

Gunnedah Open Cuts 4.1 Mtpa Coal Haulage Increase Modifications

Modification Report



Executive Summary

ES.1 Introduction

Wholly owned subsidiaries of Whitehaven Coal Limited (Whitehaven) operate the following open cut coal mining operations located in the Gunnedah Coalfield, in New South Wales (NSW), referred to as the Gunnedah Open Cuts (GOCs):

- Tarrawonga Coal Project (Tarrawonga Coal Mine [TCM]) (Project Approval [MP11_0047]) – approved under Part 3A of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) on 22 January 2013;
- Vickery Extension Project (Vickery Coal Mine [VCM]) (Development Consent [SSD 7480]) – approved under Part 4 of the EP&A Act on 12 August 2020; and
- Rocglen Extension Project (Rocglen Coal Mine [RCM]) (Project Approval [MP10_0015]) – approved under Part 3A of the EP&A Act on 27 September 2011.

This Modification Report has been prepared to support applications to further modify TCM Project Approval (MP11_0047) and VCM Development Consent (SSD 7480) (the Modifications) under section 4.55(2) of the EP&A Act.

No modification of the RCM Project Approval (MP10_0015) is proposed as the site has been rehabilitated and is in a monitoring and maintenance phase.

ES.2 Overview of the Modification

The Modifications seek to increase the cumulative run-of-mine (ROM) coal haulage limit from the currently consented 3.5 million tonnes per annum (Mtpa) to a total of 4.1 Mtpa for calendar years 2026 to 2030, without constructing the Kamilaroi Highway overpass. The 0.6 Mtpa increase to hauled ROM coal would apply to the southern section of the Approved ROM Coal Transport Route.

The period for the proposed Modifications to 2030 aligns with the currently consented life for both the Whitehaven Coal Handling Preparation Plant (CHPP) (DA 79-2002) (which processes the GOC mined ROM coal) and the TCM (31 December 2030), and would align the relevant GOC sites conditions to consistently refer to a calendar year timeframe.

Of the GOC operations, the VCM is the only mine that is currently consented for coal haulage within a financial year time-period as opposed to a calendar year timeframe. These Modifications would allow the alignment of planning and scheduling of coal haulage in a calendar year period.

ES.3 Stakeholder Engagement Overview

Whitehaven has consulted with a number of stakeholders during the development of the Modifications, including:

- NSW Department of Planning, Housing and Infrastructure;
- Transport for NSW;
- NSW Environment Protection Authority (EPA);
- NSW Department of Climate Change, Energy, the Environment and Water – Water Group;
- NSW Department of Primary Industries and Regional Development – NSW Resources;
- Gunnedah Shire Council;
- Narrabri Shire Council; and
- the TCM and VCM Community Consultative Committees.

ES.4 Assessment of Impacts

Whitehaven would undertake the Modifications in accordance with the current environmental management plans and environmental monitoring programs, incorporating any necessary revisions.

Whitehaven has undertaken a review of the potential environmental impacts of the combined Modifications to identify key potential environmental issues requiring standalone assessment.

The key potential environmental issues requiring standalone assessment include:

- road transport;
- road noise; and
- greenhouse gas emissions.

The assessments considered the impacts of the Modifications to increase the cumulative maximum ROM coal transported from the GOCs to the Whitehaven CHPP until 31 December 2030 from 3.5 Mtpa to 4.1 Mtpa, without construction of the Kamilaroi Highway overpass.

The conclusions of these assessments can be summarised as follows:

- The Greenhouse Gas Assessment (Todoroski Air Sciences, 2026) found that greenhouse gas emissions associated with the incremental increase in hauled coal of 0.6 Mtpa would be minimal and would not trigger the *NSW Guide for Large Emitters* (EPA, 2025) threshold of 25,000 tonnes of carbon dioxide equivalent emissions.
- The Road Noise Assessment (RWDI Australia Pty Ltd, 2026) has concluded that the increase in truck movements along the Approved ROM Coal Transport Route would result in an increase in noise levels of approximately 0.4 decibels. This increase is negligible and would not impact upon the acoustic amenity of the surrounding community.
- The Road Transport Assessment (The Transport Planning Partnership, 2026) found that the forecast future traffic volumes would be well within the capacity of the roads, with no concerns identified under the assessed forecast traffic volumes.
- The intersections of Kamilaroi Highway with the Whitehaven CHPP access and with Blue Vale Road would continue to operate at good Levels of Service, with short delays to drivers and spare capacity.
- The Modifications would result in minimal impact with respect to Levels of Service, network performance and road safety.
- No safety concerns with respect to the use of the roads or intersections by traffic associated with the transport of ROM coal from the GOCs to the Whitehaven CHPP, with haulage truck drivers continuing to be subject to the behavioural requirements set out in the GOCs Traffic Management Plan, including specific requirements regarding interaction with other vehicles on Kamilaroi Highway.

Based on the outcomes of the environmental assessments, the Modifications would result in 'no or negligible change' to previously assessed and approved impacts and, therefore, would involve minimal environmental impact.

The following relevant management plans and programs would be implemented for the Modifications:

- TCM Air Quality and Greenhouse Gas Management Plan;
- TCM Noise Management Plan;

- VCM Air Quality Management Plan;
- VCM Noise Management Plan;
- VCM Air Quality and Greenhouse Gas Management Plan; and
- GOCs Traffic Management Plan.

Whitehaven would review and, where necessary, revise these management plans to incorporate the Modifications, subject to any relevant condition of consent.

ES.5 Evaluation

Approval of the Modifications is considered to be justified given the Modifications would:

- Maximise the processing at the Whitehaven CHPP within its approved capacity without requiring any changes to current processing infrastructure or additional land disturbance.
- Facilitate ecologically sustainable development, as economic efficiencies can be achieved with minimal change to the currently approved environmental performance conditions and use of existing infrastructure, with no increase in the duration of existing impacts of the approved GOCs.
- Utilise the increased ROM coal haulage capacity following the adoption of higher payload trucks (while maintaining daily and hourly trips below those previously assessed).
- Be conducted in a manner that incorporates community engagement, with stakeholders consulted through the preparation of this Modification Report.
- Require no changes to the operations conducted at the TCM or VCM.
- Require no changes to the Levels of Service of the Kamilaroi Highway, Blue Vale Road and relevant intersections (i.e. the roads and intersections continue to operate with spare capacity).
- Result in minimal impact with respect to road safety and road network performance.
- Result in no impact on the acoustic amenity of the surrounding community.

In weighing up the main impacts (costs and benefits) assessed and described in this Modification Report, the Modifications are, on balance, considered to be in the public interest.

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1 Introduction

Subsidiaries of Whitehaven Coal Limited (Whitehaven) operate the following open cut coal mining operations located in the Gunnedah Coalfield, in New South Wales (NSW) (Figure 1):

- Tarrawonga Coal Project (Tarrawonga Coal Mine [TCM]) (Project Approval [MP11_0047]) – approved under Part 3A of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) on 22 January 2013;
- Vickery Extension Project (Vickery Coal Mine [VCM]) (Development Consent [SSD 7480]) – approved under Part 4 of the EP&A Act on 12 August 2020; and
- Rocglen Extension Project (Rocglen Coal Mine [RCM]) (Project Approval [MP10_0015]) – approved under Part 3A of the EP&A Act on 27 September 2011.

These open cut coal mining operations together are referred to as the Gunnedah Open Cuts (GOCs).

RCM is not considered as part of the proposal considered in this Modification Report as no further coal mining is proposed at RCM. The site is in a monitoring and maintenance phase following successful rehabilitation activities that occurred between 2019 and 2023. Additionally, RCM Modification (MOD) 5 that was approved by the NSW Department of Planning, Housing and Infrastructure (DPHI) on 8 October 2025 removed all relevant conditions of consent pertaining to coal transportation from the RCM.

The Modification Report presented here has been prepared to support applications to modify two of the GOC approvals:

- TCM (MP11_0047), as MOD 12; and
- VCM (SSD 7480), as MOD 3.

This Modification Report has been prepared for the purpose of seeking approval of these applications under section 4.55(2) of the EP&A Act.

Whitehaven's subsidiaries are seeking to increase the approved run-of-mine (ROM) coal haulage limit from the consented 3.5 million tonnes per annum (Mtpa) to a total of 4.1 Mtpa (an increase of 0.6 Mtpa) for calendar years 2026 to 2030, without constructing the Kamilaroi Highway overpass in this period (the Modifications). The 0.6 Mtpa increase to hauled ROM coal would apply to the southern section of the Approved ROM Coal Transport Route (Figure 2).

The Modifications also propose to align the VCM (SSD 7480) coal haulage period to a calendar year timeframe consistent with the relevant TCM and Whitehaven Coal Handling and Preparation Plant (CHPP) consented periods.

The proposed Modifications period also aligns with the end of consent life for both the Whitehaven CHPP (DA 79-2002) (which processes the GOC mined ROM coal) and the TCM operation (31 December 2030).

This Modification Report has been prepared in consideration of the *State Significant Development Guidelines* (DPHI, 2024a), in particular *Appendix E – preparing a modification report* (NSW Department of Planning and Environment [DPE], 2022a).

1.1 Overview of the Approved Gunnedah Open Cut Operations

1.1.1 TARRAWONGA COAL PROJECT

The TCM is located approximately 42 kilometres (km) north-northwest of Gunnedah in NSW (Figure 1).

In accordance with Project Approval (MP11_0047), the TCM is approved to extract up to 3.5 Mtpa of ROM coal until the end of December 2030.

ROM coal from the TCM is transported to the Whitehaven CHPP via the Approved ROM Coal Transport Route for processing (Figure 2).

1.1.2 VICKERY EXTENSION PROJECT

The Vickery Extension Project is an approved, open cut coal mine located in the Gunnedah Coalfield, approximately 25 km north of Gunnedah in NSW (Figure 2).

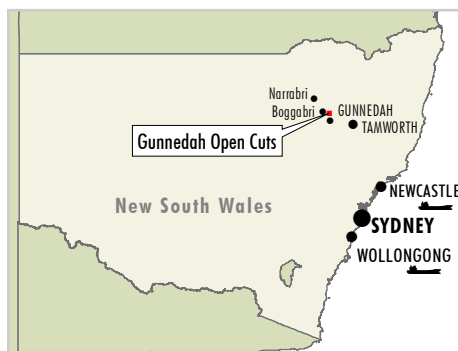
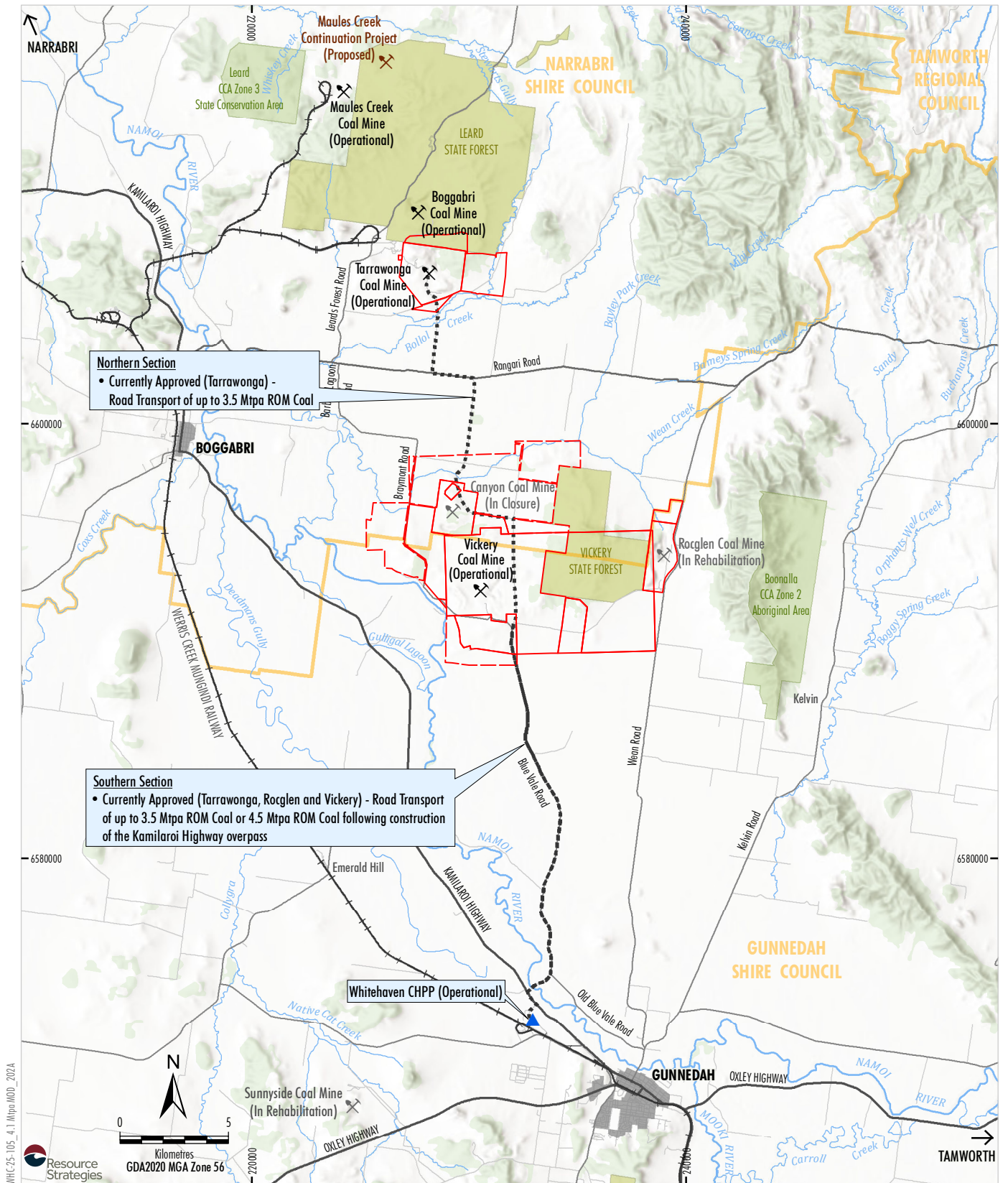
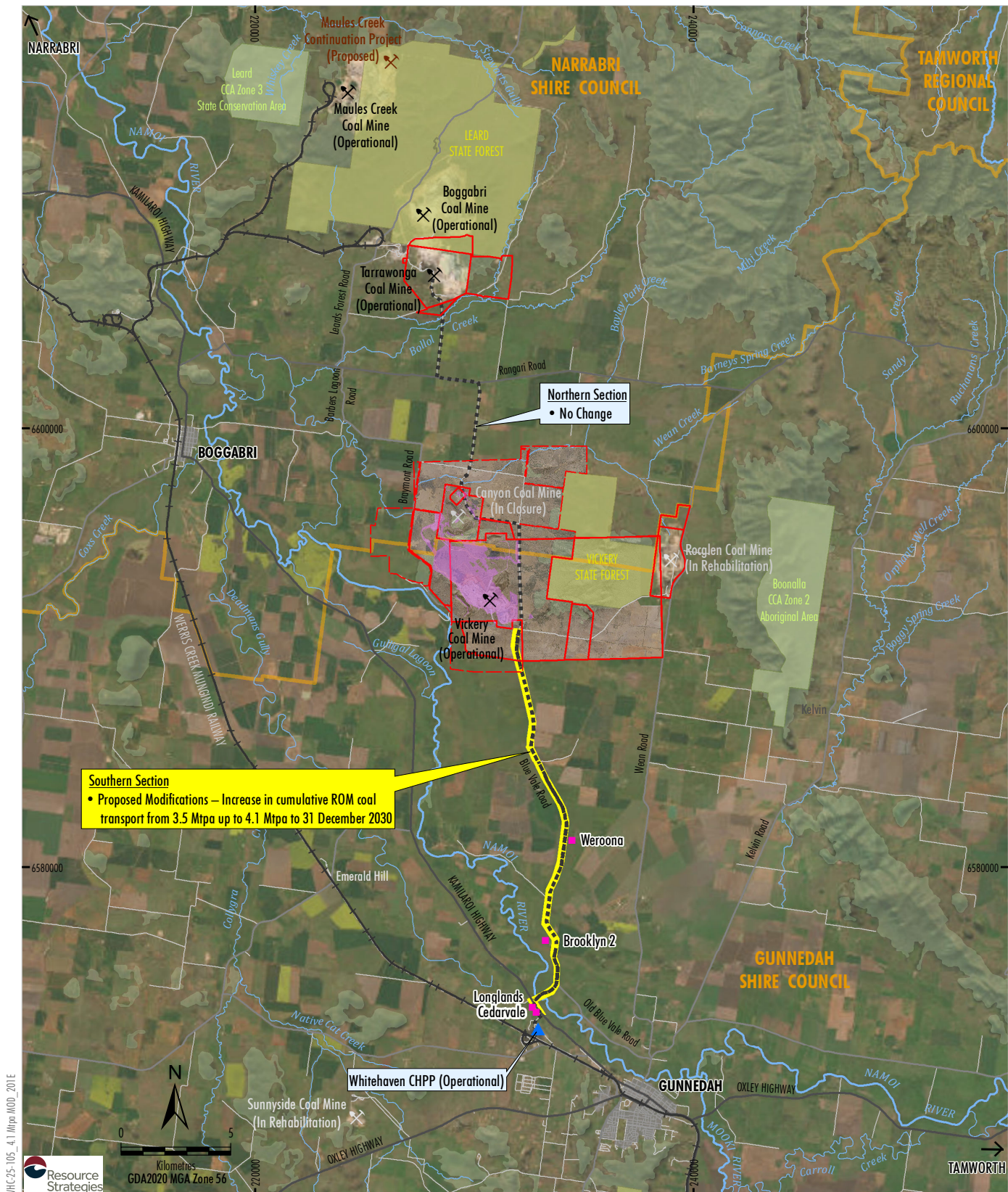
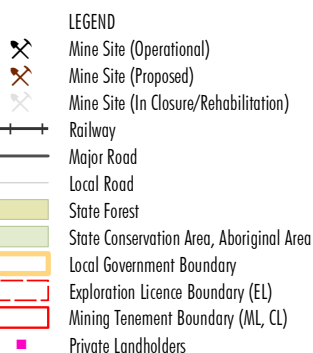
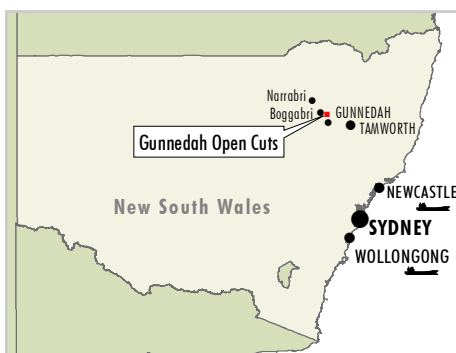


Figure 1



WHC-25-105_4.1 Mtpa MOD_201E



Source: Whitehaven (2024); NSW Spatial Services (2024)
Orthophoto: Whitehaven (2024); ESRI Basemap (2025)

Whitehaven
G O C M O D I F I C A T I O N S
Proposed Modifications

Figure 2

The Vickery Extension Project involves extraction of up to 10 Mtpa of ROM coal by open cut mining methods over a mine life of 25 years. The Vickery Extension Project includes the open cut pit, waste rock emplacements, mine infrastructure area (MIA) (including a CHPP), water supply and water management infrastructure, and other infrastructure.

Initial development activities for the Vickery Extension Project commenced in 2023. The initial development included the construction of a temporary infrastructure area, including administration and office facilities, workshops, water management infrastructure, laydown areas and other initial mining works.

The Vickery Extension Project includes an initial mining phase prior to the commissioning of the Vickery Extension Project rail spur, CHPP and MIA. In accordance with Conditions A12-A14 in SSD 7480, this phase will continue until the Vickery Extension Project rail spur, CHPP and MIA are commissioned, at which time mining intensity would increase with the commencement of off-site transport of product coal via the Vickery Extension Project rail spur. Whitehaven is anticipating constructing these major Vickery Extension Project components (i.e. rail spur, CHPP and MIA) once the Vickery Extension Project has been approved through Whitehaven's capital allocation assessment process.

Until the Vickery Extension Project rail spur, CHPP and MIA are commissioned, ROM coal from initial mining would continue to be transported to and processed at the Whitehaven CHPP in accordance with SSD 7480. In this regard, SSD 7480 and the related development consent for the Whitehaven CHPP (DA 79_2002) currently enable the continued processing at the Whitehaven CHPP of ROM coal from initial mining until 31 December 2030.

1.1.3 WHITEHAVEN COAL HANDLING AND PREPARATION PLANT

The Whitehaven CHPP is owned by Whitehaven and operates in accordance with Development Consent (DA 79_2002).

The Whitehaven CHPP is approved to process up to 4.1 Mtpa of ROM Coal and to dispatch up to 4.1 Mtpa of product coal (including bypass coal) until 31 December 2030.

All sized ROM coal received is stockpiled in either ROM coal stockpiles for processing at the Whitehaven CHPP, or in product stockpiles for bypass loading at the rail loadout facility. Transport of ROM coal from TCM and VCM to the Whitehaven CHPP, and return transport of coal rejects, occurs via the Approved ROM Coal Transport Route (Figure 2). From the Whitehaven CHPP, product coal is approved to be transported by rail to market.

1.1.4 APPROVED ROM COAL TRANSPORT

The Approved ROM Coal Transport Route runs between the VCM, TCM and Whitehaven CHPP (Figure 2). Whitehaven currently manages the use of the Approved ROM Coal Transport Route in accordance with the conditions of each associated mine's development consent, including a maintenance agreement with Gunnedah Shire Council (GSC). The volume of ROM coal that is permitted to be transported from the TCM and VCM to the Whitehaven CHPP under each mine's approval is summarised in Table 1.

ROM coal is currently approved to be transported from TCM and VCM along the Approved ROM Coal Transport Route, in accordance with the haulage hours outlined in MP11_0047 and SSD 7480, respectively (refer Table 1).

Management of ROM Coal Road Haulage

ROM coal haulage is managed in accordance with the GOCs Traffic Management Plan (Whitehaven, 2024).

Dust associated with ROM coal haulage is managed by covering the haul trucks in accordance with the relevant Environment Protection Licences at the TCM, VCM and Whitehaven CHPP.

Complaints

Complaints are managed in accordance with the protocol described in the GOCs Traffic Management Plan (Whitehaven, 2024).

In order to receive, record and respond to any complaints, Whitehaven maintains a publicly advertised telephone complaint line for the purpose of receiving complaints from any member of the public in relation to their activities.

Table 1
Approved Road Haulage Hours and ROM Coal Transport Limits for GOC Operations

TCM ¹	VCM ²	Cumulative
ROM Coal Transport – without Kamilaroi Highway overpass		
3.5 Mt	3.5 Mt	3.5 Mt
ROM Coal Transport – with Kamilaroi Highway overpass		
3.5 Mt	4.5 Mt	4.5 Mt
Coal Transport Hours – Monday to Friday		
4.00 am to 11.15 pm	4.00 am to 11.15 pm	N/A
Coal Transport Hours - Saturday		
5.00 am to 7.15 pm	5.00 am to 7.15 pm	N/A

Note: Mt = million tonnes

¹ TCM ROM coal transport limit is per calendar year.

² VCM ROM coal transport limit is per financial year.

1.2 Overview of the Modifications

The Modifications would include the following activities that relate to both TCM and VCM, respectively:

- increase of an additional 0.6 Mtpa of ROM coal along the Approved ROM Coal Transport Route (cumulatively a total of 4.1 Mtpa ROM coal) to the Whitehaven CHPP for calendar years 2026 to 2030 (modification to Condition 7 of MP11_0047); and
- increase of an additional 0.6 Mtpa of ROM coal along the Approved ROM Coal Transport Route (cumulatively a total of 4.1 Mtpa ROM coal) to the Whitehaven CHPP for calendar years 2026 to 2030 (modification to Condition A12 of SSD 7480).

1.3 Applicant Details

The applicants for the Modifications are as follows:

SSD 7480
Vickery Coal Pty Ltd
Level 28, 259 George Street
SYDNEY NSW 2000
Telephone: (02) 8222 1100
Website: <https://whitehavencoal.com.au/>

MP11_0047
Tarrawonga Coal Pty Limited
Level 28, 259 George Street
SYDNEY NSW 2000
Telephone: (02) 8222 1100
Website: <https://whitehavencoal.com.au/>

1.4 Structure of the Document

This Modification Report has been prepared in consideration of the *State Significant Development Guidelines* (DPHI, 2024a), in particular *Appendix E – preparing a modification report* (DPE, 2022a), and is structured as follows:

Section 1	Provides an overview of the existing/approved GOC operations and an overview of the Modifications.
Section 2	Provides an overview of the strategic context for the Modifications.
Section 3	Provides a description of the Modifications.
Section 4	Describes the statutory context of the Modifications.
Section 5	Provides a summary of the engagement undertaken for the Modifications and the key issues raised.
Section 6	Provides an assessment of the potential environmental impacts of the Modifications.
Section 7	Evaluates the merits of the Modifications and provides justification for approval of the Modifications.
Section 8	Lists the references cited in Sections 1 to 7.
Attachment 1	Detailed Statutory Compliance Reconciliation Tables.

Attachment 2	Tarrawonga Coal Project Planning Assessment Commission Report.
Attachment 3	Vickery Extension Project Statement of Reasons for Decision.
Attachment 4	Context relating to conditioning haulage limits and the Kamilaroi Highway Overpass.
Appendix A	Road Transport Assessment.
Appendix B	Road Noise Assessment.
Appendix C	Greenhouse Gas Assessment.

2 Strategic Context

This section outlines the strategic context for the Modifications and summarises the strategic need and potential benefits of the Modifications.

2.1 Regional Context

The GOC operations are located within the GSC and the Narrabri Shire Council (NSC) Local Government Areas (LGAs), in NSW (Figure 1).

The Gunnedah Shire and Narrabri Shire LGAs have a long history of rural land use for a variety of agricultural activities, predominantly grazing. The Gunnedah Shire and Narrabri Shire LGAs also have a strong history of coal mining. Both agriculture and coal mining have played an important role in the region from a social and economic perspective.

The Gunnedah Shire and Narrabri LGAs are well located to use existing road and rail transport networks to access domestic and export markets. The key road transport routes servicing the area are the Kamilaroi and Newell Highways. The Werris Creek Mungindi Railway provides access from the Gunnedah Basin to the Port of Newcastle.

2.2 Project Context

Whitehaven has reviewed its planned ROM coal production from the VCM and TCM in order to fully utilise the approved haulage allowances under each consent. In doing so, Whitehaven identified a sustainable operational ROM coal capacity of 4.1 Mtpa. However, haulage limits are currently approved for up to 3.5 Mtpa without constructing the Kamilaroi Highway overpass.

Whitehaven has engaged with Idemitsu Boggabri Coal under Condition 10, Schedule 2 of MP11_0047 and is unable to reach agreement to use the Boggabri Coal Mine CHPP and rail infrastructure to enable transportation of TCM product coal by rail from the Boggabri Coal Mine.

The Whitehaven CHPP is approved to operate until 31 December 2030 and process up to a maximum of 4.1 Mtpa of ROM coal from the GOC operations, while the VCM and TCM consents permit up to 3.5 Mtpa for cumulative road haulage (without building the Kamilaroi Highway Overpass). The proposed Modifications would enable the opportunity to:

- align haulage from TCM and VCM to the end of the approved development consent of the Whitehaven CHPP, as without approval to lift the haulage capacity, the ROM mining capacity between TCM and VCM would need to be reduced; and
- maximise processing to the limit of approved capacity at the Whitehaven CHPP without any changes to current processing infrastructure.

While the RCM site is included in the GOC site group, RCM ceased coal production in June 2019. Since then, the site underwent final rehabilitation (completed between 2019 and 2023). RCM is now in a monitoring and maintenance phase and no longer contributes to ROM coal haulage from the GOC operations and is therefore not included in the assessment for these Modifications.

The coal haulage limits in the TCM and the Whitehaven CHPP approvals are on a calendar year basis, while the corresponding limit for the VCM is on a financial year basis. Aligning coal haulage limits across the GOCs would allow for greater flexibility in scheduling coal dispatch from the GOCs to the Whitehaven CHPP via the Approved ROM Coal Transport Route. Presently, the misalignment in periods prevents the full utilisation of the already granted maximum haulage limits, limits scheduling and reduces operational efficiencies.

The alignment of the VCM haulage period to a calendar year would reduce the risk of weather-related disruptions (often localised to spring and summer months), which can significantly impact haulage operations in a given half of the year (i.e. towards the end of TCM's consented period, but halfway through VCM's consented period).

Environmental assessments have been previously prepared to assess the impacts of ROM coal haulage along the southern section of the Approved ROM Coal Transport Route. It is noted that road transport assessments completed for the Vickery Coal Project (GTA Consultants, 2012) and TCM and RCM Temporary Road Haulage Increase Modification (GTA Consultants, 2016) assessed coal haulage trips that are substantially higher than proposed under the Modifications.

Since these earlier assessments, Whitehaven has improved the efficiency of its ROM coal haulage through the adoption of larger haulage trucks with higher payloads, reducing the required truck trips.

Whitehaven obtained approval in 2025 for a temporary increase in cumulative road haulage of 0.3 Mtpa (up to 3.8 Mtpa). Whitehaven demonstrated the ability to undertake the recent temporary increase of ROM coal haulage of an additional 0.3 Mt during the last quarter of 2025 calendar year (equivalent to half of the additional annual increase proposed as part of these Modifications) in a safe and effective manner with no material change to operations.

2.3 Key Strategic Planning Documents

2.3.1 NEW ENGLAND NORTH-WEST REGIONAL PLAN 2041

The *New England North-West Regional Plan 2041* (DPE, 2022b) outlines strategies to address sustainable management of agricultural land and natural resources and acknowledges the ongoing contribution of mining to the region. The *New England North-West Regional Plan 2041* (DPE, 2022b) places emphasis on the need to support operations that make efficient use of existing infrastructure while delivering economic returns and employment opportunities:

Strategy 1.2

Maximise the cost-effective and efficient use of infrastructure by focusing development around existing infrastructure and promote co-location of new infrastructure.

The Modifications align with the strategic context of the *New England North-West Regional Plan 2041* (DPE, 2022b) by delivering increased productivity through logistical efficiency on the Approved ROM Coal Transport Route and without requiring additional infrastructure or land disturbance.

2.4 Gunnedah Shire Local Strategic Planning Statement Future 2040

The *Gunnedah Shire Local Strategic Planning Statement Future 2040* (GSC, 2020) sets planning priorities including Strengthening Gunnedah Shire's productivity and expanding Gunnedah's economic base, including:

Strengthen regional and cross border relationships by:

...

- b. *investigating and planning for future economic relationships with Tamworth and Narrabri LGAs including investment opportunities to maximise productivity*

The Modifications would be aligned with the plan as they would deliver economic benefit by maximising the output of the approved resource prior to full development of the VCM.

2.5 Potential Cumulative Interactions

In accordance with the *Cumulative Impact Assessment Guidelines for State Significant Projects* (DPE, 2022c) relevant cumulative impacts of the modified GOC operations and other developments/projects have been considered in this Modification Report (where relevant).

Key proposed or approved mining and other projects considered when assessing potential cumulative road transport related impacts with the Modification include (Figure 2):

- Boggabri Coal Mine (Project Approval [MP09_0182]) (including proposed modification application [MOD 10]);
- Maules Creek Coal Mine (Project Approval [MP10_0138]) (MOD 9) (operational); and
- Maules Creek Continuation Project (Development Application [SSD-63428218]) (now at the DPHI Assessment phase following the submission of the Response to Submissions report).

3 Description of the Modifications

3.1 Overview

The proposed Modifications do not require any significant alterations to the existing/approved GOCs (Table 2).

The Modifications would include:

- Increase haulage from 3.5 Mtpa to 4.1 Mtpa along the currently approved haulage route for each calendar year from 2026 to 2030, aligning with the maximum approved ROM coal processing permitted at the Whitehaven CHPP (as per MP11_0047 and SSD 7480).
- Aligning the increased ROM coal haulage with the end of the currently permitted mining operations period (i.e. December 2030) under the development consent for both the Whitehaven CHPP and TCM.
- Alignment of the regulated coal haulage periods for the VCM with the regulated coal haulage periods for the TCM and Whitehaven CHPP (i.e. change from financial year to calendar year).

The Modifications would not involve any change to the following components of the GOCs:

- Mining operations at the approved GOCs.
- Surface disturbance at the approved GOCs or Whitehaven CHPP (e.g. to facilitate transport or stockpiling of ROM coal, product coal or coal rejects).
- Mine life(s), employment numbers, mining activities or other surface activities associated with the approved GOCs or Whitehaven CHPP.
- Approved haulage hour(s).
- Approved ROM Coal Transport Route(s) from the GOCs to the Whitehaven CHPP or existing domestic customers.
- Coal reject transport route(s) from the Whitehaven CHPP to the VCM or TCM for incorporation into the final landform.
- Operational status and rehabilitation activities at the RCM.

A comparative summary of the existing/approved GOCs and proposed Modifications for the GOCs is provided in Table 2.

Based on a review of the proposed changes, Whitehaven considers that the GOC incorporating the Modifications can be authorised under section 4.55(2) of the EP&A Act (Section 4.1.1).

3.2 Management of Cumulative ROM Coal Haulage

The Modifications propose to change the currently approved amount of ROM coal transported from both the VCM and TCM along the Approved ROM Coal Transport Route for each of the calendar years from 2026 to 2030.

Whitehaven would manage the use of the Approved ROM Coal Transport Route such that the ROM coal transported from the GOCs to the Whitehaven CHPP would not exceed the proposed 4.1 Mtpa limit during each of the calendar years from 2026 to 2030.

3.3 Project Approval Conditions to be Modified

The conditions of MP11_0047 and SSD 7480 listed in Table 3 would require amendment to give effect to the Modifications.

Table 2
Comparison of the Existing/Approved and Modified GOC Operations

Project Component	Approved GOC Operations	Modified GOC Operations
Tarrawonga Coal Project (Project Approval [MP11_0047])		
Coal Handling, Processing and Transport Infrastructure	Use of the Approved ROM Coal Transport Route to haul ROM coal from the TCM to the Whitehaven CHPP until the Vickery Extension Project CHPP, train load-out facility and rail spur infrastructure reach full operational capacity.	No change.
	ROM coal processing would then transition to the Vickery Extension Project CHPP, prior to being loaded onto trains for transport to market.	No change.
	Together with the proponent of the VCM, cumulative haulage of coal along the approved haulage route does not exceed 3.5 Mtpa each calendar year prior to commissioning of the Kamilaroi Highway Overpass.	Increase in cumulative haulage of ROM coal along the Approved ROM Coal Transport Route up to 4.1 Mtpa for calendar years 2026 to 2030.
	For the period following the commissioning of the Kamilaroi Highway overpass, the proponent shall, together with the owners of the VCM, ensure that the cumulative haulage of coal along the approved haulage route does not exceed 4.5 Mtpa.	No change.
Other Project Components	As described in the documents currently listed in the definition of "EA" in the Definitions section of Project Approval (MP11_0047).	No change.
Vickery Extension Project (Development Consent [SSD 7480])		
Coal Handling, Processing and Transport Infrastructure	Use of the Approved ROM Coal Transport Route to haul ROM coal from the VCM to the Whitehaven CHPP until the Vickery Extension Project CHPP, train load-out facility and rail spur infrastructure reach full operational capacity.	No change.
	Ability to receive ROM coal via road from other Whitehaven mining operations for stockpiling and/or processing at the Vickery Extension Project CHPP.	No change.
	Together with the proponent of the TCM, cumulative haulage of coal along the approved haulage route does not exceed 3.5 Mtpa each financial year prior to commissioning of the Kamilaroi Highway Overpass.	Increase in cumulative haulage of ROM coal along the Approved ROM Coal Transport Route up to 4.1 Mtpa for calendar years 2026 to 2030. Align the coal haulage timeframes specified in the consent to a calendar year, rather than a financial year.
	For the period following the commissioning of the Kamilaroi Highway overpass and until commissioning of the Project Rail Spur, the proponent shall, together with the proponent of the TCM, ensure that the cumulative haulage of coal along the approved haulage route does not exceed 4.5 Mtpa in any financial year.	No change.
Other Project Components	As described in documents currently listed in the definition of the "EIS" in the Definitions section of Development Consent (SSD 7480).	No change.

Table 3
Conditions to be Amended under the Modifications

Condition Reference	Current Condition	Proposed Amendment
TCM (Project Approval [MP11_0047])		
Condition 7, Schedule 2	For the period up until the commissioning of the Kamilaroi Highway overpass, the Proponent: ... (e) shall, together with the owner of the Vickery coal mine, ensure that the cumulative haulage of coal along the approved haulage route does not exceed 3.5 million tonnes each year during all other calendar years.	For the period up until the commissioning of the Kamilaroi Highway overpass, the Proponent: ... (e) shall, together with the owner of the Vickery coal mine, ensure that the cumulative haulage of coal along the approved haulage route does not exceed <u>3.5 million tonnes each year during all other calendar years 4.1 million tonnes during each of the 2026 to 2030 calendar years.</u>
VCM (Development Consent [SSD 7480])		
Condition A12, Schedule 2	For the period up until the commissioning of the Kamilaroi Highway overpass, the Applicant: (a) may not transport more than 3.5 million tonnes of ROM coal from the site by road in any financial year; (b) may transport up to 150,000 tonnes of this ROM coal from the site in any financial year for direct distribution to domestic markets via the approved haulage route to the Kamilaroi Highway; (c) shall transport all other coal from the site to the Whitehaven CHPP via the approved haulage route; and (d) shall, together with the proponent of the Tarrawonga Coal Project, ensure that the cumulative haulage of coal along the approved haulage route does not exceed 3.5 million tonnes in any financial year and 3.8 million tonnes in the 2025/2026 financial year.	For the period up until the commissioning of the Kamilaroi Highway overpass, the Applicant: ... (d) shall, together with the proponent of the Tarrawonga Coal Project, ensure that the cumulative haulage of coal along the approved haulage route does not exceed <u>3.5 million tonnes in any financial year and 3.8 million tonnes in the 2025/2026 financial year 4.1 million tonnes in each of the 2026 to 2030 calendar years.</u>

4 Statutory Context

This section outlines the key statutory requirements relevant to the assessment of the Modifications.

In accordance with the *State Significant Development Guidelines* (DPHI, 2024a), in particular *Appendix E - preparing a modification report* (DPE, 2022a), Attachment 1 provides a detailed statutory compliance table for the GOCs incorporating the Modifications that identifies all the relevant statutory requirements and the relevant sections in this Modification Report that address these requirements.

4.1 Environmental Planning and Assessment Act 1979

The EP&A Act and *NSW Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) set the framework for planning and environmental assessment in NSW.

4.1.1 APPLICABILITY OF SECTION 4.55(2) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

The following EP&A Act approvals are subject to the proposed Modifications:

- TCM (MP11_0047) – approved under Part 3A of the EP&A Act on 22 January 2013 and subsequently modified; and
- VCM (SSD 7480) – approved under Part 4 of the EP&A Act on 12 August 2020 and subsequently modified.

Section 4.55(2) of the EP&A Act relevantly states:

4.55 Modification of consents—generally

...

- (2) **Other Modifications** A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if—

- (a) *it is satisfied that the development to which the consent as modified relates is the same or substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified (if at all), and*
- (b) *it has consulted with the relevant Minister, public authority or approval body (within the meaning of Division 4.8) in respect of a condition imposed as a requirement of a concurrence to the consent or in accordance with the general terms of an approval proposed to be granted by the approval body and that Minister, authority or body has not, within 21 days after being consulted, objected to the modification of that consent, and*
- (c) *it has notified the application in accordance with—*
 - (i) *the regulations, if the regulations so require, or*
 - (ii) *a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and*
- (d) *it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be.*

Subsections (1) and (1A) do not apply to such a modification.

Substantially the Same Development

Clause 3BA(6) of Schedule 2 of the *Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017* relevantly provides:

3BA Winding-up of transitional Part 3A modification provisions on cut-off date of 1 March 2018 and other provisions relating to modifications

...

(6) *In the application of section 4.55(1A) or (2) or 4.56(1) of the Act to the following development, the consent authority need only be satisfied that the development to which the consent as modified relates is substantially the same development as the development authorised by the consent (as last modified under section 75W) —*

(a) *development that was previously a transitional Part 3A project and whose approval was modified under section 75W,*

...

Where clause 3BA(6) of Schedule 2 of the NSW *Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017* applies, the consent authority is relevantly required to satisfy itself that the development as modified would remain substantially the same as the development as last modified under section 75W of the EP&A Act. As such, where clause 3BA(6) applies, the relevant baseline comparator for applying the substantially the same development test will incorporate modifications authorised under section 75W of the EP&A Act, rather than the relevant baseline comparator only being the originally approved project.

The most recent GOCs MOD approved under section 75W of the EP&A Act was TCM MOD 5 (MP11_0047-Mod-5), determined August 2017.

As such, the relevant baseline comparator for applying the substantially the same development test in relation to the proposed modification of the approved TCM is the development as authorised by Modification 5.

As the VCM (SSD 7480) has never been modified under section 75W of the EP&A Act, the relevant baseline comparator for applying the substantially the same development test in relation to the proposed modification of the approved VCM is the originally approved VCM (SSD 7480).

The GOC operations incorporating the Modifications would demonstrably remain large coal mining projects that continue to incorporate the key elements of the TCM as modified by MOD 5 (MP11_0047-Mod-5) and the VCM as originally approved (SSD 7480).

In this regard, Table 4 and Table 5 provide a summary comparison of:

- the key elements of the TCM as modified by MOD 5 and the key elements of the TCM as proposed to be modified by the Modification (including cumulative changes authorised by the multiple modifications approved after MOD 5); and
- the key elements of the VCM as originally approved and the key elements of the VCM as proposed to be modified by the Modification (including cumulative changes authorised by the two modifications approved since the original approval of the VCM).

The consent authority can be satisfied that the Modifications meet the substantially the same development test as against the relevant baseline comparators and, therefore, can be approved pursuant to section 4.55(2) of the EP&A Act. In this regard, it is noted that the consent authority was satisfied that the most recent modifications to MP11_0047 (MOD 11) and SSD 7480 (MOD 2) met the substantially the same development test and the proposed Modifications only constitute a relatively minor further change to the currently approved TCM and VCM.

4.2 Environmental Planning and Assessment Act 1979 Objects

Section 1.3 of the EP&A Act relevantly describes the objects of the EP&A Act as follows:

- (a) *to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,*
- ...
- (c) *to promote productivity through the development and management of the State and its resources,*
- (d) *to protect the environment, including the conservation of threatened species of native animals and plants and ecological communities and their habitats,*

Table 4
Overview of the Originally Approved TCM, the MOD 5 Development, the Currently Approved TCM and the Proposed Modifications

Component	Development for which Consent was Originally Granted	Development as last Approved under section 75W (Modification 5)	Development as Approved under Modifications 6 to 11	Development Incorporating the Modifications ¹
Mine life	A 17 year mine life with operations until December 2030.	No change.	No change.	No change.
Mining method	Conventional open cut mining of ROM coal.	No change.	No change.	No change.
Operating hours	Mining would occur 24 hours per day, 7 days per week.	No change.	No change.	No change.
Annual production rate	ROM coal production of up to approximately 3 Mtpa.	No change.	ROM coal production of up to approximately 3.5 Mtpa.	No change.
Management of waste rock, coal rejects and final landform	Continued placement of mine waste rock to in-pit and out-of-pit waste rock emplacements including: - Extension of the Northern Emplacement and integration with the Boggabri Coal Mine emplacement landform to the north. No change to the maximum height of the Northern Extension (370 m Australian Height Datum [AHD]). - Extension of the Southern Emplacement and increase in height to approximately 360 m AHD.	No change.	Height of Northern Emplacement generally unchanged with localised areas up to approximately 376 m AHD to introduce micro-relief. A revised final landform between the Boggabri Coal Mine and the TCM. Construction of part of the Southern Emplacement final landform up to a height of approximately 370 m AHD.	No change.
Rehabilitation	Partially backfilled final void in the post-mining landform. Post-mining landform to be a combination of native woodland/forest and agricultural uses.	No change.	General post-mining landform concepts retained with minor changes to size/location to reflect modified open cut extent. Changes to post-mining landform including some areas of agricultural land to be rehabilitated to woodland to reflect the change in soil resources available.	No change.

Table 4 (Continued)
Overview of the Originally Approved TCM, the MOD 5 Development, the Currently Approved TCM and the Proposed Modifications

Component	Development for which Consent was Originally Granted	Development as last Approved under section 75W (Modification 5)	Development as Approved under Modifications 6 to 11	Development Incorporating the Modifications ¹
Coal handling, processing and transport infrastructure	Handling and processing of coal at the Whitehaven CHPP for Year 1 only or until approvals and upgrades are in place for the transfer of Project ROM coal to the Boggabri Coal Mine Infrastructure Facilities. ROM coal would then be crushed, screened, washed and product coal loaded onto trains at the upgraded Boggabri Coal Mine Infrastructure Facilities.	An increase in the road haulage of ROM coal to the Whitehaven CHPP.	Use of the Approved ROM Coal Transport Route to haul ROM coal from the TCM to the Whitehaven CHPP until the Vickery Extension Project CHPP, train load out facility and rail spur infrastructure reach full operational capacity.	No change.
			ROM coal processing would then transition to the Vickery Extension Project CHPP, prior to being loaded onto trains for transport to market.	No change.
			Together with the proponent of the VCM, cumulative haulage of coal along the approved haulage route does not exceed 3.8 Mtpa during the 2025 calendar year and does not exceed 3.5 Mtpa during all other calendar years without commissioning of the Kamilaroi Highway Overpass.	Increase in cumulative haulage of ROM coal along the Approved ROM Coal Transport Route up to 4.1 Mtpa for calendar years 2026 to 2030.
			For the period following the commissioning of the Kamilaroi Highway overpass, the proponent shall, together with the owners of the VCM, ensure that the cumulative haulage of coal along the approved haulage route does not exceed 4.5 Mtpa.	No change.
Water management	Extensions to the site water management system as required. Construction of the permanent Goonbri Creek alignment, low permeability barrier and permanent flood bund associated with the eastern extension of the open cut. Continued disposal of excess water via licensed discharge points.	On-site water management system comprises water management storages and collection drains, runoff diversions, sediment control and open cut dewatering. Construction of the permanent Goonbri Creek alignment, low permeability barrier and permanent flood bund associated with the eastern extension of the open cut. Disposal of excess water via licensed discharge points.	No change to water management system principles. Permanent flood bund requirement for the revised open cut extent to be confirmed via 2-dimensional flood modelling. Construction of the low permeability barrier and interception of Goonbri Creek no longer proposed as a result of the reduction in the open cut extent.	No change

Table 4 (Continued)
Overview of the Originally Approved TCM, the MOD 5 Development, the Currently Approved TCM and the Proposed Modifications

Component	Development for which Consent was Originally Granted	Development as last Approved under section 75W (Modification 5)	Development as Approved under Modifications 6 to 11	Development Incorporating the Modifications ¹
Water supply	Mine water supply obtained from surface water and groundwater inflows to pit area, sediment basins and storage dams, and licensed groundwater extraction.	Mine water supply obtained from surface water and groundwater inflows to pit area, sediment basins and storage dams, and licensed groundwater extraction. An existing pipeline between the TCM and the Boggabri Coal Mine allows water transfer between the two mines.	No change to existing water management system. Construction of a pipeline to the proposed Vickery Extension Project to facilitate contingency transfer of water between the proposed Vickery Extension Project and the TCM. As a temporary contingency measure, transport of up to approximately 1.6 megalitres per day of groundwater extracted from the existing VCM groundwater bore to the TCM by truck.	No change
Road network	Realignment of sections of Goonbri Road and construction of new intersections.	Realignment of sections of Goonbri Road and construction of new intersections.	The approved realignment of a section of Goonbri Road would no longer be required.	No change
Waste management	Used tyres from mining equipment would be stockpiled prior to being safely disposed of in the backfilled mine void as the open cut advances.	No change.	Used heavy vehicle tyres would be disposed of in the emplacement areas.	No change
Workforce	At full development, the operational workforce would be in the order of 120 on-site personnel. Construction/development activities during the life of the TCM would require up to approximately 20 additional people for short periods.	Operational workforce of approximately 211 on-site personnel. Construction/development activities during the life of the TCM would require up to approximately 20 additional people for short period.	No change.	No change.

Table 5
Overview of the Originally Approved VCM, the Currently Approved VCM and the Proposed Modifications

Component	Development for Which Consent was Originally Granted	Development as Approved under Modifications 1 and 2	Development Incorporating the Modifications
Mine life	Approximately 25 years.	No change.	No change.
Mining method	Open cut mining to a depth of approximately 250 m below ground level.	No change.	No change.
Operating hours	Mining would occur 24 hours per day, 7 days per week.	No change.	No change.
Annual production rate	Up to approximately 10 Mtpa ROM coal.	No change.	No change.
Management of waste rock, coal rejects and final landform	Co-disposal of waste rock and coal rejects within the Western Emplacement and within the footprint of the open cut void. Final landform with two final voids (the VCM open cut final void and the existing Blue Vale final void) and incorporating micro- and macro-relief.	Waste rock would also be crushed and screened then used as input into the temporary concrete batching plant. Crushing and screening of up to 90,000 cubic metres of gravel for off-site customers.	No change.
Rehabilitation	Progressive rehabilitation of mining landforms, predominantly to areas of native woodland with some areas suitable for agriculture (i.e. grazing).	Incorporation of geomorphic design.	No change.

Table 5 (Continued)
Overview of the Originally Approved VCM, the Currently Approved VCM and the Proposed Modifications

Component	Development for Which Consent was Originally Granted	Development as Approved under Modifications 1 and 2	Development Incorporating the Modifications
Coal handling, processing and transport infrastructure	Use of the Approved ROM Coal Transport Route to haul ROM coal from the VCM to the Whitehaven CHPP until the Vickery Extension Project CHPP, train load-out facility and rail spur infrastructure reach full operational capacity.	Revised ROM coal haulage hours to: 4.00 am to 11.15 pm Monday to Friday; and 5.00 am to 7.15 pm Saturday.	No change.
	Ability to receive ROM coal via road from other Whitehaven mining operations for stockpiling and/or processing at the Vickery Extension Project CHPP.	No change.	No change.
	Together with the proponent of the TCM, cumulative haulage of coal along the approved haulage route does not exceed 3.5 Mtpa each financial year prior to commissioning of the Kamilaroi Highway Overpass.	Increase in cumulative haulage of ROM coal along the southern section of the Approved Haulage Route up to 3.8 Mt in the 2025/2026 financial year, without commissioning of the Kamilaroi Highway overpass.	Increase in cumulative haulage of ROM coal along the Approved ROM Coal Transport Route up to 4.1 Mtpa for calendar years 2026 to 2030. Align the coal haulage timeframes specified in the consent to a calendar year, rather than a financial year.
	For the period following the commissioning of the Kamilaroi Highway overpass and until commissioning of the Project Rail Spur, the proponent shall, together with the proponent of the TCM, ensure that the cumulative haulage of coal along the approved haulage route does not exceed 4.5 Mtpa in any financial year.	No change.	No change.
Water Management	On-site water management system, comprising water management storages and collection drains, up-catchment diversions, sediment control and open cut dewatering. Construction and use of a groundwater supply borefield to the north of the VCM.	Construction of pipelines from the MIA to transfer points on adjacent properties. Construction of a pipeline to the RCM to transfer water for temporary storage at RCM, and transfer from RCM back to the VCM.*	No change.
Water supply	Mine water supply to be obtained from inflows to open cut areas, sediment dams and storage dams, plus surface water and/or groundwater licences as required.	Mine water supply to be supplemented with alternative sources from adjacent properties (purchased under agreement) which has been extracted by the landholders in accordance with WALs and Works Approvals authorised under the WM Act. Ongoing transfer of water to and from the RCM final void.*	No change.

Table 5 (Continued)
Overview of the Originally Approved VCM, the Currently Approved VCM and the Proposed Modifications

Component	Development for Which Consent was Originally Granted	Development as Approved under Modifications 1 and 2	Development Incorporating the Modifications
Road network	Construction of the Blue Vale Road Diversion around the east and north of the secondary infrastructure area.	Alternative alignment of the Blue Vale Road Diversion to be constructed if future mine design requirements do not require frequent use of the secondary infrastructure area.	No change.
Waste management	No disposal of heavy vehicle waste tyres on site.	Stockpiling, ongoing management and disposal of heavy vehicle waste tyres within waste rock emplacement areas.	No change.
Workforce	Up to 500 full-time equivalent construction personnel. Up to 450 full-time equivalent on-site operational personnel.	No change.	No change.

* Subject to a future Modification of the RCM Project Approval (MP10_0015).

- (e) *to promote resilience to climate change and natural disasters through adaptation, mitigation, preparedness and prevention,*
- (f) *to promote the sustainable management of built and cultural heritage, including Aboriginal cultural heritage,*
- ...
- (h) *to provide opportunities for participation in environmental planning and assessment,*
- (i) *to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,*
- (j) *to promote a proportionate and risk-based approach to environmental planning and assessment,*
- (k) *to promote the orderly and economic use and development of land.*

The Modifications are considered to be generally consistent with the objects of the EP&A Act, because they are Modifications that:

- incorporate operation of the GOCs in a manner that minimises environmental impacts through the continued implementation of environmental management measures (Section 6);
- incorporate benefits to the local and NSW economies in the form of employment opportunities and royalties to the State of NSW (Section 6);
- involve the orderly and economic use of land as the Modifications would not require additional surface development areas; and
- involve a relatively minor change to existing developments which have been approved by the relevant consent authority under the EP&A Act, and meet the substantially the same development test under section 4.55(2) of the EP&A Act.

4.3 Evaluation under section 4.55(3) of the Environmental Planning and Assessment Act 1979

Section 4.55(3) of the EP&A Act states:

(3) In determining an application for modification of a consent under this section, the consent authority must take into consideration such of the matters referred to in section 4.15(1) as are of relevance to the development the subject of the application. The consent authority must also take into consideration the reasons given by the consent authority for the grant of the consent that is sought to be modified.

In accordance with section 4.55(3) of the EP&A Act, Section 4.4 provides an evaluation of the Modifications under section 4.15(1) of the EP&A Act.

In addition, section 4.55(3) of the EP&A Act requires the consent authority to also take into consideration the reasons given by the consent authority for the grant of the consent that is sought to be modified.

In relation to the original grant of MP11_0047, the former Planning Assessment Commission of NSW published a report on 22 January 2013 outlining its decision to grant MP11_0047 for the TCM under the former Part 3A of the EP&A Act. This document is Attachment 2 to this Modification Report.

In relation to the original grant of SSD 7480, the Independent Planning Commission published on 12 August 2020 a Statement of Reasons for Decision setting out its reasons for granting SSD 7480 for the VCM under Part 4 of the EP&A Act. This document is Attachment 3 to this Modification Report. Relevant context relating to conditioning haulage limits and the Kamilaroi Highway Overpass is provided in Attachment 4.

It is considered that the consent authority can be satisfied that the approval of the Modifications is consistent with the reasons for originally granting MP11_0047 and SSD 7480.

4.4 Evaluation under section 4.15(1) of the Environmental Planning and Assessment Act 1979

In evaluating the Modifications under section 4.15(1) of the EP&A Act, the consent authority is required to take into consideration various matters to the extent that they are of relevance to the developments subject to the Modifications.

Section 4.15(1) states:

(1) Matters for consideration—general

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application—

- (a) *the provisions of—*
 - (i) *any environmental planning instrument, and*
 - (ii) *any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and*
 - (iii) *any development control plan, and*
 - (iiia) *any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and*
 - (iv) *the regulations (to the extent that they prescribe matters for the purposes of this paragraph),*
 - (v) *(Repealed)*
- that apply to the land to which the development application relates,*
- (b) *the significant likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*
- (c) *the suitability of the site for the development,*
- (d) *any submissions made in accordance with this Act or the regulations,*
- (e) *the public interest.*

While this is a requirement for the consent authority, this Modification Report has been prepared to generally address the relevant matters under section 4.15(1) of the EP&A Act to assist the consent authority, including as follows:

- Consideration of the requirements of relevant environmental planning instruments is provided in Attachment 1.
- Clause 2.10 of the *NSW State Environmental Planning Policy (Planning Systems) 2021* states that development control plans do not apply to State significant developments.
- This Modification Report has been prepared in accordance with the relevant provisions in the EP&A Regulation.
- The predicted impacts of the Modifications, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality are provided in Section 6.
- The suitability of the approved site has been considered in Section 7 and has already been assessed and determined previously under the EP&A Act.
- Consideration of whether, on evaluation, the Modifications are considered to be in the public interest is provided in Section 7.

4.5 Other NSW Legislation

In addition to the EP&A Act, other NSW legislation is, or may be, applicable to the developments incorporating the Modifications.

Other NSW legislation that may be applicable to the GOC operations has been previously identified in the relevant GOC operations environmental approval documentation (i.e. relevant EA/EIS and subsequent modification documentation).

Whitehaven would continue to obtain relevant licences or approvals required under this NSW legislation for the GOC operations incorporating the Modifications.

4.5.1 BIODIVERSITY CONSERVATION ACT 2016

The NSW *Biodiversity Conservation Act 2016* provides the legislative framework for biodiversity conservation in NSW.

The BC Act regime relevantly provides that a Biodiversity Development Assessment Report is not required to be submitted with a modification application if the authority or person determining the application for modification (or determining the environmental assessment requirements for the application), is satisfied that the modification would not increase the impact on biodiversity values (see clause 30A(2)(c) of the *Biodiversity Conservation (Savings and Transitional) Regulation 2017*).

Given the scope of the proposed Modifications (which do not involve any new surface development), the Modifications would not increase the impact on biodiversity values and, therefore, a BDAR is not required.

Biodiversity impacts would continue to be managed in accordance with the relevant biodiversity conditions of MP11_0047 and SSD 7480 and relevant approved environmental management plans under those planning approvals.

4.5.2 CLIMATE CHANGE (NET ZERO FUTURE) ACT 2023

The NSW *Climate Change (Net Zero Future) Act 2023* (the Net Zero Act) sets out NSW's approach to climate change and legislates whole-of-government climate action.

The objects of the Net Zero Act are identified in section 4 of the Act as follows:

- (a) *to establish guiding principles for action to address climate change,*
- (b) *to set targets for the reduction in net greenhouse gas emissions in New South Wales until 2050,*
- (c) *to set an objective for New South Wales to be more resilient to a changing climate,*
- (d) *to establish the Net Zero Commission to independently monitor, review and report on progress in New South Wales towards the targets, the adaptation objective and other matters.*

Part 2 of the Net Zero Act sets out guiding principles (section 8 of the Net Zero Act), targets for reducing net greenhouse gas emissions in NSW (section 9 of the Net Zero Act), an adaptation objective (section 10 of the Net Zero Act) and a provision relating to achieving the 2050 net zero target (section 11).

The Net Zero Act sets progressive reduction targets for NSW's net greenhouse gas emissions as follows:

- 50% reduction on 2005 levels by 30 June 2030;
- 70% reduction on 2005 levels by 30 June 2035; and
- 'net zero' by 30 June 2050.

Section 6.4.1 considers the potential change to the greenhouse gas emissions associated with carrying out the approved development as proposed to be modified by the Modifications.

It is considered that the consent authority can be satisfied that the Modifications (which involve a relatively minor change to existing approved mining developments) are not inconsistent with NSW achieving its overall targets for reducing net greenhouse gas emissions.

4.5.3 MINING ACT 1992

The objects of the NSW *Mining Act 1992* (Mining Act) are set out in section 3A of the Mining Act. Section 3A relevantly states:

The objects of this Act are to encourage and facilitate the discovery and development of mineral resources in New South Wales, having regard to the need to encourage ecologically sustainable development, and in particular—

...

The Modifications are considered to be consistent with the objects in the Mining Act.

Section 380AA of the Mining Act specifies restrictions on planning applications for coal mining, relevantly including:

- (1) *An application ... for the modification of a development consent, to mine for coal cannot be made or determined unless (at the time it is made or determined) the applicant is the holder for an authority that is in force in respect of coal and the land where mining for coal is proposed to be carried out, or the applicant has the written consent of the holder of such an authority to make the application.*

The applicants for the Modifications have the written consent of the holders of the relevant mining tenements to make the applications for the Modifications.

4.5.4 ROADS ACT 1993

Works or structures that disturb the surface of a public road or connect a road to a classified road generally require consent under section 138 of the *Roads Act 1993*. The *Roads Act 1993* applies to all public roads in NSW, and is typically administered by the local council for local roads.

The Modification does not propose any physical changes to public roads.

4.6 Environmental Planning Instruments

Relevant environmental planning instruments are addressed in the statutory compliance table provided in Attachment 1.

In relation to the permissibility of the approved developments, it is noted that:

- at the time MP11_0047 was originally granted, the proposed TCM mining development was permitted to be authorised as a Part 3A Project under the former Part 3A of the EP&A Act; and
- at the time SSD 7480 was originally granted, the proposed VCM mining development was permissible with development consent under the EP&A Act.

To the extent that provisions in the relevant Local Environmental Plans and the *State Environmental Planning Policy (Resources and Energy) 2021* relating to the permissibility of proposed development are relevant to determining the proposed Modifications of the approved developments, it is considered that the consent authority can be satisfied that the Modifications are consistent with those provisions.

4.7 Commonwealth Legislation

4.7.1 ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

The objective of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is to provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance (MNES).

Proposals that are likely to have a significant impact on a MNES are defined as a controlled action under the EPBC Act. A proposal that is, or may be, a controlled action is required to be referred to the Commonwealth Department of Climate Change, Energy, the Environment and Water to determine whether the action is a controlled action.

Based on the minor nature of the Modifications (which do not include any disturbance activities), it is considered that the Modifications would not have a significant impact on any MNES, including for the following reasons:

- The Modifications would not have a significant impact on listed threatened species and ecological communities and/or migratory species.
- The Modifications would not have a significant impact on wetlands of international importance.
- The Modifications would not have a significant impact on world heritage properties or national heritage places.
- The Modifications would not impact the Great Barrier Reef Marine Park and/or Commonwealth marine areas.
- The Modifications are not nuclear actions.
- The Modifications would not have an impact on any water resource.

4.8 National Greenhouse and Energy Reporting Act 2007

The Commonwealth *National Greenhouse and Energy Reporting Act 2007* introduced a single national reporting framework for the reporting and dissemination of corporations' greenhouse gas emissions and energy use.

The Modifications would not significantly change greenhouse gas emissions compared to the approved GOC operations, as discussed in Section 6.2.1.

NGER Act reporting of relevant energy use and greenhouse gas emissions associated with approved activities, and the management of any relevant baseline exceedances, would continue to occur if the Modifications are approved. Whitehaven would account for the greenhouse gas emissions associated with the Modifications in its annual Commonwealth *National Greenhouse and Energy Reporting Act 2007* report.

4.9 Climate Change Act 2022

The Commonwealth *Climate Change Act 2022* (Climate Act) outlines Australia's greenhouse gas emissions reduction targets. Section 10(1) of the Climate Act states:

- (1) *Australia's greenhouse gas emissions reduction targets are as follows:*
 - (a) *reducing Australia's net greenhouse gas emissions to 43% below 2005 levels by 2030:*
 - ...
 - (b) *reducing Australia's net greenhouse gas emissions to zero by 2050.*

Section 3 of the Climate Act defines the objects of the Act:

- (aa) *to advance an effective and progressive response to the urgent threat of climate change drawing on the best available scientific knowledge; and*
- (a) *to set out Australia's greenhouse gas emissions reduction targets which contribute to the global goals of:*
 - (i) *holding the increase in the global average temperature to well below 2°C above pre-industrial levels; and*
 - (ii) *pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels; and*
- (b) *to promote accountability and ambition by requiring the Minister to:*
 - (i) *prepare annual climate change statements; and*
 - (ii) *cause copies of those statements to be tabled in each House of the Parliament; and*
- (c) *to ensure that independent advice from the Climate Change Authority informs:*
 - (i) *the preparation of annual climate change statements; and*
 - (ii) *the greenhouse gas emissions reduction targets to be included in a new or adjusted nationally determined contribution.*

Section 6.2.1 considers the potential change to greenhouse gas emissions associated with carrying out the approved development as proposed to be modified by the Modifications.

It is considered that the consent authority can be satisfied that the Modifications (which involve a relatively minor change to existing approved mining developments) are not inconsistent with Australia achieving its greenhouse gas emissions reduction targets.

5 Engagement

Whitehaven has consulted with relevant NSW Government agencies and the GSC and NSC during the preparation of this Modification Report in consideration of the *Undertaking Engagement Guidelines for State Significant Projects* (DPHI, 2024b). A summary of this consultation is provided below.

5.1 NSW Government Agencies

5.1.1 DEPARTMENT OF PLANNING, HOUSING AND INFRASTRUCTURE

Whitehaven consulted with DPHI on 4 December 2025 to provide an overview of the Modifications, proposed approval pathway and the proposed scope of the environmental assessments.

On 7 January 2026, Whitehaven submitted a Scoping Letter (Whitehaven, 2026) to DPHI providing an overview of the Modifications and the proposed assessments to be completed. Whitehaven also provided an update to DPHI on the Modifications during meetings in January and March 2026.

5.1.2 TRANSPORT FOR NSW

A briefing letter was provided to Transport for New South Wales (TfNSW) on 30 January 2026 providing an overview of the Modifications.

TfNSW confirmed receipt of the briefing letter and provided preliminary comments on the Modifications that were noted subject to change following formal assessment of any application by the relevant consent authority.

TfNSW noted that consideration was required to be provided as part of the Modifications regarding the safety aspects associated with the temporary increase in road-based haulage and associated deferral to construction of the Kamilaroi Highway rail spur bridge.

In this regard, Section 6.4 and Appendix A address traffic movements, road safety and management and mitigation measures.

An update on the Modification was sent by letter on 20 March 2026.

5.1.3 ENVIRONMENT PROTECTION AUTHORITY

A briefing letter was provided to the NSW Environment Protection Authority (EPA) on 30 January 2026 providing an overview of the Modifications.

The EPA acknowledged receipt of the letter on 2 February 2026. No further comments were received from the EPA regarding the Modifications at the time of submission.

An update on the Modification was sent by letter on 20 March 2026.

5.1.4 DEPARTMENT OF PRIMARY INDUSTRIES AND REGIONAL DEVELOPMENT – NSW RESOURCES, INCLUDING THE RESOURCES REGULATOR

A briefing letter was provided to the NSW Department of Primary Industry and Regional Development – NSW Resources (NSW Resources) on 30 January 2026 providing an overview of the Modifications.

NSW Resources responded on 30 January 2026 noting the Modifications do not propose to change the parameters relating to production and, as such, a Resource and Economic Assessment review will not be triggered. NSW Resources noted it would provide its comments on the Modifications during the public exhibition period.

An update on the Modification was sent by letter on 20 March 2026.

5.1.5 DEPARTMENT OF CLIMATE CHANGE, ENERGY, THE ENVIRONMENT AND WATER

A briefing letter was provided to the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW) on 30 January 2026 providing an overview of the Modifications.

No comments were received from the NSW DCCEEW regarding the Modifications at the time of submission.

An update on the Modification was sent by letter on 20 March 2026.

5.2 Local Council

5.2.1 GUNNEDAH SHIRE COUNCIL

A meeting between Whitehaven representatives and GSC was held on 14 January 2026. During this meeting, Whitehaven raised the Modifications and noted a Scoping Letter had been submitted to DPHI. A briefing letter was also provided to GSC on 30 January 2026 providing an overview of the Modifications.

GSC acknowledged receipt of the letter on 2 February 2026 stating it had been referred to the relevant officer for attention.

Regular engagement has occurred with GSC regarding the approved haulage route, road maintenance and the proposed Modifications. GSC has indicated their general support for the Modifications during this engagement and will provide a submission during the exhibition phase.

Whitehaven will continue to engage with GSC regarding the haulage activity.

An update on the Modification was sent by letter on 20 March 2026.

The VCM and TCM CCCs were provided an overview of the Modifications during the meetings held on 29 January 2026 and 18 February 2026, respectively. Minutes for the TCM and VCM CCCs are made publicly available on the Whitehaven website.

An update on the Modification was sent by letter on 20 March 2026.

5.2.2 NARRABRI SHIRE COUNCIL

A briefing letter was provided to NSC on 30 January 2026 providing an overview of the Modifications.

NSC responded on 4 February 2026 stating they would provide comments on the Modifications when it is requested to do so during the Modifications public exhibition period.

Updates are periodically provided to NSC as part of regular ongoing engagement regarding Whitehaven's operations in the NSCs LGA.

An update on the Modification was sent by letter on 20 March 2026.

5.3 Local Community

5.3.1 COMMUNITY CONSULTATIVE COMMITTEE

Briefing letters were provided to the VCM and TCM Community Consultative Committees (CCCs) on 30 January 2026 providing an overview of the Modifications.

6 Assessment of Impacts

6.1 Identification of Key Issues

This section presents the assessment of the potential impacts associated with the modified GOC sites.

The Modifications would not require significant alterations to the approved GOCs (Section 3).

The Modifications would include no change to the following components of the GOC operations:

- Mining operations at the approved GOCs.
- Surface disturbance at the approved GOCs or Whitehaven CHPP (e.g. to facilitate transport or stockpiling of ROM coal, product coal or coal rejects).
- Mine life(s), employment numbers, mining activities or other surface activities associated with the approved GOCs or Whitehaven CHPP.
- Approved haulage hour(s).
- Approved ROM Coal Transport Route(s) from the GOCs to the Whitehaven CHPP or existing domestic customers.
- Coal reject transport route(s) from the Whitehaven CHPP to VCM or TCM for incorporation into the final landform.

The following approved components of the TCM and VCM would not be changed:

- tenements;
- general arrangement and surface development;
- mining method and rate;
- mobile fleet;
- ROM coal processing and mining rate;
- overburden management;
- waste management;
- water supply and demand;
- electricity supply and demand;
- supporting infrastructure;
- site access;
- workforce; and
- environmental management and monitoring.

Whitehaven has undertaken a review of the potential environmental impacts of the Modifications to identify key potential environmental issues requiring assessment.

The key environmental considerations requiring assessment include the following:

- road transport;
- road noise; and
- greenhouse gas emissions.

Sections 6.2, 6.3 and 6.4 and Appendices A, B and C include a description of the methodology undertaken for each assessment, the existing environment, an assessment of the potential impacts of the Modifications, and, where relevant, a description of measures that would be implemented to avoid, minimise and/or mitigate the potential impacts.

Section 6.5 discusses the potential impacts of the Modifications for other environmental aspects.

6.2 Road Transport

The Transport Planning Partnership (TPPP) (2026) has undertaken an assessment of potential road transport impacts associated with the Modifications.

The Approved ROM Coal Transport Route includes a combination of public and private roads and provides the shortest and least trafficked route from the TCM to the Whitehaven CHPP (Figure 1). The Approved ROM Coal Transport Route does not traverse residential areas or permanent school zones, and consists of the following segments between the TCM and the Whitehaven CHPP:

- Whitehaven Private Haul Road north-south between TCM and Rangari Road;
- Rangari Road (between the two sections of private haul road);
- Whitehaven Private Haul Road south of Rangari Road, which crosses Hoad Lane and passes through the former Canyon Coal Mine and east-west to Hoad Lane;
- Hoad Lane between the Whitehaven Private Haul Road and Blue Vale Road;
- Shannon Harbour Road between the RCM Access and Hoad Lane;
- Blue Vale Road between Hoad Lane and Kamilaroi Highway;

- Kamilaroi Highway between Blue Vale Road and Whitehaven CHPP access road; and
- the Whitehaven CHPP access road.

The proposed Modifications would seek to increase the ROM coal haulage limit along the southern section of the Approved ROM Coal Transport Route only (i.e. between the VCM and Whitehaven CHPP).

6.2.1 EXISTING TRAFFIC VOLUMES

TTPP (2026) has collated available traffic volume data on routes of relevance to the GOCs. Key results of those surveys for the average weekday and during the peak hours are summarised in Appendix A. Furthermore, forecast traffic volumes for the Modifications are also included within Tables 5.1 to 5.5 of Appendix A.

6.2.2 TRAFFIC MANAGEMENT AND MONITORING REGIME

Management of traffic for the ROM coal haulage along the Approved ROM Coal Transport Route is conducted in accordance with the GOCs Traffic Management Plan and includes the following (Whitehaven, 2024):

- details of the measures to be implemented to minimise traffic safety issues and disruption to local users during construction or decommissioning works;
- arrangements to comply with cumulative coal haulage limits from the GOCs;
- a protocol to facilitate graziers access to the Travelling Stock Route from Blue Vale Road;
- monitoring program to audit vehicle movements; and
- Drivers' Code of Conduct.

6.2.3 POTENTIAL IMPACTS

The potential impacts of the haulage of additional ROM coal, during the approved haulage hours on weekdays and Saturdays was assessed by TTPP (2026) (Appendix A).

Potential impacts on traffic would be associated with the cumulative increase in trucks transporting coal along the southern section of the Approved ROM Coal Transport Route and are summarised below.

Traffic Generation

The annual and daily ROM coal haulage trips have been estimated based on the proposed 4.1 Mtpa haulage rate. Consistent with the VCM MOD 1 and TCM MOD 7 Road Transport Assessments (TTPP, 2024 and 2019), trip generation has been calculated assuming that haulage movements are evenly spread over the weekday and Saturday haulage hours, with haulage occurring over 48 weeks per year.

A summary of the average weekday and hourly trip generation on the Approved ROM Coal Transport Route is provided in Tables 5.1 to 5.3 of the Road Transport Assessment (TTPP, 2026).

As assessed by TTPP (2026), the proposed Modifications would result in an average of 26 vehicle trips per hour, 492 vehicle trips per weekday and 364 vehicle trips per Saturday (Table 6).

Table 6 – Change in Traffic Volumes

Cumulative Haulage	Hourly	Weekdays	Saturdays
3.5 Mtpa*	40	612	412
3.5 Mtpa	22	420	310
4.1 Mtpa	26	492	364
Change	+4	+72	+54

After: Tables 2.3 and 5.1 of Appendix A (TTPP, 2026).

* Traffic volumes anticipated when Vickery Coal Mine (Development Consent SSD 5000) was approved, prior to commissioning of Kamilaroi Highway overpass..

TTPP (2026) indicates that the Modifications would generate an average of 26 vehicle trips per hour during the approved haulage hours, equivalent to an average of:

- 14 fewer vehicle trips per hour than was anticipated when the upper limit of 3.5 Mtpa was imposed on haulage for the phase of development prior to commissioning of the Kamilaroi Highway overpass under Development Consent SSD 5000 (Table 6); and
- four additional vehicle trips per hour above the upper limit of 3.5 Mtpa without the Kamilaroi Highway overpass using the current truck fleet and approved haulage hours.

It is noted that the forecasted ROM coal haulage trips under the Modifications are well below that previously assessed for the GOCs (GTA Consultants, 2012 and 2016), due to increases in the payload capacity of the haulage fleet (Table 5.1 of Appendix A).

As previous assessments have found that there would be no capacity concerns with the operation of the roads and intersections during the peak hours, TTPP (2026) has similarly concluded that the forecast future daily traffic volumes for the Modifications are well within the capacity of the roads, and no issues are raised with regard to the operation of those roads under the forecast demands.

Impacts on Intersections

The previous assessment in the Vickery Coal Project EIS (SSD 5000), assumed 52 vehicle trips an hour on a road haulage rate to achieve 4.5 Mtpa, after commissioning of the Kamilaroi Highway overpass (TTPP, 2026).

The conditioning of the Vickery Coal Project so as to require the construction of an overpass if haulage were to exceed 3.5 Mtpa was intended to reduce potential vehicle movements at the Kamilaroi Highway intersection.

The *State Significant Development Assessment Report Vickery Coal Project (SSD 5000)* (DPE, 2014) recommended that in response to expected growth in traffic and to overcome lack of certainty relating to the timeframe for construction and commissioning of the Kamilaroi Highway overpass, the overpass be required prior to exceeding the transport of 3.5 Mtpa from the GOCs.

As noted by TTPP (2026) (Appendix A), the selection of 3.5 Mtpa as the upper limit for Whitehaven haulage prior to commissioning of the Kamilaroi Highway overpass was not identified as a necessary upper limit by assessment of forecasts of road or intersection conditions, rather it reflected the volume approved to be transported on the Approved ROM Coal Transport Route at that time.

The operating characteristics of key intersections on Kamilaroi Highway have been assessed under the forecast demands with the Modifications using an analysis program which determines characteristics of intersection operating conditions including the degree of saturation, average delays, and levels of service (Appendix A).

The operation of the key intersections of Kamilaroi Highway with Blue Vale Road, and the Whitehaven CHPP access have been assessed based on the surveyed volumes between 7.30 am and 8.30 am, and between 4.30 pm and 5.30 pm (Appendix A).

TTPP (2026) concluded that the results of the assessment do not highlight any concerns with the operation of the intersections on Kamilaroi Highway, again noting that the assessment considers the effects of maximum haulage forecasts associated with the GOCs, that would occur very infrequently.

The "SIDRA INTERSECTION" software results also demonstrate that during the peak hours, vehicles travelling on Kamilaroi Highway would experience average delays of 0.1 seconds per vehicle with either the maximum haulage forecast anticipated when Development Consent SSD 5000 was granted, or the maximum haulage anticipated with the Modifications (TTPP, 2026). The Modifications would therefore have negligible effect on the conditions experienced by through traffic on Kamilaroi Highway.

Impact on Road Safety

A review of TfNSW road crash data and Whitehaven's incident records did not identify any safety issues relating to the haulage of ROM coal from the GOCs to the Whitehaven CHPP that may be exacerbated by the increase in its maximum annual haulage during the 2026 to 2030 calendar years (Appendix A).

As the key intersections would continue to operate with only short delays and spare capacity, and haulage truck drivers are subject to the behavioural requirements set out in the TMP, no safety concerns were raised with respect to their continued use by traffic associated with the haulage of ROM coal from the GOCs to the Whitehaven CHPP, including specific requirements regarding interaction with other vehicles on Kamilaroi Highway (Appendix A).

6.2.4 ROAD TRAFFIC AUDIT

McLaren undertook an Independent Road Traffic Audit (2026) of road safety and road network operations as required by Condition B84 of SSD 7480, reproduced below:

B84. If the Kamilaroi Highway overpass or Project Rail Spur have not been commissioned within 5 years of the date of commencement of development consent, and every 5 years thereafter, the Applicant shall commission an Independent Traffic Audit of haulage operations of the Kamilaroi Highway and its intersections with Blue Vale Road and the CHPP access road...

The Independent Road Traffic Audit (McLaren, 2026) identified no concerns in relation to the future operational performance of the haulage route, or road safety issues, to and from the VCM and its intersection with the Kamilaroi Highway as audited in accordance with relevant conditions of SSD 7480.

6.2.5 MITIGATION MEASURES, MANAGEMENT AND MONITORING

Given the Modifications would not result in any material traffic impacts, there is no requirement for additional management measures as part of the Modifications. However, Whitehaven has reviewed opportunities to incorporate improvements to the existing suite of management and safety measures and provided consideration to recommendations from the Independent Road Traffic Audit (McLaren, 2026) referred to in Section 6.2.4 (TTPP, 2026).

ROM coal haulage traffic would continue to be managed in accordance with the GOCs Traffic Management Plan (Whitehaven, 2024). Notwithstanding, the GOCs Traffic Management Plan would be reviewed and, if necessary, revised by Whitehaven to include the Modifications (subject to any modified Development Consent conditions).

Whitehaven will continue to engage with GSC regarding the Modifications including the review of the existing road maintenance agreement in accordance with Condition B77, Part B of SSD 7480.

6.3 Road Noise

A Road Noise Assessment for the Modifications was undertaken by RWDI Australia Pty Ltd (RWDI) (2026).

The assessment considers the cumulative road noise emissions from the approved GOCs, incorporating the proposed increase in truck movements along the Approved ROM Coal Transport Route (Appendix B). A qualitative assessment was conducted to determine the potential road noise impacts associated with the Modifications (Appendix B).

The Road Noise Assessment was prepared with reference to the following guidelines:

- *Noise Policy for Industry* (NPfI) (EPA, 2017); and
- *NSW Road Noise Policy* (NSW Department of Environment, Climate Change & Water [DECCW], 2011).

6.3.1 EXISTING ENVIRONMENT

The GOC Project Approvals (MP 11_0047 and SSD 7480) condition road traffic noise criteria. The Project Approvals require the GOCs to ensure that traffic noise on public roads generated by the TCM and VCM does not exceed road traffic noise criteria, presented in Table 7, at any residence on privately-owned land.

Table 7 - GOCs Road Traffic Noise Criteria

Land Use	Day and Evening L _{Aeq} (15 hour)	Night L _{Aeq} (9 hour)
All privately-owned residences	60	55

Note: L_{Aeq} = The equivalent continuous sound level

6.3.2 POTENTIAL IMPACTS

Potential road noise impacts would be associated with the cumulative increase in trucks transporting coal along the southern extent of the Approved ROM Coal Transport Route.

The proposed 0.6 Mtpa increase of ROM coal transported in calendar years 2026 to 2030 would result in the average number of cumulative haul trips increasing from approximately 22 to 26 trips per hour. An increase of four additional truck trips per hour would be equivalent to an increase in noise levels of approximately 0.7 decibels (dB) (Appendix B).

Such an increase in noise level is deemed negligible in accordance with the NPfI (EPA, 2017) and *NSW Road Noise Policy* (DECCW, 2011) and would not be discernible by the surrounding community (Appendix B).

The Road Noise Assessment (RWDI, 2026) (Appendix B) has concluded that the increase in truck movements along the Approved ROM Coal Transport Route remains negligible and would not impact upon the acoustic amenity of the surrounding community.

6.3.3 MITIGATION MEASURES, MANAGEMENT AND MONITORING

Given the Modifications would result in negligible impacts to acoustic amenity, no additional management measures are proposed as part of the Modifications.

Road noise would continue to be managed in accordance with the TCM and VCM Noise Management Plans for each of the mine sites. Notwithstanding, the Noise Management Plans would be reviewed and, if necessary, revised by Whitehaven to include the Modifications (subject to any modified Development Consent conditions).

6.4 Greenhouse Gas

The Greenhouse Gas Assessment prepared for the VCM EIS (Ramboll, 2018a) considered potential greenhouse gas emissions associated with ROM coal transport along the southern section of the Approved ROM Coal Transport Route. Product transportation represents a small portion of the total Scope 3 emissions previously assessed in the VCM EIS Greenhouse Gas Assessment (Ramboll, 2018b) (approximately 0.2% of Scope 3 emissions during peak year).

The Modifications would result in approximately 72 additional truck haulage trips per weekday and 54 additional truck haulage trips per Saturday (TTPP, 2026), on average, which would give rise to additional Scope 1 (direct) and Scope 3 (indirect) greenhouse gas emissions. Diesel emissions associated with the haulage activities are considered as Scope 1 emissions while the bulk transport of the diesel by third party contractors to the GOC operations (i.e. diesel to be used for haulage) is considered to be Scope 3 emissions.

The Greenhouse Gas Assessment prepared for the Modifications (Todoroski Air Sciences [TAS], 2026) (Appendix C) considered potential greenhouse gas emissions associated with the incremental increase in ROM coal transported along the southern section of the Approved ROM Coal Transport Route.

The proposed Modifications would result in an incremental increase of up to 693 tonnes of carbon dioxide equivalent (t CO₂-e) (Scope 1) emissions annually associated with the proposed increase in road haulage activities (TAS, 2026). This is below the Guide for Large Emitters (EPA, 2025) annual threshold of likely to emit an additional 25,000 tonnes or more of scope 1 and 2 emissions CO₂-e and, therefore, this guideline does not apply to the Modifications (see section 2.1 of the Guide).

The proposed Modifications would also result in an incremental increase of up to 170 t CO₂-e (Scope 3) emissions annually associated with the haulage of additional diesel to the GOC operations (TAS, 2026).

While the Modifications would increase the volume of ROM coal transported by road to the Whitehaven CHPP up to 31 December 2030, the total ROM coal mined at the VCM and TCM would remain unchanged as there is no proposed change to the total resources authorised to be mined under the Modifications. Therefore, it is considered that potential greenhouse gas emissions associated with the Modifications would be negligible.

Notwithstanding, Whitehaven would continue to implement greenhouse gas emissions management measures under its TCM and VCM Air Quality and Greenhouse Gas Management Plans.

6.4.1 CONSIDERATION OF IMPACTS IN THE LOCALITY

The Modifications do not propose any changes to the approved operations at the VCM and TCM, including no change to the total coal resources or maximum annual ROM coal extraction rates. In addition to the diesel use related emissions described above, the Modifications would result in an additional 0.6 Mtpa of coal (already approved to be extracted), being mined during 2026 to 2030 that otherwise would occur later (e.g. beyond 2030 or upon commission of the Vickery Extension Project CHPP and rail spur enabling an increase in GOC production to and above 4.1 Mtpa), if the Modifications do not proceed.

Notwithstanding the above, based on a conservative approach that assumes that the Modifications' emissions are wholly additive to the already approved emissions (despite this not being the case), the estimated total greenhouse gas emissions that the Modifications would bring forward (from future years) is up to approximately 1.2 million tonnes of carbon dioxide equivalent (Mt CO₂-e)¹ per annum. Comparison to the total global anthropogenic greenhouse gas emissions in 2024 of approximately 57,700 Mt CO₂-e (United Nations Environment Programme, 2025) indicates the Modifications' contribution¹ to annual global emissions would be approximately 0.0021%, in the absence of consideration of any substitutions, abatements or offsets. This is an infinitesimally small amount, when converted to degrees Celsius. The emissions from the additional haulage of coal would be so minuscule as to be unlikely to perceptibly contribute to climate change.

At the local scale, the Gunnedah and Narrabri regions are susceptible to various climate change influences including increased heat, water scarcity, flooding and heightened bushfire risk. It is considered that the Modifications' contribution to global emissions and climate change would be infinitesimally small.

Considering the above, from both a local and global perspective, the consent authority can be satisfied that the change in timing of greenhouse gas emissions associated with the Modifications would not result in significant adverse environmental, social or economic impacts.

6.5 Other Environmental Aspects

6.5.1 AIR QUALITY

To minimise dust, unsealed roads are not used for access to or from the TCM and VCM, except for the circumstances described in the GOCs Traffic Management Plan (Whitehaven, 2024). This would continue for the Modifications.

Under normal operations, coal haulage truck drivers would continue to travel along the Approved ROM Coal Transport Route, which does not result in dust generation as the route is sealed. Haul trucks transporting ROM coal to the Whitehaven CHPP would continue to be covered to minimise potential dust emissions under the Modifications. Therefore, the Modifications would result in negligible dust emissions.

6.5.2 SOCIAL

The Modification would not require additional workforce for the GOCs as the same number of trucks would be utilised. Personnel within the GOCs may change positions, but no additional workforce is required. Therefore, there are expected to be no additional impacts on the local population, access to community infrastructure and services.

6.5.3 HAZARD AND RISK

As the Modification would not change the existing potential risks or hazard consequences identified in the Preliminary Hazard Analysis for the approved GOCs, no significant changes to the approved potential hazards and/or risks are expected.

¹ The calculation of total greenhouse gas emissions conservatively includes Scopes 1, 2 and 3 emissions associated with mining, processing, transportation and end-use of the 600,000 tonnes of ROM coal which have been previously assessed and approved.

7 Justification of the Modified Gunnedah Open Cut Operations

This section provides a justification of the Modifications and conclusion for the Modification Report.

As part of the justification of the Modifications, consideration has been given to:

- the engagement undertaken for the Modifications (Section 7.1);
- key environmental assessment outcomes including the potential impacts of the Modifications (Section 7.2);
- the relevant planning and policy objectives (Section 7.3); and
- the benefits of the Modifications and the GOC operations (Section 7.4).

7.1 Stakeholder Engagement Overview

Whitehaven has consulted with a number of stakeholders during the development of this Modification Report (Section 5), including:

- key NSW Government agencies;
- the local council/s; and
- CCCs.

Key comments and issues raised during consultation have been considered and addressed in the preparation of this Modification Report.

7.2 Consolidated Summary of Impacts

Whitehaven has undertaken a review of the potential environmental impacts of the Modifications to identify key potential environmental issues requiring assessment. The key environmental issues identified are summarised in Section 6.

The Modifications would not significantly increase potential environmental impacts in comparison to the approved GOCs. It is considered that the consent authority can be satisfied that the environmental impacts of the GOCs as proposed to be modified are acceptable, subject to environmental performance conditions of their project approvals.

7.3 Compliance With Relevant Statutory and Policy Requirements

An outline of the statutory requirements relevant to the assessment of the Modification is provided in Section 4.

A detailed statutory compliance table for the GOCs incorporating the Modifications that identifies all the relevant statutory requirements and the relevant sections in this Modification Report that address these requirements is provided in Attachment 1.

7.3.1 EVALUATION UNDER SECTION 4.15(1) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

The Modifications are considered to meet the substantially the same development test for the purposes of section 4.55 of the EP&A Act and are considered to be generally consistent with the objects of the EP&A Act (Section 4.2). In evaluating the Modification, under section 4.15(1) of the EP&A Act, the consent authority is required to take into consideration various relevant matters. Section 4 provides a summary of how these matters have been considered.

7.3.2 CONSIDERATION OF ECOLOGICALLY SUSTAINABLE DEVELOPMENT FOR THE MODIFICATIONS

The Modifications would provide for maximising processing at the Whitehaven CHPP within its approved capacity for calendar years 2026 to 2030.

The principles of ecologically sustainable development (ESD) have been considered through the design, planning and assessments conducted for the existing GOCs and are described in their respective environmental assessments.

The Modifications would include the use of the existing Approved ROM Coal Transport Route, which minimises potential new surface disturbance areas in comparison to a greenfield development.

As the Modifications would not result in any changes to the surface disturbance, or physical components of the existing GOC operations as outlined in Section 3.1, it is considered the Modifications would meet the principles of ESD.

7.4 Justification for the Modifications

The Modifications seek to increase the cumulative ROM coal haulage limit from the currently approved 3.5 Mtpa to 4.1 Mtpa (i.e. a 0.6 Mtpa increase of ROM coal transported) for the TCM and VCM in the 2026 to 2030 calendar years.

Approval of the Modifications is considered to be justified given the Modifications would:

- Maximise the processing at the Whitehaven CHPP within its approved capacity without requiring any changes to current processing infrastructure or additional land disturbance.
- Facilitate ESD, as economic efficiencies can be achieved with minimal change to the currently approved environmental performance conditions and use of existing infrastructure with no increase in the duration of existing impacts of the approved GOCs, or building of the overpass that would create a future liability as it would not have enduring utility for the community and local road network.
- Utilise the increased ROM coal haulage capacity following the adoption of higher payload trucks (while maintaining daily and hourly trips below those originally assessed, including the trigger for the Kamilaroi Highway overpass).
- Be conducted in a manner that incorporates community engagement, with stakeholders consulted through the preparation of this Modification Report.
- Require no changes to the operations conducted across the TCM and VCM sites.
- Result in minimal impact with respect to road safety and road network performance and require no changes to the Levels of Service of the Kamilaroi Highway, Blue Vale Road and relevant intersections (i.e. the roads and intersections continue to operate with spare capacity).
- Result in no additional impact on the acoustic amenity of the surrounding community.
- Ensure consistency across operations and the ability to more flexibly manage haulage across the GOCs given the proposed change for the VCM Development Consent (SSD 7480) to regulate road haulage by reference to the calendar year would

The Modifications do not alter the fundamental nature of the approved developments.

7.4.1 SUITABILITY OF THE SITE

Mining operations and nearby land uses, such as agriculture, have historically co-existed and this would continue for the Modifications. The Modifications would also continue to be conducted in a manner that is responsible and considers the benefits and consequences of the development for other land uses, including coexistence with surrounding operations consistent with the existing GOC operations. The Modifications do not propose any change in land use or transport route.

The sites are considered suitable for the Modifications, as the Modifications would not adversely impact on, or be inconsistent with adjoining existing or future land uses.

7.5 Conclusion

The modified GOCs would satisfy the substantially the same development test for the purposes of section 4.55(2) of the EP&A Act and would comply with applicable statutory requirements and relevant strategic planning policy objectives (as outlined in Section 4 and Attachment 1).

The GOCs (as modified) would continue to comply with the existing criteria, performance measures and limits described in the project approvals for the GOCs (i.e. MP11_0047 for the TCM and SSD 7480 for the VCM).

Whitehaven's subsidiaries would continue to operate the GOCs (as modified) in accordance with the existing environmental management plans and environmental monitoring programs (as updated as appropriate to incorporate the associated elements of the outlined Modifications).

In weighing up the main impacts (costs and benefits) assessed and described in this Modification Report, the Modifications are, on balance, considered to be in the public interest.

8 References

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ATTACHMENT 1

DETAILED STATUTORY COMPLIANCE RECONCILIATION TABLES

Table A1-1
Summary Statutory Compliance for State Legislation

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EA/EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
New South Wales (NSW) Environmental Planning and Assessment Act 1979 (EP&A Act)				
section 1.3	Relevant objects of the EP&A Act: - Promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources. - Promote productivity through the development and management of the State and its resources. - Facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment. - Promote the orderly and economic use and development of land. - Protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats. - Promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage). - Promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State. - Provide opportunities for community participation in environmental planning and assessment. - Promote resilience to climate change and natural disasters through adaptation, mitigation, preparedness and prevention. - Promote a proportionate and risk-based approach to environmental planning and assessment.	Section 6.9.4 in the Tarrawonga Coal Project Environmental Assessment (EA) Section 6.6.5 of the Vickery Coal Project Environmental Impact Statement (EIS)	Section 4	✓

Table A1-1 (Continued)
Summary Statutory Compliance for State Legislation

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EA/EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
NSW EP&A Act (Continued)				
section 4.15 and section 4.55(3)	Relevant environmental planning instruments: ▪ <i>State Environmental Planning Policy (Planning Systems) 2021</i> (Planning Systems SEPP). ▪ <i>State Environmental Planning Policy (Resources and Energy) 2021</i> (Resources and Energy SEPP). ▪ <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> (Resilience and Hazards SEPP). ▪ <i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i>. ▪ <i>State Environmental Planning Policy (Biodiversity and Conservation) 2021</i>. ▪ <i>Gunnedah Local Environmental Plan 2012</i> (Gunnedah LEP). ▪ <i>Narrabri Local Environmental Plan 2012</i> (Narrabri LEP).	Section 6.5.1 in the Tarrawonga Coal Project EA Attachment 3 of the Vickery Coal Project EIS	Table A1-2	✓
	Any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4.	Section 4.16 of the Tarrawonga Coal Project EA Section 4.16 of the Vickery Coal Project EIS	-	✓
	The NSW <i>Environmental Planning and Assessment Regulation 2021</i> (EP&A Regulation) (to the extent that it prescribes matters for the purposes of section 4.15(1)(a)(iv) of the EP&A Act).	Section 6.2 in the Tarrawonga Coal Project EA Section 6.2 of the Vickery Coal Project EIS	Section 4	✓
	The significant likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality.	Section 4 of the Tarrawonga Coal Project EA Section 4 of the Vickery Coal Project EIS	Section 6	✓

Table A1-1 (Continued)
Summary Statutory Compliance for State Legislation

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EA/EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
NSW EP&A Act (Continued)				
section 4.15 and section 4.55(3) (continued)	The suitability of the site for the development.	Section 4.3 of the Tarrawonga Coal Project EA Section 4.3 of the Vickery Coal Project EIS	Section 7.4	✓
	Any submissions made in accordance with the EP&A Act or the EP&A Regulation.	Section 3 of the Tarrawonga Coal Project EA Section 3 of the Vickery Coal Project EIS	Section 5	✓
	The public interest.	Section 6.9 in the Tarrawonga Coal Project EA Section 6.6 of the Vickery Coal Project EIS	Section 7	✓
section 4.55(2)-(3)	Section 4.55(2)-(3) relevantly provide for the consent authority to modify the two relevant planning approvals subject to and in accordance with the EP&A Regulation.	-	Sections 4.1 and 4.3	✓
NSW Environmental Planning and Assessment Regulation 2021 (EP&A Regulation)				
clause 61(3)(b)(i)	For certain proposed development (including State significant development) on land less than 200 km from the Siding Springs Observatory, the consent authority must consider the requirements of the Dark Sky Planning Guideline (DPE, 2023a).	Section 4.12 in the Tarrawonga Coal Project EA Section 4.12 of the Vickery Coal Project EIS	-	✓

Table A1-1 (Continued)
Summary Statutory Compliance for State Legislation

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EA/EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
EP&A Regulation (Continued)				
clause 98	Clause 98 provides for the circumstances in which a modification application may be made. Clause 98(3) relevantly provides that the consent of the owner of the land is not required for a modification application for "public notification development", if the applicant complies with subclauses (4) and (5). In accordance with the requirements of clause 98(4), the applicants for the Modifications will give notice of the Modifications via newspaper no later than 14 days after the Modification applications are made. With respect to clause 98(6), the GOCs incorporating the Modifications do not relate to land owned by a Local Aboriginal Land Council.	-	Table A1-1	✓
clauses 99 and 100	Clauses 99 and 100 of the EP&A Regulation provide for the making and content of a modification application. With respect to these two clauses, these Modification applications: - contain the information required by the EP&A Act and EP&A Regulation; - have been prepared in consideration of the State Significant Development (SSD) Guidelines, in particular State significant development guidelines - preparing a modification report (Department of Planning, Industry and Environment, 2022); - contain the information required by section 100(1)(a) to (c) (Section 1) and a description of the Modifications (section 100[1][d]) and their expected impacts (section 100[1][f]) (Sections 1 to 3 and 6); - contain the information required by section 100(1)(g) to (j) (Section 4); and - give an undertaking here that the proposed modified developments meet the substantially the same development test under section 4.55(2) of the EP&A Act.	-	Sections 1 to 7	✓
clause 103	Clause 103 of the EP&A Regulation concerns applications to modify a development consent that relate to "mining or petroleum development" on certain land. The proposed Modifications would not change the approved mining development areas and no new mining lease is required for the proposed Modifications. As such, the Modifications do not relate to "mining or petroleum development" for the purposes of clause 103 of the EP&A Regulation.	-	Table A1-1	✓

Table A1-1 (Continued)
Summary Statutory Compliance for State Legislation

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EA/EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
EP&A Regulation (Continued)				
clause 106	Division 2 of Part 5 of the EP&A Regulation provides for the public notification of modification applications. The consent authority is required to attend to the relevant public notice requirements in this Division. In this regard, clause 106 applies to a section 4.55(2) modification application if the original development application was for SSD and clause 107 applies to a section 4.55(2) modification application to which clause 106 does not apply.	-	Table A1-1	✓
Dams Safety Act 2015				
section 48(4)	As the proposed modified developments would not involve the carrying out of mining operations in a notification area, the consent authority is not required to refer the Modifications to Dams Safety NSW under s 48 of the <i>Dams Safety Act 2015</i> .	-	Table A1-1	✓
NSW Biodiversity Conservation Act 2016 (BC Act) / Biodiversity Conservation (Savings and Transitional) Regulation 2017 (BC S&T Reg)				
clause 30A, BC S&T Reg	Clause 30A regulates the assessment of biodiversity impacts for certain modification applications and applies to the Modifications. It provides that the provisions in Division 4 of Part 7 of the BC Act relating to applications for development consent (including, relevantly, s 7.14 of the BC Act) apply to a modification application in the way prescribed by clause 30A(2). In accordance with clause 30A(2)(c), a Biodiversity Development Assessment Report has not been prepared for the Modifications. In this regard, the Modifications do not require additional surface development beyond the approved areas and would therefore not increase the impact on biodiversity values, including threatened species and ecological communities. In relation to clause 30A(2)(e), it is considered that applications for the original developments as proposed to be modified by the Modifications would not have been required to be refused because of serious and irreversible impacts on biodiversity values. To the extent that the provisions of Division 4 of Part 7 of the BC Act are relevant to the Modifications, the consent authority can be satisfied that approval of the Modifications is consistent with these provisions.	-	Table A1-1	✓

Table A1-1 (Continued)
Summary Statutory Compliance for State Legislation

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EA/EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
NSW Mining Act 1992				
section 380AA	An application for development consent, or for the modification of a development consent, to mine for coal cannot be made or determined unless the applicant is the holder of an authority that is in force in respect of coal for the relevant land, or the applicant has the written consent of the holder of such an authority to make the application.	Section 6.4.1 of the Tarrawonga Coal Project EA Section 6.3.1 of the Vickery Coal Project EIS	No change	✓
NSW Protection of the Environment Operations Act 1997 (PoEO Act)				
section 43	The GOC operations currently relevantly operate under Environmental Protection Licences (EPL) for: - Tarrawonga Coal Mine (EPL 12365), and - Vickery Coal Mine (EPL 21283). These were granted under the PoEO Act, which allows for coal works and mining for coal to be authorised as scheduled activities. The EPLs contain conditions that relate to emission and discharge limits, environmental monitoring and reporting. The Modifications would not require any variation to these EPLs.	Section 6.4.1 of the Tarrawonga Coal Project EA Section 6.3.1 of the Vickery Coal Project EIS	Table A1-1	✓
NSW Water Management Act 2000 (WM Act)				
Part 2 of Chapter 3 (Access licences)	Appropriate licences are obtained and held under the WM Act for the existing activities at the GOC operations. Appropriate licences under the WM Act would continue to be held.	Section 6.4.1 of the Tarrawonga Coal Project EA Section 6.3.1 of the Vickery Coal Project EIS	Table A1-1	✓
Part 3 of Chapter 3 (Approvals)	If required, appropriate approvals are obtained and held under the WM Act for the existing activities at the GOC operations. Appropriate approvals under the WM Act would continue to be held.		Table A1-1	✓
NSW Heritage Act 1977				
section 139	To the extent that section 139 is potentially relevant, no items of historic heritage would be directly disturbed as a result of the Modifications as there would be no additional surface development.	Section 6.4.1 of the Tarrawonga Coal Project EA Section 6.3.1 of the Vickery Coal Project EIS	Table A1-1	✓

Table A1-2
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
<i>State Environmental Planning Policy (Planning Systems) 2021</i>				
Part 2.2	The Planning Systems SEPP provides for the declaration of SSD. The VEP approved by SSD-7480 was originally approved as SSD and remains SSD under the EP&A Act. The TCM approved by MP11_0047 was originally approved as a Part 3A Project under the EP&A Act but is now taken to be SSD pursuant to a declaration made under clause 6 of Schedule 2 to the NSW <i>Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017</i>.	-	Table A1-2	✓
clause 2.7	Clause 2.7(3) relevantly provides for the Independent Planning Commission to be the declared consent authority for certain applications to modify a development consent for SSD, if the modification application is made by a person who has disclosed a "reportable political donation" under section 10.4 of the EP&A Act in connection with the modification application. In this respect, these Modification applications are not made by a person who has disclosed a reportable political donation.	-	Table A1-2	✓
clause 2.10	Under clause 2.10, development control plans do not apply to SSD.	-	Section 4 and Table A1-2	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
NSW State Environmental Planning Policy (Resources and Energy) 2021 (Resources and Energy SEPP)				
clause 2.1	Clause 2.1 of Chapter 2 (Mining, petroleum and extractive industries) of the Resources and Energy SEPP relevantly states that the aims of the Chapter are, in recognition of the importance to NSW of mining, petroleum production and extractive industries: - to provide for the proper management and development of mineral, petroleum and extractive material resources for the purpose of promoting the social and economic welfare of the State; - to facilitate the orderly and economic use and development of land containing mineral, petroleum and extractive material resources; - to promote the development of significant mineral resources; and - to establish appropriate planning controls to encourage ecologically sustainable development through the environmental assessment, and sustainable management, of development of mineral, petroleum and extractive material resources. The consent authority can be satisfied that the Modifications are consistent with the relevant aims of the Resources and Energy SEPP including for the reasons given in Section 4.1.2 with respect to the objects of the EP&A Act.	-	Table A1-2	✓
clause 2.9	Clause 2.9 states that development for the purpose of mining may be carried out (with consent) on land where development for the purposes of agriculture or industry may be carried out (with or without development consent). The Modifications do not involve any change in the development areas of the GOC operations. To the extent that provisions in the Resources and Energy SEPP and relevant LEPs relating to the permissibility of proposed development are relevant to determining the proposed modifications of developments which are already authorised by planning approvals under the EP&A Act, the consent authority can be satisfied that the Modifications are consistent with these provisions.	-	Table A1-2	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
Resources and Energy SEPP (Continued)				
<i>Part 2.3 of the Resources and Energy SEPP generally identifies matters for consideration in the determination of development applications. Noting that this is a modification application, the provisions detailed in clauses 2.16 to 2.23 below are nevertheless addressed for completeness in this statutory compliance table.</i>				
clause 2.16	Clause 2.16 provides various non-discretionary development standards for mining. In this regard, it is noted that: - The potential impacts on cumulative noise level, cumulative air quality level, airblast overpressure, or ground vibration (i.e. the non-discretionary development standards listed under clause 2.16[1] to [6]) have been assessed and are presented in a Road Transport Assessment (Appendix A). - The Modifications would not change the water supply and demand of the approved TCM and VCM. In this regard, it was concluded there would be no incremental impact to any water resources and, therefore, the minimal impact considerations in the NSW Aquifer Interference Policy (NSW Department of Primary Industries, 2012) are not further considered for the Modifications.	-	Section 6 Table A1-2 Appendix A	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
Resources and Energy SEPP (Continued)				
clause 2.17	Before determining an application for consent for development for the purposes of mining, the consent authority must: (a) consider – (i) the existing uses and approved uses of land in the vicinity of the development, and (ii) whether or not the development is likely to have a significant impact on the uses that, in the opinion of the consent authority having regard to land use trends, are likely to be the preferred uses of land in the vicinity of the development, and (iii) any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses, and (b) evaluate and compare the respective public benefits of the development and the land uses referred to in paragraph (a)(i) and (ii), and (c) evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph (a)(iii). Land use in the vicinity of the GOC operations is dominated by agriculture, mining associated with the GOC operations and other nearby mines, and proposed biodiversity conservation areas associated with the GOC operations and other nearby mines. The Modifications would be wholly within the existing GOC operations mining and exploration leases and requires no new surface development. The GOC operations incorporating the Modifications are considered to be compatible with existing and approved uses of land, namely open cut and underground coal mine rehabilitated to conservation and agriculture final land uses, as well as likely preferred uses of land in the vicinity of the mine sites.	-	Table A1-2	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
Resources and Energy SEPP (Continued)				
clause 2.18	Clause 2.18 requires consideration of the <i>Voluntary Land Acquisition and Mitigation Policy</i> (VLAMP) (NSW Government, 2018a). Before determining an application to modify a development consent for SSD for the purposes of mining, the consent authority must consider: (a) <i>any applicable provisions of the policy for the mitigation or avoidance of noise or particulate matter impacts outside the land on which the development is to be carried out, and</i> (b) <i>any applicable provisions of the policy relating to the developer making an offer to acquire land affected by those impacts.</i> The Modifications would result in an increase in noise levels of approximately 0.7 decibels and would not be discernible by the average listener and therefore does not warrant receiver based treatments or controls. Given the Modifications would result in no or negligible impacts to acoustic amenity, no additional management measures are proposed as part of the Modifications.	-	Table A1-2	✓
clause 2.19	Before determining an application for consent for development in the vicinity of mining, petroleum or extractive industry, the consent authority must (among other things) consider whether or not the development is likely to have a significant impact on current or future extraction or recovery of minerals, petroleum or extractive materials (including by limiting access to, or impeding assessment of, those resources), and any ways in which the development may be incompatible with any of those existing or approved uses or that current or future extraction or recovery. The Modifications do not involve a change in the GOC operations development areas. No additional measures to avoid or minimise incompatibility with existing and approved surrounding land uses are considered to be required.	-	Table A1-2	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
Resources and Energy SEPP (Continued)				
clause 2.20	Clause 2.20(1) of the Resources and Energy SEPP requires that, before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring the development is undertaken in an environmentally responsible manner, including conditions to ensure the following: (a) <i>that impacts on significant water resources, including surface and groundwater resources, are avoided, or are minimised to the greatest extent practicable,</i> (b) <i>that impacts on threatened species and biodiversity, are avoided, or are minimised to the greatest extent practicable,</i> (c) <i>that greenhouse gas emissions are minimised to the greatest extent practicable.</i> In addition, clause 2.20(2) provides that, without limiting clause 2.20(1), in determining a development application for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider an assessment of the greenhouse gas emissions (including downstream emissions) of the development and must do so having regard to any applicable State or national policies, programs or guidelines concerning greenhouse gas emissions. The Modifications do not seek to change the approved surface development extent and, therefore, would not involve additional potential impacts on biodiversity or water resources. The Modifications would provide for an increase in run-of-mine coal transported to the Whitehaven CHPP for calendar years 2026-2030. The emissions from the additional truck haulage would be relatively minor in the context of the overall assessed and approved emissions for the already approved developments. This is described further in Section 6 of the Modification Report. No additional conditions or changes to existing conditions of approval are considered to be required to ensure that the approved developments continue to be undertaken in an environmentally responsible manner.	-	Table A1-2 Section 6	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
Resources and Energy SEPP (Continued)				
clause 2.21	Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider the efficiency or otherwise of the development in terms of resource recovery, and whether or not the consent should be issued subject to conditions aimed at optimising the efficiency of resource recovery and the reuse or recycling of material. The Modifications provides greater flexibility to the GOC operations and no additional conditions or changes to existing conditions of approval are considered to be necessary to further optimise the efficiency of resource recovery and the reuse or recycling of material.	-	Table A1-2	✓
Clause 2.22	Clause 2.22(1) of the Resources and Energy SEPP provides that before granting consent for development for the purposes of mining that involves the transport of materials, the consent authority must consider whether or not the consent should be issued subject to conditions that do any one or more of the following— (a) <i>require that some or all of the transport of materials in connection with the development is not to be by public road,</i> (b) <i>limit or preclude truck movements, in connection with the development, that occur on roads in residential areas or on roads near to schools,</i> (c) <i>require the preparation and implementation, in relation to the development, of a code of conduct relating to the transport of materials on public roads.</i> To the extent that this clause is relevant to the Modifications, it is considered that no additional conditions or changes to existing conditions of approval are required in relation to the matters listed in clause 2.22(1). In this regard, it is noted that the Modifications do not propose any change to the Approved ROM Coal Haulage Route or haulage hours, and would continue to be managed under the existing GOCs Traffic Management Plan (including the Drivers' Code of Conduct). Clause 2.22(2) provides that if the consent authority considers that the development involves the transport of materials on a public road, the consent authority must, within 7 days after receiving the development application, provide a copy of the application to— (a) <i>each roads authority for the road, and</i> (b) <i>the Roads and Traffic Authority (if it is not a roads authority for the road).</i> To the extent that this clause is relevant to the Modifications, it is a matter for the consent authority to notify the relevant roads authorities and determine the Modifications having regard to any submissions received from the roads authorities (see clause 2.22(3)).	-	Table A1-2	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
Resources and Energy SEPP (Continued)				
clause 2.23	Clause 2.23 of the Resources and Energy SEPP requires that, before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring the rehabilitation of land that will be affected by the development. In particular, the consent authority must consider whether conditions of the consent should: (a) <i>require the preparation of a plan that identifies the proposed end use and landform of the land once rehabilitated, or</i> (b) <i>require waste generated by the development or the rehabilitation to be dealt with appropriately, or</i> (c) <i>require any soil contaminated as a result of the development to be remediated in accordance with relevant guidelines (including guidelines under clause 3 of Schedule 6 to the Act and the Contaminated Land Management Act 1997), or</i> (d) <i>require steps to be taken to ensure that the state of the land, while being rehabilitated and at the completion of the rehabilitation, does not jeopardize public safety.</i> The Modifications do not involve a change to the GOC operations development areas or to the rehabilitation of these areas. No additional conditions or changes to existing conditions of approval relating to rehabilitation are considered to be required.	-	Table A1-2	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
Resources and Energy SEPP (Continued)				
Part 2.4	Part 2.4 of the Resources and Energy SEPP concerns "mining or petroleum development", which is relevantly defined under clause 2.24 to mean: (1) <i>In this Part, mining or petroleum development means—</i> (a) <i>development specified in clause 5 (Mining) of Schedule 1 to State Environmental Planning Policy (State and Regional Development) 2011, but only if—</i> (i) <i>a mining lease under the Mining Act 1992 is required to be issued to enable the development to be carried out because—</i> (A) <i>the development is proposed to be carried out outside the mining area of an existing mining lease, or</i> (B) <i>there is no current mining lease in relation to the proposed development, or</i> (ii) <i>the development is for the purposes of extracting a bulk sample as part of resource appraisal or a trial mine comprising the extraction of more than 20,000 tonnes of coal or of any mineral ore, or ...</i> (2) <i>However, mining or petroleum development does not include development carried out on land that is outside—</i> (a) <i>the mining area of a proposed mining lease, or</i> (b) <i>the area of a proposed production lease</i> The Modifications do not involve a change to the GOC operations development areas and no new mining lease is required to enable the proposed modified developments to be carried out. Therefore, the applications for the Modifications do not relate to "mining or petroleum development" within the meaning of Part 2.4 of the Resources and Energy SEPP.	-	Table A1-2	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
<i>State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP)</i>				
clause 3.12	In determining an application to carry out development to which Part 3 of the Resilience and Hazards SEPP applies, the consent authority must consider current circulars or guidelines published by the NSW Department of Planning, Housing and Infrastructure relating to hazardous or offensive development, whether to consult with relevant public authorities regarding any environmental or land use safety requirements, a preliminary hazard analysis prepared by the applicant (in the case of development for the purpose of a potentially hazardous industry), feasible alternatives to the development and likely future use of surrounding land. To the extent that clause 3.12 is relevant to the Modifications, the consent authority can be satisfied that the development as modified will be carried out appropriately to manage potential hazards and offensive pollution. The Modifications would not involve the use of any additional hazardous materials. Hazardous materials would continue to be managed in accordance with the relevant approved management plans.	-	Table A1-2	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
Resilience and Hazards SEPP				
clause 4.6	Chapter 4 (Remediation of Land) of the Resilience and Hazards SEPP is concerned with the remediation of contaminated land. Relevantly, clause 4.6(1) and (2) state: (1) <i>A consent authority must not consent to the carrying out of any development on land unless—</i> (a) <i>it has considered whether the land is contaminated, and</i> (b) <i>if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and</i> (c) <i>if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.</i> (2) <i>Before determining an application for consent to carry out development that would involve a change of use on any of the land specified in subclause (4), the consent authority must consider a report specifying the findings of a preliminary investigation of the land concerned carried out in accordance with the contaminated land planning guidelines</i> The Modifications do not involve a change to the GOC operations development areas or the approved mine sites. The Modifications do not involve any proposed change of use of any of the land subject to the two relevant planning approvals subject to the Modifications. To the extent that clause 4.6 is relevant to the Modifications, the consent authority can be satisfied that the mine sites will continue to be suitable for the purpose of the proposed modified developments.	-	Table A1-2	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
<i>State Environmental Planning Policy (Biodiversity and Conservation) 2021 – Chapter 3 Koala habitat protection 2020</i>				
Part 3.2	Part 3.2 requires the councils in certain Local Government Areas (LGAs) (including Narrabri LGA and Gunnedah LGA) to consider certain development controls for koala habitats and regulates a council's determination of development applications. To the extent that Part 3.2 is relevant to the Modifications, the consent authority can be satisfied that the additional development proposed by the Modifications (i.e. to road haulage of coal) will not impact local koala populations and is not inconsistent with the aims of Chapter 3 of the <i>State Environmental Planning Policy (Biodiversity and Conservation) 2021</i>.	-	Table A1-2	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
State Environmental Planning Policy (Transport and Infrastructure) 2021				
clause 2.48 and 2.118	Clause 2.48 applies to a modification application for development comprising or involving any of the following: <i>(a) the penetration of ground within 2m of an underground electricity power line or an electricity distribution pole or within 10m of any part of an electricity tower,</i> <i>(b) development carried out—</i> <i>(i) within or immediately adjacent to an easement for electricity purposes (whether or not the electricity infrastructure exists), or</i> <i>(ii) immediately adjacent to an electricity substation, or</i> <i>(iii) within 5m of an exposed overhead electricity power line,</i> ... <i>(d) development involving or requiring the placement of power lines underground, unless an agreement with respect to the placement underground of power lines is in force between the electricity supply authority and the council for the land concerned.</i> If clause 2.48 applies to the Modifications, the consent authority must comply with the notification requirements in cl 2.48(2). However, it is noted that the proposed Modifications to the already approved developments do not involve the carrying out of additional development listed in clause 2.48. Clause 2.118 relates to certain development on proposed classified roads and applies in respect of certain modification applications. If clause 2.118 applies to the Modifications, the consent authority must comply with the notification related obligations in cl 2.118(2). However, it is understood that the proposed Modifications to the already approved development do not involve the carrying out of additional development on land reserved for the purposes of a classified road that is yet to be declared to be a classified road.	-	Table A1-2	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
<i>Gunnedah Local Environmental Plan 2012</i>				
clause 2.3(2)	The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone. To the extent that land use zone objectives in the Gunnedah LEP are relevant to the Modifications, the Modifications are not considered to be inconsistent with the objectives of the relevant land use zones under the Gunnedah LEP. In this regard, it is noted that the Modifications are also consistent with the existing and approved coal mining operations and would not restrict the use of adjoining land uses.	Section 6.5.2 of the Tarrawonga Coal Project EA Attachment 3 of the Vickery Coal Project EIS	Table A1-2	✓
clause 5.10(8)	The consent authority must, before granting consent under this clause to the carrying out of development in an Aboriginal place of heritage significance— (a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place by means of an adequate investigation and assessment (which may involve consideration of a heritage impact statement), and (b) notify the local Aboriginal communities, in writing or in such other manner as may be appropriate, about the application and take into consideration any response received within 28 days after the notice is sent. To the extent that this clause is relevant to the Modifications, the Modifications do not propose any change in relation to the interaction of the approved developments with Aboriginal cultural heritage sites.	Section 6.5.2 of the Tarrawonga Coal Project EA Attachment 3 of the Vickery Coal Project EIS	Table A1-2	✓
<i>Narrabri Local Environmental Plan 2012</i>				
clause 2.3(2)	The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone. To the extent that that land use zone objectives in the Narrabri LEP are relevant to the Modifications, the Modifications are not considered to be inconsistent. with the objectives of the relevant land use zones under the Narrabri LEP. In this regard, it is also noted that the Modifications are also consistent with the existing and approved coal mining operations and would not restrict the use of adjoining land uses.	Section 6.5.2 of the Tarrawonga Coal Project EA Attachment 3 of the Vickery Coal Project EIS	Table A1-2	✓

Table A1-2 (Continued)
Summary Statutory Compliance for Environmental Planning Instruments

Relevant Legislation or Instrument	Consideration	Relevant Section of the Original EIS	Relevant Section in the Modification Report	Modified Project Compliance Status
Narrabri Local Environmental Plan 2012 (Continued)				
clause 5.10(8)	<i>The consent authority must, before granting consent under this clause to the carrying out of development in an Aboriginal place of heritage significance—</i> (a) <i>consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place by means of an adequate investigation and assessment (which may involve consideration of a heritage impact statement), and</i> (b) <i>notify the local Aboriginal communities, in writing or in such other manner as may be appropriate, about the application and take into consideration any response received within 28 days after the notice is sent.</i> To the extent that this clause is relevant to the Modifications, the Modifications do not propose any change in relation to the interaction of the approved developments with Aboriginal cultural heritage sites.	Section 6.5.2 of the Tarrawonga Coal Project EA Attachment 3 of the Vickery Coal Project EIS	Table A1-2	✓

ATTACHMENT 2

**TARRAWONGA COAL PROJECT PLANNING ASSESSMENT COMMISSION
REPORT**

22 January 2013

**NSW Planning Assessment Commission
Determination of the Tarrawonga Open Cut Coal Mine Expansion Project
Narrabri Local Government Area**

Executive Summary

As delegate of the Minister for Planning and Infrastructure, the NSW Planning Assessment Commission has determined the Tarrawonga Open Cut Coal Mine Expansion Project. In determining the application the Commission considered the NSW Department of Planning and Infrastructure's assessment (including the submissions made on the project) and the recommended conditions for the project. The Commission also visited the project site and held a public meeting in the local area to hear the community's views on the Department's recommendation and draft conditions. This report outlines the Commission's decision on the application.

Background

The Tarrawonga open-cut coal mine is approximately 15 km northeast of Boggabri and adjoins the Leard State Forest, at the southern end. Mining commenced in 2006 after consent was granted by the then Minister for Planning in November 2005. At present the mine has consent to extract 16.4 million tonnes of coal, at a rate of up to 2 million tonnes a year, until 2017.

Current Project

The Proponent is now seeking to expand the mine to the east of the approved mining area, increase the production rate from 2 million tonnes of coal per year to 3 million tonnes of coal a year and extend the project life to 2030. The mine would also transition to use of the Boggabri Coal Handling and Processing Plant and rail spur, once available. In the interim the project would continue at current production levels, hauling coal to Gunnedah for processing and loading to rail. The mine would also produce up to 90,000 cubic metres of gravel from the waste rock. The mines operating hours would also increase to 24 hours a day seven days a week, although hours for the departure of trucks hauling of coal and gravel would be restricted, so as not to occur at night.

Delegation to the Commission

On 16 November 2012 the Deputy Director-General of the Department of Planning and Infrastructure referred the project to the NSW Planning Assessment Commission for determination under the terms of the Minister's delegation.

Ms Gabrielle Kibble AO chaired the Commission for the project and nominated Mr Brian Gilligan and Mr Joe Woodward PSM as the other members to constitute the Commission for the project.

Department's Assessment Report

The Director-General's Environmental Assessment Report considered the following key issues:

- Noise;
- Air Quality;
- Water Resources;
- Biodiversity; and
- Agricultural Land.

Other issues considered in the report were blasting and vibration, greenhouse gas emissions, heritage, transport, visual and socio-economic.

The assessment found that the project would have a number of impacts, particularly noting the clearing of native vegetation, noise and air quality impacts on nearby properties, localised impacts on water resources and the social and amenity impacts. Nonetheless, the Department is satisfied the impacts would be adequately minimised and managed through implementation of the recommended consent conditions and specific individuals subjected to residual impacts would be compensated when warranted. Impact avoidance and mitigation would be achieved through a range of mechanisms including the provision of biodiversity offsets, targeted mitigation or compensation for dust and noise impacts, realignment of Goonbri Creek, installation of a Low Permeability Barrier and through the development of management plans and agreements.

The Department also recognised the economic benefits of the project and on balance found that the project is in the public interest and should be approved, subject to conditions.

Commission Meetings, Site Visit and Correspondence

Briefing from the Department of Planning and Infrastructure

On 26 November 2012 representatives of the Department provided the Commission with a briefing on the project. The Department gave a brief outline of the proposal and also explained that the project site had initially been identified as Strategic Agricultural Land, but that the Department had since confirmed this was a mapping error and that the project site does not meet the criteria for Strategic Agricultural Land.

The Department also discussed the Goonbri Creek diversion and the Low Permeability Barrier emphasising that Goonbri Creek is not a landscape feature or significant water source. The Department noted that the Proponent has acquired sufficient water licences, that there would be appropriate setbacks to the mine pit and that the Environment Protection Authority was satisfied the risks of water pollution would be appropriately managed. It was noted that the NSW Office of Water was also satisfied with the proposal.

Site visit and meeting with the Proponent

On Thursday 13 December 2012 the Commission met with the Proponent on site and inspected the site, accompanied by the Proponent. The site visit covered the existing mine operations and rehabilitation area as well as parts of the expansion area and the Goonbri Creek channel. The Commission also drove along the Haul Road currently used to transport coal to Gunnedah.

The Proponent provided a presentation on the proposed creek diversion and Low Permeability Barrier and also raised concerns about some of the recommended conditions, particularly those relating to the transport of gravel.

Public Meeting

On Friday 14 December 2012 the Commission held a public meeting at the Boggabri Golf Club. Twenty two people spoke at the meeting, including representatives for Narrabri and Gunnedah Councils, Namoi Water, the Maules Creek Community Council, the Northern Inland Council for the Environment, local businesses, businesses servicing the mine and neighbours to the mine.

The Commission was presented with a wide range of views on the proposal. Some speakers, including Narrabri Council were generally supportive of the mine, noting the employment and economic multipliers associated with the mine, as well as the projected population increase. Narrabri and Gunnedah Councils also noted that the increased

population had already put pressure on housing supply and affordability as well as infrastructure and services such as childcare, health and education. Narrabri Council noted that the impacts on water resources, particularly alluvial flows and Boggabri's water supply need to be carefully assessed and that waste management and cumulative impacts also needed to be considered.

Other speakers raised issues of concern or objections including:

Air Quality, particularly dust and the health impacts associated with the reduced air quality. Specific concerns included:

- emissions, particularly from blasting and from traffic on Manilla Road (while unsealed);
- uncertainties in relation to: the science used, including the chemical properties of coal dust, impacts of inversion conditions on dust levels and the need for a baseline health study;
- adequacy of the monitoring methods and extent; and
- the lack of suitable penalties for exceedances.

Water impacts, including specific concerns about:

- the mining operations, given that water was discharged from the mine after the floods earlier in 2012;
- the modelling undertaken, including uncertainties and potential inaccuracies in the groundwater modelling, concern that there is a lack of detail and that the assumptions in the model were not tested;
- the Creek Diversion and Low Permeability Barrier, including:
 - changes in flood behaviour and uncertainties regarding the impacts of floods;
 - potential impacts on Boggabri's town water supply;
- final void, including:
 - the loss of fresh water to the void, particularly over the long term; and
 - the water quality in the void;
- standards and conditions. Speakers raised concerns about double standards noting that penalties and restrictions on irrigators are much harsher than those on the mining industry. Independent monitoring was requested. Speakers also questioned how surrounding landowners would be able to demonstrate the mine was responsible for a loss of water, in order to claim the compensation provided for in the conditions.

Acceptability of the final void being retained in the long-term, noting:

- the Proponent's estimated cost of filling the void has not been validated and that filling the void should be further considered;
- the cost of filling the void was also not considered, by objectors, to be a valid consideration for the Commission; and
- concerns about the long term impact of mining generally, including the legacy of final voids and water impacts.

Flora and Fauna and impacts on the Leard State Forest, including:

- concerns the offsets proposed are inadequate;
- uncertainties about the ability to rehabilitate and revegetate the site;
- no refuge available for the fauna displaced by the mines; and
- suggestions that the mines should be acquiring and revegetating neighbouring properties to replace the habitat lost through mining and create habitat corridors.

Roads and transport, including the need for:

- road access during flooding;
- Manilla Road to be sealed; and

- a second rail crossing in Gunnedah.

Socio economic impacts, including:

- impacts on community, the loss of local businesses, pressure on infrastructure, housing and local services;
- concern about workforce pressure e.g. for long (12 hour) shift times and a fly in/fly out workforce, considered unhealthy for individuals and the community;
- increases in antisocial behaviour;
- economic impacts on properties near the mine, both land values and disruptions/impacts;
- concerns with the Proponent's economic assessment; and
- concerns about the distribution of benefits and profits and suggestions that the mine is not necessary for Australia as the coal and profits will go overseas.

Other Issues raised included:

- impacts on food production, both from loss of land and loss of water for food production;
- noise impacts;
- cumulative impacts, including concerns regarding the current piecemeal consideration of mining in the region and the impacts of mining. Suggestions that infrastructure upgrades need to be considered and managed in a strategic way;
- inconsistencies in the standards applied in the recommended conditions, compared to the conditions in Maules Creek and Boggabri;
- concerns about the track record of the mine given that breaches have already occurred;
- greenhouse gas emissions and impacts on climate change;
- sustainability and broader impacts of mining in Australia, suggestions that Australia should be transitioning to renewable technologies and manufacturing of renewable energy infrastructure and that mining doesn't provide sustainable employment, with jobs eventually being lost when the resource is exhausted;
- concerns with the adequacy and fairness of the acquisition conditions; and
- concerns about the planning process, request for increased scrutiny, including options for members of the public to be cross-examined and concerns about the Commission's track record and previous decisions on other mines in the region.

Correspondence:

Following the public meeting the Commission wrote to the NSW Office of Water to seek confirmation that it is satisfied the project is acceptable and that the draft conditions recommended to the Commission provide sufficient safeguards, particularly with regard to the Goonbri Creek realignment.

On 18 December 2012 the Proponent wrote to the Commission raising concerns with some of the draft conditions relating to road transport of coal and gravel. The letter also discussed monitoring of the Low Permeability Barrier; and noting the concern raised by Narrabri Council, sought to assure the Commission the project would have a negligible effect on the Boggabri town water supply.

On Tuesday 8 January 2013 the Namoi Catchment Management Authority wrote to the Commission requesting it be included in the consultation requirements for the conditions relating to the creek diversion and low permeability barrier, and also in relation to a soil management protocol. The Namoi CMA also sought more prescriptive rehabilitation objectives for the final void, including the maximum size and depth of the void and the final batter grades.

Conditions upload error

On 20 December 2012 the Commission became aware that it had before it two different versions of the draft conditions. One of the Commissioners had downloaded and made comments on the conditions on the Department of Planning and Infrastructure's website, while the other Commission members had been considering photocopies of the hard copy that the Department had hand delivered to the Commission's office.

As soon as the two different versions were identified, the Commission's staff rang the Department to determine what had happened, to identify the correct version and to discuss the best way to proceed. Later that day the Department clarified that it had uploaded an earlier draft version of the recommended conditions on to its website in error. The Department emphasised that the paper copy delivered to the Commission was the version it had endorsed and that this was the one the Commission should consider. The Department also advised it had now replaced the conditions on its website with the correct, endorsed, version.

Due to the Department's error in uploading conditions to its webpage, the conditions the Department made available to the public for consideration in the lead up to the public meeting were not the conditions endorsed by the Department. The Department has since replaced the conditions on its website with the correct version.

The Commission considered the implications of this situation, including whether it ought to hold a further public meeting, or write to submitters to provide a further opportunity to comment on the Department's endorsed version of the conditions. In considering these options the Commission noted that the comments made at the public meeting had not directly addressed any specific detail of any particular condition but commented more broadly on the merits of the project and issues with the proposal. These broader comments were relevant regardless of which version of the conditions the Commission considered. Speakers at the public meeting also noted that the conditions imposed should be consistent with those on the nearby Maules Creek and Boggabri Coal Mines, and this has been a particular focus of the Commission's consideration.

The Commission has considered both versions and has also compared the recommended conditions to those imposed on the nearby Maules Creek and Boggabri coal projects.

Commission's Comments

The Tarrawonga Coal mine's close proximity to the Boggabri Coal Mine (and the proposed Maules Creek Coal Mine) means there will be inevitable interactions between the mines, both in terms of operations and coal handling, but also in managing the impacts of the mines. Consequently the Commission has carefully compared the recommended conditions for Tarrawonga with the conditions and limits imposed on the Maules Creek and Boggabri coal mines in order to provide consistency and minimise the difficulties managing impacts across the precinct.

Water

One of the key concerns raised at the public meeting was the potential impact on water, including Boggabri's town water supply, but also the impact on the fresh water resource more generally. There are a number of aspects to the projects impacts on water, these include the Goonbri Creek realignment, the installation of a Low Permeability Barrier and the retention of the final void, with the creation of a permanent pit lake.

1 – Goonbri Creek realignment

The proposed open cut mining operations would intersect with a three kilometre section of Goonbri Creek and its alluvial aquifer. The Proponent proposes to realign this section of the

creek and to construct a low permeability barrier between the new section of the creek and the mine pit, to minimise loss of groundwater into the nearby mine void.

Submissions from the public objected to realignment of Goonbri Creek and suggested mining should be at least 300 to 500 metres from the creek. Concerns were also raised that more water would flow down Bollol Creek causing downstream flooding and erosion on Dripping Rock Road.

2 – Retention of the Final Void and generation of a pit void lake

The proposal to retain the final pit void, (rather than backfill, or redesign the mine plan to prevent the creation of a final pit lake) was also opposed in several submissions, including the EPA but was not opposed by DRE, NOW or the Namoi Catchment Management Authority. The pit void would be a groundwater sink with water entering the void forming a pit lake. Salts in the lake would gradually accumulate while sufficient water would evaporate, to prevent the lake from overtopping the pit.

3 – Low Permeability Barrier (LPB)

Several submissions raised concerns about the proposed Low Permeability Barrier, including the Department of Primary Industries, in its letter dated 28 February 2012, which recommended clarifying funding and responsibilities for post closure monitoring and maintenance to protect groundwater used for livestock and irrigation in perpetuity. The Commission considers this is warranted given the intention to maintain the mine void in perpetuity, the reliance on the Low Permeability Barrier and flood levee to protect surface and groundwater and the Proponent's intention to relinquish responsibility for the site following closure of the mine and relevant approval.

The Proponent states that the realignment of Goonbri Creek will have a minor impact on the alluvial aquifer and some loss of vegetation and aquatic biota but no loss of Box Gum Woodland EEC. No significant surface water or groundwater impacts are predicted to occur on Barbers Lagoon or the township of Boggabri. The realignment would aim to mimic existing creek geometry, hydrology and geomorphology. The Proponent argues that not realigning the creek would sterilise 4 million tonnes of run of mine coal at a loss of \$79 million net production benefit and that it would still need the Low Permeability Barrier. (Response to Submissions p41).

The Proponent also emphasised its preference for maintaining the mine void as a localised groundwater sink, in its Response to Submissions. The Proponent argued that the void would provide a sink for salts and other pollutants preventing them from impacting on downstream water bodies and that the Low Permeability Barrier would minimise the long-term groundwater drawdown for the Project. (The construction of a permanent flood bund and low permeability barrier would prevent the void from filling during high rainfall events.)

The Department's assessment found that the project can be managed to prevent significant impacts on water and recommended conditions requiring detailed design of the Low Permeability Barrier and Goonbri Creek realignment.

Nonetheless, given the concerns raised in submissions, and at the public meeting, the Commission sought further advice from the NSW Office of Water regarding the proposal and the recommended conditions. On 14 January 2013 the Office of Water provided a response to the Commission. The response noted the issues the Commission had raised and confirmed that the proposed conditions would address the issues.

Consequently the Commission has generally accepted the Department's recommendation that the realignment would have minor impacts and that these can be minimised with conditions regarding the flood levee, low permeability barrier and creek realignment. The

Commission has however added some of the extra content from the Department's previous draft conditions to give a higher level of assurance that this issue will be adequately addressed.

In addition the Commission also considered that clarification of the funding and responsibility for post closure monitoring and maintenance is warranted. This was considered particularly important as the Proponent intends to eventually relinquish responsibility for the mine site and is seeking to retain the mine void in perpetuity, relying on the Low Permeability Barrier and flood levee to protect surface and groundwater.

The Proponent advised the Commission, during the site inspection on 13 December 2012, that some of the Rehabilitation Security Bond might be retained by government for monitoring and maintenance of the Low Permeability Barrier. Rather than specify how this should be achieved the Commission has included a requirement that the details of how ongoing long-term funding and responsibility would be maintained, be explicitly set out in the monitoring and management plan for the Low Permeability Barrier.

Pit lakes have permanent impacts, both at a landscape level and as a groundwater sink. The Commission considers that some policy work needs to be done to provide guidance to mining companies on this issue. The design to avoid the generation of a final pit lake would ideally be considered from the exploration stage, as a factor to be considered in determining the feasibility of mining a particular area. In relation to this application, the Commission acknowledges the EPA's objection to the void. In the absence of any policy guidance the Commission has added a condition requiring a final Void Design and Closure Plan to be prepared in advance of the completion of mining. This condition is consistent with the condition imposed on the Maules Creek Coal Project and seeks to ensure that the size and on-going risks of any final pit lake and void are minimised.

Air quality

Air quality impacts were raised as key concerns in submissions and at the public meeting. These impacts include dust, both from mining operations (including coal dust) and from traffic on unsealed roads as well as other air emissions from blasting activities and vehicle emissions. Submissions raised concerns particularly about potential health impacts associated with reduced air quality attributable to mining.

The Commission notes that the project is predicted to cause cumulative air quality criteria to be exceeded at one privately owned residence near the mine. Predictions at another privately owned residence come very close ($29 \mu\text{g}/\text{m}^3$) to the criteria ($30 \mu\text{g}/\text{m}^3$). Air quality criteria would also be exceeded over more than 25% of a private landholding during year 16.

The Department's recommended conditions would provide acquisition rights for all three privately owned properties, however in doing so, these properties would no longer be afforded any protection in relation to the air emissions from the project. The Commission has not accepted this approach. The Commission notes that some residents with acquisition rights do not take up this option, preferring to stay on their land. The Commission has amended the air quality criteria condition to require that reasonable and feasible avoidance and mitigation measures are implemented to avoid any exceedance of the criteria at all privately owned properties, acknowledging that it may not be reasonable and feasible to avoid exceedances at the two properties predicted to be impacted, at certain times. The Commission considers that this provides additional protection for the residents within the acquisition zone, should they choose not to be acquired by the Proponent.

In addition, the conditions for the Maules Creek Coal Project include a further project specific particulate matter limit (24 hour PM_{10}) of $50 \mu\text{g}/\text{m}^3$, this is equal to the National

Environmental Protection Council criteria, a health standard. Consequently, applied to a mine as a project specific limit, rather than a cumulative limit, it is too high. Nonetheless in the absence of a policy or guideline on what limit should be imposed, the Commission has adopted the same standard used in the Maules Creek conditions.

The Commission notes the concerns raised regarding health impacts and supports the recommendations made by other Commission panels in relation to other coal mining projects, that is, for some policy work to be done to provide further guidance in this area.

Noise

The main noise related issues raised in the public submissions and public meeting are cumulative noise, blasting impacts, the adequacy of the proposed mitigation measures and the need for a real time monitoring and management system.

The Department considered these issues in its assessment and noted that the only residents likely to be significantly impacted are those that are recommended for acquisition. The Commission agrees with this assessment and also notes the Department's proposed requirement to prepare a regional noise management strategy in consultation with neighbouring mines.

The Commission noted that the Department's recommended conditions took a different approach to regulating noise, when compared to the conditions for the nearby Boggabri and Maules Creek Projects. For example, the Department had not included the acquisition criteria and cumulative criteria provided in the Maules Creek approval. The Commission acknowledges that the approach taken for Maules Creek and Boggabri is different to the Department's standard practice. Previous Commission panels have argued elsewhere that this alternative approach is warranted in this area (see the 2012 Review and Determination Reports for both the Maules Creek and Boggabri coal mines).

As the operations of this proposal will interact directly with the Boggabri coal mine, the Commission has decided that from a regulatory perspective it would be most efficient to apply the same conditions that were applied to the Boggabri and Maules Creek coal mines. The Commission has reviewed the various conditions and has determined that the relevant conditions for the Boggabri and Maules Creek coal mines are appropriate for the Tarrawonga project. Consequently the Commission has added the key additional conditions contained in those approvals relating to acquisition criteria, cumulative noise limits, cumulative noise acquisition criteria and details regarding attenuation of plant and rolling stock.

The Boggabri and Maules Creek projects also included a detailed condition regarding measurement and compliance during temperature inversions, however the Department recommended an alternative approach to measurement of inversions for the Tarrawonga project.

The Commission contacted officers at the Environment Protection Authority (EPA) to confirm which approach it preferred, as it is the agency with primary responsibility for noise. The EPA officers noted that they had recommended a different measure again in the EPA's submission on the project. They also noted potential difficulties with both the options presented. In particular the EPA noted that in order to measure compliance using the Department's recommended condition – a 60 m high tower would need to be installed to compare temperatures at 10 m and 60 m above ground level. The EPA indicated the cost of installing and maintaining a 60 m tower would be substantial and unnecessary to achieve the desired outcome.

The EPA also indicated the condition imposed on the Boggabri and Maules Creek proposals created significant uncertainty for the Proponent and that the mine would be expected to seek a clarification and change in accordance with the process set out in the condition.

While the Commission acknowledges the EPA's preferred wording regarding inversions it has determined to adopt the wording used in the Maules Creek and Boggabri approvals. This should minimise any confusion in relation to monitoring of cumulative noise levels from the mines in the Leard Forest Precinct, which was considered particularly important given that Tarrawonga will be responsible for its noise contribution on Boggabri's Rail Spur. The EPA advised this would not necessarily be inconsistent with its recommendation and concurred with this approach.

Biodiversity

The proposal includes the clearing of approximately 400 ha of native vegetation, including 13 ha of Box-Gum Woodland, an endangered ecological community. Submissions and speakers at the public meeting objected to the impact on the forest, particularly the threatened species and endangered ecological communities. The clearing and associated biodiversity impacts are proposed to be compensated for, by securing a 1660 ha parcel of land adjoining the Mount Kaputar National Park for conservation purposes. The property is mainly comprised of native vegetation and would connect with other properties proposed as offsets for the Maules Creek Coal Mine, as well as the National Park. The Proponent would also be required to rehabilitate 752 ha of the project site to a woodland community.

The Commission was shown the Proponent's current rehabilitation area during its site inspection. The Commission had some reservations regarding the success of the rehabilitation, particularly when compared to the progress exhibited by the neighbouring Boggabri Coal Mine. The Department's recommended conditions were not as detailed or as stringent as those applicable to the Boggabri and Maules Creek Coal Mines. In particular the recommended conditions did not include the revegetation and rehabilitation auditing requirements imposed on the Boggabri and Maules Creek coal mines. While the Commission acknowledges that the area proposed to be cleared is much smaller than that approved for the Maules Creek and Boggabri coal mines, the Commission considers the auditing requirement should still apply. The Commission has added this condition and has also added reference to the establishment of riparian vegetation along the realigned Goonbri Creek. The Commission has also required biodiversity auditing to be consistent with timeframes for the independent auditing requirements for dust and noise.

Blasting

The Department has recommended limiting blasting frequency to five blasts per week. The Commission notes that both the Boggabri and Maules Creek mines are restricted to a maximum of four blasts per week (averaged over a calendar year). There is no justification in the assessment as to why the smaller Tarrawonga mine would need to undertake more blasts than the larger neighbouring mines. The Commission also notes that the conditions originally available on the Department's website limited blasting to four times per week. Consequently the Commission has adopted this more stringent limit, which brings the mine into line with the other mines in the Leard Forest Precinct.

Bushfire

The Commission noted that the recommended conditions relating to bushfire did not specifically deal with the risk of a fire igniting on the project site. Certain activities and machinery are known to have the potential to become an ignition source, with the potential for devastating consequences in adverse conditions. Measures to suspend these activities are generally expected to be applied as common sense during adverse weather conditions. However this risk is not always immediately apparent to management, and/or the operators

of the equipment and so the Commission has determined to add this requirement to the conditions.

Aboriginal Cultural Heritage

The Commission notes that the project would impact on a number of identified Aboriginal heritage sites, including seven scarred trees. The Commission has added the additional requirement for an Aboriginal Heritage Conservation Strategy, which ties in with the requirements set for the Maules Creek and Boggabri coal mines. The Commission is satisfied this additional requirement will help to minimise the overall impact on Aboriginal cultural heritage values.

Commission's Determination

The Commission has carefully considered the Department's Assessment Report and recommendations, including the conditions in both versions the Commission had before it. The Commission has also carefully considered the issues raised in both public and agency submissions on the application.

In considering this application, the Commission was also very aware of the potential for cumulative impacts to occur, with the Boggabri and the Maules Creek coal mines both in close proximity. In light of this and the very recent determinations on both these mines the Commission has sought to apply consistent standards and conditions to those in force on the other mine. These conditions include precinct wide management strategies for a range of different issues including air quality and biodiversity. The combination of standardised conditions and precinct wide management systems should help to minimise the cumulative impacts of the mines.

The Commission also sought clarification from the NSW Office of Water and the Environment Protection Authority on specific aspects of the project. The Commission is now satisfied that the impacts of the project can be adequately minimised, managed and contained and has amended the conditions recommended by the Department to strengthen the limits on the mine and the management measures it must put in place. Consequently, the Commission has determined to approve the project, subject to these amended conditions.

The Commission notes a number of the issues raised at the public meeting highlight the need for policy work and further guidance from Government, particularly in relation to:

- appropriate air quality standards and emission limits;
- appropriate mine design standards in relation to the formation of a permanent pit lake; and
- the protection to be provided to residents within the zone of affectation, whether privately owned or mine owned properties.

Gabrielle Kibble AO
Commission Member

Joe Woodward PSM
Commission Member

Brian Gilligan
Commission Member

Appendix 1

Speakers at the Public Meeting

1. Pat White – General Manager of Narrabri Shire Council
2. Murray Drechsler
3. Jim Picton
4. Phillip Laird and Rod Campbell – on behalf of the Maules Creek Community Council
5. Annemarie Rasmussen
6. Barry Thomson
7. Michael Silver – Director of Environmental Services, Gunnedah Shire Council
8. Greg Ward
9. Andrew Rose
10. Peter Harris
11. Jonathan Moylan
12. Clifford Wallace
13. Lisa Costello
14. John Simpson as a member of the Northern Inland Council for the Environment
15. Anita Allerton
16. Peter Watson – on behalf of Namoi Water
17. Cllr Catherine Collyer
18. Bob and Rhonda McGregor
19. Pam and Robert Crosby

ATTACHMENT 3

VICKERY EXTENSION PROJECT STATEMENT OF REASONS FOR DECISION



New South Wales Government
Independent Planning Commission

Vickery Extension Project SSD 7480

Statement of Reasons for Decision

John Hann (Chair)
Professor Zada Lipman
Professor Chris Fell AM

12 August 2020

Vickery Extension Project SSD 7480 Final Report ©
State of New South Wales through the Independent Planning Commission 2020

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EXECUTIVE SUMMARY

This Statement of Reasons has been prepared by the Independent Planning Commission (**Commission**) in its determination of the Vickery Extension Project (**Project**).

In September 2014, the delegate of the Minister for Planning approved the Vickery Coal Project (**Approved Project**) as a State Significant Development (**SSD-5000**). The Approved Project included the extraction of 135 million tonnes (**Mt**) of coal over a 30-year period, at a rate of up to 4.5 million tonnes of run-of-mine (**ROM**) coal a year (**Mtpa**) with coal hauled by trucks on public roads to the existing coal handling and preparation plant (**CHPP**) near Gunnedah, for processing and transport by rail to the Port of Newcastle.

Vickery Coal Pty Ltd (the **Applicant**), a subsidiary of Whitehaven Coal Pty Ltd, is proposing to extend the Approved Project and develop a new CHPP and train load out facility at the Vickery Coal Mine (the **Site**). The Project also includes the development of a rail spur across the Namoi River floodplain and a water supply borefield and associated infrastructure.

The key changes of the Project compared with the Approved Project include:

- an increase in total coal extraction by 33 Mt, from 135 to 168 Mt;
- an increase in the peak annual extraction rate from 4.5 up to 10 Mtpa of coal;
- an additional disturbance area of 776 hectares (ha), compared with 2,242 ha for the Approved Project, with the open cut extension area accounting for around 20% of the additional disturbance; and
- transportation of ROM coal via the rail spur including a reduction of coal haul trucks.

On 6 September 2018, the Minister for Planning requested that the Commission conduct an initial public hearing into the carrying out of the Project. The Commission conducted the initial public hearing over two days in Boggabri and Gunnedah on 4 February 2019 and 5 February 2019 (**Initial Public Hearing**). 101 speakers registered to speak at the Initial Public Hearing.

The Commission prepared an issues report, dated 30 April 2019 (**Issues Report**) which set out the actions taken by the Commission, summarised submissions and identified the key issues of the Project in accordance with the Minister's request. The Commission's Issues Report was considered by the Department of Planning, Industry and Environment (**Department**) in assessing the merits of the Project.

On 19 February 2020, the Minister for Planning and Public Spaces (**Minister**) requested that the Commission conduct a further public hearing into the Project and determine the Application. On 19 May 2020, the Department referred the Application to the Commission for determination.

The Commission Panel determining the Application is comprised of Mr John Hann (Chair), Professor Zada Lipman and Professor Chris Fell AM. The Commission conducted an electronic public hearing over two days on 2 July 2020 and 3 July 2020 (**Public Hearing**). The Commission heard from 74 registered speakers in total via video conference and telephone. As part of the public hearing, the Commission set up a remote studio in Narrabri to facilitate presentations from local residents, businesses and organisations to the Commission via video link. The Commission received a total of 2863 written public submissions including 774 submissions in support, 1108 objections, 46 comments and 935 campaign email objections on the Application.

The Commission has given consideration to a number of issues including: water resources, rehabilitation, final void and landform, greenhouse gas (**GHG**) emissions, socio-economic impacts, noise, air quality, impacts on agricultural land, road and rail transport, heritage, blasting and vibration, biodiversity and visual amenity and lighting.

The Commission acknowledges that the Project would result in additional environmental and amenity impacts associated with the increased disturbance footprint and additional mining-related infrastructure when compared to the Approved Project. The Commission also acknowledges that when compared to the Approved Project, the Project would result in some reduced impacts such as a reduction of Scope 1 emissions, reduced amenity impacts and improved road safety from reduced ROM coal truck haulage. On balance, the Commission finds that the environmental and amenity impacts of the Project are not significantly greater than those associated with the Approved Project. The Commission is of the view that the additional environmental and amenity impacts can be appropriately managed and mitigated in accordance with the applicable guidelines and policies.

The Commission finds that the Project would generate significant social and economic benefits for the local area, North West region and to NSW. This includes a direct capital investment of \$607 million and up to 450 jobs during operations.

The Commission has considered the matters in cl 14(1)(c) and cl 14(2) of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP)* and finds that the Project includes appropriate measures for minimising Scope 1 and Scope 2 GHG emissions to the greatest extent practicable. The Commission acknowledges that the Project's Scope 3 emissions would become the consumer countries' Scope 1 and 2 emissions and would be accounted for under the Paris Agreement in their respective national inventories. The Commission is of the view that the GHG emissions for the Project have been adequately considered.

The Commission finds that on balance, and when weighed against the objects of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*, ecologically sustainable development (**ESD**) principles, relevant policy framework, and socio-economic benefits, the impacts associated with the Project are acceptable and the Project is in the public interest.

For the reasons set out in this Statement of Reasons, the Commission has approved the Application. In reaching its decision, the Commission carefully considered the Application, the Department's Preliminary Assessment Report, the Commission's Issues Report, the Applicant's Submissions and Amendment Report, the Department's Assessment Report, the independent expert reports, advice from relevant government agencies, submissions from Councils and concerns raised by interested individuals, groups and organisation at the Initial Public Hearing, Public Hearing and in written submissions in accordance with the requirements of the EP&A Act.

The Commission has adopted the Department's recommended conditions and has amended/imposed additional conditions to ensure that the Project complies with the relevant criteria and standards, that impacts are consistent with the predictions in the EIS and that residual impacts are minimised, mitigated and where relevant compensated for.

DEFINED TERMS

ABBREVIATION	DEFINITION
ACHMP	Aboriginal Cultural Heritage Management Plan
AEA	The Applicant's Aquatic Ecology Assessment prepared by Eco Logical Australia Pty Ltd, dated April 2018.
AIP	NSW Aquifer Interference Policy
Amendment Report	The Applicant's amendment report, dated September 2019
Applicant	Vickery Coal Pty Ltd
Application	State Significant Development Application 7480
Approved Methods	<i>Approved Methods for the Modelling and Assessment of Air Pollutants in NSW</i>
Approved Project	Vickery Coal Project (SSD 5000)
ARTC	Australian Rail Track Corporation
AQA	Applicant's Air Quality and Greenhouse Gas Assessment undertaken by Ramboll Australia Pty Ltd, dated 16 February 2018
AQA Peer Review	Applicant's AQA Peer Review undertaken by Todoroski Air Services Pty Ltd, dated 19 May 2020
AQGGMP	Air Quality and Greenhouse Gas Management Plan
AQMP	Air Quality Management Plan
AWD	Available Water Determinations
BARBOS	The Applicant's Biodiversity Assessment Report and Biodiversity Offset Strategy prepared by Resource Strategies (undated)
BARBOS Addendum	The Applicant's BARBOS addendum prepared by Resource Strategies, dated 18 October 2019
BCD	NSW Biodiversity Conservation Division
BFCG	Boggabri Farming and Community Group
BSAL	Biophysical Strategic Agricultural Land
CCPF	<i>NSW Climate Change Policy Framework</i>
CHPP	Coal handling and preparation plant
Commission	Independent Planning Commission of NSW
DCP	Development Control Plan
Department	Department of Planning, Industry and Environment
Department's AR	Department's Assessment Report
Department's PIR	Department's Preliminary Assessment Report
Department's Response	Department's response to the Commission dated 15 July 2020
DIDO	Drive in drive out
DMMS	Dorothea McKellar Memorial Society
DRG	Department's Division of Resources and Geosciences
Economic Assessment	Applicant's Economic Assessment prepared by Analytecon Pty Ltd dated August 2018
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	<i>NSW Environment Protection Authority</i>
EPCB Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development

FIFO	Fly in fly out
Flood Assessment	Applicant's Flood Assessment prepared by WRM Water & Environment Pty Ltd, dated 10 August 2018.
FMP	Floodplain Management Plan for the Upper Namoi Valley Floodplain 2019
FTE	Full time equivalent
Future of Coal Statement	<i>Strategic statement on coal exploration and mining in NSW (DRG 2020)</i>
GDE	Groundwater Dependent Ecosystem
GDE Guideline	<i>NSW Risk Assessment Guideline for Groundwater Dependent Ecosystems (NOW, 2012)</i>
GHG	Greenhouse Gas
GLEP	<i>Gunnedah Local Environment Plan 2012</i>
Groundwater Assessment	Applicant's Groundwater Assessment prepared by HydroSimulations dated August 2018
GSC	Gunnedah Shire Council
HCC	Hard coking coal
HHMP	Historic Heritage Management Plan
HMP	Heritage Management Plan
ICNG	<i>Interim Construction Noise Guideline</i>
IESC	Independent Expert Scientific Committee on Coal Seam Gas and Large Mining Development
Independent Economic Review	The Department's independent economic review undertaken by Mr Gavan Dwyer of Marsden Jacobs Associates
Independent Groundwater Expert	The Department's independent groundwater expert, Hugh Middlemiss of HydroGeologic Inc
Initial Public Hearing	The Commission's initial public hearing conducted over 2 days in Boggabri and Gunnedah on 4 February 2019 and 5 February 2019
Infrastructure SEPP	<i>SEPP (Infrastructure) 2007</i>
Kalf Peer Review	Groundwater Assessment Peer Review undertaken by Kalf and Associates Pty Ltd, dated 8 August 2018
KPoM	Koala Plan of Management
LEP	Local Environmental Plan
LFN	Low frequency noise
LGA	Local Government Area
LIA	The Applicant's Light Impact Assessment prepared by Light Naturally, dated November 2019
Mandatory Considerations	Relevant mandatory considerations, as provided in s 4.15(1) of the EP&A Act
Material	The material set out in section 4.5
MIA	Mine Infrastructure Area
Minister	Minister for Planning and Public Spaces
Mining SEPP	<i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i>
MNES	Matter of National Environmental Significance
MOP	Mine Operations Plan
Mtpa	Million tonnes per annum
MWD	Mine Water Dam
NBA	Applicant's Noise and Blasting Assessment prepared by Wilkinson Murray, dated August 2018

NDC	Nationally determined contribution
Net Zero Plan	<i>NSW Net Zero Plan Stage 1: 2020–2030</i>
NGERS	National Greenhouse and Energy Reporting Scheme
NLEP	<i>Narrabri Local Environment Plan 2012</i>
NPfI	<i>NSW Noise Policy for Industry</i>
NPV	Net Present Value
NRAQMP	<i>Namoi Region Air Quality Monitoring Project</i>
NSC	Narrabri Shire Council
PCT	Plant community types
PM	Particulate matter
PNTL	Project Noise Trigger Level
Public Hearing	The Commission's electronic public hearing conducted over 2 days on 2 July 2020 and 3 July 2020
Project	Vickery Extension Project (SSD 7480)
Regulations	<i>Environmental Planning and Assessment Regulations 2000</i>
RING	<i>NSW Rail Infrastructure Noise Guideline</i>
RNP	<i>NSW Road Noise Policy</i>
ROM Coal	Run-of-mine coal
RTA	The Applicant's Road Traffic Assessment prepared by GTA Consultants, dated 8 August
SEPP	State Environmental Planning Policy
SEPP 33	<i>SEPP No.33 – Hazardous and Offensive Development</i>
SEPP 44	<i>SEPP No.44 – Koala Habitat Protection</i>
SEPP 55	<i>SEPP No.55 – Remediation of Land</i>
SIA	Social Impact Assessment
SIA Guideline	<i>Social Impact Assessment Guideline for State Significant Mining, Petroleum Production and Extractive Industry Development</i>
Site	As described in paragraph 10 of this report
SIMP	Social Impact Management Plan
SRD SEPP	<i>SEPP (State and Regional Development) 2011</i>
SRLUP	<i>New England North West Strategic Regional Land Use Plan 2012</i>
SSCC	Semi-soft coking coal
SSD	State Significant Development
SSO	Siding Springs Observatory
Submissions Report	Applicant's Submissions Report dated August 2019
Surface Water Assessment	Applicant's Surface Water Assessment prepared by Advisian Worley Group, dated August 2018
Surface Water Peer Review	Applicant's Surface Water Peer Review undertaken by Prof Tom McMahon, dated 5 August 2018
SVC	Site Verification Certificate
TARP	Trigger Action and Response Plan
TMP	Traffic Management Plan
TSP	Total suspended particles
WEA	Western Emplacement Area
WMP	Water Management Plan
VLAMP	<i>Voluntary Land Acquisition and Mitigation Policy</i>
VPA	Voluntary Planning Agreement

1 INTRODUCTION

1.1 The Minister's First Request

1. On 6 September 2018, the Minister for Planning made the following request under section 2.9(1)(d) of the EP&A Act that the Commission:
 - a) Conduct a public hearing into the Project after exhibition of the Environmental Impact Statement (**EIS**) for the Project.
 - b) Consider the EIS, submissions on the Project, relevant expert advice and relevant information.
 - c) Publish a report to the Department.
2. The Commission conducted the Initial Public Hearing at the Boggabri RSL Memorial Club, 77-79 Laidlaw St, Boggabri NSW 2382, on Monday, 4 February 2019 and at the Gunnedah Town Hall, 152 Conadilly Street, Gunnedah NSW 2380, on Tuesday, 5 February 2019.
3. The Commission's Issues Report was provided to the Department on 30 April 2019.

1.2 The Minister's Second Request

4. On 19 February 2020, the Minister requested under section 2.9(1)(d) of the EP&A Act that the Commission conduct a further public hearing into the Project and determine the Application.
5. The Minister's Request set out above in paragraph 4, was received by the Commission on 11 March 2020.

1.3 The Department's Referral

6. On 19 May 2020, the Department referred the Application to the Commission for determination. The Application seeks approval for the Vickery Extension Project located in the Gunnedah and Narrabri local government areas (**LGAs**) under section 4.38 of the EP&A Act.

1.4 The Commission Panel

7. The Commission is the consent authority in respect of the Application under section 4.5(a) of the EP&A Act and clause 8A of the *State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)*. This is because:
 - the Project constitutes State significant development under section 4.36 of the EP&A Act; and
 - the Department received more than 50 submissions from the public objecting to the Application under the mandatory requirements for community participation in Sched 1 to the EP&A Act.
8. On 12 March 2020, Mr Peter Duncan AM, Acting Chair of the Commission directed Ms Dianne Leeson to nominate members of the Panel. Ms Diane Leeson nominated Mr John Hann (Chair), Professor Zada Lipman and Professor Chris Fell AM to constitute the Commission Panel determining the Application.

2 THE APPLICATION

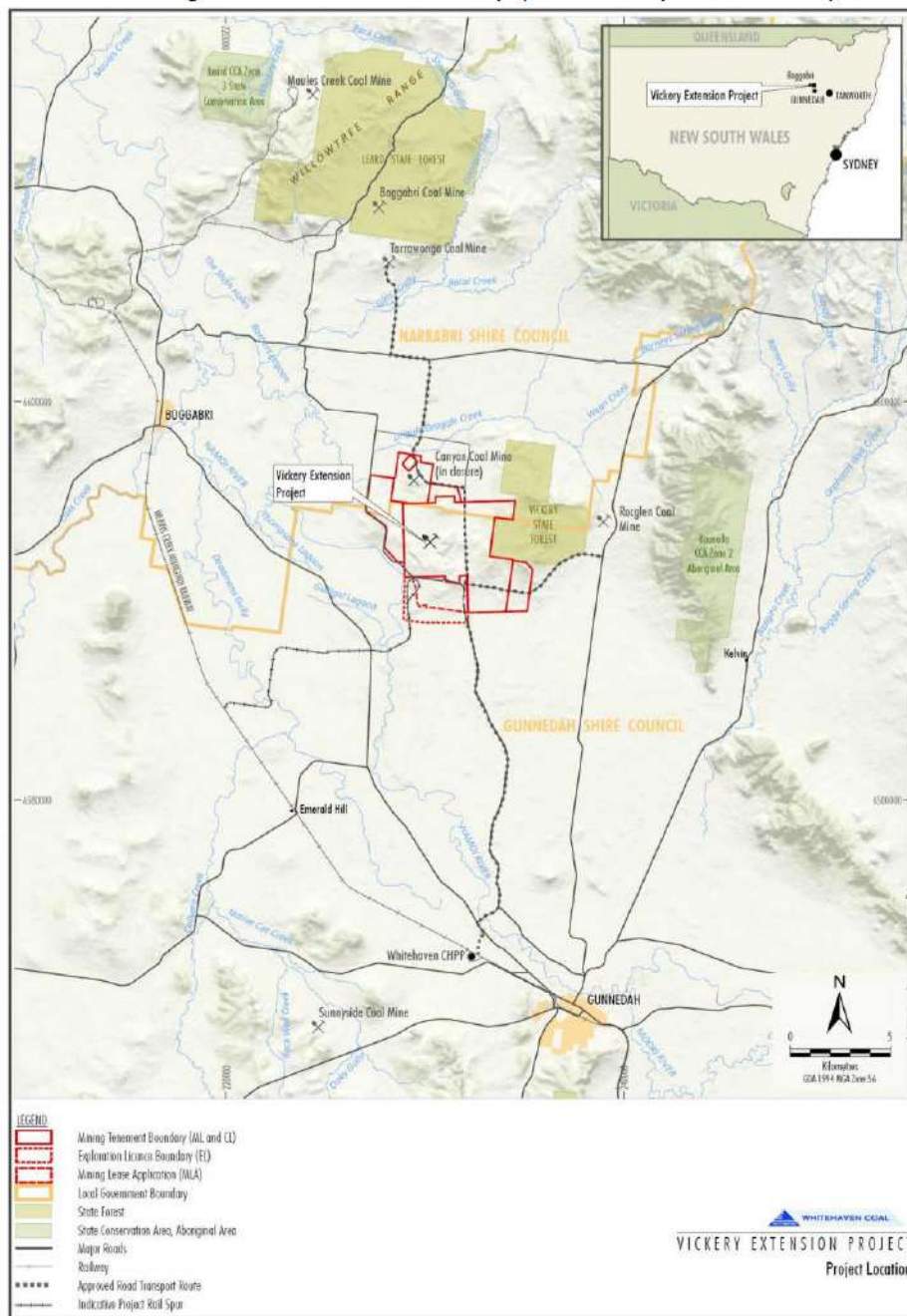
2.1 The Site and Locality

9. Paragraph 1 of the Department's Assessment Report (**Department's AR**), dated 19 May 2020, states:

Vickery Coal Pty Ltd, a subsidiary of Whitehaven Coal Pty Ltd (Whitehaven) owns the Vickery Coal Mine, located approximately 25 kilometres (km) north of Gunnedah. The project is located within the Gunnedah and Narrabri local government areas (LGAs).

10. The 'Site' for the purposes of this Statement of Reasons is illustrated in Figure 1 and Figure 2.

Figure 1 – Local Context Map (Source: Department's AR)



2.2 Existing Vickery Coal Project Approval

11. Paragraph 3 of the Department's AR states:

In September 2014, the delegate of the Minister for Planning approved the Vickery Coal Project (the Approved Project) as a State Significant Development (SSD-5000) under the Environmental Planning and Assessment Act 1979 (EP&A Act). While the Approved Project was physically commenced within the 5-year period required by the Environmental Planning and Assessment Regulation 2000, production at the mine is yet to commence.

12. Paragraphs 4 and 5 of the Department's AR also state:

The Approved Project includes the extraction of 135 million tonnes of coal over a 30-year period, at a rate of up to 4.5 million tonnes of run-of-mine (ROM) coal a year (Mtpa). Extracted coal would be hauled by trucks on public roads to Whitehaven's existing coal handling and preparation plant (CHPP) near Gunnedah, where it would be processed and loaded onto trains for transport to the Port of Newcastle. The CHPP operates under a separate development consent (DA 79_2002) and is currently approved to operate until October 2022. The Gunnedah CHPP also accepts and processes coal from other Whitehaven's mines in the region, including the Tarrawonga mine.

Whitehaven is now proposing to extend the Approved Project and develop a new CHPP and train load out facility at the mine site. It also proposes to develop a rail spur across the Namoi River floodplain to connect the load out facility to the main Werris Creek to Mungindi Railway line.

2.3 The Vickery Extension Project

13. The strategic context and Project justification are set out in Section 3 and Section 6.1 of the Department's AR.

14. Paragraph 30 of the Department's AR states that the key changes of the Project compared with the Approved Project include:

- *extracting an additional 33 Mt of coal by extending the footprint of the open cut mine to the north and south of the approved footprint;*
- *increasing the extraction rate of ROM coal from 4.5 to 10 Mtpa, with an average extraction of 6.7 Mtpa, allowing for more efficient extraction of the coal reserves;*
- *constructing and operating a CHPP, train load out facility, rail loop and rail spur line at the project site;*
- *constructing and operating a water supply borefield and pipeline; and*
- *changing the final landform by removing the eastern overburden emplacement area (which is now proposed to be used as a secondary infrastructure area), increasing the size of the approved western overburden emplacement area (the WEA) and retaining one pit lake void (rather than two).*

15. The Commission notes that although paragraph 14 above states that one void will be retained, there will be in fact two final voids: the existing Blue Vale void and the Project's final void as described by the Applicant in paragraph 231 of this report.

16. Paragraph 31 of the Department's AR states:

A fundamental change proposed to the Approved Project is to construct the CHPP and rail load out facility at the project site and make this the central hub to receive coal from other Whitehaven mines. Whitehaven is proposing to continue to use the already approved road transport route to the Gunnedah CHPP at its approved rate until the Project CHPP, rail load-out facility and rail spur line reach “full operational capacity”. Once operational, the Project CHPP would remove coal haul trucks from public roads.

17. Paragraph 33 of the Department’s AR also states:

Whitehaven is also proposing to surrender the Vickery Coal Project and Canyon Coal Mine development consents if the Project is approved so that the entire site is regulated under a single consolidated development consent.

18. Paragraphs 36 to 38 of the Department’s AR state that the Applicant’s initial proposal for the Project sought to extract ROM coal within Mining Lease 1718 (ML 1718). The Department’s Division of Resources and Geosciences (**DRG**) subsequently advised that ML 1718 was issued for mining purposes and as a result the extraction of coal in this area is not permissible. The Applicant has amended the Application by an amendment report submitted in September 2019 (**Amendment Report**) to the Department. The Commission agrees to this amendment to the Application. As part of the Amendment Report, the Applicant:

no longer proposes to extract coal from ML 1718 reducing the total resource to be extracted from 179 Mt to 168 Mt (approximately 11 Mt of ROM coal or 10 Mt of product coal). Compared with the Approved Project total ROM coal resource (135 Mt), the Project would therefore allow an additional 33 Mt of ROM coal resource to be extracted.

19. The key elements of the Project are outlined in Table 1 and the Project layout is illustrated in Figure 2 below.

Figure 2 – The Approved Project and Vickery Extension Project (Source: Department’s AR)

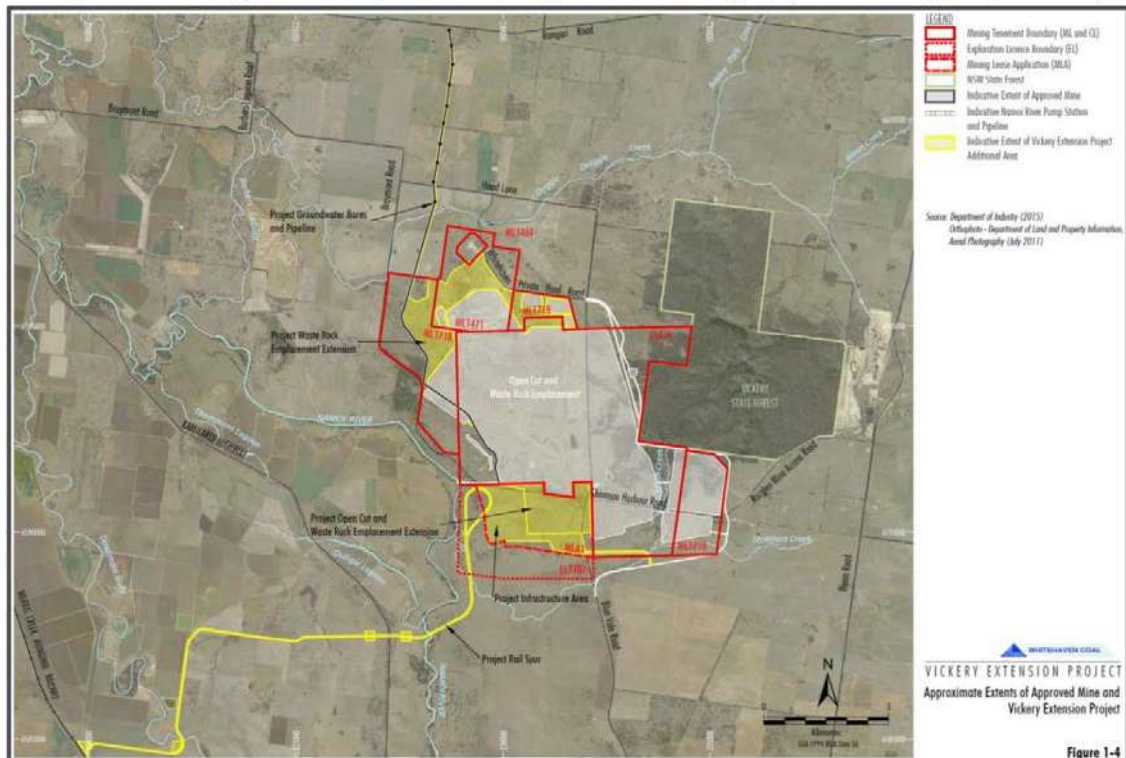


Table 1 – Key Components of the Project

Project Component	Approved Project	Vickery Extension Project	Key Changes
ROM Coal Production Rate	Up to 4.5 Mtpa	Average rate of 6.7 Mtpa over 25 years, with a peak production rate of up to 10 Mtpa	- Up to 5.5 Mtpa increase - No change to the depth of extraction
Project Life	Approximately 30 years	26 years (one year of construction and 25 years of mining operations)	Approximately 4 year decrease
Mining and Reserves	Extraction of approximately 135 million tonnes of ROM coal from 7 coal seams within the Maules Creek Formation	Extraction of approximately 168 million tonnes of ROM coal from 8 coal seams within the Maules Creek Formation	33 Mt increase - One additional seam
Processing	- On-site coal crushing and screening facilities - ROM coal transported from the mine to the Gunnedah CHPP for processing	- As for the Approved Project until the commissioning of the Project CHPP and rail spur - On-site stockpiling and processing of 13 Mtpa of ROM coal from the mine and other Whitehaven mining operations - Production of up to 11.5 Mtpa of product coal from the Project CHPP	On-site CHPP
Coal Transport	- ROM coal transported by truck along the approved road transport route from the mine to the Gunnedah CHPP near Gunnedah at a cumulative rate not exceeding 3.5 Mtpa, or 4.5 Mtpa with construction of an overpass on the Kamilaroi Highway - Product coal transported by rail from Gunnedah CHPP to market	- As for the Approved Mine, until the project CHPP, train load out facility and rail spur reach full operational capacity - Up to 11.5 Mtpa of product coal to be transported to market by rail via the project rail spur to the Werris Creek Mungindi Railway	Rail transport from the project site replacing transport by road
Materials Management	- Production of 1,269 million bank cubic metres (Mbcm) of overburden - Overburden emplacement in the Eastern and Western Emplacements and within the open cut void footprint - Co-disposal of reject material from the CHPP within the waste rock emplacement areas	- Production of approximately 1,707 Mbcm of overburden - Overburden emplacement in the WEA and within the open cut void footprint - Co-disposal of reject material from the CHPP within the overburden emplacement areas	438 Mbcm (35%) increase in overburden
Roadworks	- Construction of a section of private haul road and overpass of the Kamilaroi Highway; - Realignment of Blue Vale Road, Shannon Harbour Road, Hoad Lane and Braymont Road.	- Construction of the Kamilaroi Highway overpass, if required - Realignment of Blue Vale Road - Closure of southern section of Braymont Road and Shannon Harbour Road	No realignment of Braymont Road
Employment	Up to 60 construction workers	Up to 500 construction workers, with 90% of the	Up to 440 additional construction

Project Component	Approved Project	Vickery Extension Project	Key Changes
	Up to 250 operational workers with an average of 213 full time equivalent (FTE) workers over the project life.	- workforce expected to reside in the approved Boggabri Accommodation Camp (currently operated by Civeo) - Up to 450 operational workers with an average of 344 FTE workers over the life of the mine.	- workers - Up to 200 additional operational workers with an average of 131 full time equivalent
Capital Value	Approximately \$461 million	Approximately \$607 million	Approximately \$146 million increase
Hours of Operation	- Mining operations 24 hours a day, seven days a week - Road transport of ROM coal would occur between 6:00 am and 9:15 pm Mondays to Fridays, and 7:00 am to 5:15 pm on Saturdays	- Mining operations, CHPP, train loading and rail transport on the project rail spur 24 hours per day, seven days per week - Road transport of ROM coal would occur between 6:00 am and 9:15 pm Mondays to Fridays, and 7:00 am to 5:15 pm on Saturdays	No change
Disturbance Area, Vegetation Clearing and Biodiversity Offsets	- Project disturbance area of 2,242 ha including 1,748 ha of native vegetation comprising: 464 ha of native woodland; and 1,284 ha of derived native grassland; 2,063 ha of land-based offsets; 1,360 ha of rehabilitation of the Approved Project footprint to native vegetation	- Total disturbance area of 2,993 ha including 2,328 ha of native vegetation comprising: 542 ha of native woodland; and 1,760 ha of derived native grassland - Additional 993 ha of land-based offsets 2,385 ha rehabilitation to native woodland - Additional offset areas, in accordance with the <i>Framework for Biodiversity Assessment</i> - Land-based offsets (offset areas 6, 7 and 8 & Mount Somner property), an existing biobank site and/or additional biobanking credits; - supplementary measures; and/ or - contributing to the Biodiversity Conservation Trust	- Additional disturbance area of 776 ha including: 78 ha of native woodland; and 502 ha of derived native grassland - Reduced disturbance of 26 ha (soil stockpile) - Additional 20 ha land-based offset in Offset Area 5 1,005 ha rehabilitation of the project disturbance area to native woodland 523 ha additional mine rehabilitation to native woodland in the Approved Project area
Rehabilitation	- Progressive rehabilitation of waste rock emplacement and surface disturbance areas - Final landform to include three final voids (the existing Blue Vale void and the Northern and Southern voids)	- Progressive rehabilitation of waste rock emplacement and surface disturbance areas - Final landform to include two final voids (the existing Blue Vale void and the open cut void)	One less final void

3 THE DEPARTMENT'S CONSIDERATION OF THE APPLICATION

20. Section 1.3 and Table E-1 of the Department's AR provides an overview of the assessment process up until the Department's referral to the Commission. Table 2 below provides an overview of the key steps in the consideration of the Application.

Table 2 – Overview of Key Steps

13 August 2018	The Applicant lodged the Application and supporting EIS to the Department
6 September 2018	The then Minister for Planning requested the Commission conduct an initial public hearing
13 September 2018 – 25 October 2018	The Department publicly exhibited the EIS
30 November 2018	The Department completed its Preliminary Issues Report
4-5 February 2019	The Commission conducted Initial Public Hearing in Boggabri and Gunnedah
30 April 2019	The Commission's Issues Report was published
23 August 2019	The Applicant provided its Submissions Report to the Department
September 2019	The Applicant provided its Amendment Report to the Department
19 February 2020	The Minister requested the Commission conduct a public hearing and make a determination
19 May 2020	The Department referred the Application including the Assessment Report and draft Recommended Conditions to the Commission for determination
20 May 2020	The Commission received the Department's referral

4 THE COMMISSION'S CONSIDERATION

4.1 The Commission's Issues Report

21. On 30 April 2019, the Commission published its Issues Report to the Department. The Issues Report identified the key issues requiring detailed consideration by the Department in evaluating the merits of the Project on behalf of the Commission under section 4.6 of the EP&A Act. The Commission is of the view that the Department's AR satisfactorily addresses the material issues raised by the Commission in the Issues Report.

4.2 The Department's Assessment

22. Under section 4.6 of the EP&A Act, certain functions of the Commission are to be exercised by the Planning Secretary on behalf of the Commission, including "undertaking assessments of the proposed development and providing them to the Commission (but without limiting the assessments that the Commission may undertake)": section 4.6(b). The Planning Secretary's assessment of the Project is set out in the Department's AR.
23. Accordingly, the Commission considers that it is permitted to take into account the Department's AR, but that it should be weighed in the same manner as the other Material referred to below in 4.5 of this Statement of Reasons. To the extent that any policy outside of the EP&A Act purports to require the Commission to give the Department's AR greater weight than the other Material, the Commission has not applied that policy.

24. The Commission notes that as the development consent for the Approved Project is required to be surrendered under conditions A18 and A19 of the development consent for the Project, and the development consent for the Project includes the continuation of the development authorised by the development consent for the Approved Project, section 4.63 of the EP&A Act applies to this assessment. Accordingly, the Commission is not required to re-assess the likely impact of the Project to the extent that it could have been carried out but for the surrender of the development consent for the Approved Project. Section 4.63 of the EP&A Act does not however prohibit the Commission from undertaking such an assessment. In this Statement of Reasons, the Commission has considered, where relevant, the cumulative impacts of both the Approved Project and those aspects of the Project that were not approved under the Approved Project.

4.3 The Commission's Meetings

25. As part of its determination process, the Commission met with various persons as set out in Table 3. All meeting and site inspection notes were made available on the Commission's website.

Table 3 – Commission's Meetings

Meeting	Date of Meeting	Transcript/Notes Available on
Site Inspection	17 June 2020	1 July 2020
Department	18 June 2020	24 June 2020
Applicant	18 June 2020	25 June 2020
Narrabri Shire Council (NSC)	19 June 2020	24 June 2020
Gunnedah Shire Council (GSC)	19 June 2020	24 June 2020
Public Hearing	2-3 July 2020	10 July 2020

4.4 Public Comments

26. As referenced in paragraph 2 above, the Commission's Initial Public Hearing was undertaken on 4 February 2019 and 5 February 2019. 101 speakers registered to present to the Commission at the Initial Public Hearing. Comments received by the Commission before, during and after the Initial Public Hearing form part of the material considered by the Commission as set out in paragraph 31 below.
27. The Commission conducted the Public Hearing on Thursday 2 July 2020 and Friday 3 July 2020. In addition to listening to the public's views at the Public Hearing, the Commission also heard from the Department and the Applicant. In total, 74 speakers presented to the Commission over the two-day Public Hearing.
28. All persons were offered the opportunity to provide written submissions to the Commission up until 14 July 2020. The Commission received a total of 2863 written public submissions including 935 campaign emails on the Application. A breakdown of the submissions received by the Commission is provided below:
- 774 submissions in support of the Project;
 - 1108 objections to the Project;
 - 46 comments on the Project; and
 - 935 campaign objections to the Project.

29. The Commission received submissions raising the Applicant's regulatory compliance history and submissions suggesting that the Applicant was not a fit and proper person in respect of the Project. The Commission notes that there is no fit and proper person test in respect of development consents and that matters such as the identity of an applicant or past planning law breaches have been found to be irrelevant considerations for consent authorities such as the Commission.
30. The Public's views on the Project are referenced and considered by the Commission in section 4.9 and section 4.10 of this report.

4.5 Material Considered by the Commission

31. In this determination, the Commission has carefully considered the following material (the **Material**) along with the other documents referred to in this Statement of Reasons:
 - the Applicant's Environmental Impact Statement (**EIS**), dated 12 September 2018;
 - the Department's Preliminary Issues Report (**PIR**), dated 30 November 2018;
 - submissions made to the Department, received during exhibition;
 - the Commission's Issues Report, dated 30 April 2019, including material considered in that report;
 - the Applicant's Submissions Report (**Submissions Report**), dated August 2019;
 - the Applicant's Amendment Report, dated September 2019;
 - the Department's AR, dated 19 May 2020, including material considered in that report;
 - the Department's draft Development Consent, dated May 2020;
 - the Applicant's submission to the Commission (**Applicant's Submission**), dated 16 June 2020;
 - the Applicant's response to the Commission (**Applicant's Response**), dated 29 June 2020;
 - all speaker comments made to the Commission at the Public Hearing;
 - all written comments received by the Commission up until 5pm 14 July 2020;
 - the Department's response to the Commission (**Department's Response**) dated 15 July 2020;

4.6 Statutory Context

4.6.1 Permissibility

32. Paragraphs 76 and 77 of the Department's AR state:

The Project is located within the Gunnedah and Narrabri LGAs and located on land zoned RU1 (Primary Production) under both the Gunnedah and Narrabri LEPs.

Development for the purposes of open cut mining and railways is permissible within this zone, and hence the Project is permissible with development consent.

33. The Commission agrees with the Department and is of the view that the Project is permissible with development consent.

4.6.2 Surrender of Consent under section 4.63 of the EP&A Act

34. Paragraph 67 of the Department's AR states:

If the Project is approved, Whitehaven would surrender the Vickery Coal Project and Canyon Coal Mine development consents and all mining operations on the site would be regulated under a single consolidated contemporary development consent.

35. The Commission has imposed the Department's recommended Conditions A18 and A19 that upon commencement of the Project, the Applicant will be required to surrender the Vickery Coal Project and Canyon Coal Mine development consents within 12 months in accordance with Section 4.63 of the EP&A Act and mining operations will be regulated under a single development consent.

4.6.3 Integrated and other NSW Approvals

36. Per paragraph 81 of the Department's AR, the Commission notes that the Department has consulted with relevant public authorities responsible for integrated and other approvals and has recommended suitable conditions of consent. The Commission acknowledges that the Applicant may also require other approvals which are not integrated into the SSD process, including those listed in paragraph 80 of the Department's AR.

4.6.4 IESC Advice

37. In relation to the advice provided by the Commonwealth Independent Expert Scientific Committee on Coal Seam Gas and Large Mining Development (**IESC**), paragraph 149 of the Department's AR states that the Department considers the additional information provided by the Applicant has addressed the IESC's issues. The Department's consideration of the IESC's recommendations is set out in Table 7 of the Department's AR.
38. The Commission agrees with the Department's findings and is of the view that the IESC recommendations have been addressed by the Applicant.

4.6.5 Site Verification Certificate

39. The Commission agrees with the Department's assessment at paragraphs 82 to 84 of the Department's AR that a Gateway Certificate was not required for the Project.

4.6.6 Commonwealth Approvals

40. Paragraphs 85 and 86 of the Department's AR refer to the Commonwealth Minister for the Environment's 14 April 2016 determination that the Project is a 'controlled action' under the *Environment Protection and Biodiversity Conservation Act 1996* (Cth) (**EPBC Act**) due to the Project's potential impacts on listed threatened species and communities and a water resource.
41. The Department's consideration of impacts on listed threatened species and communities, and water resources, is set out in Section 6 and Appendix J of the Department's AR.
42. The Commission agrees with the Department and adopts the Department's AR's analysis of matters under the EPBC Act.
43. The Commission has given further consideration to Commonwealth biodiversity matters in section 4.9.8 of this report.

4.7 Mandatory Considerations

44. In determining this application, the Commission is required by section 4.15(1) of the EP&A Act to take into consideration such of the following matters as are of relevance to the development the subject of the Application (**mandatory considerations**):
- the provisions of:
 - any environmental planning instrument;
 - any proposed instrument that is or has been the subject of public consultation under the EP&A Act and that has been notified to the Commission (unless the Planning Secretary has notified the Commission that the making of the proposed instrument has been deferred indefinitely or has not been approved);
 - any development control plan;
 - any planning agreement that has been entered into under s 7.4 of the EP&A Act, and any draft planning agreement that a developer has offered to enter into under s 7.4;
 - the *Environmental Planning and Assessment Regulations 2000* (**Regulations**) to the extent that they prescribe matters for the purposes of s 4.15(1) of the EP&A Act;
 - that apply to the land to which the Application relates;
 - the likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality;
 - the suitability of the site for the development;
 - submissions made in accordance with the EP&A Act and Regulations; and
 - the public interest.

In accordance with s 4.15(1), the Commission has considered the mandatory considerations. They are addressed in the following sections.

45. The mandatory considerations are not an exhaustive statement of the matters the Commission is permitted to consider in determining the Project. To the extent that any of the Material does not fall within the mandatory considerations, the Commission has considered that Material where it is permitted to do so, having regard to the subject matter, scope and purpose of the EP&A Act.

4.7.1 Relevant Environmental Planning Instruments

46. The Commission has taken into account the following EPIs which apply to the Site:
- *State Environmental Planning Policy No.33 – Hazardous and Offensive Development* (**SEPP 33**);
 - *State Environmental Planning Policy No.44 – Koala Habitat Protection* (**SEPP 44**);
 - *State Environmental Planning Policy No.55 – Remediation of Land* (**SEPP 55**);
 - *State Environmental Planning Policy (State and Regional Development) 2011*;
 - *State Environmental Planning Policy (Infrastructure) 2007* (**Infrastructure SEPP**);
 - *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* (**Mining SEPP**);
 - *New England North West Strategic Regional Land Use Plan 2012* (**SRLUP**);
 - *Gunnedah Local Environment Plan 2012* (**GLEP**); and
 - *Narrabri Local Environment Plan 2012* (**NLEP**).

47. The Commission agrees with the Department's assessment of EPIs set out in Appendix K.3 of the Department's AR. The Commission therefore adopts the Department's assessment but has also addressed some of these EPIs, and in particular cl 14 of the Mining SEPP, in the reasons below.

4.7.2 Relevant Development Control Plans

48. Footnote 8, on page 152 of the Department's AR states: "*due to the effect of clause 11 of the SRD SEPP, development control plans do not apply to SSD*".
49. The Commission agrees with the Department that development control plans (**DCP**) do not apply to the Project.

4.7.3 Relevant Planning Agreements

Gunnedah Shire Council Comments

50. GSC, in the meeting with the Commission on 19 June 2020, stated that GSC is satisfied with the Voluntary Planning Agreement (**VPA**) and at the time of the meeting had authorised the GSC General Manager to execute the document.

Narrabri Shire Council Comments

51. NSC, in its letter to the Commission dated 9 August 2019, stated that the contributions offered by the Applicant are not acceptable and not in the public interest. NSC, in its letter to the Commission dated 2 March 2020, stated that NSC resolved to reject the offer at its meeting of 17 October 2019 as it did not meet the Council endorsed objectives for a planning agreement and accepting the offer would not be in the public interest.

Department Assessment

52. Paragraph 609 of the Department's AR states:

Whitehaven has offered to enter into Voluntary Planning Agreements (VPAs) with GSC and NSC for the Project. Whitehaven's offer is consistent with that of the Approved Project which proposed a total contribution of \$7.5 M split between the two councils with 70% (\$5.25 M) to GSC and 30% (\$2.25 M) to NSC, in recognition that the Approved Project site is mainly located in the Gunnedah LGA with the majority of the workforce sourced from GSC.

The VPA offers for the Approved Project were accepted by both councils and the development consent conditions require these VPAs to be executed.

For the Project, Whitehaven has increased its VPA offer to a total of \$10.7 M again with a 70:30 split consistent with the existing VPA, with \$7.4 M to GSC and \$3.2 M to NSC. The increase in the total contribution was based on a pro-rata increase on the tonnage of coal extracted for the Project.

53. The Department's AR notes that while GSC has accepted the VPA offer from the Applicant, NSC did not accept the Applicant's VPA offer and following consultation with the Boggabri community, requested additional monetary contributions. Paragraph 615 of the Department's AR states that the Applicant made a revised offer that provided targeted funding of projects in Boggabri that resulted largely from the community consultation undertaken by NSC to the value of \$3.2 Million.
54. Paragraph 620 of the Department's AR states:

...if the VPA offered by Whitehaven is not accepted by NSC and therefore unable to be executed, it is reasonable to include a condition that Whitehaven make a monetary contribution of \$3.2 million to NSC for infrastructure, services and community projects in Boggabri prior to the commencement of construction.

55. Paragraph 622 of the Department's AR concludes that the inclusion of this recommended condition would allow funds to be directed to NSC in the event that a VPA could not be executed.

Commission's Findings

56. The Commission notes that GSC is satisfied with the VPA and, at the time of its meeting with the Commission, has authorised execution of the VPA as referenced in paragraph 50 above. The Commission notes that NSC has not accepted the VPA and does not consider the offer in the public interest as stated in paragraph 51 above.
57. The Commission agrees with the Department's assessment and has imposed the Department's recommended condition that the Applicant make a monetary contribution of \$3.2 million to NSC for infrastructure, services and community projects in Boggabri prior to the commencement of construction as stated in paragraph 54 and 55 above.

4.7.4 Applicable Regulations

NSW Dark Sky Planning Guideline

58. Per clause 92 of the EP&A Regulation (as cited in paragraph 662 of the Department's AR), the Commission has given consideration to the *NSW Dark Sky Planning Guideline* in section 4.9.8 Other Issues – Lighting of this report.

4.7.5 The Likely Impacts of the Development

59. The likely impacts of the Project have been considered in section 4.9.

4.7.6 The Suitability of the Site for Development

60. The Commission has given consideration to the suitability of the Site. The Commission finds that the Site is suitable for the following reasons:
- there is an existing development consent (see section 2.2) which permits the extraction of coal at the Site;
 - the Site has a previous history of mining operations and there is existing disturbance with the Site;
 - the Site is not Biophysical Strategic Agricultural Land (**BSAL**) (see section 4.9.6);
 - the rail corridor and infrastructure area has been designed and located within the Site to minimise impacts on amenity;
 - adverse impacts on surrounding dwellings have been minimised and where there are significant exceedances of the relevant criteria, appropriate acquisition rights under the relevant policies apply (see section 4.9.2);
 - disturbance areas would be subject to a biodiversity offset strategy and additional disturbance can be mitigated and managed through the proposed conditions of consent (see section 4.9.8);
 - the proposed extraction of coal resources at the Site is the orderly and economic use and development of land; and
 - the development of the Site for the purposes of coal mining will allow the social and economic benefits (see section 4.9.6) to be realised.

4.7.7 Submissions

61. Section 4.4 of this report set out how the Commission has considered submissions.

4.7.8 The Public Interest

62. The Commission has considered the public interest in section 4.10 of this report.

4.8 Additional Considerations

63. In determining this application, the Commission has also considered:

- *NSW Noise Policy for Industry (NPfi)*
- *Interim Construction Noise Guideline (ICNG)*
- *NSW Road Noise Policy (RNP)*
- *NSW Rail Infrastructure Noise Guideline (RING)*
- *Voluntary Land Acquisition and Mitigation Policy (VLAMP)*
- *NSW Aquifer Interference Policy (AIP)*
- *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (EPA, 2016) (Approved Methods)*
- *NSW Climate Change Policy Framework (CCPF)*
- *NSW Risk Assessment Guideline for Groundwater Dependent Ecosystems (NOW, 2012) (GDE Guideline)*
- *Social Impact Assessment Guideline for State Significant Mining, Petroleum Production and Extractive Industry Development (SIA Guideline)*
- *Strategic statement on coal exploration and mining in NSW (DRG 2020) (Future of Coal Statement)*
- *NSW Net Zero Plan Stage 1: 2020–2030 (Net Zero Plan)*

4.9 Key Issues

4.9.1 Water Resources

Water Balance, Demand and Supply

Public Comments

64. The Commission heard concerns from speakers at the Public Hearing and received written submissions regarding the impacts of the Project on water usage, demand and supply for the region. Concerns were raised in submissions and at the Public Hearing regarding water availability and the Applicant's ability to outbid local farmers for water.

65. Written submissions received by the Commission stated:

[Mines] outbid local farmers for water at auction and built pipelines from nearby farms to divert farming water for mining. Water availability is a serious issue in the region.

We have seen farmers struggling to get access to water while the coal mine just keeps outbidding them for this resource.

66. Concerns were also raised by the public regarding water security, the accuracy of the Applicant's estimations and the need for further modelling to be undertaken. At the Public Hearing, an expert engaged on behalf of an action group stated:

...[I]f the rates of extraction from the bore field are going to need to be bigger or additional licences are going to be required and these hydraulic parameters have not been accurately estimated in modelling, then we could be really seriously underestimating the drawdown impacts and wider impacts of the aquifer from this mine extension project.

67. The Boggabri Farming and Community Group (**BFCG**) raised the following concerns regarding water availability during drought and the potential for a water deficit in its submission to the Commission:

The site water balance provided in the proposed Vickery mine EIS and subsequently submitted material for the proposed mine fails to consider these conditions realistically when forecasting the water requirements for the proposed Vickery mine.

Council Comments

68. NSC's comments to the Commission dated 2 March 2020 noted that the Applicant "commits to holding sufficient water licences to meet operation water demands for the Project". NSC raised concern regarding farmers being priced out of the market as a result of the mine's water licensing requirements.

Applicant's Consideration

69. In relation to water balance, the Applicant's EIS states:

The site water balance modelling demonstrates Whitehaven holds sufficient groundwater and surface water licences to meet the predicted external water demands.

Periodic review and revision of the site water balance would be undertaken over the life of the Project to record and document the status of inflows (water capture), storage and consumption (e.g. dust suppression and CHPP water supply) and to optimise water management performance. The reviews would also evaluate actual external make-up water requirements, climatic conditions and long-term predictions (including consideration of Available Water Determinations [AWD] for the Lower Namoi Regulated River Water Source of the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2016).

70. In relation to water usage, the Applicant's response to the Commission dated 29 June 2020 states:

During Project operations, water reporting to the open cut would accumulate in sumps and would be pumped to either of the two mine water dams (MWD-1 and MWD-2) and used to meet water demands for dust suppression and the CHPP.

71. In relation to water licensing, the Applicant's EIS states that "all extraction from the Namoi River would be conducted in accordance with the licensed entitlements issued by DI Water and the rules in the relevant water sharing plan, impacts to the Namoi River water source are not anticipated to be significant".

72. The Applicant's Submission Report states that the Applicant holds sufficient additional water access licences to account for groundwater inflows to the open cut and induced losses from the Namoi River and associated alluvium and that these licences are dedicated for use for the Project.

73. In relation to water security in drought conditions, the Applicant's response to the Commission dated 29 June 2020 states:

In consideration of recent drought conditions experienced in the region, further analysis of recent rainfall data (i.e. up to March 2020) has been undertaken by Advisian (Attachment 1). This analysis has determined that there was no change to the driest 2, 5 and 10 calendar year periods compared to what was modelled for the EIS.

The conceptual Project water management system has also been reviewed to demonstrate the design meets the water management performance measures provided in the recommended Development Consent.

74. The Applicant's response to the Commission included an updated Site Water Balance, prepared by Advisian Worley Group dated 26 June 2020. The Site Water Balance concluded:

...it is reasonable to expect Whitehaven will have access to sufficient water for all stages of the development, including peak operations, or could adjust its operations to match available water supply accordingly (e.g. through implementing water saving initiatives or other operational measures).

Department's Assessment

75. Paragraphs 157 and 158 of the Department's AR state:

The main water demands of the Project would be for dust suppression and operation of the CHPP. Additional water demands include wash down of mobile equipment, and other non-potable uses such as ablutions and amenities.

Dust suppression of haul roads, stockpiles and hardstand areas would form the significant majority (approximately 75%) of total water demands for the Project. The water balance modelling estimated the maximum annual water demand for dust suppression would range between 1,200 – 1,350 ML/year...

76. In relation to water usage at the Project CHPP, paragraph 160 of the Department's AR states:

Operation of the CHPP is estimated to require up to 750 ML/year at full production, with the water balance assessment assuming an average of 55% of ROM coal would be processed through the CHPP, at a demand of 120 L/tonne. This demand is additional to that required for the Approved Project, given the processing of ROM coal was to occur at the Whitehaven CHPP...

77. In relation to water supply, paragraph 161 and 162 of the Department's AR state:

The main water supplies for the Project include runoff from within the mine's water management area, and groundwater inflows to the open cut. These inflows would be collected, stored and distributed in a series of mine water storages, including the Blue Vale void which would be used during initial years of the Project...

External water supply would be sourced from the Project borefield and the Namoi River. This supply would be pumped to the Project's water storages when required, based on operating rules to be established in Whitehaven's Water Management Plan [WMP] for the Project...

78. In relation to water balance, paragraph 164 of the Department states:

The water balance estimates the supply from captured runoff would gradually increase over the initial years of the Project as the disturbance area increases. The estimated supply generated by runoff would vary depending on rainfall and climate conditions and Whitehaven's assessment includes consideration of rainfall generated during dry, median and wet climate sequences (see Figure 10). Groundwater inflow is estimated to peak at approximately 533 ML/year.

79. Paragraph 165 of the Department's AR states that the water balance estimates that the average requirement for additional supply over the life of the mine ranges from about 530 ML/year to about 740 ML/year. The Department's AR states that external water would be sourced from Whitehaven's existing water access licences. In relation to public concern regarding use of water entitlements allocated to other projects for the Project (and vice versa), paragraph 169 and 174 of the Department's AR notes that the Applicant has confirmed (in Attachment 6 of the EIS) that the licence allocations used in the water balance model are applicable only to the Project.
80. In relation to dry conditions, paragraph 173 the Department's AR notes that "*Under the dry rainfall scenario, the water balance assessment predicts that the project would have sufficient licence allocations to support the operation of the mine*".
81. Paragraph 175 of the Department's AR states:

The independent surface water expert has reviewed the information provided to the Department and notes the rainfall records adopted by Whitehaven for its dry rainfall sequence (the period between 1915 to 1941) are comparable with the drying trend indicated in the Barraba data and the Department considers that Whitehaven's modelling provides appropriate representation of drought conditions. DPIE Water has advised that it has no further comments on the assessment of water supply and entitlements and noted that it will be Whitehaven's responsibility to ensure it has sufficient entitlements for the Project's water take.

82. Paragraphs 186 and 187 of the Department's AR conclude:

The Department considers that Whitehaven has identified adequate contingencies for the ongoing and appropriate management of mining operations, in the event that there is insufficient water from Whitehaven's general security access licences during dry conditions. These include the forward planning of mining operations based on climate forecasts, regular review of water consumption and measures to reduce reliance on external supply.

The Department also notes that, like any other significant water user in the State, access to adequate water supplies is a commercial risk for Whitehaven and would be regulated under the water sharing principles established under the WM Act. If Whitehaven is not able to secure enough water to meet its demands it may need to investigate additional water efficiency measures, or its operations may need to be reduced accordingly.

83. The Commission wrote to the Department on 7 July 2020 seeking additional information in relation to water resources. The Department, in its Response to the Commission dated 15 July 2020, clarified:

The Department has recommended conditions to ensure that water is appropriately managed, including the requirement to ensure it has sufficient water supply for all stages of the project or adjusting the scale of its operations to match the available water supply—see recommended condition B39.

Commission's Findings

84. The Commission notes that the main water requirements for the Project would be for the CHPP and dust suppression on haul roads and active waste rock emplacements as stated by the Department in paragraph 75 above. The Commission notes that this figure ranges between 1,200 – 1,350 ML/year for dust suppression and up to 750 ML/year for the CHPP at full production as stated by the Department in paragraphs 75 and 76 above.
85. The Commission notes that the main water supplies for the Project include runoff from within the mine's water management area, and groundwater inflows to the open cut as stated by the Department in paragraph 77 above. The Commission notes that external water supply would be sourced from the Project borefield and the Namoi River and pumped to the Project's water storages when required in accordance with the Applicant's WMP.
86. The Commission acknowledges the concerns raised by the public regarding water licencing as referenced in paragraphs 65. However, the Commission accepts that if the Applicant is required to source water from Namoi River, this will need to be undertaken in accordance with the licensed entitlements issued by DR NSW Water and the rules in the relevant water sharing plan as stated by the Applicant in paragraph 71 above and by the Department in paragraph 82 above.
87. The Commission acknowledges the concerns raised by the public regarding the Applicant's water balance modelling and the risk of insufficient water availability for the Project, particularly during extended dry periods as referenced in paragraphs 66 and 67 above and as stated by the Department in paragraph 79 above. Submissions made at the Public Hearing referred to water consumption figures for the Maules Creek mine to suggest that the Applicant's actual water usage for the Project would be much higher than that anticipated by the Applicant. However, the Commission has reviewed the relevant water balance figures for the comparable mining operations referred to in those submissions and is of the view that the modelling carried out for the Project is appropriate. The Commission is of the view that without appropriate management there may be insufficient water at times, such as during drought conditions. However, the Commission finds that the Applicant has appropriate measures (see paragraphs 88 and 89 below) in place to ensure that it will have access to sufficient water supply for their operations. The Commission accepts that the Applicant could adjust its operations to match available water supply as stated by the Applicant in paragraph 74 and the Department in paragraph 82 above and the Commission is of the view that this may need to be undertaken during prolonged drought conditions. The Commission has therefore imposed Condition B39 which requires the Applicant to, if necessary, adjust the scale of the operation to match its available water supply.
88. The Commission agrees with the Department's assessment in paragraph 82 above that the Applicant has identified adequate contingencies for the ongoing and appropriate management of mining operations, in the event that there is insufficient water from Whitehaven's general security access licences during dry conditions. The Commission agrees with the Department's assessment, that if the Applicant is not able to secure enough water to meet its demands it will need to investigate additional water efficiency measures, or its operations would need to be reduced accordingly. The Commission therefore imposes the Department's recommended Condition B39 with an amendment to ensure the appropriate management of water for the operation of the development and that efficiency and best practice measures are implemented.

89. The Commission notes that the Department's recommended Condition B53 requires the Applicant to prepare a WMP and that there is a specific requirement to prepare a Site Water Balance. Condition B53(g)(i) states that the Site Water Balance must include details regarding sources and security of water supply for the life of the Project, water use and management on Site (including water transfers or sharing with neighbouring mines) and licenced sources of external water supply which could be utilised as a contingency measure in the event of extreme climatic conditions. The Commission is of the view that imposing this condition will provide for the appropriate management of water resources.

Groundwater

Public Comments

90. The Commission heard concerns from speakers at the Public Hearing and received written submissions regarding the potential groundwater drawdown impacts of the Project:

I believe that the data that has been used to actually understand this is not sufficiently detailed and not sufficiently adequate that we can be confident that those drawdown predictions have actually been made in a way that fully considers possible risks of drawdown to the alluvium.

...if the rates of extraction from the borefield are going to need to be bigger or additional licences are going to be required and these hydraulic parameters have not been accurately estimated in modelling, then we could be really seriously underestimating the drawdown impacts and wider impacts of the aquifer from this mine extension project.

91. Concerns were also raised in submissions regarding exceedances of the AIP minimum impact criteria.
92. A hydrogeology expert briefed by an action group stated that more in-depth assessment of risks is required to ensure a full consideration of impacts to GDEs, alluvial groundwater and surface water.
93. Concerns were raised in submissions and in the Public Hearing regarding the placement of overburden and potential for contamination of the aquifer:

I object to the mine due to the planned overburden dump. There are concerns of the leaching contamination into the aquifer. We are also unaware of the long term effects that the region and aquifer may endure in this scenario.

... An overburden dump, 200 hectares in size over the Namoi alluvium with the potential to leech toxic contaminants into our underground water.

I don't think that it's all that simple and easy to predict the flow path that water from, you know, a big pile of overburden is going to take, and I don't think it can be ruled out that some of that poor quality water might actually make its way in the other direction back towards the Namoi River and the rest of the alluvium.

Applicant's Consideration

94. The Applicant's EIS included a Groundwater Assessment (**Groundwater Assessment**) prepared by HydroSimulations dated August 2018. The Groundwater Assessment was also peer reviewed by Kalf and Associates Pty Ltd (**Kalf Peer Review**) in a report dated 8 August 2018.

95. The Applicant's EIS states that there are no high priority Groundwater Dependent Ecosystems (GDE) identified in the Upper Namoi Groundwater Sources or Porous Rock Groundwater Sources in the vicinity of the Project. The Applicant notes that the Namoi River is considered a GDE, however states that in accordance with the GDE Guideline, the Namoi River is not considered a high value GDE. The Applicant states that the Project will present a low risk to the Namoi River.
96. In relation to groundwater borefield extraction, the Applicant's EIS states:
- Water would be extracted from the groundwater supply borefield during periods when required (e.g. when supply from the mine storages is insufficient to meet the Project water demand, and sufficient allocation from the Namoi River is unavailable). Groundwater would be extracted through a series of up to 10 bores (Section 2.4.5) constructed within the Zone 4 groundwater source of the Water Sharing Plan for the Upper and Lower Namoi Groundwater Sources 2003, to the north of the Project mining area.*
- Whitehaven holds a number of WALs for extraction from the Zone 4. Water would be extracted in accordance with the WALs and the rules prescribed in the relevant water sharing plan (i.e. the Water Sharing Plan for the Upper Namoi and Lower Namoi Groundwater Sources 2003).*
97. A sensitivity analysis was undertaken by the Applicant. The Applicant's EIS states that the climate change model scenario resulted in a less than 1% reduction in pit inflows and the the sensitivity of the groundwater model results to climate change is not considered to be significant.
98. The Applicant's Submissions Report states:
- No privately-owned bores in the vicinity of the Project, as identified by the bore census conducted in 2012, are predicted to have greater than 2 m drawdown as a result of the Project (i.e. impacts are within the 'Level 1' minimal impact criteria defined in the NSW Aquifer Interference Policy [NSW Government, 2012] [AIP]) (Appendix B of the EIS). The greatest predicted drawdown at any privately-owned bore to the west of the Project in the Namoi River alluvium is 0.2 metres (m), some 10 times less than AIP minimal impact criteria.*
99. The Applicant's Submission Report states that a drawdown of greater than one metre would not extend beyond the immediate Project mining area and into the surrounding alluvium.
100. The Applicant's Submissions Report states:
- ... should monitoring or an investigation show greater than 2 m drawdown at a privately-owned bore, and the drawdown is attributable to the Project, 'make good' provisions for the affected groundwater user would be implemented in accordance with the AIP, and may include:*
- deepening the affected groundwater bore;*
 - construction of a new groundwater bore; and/or*
 - provision of an alternative water supply of appropriate quality and quantity.*
101. The Applicant's Submissions Report states that the maximum predicted cumulative drawdown at any bore is approximately 0.6 m at bore RB1 located immediately to the south of the Rocglen Coal Mine and that all other bores identified during the bore census are predicted to experience 0.2 m drawdown or less.

102. In relation to the emplacement of waste on the alluvium, the Applicant's response to the Commission states:

Seepage from the waste emplacement is likely to be of significantly lower salinity than groundwater currently within the alluvium embayment and is also of approximately similar salinity to groundwater in the Maules Creek Formation coal measures which currently report to the embayment. On this basis, and in consideration of the scale of the affected area in the context of the entire groundwater source, the Groundwater Assessment (p50) concluded...the small amount of seepage from the Western Emplacement will cause no adverse water quality impacts to the alluvium.

Department's Assessment

103. The Department's AR states that the Department commissioned an independent groundwater expert, Hugh Middlemiss (**Independent Groundwater Expert**) of HydroGeologic Inc, to provide advice on Whitehaven's groundwater assessment. The Independent Groundwater Expert provided advice to the Department on the Applicant's groundwater assessment and potential seepage from the western emplacement.

104. Paragraph 239 of the Department's AR states:

To supplement the water supply from the Namoi River, Whitehaven proposes to establish a borefield to the north of the mining area with an estimated extraction requirement of between 200 and 390 ML/year

105. In relation to GDE's, paragraphs 240, 241 and 242 of the Department's AR states:

While the EIS notes that no high priority Groundwater Dependent Ecosystems (GDE) are identified in the relevant WSPs, the Commission's Issues Report noted the IESC's request for mapping to indicate the distribution of potential GDEs that may be impacted by the Project and a risk analysis of the potential drawdown impacts to GDEs.

In its Submissions Report, Whitehaven provided further information mapping the distribution of high and moderate potential GDEs in the region (see Figure 22) and reiterated the limited extent of drawdown due to open cut mining in the Maules Creek Formation, which demonstrates that the drawdown associated with the open cut would not interact with potential GDEs. The proposed water supply borefield is located in an area devoid of potential GDEs and as shown in Figure 25, the predicted drawdown of 1 m does not interact with any mapped GDEs in Figure 22.

The independent groundwater expert has advised that Whitehaven's response to groundwater dependent ecosystem and risk analysis is adequate.

106. In relation to aquifer connectivity, paragraph 247 of the Department's AR states:

The independent groundwater expert is of the view that the EIS has adequately documented the distinctions between the alluvial and fractured rock aquifers, in terms of their characterisation and connectivity properties which have been derived from a combination of field studies, monitoring and modelling...

Based on its review of the EIS and advice from the independent expert, the Department considers that there is adequate understanding of the connectivity between the two aquifers to assess the potential impacts of the Project on the groundwater systems.

107. In relation to groundwater model uncertainty analysis, paragraphs 249 and 255 the Department's AR state:

In response to the Commission's recommendations and IESC review comments, Whitehaven provided further analysis of the uncertainties within the groundwater modelling....

The independent groundwater expert has reviewed the additional information and has advised that the groundwater model sensitivity analysis, and the application of the results to justify its interpretation of the uncertainty analysis, is adequate for assessing the potential groundwater impacts of the Project. Mr Middlemiss also agrees that additional monitoring information would be useful to verify the modelling predictions during the progressive development of the Project.

108. The Department's AR states at paragraphs 256 and 257:

...the Department considers that Whitehaven's groundwater modelling is adequate to assess the potential impacts of the Project on potentially impacted groundwater users.

To ensure the effects of the Project on the groundwater system are closely monitored the Department has recommended conditions requiring the development of a comprehensive Groundwater Management Plan which includes ongoing monitoring of the hydrogeological properties used in the modelling and validation of the modelling against the recorded data, with minimum 5-yearly independent reviews of the groundwater model.

109. In relation to groundwater predictions, the Department states at paragraph 263 and 264:

The largest potential contribution to drawdown in the alluvial aquifer is borefield pumping for contingency mine water supply during the open cut mining period. The groundwater assessment conservatively assumed an extraction of 600 ML/year (greater than the 396 ML/year licence extraction limit), which predicts that the 1 m drawdown would extend approximately 2 km to the west and east of the borefield in the Upper Namoi Alluvium, with the northern and southern extent of the 1 m drawdown intersecting with the Maules Creek Formation...

The largest predicted drawdown due to the Project at the nearest privately-owned bore is less than 0.2 m, well below the 2 m minimal impact criteria in the AIP at any privately-owned properties.

110. The Department's AR notes at paragraph 269 that the Applicant has committed to 'make good' provisions should there be a greater than 2m drawdown at a privately owned bore:

Notwithstanding, should monitoring or an investigation show greater than 2 m drawdown at a privately owned bore, and the drawdown is attributable to mining operations at the Project, Whitehaven has committed to implement "make good" provisions for the affected groundwater user, which include:

- deepening the affected groundwater bore;*
- construction of a new groundwater bore; and/or*
- provision of an alternative water supply of appropriate quality and quantity.*

111. Paragraphs 270 and 271 of the Department's AR state:

The Department has recommended conditions which require Whitehaven to provide a compensatory water supply to the owner of any privately-owned land whose water supply is adversely affected because of mining operations the development. The Department's recommended condition requires Whitehaven to provide a compensatory water supply if the loss of supply (other than a negligible impact) is due to the mine. This condition would not apply to drawdown associated with the northern production borefield as this would be regulated through bore extraction limits determined by NRAR and the provisions of the WM Act and Water Sharing Plan.

Concerns were raised in submissions about the onus of proof being on the landowner to demonstrate the mine has impacted bore water levels. The Department has drafted the compensatory water condition to make it clear that the burden of proof is on Whitehaven to demonstrate that its operations has not affected a private water supply. That is, it would be expected that unless there is clear evidence provided through Whitehaven's monitoring and modelling program and investigation and action trigger process, that Whitehaven would be required to provide compensatory water supply – particularly for stock and domestic supply.

112. In relation to the impacts of the western emplacement area (**WEA**) on the alluvium, the Department's AR states at paragraphs 274 and 275:

The groundwater assessment noted that the WEA would be located over an embayment of alluvium and assessed the potential impacts of seepage from the emplacement on alluvium water quality. The assessment predicts that the maximum long-term seepage rate from the WEA to the alluvium embayment would be very minor, ranging from 0.03 ML/day during initial recovery to 0.02 ML/day over the long-term. This is primarily due to the design of the emplacement to direct seepage towards the open cut void.

The assessment predicted that the seepage from the WEA into the alluvium embayment is likely to be of similar salinity to the groundwater in the coal measures adjacent to the alluvium and significantly lower salinity than the groundwater currently within the shallow alluvium in that location. The groundwater assessment concluded that the small amount of seepage from the WEA would cause no adverse water quality impacts to the alluvium.

113. The Department's AR states at paragraph 278:

*DPIE Water has advised that it does not support the emplacement of spoil over the alluvium, however noted that if it was approved, a monitoring and Trigger Action and Response Plan (**TARP**) would need to be prepared to respond to adverse monitoring results. The independent groundwater expert has noted the emplacement would be designed and constructed to direct potentially polluted groundwater seepage towards the open cut and final void, therefore minimizing potential for seepage towards the alluvium. The independent expert also noted the existing impacts on this area of alluvium by the Canyon Coal Mine.*

114. The Independent Groundwater Expert provided groundwater advice on the western emplacement dated 12 March 2020 stating:

Having reviewed the groundwater assessment documents, I concur with DPIE Water that the risk is not negligible, but I consider the residual risk to be quite low for the following reasons:

- a) *assuming that closure will involve a final void at the south-eastern corner of the VEP, the modelled water table at 100 years after the end of mining shows that the long term final void groundwater 'capture zone' extends across the Western Emplacement over the alluvium embayment (VEP Submissions Report, August*

2019, Figure 8b); this means that seepage from the Western Emplacement would indeed flow towards the final void sink rather than towards the alluvium.

- b) *the potential seepage flux and water quality has been adequately assessed as a low risk to the beneficial use category for the alluvium (HydroSimulations VEP Groundwater Assessment, August 2018, Sections 5.5.3, 6.1.4; Tables 19, 20).*
- c) *the embayment alluvium underlying the Western Emplacement has already been impacted by the existing Canyon Coal Mine final void, as Whitehaven Coal point out, but the potential compaction impacts on the 'clay dominated' (compressible) alluvium has not been assessed specifically.*

115. The Department's AR states at paragraph 280:

To ensure the seepage of PAF, saline and sodic materials towards the alluvium is prevented, the Department has recommended conditions including specific performance measures and the preparation of a Water Management Plan which includes baseline data, monitoring and a TARP to respond to exceedances of the criteria in the development consent.

Commission's Findings

- 116. The Commission acknowledges the concerns raised by a hydrogeology expert in paragraph 92 above who was of the view that a more in-depth assessment of risks to GDEs was required. The Commission has considered the Department's AR and Independent Groundwater Expert's advice regarding the Applicant's mapping and is of the view that the level of assessment is sufficient and the predicted drawdown of 1m does not interact with any mapped GDE's as stated in paragraph 105 above. The Commission agrees with the Independent Groundwater Expert's advice in paragraph 107 above, that the groundwater model sensitivity analysis, and the application of the results to justify its interpretation of the uncertainty analysis, is adequate for assessing the potential groundwater impacts of the Project.
- 117. The Commission notes that the Applicant proposes to establish a borefield to the north of the mining area with an estimated extraction requirement of between 200 and 390 ML/year as stated by the Department in paragraph 104 above. The Commission acknowledges the concerns raised by the public referenced in paragraphs 90 and 91 above regarding the impacts of drawdown and potential exceedances of the AIP minimum impact criteria.
- 118. The Commission notes that the largest predicted drawdown at any privately-owned bore to the west of the Project in the Namoi River alluvium is anticipated to be less than 0.2m as stated by the Applicant in paragraph 98 above and accepted by the Department in paragraph 109 above. The Commission acknowledges that this is below the AIP minimal impact criteria of 2m. The Commission also notes that the Applicant in paragraph 99 above and Department in paragraph 109 above state that a drawdown of greater than 1m would not extend beyond the immediate Project mining area and into the surrounding alluvium.

119. The Commission notes that the Applicant has committed to 'make good' provisions for impacted users should there be a greater than 2m drawdown at a privately owned bore as stated by the Applicant in paragraph 100 and the Department in paragraph 110. The Commission acknowledges that the 'make good' provisions may include: deepening the affected groundwater bore; construction of a new groundwater bore; and/or provision of an alternative water supply of appropriate quality and quantity as stated by the Applicant in paragraph 100 and by the Department in paragraph 110 above. The Commission notes that the Department's recommended Conditions B41 and B42 provide for compensatory water supply, and that the Department's recommended Condition B43 states that *"If the Applicant and the landowner cannot agree on whether the loss of water is attributed to the development or the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Planning Secretary for resolution"*. The Commission imposes these conditions with an amendment to Condition B43 to ensure that the burden of proof that any loss of water supply is not due to mining impacts rests with the Applicant.
120. The Commission acknowledges that DPIE Water has advised that it does not support the emplacement of spoil over the alluvium as reference in paragraph 113 above. The Commission notes that the Independent Groundwater Expert acknowledges DPIE Water's concerns, but considered the residual risk to be quite low. The Commission notes that the Independent Groundwater Expert states that the seepage from the Western Emplacement would indeed flow towards the final void sink rather than towards the alluvium, the potential seepage flux and water quality has been adequately assessed as a low risk to the beneficial use category for the alluvium, and the embayment alluvium underlying the Western Emplacement has already been impacted by the existing Canyon Coal Mine final void. The Commission notes that potential compaction impacts of the clay dominated alluvium may result in a less likely and reduced flow to the alluvium, however, the Commission notes that there has not been a specific study in this regard. In order to mitigate the risks associated with the overburden emplacement on the alluvium, the Commission imposes Condition B51, Table 8 which sets out specific water management performance measures for alluvial aquifers and overburden emplacements.
121. The Commission acknowledges the Applicant's commitment to preparing a WMP as stated in paragraph 141 below. The Commission therefore imposes Condition B53 requiring the preparation of a WMP. The Commission has made amendments to the Department's recommended Condition B53 to ensure that detailed performance and completion criteria for evaluating the performance of the plan is included, triggering remedial action if necessary. Condition B53 requires the Applicant to periodically validate the groundwater model for the development, including an independent review of the model every five years, as part of the WMP and Groundwater Management Plan.

Final Void

Public Comments

122. The Commission heard concerns from speakers at the Public Hearing and received written submissions regarding the final void. Specific concerns were raised regarding the long-term impacts of the final void on groundwater.
123. A speaker at the Public Hearing stated:

Now, when Whitehaven walks away from this mine in 25 years they will leave the void, the mine pit as a toxic water sink. That is the plan. Who will monitor that toxic sink for many years to come? Who will manage it, fence it and remediate the damage, if indeed that were possible, (is) as toxins move into the groundwater and the aquifers? It will be New South Wales taxpayers

124. At the Public Hearing a local resident stated:

Mines only offer short gain by extraction and leave a final void with an ever-increasing salty lake at approximately sea level. The mine will do nothing except extract water to wash coal and water roads, while polluting the air with dust, carbon dioxide, methane, and create noise, and transect the floodplain with the no-plans rail spur.

125. At the Public Hearing, a representative of a local community stated:

We have read the justification and disagree that leaving a final void is a precautionary principle in action. If a void is the only way to protect the region and avoid serious environmental damage, then signing this approval means the risks of long-term impacts on the ground water is borne by the community and our children.

Applicant's Consideration

126. The Applicant's EIS states that following closure of the Project the final void would remain as a groundwater sink. The Applicant states that groundwater inflow to the final void is predicted to equilibrate at approximately 0.3 ML/day to 0.5 ML/day and that the inflow would be sustained primarily by rainfall infiltration through the Western Emplacement.

127. The Applicant's Amendment Report states:

The existing Blue Vale void would initially be used as the main water storage while the other dams are being constructed. After commissioning the other dams, the existing Blue Vale void would be used to temporarily store excess mine water, consistent with the Approved Mine water management system.

Periodic reviews of the site water balance would be conducted to enable the Project Water Management System to be adjusted as necessary.

128. The Applicant's Amendment Report also states:

The catchment area reporting to the final void would also be minimised as much as possible through the construction of up-catchment diversions and contour drains around the perimeter of the Project final void, and used as the permanent flood bund.

A water balance for the final void has been prepared for the end of the Project life and is presented in Appendix B, which demonstrates that the final void water level would remain significantly below the crest of the final void.

129. The Applicant provided a response to queries raised by the Commission at the meeting with the Applicant on 18 June 2020. The Applicant's Response to the Commission dated 29 June 2020 states:

Following completion of mining, the open cut would be rehabilitated to form a final void that is long-term safe and stable and acts as a groundwater sink to prevent migration of poor-quality water to the surrounding groundwater. The water captured in the void would potentially be available for use by third parties. Third party use of the final void water is not a component of the Project and would be subject to the agreed final land uses of the site as well as relevant separate approval processes.

Department's Assessment

130. In relation to the groundwater impacts of the final void, the Department's AR provides commentary on the Applicant's modelling of a backfilled void and the Applicant's estimated costs of backfilling the open cut at paragraphs 284 and 285.
131. The Department's AR considered the views of DPIE Water, the Resource Regulator at paragraph 289. At paragraph 290 of the Department's AR, the Department stated that:

The independent groundwater expert has indicated that the modelled final void water balance is adequate, however Mr Middlemiss considers additional geochemical analysis and updated modelling could be undertaken to establish the optimum design of the final void, with the modelling results to be used to refine the mine plan during the course of mining operations.

132. The Department's AR concluded at paragraph 292:

Based on the recommendations of the independent groundwater expert, the Department believes that Whitehaven should be required to optimise the size of the final void, to find a balance between minimising the size and depth of the final void and ensuring water from within the final void does not migrate off the site towards the alluvium. To achieve this, Whitehaven would need to periodically undertake geochemical analysis of the waste rock and other material to be placed in the open cut and update its modelling to predict the likely character of flows into and out of the final void.

Commission's Findings

133. The Commission acknowledges the concerns raised by the public regarding the impacts of the final void on groundwater as referenced in paragraphs 122 to 125 above. However, in considering the Material, the Commission agrees with the Department that, based on the recommendations of the Independent Groundwater Expert, if a final void is adopted as the ultimate landform, the Applicant should be required to optimise the size of the final void, to find a balance between minimising the size and depth of the final void while ensuring water from within the final void does not migrate off the site towards the alluvium as stated by the Department in paragraph 132 above. The Commission notes the Applicant's statement in paragraph 128 above that the catchment area reporting to the final void would also be minimised as much as possible. However, the Commission is of the view that the catchment area is to be minimised as far as practicable while still maintaining its function as a drainage catchment. For the reasons set out above, the Commission therefore imposes Conditions B53 and B101.
134. The Commission has given further consideration to final void design and rehabilitation in section 4.9.5.

Surface Water and Flooding

Public Comments

135. The Commission heard concerns from speakers at the Public Hearing and received written submissions regarding the impacts of the Project on surface water including sediment dam discharge, risk of damage to waterways and impacts on the surrounding floodplain in dealing with flooding events. The Commission also heard concerns from speakers at the Public Hearing and received written submissions regarding the placement of mine infrastructure on the floodplain including the proposed rail crossing of the Namoi River.

Applicant's Consideration

136. The Applicant's EIS included a Surface Water Assessment (**Surface Water Assessment**) prepared by Advisian dated August 2018. The EIS states that the Surface Water Assessment was peer reviewed (**Surface Water Peer Review**) by Professor Tom McMahon dated 5 August 2018.

137. The Surface Water Assessment states:

Based on the detailed assessment above, and in consideration of the IESC Information Guidelines (IESC, 2018) ... the Action would not result in significant changes to the quantity or quality of surface water available to third party users or the environment. Accordingly, the Action would not have a significant impact on surface water resources.

138. The Applicant's EIS states that the Project Water Management System would be used to protect the integrity of local and regional water sources and separate runoff from undisturbed, rehabilitated and mining affected areas.

139. The Applicant's Amendment Report states that no additional environmental impacts beyond those assessed in the Project EIS (e.g. surface water, groundwater, air quality, noise) would occur as a result of the proposed amendments.

140. In relation to flooding, the Applicant's EIS included a flood assessment (**Flood Assessment**) prepared by WRM Water & Environment Pty Ltd dated 10 August 2018.

141. The Applicant's EIS states that flood management infrastructure would be constructed and has committed to a WMP:

The Water Management Plan to be developed for the Project would describe proposed flood mitigation and protection works proposed for the Project, as well as the process for undertaking remedial and/or contingency measures if potential issues with erosion, settlement or slumping of Project infrastructure are identified during visual inspections following significant flood events.

142. In relation to flooding, the Applicant's Amendment Report states that the proposed amendments would not change the Project's interaction with the flooding regime of the Namoi River or local creeks.

Department's Assessment

143. The Department's AR states at paragraph 192 and 193 that:

The Department also commissioned Martin Giles of BMT as an independent expert to provide advice on the surface water assessment and Erin Askew of WMA Water to provide advice on the flooding assessment. The initial advice was provided with the Departments Preliminary Issues Report, with updated advice provided based on the review of Whitehaven's Submissions Report and additional information

144. In relation to discharge, the Department's AR states at paragraph 205:

The EPA [Environment Protection Authority] supports Whitehaven's commitment to operate the site to achieve nil-discharge of coal contact water and it has recommended conditions to require a short-term discharge monitoring program to verify the levels of key pollutants in mine water and review mitigation measures to ensure mining operations would achieve the required performance objectives. The Department has therefore recommended a condition requiring Whitehaven to monitor the quality of water in the sediment dams prior to any discharge from these dams.

145. In relation to surface water management, the Department's AR concluded at paragraphs 212 and 213:

To ensure the appropriate management of surface water for the operation of the development, the Department has recommended contemporary conditions in consultation with DPIE Water and EPA...

With the implementation of the required water management and monitoring measures, the Department, independent water expert and EPA consider that the development can be managed such that it would not result in significant impacts on surface water resources.

146. In relation to flooding impacts, paragraph 301 of the Department's AR states that the flood modelling predicts that the Project would comply with the flood impact criteria of the recently gazetted Floodplain Management Plan for the Upper Namoi Valley Floodplain 2019 (FMP).

147. Paragraph 40 and 41 of the Department's AR state:

In the EIS, Whitehaven had proposed to construct the rail spur line to the west of the Namoi River using a combination of embankments and pylons/ piers.

However, in response to landowner concerns, Whitehaven has committed in its Submissions Report to construct the full length of the rail spur line on elevated pylon/ pier structures west of the Namoi River to the junction with the Werris Creek to Mungindi Rail Line, apart from a short connecting embankment into the public rail network to the north of Emerald Hill.

148. The Department's AR concludes at paragraphs 301 and 232:

The Department, the independent flood expert, and DPIE Water's flood experts consider that the rail spur line can be designed and constructed such that the 1 in 100-year design flood can be conveyed without exceeding the impact criteria in the FMP.

The Department has recommended conditions requiring the design of the Project to account for climate change variability, consistent with the recommendations of the independent expert, including periodic review of climate data and projections and consulting with the BCD on the design of the Project rail spur. On this basis, the Department and the independent flooding expert consider the Project would be able to comply with the requirements of the FMP and minimise flooding impacts on the floodplain.

Commission's Findings

149. The Commission acknowledges the concerns raised by the public regarding the placement of mine infrastructure on the floodplain including the proposed rail crossing of the Namoi River as referenced in paragraph 135 above. The Commission accepts the Applicant's flood modelling, noting that the modelling predicts that the Project would comply with the FMP. The Commission agrees with the Department's conclusion in paragraph 148 above and has imposed Condition B48 which requires the Applicant to ensure that the design and construction of the Project including the Project Rail Spur and Kamilaroi Highway overpass is consistent with the objectives of the FMP. The Commission also acknowledges the Applicant's commitment to preparing a WMP as stated in paragraph 141 above and has imposed the Department's recommended Condition B53 requiring the preparation of a WMP (also see paragraph 121).
150. The Commission also acknowledges the concerns raised by the public referenced in paragraph 135 above regarding the impacts of the Project on surface water. However, the Commission agrees with the Department, Independent Water Expert and NSW Environment Protection Authority (EPA) as referenced in paragraph 145 above that with the implementation of the required water management and monitoring measures, the Project can be managed such that it would not result in significant impacts on surface water resources. The Commission has therefore imposed Condition B49 which requires the Project Rail Spur, Project Rail Spur bridges and any upgrade to the haul road to be designed and constructed to minimise flooding and scouring impacts.

4.9.2 Noise

Public Comments

151. The Commission heard concerns from speakers at the Public Hearing regarding the potential noise impacts resulting from the Project. A local resident at the Public Hearing stated:

As a landholder only 1200 metres from the CHPP plant and a home only 2600 metres from it, we are still very concerned about the dust and noise modelling. I have read the response to your questions where you (sic) talk about cladding on the CHPP and also the new trucks that can mitigate noise. But at a recent Boggabri progress meeting, another local miner was asked questions about these trucks, and at the meeting was told that the extra weight these trucks have to carry to mitigate the noise is overshadowed by the economics, and more trucks would have to be utilised to move the same amount of dirt.

152. A local resident who is afforded acquisition rights under the Project raised concern at the public meeting in relation to noise and sleep disturbance. The local resident also noted that as their property is afforded acquisition rights, there are no specific noise limits applicable to their property under the recommended conditions:

...we've obviously been given acquisition rights and I'm the only one with acquisition rights with basically no limit supplied from what I can tell. So the concern is that it will be risky to my health let alone the noise and sleep disturbance. I just – logic tells me it won't be a pleasant place to be at, let alone live and try to sleep.

153. The Commission also received a number of written comments raising concern regarding the impacts of noise on the well-being of the local community:

I strongly object to the proposed Vickery coalmine. Whitehaven coal has proven themselves to be prepared to seriously breach their water use entitlements as well as noise and dust levels, to the detriment of the local community.

The district is covered in coal dust, massive lights at night, has constant environmental noise and the proposed expansion will only heighten this devastation.

Council's Comments

154. GSC at the Public Hearing acknowledged that the Project has been amended to address Council's concerns, including noise impacts. Council also noted that the Applicant must be mindful of noise impacts on surrounding property owners who are not afforded acquisition rights.

Applicant's Consideration

155. The Applicant's EIS included a Noise and Blasting Assessment (**NBA**) prepared by Wilkinson Murray and dated August 2018. The NBA includes a range of proposed mitigation measures to address operational noise, low-frequency noise, sleep disturbance, construction noise and road and rail traffic noise. The Applicant's NBA stated that *"significant reductions in road traffic noise are anticipated along the Approved Road Transport Route as a result of coal from the Project, Tarrawonga Coal Mine and Rocglen Coal Mine being transported from the Project CHPP by rail (rather than being hauled to the Whitehaven CHPP by road)."*
156. The Applicant's Submissions Report states that in response to the Commission's Issues Report, the Applicant would implement the following noise attenuation for the Project:
- *partial cladding for the CHPP using HushClad acoustic lining or equivalent (e.g. openings for personnel to be retained);*
 - *partial cladding of the ROM bin using HushClad acoustic lining or equivalent (e.g. openings for ROM coal transfer to be retained); and*
 - *covers and/or cladding of conveyors.*
157. The Applicant's Amendment Report states the proposed amendments would not result in increased air quality, noise or blasting impacts when compared to those assessed in the EIS, as:
- *activities would be no closer to privately-owned receivers;*
 - *the intensity of operations (and associated fleet requirements) would be the same as those modelled in the EIS (or less); and*
 - *the maximum elevation at which equipment would be working would remain unchanged. The air quality and noise monitoring and management measures outlined in the EIS would be implemented for the Project.*

Department's Assessment

158. Paragraph 317 of the Department's AR acknowledges that the Applicant's NBA is based on a range of proposed noise mitigation measures some of which include: enclosing and partially cladding coal handling equipment at the CHPP and restricting certain mining activities during the night, including dumping on the exposed areas of the WEA.
159. In relation to operational noise, the Department's AR states at paragraphs 322, 323 and 324:

Of the seven receivers (located on four landholdings) predicted to experience noise at or above the PNTL [Project Noise Trigger Level], the worst-case noise levels generated during operation of the Project would be up to 3 dB greater than the Approved Project at four residences - 127c, 131a, 131b and 132.

One residence on the Mirrabinda property (ID 127c) is predicted to experience significant noise impacts (greater than 5 dB above the PNTL) and would be afforded acquisition rights under the VLAMP. An additional dwelling within the same landholding (property ID 127b) is predicted to have moderate impacts as the noise levels are 5 dB above the PNTL. The owners of Mirrabinda are currently entitled to acquisition rights for noise impacts under the Approved Project...

The Project would exceed the PNTL by 1-2 dB at three other receivers (property ID 131a, 131b and 132) which is characterised as a negligible impact under the VLAMP. In accordance with the NPfl, the Department has recommended operational noise criteria as predicted in the NBA and Whitehaven would need to apply reasonable and feasible mitigation at the Project to strictly comply with these criteria.

160. In relation to low frequency noise (LFN), paragraph 330 of the Department's AR states that the Department accepts that LFN is unlikely to be a significant issue for the Project, and that the Project would be unlikely to trigger the LFN criteria and application of modifying factors. Paragraph 331 of the Department's AR states that the Department has recommended conditions consistent with the EPA's recommendations, requiring Whitehaven to implement all reasonable and feasible measures to minimise LFN and monitor the noise levels in accordance with the requirements of the NPfl.

161. In relation to construction noise, the Department's AR states at paragraphs 349 to 352:

Given Whitehaven proposes to operate the mining activities on a 24/7 basis there may be justification to carry out construction outside standard hours if the construction noise is within the operational noise limits. The NBA predicts construction noise levels would comply with the recommended Project daytime operational noise criteria (40 dBA) at all but three receivers (127c, 132, 144b). The Department also notes that Mirrabinda (property 127) would be afforded acquisition rights under the VLAMP.

Noise generated during construction of the rail spur outside standard construction hours would potentially exceed the relevant daytime operational PNTL of 40 dBA at receivers 132 (40 dBA) and 144b (42 dBA). Given the predicted exceedance is within 1-2 dB, under the VLAMP this construction noise would be characterised as a negligible impact if it were operational noise from the mine.

To ensure Whitehaven minimises noise generated during construction outside the standard hours, the Department has recommended the application of mining operational noise criteria to construction activities at the mine and the rail spur.

...the Department agrees that it is reasonable for construction of the Project to occur outside the standard construction hours subject to compliance with strict operational noise criteria. Consequently, the Department considers that construction activities could be undertaken outside the standard construction hours without generating unacceptable noise impacts on potentially affected residences.

162. In relation to rail and transport noise, paragraph 367 of the Department's AR states that the Applicant has committed to incorporate all reasonable and feasible noise mitigation into the detailed design of the Project rail spur. The Department also notes that the Applicant would also commission a peer review of the design and commissioning to identify measures and controls to minimise the noise impacts associated with the operation of the rail line. Paragraph 368 of the Department's AR states that the Department considers this would adequately manage noise generated by rail transport operations to acceptable levels in accordance with the RING, and has recommended conditions requiring the Applicant to:

- *implement reasonable and feasible noise mitigation measure in its design of the rail spur;*

- undertake commissioning trials to determine the optimum train speeds to minimise noise;
- comply with rail noise criteria;
- monitor noise generated by train movements along the Project rail spur to verify predictions in the NBA, the effectiveness of mitigation measures and compliance with rail spur line noise criteria, including during adverse weather conditions (inversions); and
- include procedures to respond to complaints.

163. In relation to road transport noise, the Department's AR states at paragraph 377:

The Department notes that the NBA does not assess road noise generated by coal transport of up to 4.5 Mtpa, which is proposed once the Kamillaroi highway overpass is operational (to be built in the event combined transport on Blue Vale road exceeds 3.5 Mtpa). These impacts were assessed for the Approved Project, which found that noise levels would be less than or equivalent to the noise levels associated with the continued use of the Kamillaroi Highway. The Department recommends retaining the restrictions imposed on road transport noise under the Approved Project development consent should Whitehaven construct the highway overpass and transport in excess of 3.5 Mtpa of coal by road.

164. In relation to the location of the Mine Infrastructure Area (**MIA**), paragraph 390 of the Department's AR stated that the Applicant analysed the potential relocation of the MIA to the secondary infrastructure area to the south-east of the Project. The Department noted that this option was discounted due to significant additional infrastructure costs associated with relocation of the rail loop (approximately \$70 million) and additional earthworks (\$15 million) and also due to the potential increased amenity impacts on receivers to the south-east. Paragraph 391 of the Department's AR states that the Department considers the proposed layout of the Project strikes a reasonable balance between amenity impacts and maximising the operational efficiency of the Project.

Commission's Findings

165. The Commission acknowledges the concerns raised by the public referenced in paragraphs 151 to 153 above. The Commission notes that specific concerns were raised regarding the noise impacts of the Project on local residents. The Commission notes that one residence on the Mirrabinda property (ID 127c) is predicted to experience significant noise impacts (greater than 5 dB above the Project Noise Trigger Level (**PNTL**)) and would be afforded acquisition rights under the VLAMP. The Commission also notes that an additional dwelling within the same landholding (property ID 127b) is predicted to have moderate impacts as the noise levels are 5 dB above the PNTL. The Commission acknowledges that the owners of Mirrabinda are currently entitled to acquisition rights for noise impacts under the Approved Project.
166. The Commission has imposed Condition D2 requiring the Applicant to implement additional mitigation upon request. The Commission has amended this condition to extend the ability to request noise mitigation to land listed in Condition B2 – Table 2 Kamillaroi Highway overpass noise criteria dB(A), and the owner of any residence where subsequent noise monitoring shows the noise generated by the development is equal to or greater than the relevant voluntary mitigation criteria.

167. The Commission notes that the Project would exceed the PNTL by 1-2 dB at three other receivers (property ID 131a, 131b and 132) which is characterised as a negligible impact under the VLAMP. The Commission agrees with the Department's assessment in paragraph 159 above and, in accordance with the NPfl, has imposed Conditions B1 – B4 recommended by the Department which set out operational noise criteria as predicted in the NBA. The Commission is of the view that the Applicant would need to apply reasonable and feasible mitigation at the Project to strictly comply with these criteria. The Commission acknowledges that the Applicant has committed to noise attenuation measures as stated in paragraph 156 above. The Commission has therefore made changes to Condition B14 – Noise Operating Conditions, to ensure that the Applicant undertakes partial cladding of the CHPP, ROM coal bin and conveyors to further mitigate the impacts of noise and to ensure that the Applicant takes all reasonable steps to minimise all noise from construction, operational and transport activities - including by not dumping on exposed areas of the Western Emplacement Areas at night.
168. The Commission accepts the Department's assessment in paragraph 160 above that LFN is unlikely to be a significant issue for the Project. The Commission has imposed the Department's recommended Conditions B11 and B14 consistent with the EPA's recommendations which require the Applicant to implement all reasonable and feasible measures to minimise noise, including LFN, and monitor the noise levels in accordance with the requirements of the NPfl.
169. The Commission notes that the NBA predicts construction noise levels would comply with the recommended Project daytime operational noise criteria (40 dBA) at all but three receivers (127c, 132, 144b), as stated by the Department in paragraph 161 above. As stated in paragraph 165 above, the Commission acknowledges that Mirrabinda (ID 127c) would be afforded acquisition rights under the VLAMP. The Commission notes that noise generated during construction of the rail spur outside standard construction hours would potentially exceed the relevant daytime operational PNTL at receivers 132 and 144b. The Commission agrees with the Department's assessment in paragraph 161 above that, given the predicted exceedance is within 1-2 dB, under the VLAMP this construction noise would be characterised as a negligible impact if it were operational noise from the mine.
170. The Commission agrees with the Department's assessment that construction activities could be undertaken outside the standard construction hours without generating unacceptable noise impacts on potentially affected residences as stated in paragraph 161 above. The Commission is therefore of the view that it is reasonable for construction of the Project to occur outside the standard construction hours subject to compliance with strict operational noise criteria in accordance with Condition C2.
171. The Commission accepts the Applicant's statement in the NBA (see paragraph 155 above) that, following the Project CHPP, train load-out facility and rail spur reaching full operational capacity, significant reductions in road traffic noise are anticipated along the Approved Road Transport Route as a result of coal from the Project being transported by rail.
172. The Commission notes that the Department is of the view that the Applicant has committed to incorporate all reasonable and feasible noise mitigation measures into the detailed design of the Project rail spur as stated in paragraph 162. The Commission also notes that the Applicant would also commission a peer review of the design to identify measures and controls to minimise the noise impacts associated with the operation of the rail line. The Commission agrees with the Department's assessment that this would adequately manage noise generated by rail transport operations to acceptable levels in accordance with the RING and imposes the Condition B11 as referenced by the Department in paragraph 162 above.

173. The Commission acknowledges that the Applicant analysed the potential relocation of the MIA to the south-east area of the Project as stated by the Department in paragraph 164 above. The Commission accepts that there are significant costs associated with this option and agrees with the Department's assessment that the proposed layout of the Project strikes a reasonable balance between amenity impacts and maximising the operational efficiency of the Project.

4.9.3 Air Quality

Public Comments

174. The Commission heard concerns from speakers at the Public Hearing regarding the Project's potential impacts on air quality:

I am convinced the new mine at Vickery that is erroneously called Vickery Extension is detrimental to the planet, the countryside, our community's air quality, agriculture and to water.

The impact of dust and noise will make the land unliveable and will impact the quality of crops. It will pollute the air and have negative health impacts on residents.

175. The Commission also received a number of written comments concerning air quality impacts. Specific concern was raised regarding the cumulative impacts of the project in relation to dust and air pollution:

...many people in this area have fought drought for the last 4 years adding another mine in this area will add to their stress health issues damage to water quality and dust and noise pollution. We need to have clean air and water to grow crops livestock and most of all our children. please but life over profits.

I object to anymore coal mines or extensions in the Boggabri area. The cumulative effect of coal dust and air pollution from existing mines is already too much for the local surrounding farming industry.

Council Comments

176. NSC in its submission to the Department, dated 30 October 2018, raised concern regarding air quality and health impacts and requested that an on-going independent monitoring program carried out by experts be implemented under the direction of an appropriate NSW Government agency. Council also requested that the EPA expand the Namoi Region Air Quality Monitoring Project (**NRAQMP**) to include stations at Curlewis and Boggabri to determine the level of contribution from coal mines to the local air quality.

Applicant's Consideration

177. The Applicant's EIS included an Air Quality and Greenhouse Gas Assessment (**AQA**), undertaken by Ramboll Australia Pty Ltd, dated 16 February 2018. The Applicant's EIS states that the AQA was peer reviewed (**AQA Peer Review**) by Todoroski Air Services Pty Ltd in a report dated 19 May 2020, specifically the GHG calculations in relation to Scope 3 emissions for the Project.
178. The Applicant's EIS states that the Air Quality Management Plan (**AQMP**) would be prepared for the Project and would include:

- details of the air quality mitigation measures to be implemented for the Project;

- the real-time air quality monitoring program;
- details of trigger levels for the investigation of additional mitigation measures;
- response protocols during adverse conditions; and
- details of the meteorological forecasting system.

179. The Applicant's Amendment Report stated that the proposed amendment would not result in increased air quality impacts when compared to those assessed in the EIS. The Applicant also stated that the air quality monitoring and management measures outlined in the EIS would be implemented for the Project.

Department's Assessment

180. The Department's AR states at paragraph 380 that the Applicant's AQA predicts:

...the 24-hour and annual average PM_{2.5}, PM₁₀, TSP and dust deposition levels from the Project would meet applicable criteria at all private receiver locations for all stages of the mine. Predictions also found that the Project would comply with the Approved Methods criteria for PM_{2.5} of 8 µg/m³ (annual average) and 25 µg/m³ (24-hour average).

181. The Department's AR states at paragraphs 382 to 384:

Submissions and the Commission's Issues Report raised questions about the predicted emissions from the Project being lower than those for the Approved Project, despite factors such as an increased production rate, larger mining footprint and overburden stockpile that suggest the air quality impacts would be greater.

Whitehaven indicated in its Submissions Report that the improved air quality modelling results are due to the changes in operations and layout of the Project, such as no longer crushing and scraping gravel on site, operating a single open pit (opposed to two for the Approved Project) and the incorporation of improved emission control factors including a haul road dust control, enclosed ROM hopper and overburden handling in the air quality modelling.

The Department and EPA consider that the adoption of improved emissions control factors in the air quality modelling is appropriate given the emission reduction efficiencies are based on verified results of air quality mitigation at other operating mines in the region.

182. In relation to air quality management, the Department's AR states at paragraph 385:

The Department has recommended a number of conditions to mitigate and manage air quality impacts in general, including requiring Whitehaven to comply with the applicable air quality criteria for privately owned properties and to develop a comprehensive air quality management plan which would include real-time air quality monitoring, predictive modelling and meteorological forecasting to manage operations.

Commission's Findings

183. The Commission acknowledges the concerns raised by the public referenced in paragraphs 174 to 175 above. However, the Commission accepts the findings of the AQA and as referenced by the Department in paragraph 180 above that the 24-hour and annual average PM_{2.5}, PM₁₀, total suspended particles (TSP) and dust deposition levels from the Project would meet applicable criteria at all private receiver locations for all stages of the mine. The Commission notes that there are no receivers requiring acquisition or mitigation in accordance with the VLAMP policy as a result of predicted air quality exceedances.

184. The Commission notes that the Commission's Issues Report sought clarification as to *"why the dust levels of the Project are predicted to be lower than those for the Approved Project, even though the Project will be extracting and handling more coal, will have a higher production rate and includes operating a CHPP and rail load out facility"*. The Commission notes that the Department's AR indicated in paragraph 181 above that this is due to changes in operations and layout of the Project, operating a single open pit and the incorporation of improved emission control factors.
185. The Commission acknowledges the concerns raised by NSC in paragraph 176 above in relation to air quality monitoring. The Commission notes that Condition B36 requires the preparation of an Air Quality and Greenhouse Gas Management Plan (**AQGGMP**) prepared by a suitably qualified and experienced person. The Commission notes that Condition B36(f) requires the AQGGMP to include an air quality monitoring program undertaken in accordance with the Approved Methods. The Commission agrees with NSC and is of the view that additional air quality monitoring stations under the EPA's NQAQMP would assist in determining the level of contribution of the Project and other mining operations to the local air quality.
186. The Commission notes that the Applicant has committed to preparing an AQMP as stated in paragraph 178 above. For the reasons set out above, the Commission has imposed the Department's recommended Conditions B32, B33 and B35 – B37 as they would assist in mitigating and managing air quality impacts of the Project.

4.9.4 Greenhouse Gas Emissions

187. GHG emissions are categorised into three different types:
- Scope 1: direct emissions from owned or controlled sources of an organisation/ development;
 - Scope 2: indirect emissions from the generation of purchased energy electricity, heat and steam used by an organisation/ development; and
 - Scope 3: all other upstream and downstream emissions related to an organisation/ development.

Public Comments

188. The Commission heard concerns from speakers at the Public Hearing and received written submissions regarding GHG emissions and the contribution of the Project and other mining operations to climate change.
189. At the Public Hearing, a local resident stated:
- This is a fossil fuel, and we're at a time in our history of humanity where we really need to be working towards zero emissions, and we've reached nine of fifteen known tipping points... and we really need – if we want to be minimising the kind of climactic effects on our communities and across the globe, we really need to be not opening any new fossil fuel projects any more, and, of course, this is a new one.*
190. The Commission also received written submissions about the climate change impacts of the Project. A submission stated:

My main objection to the Vickery Coal Mine is to the amount of greenhouse gas emissions from the project. Direct emissions from burning the coal will increase the amount of CO₂ and methane in the atmosphere, leading to many problems associated with global warming. Indirect emissions from the mining and transport of the coal will also be significant. Avoid the climate crisis - no new coal mines.

191. A climate change expert engaged by an action group stated, in their submission to the Commission dated 30 June 2020, that the approval of the Project is inconsistent with the carbon budget approach to stabilisation:

Meeting the carbon budget consistent with the Paris accord climate targets therefore means that not only must currently operating mines and gas wells be closed before their economic lifetime is completed... but also that no approved (but not yet operating) and no proposed fossil fuel projects, based on existing reserves, can be implemented. This analysis applies to the Vickery Extension Project.

192. The BFCG in its submission to the Commission dated July 2020 stated:

We have seen variously, and particularly in more recent times, that the proposed Vickery mine is predominantly metallurgical production. The Department has stated that it will be 70% metallurgical and 30% thermal. In other material we have seen this as 60% metallurgical and 40% thermal... However, we have not seen any actual reliable evidence of what mix is likely... We are very concerned that it is quite difficult to get a clear picture about the actual mix of production coal for Vickery.

Applicant's Consideration

193. In relation to coal production, the Applicant's further information to the Department (Appendix 6-10 of the EIS) states that the Project:

...will produce approximately 145 Mt of saleable coal, comprising thermal coal and semi-soft coking coal (SSCC). The life of mine average proportion of thermal coal to SSCC will be 40:60. However, given its high energy content, SSCC can be used as premium quality thermal coal. At times during the life of mine, the prevailing pricing differentials between SSCC and thermal coal can drive SSCC into the premium quality thermal coal market for power generation... SSCC is classified as metallurgical coal, along with hard coking coal (HCC) and pulverised coal for injection (PCI). Metallurgical coals are essential inputs for blast furnace-based steelmaking...

194. In relation to the Project's coal quality and emissions, the Applicant's further information to the Department also states:

The relevant benchmark for premium thermal coal is a calorific value (i.e. energy content) of 6,000kcal/kg net as received (NAR). The calorific value of Vickery Extension Project's thermal coal is above this benchmark, and is higher than the average for Australia and other major coal exporters, including Indonesia, Russia, South Africa, Colombia and the United States. This means that the Project's coal performs at a higher level of boiler efficiency in power stations, compared to coal from other sources, and that a greater volume of inferior quality coal would need to be combusted to achieve the same energy output as the Project's coal.

The sulphur and ash content of the Project's thermal coal is also lower than the Australian average and lower than other major seaborne thermal coal suppliers.

The quality of the Vickery Extension Project's coal has important consequences for considering the GHG emissions of the Vickery Extension Project and the consequences of not carrying out the Vickery Extension Project.

Given the projected future demand for coal, if the Vickery Extension Project is not approved, it is likely that the demand will be met by other coal supply sources, which would result in more coal being mined and combusted to satisfy the same power needs. This would result in higher Scope 3 GHG emissions and higher concentrations of ash and sulphur being produced.

195. The Applicant's Submission Report states:

The estimated greenhouse gas emissions intensity of the Project is approximately 0.02 tonnes of carbon dioxide equivalent per tonne (t CO₂-e/t) of ROM coal (this includes all Scope 1 and 2 emissions). This is comparable to the greenhouse gas emissions intensity of other existing local mines...

196. The Applicant's Amendment Report states that predicted greenhouse gas emissions for the Project would reduce as a result of the proposed amendments. The Applicant states:

The total indirect emissions (i.e. Scopes 2 and 3) over the life of the Project are estimated to be approximately 367 Mt CO₂-e (previously 390 Mt CO₂-e), which is an average of approximately 14.7 Mt CO₂-e per annum (previously 15.6 Mt per CO₂-e annum).

197. The Applicant's AQA Peer Review dated 19 May 2020 states:

I note that the original GHG estimates in the Report were recently updated to reflect some curtailment of the open cut pit for the Amendment Report. This reduced the total amount of coal produced over the life of the mine, and of course also reduced the corresponding GHG emissions. For reference the original vs. revised Scope 1 and 3 emissions are approximately 3.1 million tonnes of carbon dioxide equivalent emissions (Mt CO₂-e) (previously 3.2 Mt CO₂-e), and 367 Mt CO₂-e (previously 390 Mt CO₂-e).

198. The Applicant's AQA Peer Review concludes that the calculations for the Scope 3 emissions for the end use of the coal (energy production) use the correct emissions factor.

199. In relation to ongoing management of GHG emissions, the Applicant's EIS states that they currently employ methods to maximise efficiency of the mining fleet at its existing operations through regular maintenance scheduling, implementation of high efficiency motors, reduction of engine idle times and, where possible, minimising the gradient and length of loaded haul runs for the operating haul trucks. The Applicant also states that revegetation of previously cleared areas as part of biodiversity offset measures would also assist with reducing the Project's net greenhouse gas emissions and that this revegetation would be in addition to the extensive on-site revegetation of Project disturbance areas. The Applicant's states that the ongoing monitoring and management of greenhouse gas emissions and energy consumption at the Project would occur through the Applicant's participation in the Commonwealth Government's National Greenhouse and Energy Reporting Scheme (NGERS).

200. The Applicant's Submission to the Commission, dated 16 June 2020 states:

The Extension Project will produce approximately 150 Mt of saleable coal comprising thermal coal and semi-soft coking coal (SSCC), which is a type of metallurgical coal. The indicative life of mine average proportion of thermal coal to SSCC will be 40:60...

...metallurgical coals, including hard coking coal (**HCC**) and SSCC are essential inputs for the current production of approximately 70% of all steel globally produced using blast furnace-basic oxygen furnace technology. HCC and SSCC are used together to produce coke, which is the primary source of carbon in steelmaking. The proportion of each coal used in the coking process is determined by various factors, including pricing differentials, blast furnace requirements and specific characteristics and qualities of the coals...

Department's Assessment

201. In relation to GHG emissions, paragraph 675 of the Department's AR states:

The Project would generate approximately 3.1 Mt carbon dioxide equivalent (CO₂-e) of Scope 1 emissions, 0.8 Mt Scope 2 and 366 Mt CO₂-e Scope 3 emissions. Whitehaven's air quality peer reviewer Aleks Todoroski undertook a review of the Scope 3 emissions from the downstream burning of coal confirming that the calculations are consistent with the emission factors set out in Commonwealth Government's National Greenhouse Energy and Reporting Scheme (NGERS).

202. Paragraph 678 of the Department's AR states:

In comparison to the Approved Project, there would be a reduction of about 1 Mt CO₂-e of Scope 1 emissions, increase of about 0.15 Mt CO₂-e Scope 2 emissions and an increase of about 100 Mt CO₂-e of Scope 3 emissions over the life of the Project. The reduction in Scope 1 GHG emissions can be partially attributed to the inclusion of the Project CHPP, rail loop and rail spur, and the associated reduction in the consumption of diesel fuel associated with ROM coal haulage by truck to the Gunnedah CHPP.

203. Paragraph 680 of the Department's AR notes that the Applicant's EIS has proposed a range of management and mitigation measures for Scope 1 and Scope 2 GHG emissions to be minimised as far as possible. Paragraph 682 of the Department's AR states that the Department has recommended conditions that:

- *all reasonable steps are taken to improve energy efficiency and reduce greenhouse gas emissions of the development; and*
- *that an Air Quality and Greenhouse Gas Management Plan is prepared describing the measures to be implemented and that best management practice is employed to minimise the Project's Scope 1 and 2 GHG emissions and to improve the energy efficiency.*

204. Paragraph 144 of the Department's AR states:

The coal resource on the site is of relatively high quality and would be processed to produce both metallurgical coal (semi-soft coking coal and Pulverised Coal Injection (PCI) coal) for use in the steel making industry, and thermal coal for use in power generation. Approximately two thirds of the resource comprise PCI and semi-soft coking coal, and one third comprises thermal coal.

205. Paragraph 707 of the Department's AR states:

The Project would produce metallurgical coal (around 70% of the product coal) including semi-soft coking coal, pulverised coal injection (PCI) coal and thermal coal (around 30% of the product coal) to supply Whitehaven's main export market customers...

206. At the Public Hearing, the Department stated:

Importantly for this project, the majority of the coal would be not thermal coal but metallurgical coal which is used for steel making overseas, approximately 70 per cent of the coal production and scope 1 and scope 2 emissions, greenhouse gas emissions, will be accounted for in Australia in terms of its commitments under the Paris agreement but in accordance with those international agreements, scope 3 would be accounted for by other country in accordance with those – the Paris agreement and other international obligations.

207. Paragraphs 688 and 689 of the Department's AR state:

The Department has considered the CCPF, which outlines the State's long-term aspirational objectives of achieving net-zero emissions by 2050 and making NSW more resilient to a changing climate. The CCPF does not set prescriptive emission reduction targets and sets policy directions for government action, for example, to improve opportunities for private sector investment in low emissions technology in the energy industry, which is needed for a transition to a net-zero emissions inventory.

On this basis, the Department considers that the Project is not inconsistent with the CCPF and notes that Whitehaven has committed to minimising its Scope 1 emissions over which it has direct control. The Department has recommended conditions in this regard to ensure that the Project's emissions are minimised to the greatest extent possible by applying best practice in GHG emissions reductions for Scope 1 and 2 emissions.

208. Paragraph 686 of the Department's AR also states:

It is noted that more recently (i.e. March 2020), the Government announced a new 10-year plan to put the State on track to achieve net-zero emissions by 2050, the Net Zero Plan Stage 1: 2020-2030. The Plan builds on the CCPF and sets out a number of initiatives to deliver a 35% cut in emissions by 2030, compared to 2005 levels.

209. In relation to Scope 3 emissions, paragraphs 690 – 693 of the Department's AR state:

Under the Paris Agreement, the Australian Government committed to a nationally determined contribution (NDC) to reduce national GHGs by between 26 and 28 percent from 2005 levels by 2030. Australia has committed to meeting this target through initiatives that focus on expanding renewable energy sources, supporting low emissions technologies, improving energy efficiencies and incentivising companies to reduce their emissions without compromising economic growth and driving up energy prices.

According to Whitehaven, the Project's Scope 1 emissions would contribute less than 0.03% of Australia's 2030 commitment under the Paris Agreement (based on a 28% reduction of GHG emissions compared to 2005 levels or about 440 Mt CO₂-e).

The Department acknowledges that the Scope 3 emissions from the combustion of product coal is a significant contributor to anthropological climate change and the contribution of the Project to the potential impacts of climate change in NSW must be considered in assessing the overall merits of the development application.

Importantly, the Project's Scope 3 emissions would not contribute to Australia's NDC, as product coal would be exported for combustion overseas. These Scope 3 emissions become the consumer countries Scope 1 and 2 emissions and would be accounted for in their respective national inventories.

210. Paragraphs 713 and 715 of the Department's AR conclude:

The Department considers that the Project has been adequately assessed against the relevant State or national policies, programs or guidelines concerning GHG emissions and would be measured and reported as required under the Commonwealth Government's National Greenhouse and Energy Report Scheme (NGERS) requirements. Importantly, neither the NSW or Commonwealth policy frameworks require the private sector in Australia to minimise or offset the GHG emissions of any parties outside of Australia.

Overall, the Department considers that the GHG emissions for the Project have been adequately considered and that, with the Department's recommended conditions, are acceptable when weighed against the relevant climate change policy framework, objects of the EP&A Act (including the principles of ESD) and socio-economic benefits of the Project.

Commission's Findings

211. Clause 14(1)(c) of the Mining SEPP requires the Commission to consider whether or not the consent should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure that greenhouse gases emissions are minimised to the greatest extent practicable. Clause 14(2) requires the Commission to consider an assessment of the greenhouse gas emissions (including downstream emissions) of the development, and to do so having regard to any applicable State or national policies, programs or guidelines concerning greenhouse gas emissions. Other provisions of the Mining SEPP are considered in Section 6 and Appendix K.3 of the Department's AR.
212. The Commission has considered the public's written comments and presentations at the Public Hearing in relation to GHG emissions and the potential contribution of the Project to climate change, as referenced in paragraphs 189 and 190 above.
213. The Commission notes that the Project would generate approximately 3.1 Mt CO₂-e of Scope 1 emissions, 0.8 Mt CO₂-e of Scope 2 and 366 Mt CO₂-e Scope 3 emissions as stated above by the Department in paragraph 201, the Applicant in paragraph 196 and as confirmed by the Applicant's peer review in paragraph 197.
214. The Commission notes that in comparison to the Approved Project, there would be a reduction of about 1 Mt CO₂-e of Scope 1 emissions, increase of about 0.15 Mt CO₂-e Scope 2 emissions and an increase of about 100 Mt CO₂-e of Scope 3 emissions over the life of the Project as stated by the Department in paragraph 202 above. The Commission accepts that the reduction in Scope 1 emissions can be partially attributed to the inclusion of the Project CHPP, rail loop and rail spur, and the associated reduction in the consumption of diesel fuel associated with ROM coal haulage by truck to the Gunnedah CHPP.
215. The Commission acknowledges that the aim of the NSW Climate Change Policy Framework (CCPF) is to "maximise the economic, social and environmental wellbeing of NSW in the context of a changing climate and current and emerging international and national policy settings and actions to address climate change" with the aim to achieve net-zero emissions by 2050 and to ensure NSW is more resilient to a changing climate. The Commission notes that the CCPF does not set prescriptive emission reduction targets and sets policy directions for government action as stated by the Department in paragraph 207 above. The Commission also notes that the NSW Government released the Net Zero Plan Stage 1: 2020–2030 (**Net Zero Plan**) in March 2020 as referenced by the Department in paragraph 208 above. The Commission notes that the Net Zero Plan builds on the CCPF and sets out a number of initiatives to deliver a 35% cut in emissions by 2030, compared to 2005 levels. The Commission agrees with the Department's assessment in paragraph 207 above that the Project is not inconsistent with the CCPF and that the Applicant has committed to minimising its Scope 1 emissions over which it has direct control.

216. The Commission notes that, under the Paris Agreement, the Australian Government committed to a nationally determined contribution (**NDC**) to reduce national GHG emissions by between 26 and 28 percent from 2005 levels by 2030. The Commission also notes that Australia does not require monitoring or reporting of Scope 3 emissions under the *NGERS* and they are not counted in Australia's national inventory of GHG emissions under the Paris Agreement. The Commission agrees with the Department's statement in paragraph 209 above that the Project's Scope 3 emissions would not contribute to Australia's NDC, as product coal would be exported overseas. The Commission notes that these Scope 3 emissions become the consumer countries' Scope 1 and 2 emissions and would be accounted for under the Paris Agreement in their respective national inventories.
217. The Commission finds that the Project's Scope 1 and Scope 2 GHG emissions have been accurately calculated and acknowledges the Applicant's commitment in paragraph 199 above to the ongoing monitoring and management of GHG emissions and energy consumption through the Applicant's participation in the *NGERS*. The Commission agrees with the Department's assessment in paragraph 210 above and acknowledges that GHG emissions would be measured and reported as required under the *NGERS* requirements.
218. The Commission has imposed Condition B35 'Air Quality Operating Conditions' which requires the Applicant to take all reasonable steps to "(a)(ii) *improve energy efficiency and reduce Scope 1 and Scope 2 greenhouse gas emissions of the development*". The Commission has also imposed Conditions B36 and B37 which require the preparation and implementation of an AQGGMP. Condition B36(d)(ii) requires that the AQGGMP describe the measures to be implemented to ensure best practice management is being employed to minimise the development's air quality impacts, minimise the development's Scope 1 and 2 GHG emissions and improve the development's energy efficiency.
219. The Commission has considered the matters in cl 14(1)(c) and 14(2) of the Mining SEPP and finds that the Project includes appropriate measures for minimising and managing Scope 1 and Scope 2 GHG emissions to the greatest extent practicable for the reasons set out above.
220. The Commission acknowledges the concerns raised by the public in paragraphs 188 to 191 above, including submissions made by the BFCG in relation to the burning of fossil fuels as an energy resource and meeting the Paris Agreement climate targets. The Commission notes that the 'carbon budget' approach suggested in some submissions is not endorsed by the Paris Agreement, the Australian Government or the NSW Government. Furthermore, neither the Australian nor NSW Government have indicated that the development of new coal mines or the expansion of existing mines be prohibited or restricted in any way for the purpose of achieving Australia's NDC.
221. The Commission agrees with the Department's statement in paragraph 209 above and acknowledges that Scope 3 emissions from the combustion of product coal are a significant contributor to anthropological climate change and that the contribution of the Project to the potential impacts of climate change in NSW must be considered in assessing the overall merits of the development application.

222. The Commission notes that between 60-70% of the coal proposed to be extracted is likely to be metallurgical coal, with the remainder being thermal coal as stated above by the Applicant in paragraph 200 and by the Department in paragraph 205 of this report. The Commission notes that at this point in time, metallurgical coals are essential inputs for the current production of approximately 70% of all steel globally as stated by the Applicant in paragraph 200 above. The Commission is of the view that in the absence of a viable alternative to the use of metallurgical coal in steel making and on balance, the impacts associated with the emissions from the combustion of the project's metallurgical coal are acceptable. The Commission also notes that the coal proposed for extraction is anticipated to be of relatively high quality, as stated above by the Applicant in paragraph 194 and Department in paragraph 204. The Commission notes the Applicant's statement in paragraph 194 above that the use of higher quality coal may result in lower pollutants.
223. For the reasons set out above, the Commission is of the view that the GHG emissions for the Project have been adequately considered. The Commission finds that on balance, and when weighed against the relevant climate change policy framework, objects of the EP&A Act, ESD principles (section 4.10) and socio-economic benefits (section 4.9.6), the impacts associated with the GHG emissions of the Project are acceptable and consistent with the public interest. The Commission therefore imposes the Conditions B35, B36 and B37 as recommended by the Department.

4.9.5 Rehabilitation, Final Void and Final Landform

Public Comments

224. The Commission heard concerns from speakers at the Public Hearing and received written submissions regarding the Project's final void and final landform. Concerns were also raised about the proposed rehabilitation strategies for the Project and the long-term impacts on productivity and biodiversity for the region.
225. A speaker at the Public Hearing stated:

We cannot rely on promises of future rehabilitation on timelines greater than 10 years, promises can too easily be broken. Discussing rehabilitation, to restore an integrated complex landscape is not as simple as filling in large excavated voids in the earth and planting native trees... It is incredibly difficult, if at all possible, to replace a complex ecosystem once it has been removed. And regarding translocation either away from a site or back to rehabilitated site is both, untested and likely to be successful.

226. At the Public Hearing, a representative of Cotton Australia stated:

...the mine's rehabilitation still includes a final void. It's a longstanding policy principle of Cotton Australia that final voids aren't the default option for a project. They should be a last resort used only when the ecological sustainable development benefits can be demonstrated.

Council Comments

227. NSC, in its comments to the Commission dated 2 March 2020, raised concern in relation to rehabilitation and the displacement of agricultural land uses as set out in paragraph 264.

Applicant's Consideration

228. The Applicant's EIS included a rehabilitation strategy which sets out how the Project would be progressively rehabilitated and integrated with adjoining natural and modified landscapes, and the measures that would be put in place for the long-term protection and management of the site following the cessation of mining.
229. The Applicant's EIS states that a Mine Operations Plan (**MOP**) would be prepared for the Project in consultation with the relevant government agencies, and in accordance with the relevant NSW rehabilitation and mine closure guidelines. The Applicant states that the MOP describes how rehabilitation is undertaken, provides rehabilitation performance and completion criteria and addresses aspects of rehabilitation including mine closure, final landforms and final land use.
230. The Applicant's Amendment Report states that the Project proposed the progressive rehabilitation of mining landforms, predominantly to areas of native woodland with some areas suitable for agriculture. The Applicant states that this remains unchanged from the EIS.
231. In relation to final voids, the Applicant's Amendment Report states:

At the cessation of mining, one final void would remain in the south-eastern corner of the open cut (in addition to the existing Blue Vale void) (Table 2-4). The Project would therefore reduce the number of final voids in comparison to the five final voids in the current landscape and three voids proposed for the Approved Mine.

To reduce the surface area of the final void as far as is reasonable and feasible, waste rock would be progressively placed within the footprint of the open cut over the life of the Project...

232. In relation to the justification for a final void, the Applicant's Submission Report stated:

In response to the peer reviewer's comments, HydroSimulations conducted additional groundwater modelling for a scenario where the final void is completely backfilled.

This additional modelling indicates groundwater levels within a backfilled void would recover to higher levels than the surrounding groundwater table (Figure 7). As a result, groundwater would flow from the mining area towards the surrounding Namoi River alluvium.

On this basis, it is considered this scenario (backfilled void) is environmentally inferior, as lower quality groundwater (i.e. infiltration into the backfilled void) would flow towards the Namoi River alluvium (rather than to the final void for the preferred scenario where it acts as a groundwater sink).

This scenario (backfilled void) is also economically inferior, with the cost of backfill estimated to be \$600 million (with the NSW Division of Resources and Geoscience [DRG] in its submission considering this estimate to be conservatively low as the costs did not incorporate the significant operational expense of redesigning the emplacement strategy for the Project, particularly with regard to distance required to be travelled by overburden haul trucks).

Department's Assessment

233. In relation to rehabilitation, the Department's AR states at paragraph 486 and 487:

The Department also notes that there is a comprehensive regulatory regime for mine site rehabilitation under the Mining Act 1992, and the Mining Lease would incorporate enforceable rehabilitation objectives and a requirement for Whitehaven to have a rehabilitation bond for the full cost of rehabilitating the site in accordance with the Mining Lease and the development consent.

Given these controls, the Department considers that sufficient measures are in place to ensure the rehabilitation of the Project can be successfully undertaken to avoid any long term land use liability.

234. The Department's AR noted that public submissions question the need for final voids and also noted the Commission's Issues Report requesting further justification.

235. The Department's AR noted at paragraph 491 that the Applicant:

...argues that its groundwater modelling indicates that completely filling the void would result in groundwater mounding and likely result in flow of potential lower quality saline water towards the alluvium (see Section 6.2.6), and hence maintaining the void as a permanent groundwater sink is an environmentally superior outcome.

236. In relation to costs for backfilling the voids, the Department's AR states at paragraphs 493 and 494:

Whitehaven also argues that the cost of fully and partially backfilling the voids would be prohibitive, highlighting the cost of complete backfilling alone would cost approximately \$600 million and a partially backfilled void (to a level that would avoid the formation of a void lake) would cost approximately \$440 million and potentially result in the migration of lower quality water from the void.

These arguments were acknowledged by the Division of Resources & Geoscience in its submission on the EIS which advised that it does not dispute the proposed mining method or the proposed final landform.

237. The Department's Independent Groundwater Expert was of the opinion that adequate information has not been provided regarding the adequacy of the Applicant's justification and costing of a no void option. The Department's Independent Groundwater Expert was also of the view that adequate information has not been provided long-term groundwater and water quality models for a no void option.

238. In relation to the final void, the Department's AR concluded at paragraph 495:

...the Department agrees that retaining a final void as a groundwater sink is a preferred environmental outcome for long term groundwater quality impacts, consistent with the final landform of the Approved Project. The Department also notes that while the retention of a final void would reduce the area of land available for long term land use, the proportion of land lost is minimal and is an improved outcome compared with the Approved Project.

239. The Department's AR stated at paragraph 497:

The Department has also recommended rehabilitation objectives requiring the final landform to be safe and stable, with the preparation of a Rehabilitation Strategy and Rehabilitation Management Plan to describe the measures to ensure these outcomes are achieved, including a requirement to refine the mine plan every 5 years to minimise the size of the final void...

240. In relation to final landform, the Department's AR states at paragraph 503 that:

the Department considers that the potential pollution risks associated with long term stability of the rehabilitated landform can be adequately managed. These measures would be described in a rehabilitation strategy for the Project, to be developed in consultation with Narrabri and Gunnedah Councils and the Department's Water Division and the Resources Regulator.

Commission's Findings

241. The Commission acknowledges the concerns raised by the public regarding the proposed final void and its long-term impacts as referenced in paragraphs 224, 225 and 226 above.
242. The Commission notes that the Department's Independent Groundwater Expert is of the view that adequate justification against a no void option had not been provided by the Applicant. The Commission notes that the cost of backfilling the void is estimated to be \$600 million as stated above by the Applicant in paragraph 232 and acknowledged by the Department in paragraph 236. The Commission notes that these arguments were acknowledged by the Division of Resources & Geoscience in its submission on the EIS which advised that it does not dispute the proposed mining method or the proposed final landform as stated by the Department in paragraph 236 above.
243. The Commission acknowledges that retaining a final void as a groundwater sink may assist in maintaining long term ground water quality as referenced by the Department in paragraph 238 above. The Commission accepts that there are substantial costs and, according to the modelling, potential groundwater issues associated with a no void outcome. Accordingly, the Commission has imposed the Department's recommended rehabilitation objectives set out in Condition B101 and as referenced in paragraph 239 above. The Commission has also imposed additional Conditions requiring the Applicant to provide a revised cost estimate for the final landform as part of Condition B106 - Rehabilitation Management Plan. The Commission has amended the Conditions B104, to allow for the option of a no void solution for the Project should this be found to be a viable option during the life of the Project.
244. The Commission agrees with the Department's assessment in paragraph 240 above that potential pollution risks associated with long term stability of the rehabilitated landform can be adequately managed with measures set out in the Project's rehabilitation strategy required by Condition B104.

4.9.6 Agricultural Land

Public Comments

245. The Commission heard from speakers at the Public Hearing and received written submissions regarding the Project's impacts on agricultural land. Specific concerns were raised about the long terms impacts of the Project on prime agricultural land.

Council Comments

246. NSC in its submission to the Commission states:

Whilst the aims of the LEP encourage the development of lands for mineral resources, it is required to also be orderly and protect land of significance for agricultural production and to ensure that development is sensitive to both the economic and social needs of the community.

There has been insufficient assessment on the displacement of the agricultural land uses and its impacts on the local community both during the operation of the mine and the post mining impacts of the rehabilitation and displacement of agriculture, both on and off site.

247. NSC states that in terms of inter-generational equity, the following concerns are raised in relation to the Project:

- *The proposed development will result in a loss of agricultural land post development.*
- *The proposal has the potential to deprive farming interests of their ability to pass on their interests to subsequent generations who are also likely to contribute to the future economic growth of the Narrabri LGA, despite the impacts of technological disruption on agriculture.*

Applicant's Consideration

248. In relation to impacts on BSAL, the Applicant's Submissions Report states:

On 8 February 2016, the Secretary for the DPIE issued a Site Verification Certificate (SVC) certifying that the Project extension into MLA 1 is not located on BSAL...

The Project rail spur would be located on land owned by Whitehaven or on land where an existing land access agreement is in place. The alignment of the Project rail spur has been selected in consultation with landholders to minimise impacts to existing agricultural enterprises (i.e. by running along the edge of properties it traverses and avoiding irrigated cropping areas and water management infrastructure).

Therefore, the contribution of the Project to cumulative impacts to BSAL in the region would be negligible.

249. The Applicant's Submissions Report also states:

The potential change in regional agricultural value is not expected to cause significant losses to related services. As such, agricultural production values in the region are not expected to drop below critical mass thresholds

Department's Assessment

250. Paragraphs 471 and 473 of the Department's AR state:

Approximately 256 ha of the Project mining area would be rehabilitated to agricultural land suitable for grazing, comprising 78 ha of Class 3 land and 178 ha of Class 4 land.

Approximately 83 ha of the Project rail spur land would be rehabilitated to agricultural land suitability comprising 51 ha of Class 2 land and 32 ha of Class 3 land. The 3 ha of land disturbed by the Project borefield would be rehabilitated to Class 2 land.

251. Paragraphs 477 and 478 of the Department's AR state:

While there would be a residual loss of agricultural land capacity as a result of the proposed rehabilitation strategy, approximately two-thirds of the land to be impacted by the Project is lower quality grazing land on the slopes above the alluvium, including existing rehabilitated mining land.

The Department also notes that the Project is not located on Biophysical Strategic Agricultural Land (see Section 4.6) and a significant proportion of Whitehaven-owned land surrounding the Project disturbance area supports agricultural uses in the more productive Namoi alluvium.

252. Paragraphs 480 and 487 of the Department's AR state:

the Department and BCD consider the benefits of providing a habitat corridor between the Namoi River and the Vickery State Forest (and beyond) outweigh the loss of the agricultural land capability

... the Department considers that sufficient measures are in place to ensure the rehabilitation of the Project can be successfully undertaken to avoid any long term land use liability

Commission's Findings

253. The Commission acknowledges the concerns raised by NSC in paragraphs 246 and 247 above regarding the potential impacts from the loss of agricultural land as a result of biodiversity offsets. However, the Commission agrees with the Department in paragraph 251 above that while there would be a residual loss of agricultural land capacity as a result of the proposed rehabilitation strategy, approximately two-thirds of the land to be impacted by the Project is lower quality grazing land on the slopes above the alluvium. The Commission also notes that the Project is not located on BSAL and that a significant proportion of Applicant-owned land surrounding the Project disturbance area supports agricultural uses in the more productive Namoi alluvium.
254. The Commission agrees with the Department and NSW Biodiversity Conservation Division (BCD) as referenced in paragraph 252 above that the benefits of providing a habitat corridor between Namoi River and Vickery State Forest outweigh the loss of agricultural land capacity especially given the Project mining area is not ideal for cultivation.
255. The Commission notes that Table 12 of Condition B101 sets out rehabilitation performance objectives for areas proposed for agricultural land. The Commission also notes that Condition B106(c)(ii) requires the Rehabilitation Management Plan to give specific consideration to agricultural land rehabilitation. The Commission agrees with the Department and is of the view that sufficient measures are in place to ensure the rehabilitation of the Project can be successfully undertaken to avoid any long-term land use liability and impact on agricultural land. The Commission therefore imposes these conditions.

4.9.7 Economic and Social Impacts

Public Comments

256. The Commission heard from speakers at the Public Hearing and received written submissions regarding both the positive and negative economic and social impacts associated with the Project and mining operations in the region. Concerns were also raised regarding the coal price assumptions and the future demand for coal.

257. The Commission received many submissions in support of the Project due to the economic and social benefits associated with employment. A local resident in their comments to the Commission stated that the Project is a positive addition to the town of Gunnedah and surrounding areas and that the Project will help to support local families through increasing the availability of jobs, increasing support for community improvements/projects, and will also bring greater professional opportunities and improved learning opportunities for our younger generations.
258. The Commission heard from representatives of local indigenous groups who highlighted the importance the employment opportunities provided by the Project have on the local indigenous community:
- Vickery Extension provides a lot of employment opportunities and the ability for a lot of Aboriginal people to gain some really meaningful employment out of that, and move forward into the future and provide a really stable and pristine life for their kiddies themselves.*
259. At the Public Hearing, a local business owner noted the importance the mining industry plays in reducing alcohol and drug use in regional towns and that this is making a tangible difference in the local community. At the Public Hearing, a local resident and business owner stated the survival of their community relies on employment and that as farming practices become more streamlined young people are met with less opportunity regionally and need the professional job prospects that the mining industry can provide
260. At the Public Hearing, a representative of WesTrac stated that they were supportive of the Project and the ongoing role of NSW thermal coal in meeting export demands. A representative from an energy advisory organisation noted their support for the Project in their submission noting the benefits of metallurgical coal in steel making and the provision of jobs:
- Whitehaven are looking to develop Vickery to produce high value metallurgical coal for steel making. This is not low value thermal coal for powergen which contributes greatly to climate change. This development will provide and sustain more jobs in mining in Australia, which is critical given the precarious nature of jobs given the Covid 19 shutdown.*
261. In a submission to the Commission, an economics and finance consultant questioned the employment benefits of the Project and was of the view that many of the jobs would be filled by workers from outside the region and hence would only bring modest economic benefits to the region.
262. At the Public Hearing, an economic expert was of the view that the Applicant's most recent economic assessment uses coal price forecasts that are out of date and that according to forecasts from the World Bank and other entities, the Project is loss making. The expert also noted that if the Project is making a loss than the benefits occurring to New South Wales actually will not materialise as a consequence.
263. A social impact expert in their submission to the Commission stated that the need for employment hides a host of social issues such as the masculinisation of the town, loss of other forms of livelihood, social conflict and division and the continuation of the gap for Aboriginal people despite the extraction activity on their traditional lands. The expert also raised specific concern regarding the possible introduction of an automated mining fleet for the Project and the impact that would have on the proposed employment benefits.

Council Comments

264. NSC in its submission to the Commission raised concerns regarding the impacts of the Project on surrounding agricultural land uses and the loss of people and jobs as a result of the land use displacement. NSC noted that due to global economic uncertainty affecting the coal market, the figures used to justify the economic benefits of the Project should be reviewed to ensure that the economic benefits are realised. NSC raised concerns regarding the methodologies used to calculate the increase in employment projections between the Approved Project and the Project.
265. NSC also raised concerns regarding the Applicant's proposal to employ 70% of the operation workforce from within the region. NSC was of the view that this may not actually benefit the Narrabri and Boggabri communities, given that many workers may choose to live in other locations such as Tamworth. NSC stated that consideration should be extended to fly-in-fly-out (**FIFO**) and drive-in-drive-out (**DIDO**) as well as impacts on local services.

Applicant's Consideration

266. The Applicant's EIS included a Social Impact Assessment (**SIA**) prepared by Elliott Whiteing Pty Ltd dated 2018. The SIA states that it was prepared in general accordance with the SIA Guideline.
267. The Applicant's EIS states that the population growth in Gunnedah and Narrabri LGAs as a result of the Project *"is not expected to significantly impact on social character in the region or provision of community infrastructure to existing residents, and has the potential to offset population decline that could otherwise occur in the absence of the Project"*.
268. The Applicant's EIS states that local landholders within the immediate vicinity of the Project identified concerns regarding potential impacts to the amenity of their property, property values, water resources, flooding characteristics and rural character of the region. The Applicant stated that they would continue to work in partnership with the NSC, GSC and the local community to maximise potential opportunities and minimise potential social impacts of the Project.
269. In order to address the social impacts of the Project, the Applicant's SIA identifies the following mitigation and management strategies:
- *Stakeholder engagement and consultation strategies*
 - *Local landholder amenity and quality of life strategies*
 - *Community infrastructure and wellbeing strategies*
 - *Housing and workforce management strategies*
 - *Local business opportunities strategies*
270. The Applicant's EIS included an Economic Assessment (**Economic Assessment**) prepared by Analytecon Pty Ltd dated August 2018. In relation to direct economic contributions, the Applicant's EIS states:

The average Project operational workforce would be in the order of approximately 344 full-time equivalent on-site personnel (Appendix J). At full development, the Project operational workforce would be in the order of 450 full-time equivalent on-site personnel (Section 2.15).

Construction/development activities (e.g. construction of the mine infrastructure area and service facilities) would require an additional construction workforce of up to approximately 500 full-time equivalent personnel (Section 2.15).

The projected direct employment would be accompanied by an increase in disposable income (Appendix J):

- *approximately \$224 million in NPV [Net Present Value] terms in the region; and*
- *approximately \$271 million in NPV terms in NSW*

271. In relation to local/non-local workforce, the Applicant's Submissions Report states:

Non-local construction personnel would be encouraged by Whitehaven to use the Boggabri Accommodation Camp to relieve short-term pressure on local housing prices and availability, consistent with feedback from the local community.

Notwithstanding, approximately 70% of the operational workforce is expected to be sourced from within the region. Non-local operational personnel would be encouraged to settle permanently within the Gunnedah and Narrabri LGAs.

272. In relation to indirect economic contributions, the Applicant's EIS states:

The Project is also projected to result in indirect employment impacts associated with related upstream or downstream industries. Over the life of the Project, it is projected to generate an additional (Appendix J):

- *approximately 181 full-time equivalent jobs in the region; and*
- *approximately 316 full-time equivalent jobs in NSW.*

The projected growth in indirect employment would be accompanied by an increase in disposable income (Appendix J):

- *approximately \$92 million in NPV terms (or \$8 million per annum) in the region; and*
- *approximately \$146 million in NPV terms (or \$12 million per annum) in NSW.*

273. The Applicant's Amendment Report states that as proposed amendments only affect the Project production profile, there are no changes to:

- *employment benefits accrued to the NSW workforce, attributed to salaries and wages (including disposable income, personal income taxes and Medicare contributions);*
- *taxation benefits and land taxes/shire rates paid to NSW and local government;*
- *net benefits of the Project that would accrue to the local region; and*
- *potential economic impacts on agriculture in the local region.*

274. The Applicant's Amendment Report also states:

A revised cost benefit analysis (AnalytEcon, 2019) indicates that the net benefit to NSW of the amended Project is \$1.16 billion in net present value terms (previously \$1.21 billion) (with incremental benefits of \$454 million in net present value terms relative to the Approved Mine [previously \$499 million]).

The minor reduction in benefits to NSW is partially offset by a small reduction in the associated social cost of greenhouse gas emissions of \$0.01 million.

275. The Applicant's Submission to the Commission, dated 16 June 2020 states:

Coal is a commodity and potential future coal prices (taking into account all the factors that may cause fluctuation including competing sources of energy and climate change policy) have already been considered in the Applicant's investment decisions and indeed in the Economic Assessment for the Extension Project at Appendix J to the EIS. That Economic Assessment included a coal price sensitivity analysis to account for potential fluctuations in coal prices, including due to potential future climate change policies.

In any event, it is for the Applicant to make its own assessment of the economic viability of the Extension Project and then decide whether it wishes to proceed to seek development consent for the Extension Project. The Applicant has undertaken that course of action in lodging the development application for the Extension Project.

Department's Assessment

276. Paragraph 710 of the Department's AR states:

The Department notes that the majority of the coal is of metallurgical quality and that the thermal coal quality is a high calorific/ low ash/ low sulphur coal which is in stronger demand globally compared to lower quality (high ash/ high sulphur) coal... Under the Sustainable Development Scenario there would continue to be demand for high quality (low ash/ low sulphur/ high calorific energy) thermal and metallurgical coal, particularly in the Asia Pacific region, as provided by the Vickery coal resource.

277. In relation to coal proposed to be extracted, paragraph 707 of the Department's AR states:

The Project would produce metallurgical coal (around 70% of the product coal) including semi-soft coking coal, pulverised coal injection (PCI) coal and thermal coal (around 30% of the product coal) to supply Whitehaven's main export market customers in Japan, the Republic of Korea (South Korea) and the Republic of China (Taiwan).

278. In relation to social impacts the Department's AR states at paragraphs 578 and 579:

The Project would generate a range of social benefits for the local and regional community through additional jobs and economic growth in the regional economy. It would also generate benefits for the State through royalties and tax revenues. The social benefits of the Project are mainly through the direct and indirect employment opportunities that arise in the region and the associated flow on effects into the regional economy. In addition, there are the broader benefits to NSW through payment of royalties to the State.

However, there are potential adverse social impacts in the local community, particularly to rural residential receivers closer to the mine where there would be an increase in amenity impacts. The Department acknowledges that even where noise and dust limits are considered acceptable under NSW Government policy and guidelines, they may not be acceptable to the residents and community living near the mine.

279. The Department's AR states at paragraphs 586 and 587:

Concerns were raised in consultation on the SIA, submissions and also by NSC about social cohesion between the construction workforce residing at the Village and the town, including that there would be a high population of predominantly male construction workers. The Department notes that that Whitehaven has developed a Workforce Diversity Policy and has established a workforce Code of Conduct regarding personal behaviour.

The Department considers that the approved Boggabri Village provides suitable accommodation for the construction workforce as contemplated in the Northern JRPP approval.

280. Paragraph 724 of the Department's AR states:

The Department recognises that the project would provide major economic and social benefits for Gunnedah, Boggabri, Narrabri, the North West region and to NSW, including:

- *a direct capital investment in the project of \$607 million;*
- *up to 450 full time equivalent (FTE) direct jobs at the mine (average 344 FTE jobs) and up to 500 construction jobs;*
- *approximately 181 FTE indirect jobs in the region;*
- *increased disposable income of \$316 million (Net Present Value (NPV)) associated with the direct and indirect jobs;*
- *value added benefits of approximately \$322 million NPV in other industries in NSW; and*
- *a net economic benefit of \$1.16 billion NPV from generation of additional tax revenue and royalties.*

281. In relation to employment, the Department's AR states at paragraphs 588 and 589:

During operations, Whitehaven estimates that the peak workforce would increase from 250 FTE to 450 FTE, with the average workforce over the Project's operations to increase from 213 to 344 FTE. Based on its experience at its existing mines and its employment strategy to target a local workforce, Whitehaven anticipates that 70% of the workforce would be from the local area and 30% would be nonlocal hires.

The non-local employees would be encouraged to move to the area, but it is expected that there would be a small component of Drive in Drive Out (DIDO) or Fly in Fly Out (FIFO) workforce where Whitehaven would encourage these workers to use the Boggabri Village for accommodation to reduce impacts on short term rental accommodation.

282. In relation to indigenous employment, the Department's AR states at paragraph 590:

Whitehaven also has a goal that that Indigenous persons would make up 10% of its operational workforce. Whitehaven has been successful in this regard with 13% of its workforce at the Maules Creek Coal Mine identifying as Indigenous persons, with 9% across its broader operational workforce. Whitehaven has implemented an Indigenous Employment Strategy for its operations.

283. In relation to social impacts on landowners, the Department's AR states at paragraphs 602 and 605:

While there are benefits to the regional community and to NSW, the benefits and impacts of the Project would not necessarily be distributed equitably, and some groups within the community may be disproportionately impacted.

The Department notes that the noise and dust emission impacts from the mining operations are similar to that of the Approved Project, with only one receiver predicted to have a significant noise impact such that acquisition rights are afforded under the VLAMP. However, the key changes affecting this community are the introduction of the rail spur line and the CHPP and rail load out which would change the character of the area.

284. In relation to mine closure, the Department's AR states at paragraph 624:

Some submitters and the EDO's Dr Ziller raised concerns about inter-generational equity associated with the final landform, particularly that rehabilitation may not be completed, as has been the case historically with derelict mines in NSW. As discussed in Section 6.5.1 above, Whitehaven is required to lodge a security deposit under its Mining Lease to ensure there are sufficient funds for the NSW Government to undertake rehabilitation of the mine, if required. This security deposit is progressively reviewed such that the funds are refined to account for the level of disturbance.

285. The Department's AR states at paragraph 634:

The independent economic expert concluded that Whitehaven's economic assessment is robust, aligns with the applicable guidelines, and the results are consistent with his expectations. Mr Dwyer noted that some aspects of the assessment warranted further clarification and consideration, specifically around the implications of transport restrictions which were also raised by the Commission in its review (discussed in Section 6.1.1). However, the economic review concluded that these aspects would not significantly alter the key outcomes of the assessment.

286. The Department's AR states at paragraph 641:

While the project would largely meet relevant criteria and acceptable impact levels set under NSW Government policy and guidelines, the Department acknowledges the project has already led to increased stress and anxiety for some members of the community, particularly for landowners near the mine and the rail spur line.

287. The Department's AR states at paragraph 642 that a number of conditions have been recommended in order to mitigate impacts including requiring the Applicant to:

- *comply with strict noise, blasting and air criteria and operating conditions, and prepare noise, blasting and air quality management plans;*
- *comply with water quality objectives, discharge requirements and compensatory water requirements for any loss of water supply as a result of mining operations;*
- *independent review of potential exceedances of applicable environmental criteria, at the request of landowners;*
- *maintain complaints and incident management and reporting systems; and*
- *make a range of project-related information publicly available...*

288. The Department's AR also states at paragraph 643:

...the Department has recommended conditions requiring Whitehaven to prepare and implement a detailed Social Impact Management Plan [SIMP] for the project in consultation with NSC, GSC, the CCC and the locally affected community and other affected stakeholders.

Commission's Findings

289. The Commission received written comments and heard from speakers at the Public Hearing in support of the Project due to the social and economic benefits proposed. The Commission also acknowledges that concerns were raised regarding the negative social impacts and economic uncertainties as referenced in paragraph 257 above.
290. The Commission heard from speakers at the Public Hearing in support of the employment opportunities provided to the Indigenous community as referenced in paragraph 258 above. The Commission acknowledges the Applicant's goal that Indigenous persons would make up 10% of its operational workforce as referenced by the Department in paragraph 282 above. The Commission acknowledges the positive social and economic impacts that this may have on the Indigenous community.
291. The Commission acknowledges the significant direct economic contribution the Project may have as stated by the Applicant in paragraph 270 above and acknowledged by the Department in paragraph 280 above. The Commission accepts that in comparison to the Approved Project, the peak workforce would increase from 250 FTE to 450 FTE, with the average workforce over the Project's operations to increase from 213 to 344 FTE. The Commission also accepts that there will be an indirect economic contribution from the Project on related upstream or downstream industries as set out by the Applicant in paragraph 271 above and as raised in the Public Hearing referenced in paragraph 259 above. The Commission also acknowledges that the Project may have a positive social impact in reducing drug and alcohol use in regional areas as raised by a local business owner in paragraph 259 above.
292. The Commission accepts that the Project would generate significant benefits through a net economic benefit of \$1.16 billion NPV from generation of additional tax revenue and royalties as stated by the Department in paragraph 280.
293. The Commission acknowledges the concern raised by NSC and as referenced in paragraph 264 above regarding the methodologies used to calculate the increase in employment projections. The Commission has reviewed the Applicant's workforce projections and is of the view that they are reasonable. The Commission notes that 70% of the operational workforce is expected to be sourced from within the region as stated by the Applicant in paragraph 271 and Department in paragraph 280 above. The Commission acknowledges NSC's concerns in paragraph 265 that the 70% of the operational workforce from within the 'region' (and the 30% portion of FIFO/DIDO workforce) may not benefit Narrabri and Boggabri communities. However, the Commission is of the view that the Project will have a positive economic contribution for the region and accepts that this may extend beyond both Gunnedah and Narrabri LGAs.
294. The Commission acknowledges that there was support from local businesses and organisations regarding the role of NSW thermal coal in meeting export demands and also the need for metallurgical coal in steel making as referenced in paragraph 260 above. The Commission notes that this was also a point of contention as an action group states that there had not been any reliable evidence of the mix of metallurgical and thermal coal as referenced in paragraph 192 above. The Commission accepts that the portion of metallurgical coal is likely to range between 60% to 70% as previously stated in the Commission's Findings in paragraph 222 above.
295. The Commission acknowledges the concerns raised by the public and NSC in relation to economic uncertainty in paragraphs 261 and 264 above. The Commission notes that concerns were also raised regarding the Applicant's coal price assumptions and the future demand for coal and how this would impact the likely benefits of the Project.

296. The Commission notes that page 6 of the NSW DRG's Future of Coal Statement states:

In the short to medium term, coal mining for export will continue to have an important role to play in NSW. In our immediate region of the world, as elsewhere, there has been a reduction in demand caused by the economic impacts of COVID19. However, in the medium term, demand is likely to remain relatively stable. Some developing countries in South East Asia and elsewhere are likely to increase their demand for thermal coal as they seek to provide access to electricity for their citizens. Under some scenarios, this could see the global demand for thermal coal sustained for the next two decades or more. The use of coal in the manufacture of steel (coking coal) is likely to be sustained longer as there are currently limited practical substitutes available.

297. The Commission accepts that according to the Future of Coal Statement, there will be continued demand for both thermal coal and metallurgical coal. The Commission also accepts the Applicant's statement in paragraph 275 above that potential future coal prices have been considered by the Applicant's assessments which included a coal price sensitivity analysis to account for potential fluctuations in coal prices, including due to potential future climate change policies. The Commission agrees that it is for the Applicant to make its own assessment of the economic viability of the Project and decide whether it wishes to proceed with the Project.

298. The Commission agrees with the Department and Independent Economic Review referenced in paragraph 285 above and is of the view that the Economic Assessment is robust and aligns with the applicable guidelines. The Commission notes that the Independent Economic Review stated that some aspects of the assessment warranted further clarification and consideration. The Commission accepts the conclusion of the Independent Economic Review in that these aspects would not significantly alter the key outcomes of the assessment.

299. Overall, and for the reasons set out above, the Commission finds that the Project would generate significant social and economic benefits for the local area, North West region and to NSW.

300. The Commission notes that Condition B107(d) and (h) require the Applicant's Social Impact Management Plan (**SIMP**) to identify both positive and negative social impacts resulting from the development and following mine closure and to include a program to monitor, review and report on the effectiveness of these measures, including updating the plan 3 years prior to mine closure. The Commission has imposed Conditions B107 and B108 referenced by the Department in paragraphs 287 and 288 above as they would assist in mitigating impacts of the Project and will ensure that NSC, GSC, the CCC, the locally affected community and other affected stakeholders are consulted in preparation of the SIMP.

4.9.8 Other Issues

Road Transport and Traffic

Public Comments

301. The Commission heard from speakers at the Public Hearing and received written submissions regarding the Project's impacts as a result of ROM coal haulage. Specific concern was raised regarding impacts on the safety of the local road network. The Commission also received written submissions supporting the Project and its economic contribution to the local road network.

Council Comments

302. NSC, in the meeting with the Commission on 19 June 2020, reiterated their concerns regarding the mine-related traffic use of Braymont Road. NSC was also of the view that their safety concerns about the single-lane bridge on Rangari Road have not been adequately addressed. NSC asked the Commission to consider a condition requiring the Applicant to enter into a road maintenance agreement with NSC and also the requirement for the Applicant to liaise with NSC in relation to the preparation of a Traffic Management Plan (TMP).

Applicant's Consideration

303. The Applicant's EIS included a Road Traffic Assessment (RTA) prepared by GTA Consultants, dated 8 August 2018. The RTA stated:

It is concluded that no specific measures or upgrades to mitigate the impacts of the development on the capacity, safety and efficiency of the road network would be required as a result of the changed road traffic conditions associated with the Project.

The existing Traffic Management Plan for the Whitehaven operations should be revised before commencement of operations at the Project, in consultation with RMS, the Gunnedah Shire Council and Narrabri Shire Council.

304. In relation to the transport of ROM coal via road, the Applicant's Amendment Report states:

Until the Project CHPP, train load-out facility and rail spur reach full operational capacity, transport of ROM coal from the Project by road to the Whitehaven CHPP (Figure 1-2) would be conducted consistent with the Development Consent conditions for coal haulage for the Approved Mine (i.e. up to a total of 3.5 Mtpa, or up to 4.5 Mtpa ROM coal transport subject to the construction of the approved private haul road and Kamilaroi Highway overpass).

Once the Project CHPP, train load-out facility and rail spur reach full operational capacity, ROM coal from the Project would no longer be processed at the Whitehaven CHPP.

305. In relation to access roads and internal haul roads, the Applicant's Amendment Report states:

Access to the mine infrastructure area would initially be via Braymont Road and a private access road from Blue Vale Road. Upon closure of the part of Blue Vale Road to be intersected by the development of the open cut, the access road would be extended to the Blue Vale Road realignment...

Access to the secondary infrastructure areas would be via the realigned Blue Vale Road.

Employee, contractor and delivery movements to and from the Project would be managed by the Traffic Management Plan for Whitehaven operations, which would be revised for the Project.

Department's Assessment

306. The Department's AR states at paragraphs 551-552 and 554-555:

...the additional traffic volume generated by the Project would be accommodated while maintaining an acceptable level of performance for the road network. Further, the Department considers that the data used for the cumulative assessment represents an accurate baseline and that the assessment of cumulative impacts associated with the Project have been adequately addressed. RMS and GSC did not raise any concerns with the findings of the road transport assessment.

...the use of the roads within surrounding local road network by Project related employees and contractor vehicles was raised as a concern by NSC and by other submitters. In particular, NSC raised concerns in relation to the use of Braymont Road as an access route for the Project.

The Approved Project includes a condition restricting Project related vehicles, including employee and contractor vehicles, from accessing the mine from Braymont Road, except for certain circumstances including emergency situations, use by employees who reside along Braymont Road or as required for environmental monitoring or inspections.

The Department has recommended that this condition is retained in the Project conditions. The recommended Traffic Management Plan requires Whitehaven to implement measures to comply with its consent conditions and NSC is required to be consulted in preparing the Traffic Management Plan.

...the transport, road and traffic assessments undertaken for the Project to be adequate and that proposed management and mitigation measures would ensure the ongoing road safety and road network efficiency in the areas surrounding the Project.

Commission's Findings

307. The Commission acknowledges the concerns raised by the public in relation to the safety impacts associated with the Project ROM coal haulage. The Commission acknowledges that there was some support for the Project on the basis that there will be a positive economic contribution to improve the local road network as referenced in paragraph 301 above.
308. The Commission acknowledges the concerns raised by NSC and the public in relation to the use of Braymont Road as an access route for the Project. The Commission imposes the condition B79 restricting Project related vehicles from accessing the mine from Braymont Road, except for certain circumstances as stated by the Department in paragraph 306 above. The Commission acknowledges Council's request set out in paragraph 302 above and agrees with the Applicant's RTA that the TMP for the Project should be revised before commencement of operations at the Project, in consultation with RMS, the GSC and NSC as stated in paragraph 303 above. The Commission therefore imposes Condition B86.
309. The Commission agrees with the Department's assessment that the transport, road and traffic assessments undertaken for the Project are adequate as stated in paragraph 306 above. The Commission is of the view that the proposed management and mitigation measures required in Condition B76 - B87 would ensure the ongoing road safety and road network efficiency in the areas surrounding the Project. The Commission therefore imposes these conditions.

Rail Transport

Public Comments

310. The Commission heard from speakers at the Public Hearing and received written submissions regarding the impacts of the proposed rail line crossing of the Namoi River and flood plains. A representative of Cotton Australia raised specific concern about the potential impacts of the rail infrastructure on flooding. Specific concerns were also raised by local residents regarding the proximity of the rail spur and mine infrastructure to dwellings. One located resident also noted that the Project “*has the advantage of reducing road haulage of coal*”.

Applicant's Consideration

311. The Applicant's Amendment Report states:

Once the Project train load-out facility and rail spur are commissioned, product coal would be conveyed to the train load-out facility located at the rail loop.

Product coal would then be loaded onto trains for transportation to market via the Werris Creek Mungindi Railway and Main Northern Railway.

Annual volumes of product coal to be transported by rail would vary over the life of the Project, with a peak product rate of approximately 11.5 Mtpa (inclusive of product coal processed on-site from the other Whitehaven mining operations).

An average of 10 train movements per day would be required (i.e. five arrivals and five departures), with a maximum of 16 train movements per day (i.e. eight arrivals and eight departures).

Project train arrivals and departures would occur 24 hours per day.

Coal train capacities may vary over the life of the Project due to progressive rail capacity upgrades and changes to train configurations.

Department's Assessment

312. The Department's AR states at paragraphs 558 and 559:

Once the Project CHPP, train load-out facility and rail spur is completed, product coal would be transported via the Werris Creek Mungindi Railway, which connects to the Main Northern Railway and provides access to the Port of Newcastle for export. On average, the Project would generate between 10 to 16 train movements (up to eight arrivals and eight departures) each day.

313. In relation to the capacity of the rail network, the Department's AR states at paragraphs 562-563 and 565-567:

The rail network in the region is currently owned and managed by Australian Rail Track Corporation (ARTC). In its submission, ARTC confirmed the available capacity of the rail network in providing an adequate level of service for the Project...

The Department considers that the additional information provided by Whitehaven is sufficient for its assessment of Project related impacts on level rail crossings, road/rail capacities and to address the issues raised by the Commission. Further, that any road safety impacts associated with rail crossings could be managed through the commercial arrangements with ARTC and utilising its mechanisms within the Hunter Valley Access Undertaking to identify, plan and increase capacity as and when required...

The Commission's Issues Report raised the question of whether or not it would be appropriate to restrict the movement of coal to only permit its transport from the Project via rail following the commissioning of the Project CHPP, rail load-out facility and rail spur.

In its response, Whitehaven advised that except for the currently approved road transport of coal to domestic markets (up to 150,000 tpa), it has no objection to a condition limiting the transport of coal to only occur via rail, following commissioning of the Project rail spur.

The Department considers that the replacement of road haulage with rail transport would provide significant safety improvements to the surrounding road network. As such, the Department has recommended a condition restricting the road transport of coal from the Project following completion of the Project CHPP, rail load-out facility and rail spur, apart from the ongoing road haulage of up to 150,000 tonnes of coal to domestic customers in any financial year, as currently allowed by the Approved Project.

Commission's Findings

314. The Commission acknowledges that concerns were raised by the public in relation to the potential impacts of the rail crossing on local residents and flood prone land. The Commission acknowledges that one public comment from a local resident noted that the Project has the advantage of reducing road haulage of coal (see paragraph 310).
315. The Commission notes that in response to landowner concerns, the Applicant has committed to construct the full length of the rail spur line on elevated pylon/pier structures west of the Namoi River to the junction with the Werris Creek to Mungindi Rail Line as stated by the Department in paragraph 147 above. The Commission has therefore imposed Condition B49 which requires the Applicant to design and construct the Project Rail Spur to provide for its complete elevation above the 1% Average Exceedance Probability flood level west of the Namoi River, apart from a short connecting embankment into the public rail network to the north of Emerald Hill.
316. The Commission notes that ARTC has confirmed that the rail network has capacity to provide an adequate level of service for the Project as stated by the Department in paragraph 313 above. The Commission agrees with the Department's conclusion in paragraph 313 that replacement of road haulage with rail transport would provide significant safety improvements to the surrounding road network.
317. The Commission notes that the Applicant has no objection to a condition limiting the transport of coal to only occur via rail, following commissioning of the Project rail spur as stated by the Department in paragraph 313 above. The Commission therefore imposes Condition A14 restricting the road transport of coal from the Project following completion of the Project CHPP, rail load-out facility and rail spur, apart from the ongoing road haulage of up to 150,000 tonnes of coal to domestic customers in any financial year via the approved haulage route to the Kamilaroi Highway.

Heritage

Public Comments

318. The Commission heard from speakers at the Public Hearing and received public submissions raising concern regarding the potential impacts of the Project on Aboriginal heritage. Specific concerns were raised at the Public Hearing regarding the disturbance of the Aboriginal heritages sites within the Project area including the Aboriginal grinding groove site. The Department's AR also notes that concerns were raised by the public and interest group submissions regarding impacts to Aboriginal heritage sites and the adequacy of consultation with the Aboriginal community (see paragraph 324 below). At the Public Hearing, a speaker stated:

Also not to be forgotten is the culture and heritage of the people long before us. There are 62 Aboriginal heritage sites within the project area, 55 of which will suffer direct disturbance as a result of mining. Here is a photo taken just recently by us of an Aboriginal grinding group on the banks of the Namoi River right near the mine site..... Is it okay to just lose these heritage sites forever for the sake of a short term coal mine?

319. The Commission heard from speakers at the Public Hearing and received public submissions raising concern regarding the impacts of the Project on historic heritage. Specific concerns were raised at the public hearing and in submissions regarding the impact on Kurrumbede Homestead, its outbuildings and the surrounding landscaping. Specific concerns raised include blasting and vibration impacts in addition to the uncertainty regarding the preservation of the homestead.
320. At the Public Hearing, a representative of the Dorothea McKellar Memorial Society (DMMS) highlighted the heritage value of Kurrumbede Homestead noting that there has been engagement between DMMS and the Applicant, stating that *"The mining company has promised \$500,000 to makeover the garden"*.
321. At the Public Hearing, a speaker stated that the retention and preservation of Kurrumbede Homestead is extremely valuable in the context of the literary, social, cultural and pastoral history of this nation. The expert stated that Kurrumbede homestead should be given full heritage protection and preserved for future generations.

Applicant's Consideration

322. In relation to blasting and vibration impacts on items of heritage significance, the Applicant's EIS states that no exceedances of the nominated airblast and vibration criteria are predicted at either the grinding groove site (AHIMS 20-4-0009) or Kurrumbede Homestead.
323. The Applicant's Amendment Report states that the Project disturbance area would not vary as a result of the proposed amendments and that any predicted impacts to biodiversity, Aboriginal heritage and historic heritage as assessed in the EIS would remain unchanged.

Department's Assessment

324. Paragraph 511 of the Department's AR states:

Public and interest group submissions and the Commission's Issues Report raised the following concerns around heritage impacts of the Project:

- *the impacts to the "Kurrumbede" homestead, surrounding landscaping and its outbuilding used by Andrew "Boy" Charlton;*

- adequacy of consultation with the Aboriginal community, including with regard to potential scarred trees; and
- impacts to Aboriginal heritage sites, including the Wilga grinding grooves and scatter sites Top Rocks and Bottom Rocks on the Namoi River.

325. In relation to Aboriginal Cultural Heritage, the Department's AR states at paragraph 513 that the Applicant's archaeological assessment:

identified 62 Aboriginal sites in the development area and surrounding area... including 31 sites within the disturbance footprint of the Approved Project. Of the additional 31 sites identified by the assessment, the Project would result in a total loss of value for 24 isolated artefacts and artefact scatter sites, 23 of which are assessed as being of low significance and one artefact scatter site having low-moderate significance.

326. Paragraph 517 of the Department's AR states that two sites near the Project assessed as having moderate significance include an artefact scatter near the Project borefield and several axe grinding groove sites on the Namoi River, approximately 465 m from the closest blasting operations. Neither of these sites would be directly impacted by the Project.

327. The Department's AR states at paragraphs 522-523:

The Department notes that the majority of sites to be disturbed are of low scientific significance and that the proposed ACHMP would allow for effective management of disturbed sites and mitigation of any future impacts on Aboriginal cultural heritage.

With the appropriate management conditions in place, the Department considers that the Project's impacts on Aboriginal cultural heritage are acceptable.

328. In relation to historic heritage, the Department's AR states at paragraph 524-525:

No sites listed on historic heritage registers would be impacted by the Project. The historic heritage assessment identified one item of historic heritage significance (potential local significance) within the Project extension area, and three sites within the immediate vicinity of the Project.

Of these sites, two are of potential local significance and one of potential state significance (Kurrumbede Homestead associated with Australian poet Dorothea MacKellar).

329. In relation to Kurrumbede Homestead, the Department's AR states at paragraphs 530 and 532:

Whitehaven has committed to preparing a Heritage Management Plan [HMP] for the Kurrumbede Homestead which would describe the measures to be implemented prior to, during and following operation of the Project, including blast monitoring and structural inspections, maintenance of structures and enhancing significant landscaping around the site, ongoing use of the buildings to prevent deterioration and rehabilitation of the mine site and Kurrumbede property to maintain an open rural setting.

Whitehaven has also committed to consult with the Dorothea Mackellar Society regarding the implementation of the proposed landscape enhancement works.

330. The NSW Heritage Council, in its letter to the Department dated 9 September 2019, states:

The RTS [Applicant's Amendment Report] confirms that the recommendations of the Historic Heritage Assessment will be implemented. The RTS also describes two changes to the project, relating to rail spur design and coal plant noise attenuation. It is expected that any indirect heritage impacts of these changes can be addressed as part of the Heritage Management Plan.

331. The Department's AR concludes at paragraph 538:

The Department considers that the potential impacts of the Project on heritage values are relatively low and can be adequately managed. To this end, the Department has recommended strict blast and heritage management conditions in consultation with Heritage NSW and Council to ensure the surrounding heritage sites are managed and protected over the long term. The Department has also recommended conditions requiring the development of the Heritage Management Plan in consultation with the Dorothea Mackellar Society.

Commission's Findings

332. The Commission acknowledges the concerns raised by the public as referenced in paragraphs 318 above in relation to the Project's impacts on Aboriginal heritage sites. The Commission notes that specific concerns were raised regarding the impacts to the Wilga grinding grooves and scatter sites - Top Rocks and Bottom Rocks on the Namoi River as stated by the Department in paragraph 324 above.
333. The Commission notes that of the 62 Aboriginal sites identified in the development area and surrounding area, 31 of these sites are located within the disturbance footprint of the Approved Project. The Commission notes that the Project would result in a loss of value for 24 sites, 23 of which are assessed as being of low significance and one artefact scatter site having low-moderate significance as set out by the Department in paragraph 325 above. The Commission also notes that there are two sites near the Project assessed as having moderate significance and that neither of these sites would be directly impacted by the Project as stated by the Department in paragraph 326.
334. The Commission agrees with the Department in paragraph 327 above, and notes that the majority of sites to be disturbed are of low scientific significance and that the proposed Aboriginal Cultural Heritage Management Plan (**ACHMP**) would allow for effective management of disturbed sites and mitigation of any future impacts on Aboriginal cultural heritage. The Commission therefore imposes Condition B70 and B71 requiring the preparation and implementation of an ACHMP. The Commission is of the view that the requirements set out in Condition B70(d) are suitable in mitigating potential impacts of the Project on items of Aboriginal significance. The Commission has given consideration to the impacts on these items resulting from blasting and vibration in the section below.
335. The Commission is of the view that the potential impacts of the Project on historic heritage values, namely Kurumbede Homestead and outbuildings are relatively low and can be adequately managed. The Commission agrees with the Department in paragraph 331 above, and imposes the recommended blasting and heritage management Conditions B27 and B72 to ensure the surrounding heritage sites are managed and protected over the long term. The Commission also imposes the recommended Condition B73 requiring the development of a Historic Heritage Management Plan (**HHMP**) in consultation with Heritage NSW, GSC and the Dorothea MacKellar Memorial Society. The Commission has amended Conditions B72 and B73 to ensure that the Kurumbede 'outbuildings' are included in the HHMP and subsequent mitigation and preservation measures.

Blasting and Vibration

Public Comments

336. As stated in paragraph 318 above, the Commission received public submissions and heard from speakers at the Public Hearing who raised concerns regarding the blasting and vibration impacts on Kurrumbede Homestead.

Applicant's Consideration

337. The Applicant's NBA included an assessment of the Project's blasting impacts, including the potential ground vibration, airblast overpressure and fly rock impacts of the Project's blasting events on nearby sensitive receivers.
338. The Applicant's NBA states:

Predicted airblast and vibration levels at the Kurrumbede Homestead are below the relevant building damage criteria for heritage sites. Notwithstanding, it is recommended that monitoring is undertaken at the Kurrumbede Homestead and that the results of monitoring be used as a guide to blast design.

339. The Applicant's EIS states that blast and vibration management would be conducted in accordance with a Blast Management Plan (**BMP**) which would be prepared for the Project. The Applicant also states "Flyrock would be managed by appropriate blast design and blast execution in accordance with best practice blast management procedures".
340. The Applicant's Amendment Report states that the proposed amendments would not result in increased blasting impacts when compared to those assessed in the EIS.

Department's Assessment

341. As stated by the Department in paragraph 326 above, two Aboriginal heritage sites were assessed as having moderate significance include an artefact scatter near the Project borefield and several axe grinding groove sites on the Namoi River, approximately 465 m from the closest blasting operations. Neither of these sites would be directly impacted by the Project. Paragraph 518 of the Department's AR also states:

Based on the predicted vibration levels of approximately 6.3 mm/second at the 'Wilga' axe grinding groove site (AHIMS 20-4-0009), the NBA concluded that no vibration induced damage would occur at the grinding groove site.

342. Paragraph 519 of the Department's AR states that prior to commencing blasting for the Project, the Applicant proposes to:

- commission a structural engineer to inspect the grinding groove site to confirm whether the nominated blasting criteria is suitable; and
- engage a suitably qualified archaeologist to inspect the grinding groove site (including ground truthing and artefact identification) to update the site card for the site.

343. The Department's AR states at paragraph 354 that the Applicant's NBA "indicates that the development would comply with the applicable amenity and structural damage criteria at all surrounding private residential receivers, consistent with the limits imposed on the Approved Project".

344. The Department's AR states at paragraph 359:

The Commission's Issues Report recommended that the Department's assessment consider whether the blasting criteria determined for the Kurrumbede Homestead will protect the Homestead from damage due to blasting.

345. The Department's AR noted that the NBA recommends inspection of the homestead by a structural engineer to establish if the nominal 10 mm/s vibration criteria is appropriate. The Department's AR states at paragraph 360:

...the Department has recommended conditions requiring Whitehaven to engage a structural engineer to inspect the homestead and establish the appropriate vibration limits to protect the heritage values of the property. The Department has recommended the application of a 10 mm/s vibration limit and 133 dB overpressure limit for the Kurrumbede Homestead, unless the structural engineer's inspection recommends more appropriate limits.

346. The Department's AR concludes that blasting operations can be readily managed to meet the applicable amenity and structural damage criteria. The Department recommended a Condition B72 to ensure this occurs.

Commission's Findings

347. The Commission notes that two items of moderate Aboriginal heritage significance are located approximately 465 m from the closest blasting operations for the Project. These items include an artefact scatter near the Project borefield and several axe grinding groove sites (AHIMS 20-4-0009) on the Namoi River as referenced by the Department in paragraph 341 above. The Commission acknowledges that the NBA concluded that no vibration induced damage would occur at the grinding groove site. The Commission notes that the Applicant proposes to commission a structural engineer to inspect the grinding groove site to confirm whether the nominated blasting criteria is suitable as stated by the Department in paragraph 342 above. The Commission has imposed Condition B27(b) which requires the Applicant to ensure that blasting on site does not damage the grinding groove site (AHIMS 20-4-0009).
348. The Commission agrees with the Department's conclusion in paragraph 346 above and imposes the conditions recommended by the Department (see Conditions B17, B27 and B72) but has extended the requirement for the structural engineer to establish the appropriate vibration limit to the Kurrumbede outbuildings. The Commission is of the view that blasting operations can meet the relevant criteria for residents of privately owned land, Kurrumbede Homestead, outbuildings and all other public infrastructure as set out in Condition B17, Table 6. The Commission is of the view that impacts can be appropriately managed through the conditions referenced above.

Biodiversity

Public Comments

349. The Commission heard from speakers at the Public Hearing and received public submissions regarding the impacts of the Project on local biodiversity. The Commission received submissions highlighting the importance in preserving koala habitat for the survival of the species and raising concern regarding the Applicant's ability to secure the appropriate biodiversity offsets.

Applicant's Consideration

350. The Applicant's EIS included a Biodiversity Assessment Report and Biodiversity Offset Strategy (**BARBOS**) prepared by Resource Strategies (undated) and a BARBOS Addendum (**BARBOS Addendum**) prepared by Resource Strategies, dated 18 October 2019. The Applicant's EIS also included an Aquatic Ecology Assessment (**AEA**) prepared by Eco Logical Australia Pty Ltd dated April 2018.

351. The Applicant's EIS notes that there is an existing Biodiversity Offset Strategy for the Approved Mine. The Applicant notes that the existing Biodiversity Offset Strategy for the Approved Mine would be augmented to account for additional residual impacts on flora and fauna as a result of the Project.

352. In relation to impacts to endangered species and communities, the Applicant's Submissions Report states:

No threatened flora species have been recorded within the additional disturbance area associated with the Project.

No records of the Winged Peppercreep were identified within the additional Project disturbance footprint.

The Project requires a Biodiversity Offset Strategy that accounts for species credits for the Regent Honeyeater, Squirrel Glider and Koala.

353. The Applicant's Submission Report states that:

Whitehaven commits to satisfying the Project offset requirement through retiring the number and type of offset credits applicable to the Project (as determined by the OEH Credit Calculator for Major Projects and BioBanking)

354. In relation to impacts on Koala habitat, the Applicant's Response to the Commission states:

Impacts to Koala habitat would be offset using species and ecosystem credits.

Ecosystem and species offset credits for the Koala would be satisfied as per the requirements of the NSW Biodiversity Conservation Act, 2016.

In addition to offsetting potential impacts to Koalas, Condition B56, Schedule 2 of the recommended Development Consent requires a Koala Plan of Management [KPOM] to be prepared and implemented for the Project.

355. Table 4-28 of the Applicant's EIS sets out additional biodiversity offset strategies for the Project. Some of these include mechanisms for mine site rehabilitation, acquiring or retiring credits, monetary contributions to supplementary measures (e.g. monitoring programs) and financial contributions to the Biodiversity Conservation Fund.

Department's Assessment

356. Paragraphs 463, 464 and 465 of the Department's AR state:

The Project would disturb approximately 580 ha of vegetation, of which 78 ha comprises native woodland and 502 ha of native grassland. None of the vegetation communities impacted by the Project conform to a State or Commonwealth listed EEC or CEEC. The native grasslands are currently grazed and include mine rehabilitation areas.

Whitehaven has sought to avoid and minimise impacts to biodiversity by excluding areas containing Weeping Myall Woodland EEC and minimising the footprint of the WEA. It has also proposed mitigation measures to minimise the impacts of clearing and to avoid unexpected impacts to fauna.

Whitehaven proposes to offset the residual impacts of the Project in accordance with the NSW Biodiversity Offsets Policy for Major Projects and has proposed a number of options to retire the credits required for the Project, with a current preference for rehabilitation and land-based offsets.

357. In relation to threatened fauna, paragraphs 410 and 411 of the Department's AR state:

Ecological surveys recorded 201 fauna species during surveys, including nine introduced species. 47 threatened fauna species were recorded in the locality of the Project. Of these, 11 threatened fauna species (including 6 birds, 3 bats, and the squirrel glider and Koala) have been recorded within the Project disturbance area and additional 5 in the vicinity of the Project footprint... All of these species are listed under the BC Act as 'vulnerable' with only the Koala listed under the EPBC Act as vulnerable.

Whitehaven's tests of ecological significance concluded that although the development would result in the removal of habitat for the species recorded on site, the development is unlikely to cause a significant impact on any threatened species and communities, such that a local population would be lost.

358. The Department undertook an assessment of these impacted species in Section 6 and Appendix J of the Department's Assessment Report.

359. In relation to the Regent Honey Eater, paragraph 413 of the Department's AR states:

The assessment identified 49.1 ha of potential habitat, requiring 3,703 species credits under the FBA. However, under the BC Act, the Regent Honeyeater is now identified as an ecosystem credit species as "Important Habitat" mapping completed by BCD does not identify core habitat of the Regent Honeyeater within the Project boundary. In this instance, the FBA credits could be converted into reasonably equivalent credits under the provisions of the BC Act and retired as ecosystem credits. This process is undertaken at the time of retiring these credits. That is, while a species credit liability is identified and quantified, the retirement of the ecosystem credits for the relevant vegetation communities would offset the impacts to the Regent Honeyeater

360. In relation to the Koala, paragraphs 414, 416 and 417 of the Department's AR state:

Whitehaven's investigations identified 50.3 ha of total potential Koala habitat that would be impacted by the Project, approximately 1 ha of which is core Koala habitat comprised of River Red Gum Riparian Tall Woodland along the Namoi River. Koalas were recorded during surveys along the rail spur line near the Namoi River crossing and also within the rail loop adjacent to the MIA, with no individuals identified within the mining footprint...

BCD has accepted Whitehaven's response and indicated that no further assessment of Koala habitat is required. Whitehaven's calculations using the FBA Credit Calculator determined that 1,308 credits would be required to offset the impacts of the Project on Koala habitat.

As recommended in the Commission's Issues Report and indicated in Whitehaven's Submissions Report, Whitehaven has progressed the development of the Koala Plan of Management (KPoM) for the Project in consultation with the BCD. The draft KPoM includes measures to minimise disturbance to the core Koala habitat at the Namoi River crossing, pre-clearing surveys, weed management and rehabilitation with species representative of the River Red Gum Riparian Tall Woodland. The Department has included recommended conditions requiring Whitehaven to complete the KPoM in consultation with BCD prior to commencing construction, and to implement the plan during construction and operation of the Project.

361. In relation to the squirrel glider, paragraph 418 and 419 of the Department's AR state:

The EIS identified approximately 74.7 ha of potential squirrel glider habitat within the mine and rail spur footprint. BCD sought further review of the squirrel glider habitat to be impacted by the rail spur and calculation of any additional credit requirements due to impacts on the Poplar Box Woodland on Alluvial Clay Soils.

Whitehaven provided supplementary information which indicates 3 separate patches of the woodland that may form potential squirrel glider habitat would be impacted by the rail spur. The additional 1.3 ha of this woodland increases the total area of habitat impacted by the Project to 76 ha, which consequently increased the credit requirements by 77 credits to a total of 1,672 credits. BCD has reviewed Whitehaven's response and is satisfied with the revised calculations.

362. Paragraph 86 of the Department's AR states that the Department's assessment process under the EP&A Act has been accredited under a bilateral agreement with the Commonwealth Government to assess matters of national environmental significance (MNES). Paragraph 406 of the Department's AR states the Project was determined to be a controlled action under the EPBC Act (EPBC 2016/7649) due to the potentially significant impacts on MNES for listed threatened species.

363. In relation to Commonwealth biodiversity matters, paragraph 456 of the Department's AR states:

The Department notes that the Commonwealth referral decision in determining that the action was a controlled action was based on there being likely significant impacts on 3 threatened Commonwealth listed species, including Regent Honeyeater, Swift Parrot and the Koala; and that there may be significant impacts on a further three species, South-eastern Long-eared Bat (Corben's Long-eared Bat), Large-eared Pied Bat and Murray Cod.

Because part of the Approved Project was not assessed in the previous EPBC referral decision (EPBC 2012/6263) the Project footprint assessed for Commonwealth matters is 208.6 ha larger than the footprint assessed under the NSW assessment, and totals 984.4 ha (see Figure 35), with a larger area of native vegetation impacted compared to the NSW assessment footprint, an increase from 579.8 to 728.4 ha in total.

364. In relation to GDEs, paragraph 421-422 of the Department's AR states that given the scale of the disturbance and measures to minimise clearing and maintain the condition of the vegetation communities in the riparian corridors affected by the Project, the Applicant concluded that further changes to the Project or additional offsets would not be required.
365. In relation to Aquatic Ecology, paragraph 427 of the Department's AR states that the Applicant considered that the Project has a low potential to impact on aquatic biodiversity, with the Project unlikely to impede fish passage or cause water quality impacts and that DPI - NSW Fisheries did not raise any concerns regarding impacts on aquatic resources.

366. In relation to biodiversity offsets, paragraph 431 of the Department's AR states that the EIS includes a biodiversity offset strategy that builds upon the existing strategy for the Approved Project. Paragraphs 432 and 433 of the Department's AR state that in relation to the Approved Project:

The 3,423 ha of approved existing biodiversity offsets includes 2,063 ha of offset lands and rehabilitation of 1,360 ha of land disturbed by the Approved Project and includes:

- *the Willeroi East Offset Area – comprising 1,671 ha (including 1,559 ha of native woodland); and*
- *Offset Areas 2, 3, 4 and 5 – comprising a collective total of 391.5 ha (including 207 ha of native woodland) surrounding the development site*

The offsets for the Approved Project were determined prior to the implementation of the NSW Offsets Policy and FBA and were based on a land-based ratio approach. The Department has included recommended conditions transferring the offset requirements for the Approved Project into a consolidated development consent.

367. The Department's AR at paragraph 434 states that the Project biodiversity offset strategy is in addition to the offset strategy for the Approved Project and comprises:

- *proposed additional land-based offsets, including:*
 - *an additional 13 ha extension of Offset Area 5 established under the Approved Project; and*
 - *additional 993 ha land-based offsets in the region (i.e. Offset Areas 6, 7, 8 and Mount Somner);*
- *mine rehabilitation in accordance with the provisions under the FBA including:*
 - *482 ha of mine rehabilitation to woodland on the proposed extension area; and*
 - *523 ha of additional mine rehabilitation to woodland on the Approved Project footprint that is currently required to be returned to an agricultural land use;*
- *retiring 869 available credits on Whitehaven's existing Biobanking site (which totals 13,754 credits) and/or through the Biobanking Public Register; and*
- *supplementary measures such as contributing to regional biodiversity programs and funds.*

The biodiversity assessment determined that the Project would require the retirement of 16,401 ecosystem credits (see Table 14) and 6,683 species credits (see Table 15).

368. Paragraph 438 of the Department's AR states:

The NSW Offsets Policy allows the generation of biodiversity credits from mine site rehabilitation where it can be demonstrated that the rehabilitation has been successful, and the credits have been realised through a biodiversity gain in accordance with Section 12.2 of the FBA – Generating Biodiversity Credits for Ecological Rehabilitation of Previously Mine Land. This sets maximum allowable increases in generation of credits based on 10 site attributes, for example native plant species richness and overstorey cover. Accordingly, the ecological rehabilitation credits generated are low (less than a third) compared to credits generated from land-based offsets.

369. Paragraph 444 of the Department's AR states:

BCD and the Department consider that rehabilitation could be used to offset ecosystem credits where it can be demonstrated that the rehabilitation is trending towards recognisable PCT [plant community types], as demonstrated through monitoring of performance indicators and meeting completion criteria, in accordance with the FBA ecological rehabilitation requirements.

370. Appendix J of the Department's AR states that the BCD noted that while the Applicant has not demonstrated that the land-based offsets sites would generate the necessary credits for the Koala and Regent Honeyeater, the Applicant has committed to fulfilling the offset obligation in full and in accordance with relevant legislation. BCD has advised that it is satisfied that the development consent contains relevant conditions defining the biodiversity credits required to be retired, and the options available to retire the credits. In relation to the Regent Honeyeater, the Department, in Appendix J recommends that any Commonwealth approval includes an additional requirement to validate that the 2,087 species credits (or equivalent ecosystem credits) are available within the Approved Project land-based offset area. Appendix J also notes that the Swift Parrot was not recorded within the project disturbance boundary or surrounding area and no breeding habitat was identified within the disturbance footprint. However, the Department notes that 104.7 ha of potential foraging habitat would be cleared and that 12,815 ecosystem credits would be provided for the Project.
371. Paragraph 429 of the Department's AR notes that the Applicant would implement a number of avoidance and mitigation measures to reduce impacts on biodiversity values of the Site. Paragraph 430 of the Department's AR states:

The Department and BCD are satisfied with the avoidance and mitigation measures proposed by Whitehaven to avoid impacts on EECs and threatened flora species, and considers that the Project is unlikely to result in any significant impacts subject to the implementation of suitable offsetting measures.

372. Paragraph 465 of the Department's AR states that the Applicant proposes to offset the residual impacts of the Project in accordance with the NSW Biodiversity Offsets Policy for Major Projects and has proposed a number of options to retire the credits required for the Project, with a current preference for rehabilitation and land-based offsets.
373. Paragraph 466 of the Department's AR concludes:

Overall, the Department considers that the Project has been designed to avoid, mitigate and manage biodiversity impacts where practicable, and that the required ecosystem credits could be obtained and that the retirement of these credits would sufficiently compensate for residual biodiversity impacts. The Department considers that biodiversity impacts on the site could be effectively managed under a Biodiversity Management Plan. BCD considers that the biodiversity impacts of the Project have been adequately assessed and has advised that no further assessment is required.

Commission's Findings

374. The Commission accepts that the Department's assessment process under the EP&A Act has been accredited under a bilateral agreement with the Commonwealth Government to assess MNES. The Commission notes that the Project was determined to be a controlled action under the EPBC Act as stated by the Department in paragraph 362 above.

375. The Commission notes that the 3,423 ha of approved existing biodiversity offsets includes 2,063 ha of offset lands and rehabilitation of 1,360 ha of land disturbed by the Approved Project as stated by the Department in paragraph 366 above. The Commission acknowledges that these offsets will be transferred to the development consent for the Project as required in Condition B56.
376. In relation to impacts of the Project on threatened fauna, the Commission notes that ecological surveys recorded 11 threatened fauna species (including 6 birds, 3 bats, and the squirrel glider and Koala) within the Project disturbance area and an additional 5 in the vicinity of the Project footprint as stated by the Department in paragraph 357 above. The Commission accepts the Applicant's ecological assessment that the Project is unlikely to cause a significant impact on any threatened species and communities, such that a local population would be lost as stated by the Department in paragraph 357 above. The Commission agrees with the Department in paragraph 359 above that while a species credit liability is identified and quantified, the retirement of the ecosystem credits for the relevant vegetation communities would offset the impacts to the Regent Honeyeater. The Commission notes that the BCD was satisfied with the Applicant's species credit calculations for the Squirrel Glider as stated by the Department in paragraph 361. In relation to the swift parrot, the Commission accepts that 104.7 ha of potential foraging habitat would be cleared and that 12,815 ecosystem credits would be provided for the Project as stated by the Department in paragraph 370 above.
377. In relation to Commonwealth Matters, the Commission notes that BCD is of the view that the Applicant has not demonstrated that land-based offsets for the approved project would generate the necessary credits for the Regent Honeyeater and Koala but accepts the Applicant's commitment to fulfil the offset obligations in full and in accordance with EBPC Act requirements (see paragraph 370). The Commission notes that in relation to the Regent Honey Eater, the Department recommends that any Commonwealth approval include an additional requirement to validate relevant species credits availability within 'Approved Project' land-based offset areas as stated in paragraph above.
378. The Commission acknowledges the public's concerns regarding the potential impact on Koala species and habitat. The Commission notes that the BCD has accepted the Applicant's assessment of the Project's potential impacts on Koala habitat as stated by the Department in paragraph 360 above. The Commission agrees with the Department's assessment and supports the completion of a KPoM and implementation of the measures required in the KPoM (Condition B65). The Commission is of the view that with these measures in place, impacts on Koala habitat can be mitigated and managed appropriately. The Commission has also amended the Department's recommended Condition B65 to ensure that the KPoM is completed (in consultation with BCD) and implemented prior to construction and during construction and mining operations.
379. The Commission notes that the Applicant has committed to satisfying the Project offset requirements through retiring the number and type of offset credits as determined by the OEH Credit Calculator for Major Projects and BioBanking as stated in paragraph 353 above. This is also noted by the Department in paragraph 359 above.

380. The Commission notes that the BCD is of the view that the biodiversity impacts of the Project have been adequately assessed. The Commission notes that the Applicant would be required to implement a number of avoidance and mitigation measures to reduce impacts on biodiversity values of the Site and that the Department and BCD are satisfied with these measures as stated by the Department in paragraph 371 above. The Commission agrees with the Department's conclusion in paragraph 373 above that the Project has been designed to avoid, mitigate and manage biodiversity impacts (which include minimising vegetation clearing and loss of habitat) where practicable. The Commission considers that the biodiversity impacts on the site could be effectively managed under a Biodiversity Management Plan and has therefore imposed Conditions B63 and B64 requiring the preparation and implementation of a Biodiversity Management Plan.
381. The Commission notes that the Applicant has committed to satisfying the Project offset requirements through retiring the number and type of offset credits as determined by the OEH Credit Calculator for Major Projects and BioBanking as stated in paragraph 352 above. This is also noted by the Department in paragraph 359 above.
382. The Commission accepts the Department's views in paragraph 368 above that the NSW Offsets Policy allows the generation of biodiversity credits from mine site rehabilitation where it can be demonstrated that the rehabilitation has been successful, and the credits have been realised through a biodiversity gain. The Commission agrees with the BCD and the Department in paragraph 369 that rehabilitation could be used to offset ecosystem credits where it can be demonstrated that the rehabilitation is trending towards recognisable plant community types (**PCT**), as demonstrated through monitoring of performance indicators and meeting completion criteria, in accordance with the FBA ecological rehabilitation requirements.
383. Commission notes that the Department's AR states that no further changes to the Project or additional offsets are required in relation to GDEs as stated in paragraph 364 above. The Commission notes that the Applicant states that the Project has a low potential to impact on aquatic biodiversity. The Commission also notes that the DPI - NSW Fisheries did not raise any concerns regarding impacts on aquatic resources. To ensure the ongoing management and monitoring of potential impacts on GDE's and aquatic ecosystems, the Commission has imposed Condition B51 which sets out water performance management measures for aquatic and riparian ecosystems.
384. The Commission accepts that the required ecosystem credits could be obtained and that the retirement of these credits would adequately compensate for residual biodiversity impacts as stated by the Department in paragraph 373. For the reasons set out in paragraph above, the Commission imposes Conditions B58 and B59 to ensure that the biodiversity offset credits are retired in accordance with the NSW Biodiversity Offsets Policy for Major Projects and can be achieved by acquiring or retiring 'biodiversity credits' within the meaning of the Biodiversity Conservation Act 2016. The Commission considers that the identification and/or retirement of credits within 2 years of commencing the Project is an appropriate timeframe to retire these credits but would prefer not to see any extensions to this period, unless due to circumstances beyond the control of the Applicant.

Visual Amenity

Public Comments

385. The Commission received written submissions from members of the public regarding the visual impacts of the Project on the surrounding properties and landscape. Speakers at the public meeting raised concerns regarding the visual impacts on the Kurrumbede Homestead.

Applicant's Consideration

386. The Applicant's EIS states that the mitigation and management measures that would be implemented for the maintenance of visual amenity include progressive rehabilitation of the landforms, vegetation screens (in some cases bunds). The Applicant also states that measures to mitigate potential impacts from night-lighting would be implemented where practicable without comprising operational safety.

387. The Applicant's Submissions Report states:

Once all the equipment and infrastructure components have been removed, the mine infrastructure areas would be returned to land suitable for cattle grazing and the Project rail spur corridor would be returned to agricultural land, reducing the long-term visual impact of the Project.

Department's Assessment

388. The Department's AR notes that there were concerns raised in submissions and in the Commission's Issues Report relating to visual amenity impacts and loss of scenic value. The Department's AR states at paragraph 652, 655 and 657:

The Department acknowledges that the residences and dwellings located closest to the Project mining area would have a high visual impact including properties 127, 131, 132 and 133... However, it accepts that the level of visual impact on these properties would not materially change when compared with the Approved Project.

The Department acknowledges that the Project rail spur introduces a new infrastructure element and would be visible to several residences in the vicinity and intermittently along public roads where vegetation and topography allow. The visual impact assessment has found that receivers and dwellings located approximately 1.5 km from the rail spur would have a moderate level of visual impact, which would reduce as the distance increases.

The Department recognises that the Project would result in some considerable changes to the visual landscape, particularly for the closest receivers during the early stages of the Project and development of the WEA, prior to the establishment of vegetation. The Department acknowledges Whitehaven's commitment to minimise visual impacts and notes that these impacts would reduce over time, particularly as rehabilitation of the WEA progresses and vegetation is established (from about year 7).

389. The Department's AR states that the Applicant has committed to implementing a range of on-site and off-site measures to mitigate and manage visual impacts. The Department has incorporated these measures into its recommended conditions of consent for the Project.

Commission's Findings

390. The Commission agrees with the Department's statement in paragraph 388, that although the residences and dwellings located closest to the Project mining area would have a high visual impact, the level of visual impact on these properties would not materially change when compared with the Approved Project. The Commission notes that draft Condition B90 sets requirements for the Applicant to implement in order to further mitigate the impacts of the Project on visual amenity.

391. The Commission acknowledges that the Project rail spur introduces new infrastructure which according to the Department's AR will have a moderate level of visual impact on nearby receivers. The Commission agrees with the Department in paragraph 388 and recognises that *"the Project would result in some considerable changes to the visual landscape, particularly for the closest receivers during the early stages of the Project and development of the WEA, prior to the establishment of vegetation"*.
392. The Commission acknowledges that while for some residences the visual impact will be moderate to high, the mitigation measures (such as landscaping treatments or vegetation screens) and the proposed progressive rehabilitation of the Project landform will ameliorate these impacts and the Commission is of the view that on balance, the visual impacts are acceptable. The Commission therefore imposes the Department's recommended Conditions B90 and B91 to ensure that visual impacts are mitigated and managed.

Lighting

Public Comments

393. The Commission heard from a local resident at the Public Hearing, who raised concern regarding light pollution (amongst other impacts) associated with mining. The Commission also heard from speakers who raised concern regarding the impacts of the Project on Siding Spring Observatory:

Significant concerns about how it's going to affect Siding Spring Observatory and the light issues, that they need dark skies for that to remain an internationally significant conservatory. They're already having increased problems with light because of other mines that are increasing in the area, so I think that if it does go ahead you really need to make sure that there are very strict conditions on how that mine reduces the amount of light that it has for Siding Springs and the dark skies around Coonabarabran.

Applicant's Consideration

394. The Applicant's Amendment Report included a Light Impact Assessment (LIA) prepared by Light Naturally, dated November 2019. The Applicant's LIA concluded *"the proposed project will comply with the Dark Sky Planning Guideline if it is consistent in its lighting output with that of the Maules Creek Mine"*.

Department's Assessment

395. The Department's AR states at paragraphs 661 and 665:

The Commission's Issues Report raised concerns over the potential lighting impacts on the Siding Spring Observatory (SSO) and consideration of the NSW Dark Sky Planning Guideline (Dark Sky Guideline).

In accordance with the consultation requirements of the Dark Sky Guideline, the SSO has reviewed the light impact assessment and has not raised any further concerns. The SSO provided minor comments which have been addressed in the final version of the light impact assessment

396. In relation to the potential impacts of lighting on surrounding receivers, the Department's AR states at paragraph 656:

Direct views of project lighting sources, particularly from the MIA, would be most likely to occur for receivers and residences located immediately west of the Project. Once completed (around Year 13), the WEA would provide a barrier to protect receivers from the Project light sources. The visual impact assessment considers the direct and indirect night lighting impacts to be similar to the that of the Approved Project. Nevertheless, Whitehaven has committed to implementing specific night lighting measures to mitigate any potential lighting impacts and the Department has incorporated this in its recommended conditions.

397. The Department AR states at paragraph 666:

The Department has recommended conditions requiring the implementation of reasonable and feasible measures to ensure that all visual and off-site lighting impacts from the Project (including the SSO) are minimised, including:

- the use of external lighting that complies with the Australian Standard AS 4282 (INT) 1997 – control of Obtrusive Effects of Outdoor Lighting;*
- minimising lighting impacts of the Project on the SSO;*
- ensuring in pit mobile lighting is contained below the pit wall and the horizontal; and*
- ensuring fixed outdoor lighting is not directed above the horizontal or building line.*

398. Paragraphs 667, 668 and 669 of the Department's AR conclude:

The Department considers the visual and light impact assessments undertaken for the Project to be adequate and that proposed management and mitigation measures would ensure that impacts are minimised as far as practicable.

The Department's assessment has found that the visual and light impacts of the Project would be comparable to the Approved Project, particularly for the WEA which would be similar in height and that the Project would not greatly increase the visual impacts for surrounding receivers.

However, the Department recognises that some visual impacts would be unavoidable for various stages of the Project (particularly during construction and early development stages) but considers that any significant change would be reasonably mitigated through progressive rehabilitation of the mine landscape and vegetation screening to acceptable levels over the life of the Project.

Commission's Findings

399. The Commission acknowledges the public's concerns about visual amenity, including impacts on the SSO. The Commission notes that the SSO has reviewed the LIA and has not raised any further concern as stated by the Department in paragraph 395 above. The Commission acknowledges that there is the potential for receivers and residences located immediately west of the Project to have direct views of project lighting sources, particularly from the MIA as stated in paragraph 396. The Commission therefore imposes the Department's recommended Condition B90 as referenced in paragraph 397 above requiring the implementation of reasonable measures to minimise visual and off-site lighting impacts from the Project.

4.10 Objects of the EP&A Act and Public Interest

Public Comments

400. The Commission heard concerns from speakers at the Public Hearing and received written submissions relating to the Project and whether it was in the public interest.
401. At the Public Hearing, a social impact expert raised concerns regarding distributional equity and lack of social benefits:

The hallmark of this project is distributional inequity, that is, a lack of social benefits for the local community. A resource extraction project should be in the public interest. The wellbeing of the local area is a critical element of the public interest. I do not believe that test has been met in this proposal.

402. The BFCG in its submission to the Commission stated:

To approve a private project of this scale and impact on the basis of unreliable and outdated data, which underpins the entire project justification, as the industry is in clear structural decline, is not sound or in the public interest. The evidence strongly suggests that the project is not financially viable... The proposed Vickery coal mine is not in the public interest and it is contrary to the principals of Ecologically Sustainable Development (ESD).

403. A speaker at the Public Hearing spoke in support of the Project noting that it had appropriately balanced the economic and social impacts and was in the public interest:

I believe strongly in this project and the benefits which will accrue so to so many individuals, as well as businesses. The government has already said this project is in the public interest and approvable and I believe has appropriately balanced the economic and social impacts.

404. The Commission received written submissions in support of the Project. A submitter wrote:

I believe that this Project is in the public interest and will provide much needed employment during this difficult time. The project is sustainable and from a mine waste geochemistry perspective has minor low risk issues that can be easily managed.

Council Comments

405. NSC in its submission to the Commission stated:

We refer to the above-mentioned State Significant Development Application and wish to lodge an objection to the proposed development on the basis of its direct and indirect economic and social impacts and relatedly on the basis that it is not in the public interest.

406. NSC also stated that in *Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7, it was noted that:

"a positive NPV does not necessarily mean that the project is in the public interest." To the best of Council's understanding, based upon the information made available, the proponent has not demonstrated adequate consideration of intra and inter-generational or distributive equity issues relating to agricultural interests in the region and their perceived reluctance to minimise externalities related to this proposed development, through the VPA process, tends to confirm this view.

Applicant's Consideration

407. The Applicant's EIS states that *"It is considered that, on balance of the predicted impacts and benefits, approval of the Project is in the public interest"*.

408. The Applicant's Submission Report states:

The Project is considered to be generally consistent with the objects of the EP&A Act, as:

- *The Project would facilitate local and regional employment and other socio-economic benefits.*
- *The Project would develop the State's coal resources within Whitehaven's mining and exploration tenements.*
- *The Project incorporates relevant ESD considerations (as discussed further below).*
- *The Project would allow for the economic use and development of land, while maintaining key existing land uses including grazing uses on surrounding Whitehaven-owned lands.*
- *Measures have been developed and incorporated into the Project to manage and conserve resources including water, agricultural land and natural areas and to protect the environment (including native plants and animals, threatened species and their habitats).*
- *Reasonable and feasible measures have been developed and incorporated into the Project to minimise potential amenity impacts associated with noise, blasting, air quality and visual impacts on surrounding land uses.*
- *The Project would support the provision of community services and facilities through significant contributions to State royalties, State taxes, Commonwealth tax revenue and any applicable contributions to local councils.*
- *The Project is a State Significant Development Project that would be determined by the IPC or the Minister; however, a wide range of stakeholders have been consulted throughout the assessment process.*
- *The Project would be developed in a manner that incorporates community engagement through the Project EIS consultation program as well as the public exhibition of the EIS document and the major project assessment process.*

409. The Applicant's Submission Report states that the design, planning and assessment of the Project has been carried out applying the principles of ESD, through:

- *incorporation of risk assessment and analysis at various stages in the Project design, environmental assessment and decision-making;*
- *adoption of high standards for environmental and occupational health and safety performance;*
- *consultation with regulatory and community stakeholders;*
- *assessment of potential greenhouse gas emissions associated with the Project;*
- *optimisation of the economic benefits to the community arising from the development of the Project; and*
- *taking into account biophysical considerations in the Project design.*

410. In relation to intergenerational equity, the Applicant's Submission Report states:

The Project would benefit current and future generations through employment. It would also provide significant stimulus to local and regional economies and provide NSW export earnings and royalties, thus contributing to future generations through social welfare, amenity and infrastructure

411. The Applicant's Amendment Report states:

The proposed amendments to the Project would not result in additional environmental impacts beyond those assessed in the EIS. Accordingly, the conclusion in the EIS that, on balance, the Project has merit on the basis of the positive social and economic outcomes to the local region and NSW, remains unchanged.

Department's Assessment

- 412. Table K1 of the Department's AR sets out the Department's consideration of the Project against the relevant Objects of the EP&A Act.
- 413. The Department has given consideration to public interest in Section 6.10 of the Department's AR.
- 414. The Department has given consideration to the ESD principles in section K.2 of the Department's AR.
- 415. Paragraph 726 of the Department's AR states:

The Department has carefully weighed the impacts of the project against the significance of the resource and the socio-economic impacts benefits [sic]. On balance, the Department believes that the project's benefits outweigh its residual costs, and that is in the public interest and is approvable, subject to stringent conditions.

Commission's Findings

- 416. The Commission has had regard to the Material before it and has considered the issues raised by speakers at the Public Hearing and in written comments to the Commission. The Commission has considered the issues raised by the public and whether the Project is in the public interest in its findings contained throughout section 4.9 of this Statement of Reasons.

Objects of the EP&A Act

- 417. The Commission has assessed the Project against the relevant Objects of the EP&A Act below:

(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources;

(c) to promote the orderly and economic use and development of land,

- 418. The Commission notes that the coal resources are located within existing mining lease areas and that the coal to be extracted is of high quality. The Commission is of the view that the extraction of coal as part of the Project is the most efficient use of the land. The Commission agrees with the Department's assessment in Table K1 of the Department AR and finds that the Project will provide ongoing socio-economic benefits to the people of NSW and ongoing employment opportunities for members of the local community.

(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment;

- 419. The Commission agrees with the Department's assessment in Table K1 of the Department AR and is of the view that the Project can be carried out in a manner that is consistent with the principles of ESD as set out in paragraph 425 below.

(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats;

(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),

420. The Commission agrees with the Department's assessment and is of the view that the Project:

- has sought to avoid, minimise and manage potential impacts on biodiversity and heritage;
- has offset residual biodiversity impacts in accordance with the NSW and Commonwealth Government Policy;
- would not significantly impact on either the built or cultural heritage of the site;
- has proposed mitigation and management measures that would ensure that impacts on Aboriginal cultural heritage and historic heritage are acceptable; and
- has applied both the precautionary principle and the conservation of biological diversity and ecological integrity in the assessment to avoid serious or irreversible damage to the environment wherever possible.

(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,

(j) to provide increased opportunity for community participation in environmental planning and assessment.

421. The Commission notes that the Department has consulted with GSC, NSC and other NSW Government authorities and carefully considered all responses in its assessment. The Commission has also engaged with both GSC and NSC and has considered the responses from NSW Government authorities. The Commission notes that the Department publicly exhibited the Application and the Commission has held a multi-stage Public Hearing to hear the public's views on the Project.

422. For the reasons set out above, the Commission is of the view that the Project is in accordance with the Objects of the EP&A Act.

Ecologically Sustainable Development

423. The EP&A Act adopts the definition of ESD found in the *Protection of the Environment Administration Act 1991*, as follows:

ecologically sustainable development requires the effective integration of social, economic and environmental considerations in decision-making processes. Ecologically sustainable development can be achieved through the implementation of the following principles and programs:

- (a) the precautionary principle...*
- (b) inter-generational equity...*
- (c) conservation of biological diversity and ecological integrity.... and*
- (d) improved valuation, pricing and incentive mechanisms.*

424. The Commission has given consideration to the principles of ESD in its assessment as set out below.

(a) the precautionary principle;

425. The Commission agrees with the Department's assessment on page 151 of the Department's AR that the precautionary principle has been appropriately applied through the application of mitigation and management measures set out in the Applicant's EIS and supporting documents, the Department's AR and the recommended conditions of consent. The Commission has proposed additional measures as set out through this Statement of Reasons to further mitigate Project impacts.

(b) inter-generational equity;

426. The Commission acknowledges the concerns raised by NSC and the public referenced in paragraph 401 and 406 above that the Project will result in distributional inequity due to the lack of social benefits for the local community and the lack of consideration given by the Applicant to intra and inter-generational or distributive equity issues relating to agricultural interests in the region.
427. However, the Commission agrees with the Department's assessment on page 151 of the Department's AR that:

Intergenerational equity has been addressed through maximising efficiency and coal resource recovery and developing environmental management measures which are aimed at ensuring the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.

...coal and other fossil fuel combustion is a contributor to climate change, which has the potential to impact future generations. However, the Department also recognises that there remains a clear need to develop coal deposits to meet society's basic energy requirements for the foreseeable future. The proposal includes measures to mitigate potential GHGE's from the operation of the Project, which would be recommended as a requirement of the Project's operating conditions and detailed in an Air Quality and Greenhouse Gas Management Plan.

The Department's assessment of direct energy use and associated GHGE's (ie Scope 1 and Scope 2 emissions) has found that these emissions would be low and comprise a very small contribution towards climate change at both the national and global scale...

The Department considers that the socio-economic benefits and downstream energy generated by the Project would benefit future generations, particularly through the provision of national and international energy needs in the short to medium term.

428. The Commission is of the view that on balance, the social and economic benefits from the Project and downstream energy and steel production generated from the Project would benefit both current and future generations. As set out in paragraph 223 above, the Commission is of the view that the GHG emissions from the Project have been adequately considered. The Commission agrees with the Department's assessment that the Project's Scope 1 and Scope 2 emissions would be low and comprise a very small contribution towards climate change at both the national and global scale. As stated in paragraph 216 above, the Commission finds that the Project's Scope 3 emissions would not contribute to Australia's NDC, as product coal would be exported overseas. The Commission notes that these Scope 3 emissions become the consumer countries' Scope 1 and 2 emissions and would be accounted for under the Paris Agreement in their respective national inventories. As stated in paragraph 223 above, the Commission has imposed conditions which require the Applicant to implement specific measures and take all reasonable steps to ensure best practice management is employed to minimise the air quality impacts, minimise Scope 1 and 2 GHG emissions and improve the Project's energy efficiency (see section 4.9.4).

429. For the reasons set out above, the Commission is of the view that intergenerational equity has been appropriately considered and addressed.

(c) conservation of biological diversity and ecological integrity

430. The Commission agrees with the Department's assessment on page 152 of the Department AR that the conservation of biological diversity and ecological integrity has been applied through avoiding and minimising biodiversity impacts. The Commission also agrees with the Department's assessment that the Project's potential impacts would be reasonably mitigated and/or offset to enable the long-term biodiversity outcomes to be achieved for the region.

(d) improved valuation, pricing and incentive mechanisms

431. The Commission agrees with the Department's assessment on page 152 of the Department AR that careful consideration has been given to the costs and economic benefits of the Project which support the conclusion that the Project would deliver a significant net benefit to the local region and the State of NSW
432. In summary, the Commission finds that the Project is consistent with ESD, because the Project, if approved, would achieve an appropriate balance between relevant environmental, economic and social considerations.

Public Interest

433. The Commission finds that on balance, and when weighed against the relevant climate change policy framework, objects of the EP&A Act, ESD principles and socio-economic benefits, the impacts associated with the Project are acceptable and in the public interest.
434. For the reasons set out in section 4.9 above, the Commission is of the view that the Project is in accordance with the EP&A Act and is in the public interest.

5 CONCLUSION: THE COMMISSION'S FINDINGS AND DETERMINATION

435. The views of the community were expressed through public submissions and comments received (as part of exhibition and as part of the Commission's review and determination process), as well as in oral presentations to the Commission at the Initial Public Hearing and Public Hearing (section 4.9).
436. The Commission has carefully considered the Material before it as set out in section 4.5 of this report. Based on its consideration of the Material, the Commission finds that the Project should be approved subject to conditions of consent for the following reasons:
- the Commission finds that the Applicant has appropriate measures in place to ensure that it will have access to sufficient water supply for its operations. If necessary, during prolonged drought conditions, the Applicant must adjust the scale of its operations to match its available water supply (see section 4.9.1);
 - a groundwater drawdown of greater than 1m would not extend into the surrounding alluvium beyond the immediate Project mining area and the Applicant has committed to 'make good' provisions for impacted users should there be a greater than 2m drawdown at a privately owned bore (see section 4.9.1);
 - noise impacts have been adequately assessed and where there are predicted exceedances of the PNTL, mitigation and acquisition rights apply (see section 4.9.2);
 - the 24-hour and annual average PM_{2.5}, PM₁₀, TSP and dust deposition levels from the Project would meet applicable criteria at all private receiver locations for all stages of the mine (see section 4.9.3);
 - GHG emissions for the Project have been adequately considered, and in the context of the climate change policy framework (including government policy, objects of the EP&A Act, ESD principles and socio-economic benefits), the impacts associated with the GHG emissions of the Project are acceptable (see section 4.9.4);
 - potential pollution risks associated with long term stability of the rehabilitated landform can be adequately managed with measures set out in the Project's rehabilitation strategy (see section 4.9.5);
 - the Applicant has undertaken a coal price sensitivity analysis to account for potential fluctuations in coal prices, including due to potential future climate change policies. The Economic Assessment is robust and aligns with the applicable guidelines (see section 4.9.7);
 - the Project would generate significant social and economic benefits for the local area, North West region and to NSW (see section 4.9.7);
 - the transport, road and traffic assessments undertaken for the Project are adequate and the proposed management and mitigation measures would help to ensure road safety and road network efficiency in the areas surrounding the Project (see section 4.9.8);
 - the replacement of road haulage with rail transport would provide significant safety improvements to the surrounding road network (see section 4.9.8);
 - in relation to Aboriginal heritage, the Project would result in a loss of value for 24 isolated artefacts and artefact scatter sites, 23 of which are assessed as being of low significance and one artefact scatter site having low-moderate significance. These impacts are acceptable and the proposed ACHMP would allow for effective management of disturbed sites and mitigation of any future impacts on Aboriginal cultural heritage (see section 4.9.8);
 - the potential impacts of the Project on historic heritage values, namely Kurrumbede Homestead and outbuildings are relatively low and can be adequately managed (see section 4.9.8);
 - blasting operations can meet the relevant criteria for residents of privately owned land,

Kurrumbede Homestead and its outbuildings, and all public infrastructure. The impacts of blasting can be appropriately managed through the recommended conditions (see section 4.9.8);

- the implementation of the measures required in the KPoM will assist in ensuring that impacts on Koala habitat are mitigated and managed appropriately (see section 4.9.8);
- the biodiversity impacts on the Site could be effectively managed under a Biodiversity Management Plan (see section 4.9.8);
- the Applicant has committed to satisfying the Project offset requirements through retiring the number and type of offset credits as determined by the OEH Credit Calculator for Major Projects and BioBanking (see section 4.9.8);
- although the residences and dwellings located closest to the Project mining area would be subject to a high visual impact, the level of visual impact on these properties would not materially change when compared with the Approved Project. For some residences the visual impact will be moderate to high, however the mitigation measures (such as landscaping treatments or vegetation screens) and the proposed progressive rehabilitation of the Project landform will ameliorate these impacts and the Commission is of the view that on balance, the visual impacts are acceptable (see section 4.9.8);
- the Applicant will be required to implement reasonable and feasible measures to ensure that all visual and off-site lighting impacts from the Project are minimised (see section 4.9.8);
- the site is suitable for the development (see section 4.7.6);
- the Project is in accordance with the Objects of the EP&A Act (see section 4.10);
- the Project is consistent with ESD, because the Project would achieve an appropriate balance between relevant environmental, economic and social considerations (see section 4.10); and
- the Project is in the public interest (see section 4.10);

437. For the reasons set out in paragraph 436, the Commission has determined that consent should be granted subject to conditions. These conditions are designed to:

- prevent, minimise and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the development.

438. The reasons for the Decision are given in this Statement of Reasons for Decision dated 12 August 2020.



John Hann (Chair)
Member of the Commission



Professor Zada Lipman
Member of the Commission



Professor Chris Fell AM
Member of the Commission

ATTACHMENT 4

**CONTEXT RELATING TO CONDITIONING HAULAGE LIMITS AND THE
KAMILAROI HIGHWAY OVERPASS**

Context relating to conditioning haulage limits and the Kamilaroi Highway Overpass

The original grant of development consent for the Vickery Coal Project (State Significant Development [SSD] 5000) on 19 September 2014 by a delegate of the then NSW Minister for Planning was subject to relevant conditions which provided for the construction and commissioning of the Kamilaroi Highway Overpass. The grant of this development consent and the imposition of these conditions was informed by the NSW Department of Planning and Environment (DPE) *State Significant Development Assessment Report Vickery Coal Project (SSD 5000) (2014)* (the Vickery Coal Project [VCP] Assessment Report).

The Vickery Extension Project (SSD 7480) was approved on 12 August 2020 by the Independent Planning Commission of NSW (IPC). Consistent with the previously approved Vickery Coal Project, the originally proposed Vickery Extension Project (SSD 7480) did not seek to change the existing position under the Vickery Coal Project development consent (SSD 5000) that the Kamilaroi Highway Overpass would need to be constructed and commissioned should the Gunnedah Open Cuts (i.e. Tarrawonga Coal Mine [TCM] [MP11_0047], Vickery Coal Mine and Rocglen Coal Mine [MP10_0015]) intend to transport more than 3.5 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal to the Whitehaven Coal Handling and Preparation Plant (CHPP).

It is noted that the NSW Department of Planning, Industry and Environment Assessment Report for the Vickery Extension Project (2020) relevantly stated that:

The Approved Project involves the construction of an overpass of the Kamilaroi Highway, to avoid the need for coal haulage trucks to cross the highway to access the CHPP. The Project would continue to transport ROM coal via the approved road haulage route to the CHPP for processing until the Project CHPP, train load-out facility and rail spur infrastructure are fully operational.

...

This approach has been reflected in the recommended conditions of consent which incorporate the relevant requirements of the Approved Project, including existing biodiversity offset obligations and conditions related to the road haulage overpass over the Kamilaroi Highway to access the Gunnedah CHPP.

It is noted that, consistent with this Assessment Report for the Vickery Extension Project, the IPC's Statement of Reasons for approving the Vickery Extension Project (2020) relevantly confirmed that "*The Commission agrees with the Department's assessment that the transport, road and traffic assessments undertaken for the Project are adequate...*".

The original version of the Tarrawonga Coal Project (Tarrawonga Coal Mine [TCM]) (MP11_0047), which was assessed by the NSW Department of Planning and Infrastructure in 2012, proposed to utilise coal railing facilities at the Boggabri Coal Mine once the Boggabri Coal Mine rail spur and CHPP were commissioned. The TCM and Boggabri Coal Mine were unable to reach an agreement to enable transport of ROM coal via these coal railing facilities. As such, TCM (MP11_0047) Modification 1 sought to enable coal haulage from the TCM to the Whitehaven CHPP, which was approved and conditioned on 6 November 2014 (with equivalent conditions to those applying to the Vickery Coal Project requiring the construction and commissioning of the overpass prior to coal haulage exceeding 3.5 Mtpa).

VCP Assessment Report

Whitehaven considers that the primary reason why the development consent for the Vickery Coal Project was granted subject to conditions limiting road haulage to 3.5 Mtpa unless the Kamilaroi Highway Overpass was constructed (allowing an increase in haulage up to 4.5 Mtpa) was to address road safety and road network performance, as outlined in Section 5.4 of the VCP Assessment Report (emphasis added):

The Department notes that its recommendation to limit coal haulage to the day and evening periods (as discussed in Section 5.1) would increase the number of trucks on the haulage route during the day-time period (by an average of 6 per hour), though is satisfied that this increase would not be significant. The Department also notes that the main safety risk associated with the development, being the interaction of haulage trucks and other traffic on the Kamilaroi Highway, would be removed prior to any increase in haulage levels. Consequently, the Department is satisfied that the recommendation to limit haulage to the specified period would be unlikely to result in any significant impacts to the safety and performance of the haul road including Blue Vale Road and relevant intersections of the Kamilaroi Highway.

...

GSC recommended that the Kamilaroi Highway overpass be constructed as part of the construction phase of the development, as it believes that the intersection of Blue Vale Road and the Kamilaroi Highway presents a considerable road safety risk in its current form. However, the Department notes that the intersection of Blue Vale Road and the Kamilaroi Highway was upgraded by Whitehaven during 2011 to cater for the current volume of coal haulage. On this basis, the Department considers that it is currently satisfactory.

However, the Department notes that the intersection [between Kamilaroi Highway and Bluevale Road] would be subject to increased traffic volumes resulting from the development, and other mining projects in the region. The Kamilaroi Highway would be subject to an additional 1,081 vehicle movements per day by Year 7 of operations, when considered with the cumulative predicted traffic volumes from the Leard State Forest mines. This accounts for an increase of approximately 35% over the existing traffic volumes.

Given the expected growth in traffic, and lack of certainty relating to the timeframe for constructing and commissioning the overpass, the Department has recommended a condition requiring Whitehaven to construct and commission the overpass prior to exceeding existing approved transport volumes on the haul route (ie. 3.5 Mtpa from all mines).

The Department has also recommended that Whitehaven undertakes periodic traffic safety audits of the intersection if the overpass is not constructed within a reasonable timeframe (ie. by the end of 2018), and to implement the recommendations of any such audit.

As outlined in Section 6.2 of the Modification Report and Appendix A, there would be a reduction in haulage truck movements under the Modifications compared to that originally assessed for the Vickery Coal Project (SSD 5000) and considered by the consent authority when approval was granted for the Vickery Coal Project. This is due to increasing the truck payloads and extending hours of haulage operation by four additional hours on weekdays and Saturdays (excluding public holidays).

Whitehaven commissioned an independent traffic audit in accordance with Condition B84 of SSD 7480. As outlined in Section 6.2.4, McLaren Traffic Engineering and Road Safety Consultants (2026) concluded there were no concerns in relation to the future operational performance of the haulage route, or road safety issues, to and from the GOC operations and its intersection with the Kamilaroi Highway as audited in accordance with relevant conditions of SSD 7480.

Section 5.4 of the VCP Assessment Report also noted the existing road maintenance agreement between Gunnedah Shire Council (GSC) and Whitehaven and GSC's position on the Kamilaroi Highway Overpass as follows:

In this regard, Blue Vale Road is currently subject to an agreement between GSC and Whitehaven, with Whitehaven required to pay 95% of the maintenance costs of the road. The Department supports this ongoing funding arrangement noting that approximately 80% of traffic on the road would be development related, and has recommended a condition requiring Whitehaven and GSC to review their current agreement to reflect the proposed increase in mine-related traffic.

...

GSC recommended that the Kamilaroi Highway overpass be constructed as part of the construction phase of the development, as it believes that the intersection of Blue Vale Road and the Kamilaroi Highway presents a considerable road safety risk in its current form. However, the Department notes that the intersection of Blue Vale Road and the Kamilaroi Highway was upgraded by Whitehaven during 2011 to cater for the current volume of coal haulage. On this basis, the Department considers that it is currently satisfactory.

Whitehaven has consulted with GSC on the Modifications and its existing road maintenance agreement for the GOC operations. GSC has indicated their general support for the proposed Modification during engagement and will provide a submission during the exhibition phase as outlined in Section 5.2.

As outlined in Section 5.4 of the VCP Assessment Report, Whitehaven designed the Vickery Coal Project to reduce traffic and transport impacts, including (DPE, 2014):

- *limiting the quantity of coal¹ to be transported to the CHPP to existing approved levels until the Kamilaroi Highway overpass is commissioned;*
- *diverting local roads to be impacted by the development (at the mine site);*
- *maintaining an agreement with GSC for the maintenance of Blue Vale Road; and*
- *implementing a protocol for ROM coal haulage interactions with school buses.*

Whitehaven has and will continue to implement the above measures as relevant to the Modifications, as well as the measures outlined in Section 6 of the Modification Report.

Having regard to the above relevant context, it is considered that the consent authority can be satisfied that the approval of the Modifications is not inconsistent with the relevant reasons for previous decisions by consent authorities to impose conditions regulating road haulage and the construction and commissioning of the Kamilaroi Highway Overpass.

¹ The intent of limiting coal transported was to reduce hourly truck movements between the GOC operations and Whitehaven CHPP. Whitehaven has reduced hourly truck movements by increasing the truck payloads and extending hours of operation.

References

McLaren Traffic Engineering and Road Safety Consultants (2026), *Stage 6 Existing Road Safety Audit of Haulage Route*

NSW Department of Planning and Environment (2014). *State Significant Development Assessment Report Vickery Coal Project (SSD 5000)*.

NSW Department of Planning and Infrastructure (2012). *Major Project Assessment Tarrawonga Extension Project (11_0047)*.

NSW Department of Planning, Industry and Environment (2020). *Vickery Extension Project State Significant Development Assessment SSD 7480*.

NSW Independent Planning Commission (2020) *Vickery Extension Project SSD 7480 Statement of Reasons for Decision*.