



Statement of Reasons for Approval under the *Environment Protection and Biodiversity Conservation Act 1999*

I, SUSSAN LEY, Minister for the Environment, provide the following statement of reasons for my decision of 15 September 2021, under subsection 130 (1) and section 133 of the *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**), to approve the extension of the existing Vickery Coal Project (EPBC 2016/7649) (**proposed action**).

LEGISLATION

1. Relevant legislation is set out in Annexure A. This legislation does not form part of my reasons but is provided as contextual background to my decision.

BACKGROUND

Description of proposed action

2. The proposed action involves extending an existing approved open cut mine known as the Vickery Coal Project (EPBC 2012/6263) (**Approved Project**) and related surface infrastructure and activities to process up to 10 million tonnes of coal per annum (Mtpa) for 25 years.
3. The proposed action includes:
 - a. 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
 - b. increasing the 'peak' extraction rate of run-of-mine (ROM) coal from 4.5 to 10 Mtpa (ROM coal is coal of all sizes which comes out of the mine without any crushing or screening) for both the Approved Project and the proposed action.
 - c. physical extensions to the approved mine footprint, including open cut and waste rock emplacement areas, increasing the disturbance area by approximately 984.4 hectares (ha) so that the total disturbance area for the Approved Project and the proposed action would be 2,993 ha. The additional 984.4 ha of disturbance area as a result of the proposed action contains 728.4 ha of native vegetation, which is comprised of 108.4 ha of woodland and 620 ha of grassland.
 - d. constructing and operating a Coal Handling and Processing Plant (**CHPP**), train load out facility, rail loop and rail spur line at the project site
 - e. constructing and operating a water supply borefield and pipeline
 - f. 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).
4. It is proposed that the CHPP and rail load out facility would:

- a. stockpile and process a total of 13 Mtpa of ROM coal from the project and other mining operations conducted by Whitehaven Coal Limited (the parent company of the proponent)
 - b. produce up to 11.5 Mtpa of metallurgical and thermal coal products
 - c. transport up to 11.5 Mtpa of product coal from the rail load facility, the rail spur line and via the public rail network to Newcastle for export markets.
5. The Vickery Coal Mine is located 25 km north of Gunnedah, NSW, within the Gunnedah and Narrabri local government areas. The proposed mining area is located within the Namoi catchment and drains to the Namoi River via its tributaries including Driggie Draggie Creek and Stratford Creek, both of which are ephemeral watercourses. The proposed rail spur is located in the Namoi River catchment area that contains an extensive floodplain. Flow paths crossed by the proposed rail spur include Stratford Creek, Deadmans Gully and Namoi River.
 6. The proponent and the person proposing to take the action, Vickery Coal Pty Ltd, is 100 per cent owned by Whitehaven Coal Holdings Pty Limited, which itself is 100 per cent owned by the ASX listed company Whitehaven Coal Limited.

EPBC Act referral and controlled action decision

7. The Approved Project was referred under section 68 of the EPBC Act in January 2012. On 17 May 2012, a delegate of the then Minister determined that it was not a controlled action if undertaken in a particular manner.
8. On 12 February 2016, Whitehaven Coal Limited referred the proposed action under section 68 of the EPBC Act.
9. On 14 April 2016, a delegate of the then Minister determined that the proposed action was a controlled action under section 75 of the EPBC Act, and that the controlling provisions for the proposed action were:
 - a. sections 18 and 18A (listed threatened species and ecological communities)
 - b. sections 24D and 24E (water resources).
10. The decision noted that the proposed action would be assessed under the assessment bilateral agreement with NSW.
11. On 17 February 2017, a delegate of the then Minister accepted variations to the proposed action which included varying the route of the proposed rail spur and loop connecting the Vickery Coal mine to the Werris Creek to Mungindi rail line, and developing a groundwater supply borefield along a corridor to the north of the proposed mine infrastructure area within the footprint of the Approved Project.
12. On 17 July 2018, a delegate of the then Minister accepted further variations to the proposed action to change the designated proponent from Whitehaven Coal Limited to Vickery Coal Pty Ltd, and to:
 - a. remove the Blue Vale Open Cut from the footprint of the proposed action.
 - b. vary the route of the proposed rail spur and loop connecting the Vickery Coal mine to the Werris Creek to Mungindi rail line.
 - c. change the location of the mine infrastructure area to the south of the Western Emplacement.

NSW assessment and approval, and IESC advice

13. In September 2014, a delegate of the NSW Minister for Planning approved the Vickery Coal Project as a State Significant Development (SSD-5000) under the *Environmental Planning and Assessment Act 1979* (NSW) (**EP&A Act**).
14. The proposed action has also been assessed under the EP&A Act, and was approved by the NSW Independent Planning Commission (**IPC**) on 12 August 2020. The footprint of the extension project as assessed by NSW is 208.6 ha smaller than the footprint of the proposed action as referred under the EPBC Act. This is because this 208.6 ha area was previously assessed by NSW as part of the Vickery Coal Project, but was not referred to the Commonwealth as part of the Approved Project.
15. Further, the NSW assessment of the proposed action considered the Approved Project and the proposed action cumulatively. In this statement of reasons I refer collectively to this as the **Project**.
16. The proponent lodged the application and an Environmental Impact Statement (**EIS**) in relation to the proposed action on 13 August 2018. Public exhibition of the EIS occurred for 90 days between 13 September 2018 and 25 October 2018. During this period 574 public submissions were received, comprised of 14 submissions from NSW agencies and councils, 20 submissions from special interest groups, and 540 submissions from the general public. 62 per cent of submissions supported the project and 36 per cent of submissions objected to it. Key issues raised by the submissions included:
 - a. social impacts on the local farming community, and the social, employment and economic impacts of mining on the broader community and regional economy
 - b. the impacts of the rail spur on the Namoi River floodplain with regard to flooding, and other water related impacts and agricultural impacts
 - c. the need for further clarification/ details of the flood modelling, groundwater sensitivity assessment and exchange between the Namoi River/ groundwater
 - d. the impacts and management of discharges from sediment dams
 - e. the need for further clarification on biodiversity offset liability, credit calculations for rehabilitation and preparation of a Koala Plan of Management
 - f. final landform and land use – final void configuration and the trade-off between biodiversity conservation and agricultural land use in the rehabilitated landscape
 - g. the impact on Aboriginal and Historic Heritage associated with the site
 - h. increases in greenhouse gas emissions as a result of the proposed action
 - i. increase in traffic and transport.
17. The proponent provided a response to these submissions to NSW Department of Planning, Industry and the Environment (**DPIE**), and DPIE prepared an Assessment Report (**DPIE AR**).
18. On 28 September 2018, DPIE and the then Minister's delegate jointly sought advice from the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (**IESC**) on the impacts of the Project on local water resources. The IESC provided its advice to the NSW DPIE and the Department on 14 November 2018.

19. On 19 May 2020, DPIE referred the Project to the NSW IPC for merit review and determination, recommending that it be approved.
20. The IPC's review included an initial public hearing on 4 and 5 February 2019, and a second public hearing on 2 and 3 July 2020.
21. The IPC received a total of 2,863 written public submissions. 774 submissions were in support, 2043 submissions objected to the Project (of which 935 used template wording), 46 submissions commented on the proposed action. Submissions in support of the Project raised the local and regional socio-economic benefits, including employment opportunities and diversifying from a predominantly agricultural economy. Submissions opposed to the Project raised issues including impacts to groundwater, biodiversity and agricultural land, Greenhouse Gas (GHG) emissions, and social impacts.
22. On 12 August 2020, the NSW IPC approved the proposed action subject to conditions (**NSW development consent**).
23. The Department was formally advised by DPIE of the outcome of the NSW assessment process on 14 August 2020 and provided with the DPIE AR and the NSW development consent. DPIE recommended that I should approve the proposed action.

Proposed decision, consultation and further information

24. On 12 April 2021, I proposed to approve the proposed action subject to conditions. In accordance with sections 131 and 131AA of the EPBC Act, I wrote to each of the following persons and invited comments on the proposed decision and conditions:

- a. the proponent,
- b. The Hon Keith Pitt MP, Minister for Resources, Water and Northern Australia
- c. The Hon David Littleproud MP, Minister for Agriculture, Drought and Emergency Management
- d. The Hon Ken Wyatt AM MP, Minister for Indigenous Australians
- e. The Hon Angus Taylor MP, Minister for Energy and Emissions Reduction
- f. The Hon Michael McCormack MP, Minister for Infrastructure, Transport and Regional Development
- g. The Hon Christian Porter MP, Minister for Industry, Science and Technology.

25. I also notified the NSW Minister for Planning and Public Spaces, the Hon Rob Stokes MP of my proposed decision.

Proponent

26. The proponent responded on 22 April 2021, and suggested a number of amendments to the proposed conditions. These amendments were largely focused on removing conditions that duplicated the conditions attached to the NSW development consent, aligning the conditions with the monitoring and reporting requirements of NSW development consent conditions, and clarifying the intent of some conditions. I accepted the Department's advice that these amendments were appropriate, and they are reflected in the conditions that I attached to the approval. A revised copy of the conditions was provided to the proponent 25 May 2021, and the proponent confirmed on 1 June 2021 that it agreed to the conditions.

Minister for Resources, Water and Northern Australia

27. On 23 April 2021, the Department of Industry, Science, Energy and Resources provided comments from Geoscience Australia. Geoscience Australia advised that it considered the approval conditions were in general outcomes focused, well-conceived and clearly written, and raised a number of issues for additional consideration. I address these issues below under water resources
28. On 4 May 2021, the Director of the National Water Policy and Reform Section of the Department responded on behalf of the Minister for Resources, Water and Northern Australia. The response stated that the National Water Policy and Reform Section had no comments to make, from a water division perspective, on the proposed conditions. The response noted that the IESC had indicated that there is little impact to water from the proposed action and that this arrangement is managed wholly within current extraction permits and NSW policy, and that it was the division's understanding that the intention of the proposed conditions is to mitigate, manage and offset any potential impacts to water resources through ensuring firm adherence to the monitoring and reporting of performance measures for the controlled action.

Minister for Indigenous Australians

29. On 28 April 2021, the Minister for Indigenous Australians responded. I address these comments below under economic and social matters.

Minister for Infrastructure, Transport and Regional Development

30. On 21 April 2021, the Deputy Prime Minister and Minister for Infrastructure, Transport and Regional Development responded, noting that the proposed action will have a significant social, economic and environmental impact on the local community of Gunnedah and the surrounding regions.
31. Nil response was received from the Minister for Agriculture, Drought and Emergency management, the Minister for Industry, Science and Technology and the Minister for Energy and Emissions Reduction.

Decision

32. Between 29 September 2020 and 30 August 2021, the statutory period to make this decision was extended a number of times, to 15 September 2021.
33. On 15 September 2021, I decided to approve the taking of the proposed action for the purposes of sections 18, 18A, 24D and 24E, subject to conditions.

EVIDENCE OR OTHER MATERIAL ON WHICH MY FINDINGS WERE BASED

34. My decision to approve the taking of the proposed action was based on consideration of the final approval decision brief prepared by the Environment Assessments (NSW, ACT) Branch of the Department dated 14 September 2021.
35. This final approval decision brief comprised the following:
- a. Attachment A Proposed decision briefing package
 - i. Attachment A - Legal considerations and departmental analysis and maps
 - ii. Attachment B - Proposed approval decision notice

- iii. Attachment C - Letters to Proponent, Commonwealth Ministers and NSW Minister for NSW Minister for Planning and Public Spaces
- iv. Attachment D1 - QA checklist
- v. Attachment D2 - ERT report with 10 km buffer generated on 24 March 2021
- vi. Attachment D3 - Department's Review of the 24 March 2021 ERT report
- vii. Attachment D4 - Existing approved open cut mine referral package for Vickery Coal Project (2012/6263)
- viii. Attachment D5 - Approved variations to the proposed action and the designated proponent
- ix. Attachment D6 - Notices for Extension of timeframe in which to make a decision whether to approve a controlled action (29 September 2020 and 9 December 2020)
- x. Attachment D7 - Vickery Extension Project referral package (2016/7649)
- xi. Attachment E1 - Species Information and Policy Section listing advice
- xii. Attachment E2 - OWS advice on state conditions related to surface and ground water
- xiii. Attachment E3 - Environmental history check (October 2020)
- xiv. Attachment F1 - Letter requesting further information about Environmental History from the proponent (10 December 2020) and the response from the proponent (29 January 2021)
- xv. Attachment F2 - Letter requesting further information about the proponent's Environmental History from NSW Planning (9 December 2020) and the response from NSW Planning (2 February 2021)
- xvi. Attachment F3 - Letter requesting further information about Environmental History from the proponent (5 March 2021) and the response from the proponent (19 March 2021)
- xvii. Attachment F4 - 2019-2020 bushfire information provided by the proponent about impacted areas adjacent to proposed action area and distribution of species.
- xviii. Attachment F5 - Presentation by Whitehaven Coal provided to the Department about the Vickery Extension Project
- xix. Attachment F6 - email from Whitehaven advising the Department of the Company Structure of Vickery/Whitehaven (3 December 2020)
- xx. Attachment G – NSW Assessment Documentation
- xxi. Attachment H – Conservations Advices, Recovery Plans and Threat abatement Plans
- xxii. Attachment I – Proponent Assessment material, including the Environmental Impact Statement, Response to Submissions reports and additional information

- xxiii. Attachment J IESC advice (14 November 2018)
- xxiv. Attachment K Namoi subregion bioregional assessment
- b. Attachment B - Updated legal considerations report
- c. Attachment C1 - Response to invitation to comment – Deputy Prime Minister and Minister for Infrastructure, Transport and Regional Development for Resources
- d. Attachment C2 - Response to invitation to comment - Minister for Resources, Water and Northern Australia
- e. Attachment C3 - Response to invitation to comment - Minister for Indigenous Australians
- f. Attachment D1 - *Sharma v Minister for Environment* [2021] FCA 560 (*Sharma No 1*)
- g. Attachment D2 - *Sharma v Minister for Environment* (No 2) [2021] FCA 774 (*Sharma No 2*)
- h. Attachment E - Final decision notice
- i. Attachment F - Whitehaven Coal Sustainability Report
- j. Attachment G - Expert Report, NSW Independent Planning Commission, Public Hearing – Vickery Extension Project, 30 June 2020, Professor Will Steffen
- k. Attachment H - Proponent's response to invitation to comment
- l. Attachment I - Ashurst letter to DAWE
- m. Attachment J1 - DISER Analysis
- n. Attachment J2 - Supplementary DISER analysis
- o. Attachment K1 - Letter to Proponent, Commonwealth Ministers and the NSW Minister for Planning and Public Spaces
- p. Attachment L - DAWE Provisional list of animals requiring urgent management intervention (2020)
- q. Attachment M - DAWE Rapid analysis of impacts of the 2019-20 fires on animal species, and prioritization of species for management response
- r. Attachment N - *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy (2012)*
- s. Attachment O - National Recovery Plan for the Winged Peppercress (*Lepidium monoplocoides*)
- t. Attachment P - The Greenhouse Gas Protocol 2004 (World Business Council for Sustainable Development and World Resources Institute)
- u. Attachment Q - Protected Matters Search
- v. Attachment R - Letter from Whitehaven on Environmental History Information dated 2 September 2021 in response to Department's further information request dated 25 August 2021
- w. Attachment S1 - Expert Report of Ramona Meyricke

- x. Attachment S2 - Expert Report of Professor Anthony Capon
- y. Attachment S3 - Expert Report of Professor Will Steffen
- z. Attachment S4 - Expert Report of Dr Karl Mallon
- aa. Attachment S5 - Supplementary report of Professor Will Steffen

FINDINGS ON MATERIAL QUESTIONS OF FACT AND REASONS FOR DECISION

Water resources (sections 24D & s 24E)

36. I was satisfied that the NSW assessment process identified the potential impacts of the Project on water resources, and that these impacts are accurately summarized in the DPIE AR (see in particular at pages 28 - 65) and the IPC statement of reasons (see in particular at pages 19 - 35).
37. On the basis of the NSW assessment process, and particularly the information and conclusions in the DPIE AR and the IPC statement of reasons, I found that generally the impacts of the proposed action on water resources are adequately addressed by conditions B39 to B54 and B101 to B106 of the NSW development consent. These conditions relate to:
- a. water supply (B39-B40)
 - b. compensatory water supply (B41-B45)
 - c. water discharges (B46)
 - d. mine water storages (B47)
 - e. flooding (B48-B49)
 - f. the Namoi River Pipeline (B50)
 - g. water management performance measures (B51-B52)
 - h. the preparation and implementation of a water management plan (B53)
 - i. rehabilitation of the site, including in relation to the final void and water quality (B101-B106).
38. I accordingly decided that it was necessary and convenient to attach conditions that reinforce the NSW development consent conditions, and which require that the proponent:
- a. comply with NSW development consent conditions B39 to B54 (condition 1)
 - b. ensure that there is not adverse effect on the functions of a water resource as result of the proposed action (condition 2)
 - c. inform the Department in writing within two business days if it applies to modify the conditions B39 to B54 of the NSW development consent (condition 3)
 - d. inform the Department in writing within 10 business days if conditions B39 to B54 of the NSW development consent are modified (condition 4)
 - e. provide the Department with a copy of the final version of the Water Management Plan required under NSW development consent condition B53 within 10 business days of its approval by the NSW Planning Secretary (condition 6).

- f. notify the Department of any changes to the final version of the Water Management Plan, and provide the Department with a copy of any revised and approved Water Management Plan (condition 7).

39. In comments on my proposed decision, Geoscience Australia recommended that the Commonwealth should approve the Water Management Plan required under the NSW development consent conditions. I accepted the Department's advice that approval of the Water Management Plan by the NSW Planning Secretary (as required under the NSW development consent condition) is sufficiently rigorous.

IESC recommendations mostly addressed by NSW conditions

40. The IESC advice identified the key potential impacts from the proposed action as:

- a. groundwater drawdown from mining operations, primarily in the Maules Creek Formation (part of the Gunnedah-Oxley Basin MDB Groundwater Source in the Murray-Darling Basin Porous Rock Groundwater Source Water Sharing Plan) that may affect groundwater availability and aquifer interactions, and
- b. groundwater drawdown mainly associated with the proposed water supply borefield in the Alluvial Groundwater Source that may affect groundwater availability and the dynamics of surface water-groundwater interactions.

41. The IESC noted that the groundwater extraction volumes predicted by the proponent are generally within the allocations for both aforementioned groundwater sources currently held by Whitehaven Coal Limited.

42. I accepted the Departmental advice, including from the Department's Office of Water Sciences (**OWS**) that the areas of further work required and recommendations made by the IESC have mostly been addressed by the NSW assessment process, and/or by the conditions attached to the NSW development consent. I accepted the IESC and Departmental advice that there were two aspects of the management of potential impacts on water resources that could be better addressed by attaching additional conditions to the approval, which I discuss below.

Outstanding issue - water quality monitoring

43. The IESC suggested that potential impacts to the EPBC Act-listed Murray Cod (*Maccullochella peelii*) could be further reduced if construction activities (e.g. building the rail crossing) in the Namoi River are avoided or limited during higher winter/spring flows which are a cue for breeding for this species. The IESC made suggestions about reducing the potential impacts to the state-listed eel-tailed catfish.

44. NSW development consent condition B53 requires that a Water Management Plan be prepared to the satisfaction of the NSW Planning Secretary, which will make provision for surface water quality monitoring, including against the performance measures in the NSW development consent condition B51.

45. OWS advised, consistent with the IESC's recommendation, that the surface water management plan required as part of the Water Management Plan under NSW development condition B53(g)(iv) should include:

- a. management and mitigation strategies to minimise potential impacts to the EPBC Act-listed Murray Cod (*Maccullochella peelii*) and state-listed eel-tailed catfish (*Tandanus tandanus*) during construction activities.

- b. details of any chemical dust suppressants used as an alternative to water dust suppression, including the proposed chemicals, typical application rates, and an assessment of the chemicals including the likelihood that they will enter the environment (e.g. soil, groundwater or surface water) and the potential persistence and toxicity of these chemicals or their breakdown products. Furthermore, if data on chronic toxicity to aquatic organisms is not available, the proponent should consider undertaking direct toxicity assessments according to the Australian and New Zealand Guidelines (ANZG 2018).

46. Although I did not find that the proposed action is likely to have a significant impact on the Murray Cod, I considered that it was convenient to attach a condition to the approval to ensure that the proposed action will not have an adverse impact on water quality and, in turn, this species (condition 5).

Outstanding issue - groundwater monitoring

47. The IESC made a number of suggested improvements for mitigation and management of potential impacts, specifically in relation to groundwater monitoring.
48. NSW development consent condition B53(g)(v) requires that the Water Management Plan that must be prepared must include a Groundwater Management Plan.
49. OWS advised that the Groundwater Management Plan should include a program to monitor, model and evaluate potential impacts from the proposal, as outlined in the IESC advice. Further, OWS advised that, whilst condition B53(g)(v) includes a requirement to develop trigger levels for identifying and investigating any potentially adverse impacts associated with the development, OWS considered that the approval could be strengthened by specifying both groundwater quantity and quality triggers, as groundwater quality is a key theme discussed throughout the IESC advice.
50. The Water Resources Strategy Section within the Department provided advice on performance limits and triggers, and when water extraction should cease to protect groundwater resources and ground-water dependent ecosystems.
51. On the basis of this advice, I decided that it was necessary to attach additional conditions on the approval which require that the proponent must:
 - a. establish and maintain groundwater networking bores prior to the commencement of mining operations, monitor groundwater levels every three months for the life of the approval, and publish groundwater monitoring data on their website (condition 8)
 - b. submit performance criteria and limits relevant to groundwater extraction impacts for the alluvial aquifer for the Minister's approval with evidence-based justification (condition 9), and provide that ground water extraction from the water supply bore field cannot commence until I have approved these performance criteria and limits (condition 10)
 - c. if an approved limit is exceeded, notify the Department of the exceedance within 2 business days (condition 11), cease groundwater extraction from the water supply bore field within 2 business days (condition 12), provide information identifying the likely cause of the exceedance and proposing measures to mitigate and manage any impacts to water users (condition 13), and not recommence groundwater extraction until I have approved this information (condition 14).
52. I considered that these conditions will provide additional information and warning of any potential adverse impact of the proposed action on groundwater resources, and ensure that

there are clear, evidence-based cease-work limits, and protocols to be followed should those limits be exceeded.

53. In comments on my proposed decision, Geoscience Australia stated that the timeframes stipulated for notifying of a limit exceedance may not be sufficient to enable the approval holder to address the requirements. The proponent has reviewed and agreed to the conditions, and I was satisfied that the timeframes are appropriate.
54. Geoscience Australia also raised concerns about the efficacy of enforcing the cessation of pumping from the water supply bore field for any limit exceedance relevant to alluvial aquifers or aquatic and riparian ecosystems. Geoscience Australia noted that an exceedance may not be due to water supply pumping – for example, an exceedance may be related to mine dewatering, so ceasing water supply pumping would have no effect. I was satisfied that the NSW development consent conditions adequately deal with other water resource impacts, including mine water. Further, the changes I made to the requirements for recommencing groundwater extraction (discussed immediately below) allow for more flexibility as to remediation action.
55. Finally, Geoscience Australia raised concerns about the proposed cease-work provision in relation to groundwater extraction in the proposed conditions, which stated that if the approval holder was required to cease ground water extraction because an approved limit was exceeded, extraction could not recommence until I agreed, in writing, that the impact has been reversed. Geoscience Australia noted that in some instances the impact to a water resource may never be reversed, or take many years and suggested that other options, such as offsets or remediation activities, could be considered. In its comments on my proposed decision the proponent also raised concerns about this proposed condition. I agreed with the Department's recommendation that this condition be amended so that the conditions provide that extraction can recommence once the information identifying the likely cause of the exceedance has been approved, and require that the approval holder implement approved mitigation and management measures.

Conclusion about water resources

56. I found that, if the proposed action is undertaken in accordance with the conditions I have attached to the approval, the impacts of the proposed action on water resources will not be unacceptable.

Threatened species and ecological communities (sections 18 & s 18A)

57. On the basis of the Environmental Reporting Tool (ERT) report, the DPIE AR and the Department's advice, I considered that the proposed action is likely to have a significant impact on the following listed threatened species:
- a. Swift Parrot (*Lathamus discolor*) – endangered
 - b. Regent Honeyeater (*Anthochaera phrygia*) – critically endangered
 - c. Koala (combined populations of Qld, NSW and the ACT) (*Phascolarctos cinereus*) – vulnerable.
58. When the proposed action was referred in 2016, the Department considered that there was a possibility that the proposed action could have a significant impact on a number of other listed threatened species and ecological communities. On the basis of the information in the EIS, the findings in the DPIE AR and the Department's advice, I was satisfied that the proposed action is not likely to have a significant impact on any listed threatened species or ecological communities other than the three species above.

Approved conservation advice, recovery plans and threatened abatement plans for listed threatened species

Swift Parrot

59. The Swift Parrot was up-listed to critically endangered effective 5 May 2016, just after the controlled action decision was made. In accordance with section 158A of the EPBC Act, I disregarded this listing event for the purposes of making this decision.
60. The recovery plan for Swift Parrot commenced in 2011 and identifies major threats to the species as habitat loss and alteration, climate change, collision mortality, competition, disease, illegal wildlife capture and trade, and cumulative impacts. Similarly, the conservation advice for Swift Parrot which came into force in 2016 identifies major threats to the species as predation by sugar gliders; habitat loss and alteration; collision mortality; competition; disease and illegal wildlife capture and trading.
61. The overall strategy for the recovery of the species, as detailed in the recovery plan, is to:
- a. identify the extent and quality of habitat
 - b. manage and protect Swift Parrot habitat at the landscape scale
 - c. monitor and manage the impact of collisions, competition and disease
 - d. monitor population and habitat.
62. The conservation advice states that the priority conservation and management actions are to:
- a. review and update management prescriptions for swift parrots for use in the Forest Practices System and Local Government land use planning and approvals processes across the breeding and non-breeding range of Swift Parrots
 - b. revise and update forestry prescriptions to reflect the most recent habitat information available in Victoria and New South Wales
 - c. develop and implement strategies to reduce predation from sugar gliders when circumstances require
 - d. consider installing nesting boxes suitable for Swift Parrots in areas of low sugar glider predation to enhance swift parrot breeding success
 - e. continue to raise public awareness of the risks of collisions and how these can be minimised, targeting known high risk areas such as the greater Hobart, Melbourne and Western Sydney areas, and the central coast region of New South Wales (Wyong, Gosford, Lake Macquarie and Penrith Local Government areas)
 - f. encourage and support the protection, conservation management and restoration of swift parrot nesting and foraging habitat through agreements with landowners, incentive programs and community projects
 - g. develop and implement a Disease Risk Assessment for Swift Parrots.
63. The threat abatement plan for predation by feral cats is relevant to the Swift Parrot.

Regent Honeyeater

64. The conservation advice for Regent Honeyeater came into force in 2015 and identifies major threats to the species as clearing, degradation and fragmentation of habitat; removal of

trees for timber and firewood, invasive weeds and inappropriate fire regimes; competition with other birds; and severe loss of genetic variability. Similarly, the recovery plan for the Regent Honeyeater which commenced in 2016 identifies major threats to the species as small population size, habitat loss, fragmentation and degradation, and competition.

65. The overall strategy for the recovery of the species, as detailed in the recovery plan, is to
- a. improve the extent and quality of regent honeyeater habitat
 - b. bolster the wild population with captive-bred birds until the wild population becomes self-sustaining
 - c. increase understanding of the size, structure, trajectory and viability of the wild population
 - d. maintain and increase community awareness, understanding and involvement in the recovery program.
66. The approved conservation advice states the priority conservation and management actions to assist in the recovery of the species are to:
- a. reverse the long-term population trend of decline and increase the numbers of Regent Honeyeaters to a level where there is a viable, wild breeding population, even in poor breeding years
 - b. maintain key Regent Honeyeater habitat in a condition that maximises survival and reproductive success, and provides refugia during periods of extreme environmental fluctuation
 - c. improve the extent and quality of Regent Honeyeater habitat
 - d. bolster the wild population with captive-bred birds until the wild population becomes self-sustaining
 - e. maintain and increase community awareness, understanding and involvement in the recovery program.
67. The threat abatement plan for competition and land degradation by rabbits is relevant to the Regent Honeyeater.

Koala

68. Conservation advice for Koala came into force in 2012 and identifies the major threats to the species as loss and fragmentation of habitat, vehicle strike, disease and predation by dogs. The conservation advice states that priority management, recovery and threat abatement actions that will support the recovery of the Koala are to:
- a. develop and implement a development planning protocol to be used in areas of koala populations to prevent loss of important habitat, koala populations or connectivity options
 - b. development plans should explicitly address ways to mitigate risk of vehicle strike when development occurs adjacent to, or within, koala habitat
 - c. monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary
 - d. identify populations of high conservation priority

- e. investigate formal conservation arrangements, management agreements and covenants on private land, and for Crown and private land investigate and/or secure inclusion in reserve tenure if possible
- f. manage any other known, potential or emerging threats such as Bell Miner Associated Dieback or Eucalyptus rust
- g. develop and implement options of vegetation recovery and re-connection in regions containing fragmented koala populations, including inland regions in which koala populations were diminished by drought and coastal regions where development pressures have isolated koala populations
- h. develop and implement a management plan to control the adverse impacts of predation on Koalas by dogs in urban, peri-urban and rural environments
- i. engage with private landholders and land managers responsible for the land on which populations occur and encourage these key stakeholders to contribute to the implementation of conservation management actions.

69. There are no threat abatement or recovery plans relevant to the koala.

Impact on listed threatened species

70. In determining the impact of the proposed action on listed threatened species and communities, I have had regard to the department's analysis of the extent of the 2019/2020 bushfires on the relevant species. I noted that the proposed action area is not considered a priority area as it is not adjacent to largely burnt areas of habitat. At a local level, the closest impacts of the main fires were approximately 40 km away from the proposed action area and 8.5 km from the closest offset area (Willeroi East Offset area). Regionally and nationally, the fires were more severe in other areas of eastern Australia, and, as a result, have reduced overall habitat for the 3 impacted listed threatened species.

71. The nature of the proposed action means that it is unlikely to contribute to increased feral animal activity within the proposed action area.

72. The EIS and DPIE AR stated that the proposed action will result in the clearing of:

- a. 104.7 ha of potential foraging habitat for the Swift Parrot
- b. 75.2 ha of potential habitat for the Regent Honeyeater
- c. up to 80.9 ha of potential habitat for the Koala, of which approximately 1 ha is core Koala habitat and approximately 30.9 ha is located exclusively in the Commonwealth assessment footprint (and not in the NSW assessment footprint).

73. Consistent with the Department's advice, and the *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance*, I found that this would have a significant impact on the 3 species as. Specifically, I determined that the proposed action would likely reduce the area of occupancy of the Swift Parrot and the Regent Honeyeater, and would adversely affect habitat critical to the survival of the Koala.

NSW development consent conditions relevant to listed threatened species

74. NSW development conditions B56-B62 and conditions B66-B67 relate to the retirement of biodiversity credits to compensate for impacts to biodiversity as a result of the project, in accordance with the NSW Biodiversity Offset Scheme. This includes the option for the proponent to retire ecosystem or species credits using rehabilitated land, if specific criteria

outline in a Rehabilitation Management Plan is met to the satisfaction of the NSW Biodiversity Conservation Division.

75. The DPIE AR stated that the conditions relating to offsetting are consistent with the NSW Major Projects Offsetting Policy, the NSW Biodiversity Offsetting Scheme, and the Framework for Biodiversity Assessment (FBA), which have been endorsed by the Commonwealth. As such, I was satisfied that these conditions are consistent with the EPBC Act Offsets Policy.
76. The NSW development consent conditions require the proponent to prepare and implement:
- a. a Biodiversity Management Plan which details management actions to minimise the amount of clearing and enhance the quality of vegetation and vegetation connectivity within the project area (conditions B63-B64).
 - b. a Koala Plan of Management which details mitigation measures and sets out responsibilities for monitoring and evaluation (condition B65).
77. The NSW development consent conditions also require that the proponent to rehabilitate the proposed action area, including by preparing and implementing a Rehabilitation Strategy and a Rehabilitation Management Plan (conditions B101-106).

Conditions of approval in relation to listed threatened species and ecological communities

78. In light of the significant impact of the proposed action on the three listed threatened species described above, I considered that it was necessary to attach conditions to the approval to protect, or to repair or mitigate damage to, these species.
79. I decided to impose limits on the clearing of suitable habitat for the three listed threatened species consistent with the description of the proposed action in the EIS and the DPIE AR (see above at [72]) to ensure that no additional habitat of these three species will be cleared (condition 15).
80. I decided to attach conditions that build upon the conditions of the NSW development consent, and which require that the proponent:
- a. comply with conditions B56-67 (to the extent that these conditions relate to EPBC Act listed threatened species) and B101-B106 of the NSW development consent (condition 16).
 - b. inform the Department in writing within two business days if it applies to modify the conditions B56-B67 and B101-B106 of the NSW development consent (condition 17).
 - c. inform the Department in writing within 10 business days if conditions B56-B67 and B101-B106 of the NSW development consent are modified (condition 18).
81. I considered that it was necessary to impose conditions to ensure that the habitat of the three listed threatened species that would be cleared would be offset.
82. Having regard to the offset liability for the three species, and the difference in area between the action footprint as assessed by NSW and as referred under the EPBC Act, I determined that:
- a. the biodiversity impacts from the proposed action on the Swift Parrot will be offset under the NSW development consent conditions.
 - b. a further 2087 species credits will be required in relation to the Regent Honeyeater.

c. a further 795 species credits will be required in relation to the Koala.

83. I decided that it was necessary to impose a condition requiring the proponent to retire the biodiversity credits specified in Table 10 and 11 of NSW development consent conditions B58 and B59 to provide offsets for the Regent Honeyeater, Swift Parrot and Koala, and to publish a credit retirement report on their website within 10 business days (conditions 19 and 20).

84. In order to ensure the additional offset requirements were met, I decided to impose conditions that:

- a. require the proponent to provide me with a statement, prior to the commencement of the action, validating that the approved land based offsets contain additional habitat equivalent to the additional species credits required (condition 21); and
- b. provide that if I am not satisfied that the approved land-based offsets contain the required habitat, then the proponent may be required to retire specified biodiversity credits under the *Biodiversity Conservation Act 2016* (NSW) within the timeframes specified in the NSW development consent (condition 22).

Conclusion on listed threatened species and ecological communities

85. If the proposed action is undertaken in accordance with the conditions I have attached to the approval, the impacts of the proposed action on listed threatened species and ecological communities will not be unacceptable.

Greenhouse gas emissions relevant to matters of national environmental significance

86. I have considered all completed assessments and NSW development consent conditions relating to the GHG emissions of the proposed action. 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.

87. I noted that, under GHG emissions reporting and accounting frameworks¹, the Scope 2 and 3 emissions estimated for the proposed action are the Scope 1 emissions of other organisations/ developments. For example, the Scope 3 emissions from combustion of coal in an overseas country would form part of the Scope 1 emissions of the organisation / development using the coal (e.g. for metallurgical use of steel manufacturing or for electricity generation) and would also form part of the Scope 1 emissions of the country where the coal is combusted under applicable national accounting frameworks.

Proponent Assessment

88. The proponent's EIS included an Air Quality and Greenhouse Gas Assessment (AQA), undertaken by Ramboll Australia Pty Ltd, dated 16 February 2018. The Proponent's EIS states that the AQA was peer reviewed (AQA Peer Review) by Todoroski Air Services Pty

¹ The *Greenhouse Gas Protocol* (GHG Protocol) (World Business Council for Sustainable Development [WBCSD] and World Resources Institute [WRI], 2004) was applied for the proposed action (Attachment G5 of Final Decision Brief)

Ltd, specifically for the GHG calculations in relation to Scope 3 emissions for the proposed action.

89. The EIS proposes a range of management and mitigation measures to minimise Scope 1 and Scope 2 GHG emissions as far as possible. Diesel consumption is by far the largest Scope 1 contributor (at around 90 per cent) and therefore reduction in diesel use is a high priority for the proposed action. It is also in the proponent's financial interest to minimise the use of diesel. Minimisation strategies include:

- maximising efficiencies of the mining fleet – related to maintenance, higher efficiency engines, idle times;
- optimising mine scheduling to reduce haul lengths and grades;
- revegetation in addition to rehabilitation and offsetting requirements, for example the proposed local enhancement plantings on Whitehaven properties; and
- energy efficiency initiatives to reduce indirect electricity consumption Scope 2 emissions.

90. In relation to the proposed action's coal quality and emissions, further information provided to DPIE by the proponent stated:

'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'.

Public Comments

91. Public submissions on the EIS raised questions about the predicted emissions from the proposed action being lower than those for the Approved Project (the Vickery Coal Project), despite factors such as an increased production rate, larger mining footprint and overburden stockpile that suggest the air quality impacts would be greater.

92. Public submissions during the IPC process raised concerns about the contribution of greenhouse gases from the proposed action to climate change and stated that the approval of the proposed action would be inconsistent with the carbon budget approach to stabilization.

DPIE Assessment

Source of emissions and amount of emissions

93. The DPIE AR noted that the main sources of Scope 1, Scope 2 and Scope 3 Greenhouse Gas (GHG) emissions from the proposed action are from electricity consumption, fugitive emissions of carbon dioxide (CO₂) and methane (CH₄), diesel usage, and the transport and end use of product coal.

94. I noted that the GHG emissions of the proposed action were assessed on a cumulative basis incorporating the Approved Project and extension project, but I considered the additional impacts of the proposed action, over and above those associated with the Approved Project for comparative purposes.

Amount of emissions from both the original and extension projects

95. The DPIE AR states that the emissions from the cumulative projects 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.

96. Annually, the cumulative projects would contribute an average of approximately 0.12 Mt CO₂-e of Scope 1 GHG emissions, and approximately 14.7 Mt CO₂-e of Scope 2 and Scope 3 GHG emissions, over its life.

Emissions from the Extension Project component *only*

97. DPIE AR notes that the extension project would reduce Scope 1 emissions of the Project (original and extension) by about 1 Mt CO₂-e, increase Scope 2 emissions by 0.15 Mt CO₂-e Scope 2 emissions and lead to an increase of about 100 Mt CO₂-e of Scope 3 emissions over the life of the proposed action.
98. The reduction in Scope 1 GHG emissions can be partially attributed to the inclusion of the CHPP, rail loop and rail spur, due to reduction in the consumption of diesel fuel associated with ROM coal haulage by truck to the Gunnedah CHPP.

Scope 1 & 2 emissions

99. According to the DPIE AR, the Project's Scope 1 emissions would contribute to about 0.028 per cent of Australia's current annual GHG emissions and would remain a very small contribution when compared to Australia's commitments under the Paris Agreement, as identified in the Commonwealth government's nationally determined contribution (NDC).
100. The DPIE AR notes that the predicted GHG emissions intensity for the Project would be about 0.02 tonnes of CO₂-e per tonne of ROM coal (including all Scope 1 and Scope 2 emissions) and is comparable or better to other similar coal mining projects in the region, which range from 0.02 to 0.07 tonnes of CO₂-e per tonne of ROM coal.
101. DPIE recommended conditions to manage the GHG emissions of the Project, including requiring for the proponent to:
- take all reasonable steps to improve energy efficiency and reduce Scope 1 and Scope 2 GHG emissions for the proposed action; and
 - prepare and implement an Air Quality and Greenhouse Gas Management Plan, including proposed measures to ensure best practice management is being employed to minimise the Scope 1 and 2 emissions of the proposed action.
102. DPIE considered, in the DPIE AR, that the Project is not inconsistent with the NSW Government's NSW Climate Change Policy Framework and notes that the proponent has committed to minimising the Scope 1 emissions over which it has direct control.

Scope 3 emissions

103. DPIE acknowledged, in the DPIE AR, that the Scope 3 emissions from the combustion of product coal is a significant contributor to anthropogenic 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.
104. DPIE noted that 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.
105. DPIE noted that the NSW and Commonwealth Government's current policy frameworks do not promote restricting private development as a means for Australia to meet its commitments under the Paris Agreement or the long-term aspirational objective of the NSW Government's Climate Change Policy Framework. Neither do they require any action to be taken by the private sector in Australia to minimise or offset the GHG emissions of any parties outside of Australia, including the emissions that may be generated in transporting or using goods that are produced in Australia.

106. The project would produce metallurgical coal (around 60 per cent of the product coal) including semi-soft coking coal, pulverised coal injection coal and thermal coal (around 40 per cent 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).

- Japan and South Korea are signatories to the Paris Agreement and have developed GHG emission reduction targets, which would be managed under the NDCs of these countries.
- Taiwan is not a signatory to the Paris Agreement but has developed its own GHG emission reduction targets (enforced under its Greenhouse Gas Reduction and Management Act) that are comparable to those of countries who are signatories.

107. Overall, DPIE considered that the GHG emissions for the proposed action have been adequately considered and, if the proposed action is undertaken in accordance with the NSW conditions, are acceptable when weighed against the relevant climate change policy framework, objects of the EP&A Act (including the principles of Ecologically Sustainable Development) and the socio-economic benefits of the proposed action.

IPC decision and conditions

108. The IPC agreed with DPIE and acknowledges that Scope 3 emissions from the combustion of product coal are a significant contributor to anthropogenic climate change and that the contribution of the proposed action to the potential impacts of climate change in NSW must be considered in assessing the overall merits of the development application.

109. The IPC noted that, under the Paris Agreement, the Australian Government committed to a NDC to reduce national GHG emissions by between 26 and 28 per cent from 2005 levels by 2030. The IPC also noted that Australia does not require monitoring or reporting of Scope 3 emissions under the Commonwealth Government's National Greenhouse and Energy Report Scheme (NGERS) and they are not counted in Australia's national inventory of GHG emissions under the Paris Agreement. The IPC agreed with DPIE that the proposed action's Scope 3 emissions would not contribute to Australia's NDC, as product coal would be exported overseas. The IPC noted 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.

110. The IPC noted that between 60-70 per cent of the coal proposed to be extracted is likely to be metallurgical coal, with the remainder being thermal coal. The IPC noted that at this point in time, metallurgical coals are essential inputs for the production of approximately 70 per cent of all steel globally. The IPC 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 proposed action's metallurgical coal are acceptable. The IPC also noted that the coal proposed for extraction is anticipated to be of relatively high quality. The IPC notes that the use of higher quality coal may result in lower pollutants.

111. The IPC imposed NSW conditions B35-37 to ensure that the proposed action's emissions are minimised to the greatest extent possible by applying best practice in GHG emissions reductions for Scope 1 and 2 emissions. These conditions require the proponent to:

- take all reasonable steps to improve energy efficiency and reduce Scope 1 and Scope 2 GHG emissions for the proposed action
- prepare and implement an Air Quality and Greenhouse Gas Management Plan, including proposed measures to ensure best practice management is being employed to minimise the Scope 1 and 2 emissions of the proposed action.

112. The IPC concluded in its Statement of Reasons that GHG emissions for the proposed action had 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 proposed action were acceptable and consistent with the public interest.

Conclusion on GHG emissions

113. I noted that, under the EPBC Act, my decision was in relation to the proposed action and not the cumulative impacts of both projects, on the basis that the Vickery Coal Project was earlier determined to be an NCA-PM under the EPBC Act.

114. I noted, on the basis of the further information provided by the proponent on 13 September 2021 on Scope 1 emissions, that the proposed action would result (over 25 years) in approximately:

- 0.62 Mt CO₂-e of Scope 1 emissions,
- 0.15 Mt CO₂-e Scope 2 emissions, and
- 100 Mt CO₂-e of Scope 3 emissions over the life of the proposed action.

115. As noted above, the proposed action, would result in a reduction of about 1 Mt CO₂-e Scope 1 emissions for the Project.

116. I noted that NSW approval conditions B35-37 require that proposed action's Scope 1 & 2 emissions are minimised to the greatest extent possible.

117. I noted that the IPC found 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. The management of GHG emissions under international and national frameworks is discussed further below from [206]-[238].

118. Taking into account the DPIE AR and IPC decision consideration of GHG emissions, I found that the NSW conditions were sufficient to protect matters of national environmental significance, and it was not necessary to impose further conditions in relation to GHG emissions in respect of the applicable controlling provisions.

Social and economic matters (section 136(1)(b))

119. I considered the following economic and social matters relevant to the proposed action.

Economic matters

120. The DPIE AR stated that the project would provide major economic benefits for the region and NSW as whole. I noted that the economic and social benefits of the proposed action were assessed on a cumulative basis incorporating the Approved Project, but consideration was also given to the additional impacts over and above those associated with the Approved Project for comparative purposes. The DPIE AR identified the economic benefits of the project and key changes incorporating the Extension Project, including:

- a direct capital investment of \$607 million (an increase of \$146 million is attributable to the Extension Project)
- generating 500 jobs during peak construction, and up to 450 jobs at the project during operations (an increase of up to 440 additional construction workers and 200 additional operational workers is attributable to the Extension Project)
- generating approximately 181 FTE additional indirect jobs in the region
- generating approximately \$1.16 billion in direct revenue for the NSW Government through royalties and taxes

- providing significant funding for local infrastructure and community service projects over the life of the project, including Voluntary Planning Agreements with Gunnedah Shire and Narrabri Shire Councils (a contribution of \$7.50 million) in addition to Road Maintenance Agreements.
121. An economic assessment for the project was undertaken by AnalyEcon in 2018. DPIE engaged an independent economist to independently review the economic evaluation and economic impact associated with the project.
122. The proponent's economic assessment predicted that the Project would generate significant benefits for NSW and the region, including:
- 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
 - a net economic benefit of \$1.16 billion NPV from generation of additional tax revenue and royalties.
123. The proponent's economic assessment also predicted the Project would generate the following indirect regional economic impacts:
- an additional 181 FTE jobs over the Project life associated with related upstream or downstream industries; and
 - an additional \$92 million in NPV terms (or \$8 million per annum) in disposal income associated with the additional indirect employment.
124. The independent economic expert, Mr Dwyer, concluded that the proponents economic assessment was robust, aligned with the applicable guidelines, and the results were consistent with his expectations.
125. Public submissions to the IPC raised both positive and negative economic effects of the Project. Issues raised included:
- the proponent supports local businesses
 - the benefits and impacts of the proposed action will not be spread evenly across the region
 - the influx of mining, including the proposed action, has resulted in increased costs for housing, impacting non-mine workers
 - the proposed action will exacerbate a skills shortage through drawing skilled labour from other sectors such as drawing tradespeople from the construction and manufacturing industries
 - the proposed action will provide opportunities that will allow more young people to stay in the region.
126. DPIE considered a range of issues when determining economic impact in the DPIE AR, including amenity and health impacts, impacts on water and agriculture, biodiversity and heritage, traffic and visual impacts associated with the social impacts of the Project.
127. DPIE recommended a number of conditions for mitigating and managing these residual social impacts, including requiring the proponent 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, including:
 - i. the EIS and related information;
 - ii. management plans;
 - iii. monitoring results;
 - iv. minutes of CCC and advisory group meetings;
 - v. annual reviews and audit reports; and
 - vi. complaints and incidents.

128. Further, DPIE recommended conditions requiring the proponent to prepare and implement a detailed Social Impact Management Plan for the project in consultation with Narrabri Shire Council, Gunnedah Shire Council, the Community Consultative Committee and the locally affected community and other affected stakeholders.

129. While the project would largely meet relevant criteria and acceptable impact levels set under NSW Government policy and guidelines, DPIE acknowledged that the project had already led to increased stress and anxiety for some members of the community, particularly for landowners near the mine and the rail spur line.

130. DPIE noted in the DPIE AR that it had carefully weighed the impacts of the project against the significance of the resources and the socio-economic benefits. On balance, DPIE believed that the proposed action's benefits outweighed its residual costs, and that it was in the public interest to approve the project, subject to stringent conditions.

131. In making the final decision to approve the project the IPC considered that the project would generate significant social and economic benefits.

Social matters

132. The EIS included a detailed social impact assessment, undertaken by Elliot Whiteing from Social Planning Solutions, which considered the social impacts of the project on infrastructure and community health and wellbeing.

133. The social impact assessment was prepared in accordance with the NSW DPIE SEARs which stated that the Social and Economic Assessment should include an assessment of the likely social impacts of the development on the local and regional community generally in accordance with the *Social Impact Assessment Guideline for State significant mining, petroleum production, and extractive industry developments* (2017).

134. The DPIE AR stated that the project would generate a range of social benefits for the local and regional community through direct and indirect employment opportunities and economic growth in the regional economy. It would also generate benefits for the State through royalties and tax revenues.

135. The DPIE AR also recognised 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. DPIE 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.

136. I noted that the NSW Government set cumulative and project-specific criteria for assessing noise and dust impacts based on current scientific knowledge such that there is a reasonable balance between development and protecting the amenity of people in the community.

137. The IPC considered the potential social impacts of the project, and the likely social benefits, and concluded that the benefits included:

- Generation of additional jobs
- Employment opportunities provided to the Indigenous community
- Growth in indirect employment associated with related upstream and downstream industries
- Diversification from a predominantly agricultural economy
- Increase in local procurement.

138. In the IPC statement of reasons, the IPC also acknowledged that the project has the potential to have negative social impacts on the local community and the wider area, by putting pressure on local services and facilities and affecting social dynamics and other land users.

139. Public submissions to the IPC raised several issues, including: water resources, groundwater, surface water and flooding, noise, air quality, greenhouse gas emissions, rehabilitation, final void and landforms, impact on agricultural land, economic and social impacts, road transport and traffic, rail transport, aboriginal and historic heritage, blasting and vibration, biodiversity, visual amenity, lighting, public interest and ecologically sustainable development.

140. The IPC concluded that the project would result in a range of positive and negative social risks and/or impacts, but that the negative social risks associated with the proposed action can be appropriately monitored, managed and mitigated through the conditions imposed.

Conclusion on economic and social impacts

141. I noted that the economic and social benefits of the proposed action were assessed on a cumulative basis incorporating the Approved Project, but consideration was also given to the additional impacts over and above those associated with the Approved Project for comparative purposes.

142. I noted that the DPIE AR and IPC assessment concluded that, with appropriate management and mitigation, the negative social impacts could be managed to achieve the benefits of the project.

143. I agreed with the DPIE and IPC assessment of social and economic impacts of the project. I found that the proposed action would result in positive economic and social impacts.

Indigenous and Cultural matters

144. The EIS dealt with the impact of the project on two areas of heritage; Aboriginal Cultural Heritage and Historic Heritage.

145. An Aboriginal Cultural Heritage Assessment was undertaken by Whincop Archaeology as part of the EIS process. The EIS identified that the proposed action could result in the direct disturbance (either total or partial) of 55 known Aboriginal heritage sites comprising:

- 27 sites within the Approved Mine mining area, previously approved for impact
- 4 sites within the Approved Mine private haul road and Kamilaroi Highway overpass, previously approved for impact
- 24 sites within the additional disturbance areas associated with the Project.

146. Possible causes of indirect impacts to Aboriginal heritage sites in close proximity to the Project included:

- potential impacts associated with blasting induced vibration
- accidental disturbance by peripheral activities
- inappropriate visitation of known Aboriginal cultural heritage sites.

147. The DPIE AR stated that, in addition to the 31 sites located within the disturbance footprint of the Approved Project, the Aboriginal Cultural Heritage Assessment identified a further 24 isolated artefacts and artefact scatter sites within the Project disturbance footprint. One artefact scatter site was assessed in the proponent's cultural heritage impact assessment as having low-moderate archaeological significance with the remaining sites assessed as having low archaeological significance.

148. Two sites near the Project were assessed as having moderate significance including an artefact scatter site near the project borefield and an axe grinding groove site along the Namoi River. Neither of these sites would be directly impacted by the Project, however management measures are proposed to ensure that the grinding groove site would not be indirectly impacted from blasting.

149. The DPIE AR identified historic heritage matters concerning the proposed action at the Kurrumbede Homestead (associated with Australian poet Dorothea MacKellar) which has the potential to be indirectly impacted by ground vibration caused by blasting. The Kurrumbede Homestead was considered in the assessment to be potentially of state significance. Concerns were also raised about potential impacts on the visual amenity of the curtilage around the homestead, associated with the rail spur and the mine affecting the views from the property. The EIS noted that the mining infrastructure and landforms would be concealed by existing vegetation around the Kurrumbede Homestead, however mining operations would be visible from some parts of the property.

150. To address these issues, Whitehaven proposes to engage a structural engineer to assess the condition and stability of the homestead complex, and recommend works and appropriate blast criteria to protect the integrity of the homestead, maintain the existing tree screening and landscaping around the homestead, and rehabilitate the mining landforms to merge with the surrounding landscape in the medium to long term.

151. DPIE and the NSW Heritage Council support these measures, including the preparation of a Heritage Management Plan for the Project, in consultation with Heritage NSW, Gunnedah Shire Council and the Dorothea Mackellar Memorial Society.

152. DPIE recommended a range of conditions to manage the heritage impacts, including requiring the proponent to:

- ensure the development does not cause any direct or indirect impacts to heritage items outside the approved disturbance area;
- prepare and implement an Aboriginal Cultural Heritage Management Plan in consultation with the BCD and Registered Aboriginal Parties for the Project;
- engage a structural engineer to inspect the condition of the Kurrumbede Homestead Complex to inform blast design and criteria, and recommend any works to protect the structural integrity of the homestead; and
- prepare and implement a Historic Heritage Management Plan, in consultation with Heritage NSW, GSC, the Dorothea Mackellar Memorial Society, which includes consideration of ongoing use for cultural events and controlled public access.

153. The IPC considered a number of public submissions with regard to both cultural and historic heritage matters. Specific matters raised during public hearings included:

- disturbance of Aboriginal heritage sites

- the adequacy of consultation with the Aboriginal community, including with regard to scarred trees
- the impact of the proposed action on Kurrumbede Homestead

154. The IPC concluded 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 IPC states in their report that the requirements set out in State Development Consent condition B70(d) are suitable in mitigating potential impacts of the proposed action on items of Aboriginal significance. Condition B70(d) also requires the proponent to comply with all heritage-related operating conditions of the State Development Consent.
155. The IPC was of the view that the potential impacts of the proposed action on historic heritage values, namely Kurrumbede Homestead and outbuildings were relatively low and could be adequately managed. The IPC imposed the recommended blasting and heritage management conditions B27 and B72 in the NSW development consent to ensure the surrounding heritage sites are managed and protected over the long term. The IPC also imposed the recommended NSW development Consent condition B73 requiring the development of a Historic Heritage Management Plan (HHMP) in consultation with Heritage NSW, Gunnedah Shire Council and the Dorothy Mackellar Memorial Society. The IPC amended NSW Development Consent conditions B72 and B73 to ensure the Kurrumbede 'outbuildings' are included in the HHMP and subsequent mitigation and preservation measures.

Comments from the Minister for Indigenous Australians

156. I wrote to the proponent and relevant Commonwealth Ministers inviting comments on the proposed decision, as required under sections 131AA(1) and 131(1) of the EPBC Act.
157. Minister Wyatt responded on 28 April 2021. Minister Wyatt supported the measures proposed as part of the Commonwealth's approval to minimise potential impacts to the Murray Cod and impose limitations on the removal of habitat for koalas, swift parrots and regent honeyeaters, and noted the conditions imposed by NSW to protect the squirrel glider. Minister Wyatt stated that these native species have cultural significance to Indigenous Australians as part of their obligations to care for country.
158. Minister Wyatt suggested that it may be appropriate that *Dhawura Ngilan: A Vision for Aboriginal and Torres Strait Islander Heritage in Australia and the Best Practice Standards in Indigenous Cultural Heritage Management and Legislation* apply to this and other development projects. He encouraged me to work with NSW to ensure the preservation of Aboriginal cultural heritage materials by applying these best practice standards to the oversight of the project.
159. While Minister Wyatt supported the proposed approval of the project, he stated that there are tensions between Indigenous stakeholders in relation to development proposals and projects. He stated that this project is no exception and that governments must ensure adequate and comprehensive representation is achieved when consulting with Indigenous stakeholders. This includes accounting for the differing perspectives of groups from the same country or Nation.
160. Minister Wyatt noted that neither the Commonwealth nor the NSW Government attached any requirement for Indigenous enterprise or employment outcomes to the approval of privately funded projects. He said that he is advised that local traditional owners are seeking such outcomes. He also noted that Vickery Coal Pty Ltd's parent company Whitehaven has demonstrated a real commitment to both Indigenous employment and

business opportunities, achieving double its 10 percent target on one project and nine percent Indigenous employment across its business.

Conclusion on Indigenous and cultural matters

161. I noted that the letter to the proponent includes the advice of Minister Wyatt and encourages ongoing Indigenous stakeholder consultation.
162. I agreed with DPIE and IPC's assessment of the Indigenous and cultural heritage impacts of the proposed action.

Duty of care and human safety

163. Notwithstanding that I have appealed the Federal Court decision in *Sharma v Minister for Environment* [2021] FCA 560 (**Sharma No 1**) and *Sharma v Minister for Environment (No 2)* [2021] FCA 774 (**Sharma No 2**), in making my decision I have had regard to the impacts of the proposed action on the lives and safety of Australian children and my duty to take reasonable care, in the exercise of my powers under ss 130 and 133 of the EPBC Act, to avoid causing personal injury or death to persons under 18 years of age and ordinarily resident in Australia, arising from emissions of carbon dioxide into the Earth's atmosphere. I gave human safety elevated weight in making my decision.

Relevance of Sharma decision

164. On 8 July 2021, the Federal Court of Australia declared that I have a duty to take reasonable care, in the exercise of my powers under ss 130 and 133 of the EPBC Act in respect of the Vickery Extension Project (EPBC 2016/7649) proposed action), to avoid causing personal injury or death to persons under 18 years of age and ordinarily resident in Australia, arising from emissions of carbon dioxide into the Earth's atmosphere: *Sharma No 2*. On 27 May 2021, the Court published its reasons for making that declaration: *Sharma No 1*. These decisions are collectively referred to as **Sharma**.
165. The Court also found that human safety is a mandatory relevant consideration in relation to a controlled action that may endanger human safety, including through the emission of greenhouse gases (**GHG**).
166. The Court found that I owed the applicants and other Australian children a duty to take reasonable care to avoid causing them personal injury when deciding whether to approve the Extension Project. The relevant risk of personal injury was the real risk of harm to Australian children arising from heatwaves and bushfires, brought about by increases to global average surface temperatures: see *Sharma No 1* at [247]. The Court found that the Extension Project would lead to the emission of 100 million tonnes of CO₂, which the Court found would cause a small but measurable increase to global average temperatures and that the project's emissions would increase the risk of harm to Australian children arising from climate change. While the Court accepted that the contribution of the Extension Project to the increase in global average surface temperature might be characterised as "tiny", there was a "real risk that even an infinitesimal increase in global average surface temperature may trigger a 4°C Future World" and, in that context, "the Minister's prospective contribution is not so insignificant as to deny a real risk of harm to the Children": *Sharma No 1* at [253].
167. I am appealing the whole of the Federal Court's judgment in *Sharma*, except for that part concerning the dismissal of the application for an injunction. The grounds for the appeal are set out in the notice of appeal that has been filed with the Federal Court. The basis of the appeal is generally that the primary judge made errors of law.
168. Although I am appealing the Federal Court's judgment in *Sharma*, I have applied the *Sharma* reasoning to my decision.

169. This part of my reasons addresses the risks to human safety posed by the proposed action and my duty to take reasonable care to avoid causing death or injury to Australian children in making my decision. This section of my reasons is structured as follows:

- a. Global coal markets and the likelihood of the proposed action's emissions increasing global GHG emissions;
- b. How GHG emissions are managed under international and national frameworks;
- c. Summary of GHG emissions for the proposed action, measures being undertaken by the company to manage the proposed action and Independent Planning Commission (IPC) Assessment;
- d. Risks of a warming climate;
- e. Social and economic considerations;
- f. Conclusion.

Global coal markets and the likelihood of the proposed action's emissions increasing global GHG emissions

170. The department sought the advice of the Department of Industry, Science, Energy and Resources (**DISER**) in relation to the extent to which, if at all, the approval of certain coal projects would affect the global level of consumption of coal in possible future scenarios (**DISER Advice**). I have taken this advice into account, in addition to considering publications of the International Energy Agency that analyse trends in global markets including the 'World Energy Outlook 2020' (**WEO 2020**), 'Iron and Steel Roadmap 2020' (**2020 IEA Iron and Steel Roadmap**) and 'Net Zero by 2050'. I also had regard to the letter from the proponent dated 29 July 2021 addressing the GHG emissions of the proposed action which annexed a submission to the IPC dated 16 June 2020 (**Proponent's Letter**). The Proponent's Letter also addresses WEO 2020, 2020 IEA Iron and Steel Roadmap, Net Zero by 2050 and the 'World Energy Outlook 2019' (**WEO 2019**).

171. I have also taken into account the report of Professor Will Steffen submitted to the NSW IPC and dated 30 June 2020, annexing an earlier report dated 9 February 2019. This report was submitted to the department in a letter dated 26 August 2021 from 8 young persons opposing the approval of the proposed action and was in evidence before the Court in the *Sharma* proceedings. I have also considered the other expert reports of Professor Steffen filed in the *Sharma* proceedings, dated 7 December 2020 and 17 January 2021. These reports are referred to as the 'Steffen Reports'. I have taken into account the Steffen Reports as well as the other reports filed in the *Sharma* proceeding from Dr Ramona Meyricke, Professor Anthony Capon and Dr Karl Mallon.

172. The DISER Advice explains that the two primary uses of coal are for energy and steelmaking. Coal used for steelmaking is referred to as metallurgical or coking coal. Coke makers use multiple coals when formulating a coking coal blend in order to meet these specifications. Coal used for energy is referred to as thermal coal.

173. The proponent has advised that 60% of the saleable coal is to be used for steelmaking and 40% of the coal produced will be thermal coal for electricity production.

Global demand for steel

174. Steel is and will be critical for supplying the world with clean and renewable energy, as it is an integral ingredient for materials to facilitate energy transition, with solar panels, wind turbines, the construction of dams and electric vehicles all depending on it to varying degrees. Steel is the main material used in onshore and offshore wind turbines. Almost every component of a wind turbine is made of steel. Steel provides the strength for taller,

more efficient wind turbines. Each new MW of solar power requires between 35 to 45 tons of steel, and each new MW of wind power requires 120 to 180 tons of steel.

175. Steel is also a fundamental building block for modern and developing economies. The construction of homes, schools, hospitals, bridges, cars and trucks rely heavily on steel for strength. The DISER Advice notes that steel demand is driven by construction and infrastructure development.
176. OECD modelling² predicts that global steel demand is not expected to peak until mid-century, with a growth rate for steel demand from about 1.4% per annum to 1.1%. Demand in mature economies will show zero to slightly negative growth rates over the period, while demand growth in emerging economies will be in the range 2.5% to 4%. Further, the modelling predicts that iron ore demand for steel making will peak in 2025-2030.
177. The IEA Iron and Steel Road Map notes that the steel sector is currently responsible for about 8% of global final energy demand and 7% of energy sector CO₂ emissions (including process emissions). However, through innovation, low-carbon technology deployment and resource efficiency, iron and steel producers have opportunities to reduce energy consumption and GHG emissions, develop more sustainable products and enhance their competitiveness.
178. I noted that the Proponent's Letter relies on independent modelling undertaken by CRU International Limited (**CRU**) and annexes a summary report prepared by CRU. CRU's modelling suggests that steel will remain an important material for global development, particularly in South East Asia, and global demand for carbon crude steel is expected to grow steadily to 2040. Further, CRU states that blast furnace-basic oxygen furnace processes (which require coking coal) will still account for approximately 57% of global steel production by 2040. The Proponent notes that CRU's projections are largely consistent with the IEA's Stated Policies Scenario, discussed below.

Global demand for coal

179. The WEO 2020 identifies a number of scenarios for future global energy demand and supply to 2040. These scenarios include the:
- Sustainable Development Scenario (SDS): which assumes that global coal consumption will be constrained to a level consistent with the aims of the Paris Agreement and energy-related sustainable development goals (these are: affordable and clean energy (SDG 7), to reduce the severe health impacts of air pollution (part of SDG 3) and climate action (SDG 13)); and
 - Stated Policies Scenarios (STEPS): which assumes that global coal consumption will not be constrained to a level consistent with the aims of the Paris Agreement or address sustainable development goals. This scenario takes into account the policies and implementing measures affecting energy markets that have been adopted as of mid-2020, together with relevant policy proposals which have not been fully implemented.
180. The DISER Advice notes that global demand for coal will gradually decrease to 2040 in either SDS or STEPS scenario. Global demand for coal is estimated to be 1850 Mtce in 2040 in the SDS scenario and 4735 Mtce in 2040 in the STEPS scenario. However, demand for coal varies by region.
181. The DISER Advice details predicted coal demand in the STEPS scenario and demonstrates that demand for coal in the Asia Pacific region will remain relatively steady up to 2040. The DISER Advice states:

² https://www.oecd.org/industry/ind/Item_4b_Accenture_Timothy_van_Audenaerde.pdf

Coal consumption in India is expected to grow over the next 20 years by 182 Mtce. Coal consumption in South East Asia is also expected to grow rapidly over the same period, increasing by 157 Mtce. Coal use rebounds in China in the near term, peaking around 2025, before declining to 2040. Japan is expected to see the largest reduction in coal consumption over the period, declining by 55 Mtce. By 2040, the Asia Pacific region will account for 85 per cent of global coal consumption (Table 1).

182. The DISER Advice details predicted coal demand in the SDS scenario and demonstrates that demand for coal will decrease to 2040. Although in this scenario there is a decline in overall demand, WEO 2020 also projects that countries exporting to emerging Asian markets with higher exposure to coking coal will be less affected by lowered demand. Australia is also projected to remain the largest exporter of metallurgical coal.
183. The DISER Advice notes that, in either the SDS or STEPS scenario, the global demand for coal up to 2040 can be met by alternative sources of coal. Alternative sources of coal include all currently approved Australian coal mines, as well as all known or likely coal mines and coal deposits outside Australia, but excludes other unapproved Australian coal mining developments.
184. The Proponent's Letter also addresses coal demand and states that there is, and will remain for the foreseeable future, an ongoing demand for both coking and thermal coal. The proponent refers to WEO 2019 and WEO 2020 to support this position and the CRU Summary Report. The department advised that the Proponent's Letter is broadly consistent with the department's review of these reports and the findings of the DISER Advice.
185. The likely export destinations for the proposed action are Japan, South Korea and Taiwan. CRU notes that these countries have little to no domestic supply of coal and high quality coal from Australia is and will continue to be in demand to meet the electricity needs of these countries.

Iron and Steel Roadmap (IEA)

186. The IEA's Iron and Steel Roadmap presents two pathways for the steel sector in the STEPS and SDS scenarios broadly in line with the WEO and also reflects on what further innovation would be required under Net Zero by 2050.
187. The Iron and Steel Roadmap, developed in conjunction with industry, indicates that opportunities to reduce emissions from the sector in the next 10 years will primarily rely on improvements in material efficiency (light weighting of steel requirements in buildings), greater recycling of steel and iron (electric arc furnace), energy efficiency and performance improvements. Additionally, alternatives to steel (such as carbon fibre, engineered timber) and new methods for making steel without metallurgical coal, using hydrogen or electrolysis (using electricity) are being developed and piloted globally. However, these methods are not currently projected to be operating at scale until the 2030s.
188. The DISER Advice also notes that Direct Reduction Iron (DRI) and electric arc furnace (EAF) technologies currently present technical and cost challenges and are not yet available at the scale needed to meet global demand for steel.

NSW Strategic Statement on Coal

189. The NSW Government has developed a Strategic Statement on Coal Exploration and Mining in NSW. The statement identifies that coal mining in NSW is anticipated to continue for the next few decades. Although recognising that emissions reduction measures will be required, the statement notes that ending or reducing NSW thermal coal exports while there is still strong global demand for coal is likely to have little to no impact

on global carbon emissions. The use of coking coal is likely to be sustained longer than thermal coal, as there are currently limited practical substitutes available.

Alternative sources of coal and related GHG emissions

190. The DISER Advice differentiates between the global coal market for thermal coal and metallurgical coal. The long term demand for metallurgical coal depends primarily on its price and the demand for steel. The long term demand for thermal coal depends primarily on its price and demand for energy (including the cost of alternative energy products and consumer preferences for energy types). Supply of both metallurgical and thermal coal depends on availability in nature, the technology used for extraction, the labour and capital costs associated with production, the cost of transporting the coal to the demand source (normally by rail and ship) and the regulatory costs associated with environmental protection and worker health and safety. However, the prices of metallurgical and thermal coal are linked because there is a degree to which the different coal types can be used in the alternative market. Steelmakers may substitute some metallurgical coal with high-end thermal coal.

191. I accepted the conclusion of the DISER Advice that my decision to approve the proposed action would not affect any of the demand factors identified. I further accepted the DISER Advice that recent trade disruptions have demonstrated the substitutability of coal, where coal destined for China has been resold or redirected to various countries and China has managed to source its coal needs in the absence of previously substantial Australian supply. The DISER Advice concludes:

Regardless of any feasible scenario of future global demand, the small fraction of current global coal supply that these projects represent, combined with the relatively flat global seaborne coal cost curves indicates that the Decision will not have any discernible impact on global coal prices. The alternative sources of coal identified in sub-question 1 are readily substitutable for any coal that might be produced by the Coal Mining Projects.

192. I noted that the proposed action's thermal coal product has a calorific value of greater than 6400 kcal/kg. This is higher than the average calorific value of Australian coal and international alternatives identified in the DISER Advice. Using the example of Indonesia, the DISER Advice states that consumption of thermal coal from Indonesia rather than from the Coal Mining Projects (including the proposed action) could be expected to result in slightly more CO₂ emissions.

193. The DISER Advice states that it is not possible to readily determine whether CO₂ emissions from extraction and transport activities would be materially different from alternative sources of coal. Generally, the lower the calorific value of the coal, the greater mass of coal required to produce a given level of electricity. In this way, lower thermal efficiency results in higher mining and transport-related emissions per kilometre. DISER noted that these emissions depend on a large range of factors making it not possible to conclude that emissions will necessarily increase. However, DISER advised that, as a proportion of total emissions associated with any coal mining project, transport emissions comprise a small contribution compared to emissions from combustion of the coal.

194. The proponent relied on CRU's analysis that market substitution of the Extension Project's coal will result in higher emissions than if the Extension Project is approved. CRU estimated that between 6 and 50 million tonnes CO₂-e of additional emissions, depending on if alternative sources come from low or high fugitive mines, will be emitted into the atmosphere over the life of mine due to market substitution if the proposed action is not approved. The department advised that CRU's modelling was described as commercially sensitive and was not provided to the department. However, the Proponent's Letter contained analysis of CRU's findings and a summary from CRU. The department noted that this identified a number of assumptions that the modelling relied on, including treating all of the Extension Project's product coal as thermal coal for the

purpose of analysing market substitution (Vickery is expected to produce 40% thermal coal and 60% metallurgical coal) and that alternative sources are weighted averages of competitor countries' coal rather than a specific mine, identifying average distances that coal is transported by rail by region, average power consumption of coal mines by region and average coal volumes on an energy-equivalent basis. The proponent acknowledged that these estimates rely on available data and estimates can vary.

195. I have noted these limitations and also taken into account DISER's advice that:

It is not possible to identify specific mine sources that would be the alternative sources of coal in the event the Coal Mining Projects were not approved. This makes it not possible to conclude that any Decision to approve the Coal Mining Projects will necessarily increase greenhouse gas emissions associated with coal consumption.

196. I agreed with DISER's conclusion that 'other things being equal, where coal from these projects (including the proposed action) is replaced by [thermal] coal of lower calorific value, emissions from consumption of this alternative source of [thermal] coal will tend to be higher'. I noted the department's advice that there does not seem to be a correlation between calorific value of metallurgical coal and emissions in steelmaking.

Impact of a decision to approve or refuse the proposed action on global GHG emissions and climate change

197. I accepted the department's recommendation that I find that the available evidence indicates that a decision to approve the proposed action would be unlikely to lead to an increase in global average surface temperatures. This is because the proposed action is not likely to cause more coal to be consumed globally (and therefore more GHG emissions) than if the proposed action was not approved.

198. The DISER Advice states that 'any decision of the Minister to approve one or more of the Coal Mining Projects (Decision) is not expected to materially impact on the total amount of coal consumed globally'. I agreed with this conclusion. DISER states that the approval or refusal of the proposed action will not affect global demand for coal and there are sufficient alternative sources of coal to supply future demand for coal in projected future scenarios. In those circumstances, I agreed that the rejection of the proposed action is unlikely to have an impact on total global coal consumption, or to impact the price of coal.

199. I noted that the coal from the proposed action is of a higher calorific value than average calorific values of coal in Australia and other major exporters. I agreed with DISER's conclusion that the use of alternative sources of coal with a lower calorific value than the proposed action would, other things being equal, result in higher emissions than the use of the proposed action's coal. I found that it is likely that at least the same amount of GHG emissions will result if the proposed action is not approved.

200. While the DISER Advice noted that it is not possible to identify specific mines that will be used in substitution for the proposed action's coal, I accepted the department's advice that it is likely that at least the same amount of GHG emissions would result from the use of alternative sources, noting the high quality of the proposed action's coal. In circumstances where the refusal of the proposed action would not impact the total amount of coal consumed, and other coal sources will be available to meet demand, I found that it is likely that a comparable amount of GHG emissions would occur even if the proposed action was refused.

201. I also took into account the Steffen Reports in reaching the above conclusion. Professor Steffen acknowledges the argument that 'if a proposed new coal development is not allowed to proceed, another new coal resource, either in Australia or overseas, will be developed to take its place'. Professor Steffen states that this argument is flawed because it presumes that there is and will continue to be a demand for new coal resources beyond those that already exist, whereas he is of the view that evidence demonstrates that coal

production is in steady decline. However, the department advised, and I accepted, that this is inconsistent with other available evidence which indicates that demand for coal is likely to continue (see paragraphs [179]-[185] above). I also took into account that demand for metallurgical coal in particular is likely to continue in circumstances where alternative steelmaking methods are not available at scale, and are not anticipated to be available until the 2030s, and steel is required for the construction of safe buildings, infrastructure and renewable energy infrastructure in developing economies.

Conclusion on coal markets and substitution

202. The Court in *Sharma* decided an increase to total global GHG emissions poses a risk to human safety by increasing total global average surface temperatures. The relevant risk to human safety found to exist in *Sharma* was the risk of death or personal injury from heatwaves or bushfires.

203. As previously noted, I have appealed the *Sharma* decision, which is pending.

204. I accepted the department's view that the approval of the proposed action is not likely to cause harm to human safety because, if the proposed action is not approved, it is likely that a comparable amount of coal will be consumed in substitution of the proposed action's coal. Therefore, I found that the proposed action is unlikely to result in an increase to global GHG emissions.

How GHG Emissions are managed under international and national frameworks

205. Out of an abundance of caution, and in the event that (contrary to the above conclusion) the small amount of emissions from the proposed action are additional and are not substituted by emissions from other coal production, I have considered the national and international frameworks within which those emissions will be managed and measures to mitigate their impacts. I have summarised these frameworks below. These matters have further informed my consideration of my duty of care and my consideration of the impact of the proposed action on human safety.

International framework for climate change

206. The international climate treaties, the Paris Agreement, done at Paris on 12 December 2015, the Kyoto Protocol, done at Kyoto on 11 December 1997, and the United Nations Framework Convention on Climate Change (UNFCCC), done at New York on 9 May 1992, are the primary multilateral mechanisms governing the international response to climate change.

207. The Paris Agreement entered into force on 4 November 2016. 191 countries are Party to the Paris Agreement, including Australia.

208. The temperature goal of the Paris Agreement is to limit the increase in global average temperature to well below 2°C and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. All parties must prepare, communicate and maintain successive nationally determined contributions (NDCs) and pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

209. The department advised that projections in the IPCC Special Report, 'Global Warming of 1.5°C' (8 October 2018) indicate that, if NDCs in place in 2018 were implemented successfully, the world would reach 2.7-3.2 degrees Celsius above pre-industrial levels by 2100. Under the Paris Agreement, successive NDCs are required to represent a progression beyond the current NDC and reflecting its highest possible ambition (Article 4.3).

210. Importantly, under Article 4 of the Paris Agreement, parties aim to reach global peaking of GHG emissions as soon as possible, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removal by sinks of GHG in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty. 137 governments around the world, including Australia, have announced intentions to reach net zero emissions which better align with the Paris Agreement temperature goal.

211. To respond to climate change, industry, legal and financial fiduciary bodies have also called on business to recognise, understand and respond appropriately to the risks and consequences posed by climate change, potentially independent of government policy. Many companies and businesses have also established net zero by 2030 – 2050 targets. Industry is increasingly acknowledging that effort across the whole supply chain is required to enable sectors to decarbonise.

Climate commitments made by markets for Vickery Extension coal

212. I found on the material before me that the majority of coal from the Vickery mine will be sent to Japan, South Korea and Taiwan.

Climate change framework in Japan

213. Japan's first NDC includes an emissions reduction target of 26% below 2013 levels in 2030. This equates to emissions of approximately 1.042 billion tCO₂-e in 2030.

214. Japan's First NDC sets out a variety of measures to achieve its 2030 emissions reduction target. Measures in the energy conversion sector include:

- expanding renewable energy introduction to the maximum extent possible;
- utilizing nuclear power generation whose safety is confirmed; and
- pursuit of high efficiency in thermal power generation, including coal fuelled technologies such as ultra-supercritical (USC) and advanced ultra-supercritical (A-USC)

215. Measures relevant to the iron and steel industry include:

- efficiency improvement of electricity-consuming facilities;
- increased chemical recycling of waste plastic at steel plants;
- introduction of a next-generation coke making process (SCOPE21);
- improvement of power generation efficiency;
- enhanced energy efficiency and conservation facilities;
- introduction of an innovative ironmaking process (Ferro Coke); and
- introduction of an environmentally harmonized steelmaking process (COURSE50).

216. Japan submitted its second/updated NDC on 31 March 2020. That NDC re-affirms Japan's commitment to reducing its greenhouse gas emissions by 26% by 2030 from 2013 levels and states that Japan "will strive to achieve a 'decarbonized society' as close as possible to 2050 with disruptive innovations, such as artificial photosynthesis and other CCUS [carbon capture, use and storage] technologies". At the US-hosted Leaders'

Summit on Climate in April 2021, Japan announced it will reduce emissions 46% below 2013 by 2030.

Japan's current policies

217. Japan's Global Warming Countermeasures Law 2021 commits that "a decarbonised society will be realized by 2050". Japan's Ministry of Economy Trade and Industry (METI) released its Basic Energy Policy draft in July 2021. Under the plan by 2030:

- coal use will be reduced from 26% to 19%
- gas use will be reduced to 56% to 41%
- solar is set to increase to 15% from 6.7% in 2019
- wind is set to increase to 6% from 0.7% in 2019.

218. Japan's Long-term Low-carbon Vision refers to Carbon Capture Utilisation and Storage (CCUS) as a means of achieving emission reductions in the energy sector, as well as centralised/distributed energy management. The Long-term Strategy under the Paris Agreement states that the Government will work to reduce CO₂ emissions from thermal power generation, including by accelerating "the efforts of a wide range of stakeholders, aiming to establish its first commercial scale CCUS technology by 2023 as a trigger for wider usage in view of full social adoption in 2030 and thereafter."

219. The proponent notes that Japan's power plants are 95% high efficiency, low emissions (HELE) power plants. HELE power plants have lower GHG emissions of all types per unit of power produced, including CO₂.

Climate change framework in South Korea

220. South Korea is a party to the Paris Agreement. South Korea's NDC states that South Korea intends to reduce its GHG emissions by 37% from business-as-usual (BAU) levels by 2030.

221. South Korea's NDC indicated that it would subsequently develop a detailed plan to implement its mitigation target. South Korea released a revised roadmap for achieving the 2030 National Greenhouse Gas Reduction Goal in July 2018 (the Roadmap). The Roadmap sets out sectoral targets, including:

- emission reductions of 24 million tons in the energy conversion sector (power generation, group energy) through policies to reduce fine dust and promote the use of eco-friendly energy; and
- emission reductions of 99 million tons in the industry sector through the revision of industrial processes, energy use reduction, and sharing of emission reductions technologies.

222. In December 2020, South Korea communicated its updated NDC, committing to emissions reduction of 24.4% below 2017 emissions by 2030.³ At the US-hosted Leaders' Summit on Climate in April 2021, South Korea announced a commitment to ending financing of overseas coal fired power plants. At the P4G Seoul Summit in May 2021, President Moon Jae-in stated that South Korea would strengthen its 2030 climate target and submit it to the UNFCCC ahead of COP26 in November 2021.

³ Republic of Korea, The Republic of Korea's Update of its First Nationally Determined Contribution (30 December 2020):

https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Republic%20of%20Korea%20First/201230_ROK%27s%20Update%20of%20its%20First%20NDC_editorial%20change.pdf

South Korea's Current Policies

223. South Korea has a range of current policies aimed at achieving emissions reductions, including through its Emissions Trading Scheme which covers 73.5% of national GHG emissions. In July 2020, South Korea announced its Green New Deal committing to investment in GHG emissions reduction and climate-resilient recovery.

Climate Change framework in Taiwan

224. Taiwan is not a party to the UNFCCC or the Paris Agreement. Nevertheless, Taiwan's Cabinet put forward an INDC on 17 September 2015. Taiwan's INDC has an emissions reduction target of 20% from the BAU level by 2030. The BAU level is 428 MtCO₂e and the 2030 target is 214 MtCO₂-e by 2030⁴.

225. Taiwan's INDC sets out measures for achieving sectoral mitigation measures. Relevantly, in relation to energy, the government will:

- reduce energy demand by introducing energy conservation measures;
- raise the renewable energy development target to 17,250MW in 2030;
- continue to phase out nuclear power plants;
- increase the use of natural gas;
- replace old power plants with the "best feasible technology";
- promote the construction of smart grids; and
- use low-carbon fuel and energy-efficient technologies in the refining sector.

226. Emissions reductions will be achieved in the industrial sector through:

- industrial structure adjustment;
- technical advice service of energy conservation and carbon reduction;
- integrated utilization of energy and resources in industrial zones;
- regulation of energy efficiency standards;
- alternative fuels;
- heat recovery; and
- a renewal of facilities.

Taiwan's Current Policies

227. Taiwan enacted its Greenhouse Gas Reduction and Management Act on 1 July 2015 with the long-term goal to reduce emissions 50% below 2005 levels by 2050.

228. The Act also required the Government to develop the National Climate Change Action Guideline (which was approved on 23 February 2017) and a GHG Reduction Action Plan. Under the GHG Reduction Action Plan, the authorities responsible for Taiwan's energy, manufacturing, transportation, residential, commercial, and agriculture sectors are

⁴ Information regarding the climate change framework of Taiwan has been primarily sourced from Ashurst Submission to the IPC, annexed to the Proponent's Letter ([Attachment XX](#))

required to formulate GHG Emission Control Action Programs. These Action Programs must include GHG emissions targets, timetables and economic incentive measures. These Action Programs are to be regularly reviewed and revised and are to propose improvement plans if sectors are failing to meet their emission targets.

Domestic measures

229. Under the UNFCCC, Kyoto Protocol and Paris Agreement, the Australian Government has committed to reduce national GHG emissions, track progress towards those commitments, and report annually on Australia's GHG emissions.⁵ Australia first communicated its NDC under the Paris Agreement in 2015, committing to an economy-wide target to reduce GHG emissions by 26 to 28% below 2005 levels by 2030.

230. In preparing the decision brief for my decision, the department consulted with DISER, who advised:

Australia has a strong record of overachieving on its emissions reduction targets – we overachieved on our two previous targets, under the Kyoto Protocol and UNFCCC.

Australia has in place a comprehensive suite of emissions reduction policies, which are working to reduce emissions in all sectors of the economy. Building on these policies, the government is currently focused on low emissions technologies globally scalable, commercial, and achievable.

Australia's Technology Investment Roadmap will drive down the cost of low emissions technologies and accelerate their deployment, both in Australia and overseas. The Roadmap brings a strategic and system-wide view to future investments in low emissions technologies, in partnership with the private sector, states and territories, and key international partners.

The Roadmap's first annual Low Emissions Technology Statement articulates five priority technologies (clean hydrogen, carbon capture and storage, low carbon materials like steel and aluminium, energy storage and soil carbon) and accompanying stretch goals – ambitious but realistic goals to bring priority low emissions technologies to economic parity with existing mature technologies.

These technologies are expected to avoid in the order of 250 million tonnes of emission per year by 2040, through deployment in Australia and low emission exports. The Roadmap will guide the deployment of an estimated \$20 billion of Government investment between now and 2030, including through the CEFC, ARENA, the Climate Solutions Fund, and the Clean Energy Regulator. The Government's investments through the Roadmap will help to secure around \$80 billion in total investment from the private sector and governments over the next 10 years.

231. Commonwealth legislation relating to the Australian Government's policies and programs to reduce emissions and fulfil its emissions reporting and target tracking obligations are regulated by the Clean Energy Regulator (**CER**). The CER is responsible for administering the *National Greenhouse and Energy Reporting Act 2007 (NGER Act)*, the *Carbon Credits (Carbon Farming Initiative) Act 2011*, the *Greenhouse and Energy Minimum Standard Act 2012*, and the *Australian National Registry of Emission Units Act 2011*.

232. Australia's National Inventory System (**NIS**) estimates and reports Australia's GHG emissions in accordance with Intergovernmental Panel on Climate Change (**IPCC**) guidelines and rules adopted by the Parties to the Paris Agreement. The NIS comprises an independent national monitoring system to compile Australia's national GHG inventory.

⁵ <https://www.industry.gov.au/policies-and-initiatives/australias-climate-change-strategies/tracking-and-reporting-greenhouse-gas-emissions>.

The UN climate treaties, including the Paris Agreement, specify that Parties are responsible for the emissions occurring within their jurisdictions.

233. The department advised that this means that emissions across each jurisdiction, conceptually equivalent to scope 1 emissions, are aggregated to fulfil Paris Agreement emission reporting and target accounting obligations. Scope 2 and scope 3 emissions that occur within the same jurisdiction are not added to this calculation as it would result in double counting of emissions: one facility's scope 2 and 3 emissions are another facility's scope 1 emissions. Scope 3 emissions associated with Australian facilities that occur outside Australia's jurisdiction (e.g. emissions from the combustion of Australia's coal in an export destination) are accounted for in the countries where those emissions occur.

NSW

234. The NSW government has developed the NSW [climate change policy framework \(CCPF\)](#) and [NSW Net Zero plan](#) which provides guidance and measures to achieving net zero emissions in NSW by 2050.

235. 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 changing national and international policy, with the aim to achieve net-zero emissions by 2050.

236. 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.

237. In addition to the above policies, the NSW State Environmental Planning Policy for mining ([Mining SEPP](#)) requires the NSW consent authority to consider, in approving a development application:

- whether conditions should be attached to consents to ensure that the development is undertaken in an environmentally responsible manner, including conditions to ensure that GHG emissions are minimised to the greatest extent possible (clause 14(1) of the Mining SEPP); and
- an assessment of GHG emissions (including downstream emissions) from the development and must do so having regard to any applicable State or national policies, programs or guidelines concerning GHG emissions (clause 14(2) of the Mining SEPP).

238. As discussed above, the NSW IPC assessed the GHG emissions of the proposed action and imposed conditions relating to air quality and GHG regulation (B31-B37).

239. I noted that the IPC concluded that the GHG emissions of the proposed action were adequately considered and that the impacts associated with the GHG emissions of the proposed action were acceptable and in the public interest.

Summary of measures to manage the proposed action and IPC assessment

240. A full description of the proposed action is contained earlier in these reasons. The proposed action is to extend an existing approved open cut mine (the Vickery Coal Project EPBC 2012/6263) and related surface infrastructure and activities, and to process up to 10 million tonnes of coal per annum (Mtpa) for 25 years. The proposed action will produce greenhouse gas emissions, as stated in the DPIE AR. The emissions of the project are discussed above at [88]-[112]. The emissions of the proposed action consist of approximately:

- 0.62 Mt CO₂-e of Scope 1 emissions

- 0.15 Mt CO₂-e of Scope 2 emissions, and
- 100 Mt CO₂-e of Scope 3 emissions, which would be generated by third parties who transport and consume the extracted coal.

241. The preparation of a comprehensive Air Quality and Greenhouse Gas Management Plan is a condition of the development consent granted for the Project under the *Environmental Planning and Assessment Act 1979* (NSW) (**EP&A Act**) (Condition B36). Condition B37 requires the proponent to implement the Air Quality and Greenhouse Gas Management Plan as approved by the Planning Secretary.

242. The NSW development consent states that the Air Quality and Greenhouse Gas Management Plan must:

- be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by Planning Secretary;
- be prepared in consultation with the EPA;
- be submitted to the Planning Secretary for approval prior to carrying out construction under the development consent;
- describe the measures to be implemented to ensure:
 - compliance with the air quality criteria and operating conditions of this consent;
 - best practice management is being employed (including in respect of minimisation of greenhouse gas emissions from the site and energy efficiency) to:
 - minimise the development's air quality impacts;
 - minimise the development's Scope 1 and 2 greenhouse gas emissions; and
 - improve the development's energy efficiency; and
 - the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;
- describe the air quality management system in detail; and
- include an air quality management program, undertaken in accordance with the *Approved Methods for sampling and Analysis of Air Pollutants in New South Wales*, that:
 - uses monitors to evaluate the performance of the development against the air quality criteria in this consent and to guide day to day planning of mining operations;
 - adequately supports the air quality management systems; and
 - includes a protocol for identifying any air quality related-exceedance, incident or non-compliance and for notifying DPIE and relevant stakeholders of these events.

State assessment

243. As discussed above, the Project was assessed under Part 4 of the EP&A Act.

244. The DPIE AR considered the air quality and greenhouse gas assessment conducted by Ramboll on behalf of the proponent which was provided as part of the environmental

impact assessment. DPIE notes the proposed action is predicted to generate approximately 150,000 t CO₂-e of scope 2 emissions from the use of electricity over the mine life. The proposed action is also forecast to be associated with approximately and additional 100,000,000 t CO₂-e of Scope 3 emissions, which would be generated by third parties who transport and consume the coal products.

245. The air quality and greenhouse gas assessment⁶ indicated that the forecast scope 1 and 2 emissions from the combined Project would contribute to 0.099% of total GHG emissions for NSW and 0.024% of total GHG emissions for Australia. In the Submissions Report to the IPC, the proponent states that the project's annual average scope 1 emissions equate to less than 0.03% of Australia's 2030 commitment under the Paris Agreement.

246. The DPIE assessment report stated that DPIE does not consider the project to be inconsistent with Australia's commitments under the Paris Agreement.

247. The proponent has advised that coal produced as part of the proposed action would most likely be sold to customers in Japan, South Korea and Taiwan. The coal being sold would be approximately 60% metallurgical and 40% thermal.

248. In accordance with the Mining SEPP, DPIE considered that the coal resource associated with the proposal, is significant based on the high quality of the coal and the overall socioeconomic benefits of the project. DPIE recommended that the proponent be required to prepare and implement an updated Air Quality and Greenhouse Gas Management Plan to detail measures to minimise GHG emissions during both the construction and operational phases of the project.

249. The IPC, in its statement of reasons, agreed with the DPIE assessment and also noted:

- Under the Paris Agreement, the Australian Government committed to a nationally determined contribution to reduce greenhouse gas emissions by 26 percent to 28 percent from 2005 levels by 2030. The IPC noted that Scope 3 emissions become the consumer country's Scope 1 and 2 emissions and would be accounted for under the Paris Agreement in their respective national inventories.
- The IPC considered that the project is not inconsistent with the CCPF, the net zero plan or Australia's obligations in respect to the nationally determined contributions.
- The project includes appropriate measures for minimising and managing Scope 1 and Scope 2 emissions to the greatest extent practicable.

250. The IPC was of the view that, in the absence of a viable alternative to the use of metallurgical coal in steel making, on balance the impacts associated with the emissions from the combustion of the proposed action's metallurgical coal are justified. The IPC found that on balance, the impacts associated with the GHG emissions of the project are acceptable and consistent with the public interest.

251. The IPC imposed conditions for air quality and greenhouse gas regulation (B31-B37), as discussed above.

Risks of a warming climate

252. The department sought internal advice from Climate Adaptation and Resilience Division regarding the current state of climate change and, in particular, the outcomes from the

⁶ EIS Appendix E: Air Quality and Greenhouse Gas Assessment ([Attachment A](#))

most recent IPCC Report 'Climate Change 2021: The Physical Science Basis' (**IPCC Report**). The Climate Adaptation and Resilience Division advised that the Government receives its primary advice on climate science from the Bureau of Meteorology (BoM) and the CSIRO. This advice aligns with information provided by the Intergovernmental Panel on Climate Change and other national and international organisations.

253. I noted that the IPCC Report provides an update on the latest climate science, including the rates, causes and likely future trajectories of global warming and other changes to the climate system. I accepted the advice of the Climate Adaptation and Resilience Division that the key findings in IPCC Report are consistent with the findings of the State of the Climate 2020 report, produced by BoM and the CSIRO.

254. I noted that the IPCC Report finds that increasing global GHG emissions will increase global average surface temperatures with the consequences described. These consequences pose risks to human safety.

255. I also noted the expert evidence regarding the risks of a warming climate filed by the Applicants in *Sharma*. I noted the consideration of the expert evidence in the *Sharma* judgment. I also noted my appeal from certain findings in the judgment which arguably go beyond aspects of the evidence that was before the Court, with particular reference to the Steffen reports.

256. I also considered the expert advice from Dr Mallon, Dr Meyricke, and Professor Capon on impacts on human health as a result of a warming climate and the Court's finding of the relevant risk to human safety on the basis of this evidence.

257.

Contribution of the proposed action to climate change

258. Notwithstanding my decision to appeal the *Sharma* decision, I took into account that the Court in *Sharma* found that, even though the emissions of the proposed action were 'tiny' on a global scale, there was a real risk that even an infinitesimal increase in global average surface temperature may trigger a tipping point or a 4°C Future World: *Sharma No 1* at [253].

259. I agreed with the department's conclusion that if, contrary to the DISER Advice, the proposed action caused 'additional' coal to be consumed, the proposed action would risk a very small increase in global GHG emissions (see below), and therefore a small increased risk to human safety.

Reasonable measures to mitigate climate change

260. As outlined above at [206]-[233], climate change is a global problem that the international community has responded to through the UNFCCC and now the Paris Agreement. Parties to the Paris Agreement have committed to prepare, communicate and maintain their NDCs that they aim to achieve, with the goal of limiting the increase in global average temperature to well below 2 degrees Celsius above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels.

261. As outlined above, the proponent has advised that the likely customers of the coal will be in Japan, South Korea and Taiwan. I considered that these are the likely consumers of the product coal. I noted that Japan and South Korea are parties to the Paris Agreement and have communicated NDCs. I noted that while Taiwan is not party to the Paris Agreement, it has submitted an Intended Nationally Determined Contribution and has its own domestic emissions reduction policies.

262. I noted the advice of DISER which stated:

Projected emissions from the Vickery extension over the 2021-30 period were considered in the preparation of Australia's Emissions Projections 2020. That report states Australia is on track to meet and beat its 2030 Paris target.

Emissions from the project occurring beyond that period (within Australia's jurisdiction) will be covered by future NDCs made by the Government consistent with Article 4.3 of the Paris Agreement.

263. I agreed with DISER's advice that the approval of the proposed action would not affect Australia's ability to achieve the commitments in its NDC. I found that the approval of the proposed action is consistent with Australia's commitments under the Paris Agreement.

264. I also took into account that scope 3 emissions occurring overseas will become the consumer country's scope 1 and 2 emissions and be accounted for under the Paris Agreement in their respective national inventories. The Paris Agreement does not require parties to take particular measures to achieve their NDCs, rather, parties may determine which domestic mitigation measures to pursue, with the aim of achieving the objective of their NDC. The likely customer country governments or jurisdictions of the coal have made a number of commitments to reduce GHG emissions, as discussed at [212]-[228]. Countries where the coal will be consumed have a discretion to determine what climate change mitigation measures they will pursue in accordance with their national policies and pursuant to their NDCs (or in the case of Taiwan, their INDC).

265. I also noted DISER's Supplementary information that it is expected that emissions associated with the project that occur after 2030 would also be covered by future NDCs submitted by the identified export markets. This expectation is based on Article 4.3 of the Paris Agreement, which provides "Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances."

266. While I also took into account the Steffen Reports in considering the impact of the proposed action on climate change, I disagreed with Professor Steffen's conclusions and accepted the Department's advice that a decision to refuse the proposed action is likely to have no impact on total GHG emissions.

267. Professor Steffen used a carbon budget approach to determine the limited cumulative amount of additional CO₂ emissions that can be emitted consistent with limiting global temperature rise to 2°C, consistent with the Paris Agreement.

268. I disagreed with Professor Steffen's conclusion that, because the majority of the world's existing fossil fuel reserves cannot be burned in the 'carbon budget', this means that no new coal mines can be approved consistent with limiting warming to 2°C.

269. The department noted the following points, which I took into account:

- First, consistent with the Paris Agreement, national governments have a discretion to determine what measures will be employed to reduce GHG emissions. There is no government policy requiring approval of coal mines to be refused in order to meet Australia's commitments under the Paris Agreement, or to prevent coal being available to other countries to reduce other countries' emissions.
- Second, the scope 3 emissions from the burning of the coal are taken into account in the country where they are emitted, consistent with the Paris Agreement. The

majority of the proposed action's emissions are scope 3 emissions, and the proposed consumers of the coal will be parties to the Paris Agreement or have equivalent commitments.

- Third, evidence as discussed above indicates that there is an ongoing demand for coal. A decision to refuse the proposed action is likely to have no reduction of total GHG emissions.
- Fourth, while GHG emissions result from the burning of coal, there are many other sources. The department disagrees that the use of coal in particular cannot continue as a source of such emissions. The fact that *most* fossil fuels must remain unburned accepts that *some* proportion of the world's existing fossil fuel reserves can be exploited (see *Gloucester Resources v Minister for Planning* [2019] NSWLEC 9 at [551]), and does not take into account other measures that may be taken to reduce or offset emissions.

270. While recent projections indicate that parties' current NDCs under the Paris Agreement are insufficient to limit global average temperatures to below 2°C, I noted that there are mechanisms under the UNFCCC and Paris Agreement (Article 4 to increase the commitments made for future NDCs) to achieve the Paris goal of well below 2 degrees.

Reasonable measures to mitigate human safety impacts posed by climate change

271. I considered the conditions imposed by the IPC directed at the reduction and mitigation of GHG emissions from the proposed action. Those measures are outlined above in [111], [241]-[242].

272. I considered all completed assessments and NSW development consent conditions relating to GHG emissions. I noted that the IPC concluded that the proposed action included appropriate measures for minimising and managing the scope 1 and scope 2 emissions of the proposed action 'to the greatest extent possible'.

273. I found that these conditions address the proposed action's GHG emissions and mitigate the risk to human safety caused by the proposed action. I also took into account the social and economic benefits of the proposed action, as discussed earlier in my reasons and summarised again below.

Social and economic considerations

274. I have outlined my findings on the relevant economic and social matters above in Part 6, noting that the assessment of economic and social matters was on a cumulative basis incorporating the Approved Project and proposed action. However, consideration was also given to the economic and social matters attributable to the proposed action.

275. In summary, I found that the proposed action is estimated to result in an economic benefit to the NSW community. I considered that the refusal of the proposed action would prevent the opportunity for positive economic and social impacts.

276. The project is expected to deliver 500 jobs during peak construction, and up to 450 jobs at the project during operations. Of this, up to 440 construction jobs and 200 operational workers are attributable to changes arising from the proposed action.

277. The project is expected to provide an estimated:

- 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.

278. The proponent estimates that approximately 70% of the workforce would be from the local area.

279. I found that the proposed action would generate positive social and economic benefits from the steel production generated by the proposed action. Coking coal is considered an essential input to 90% of current primary production of steel and alternatives are not currently available at the scale needed to meet global demand for steel. I noted that steel is an essential material in the construction of safe buildings, infrastructure and renewable energy equipment and infrastructure and is of particular importance to developing countries. I found that the impacts associated with the combustion of the proposed action's coking coal are acceptable and justified in circumstances where there are no current viable alternatives to those emissions for the production of steel.

Conclusion on human safety risks

280. For the reasons discussed above, I found, after giving elevated weight to human safety as required by the *Sharma* decision, approval of the proposed action is not likely to cause harm to human safety and decided that the proposed action should be approved.

281. I found that, even if, contrary to the DISER Advice, the coal from the proposed action would not be substituted by other coal if the proposed action is not approved, it is appropriate to approve the proposed action, taking into account and balancing the other relevant considerations discussed throughout these reasons.

282. I further found that approval is appropriate, having regard to the social and economic benefits of the proposed action, the global need for steel and the absence of any currently viable alternatives at scale to the use of metallurgical coal in steelmaking. I reached this conclusion after taking into account the matters referred to in these reasons and, in particular, that any contribution of the proposed action to global GHG emissions will be extremely small.

Additional considerations

283. In considering the matters relevant to the matters protected by the applicable controlling provision, and economic and social matters, I took into account:

- a. the principles of ecologically sustainable development (set out in section 3A of the EPBC Act), including the precautionary principle (set out in sections 3A(b) and 391(2) of the EPBC Act) (section 136(2)(a));
- b. the assessment report relating to the proposed action (section 136(2)(b));
- c. any other information I have on the relevant impacts of the proposed action (section 136(2)(e));
- d. any relevant comments given to me by another Minister in accordance with an invitation under section 131, 131AA or 131A ((section 136(2)(f) and section 131AA(6)); and
- e. any relevant advice obtained from the IESC in accordance with section 131AB (section 136(2)(fa)).

Principles of ecologically sustainable development (section 136(2)(a)) including the precautionary principle (section 391)

284. The principles of ESD, as defined in Part 1, section 3A of the EPBC Act, are:

- a. decision-making processes should effectively integrate both long-term and short-term economic, environmental, social, and equitable considerations
- b. if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the precautionary principle)
- c. the principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations
- d. the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making
- e. improved valuation, pricing and incentive mechanisms should be promoted.

285. In making this decision, took into account the principles of ESD, including the precautionary principle. In particular:

- a. I was satisfied that the NSW assessment process involved consideration of the long-term and short-term economic, environmental and equitable impacts of the proposed action, and considered the information about these impacts as set out in the DPIE AR.
- b. I agreed with the department's conclusion that any lack of certainty related to the risk or severity of the environmental impacts of the proposed action is addressed by conditions (both attached to the NSW development consent, and which I decided to attach) that provide for monitoring, reporting and response mechanisms to avoid adverse impacts.
- c. I considered that the conditions attached to the NSW development consent, and the conditions which I decided to attach to the approval, allow for the proposed action to be delivered and operated in a sustainable way to protect the environment for future generations.
- d. I considered the importance of conserving biological diversity and ecological integrity, and was satisfied that the EIS and DPIE AR took the conservation of biological diversity and ecological integrity into account as a fundamental consideration.
- e. I was satisfied that the cost of avoidance, mitigation and management measures provides appropriate pricing and incentive mechanisms for the protection of matters of environmental significance and the environment. I noted that the conditions attached to the NSW development consent provide financial incentives to further reduce impacts to biodiversity, and implement performance-based outcomes where possible to allow the proponent to achieve environmental outcomes and objectives in the most cost-effective way possible.

Assessment report (section 136(2)(b)) and relevant advice obtained from the IESC in accordance with section 131AB (section 136(2)(fa))

286. In making this decision I had regard to the following documents, which comprise the assessment report relating to the proposed action;

- a. the letter from DPIE advising of state approval and Commonwealth matters

- b. the NSW conditions of development consent
- c. the IPC's statement of reasons
- d. the IPC's Vickery Extension Project Issues Report
- e. the DPIE AR
- f. the NSW Biodiversity Conservation Division advice on Matters of National Environmental Significance and
- g. the DPIE Preliminary Issues Report.

287. I also took into account the advice obtained from the IESC.

Other information on the relevant impacts of the proposed action (section 136(2)(e))

288. As noted above, in considering the potential impacts of the proposed action on water resources I considered advice and information from the department's Office of Water Science.

289. I note that the EIS and NSW assessment process considered the bioregional assessment conducted for the Namoi subregion of the Northern Inland Catchments bioregion, which provides scientific information about the potential impacts of coal and coal seam gas development in this subregion, and examines the cumulative impacts for surface water and groundwater across the Namoi River basin. I accepted the department's advice that the extensive site-specific water impact assessments undertaken during the NSW assessment and the IESC advice provides a finer scale assessment of the proposed action's impacts on water resources.

Any relevant comments given to the Minister by another Minister in accordance with an invitation (s 136(2)(f))

290. As noted above, comments on the proposed action were received on behalf of the Minister for Resources, Water and Northern Australia, the Minister for Indigenous Australians, the Minister for Infrastructure, Transport and Regional Development, and the Minister for Industry, Science and Technology. To the extent that these comments were relevant to matters under s 136(1), I took these comments into account, and they are addressed above.

Comments from the proponent (section 131AA(1) and section 131AA(6))

291. In making my decision I took into account the proponent's comments on the proposed decision, as addressed above in the discussion of the conditions.

Proponent's history in relation to environmental matters (section 136(4)(a))

292. In deciding whether to approve a proposed action, and what conditions to attach to any approval, I may, under section 136(4) of the EPBC Act, consider whether the person proposing to take the action is a suitable person to be granted an approval.

293. I considered whether the proponent is a suitable person to be granted an approval, noting that correspondence was received from Greenpeace and from Lock the Gate raised concerns about the environmental history of the proponent's parent company, Whitehaven Coal Limited.

Department's environmental history records

294. On 1 October 2020, the Compliance Section in the Department's Office of Compliance advised that a search of the Department's Compliance and Enforcement Management System database and records held by the Department indicated that there were no compliance incidents relating to a contravention of the EPBC Act in relation to the proponent or Whitehaven Coal Limited. The Compliance section advised that there was a range of information that indicated that Whitehaven Coal Limited had contravened State laws, conditions and/or approvals.

Environmental history from NSW Regulators

295. On 9 December 2020, the department requested advice from DPIE on the environmental history of the proponent and its parent bodies for the past 10 years. A response was received on 2 February 2021, and provided detailed information from the following NSW government agencies:

- DPIE
- NSW Resource Regulator
- NSW Environment Protection Agency
- Natural Resource Access Regulator.

296. DPIE provided a detailed list of sanctions and formal enforcement actions for the proponent, its parent bodies and other subsidiaries of Whitehaven Coal Limited.

Environmental history from the proponent

297. On 9 December 2020, the Department wrote to the proponent (care of Whitehaven Coal Limited) and requested information (from the last ten years) on the following matters:

- a. the environmental history of the proponent and its executive officers;
- b. the environmental history of the proponent's parent body or parent bodies; that is; any body or bodies of which the proponent is a subsidiary; and
- c. the environmental history of the executive officers of the proponent's parent body or parent bodies.

298. The proponent responded on 30 January 2021. The Department noted that there were some discrepancies between the information provided by the proponent, and the information that was subsequently provided by DPIE. On 5 March 2021, the Department requested additional information from the proponent (care of Whitehaven Coal Limited) about the compliance history of its parent bodies and the executive officers of these companies for the past ten years, and that the proponent comment on the discrepancies between the information previously provided and the information from DPIE. Whitehaven Coal Limited responded on 19 March 2021.

299. On 26 August 2021, the Department requested updated information, noting that decisions had been handed down by the NSW Land and Environment Court in relation to other Whitehaven Coal Limited subsidiaries. Whitehaven Coal Limited responded on 2 September 2021. Their response noted that fines totalling \$372,500 had been issued by the NSW Land and Environment Court for contraventions by Narrabri Coal Operations Pty Ltd and Narrabri Coal Pty Ltd in relation to exploration activities, and that a final determination was pending in relation to charges against Maules Creek Coal Pty Ltd in relation to water management. Whitehaven Coal Ltd advised that no executive officers of the proponent were executive officers of these subsidiaries at the time of these contraventions.

300. No penalties or sanctions have been imposed on the proponent or its immediate parent body, Whitehaven Coal Holdings Pty Ltd. Other subsidiaries of Whitehaven Pty Ltd have received 65 penalty notices, and paid a total of \$661,500 in penalties and enforceable undertakings over the past 10 years. These penalties are summarised in the following table.

Table 1 Penalties imposed on other subsidiaries of Whitehaven Coal Pty Ltd for the last 10 years.

Type of penalty	Number of notices	Fine	Comment	Self-reported by Whitehaven/ subsidiaries
Administrative	2	\$1000	failure to pay annual rental and administrative levy fees.	
Environmental	19	\$1500	Penalties for <ul style="list-style-type: none"> • exceedance of blast overpressure • unlicensed water discharges and pollution events, • a diversion bank failure • blast fumes • failing to comply with a notice to provide information/records 	1
Mining/Erosion	5	\$2500	<ul style="list-style-type: none"> • mining without an approved Mining Operations Plan (MOP) for a period of 3 days • undertaking exploration activities not in accordance with an existing MOP • management of soil resources not in accordance with the MOP • erosion management at an overburden emplacement 	1
Community/ disturbance of an Aboriginal site/ incomplete implementation of Biodiversity Management Plan	5	\$3000	<ul style="list-style-type: none"> • Community Consultative Committee (CCC) not operating in accordance with NSW DPIE guidelines, • disturbance of an Aboriginal heritage site, • failing to verify employee bus transport percentages, • incomplete implementation of the Biodiversity Management Plan (BMP). 	
Rehabilitation/ Mining lease approval	2	\$5000	<ul style="list-style-type: none"> • incomplete execution of rehabilitation activities according to the specified timetable at the former Springfield mine, • conducting prospection not in accordance with conditions of mining lease approval 	1
Environmental	11	\$15000	Include: <ul style="list-style-type: none"> • unlicensed discharge from a contour drain, • noise and blast overpressure exceedances, and 	3

			<ul style="list-style-type: none"> failure of a sediment dam embankment and the resultant discharge. construction of water supply pipelines without consent exceedance of air impurities standards 	
Non-disclosure of political donations	1	\$20000		
Blast Fumes	1	\$38500	<ul style="list-style-type: none"> blast fumes that left the Rocglen Coal Mine site. 	
Exploration	19	\$372500	<p>Included:</p> <ul style="list-style-type: none"> the alleged construction of unauthorised tracks failing to rehabilitate drill sites drilling of bore holes contrary to exploration activity approval conditions 	

301. The following table summarises the penalties imposed on a subsidiary of Whitehaven Coal Limited while one of the proponent's directors was a director of the relevant subsidiary:

Table 2 Penalties imposed associated with executive officers of Vickery Coal Pty Ltd.

Type of penalty	Date	Fine	Comment
Blasting	18/03/2019	\$38,500 Prosecution plus other costs	Rocglen, Blast - left site and drifted over neighbouring properties
Administrative	22/11/2019	\$2,500 Penalty	Vickery, Exploration Programs carried out within CL 316 not in accordance with an accepted Mining Operation Plan
Administrative	28/02/2020	\$15,000 Penalty	Development without Consent - Construction of three water supply pipelines and associated infrastructure to supply water to Maules Creek Coal Mine
Water	9/04/2020	\$15,000 Penalty	Tarrowonga, failure of embankment allowing water release offsite from sediment dam 2
Administrative	14/09/2017	\$1000 Penalty	Rocglen, failure to pay annual rental or administrative levy fee
Administrative	22/11/2019	\$5000 Penalty	Vickery, prospecting for minerals without authorisation as per s5 of the NSW <i>Mining Act 1992</i>
Bio/Rehab	18/05/2020	\$2500 Penalty	Maules Creek, soil management not regarded as in accordance with the Mine Operation Plan
Bio/Rehab	18/05/2020	\$2500 Penalty	Maules Creek, soil management not regarded as in accordance with the Mine Operation Plan

302. The following warnings, cautions, directions and enforceable undertakings have also been issued or imposed on subsidiaries of Whitehaven Coal Limited while one of the proponent's directors was a director of the relevant subsidiary:

Table 3 Summary of Warnings, Cautions, Directions & Enforceable Undertaking associated with executive officers of Vickery Coal Pty Ltd for the last 10 years.

Type	Number of notices	Comments
Advisory Letter	2	Administrative - failing to notify of suspension of operations Technical breach of water ordering requirements
Caution	4	Administrative - Failure to pay annual rental or administrative levy fee Blasting and Noise
Clean-Up Notice	2	Water - Expandable polystyrene balls mobilised into waterways following significant storm event & EPB Spill Clean Up Notice No. 1
Direction	2	Direction related to Progressive Rehabilitation Direction to rehabilitate land - Tunnel erosion located on western emplacement
Warning	8	Heritage - Aboriginal objects were harmed without authorisation during a cultural heritage assessment. Noise - Exceedance of operational noise impact assessment criteria Late formation of Community Consultative Committee Water - Failure to Maintain Plant and Equipment Incorrect implementation of the Historical Heritage Management Plan
Prosecution	1	Allegation of water pollution charges in relation to three water discharge events from the premises and commencement of prosecution.

303. It was not clear from the information provided by Whitehaven Coal Limited whether an executive officer of the proponent or either of its parent companies was an executive officer of the relevant subsidiary when the other penalties summarised in Table 1 were imposed. As against this possibility, I considered all of the penalties in assessing the proponent's environmental history.

Other analysis and information

304. In October 2020, the NSW DPIE Resources Regulator conducted a review into allegations that Whitehaven Coal Limited and its subsidiaries were not fit and proper to hold mining authorisations in NSW. The NSW Resources Regulator undertook a comprehensive evaluation of information provided by Whitehaven Coal Limited and its subsidiaries in response to these allegations and did not proceed with any action against Whitehaven Coal Limited or its subsidiaries.

305. The Department advised that examination of publicly available independent audit reports for Whitehaven Coal Limited and its subsidiaries indicated that non-conformity at the time of the review has been addressed through corrective actions. The Department also advised that analysis of Whitehaven Coal Limited's compliance history in relation to statutory conditions over the last 10 years demonstrated that it was generally responsive to audits, and corrected instances of non-compliance.

Conclusion on environmental history

306. The Department recommended that I find that the proponent is a suitable person to be granted an approval.

307. The Department noted that the proponent has not had any contraventions recorded against it.

308. The Department considered the contraventions and penalties imposed on subsidiaries of Whitehaven Coal Limited over the past 10 years, and advised that for the most part, these were minor contraventions in light of the scale and complexity of the operations being undertaken.
309. However, the Department noted that recent contraventions of subsidiaries of the proponent's parent company (including the penalties imposed on Narrabri Coal Operations Pty Ltd and Narrabri Coal Pty Ltd) were more significant. However, no executive officers of the proponent were executive officers of the relevant subsidiary companies at the time of those more serious contraventions.
310. On that basis of this advice, which I accepted, I found that the proponent is a suitable person to be granted an approval.
311. In coming to this view, and consistent with the Department's recommendation, I gave limited weight to the general information about the responsiveness of Whitehaven Coal Limited and its subsidiaries to audits and other compliance processes, because it is not clear whether an executive officer of the proponent or either of its parent companies was an executive officer of the relevant subsidiaries when they responded positively to compliance or audit action.

Considerations in deciding on conditions – section 134

312. In accordance with section 134(1), I may attach a condition to the approval of an action if I am satisfied that the condition is necessary or convenient for:

- protecting a matter protected by a provision of Part 3 for which the approval has effect (whether or not the protection is protection from the action); or
- repairing or mitigating damage to a matter protected by a provision of Part 3 for which the approval has effect (whether or not the damage has been, will be or is likely to be caused by the action).

313. As discussed earlier in my reasons, I found that each of the conditions attached to the approval is necessary or convenient to protect, repair and/or mitigate impacts on a matter protected by provision of Part 3 for which the approval has effect.

314. Subsection 134(3A) of the EPBC Act states that certain conditions cannot be attached to the approval of an action unless the holder of the approval has consented to the attachment of the condition. As noted above, prior to the decision being made the proponent indicated that it agreed to the conditions to be attached.

315. In accordance with section 134(4) of the EPBC Act, in deciding whether to attached conditions to the approval, I considered the following matters.

Any relevant conditions that have been imposed, or the Minister considers are likely to be imposed, under a law of a State or self-governing Territory or another law of the Commonwealth on the taking of the action (s 134(4)(a))

316. I took into account the conditions of the NSW development consent to the extent they were relevant to matters of national environmental significance. I was satisfied that the conditions of approval I decided to attach are consistent with the requirements of the NSW development consent, and have been developed to avoid duplication with the NSW development consent.

317. I also had regard to the EPBC Act Condition-setting Policy, which outlines the Australian Government's approach to considering state and territory approval conditions when approving a project under the EPBC Act.

Information provided by the person proposing to take the action or by the designated proponent of the action (s 134(4)(aa))

318. I took into account the EIS and other material provided by the proponent, as well as the proponent's comments on the conditions in my proposed decision.

The desirability of ensuring as far as practicable that the condition is a cost-effective means for the Commonwealth and a person taking the action to achieve the object of the condition (s 134(4)(b))

319. I accepted the department's advice that the conditions I decided to attach are a cost-effective means of ensuring that matters of national environmental significance are protected over time, including because they are largely based upon the conditions attached to the NSW development consent, which was in turn based on assessment material and commitments provided by the proponent.

Requirements for decisions about listed threatened species and communities (section 139)

320. Under section 139(1) of the EPBC Act, in deciding whether or not to approve for the purposes of a subsection of section 18 or section 18A the taking of an action, and what conditions to attach to such an approval, I must not act inconsistently with:

- a. Australia's obligations under:
 - i. the Convention on Biological Diversity (Biodiversity Convention); or
 - ii. the Convention on the Conservation of Nature in the South Pacific (Apia Convention); or
 - iii. the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); or
- b. a recovery plan or threat abatement plan.

321. Section 139(2) states, if:

- a. the Minister is considering whether to approve, for the purposes of a section of section 18 or section 18A, the taking of an action; and
- b. the action has or will have, or is likely to have, a significant impact on a particular listed threatened species or a particular listed threatened ecological community;

the Minister must, in deciding whether to approve the taking of the action, have regard to any approved conservation advice for the species or community.

The Biodiversity Convention

322. The objectives of the Biodiversity Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

323. The Biodiversity Convention requires Contracting Parties, as far as possible and as appropriate, to introduce procedures requiring environmental impact assessments of projects that are likely to have significant adverse effects on biological diversity to avoid and minimise such impacts, and requires Parties to introduce appropriate arrangements to

ensure that the environmental consequences of their programmes and policies that are likely to have significant adverse impacts on biological diversity are duly taken into account. The proposed action was subject to an environmental impact assessment process under the *Environmental Planning and Assessment Act 1979* (NSW) and assessment under the EPBC Act.

324. I have found above that the proposed action will not have unacceptable impacts on biodiversity, including Commonwealth-listed threatened species and communities, if it is taken in accordance with the recommended conditions.
325. I was satisfied that approving the proposed action, subject to conditions that avoid, mitigate and offset impacts to biodiversity, is not inconsistent with Australia's obligations under the Biodiversity Convention.

CITES

326. The aim of CITES is to ensure that international trade in specimens of wild animals and plants does not threaten their survival. As the proposed action does not involve international trade in specimens of wild animals and plants, I was satisfied that approving the proposed action, subject to conditions, is not inconsistent with Australia's obligations under CITES.

Apia Convention

327. The Apia Convention encourages the creation of protected areas which together with existing protected areas will safeguard representative samples of the natural ecosystems occurring therein (particular attention being given to endangered species), as well as superlative scenery, striking geological formations, and regions and objects of aesthetic interest or historic, cultural or scientific value.
328. The Apia Convention was suspended with effect from 13 September 2006.
329. While this Convention has been suspended, the department's advice included consideration of whether the proposed action would be consistent with the Apia Convention.
330. The proposed action has undergone an environmental assessment which concluded that the proposed action will not have an unacceptable impact on biodiversity, geological formations and objects of aesthetic interest or historic, cultural or scientific value, subject to the proposed conditions.
331. The proposed conditions of approval place restrictions on the extent of impacts the action can have on biodiversity and water resources, and how they are managed in the long-term. The proposed conditions also require ongoing monitoring of potential impacts and obligations for the person taking the action to implement mitigation and corrective actions, and to offset significant residual impacts.
332. As Australia currently has no international obligations under the Apia Convention, it cannot act inconsistently with them. Nevertheless, I was satisfied that approving the proposed action, subject to conditions would not be inconsistent with the Convention.

Recovery Plans and Threat Abatement Plans

333. When deciding whether to approve the taking of an action for the purposes of sections 18 and 18A, and what conditions to attach to any approval, I must not act inconsistently with a recovery plan or a threat abatement plan.

334. The recovery plans relevant to the proposed action are:

- a. Department of the Environment (2016). *National Recovery Plan for the Regent Honeyeater (Anthochaera phrygia)*. Canberra, ACT: Commonwealth of Australia.
- b. Saunders, D.L. & C.L. Tzaros (2011). *National Recovery Plan for the Swift Parrot (Lathamus discolor)*. Birds Australia, Melbourne.

335. The threat abatement plans relevant to the proposed action are:

- a. Department of the Environment (2015). *Threat abatement plan for predation by feral cats*. Canberra, ACT: Commonwealth of Australia.
- b. Department of the Environment and Energy (2016). *Threat abatement plan for competition and land degradation by rabbits*. Canberra, ACT: Commonwealth of Australia.

336. These plans are discussed above in the discussion about the impacts on listed threatened species. I was satisfied that the approval of the action would not be inconsistent with any of the relevant recovery plans or threat abatement plans.

Conservation advices

337. When deciding whether to approve the taking of an action for the purposes of sections 18 and 18A, and what conditions to attach to any approval, I am required to have regard to any approved conservation advice for a listed threatened species or community that is likely to be significantly impacted by the proposed action.

338. The conservation advices relevant to the proposed action which I considered are:

- a. Department of Sustainability, Environment, Water, Population and Communities (2012). *Approved Conservation Advice for Phascolarctos cinereus (combined populations in Queensland, New South Wales and the Australian Capital Territory)*. Canberra: Department of Sustainability, Environment, Water, Population and Communities.
- b. Department of the Environment (2015). *Conservation Advice Anthochaera phrygia regent honeyeater*. Canberra: Department of the Environment
- c. Threatened Species Scientific Committee (2016). *Conservation Advice Lathamus discolor swift parrot*. Canberra: Department of the Environment.

Bioregional Plans section (176(5))

339. In accordance with section 176(5), I was required to have regard to a bioregional plan in making any decision under the EPBC Act to which the plan is relevant. The proposed action is not located within or near an area designated by a bioregional plan.

Duration of approval

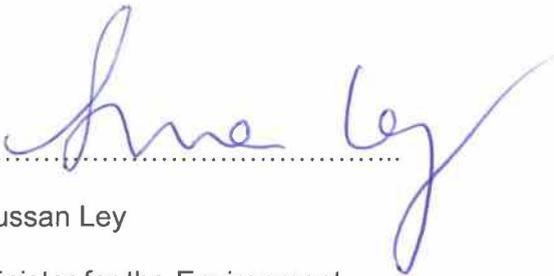
340. I accepted the Department's recommendation that the approval timeframe should be 30 years, to account for the construction period, proposed operational lifespan of 26 years, and site rehabilitation.

341. I accordingly decided to approve the proposed action until 31 December 2051.

Conclusion

342. In light of the findings in paragraphs [36]-[341], and not having considered any matter which I am not required or permitted to consider, I decided to approve, subject to conditions, the taking of the proposed action for the purposes of sections 18 and 18A (listed threatened species and communities) and sections 24D and 24E (a water resource, in relation to coal seam gas development and large coal mining development).

Signed



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Sussan Ley

Minister for the Environment

Date:

16/9/21

ANNEXURE A

Section 130 of the EPBC Act relevantly provides:

Basic rule

- (1) The Minister must decide whether or not to approve, for the purposes of each controlling provision for a controlled action, the taking of the action.
- (1A) The Minister must make the decision within the relevant period specified in subsection (1B) that relates to the controlled action, or such longer period as the Minister specifies in writing.

Notice of extension of time

- (4) If the Minister specifies a longer period for the purposes of subsection (1A), he or she must:
 - (a) give a copy of the specification to the person proposing to take the action; and
 - (b) publish the specification in accordance with the regulations.

Section 131 of the EPBC Act provides:

- (1) Before the Minister (the **Environment Minister**) decides whether or not to approve, for the purposes of a controlling provision, the taking of an action, and what conditions (if any) to attach to an approval, he or she must:
 - (a) inform any other Minister whom the Environment Minister believes has administrative responsibilities relating to the action of the decision the Environment Minister proposes to make; and
 - (b) invite the other Minister to give the Environment Minister comments on the proposed decision within 10 business days.
- (2) A Minister invited to comment may make comments that:
 - (a) relate to economic and social matters relating to the action; and
 - (b) may be considered by the Environment Minister consistently with the principles of ecologically sustainable development.

This does not limit the comments such a Minister may give.

Section 131AA of the EPBC Act relevantly provides:

- (1) Before the Minister decides whether or not to approve, for the purposes of a controlling provision, the taking of an action, and what conditions (if any) to attach to an approval, he or she must:
 - (a) inform the person proposing to take the action, and the designated proponent of the action (if the designated proponent is not the person proposing to take the action), of:
 - (i) the decision the Minister proposes to make; and
 - (ii) if the Minister proposes to approve the taking of the action—any conditions the Minister proposes to attach to the approval; and

- (b) invite each person informed under paragraph (a) to give the Minister, within 10 business days (measured in Canberra), comments in writing on the proposed decision and any conditions.
- (2) If the Minister proposes not to approve, for the purposes of a controlling provision, the taking of the action, the Minister must provide to each person informed under paragraph (1)(a), with the invitation given under paragraph (1)(b):
 - (a) a copy of whichever of the following documents applies to the action:
 - (i) an assessment report;
 - (ii) a finalised recommendation report given to the Minister under subsection 93(5);
 - (iii) a recommendation report given to the Minister under section 95C, 100 or 105; and
 - (b) any information relating to economic and social matters that the Minister has considered; and
 - (c) any information relating to the history of a person in relation to environmental matters that the Minister has considered under subsection 136(4); and
 - (d) a copy of any document, or part of a document, containing information of a kind referred to in paragraph 136(2)(e) that the Minister has considered.
- (3) The Minister is not required to provide under subsection (2):
 - (a) information that is in the public domain; or
 - (b) a copy of so much of a document as in the public domain; or
 - (c) in the case of information referred to in paragraph (2)(b) or (c)—any conclusions or recommendations relating to that information included in documents or other material prepared by the Secretary for the Minister.
- (6) In deciding whether or not to approve, for the purposes of a controlling provision, the taking of the action, the Minister must take into account any relevant comments given to the Minister in response to an invitation given under paragraph (1)(b).

Section 131A of the EPBC Act provides:

Before the Minister decides whether or not to approve, for the purposes of a controlling provision, the taking of an action, and what conditions (if any) to attach to an approval, he or she may publish on the Internet:

- (a) the proposed decision and, if the proposed decision is to approve the taking of the action, any conditions that the Minister proposes to attach to the approval; and
- (b) an invitation for anyone to give the Minister, within 10 business days (measured in Canberra), comments in writing on the proposed decision and any conditions.

Section 133 of the EPBC Act relevantly provides:

Approval

- (1) After receiving the assessment documentation relating to a controlled action, or the report of a commission that has conducted an inquiry relating to a controlled action, the Minister may approve for the purposes of a controlling provision the taking of the action by a person.
- (1A) If the referral of the proposal to take the action included alternative proposals relating to any of the matters referred to in subsection 72(3), the Minister may approve, for the purposes of subsection (1), one or more of the alternative proposals in relation to the taking of the action.

Content of approval

- (2) An approval must:
 - (a) be in writing; and
 - (b) specify the action (including any alternative proposals approved under subsection (1A)) that may be taken; and
 - (c) name the person to whom the approval is granted; and
 - (d) specify each provision of Part 3 for which the approval has effect; and
 - (e) specify the period for which the approval has effect; and
 - (f) set out the conditions attached to the approval.

Persons who may take action covered by approval

- (2A) An approval granted under this section is an approval of the taking of the action specified in the approval by any of the following persons:
 - (a) the holder of the approval;
 - (b) a person who is authorised, permitted or requested by the holder of the approval, or by another person with the consent or agreement of the holder of the approval, to take the action.

Notice of approval

- (3) The Minister must:
 - (a) give a copy of the approval to the person named in the approval under paragraph 133(2)(c); and
 - (b) provide a copy of the approval to a person who asks for it (either free or for a reasonable charge determined by the Minister).

Notice of refusal of approval

- (7) If the Minister refuses to approve for the purposes of a controlling provision the taking of an action by the person who proposed to take the action, the Minister must give the person notice of the refusal.

Section 134 of the EPBC Act provides:

Condition to inform persons taking action of conditions attached to approval

- (1A) An approval of the taking of an action by a person (the **first person**) is subject to the condition that, if the first person authorises, permits or requests another person to

undertake any part of the action, the first person must take all reasonable steps to ensure:

- (a) that the other person is informed of any condition attached to the approval that restricts or regulates the way in which that part of the action may be taken; and
- (b) that the other person complies with any such condition.

For the purposes of this Chapter, the condition imposed by this subsection is attached to the approval.

Generally

- (1) The Minister may attach a condition to the approval of the action if he or she is satisfied that the condition is necessary or convenient for:
 - (a) protecting a matter protected by a provision of Part 3 for which the approval has effect (whether or not the protection is protection from the action); or
 - (b) repairing or mitigating damage to a matter protected by a provision of Part 3 for which the approval has effect (whether or not the damage has been, will be or is likely to be caused by the action).

Conditions to protect matters from the approved action

- (2) The Minister may attach a condition to the approval of the action if he or she is satisfied that the condition is necessary or convenient for:
 - (a) protecting from the action any matter protected by a provision of Part 3 for which the approval has effect; or
 - (b) repairing or mitigating damage that may or will be, or has been, caused by the action to any matter protected by a provision of Part 3 for which the approval has effect.

This subsection does not limit subsection (1).

Examples of kinds of conditions that may be attached

- (3) The conditions that may be attached to an approval include:
 - (aa) conditions requiring specified activities to be undertaken for:
 - (i) protecting a matter protected by a provision of Part 3 for which the approval has effect (whether or not the protection is protection from the action); or
 - (ii) repairing or mitigating damage to a matter protected by a provision of Part 3 for which the approval has effect (whether or not the damage may or will be, or has been, caused by the action); and
 - (ab) conditions requiring a specified financial contribution to be made to a person for the purpose of supporting activities of a kind mentioned in paragraph (aa); and
 - (a) conditions relating to any security to be given by the holder of the approval by bond, guarantee or cash deposit:
 - (i) to comply with this Act and the regulations; and

- (ii) not to contravene a condition attached to the approval; and
 - (iii) to meet any liability of a person whose taking of the action is approved to the Commonwealth for measures taken by the Commonwealth under section 499 (which lets the Commonwealth repair and mitigate damage caused by a contravention of this Act) in relation to the action; and
- (b) conditions requiring the holder of the approval to insure against any specified liability of the holder to the Commonwealth for measures taken by the Commonwealth under section 499 in relation to the approved action; and
 - (c) conditions requiring a person taking the action to comply with conditions specified in an instrument (including any kind of authorisation) made or granted under a law of a State or self-governing Territory or another law of the Commonwealth; and
 - (d) conditions requiring an environmental audit of the action to be carried out periodically by a person who can be regarded as being independent from any person whose taking of the action is approved; and
 - (e) conditions requiring the preparation, submission for approval by the Minister, and implementation of a plan for managing the impacts of the approved action on a matter protected by a provision of Part 3 for which the approval has effect such as a plan for conserving habitat of a species or ecological community; and
 - (f) conditions requiring specified environmental monitoring or testing to be carried out; and
 - (g) conditions requiring compliance with a specified industry standard or code of practice; and
 - (h) conditions relating to any alternative proposals in relation to the taking of the action covered by the approval (as permitted by subsection 133(1A)).

This subsection does not limit the kinds of conditions that may be attached to an approval.

Certain conditions require consent of holder of approval

- (3A) The following kinds of condition cannot be attached to the approval of an action unless the holder of the approval has consented to the attachment of the condition:
 - (a) a condition referred to in paragraph (3)(aa), if the activities specified in the condition are not reasonably related to the action;
 - (b) a condition referred to in paragraph (3)(ab).
- (3B) If the holder of the approval has given consent, for the purposes of subsection (3A), to the attachment of a condition:
 - (a) the holder cannot withdraw that consent after the condition has been attached to the approval; and
 - (b) any person to whom the approval is later transferred under section 145B is taken to have consented to the attachment of the condition, and cannot withdraw that consent.

Conditions attached under paragraph (3)(c)

(3C) A condition attached to an approval under paragraph (3)(c) may require a person taking the action to comply with conditions specified in an instrument of a kind referred to in that paragraph:

- (a) as in force at a particular time; or
- (b) as is in force or existing from time to time;

even if the instrument does not yet exist at the time the approval takes effect.

Considerations in deciding on condition

- (4) In deciding whether to attach a condition to an approval, the Minister must consider:
- (a) any relevant conditions that have been imposed, or the Minister considers are likely to be imposed, under a law of a State or self-governing Territory or another law of the Commonwealth on the taking of the action; and
 - (aa) information provided by the person proposing to take the action or by the designated proponent of the action; and
 - (b) the desirability of ensuring as far as practicable that the condition is a cost-effective means for the Commonwealth and a person taking the action to achieve the object of the condition.

Effect of conditions requiring compliance with conditions specified in another instrument

- (4A) If:
- (a) a condition (the **principal condition**) attached to an approval under paragraph (3)(c) requires a person taking the action to comply with conditions (the **other conditions**) specified in an instrument of a kind referred to in that paragraph; and
 - (b) the other conditions are in excess of the power conferred by subsection (1);
- the principal condition is taken to require the person to comply with the other conditions only to the extent that they are not in excess of that power.

Validity of decision

- (5) A failure to consider information as required by paragraph (4)(aa) does not invalidate a decision about attaching a condition to the approval.

Section 136 of the EPBC Act provides:

Mandatory considerations

- (1) In deciding whether or not to approve the taking of an action, and what conditions to attach to an approval, the Minister must consider the following, so far as they are not inconsistent with any other requirement of this Subdivision:
- (a) matters relevant to any matter protected by a provision of Part 3 that the Minister has decided is a controlling provision for the action;
 - (b) economic and social matters.

Factors to be taken into account

- (2) In considering those matters, the Minister must take into account:
- (a) the principles of ecologically sustainable development; and
 - (b) the assessment report (if any) relating to the action; and
 - (ba) if Division 3A of Part 8 (assessment on referral information) applies to the action—the finalised recommendation report relating to the action given to the Minister under subsection 93(5); and
 - (bc) if Division 4 of Part 8 (assessment on preliminary documentation) applies to the action:
 - (i) the documents given to the Minister under subsection 95B(1), or the statement given to the Minister under subsection 95B(3), as the case requires, relating to the action; and
 - (ii) the recommendation report relating to the action given to the Minister under section 95C; and
 - (c) if Division 5 (public environment reports) of Part 8 applies to the action:
 - (i) the finalised public environment report relating to the action given to the Minister under section 99; and
 - (ii) the recommendation report relating to the action given to the Minister under section 100; and
 - (ca) if Division 6 (environmental impact statements) of Part 8 applies to the action:
 - (i) the finalised environmental impact statement relating to the action given to the Minister under section 104; and
 - (ii) the recommendation report relating to the action given to the Minister under section 105; and
 - (d) if an inquiry was conducted under Division 7 of Part 8 in relation to the action—the report of the commissioners; and
 - (e) any other information the Minister has on the relevant impacts of the action (including information in a report on the impacts of actions taken under a policy, plan or program under which the action is to be taken that was given to the Minister under an agreement under Part 10 (about strategic assessments)); and
 - (f) any relevant comments given to the Minister in accordance with an invitation under section 131 or 131A; and
 - (g) if a notice relating to the action was given to the Minister under subsection 132A(3)—the information in the notice.

Person's environmental history

- (4) In deciding whether or not to approve the taking of an action by a person, and what conditions to attach to an approval, the Minister may consider whether the person is a suitable person to be granted an approval, having regard to:
- (a) the person's history in relation to environmental matters; and

- (b) if the person is a body corporate—the history of its executive officers in relation to environmental matters; and
- (c) if the person is a body corporate that is a subsidiary of another body or company (the **parent body**)—the history in relation to environmental matters of the parent body and its executive officers.

Minister not to consider other matters

- (5) In deciding whether or not to approve the taking of an action, and what conditions to attach to an approval, the Minister must not consider any matters that the Minister is not required or permitted by this Division to consider.

Section 139 of the EPBC Act provides in part:

- (2) If:
 - (a) the Minister is considering whether to approve, for the purposes of a subsection of section 18 or section 18A, the taking of an action; and
 - (b) the action has or will have, or is likely to have, a significant impact on a particular listed threatened species or a particular listed threatened ecological community;

the Minister must, in deciding whether to so approve the taking of the action, have regard to any approved conservation advice for the species or community.