so on.
- (9) Natural Environmental Considerations
There is no natural protection area nor critical natural habitat in and around the premises. Appropriate measures, such as compensation measures, for ecosystem are being implemented.

(10) Social Considerations

Involuntary resettlement and land acquisition does not occur and there is no influence on indigenous people. Appropriate measures are being implemented for social environment around the site and grievance mechanism is also being established.

(11) Applied International Standards

IFC Performance Standards

(12) Monitoring

Environmental Management Plan and Monitoring Plan have been made, and monitoring results have regularly been reported to the environmental authority.

(end)

Questions

Q1. Please provide the address of the project site.

Address of the project site: Tarrawonga Mine, 469 Goonbri Rd, Boggabri, NSW, 2382

Q2. Please provide brief explanation of the project.

The Tarrawonga Mine (Tarrawonga) is located approximately 42 kilometres (km) north-northwest of Gunnedah in New South Wales (NSW). The Tarrawonga Mine is owned and operated by Tarrawonga Coal Pty Ltd (TCPL), a wholly owned subsidiary of Whitehaven Coal Limited (Whitehaven).

Tarrawonga is an open cut mine with mining conducted by conventional drill and blast and haul back mining methods, using trucks and shovels.

Run Of Mine coal (ROM coal) from Tarrawonga is road hauled from the mine site to a central coal handling preparation plant ("CHPP") where the coal is washed, loaded on a train sent to Newcastle for loading and sale.

Coal product mix is a semi-soft metallurgical coal and a high quality thermal coal both well suited for the export market. Majority of the coal exported from Tarrawonga Coal is sold into Japan.

Tarrawonga Coal Production	FY13	FY14	FY15	FY16	FY17	FY18
ROM coal production (Mt)	2.055	2.194	2.153	2.405	2.692	2.289
Saleable coal production (Mt)	1.751	1.914	1.983	1.976	2.241	2.162

Tarrawonga's Project Approval permits ROM coal production up to 3.0mtpa. The NEXI support being sought is to fund a new fleet of Hitachi mining equipment, which are 3 Excavators (EX5600) and 8 Dump Trucks (EH4000), increase ROM coal production from the current level of 2.289mt in FY2018 to towards 3.0mtpa. The equipment being purchased will increase productivity, allowing Tarrawonga to mine the coal contained within the approved mining area at a faster rate. There is no other equipment being currently be considered for the Tarrawonga expansion.

Following approvals were granted for Tarrawonga's Project to permit ROM coal production up to 3.0mtpa:

- Project Approval – Issued under Section 75J of the Environmental Planning and Assessment Act 1979. Approval was granted 22 January 2013 and subsequently updated as follows 2014, 2016, Feb 2017, May 2017 and Aug 2017.
- Mining Lease 1579 – Issued by the NSW Minister for Mineral Resources - April 2016
- Mining Lease 1685 – Issued by the NSW Minister for Mineral Resources – 18 July 2013 and updated 19th February 2018
- Mining Lease 1693 - Issued by the NSW Minister for Mineral Resources – 14 October 2013 and updated 19th February 2018
- Environment Protection License 12365
- EPBC 2011/5923 Approval – Commonwealth Government of Australia – Department of the Environment. – 11 March 2013 and updated in 2015, 2016 and 2018

About Whitehaven

Whitehaven Coal is the leading Australian producer of high-efficiency, low emissions coal, and the dominant player in Australia's only emerging high-quality coal basin. We help to power highly-developed and emerging economies in Asia where there is strong and growing demand for our product, including Japan.

Q3. Will NEXI insurance be applied to a new project or an executing project? In case of an executing project, please inform of strong claims by stakeholders such as local residents, as well as improvement guidance or cessation orders for construction work / operations, from environmental authorities.

- | | |
|--|--|
| <input type="checkbox"/> New Project | <input type="checkbox"/> Executing Project (with Claim etc.) |
| <input checked="" type="checkbox"/> Executing Project (without Claim etc.) | <input type="checkbox"/> Others (Please specify) |

Tarrawonga has had no material adverse claims by stakeholders or improvement guidance/cessation orders from environmental authorities.

Q4. In case of this project, is it necessary to execute Environmental and Social Impact Assessment (ESIA) based on the laws or regulations of the country where the project is to be implemented? If necessary, please inform the progress of ESIA.

- | | |
|--|---|
| <input checked="" type="checkbox"/> Required (Completed) | <input type="checkbox"/> Required (Under execution or under planning) |
| <input type="checkbox"/> Not Required | <input type="checkbox"/> Others (Please specify) |

Q5. In case that ESIA is already completed, please inform whether ESIA report is already approved based on the environmental and social assessment system of the country where the project is to be implemented or not. If ESIA report is already approved, please provide the date and name of authorities of the approval.

- | | |
|---|--|
| <input type="checkbox"/> Approved (without condition) | <input checked="" type="checkbox"/> Approved (conditional) |
| <input type="checkbox"/> Under approval process | <input type="checkbox"/> Others (Please specify) |

Overview of Approval

There are a number of state and federal approvals in place which govern the operation of the Tarrawonga Mine. Relevant approvals below;

- Project Approval – Issued under Section 75J of the Environmental Planning and Assessment Act 1979. Approval was granted 22 January 2013 and subsequently updated as follows 2014, 2016, Feb 2017, May 2017 and Aug 2017.
- Mining Lease 1579 – Issued by the NSW Minister for Mineral Resources - April 2016
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Consistent with a project of this nature each of the Tarrawonga approvals contain a range of conditions which the operational of the mine must comply with. These key conditions include:

- Mine size and Maximum ROM coal production (3.0mpta in the case of Tarrawonga);
- Water usage;
- Dust and air quality;
- Biodiversity management;
- Noise and blasting limits;
- Fauna and flora and
- Aboriginal cultural heritage.

Tarrawonga has a strong track record of compliance against these stringent and rigorous regulatory frameworks.

Further information can be found on Whitehaven's website in the sustainability section (link below)
<http://www.whitehavencoal.com.au/sustainability/environmental-management/tarrawonga-mine/>

Q6. If environmental and social permit(s) other than ESIA is required, please provide the name of required permit(s). Have you obtained required permit(s)?

- ☒ Obtained
☐ Not required

- ☐ Required, but not obtained yet
☐ Others (Please specify)

Name(s) of required permit(s): Mining Lease (ML) 1579, 1685, 1693; Environment Protection License 12365, Water Access License 31084, EPBC 2011/5923 approval, PA 11_0047 approval. _____

Q7. Will the insurance be used for the undertaking that cannot specify the project at this stage (e.g. export or lease of machinery that has no relation with specific project, or Two Step Loan that cannot specify the project at the time of loan agreement)?

No - The insurance being sought will be used to fund equipment at the Tarrawonga mine

If you answered "Yes", it is not necessary to reply to the following questions.

If you answered "No", please reply to the following questions.

Q8. Are there any environmentally sensitive area(s) shown below in and around project site(s)?

No

If you answered "Yes", please select applicable items by marking, and reply to the following questions.

If you answered "No", please reply to the questions 9 and after.

- ☐ (1) National parks, nationally-designated protected areas (coastal areas, wetlands, areas for ethnic minorities or indigenous peoples and cultural heritage, etc. designated by national governments)
☐ (2) Forests with important ecological value (including primary forests and natural forests in tropical areas)
☐ (3) Habitats with important ecological value (including coral reefs, mangrove wetland and tidal flats)
☐ (4) Habitats of rare species requiring protection under domestic legislation, international treaties, etc.
☐ (5) Areas in danger of large-scale salt accumulation or soil erosion
☐ (6) Areas with a remarkable tendency towards desertification
☐ (7) Areas with unique archaeological, historical or cultural value
☐ (8) Areas inhabited by ethnic minorities, indigenous peoples or nomadic peoples with traditional ways of life (including areas which are used for cultural or spiritual purposes) and other areas with special social value

Q9. Does the project involve following characteristics?

Yes

If you answered "Yes", please describe the scale of applicable characteristics, and reply to the questions 10 and after.

If you answered "No", please reply to the questions 11 and after.

- ☐ (1) Involuntary resettlement and/or loss of means of livelihood (Number of affected people:)
☒ (2) Pumping of groundwater (Scale: up to 300ML/year)
☒ (3) Land reclamation, development and/or clearing (Scale: 639.57 ha)
☐ (4) Deforestation (Scale: ha)

Q10. Under the environmental and social impact assessment system of the country where the project is to be implemented, do the applicable characteristics from (1) – (4) of the questions 9 and their scale serve as basis for executing an ESIA for the project?

- ☒ They do ☐ They do not
☐ Others (Please specify)

Q11. May the project involve significant social impacts?

No

If you answered "Yes", please describe the outline of the impacts, and reply to the questions 12 and after.
If you answered "No", please reply to the questions 12 and after.

- ☐ The likelihood of severe project-related human rights impacts ()
☐ Others ()

Q12. Will the value insured by NEXI in the export, loan or investment project be equal or less than 5% of the total project cost, or equal or less than SDR 10 million? (In the case of additional support for a past project, this shall be the accumulated total amount)

No

If you answered "Yes", it is not necessary to reply to the following questions.
If you answered "No", please reply to the questions 13 and after.

Q13. Does the project belong to either of the sectors that impact on the environment and society is deemed immaterial or is not anticipated under normal conditions (e.g. maintenance of the existing facilities, non-expansionary renovation project, and acquisition of rights and interests without additional capital investment)?

No

If you answered "Yes", it is not necessary to reply to the following questions.
If you answered "No", please reply to the questions 14 and after.

Q14. Does the project belong to the following sectors?

Yes

If you answered "Yes", please specify the sector by marking, and reply to the questions 15 and after.
If you answered "No", it is not necessary to reply to the following questions.

- ☒ (1) Mining
☐ (2) Oil and natural gas development
☐ (3) Pipelines
☐ (4) Iron and steel (projects that include large furnaces)
☐ (5) Non-ferrous metals smelting and refining
☐ (6) Petrochemicals (manufacture of raw materials; including complexes)
☐ (7) Petroleum refining
☐ (8) Oil, gas and chemical terminals
☐ (9) Paper and pulp
☐ (10) Cement plants (including a greenfield quarry)
☐ (11) Manufacturing and transport of toxic or poisonous substances regulated by international treaties, etc.
☐ (12) Thermal power
☐ (13) Nuclear power
☐ (14) Hydro power, dams and reservoirs
☐ (15) Power transmission and distribution lines involving large-scale involuntary resettlement, large-scale logging or submarine electrical cables
☐ (16) Roads, railways and bridges
☐ (17) Airports
☐ (18) Ports and harbors
☐ (19) Sewage and wastewater treatment having sensitive characteristics or located in sensitive areas or their vicinity
☐ (20) Waste management and disposal
☐ (21) Agriculture involving large-scale land clearing or irrigation
☐ (22) Forestry
☐ (23) Tourism (Construction of hotel, etc.)

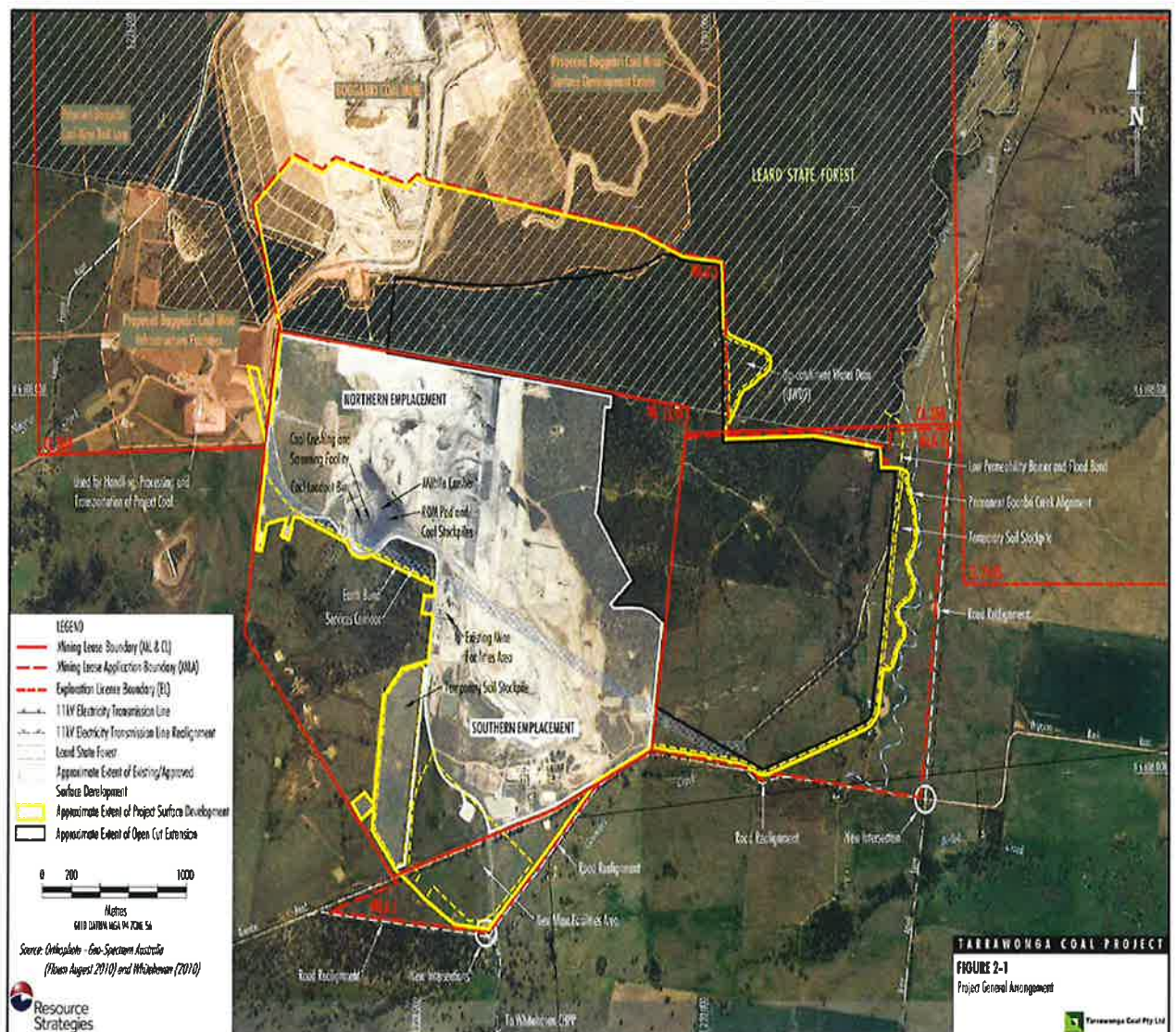
Q15. Please provide information on the scale of the project (project area, area of plants and buildings, production capacity, amounts of power generation, etc.) Further, please explain whether an execution of EISA is required on account of the large scale of the project in the country where the project is implemented.

Tarrawonga has been in operation since June 2006 with ~25.0 Mt of ROM coal being produced. Annual ROM coal production rates have been consistently been in the range of 2.0mtpa to 2.5mtpa.

Tarrawonga Coal Production	FY13	FY14	FY15	FY16	FY17	FY18
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Mine infrastructure includes the follow (please also refer to the map below)

- Coal crusher and screening facility
- Mobile crusher
- ROM stock pile
- Coal loading facilities
- Offices
- Maintenance facilities



Coal from the Tarrawonga mine is road hauled from the mine site to a central coal handling preparation plant ("CHPP") where the coal is washed, loaded on a train sent to Newcastle for loading and sale. Coal produced from Tarrawonga can broadly be categorised as high quality thermal coal and semi-soft coking ("SSCC"). Both of these coal are well suited to the export coal market with Japan being the mines largest export destination. Average split between thermal and SSCC is 70% and 30% respectively.

Typical coal specs are detailed below;

	Tarrawonga 12% ash thermal	Tarrawonga SSCC
Calorific value (GAR/kg)	6,323	6,843
Total Moisture (% as received)	11.5	11.0
Ash (% as received)	11.0	5.1
Sulphur (% as received)	0.37	0.37
Volatile Matter (% as received)	31.2	33.3
Crucible Swelling Number (CSN) – adjusted	n/a	3.0
R ₀ (max)	n/a	0.62

Based on a saleable coal production of 2.5mtpa and a thermal and SSCC split of 70% and 30% respectively, Tarrawonga mine could produce enough electricity in an ultrasupercritical power station to supply all of Japan's power for nearly 2.5 days¹ and enough SSCC to produce approximately 1Mt tonnes of steel the equivalent to approximately 1.8 million cars².

1. Assumes 800MWe USC power station operating at 45% sent out efficiency (LHV) and ~80% capacity factor with typical Tarrawonga Thermal Coal.
2. Assumes ~770 tonnes of coal per tonne of steel, a standard car being 1 metric tonne and approximately 55% of the car being steel.