



**THE HON SUSSAN LEY MP
MINISTER FOR THE ENVIRONMENT
MEMBER FOR FARRER**

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 1 October 2021, under subsection 130 (1) and section 133 of the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*, to approve the Tahmoor South Project (EPBC 2017/8084) (**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 proponent and the person proposing to take the action, Tahmoor Coal Pty Ltd, is a wholly owned entity within the SIMEC Mining divisions of the GFG Alliance group, an international company.
3. The proponent owns and operates the Tahmoor Mine, an underground coal mine that has been operating since the late 1970s. The Tahmoor Mine is located between the townships of Tahmoor and Bargo, approximately 75 kilometres (km) south-west of Sydney. Coal is processed at existing surface facilities and transported by rail to the Port Kembla Coal Terminal. Mining within the existing approved 'Tahmoor North' mining area is scheduled for completion in 2022, depending on geological and mining conditions.
4. The proposed action is to upgrade, extract and process additional coal deposits and conduct life-of-mine rehabilitation at the 'Tahmoor South' mine site, approximately 10 km south of Picton, New South Wales. The proposed action area is immediately south of existing operations, and within the proponent's existing mine leases.
5. Following a two year construction period, the proposed action will facilitate the recovery of 33 million tonnes (Mt) of run-of-mine coal over a 10 year period. Pre-mining activities are proposed to commence in 2020-21, with longwall mining to start in 2023 and will continue to 2032.
6. The proposed action will continue underground longwall mining of the Bulli coal seam. Product coal, comprising 90-95 per cent metallurgical (coking) coal and 5-10 per cent thermal coal, would be sold to domestic and international markets.

EPBC Act referral and controlled action decision

7. On 30 October 2017, the proponent referred the proposed action to the department under section 68 of the EPBC Act.
8. On 12 January 2018, 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); and
 - b. sections 24D and 24E (water resources).
9. The decision noted that the proposed action would be assessed under the assessment bilateral agreement with NSW.
10. On 17 November 2020, my delegate accepted the proponent's request to vary the proposed action under s 156A of the EPBC Act, which included the following changes:
 - a. A reduction in the extent of longwall mining and a change to the configuration of longwalls to reduce subsidence impacts, including the removal of the eastern domain longwalls and the removal of three longwalls in the central domain.
 - b. A reduction in extraction of run-of-mine coal, from 43 Mt to 33 Mt.
 - c. A reduction in the footprint of the rejects emplacement area extension.
 - d. A reduction in the footprint of new upcast and downcast ventilation shafts to be constructed.
 - e. a reduction in the amount of native vegetation to be cleared for the transmission line easement.
11. These changes to the proposed action reduced the area of vegetation that would be cleared. I address this further below under 'Listed threatened species and ecological communities'.
12. On 5 March 2021, a third party requested reconsideration of the controlled action decision of 12 January 2018 under s 78A of the EPBC Act. On 10 June 2021, my delegate determined that the request did not meet the requirements specified in regulation 4AA.01(3)(b) of the *Environment Protection and Biodiversity Regulations 2000* because it did not 'contain information demonstrating a change in potential impacts to a high degree of certainty'.

NSW assessment and approval, and IESC advice

13. The proposed action has been assessed under the *Environmental Planning and Assessment Act 1979* (NSW) (**EP&A Act**), and was approved by the NSW Independent Planning Commission (**IPC**) on 23 April 2021.
14. The proponent submitted the original Tahmoor South Coal Project application and accompanying Environmental Impact Statement (**EIS**) to the NSW Department of Planning, Industry and the Environment (**NSW DPIE**) in January 2019. This original proposal involved mining from 9 longwall panels to extract up to 48 Mt of run-of-mine coal over a 13 year mine life.
15. NSW DPIE publicly exhibited the EIS from 23 January 2019 until 5 March 2019 (42 days). 97 submissions were received on the EIS, including 14 from state and local government agencies, 6 from special interest groups and 77 from the general public (including individuals

and businesses). Of the submissions from special interest groups and the general public, 9 (11 per cent) objected to the proposed action and 72 (87 per cent) supported the proposed action.

16. The key issues raised in public submissions objecting to the proposed action related to:
 - anthropogenic climate change and greenhouse gas (GHG) emissions;
 - property damage and the impacts of subsidence;
 - groundwater impacts, particularly in relation to Thirlmere Lakes;
 - potential damage to a UNESCO World Heritage site (Thirlmere Lakes National Park); and
 - biodiversity impacts.
17. Following the EIS exhibition period, NSW DPIE received an additional 134 representations on the proposed action, mostly from members of the general public. Most representations (84 per cent) objected to the proposed action, raising issues in relation to subsidence impacts, water pollution, climate change, property values, Koalas and other biodiversity impacts, groundwater bores, agriculture, community health impacts and bushfire risks.
18. On 21 January 2019, NSW DPIE and the then Minister's delegate requested that the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (**IESC**) provide advice on the proposed action.
19. The IESC provided advice to NSW DPIE and the department on 18 March 2019.
20. On 21 February 2020, the proponent submitted a report responding to the issues raised in submissions on the EIS and by the IESC. The response also included a project amendment report, which described amendments to the proposed action made in response to submissions received. These amendments included removing a longwall, and reducing longwall widths and the height of extraction, to reduce subsidence impacts and significantly reduce the rejects emplacement area footprint to minimise biodiversity impacts.
21. On 3 August 2020, the proponent provided a response to advice received from several agencies in relation to the response to submissions. This response included a second project amendment report describing a second round of amendments to the proposed action, including the removal of two longwall panels to further reduce the extent of potential subsidence related impacts.
22. The amendments made to the proposed action during the NSW assessment are consistent with the variation of the proposed action under the EPBC Act. In other words, the proposed action that was ultimately assessed under the EP&A Act is the same as the proposed action (as varied) for which approval was sought under the EPBC Act.
23. On 23 April 2021, the IPC approved the proposed action subject to conditions (**NSW development consent**). The conditions attached to the NSW development consent include conditions that require the proponent to shorten the length of a longwall to reduce impacts on Dog Trap Creek (condition A7), and to construct one ventilation shaft on the same site as another ventilation shaft, to reduce the area of Shale Sandstone Transition Forest of the Sydney Basin Bioregion ecological community that would be cleared (A9). These changes in the scope of the proposed action required under the NSW development consent conditions are discussed further below.

24. The department was formally advised by NSW DPIE of the outcome of the NSW assessment process on 10 May 2021 and provided with the NSW DPIE assessment report (**DPIE AR**), the IPC's statement of reasons and the NSW development consent (among other documents). NSW DPIE recommended that I approve the proposed action.

Proposed decision, consultation and further information

25. On 13 September 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 Minister for Resources and Water, the Hon Keith Pitt MP
 - c. The Minister for Indigenous Australians, the Hon Ken Wyatt AM MP
 - d. The Minister for Agriculture and Northern Australia, the Hon David Littleproud MP, and
 - e. The Minister for Energy and Emissions Reduction, the Hon Angus Taylor MP.
26. I also notified the NSW Minister for Planning and Public Spaces, the Hon Rob Stokes MP, of my proposed decision.
27. The department considered and I agreed that sufficient public consultation had occurred for the proposed action through the NSW assessment. I decided to not release my proposed decision for public comment under section 131A of the EPBC Act.

Proponent

28. The proponent responded on 22 and 24 September 2021, and suggested a number of amendments to the proposed conditions. These comments, and any changes that I considered should be made to the proposed conditions in response, are discussed below in the section on water resources.
29. A revised copy of the conditions was provided to the proponent on 24 September 2021, and the proponent confirmed on 28 September 2021 that it agreed to the conditions.

Minister for Resources and Water

30. On 24 September 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

Minister for Indigenous Australians

31. On 24 September 2021, the Minister for Indigenous Australians responded. I address these comments below under economic and social matters.

Minister for Agriculture, Drought and Emergency Management

32. On 24 September 2021, Assistant Secretary, Climate Adaptation & Resilience Division responded on behalf of Minister Littleproud noting nil comment on the proposed approval conditions for this proposed action from an agriculture perspective.

33. No response was received from the Minister for Energy and Emissions Reduction.

Decision

34. The statutory period to make this decision was extended on 9 July 2021, and further extended on 31 August 2021, to 20 October 2021.

35. On 1 October 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

36. 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 30 September 2021.

37. 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 A1 - Tahmoor South Coal Referral to Commonwealth
- iii. Attachment A2 - Tahmoor South Coal Assessment Report Final
- iv. Attachment A3 - Tahmoor South NSW State Development Consent conditions
- v. Attachment A4 - Tahmoor South Coal Project IPC Statement of Reasons
- vi. Attachment A5 - Consideration of Commonwealth Matters 3.0 FINAL
- vii. Attachment A6 - NSW DPIE – EES Consideration of Commonwealth Matters
- viii. Attachment A7 - NSW DPIE – EES MNES Report Tahmoor South amended
- ix. Attachment A8 - Tahmoor Coal Commonwealth Biodiversity Assessment
- x. Attachment B - Proposed Approval Decision Notice
- xi. Attachment C1 - Invite comments proponent
- xii. Attachment C2 - Invite comments Minister Pitt
- xiii. Attachment C3 - Invite comments Minister Taylor
- xiv. Attachment C4 - Invite comments Minister Wyatt
- xv. Attachment C5 - Invite comments Minister Littleproud
- xvi. Attachment C6 - Invite comments NSW
- xvii. Attachment D - Tahmoor South assessment documentation
- xviii. Attachment E1 - Pomaderris-brunnea-recovery-plan
- xix. Attachment E2 - Threat abatement plan for phytosphthora cinnamomi-2018
- xx. Attachment E3 - Threat abatement plan for predation by Feral Cats-2015

- xxi. Attachment E4 - Threat abatement plan for predation by the European Red Fox-2008
- xxii. Attachment E5 - Threat abatement plan for competition and land degradation by Rabbits-2016
- xxiii. Attachment E6 - Shale Sandstone Transition Forest-conservation-advice
- xxiv. Attachment E7 - Grevillea parviflora subsp. parviflora-conservation-advice
- xxv. Attachment E8 - Persoonia bargoensis-conservation-advice
- xxvi. Attachment E9 - Koala-conservation-advice
- xxvii. Attachment F - Legal considerations report
- xxviii. Attachment G1 - Request for Environmental History Check
- xxix. Attachment G2 - Letter to Tahmoor Coal Further Information Request - Environmental History
- xxx. Attachment G3 - Proponent response to Request for further information Tahmoor South Project
- xxxi. Attachment G4 - Response to Request for further information – Tahmoor South Project - Audit reports
- xxxii. Attachment G4.1 - Response to Request for further information Tahmoor South Project NSW
- xxxiii. Attachment G5 - Response to Request for further information - Administrative non-compliances Tahmoor South Project
- xxxiv. Attachment G6 - Request for confirmation of further information – Tahmoor South Project_ NSW
- xxxv. Attachment G7 - Final response to Request for further information – Tahmoor South Project
- xxxvi. Attachment H - IESC-advice-tahmoor-south-2019-101
- xxxvii. Attachment I1 - OWS-2021-008 Tahmoor South IESC advice and NSW consent conditions
- xxxviii. Attachment I2 - IESC table Summary_020621
- xxxix. Attachment I3 - OWS comments on NSW consent conditions
 - xl. Attachment J - Stat doc check
 - xli. Attachment K1.1 - 2017-8084-Referral-ERT-2km-Emplacement Area 1
 - xlii. Attachment K1.2 - 2017-8084-Referral-ERT-2km-Emplacement Area 2
 - xliii. Attachment K1.3 - 2017-8084-Referral-ERT-2km-Powerlines
 - xliv. Attachment K1.4 - 2017-8084-Referral-ERT-2km-TSC2-Area 1
 - xlv. Attachment K1.6 - 2017-8084-Referral-ERT-2km-Ventilation-shaft-fan-site-1

- xlvi. Attachment K1.7 - 2017-8084-Referral-ERT-2km-Ventilation-shaft-fan-site-2
- xlvii. Attachment K2 - ERT-report-2-km-buffer-dated-21-7-21
- xlviii. Attachment K3 - ERT Review
- xliv. Attachment L - Reconsideration Brief
 - I. Attachment M - Extension of approval timeframe briefs
 - ii. Attachment N1- Applicant Letter to DPIE Regarding Scope 1 GHG Redacted
 - lii. Attachment N2 - Tahmoor response to IPC GHG Extract Feb 2021
 - liii. Attachment N3 - NSW DPIE Letter to IPC Regarding Scope 1 GHG
 - liv. Attachment N4 - Response to Sharma v Minister for the Environment - ERM Submission 29.06.2021
 - Iv. Attachment N5 - GFG Alliance CN30 Brochure
 - Ivi. Attachment N6 - Tahmoor Coal Presentation for 28 June 2021
 - Ivii. Attachment N7 & N8 - Blank
 - Iviii. Attachment N9 - DISER Analysis - Questions about coal markets final
 - lix. Attachment N10 - GFG CN30 Response to DAWE enquiry
 - Ix. Attachment N11 - Blank
 - Ixi. Attachment N12 - Tahmoor Submission to the Letter to DPIE Regarding Scope 1 GHG
 - Ixii. Attachment N13 - Email from EDO - Tahmoor South Project - Implications of Sharma litigation
 - Ixiii. Attachment N14 - EDO letter to Minister 14 June 221 re IEA Net Zero 2050 report
 - Ixiv. Attachment N15 - Tahmoor Submission to the IPC
- b. Attachment B - Updated legal considerations report
- c. Attachment C1 - Response to invitation to comment – Proponent
- d. Attachment C2 - Response to invitation to comment - Minister for Resources and Water (Geoscience Australia)
- e. Attachment C3 - Response to invitation to comment - Minister for Indigenous Australians
- f. Attachment C4 - Response to invitation to comment – Minister for Agriculture and Northern Australia
- g. Attachment D - Final decision notice
- h. Attachment E – Letters to the proponent, Commonwealth Ministers and the NSW Minister for Planning and Public Spaces

- i. Attachment F – Draft statement of reasons
- j. Attachment G - DISER supplementary information for Tahmoor South
- k. Attachment H1 - Sharma v Minister for Environment [2021] FCA 560 (Sharma No 1)
- l. Attachment H2 - Sharma v Minister for Environment (No 2) [2021] FCA 774 (Sharma No 2)
- m. Attachment I1 - Expert Report of Ramona Meyricke
- n. Attachment I2 - Professor Anthony Capon Expert Report
- o. Attachment I3 - Expert Report of Dr Mallon
- p. Attachment I4 - Professor Will Steffen Expert Report
- q. Attachment I5 - Supplementary Report of Professor Steffen
- r. Attachment J – The Greenhouse Gas Protocol 2004 (World Business Council for Sustainable Development and World Resources Institute)
- s. Attachment K - Additional information on Rufous Pomaderris (26 August 2021)
- t. Attachment L – EDO letter and associated reports
- u. Attachment M - Conservation Advice for *Pomaderris brunnea*
- v. Attachment N - School Strike 4 Climate (SS4C) Letter

FINDINGS ON MATERIAL QUESTIONS OF FACT AND REASONS FOR DECISION

Water resources (sections 24D & s 24E)

38. I was satisfied that the NSW assessment process identified the potential impacts of the proposed action on water resources, and that these impacts are accurately summarized in the DPIE AR (see in particular at section 6.3 and 6.4) and the IPC statement of reasons (see in particular at pages 8.1 – 8.3).

NSW conditions relevant to water resources

39. NSW development consent conditions B23-B24 relate to water supply:
- a. Condition B23 requires the proponent to ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of the development to match its available water supply.
 - b. Condition B24 requires the proponent to report on water captured, intercepted or extracted from the site each year (direct and indirect) in the Annual Review, including water taken under each water license and where an exemption applies.
40. NSW development consent conditions B25 to B29 relate to compensatory water supply:
- a. Condition B25 requires that the proponent must complete a bore census for all licenced privately owned groundwater bores that are predicted to have a drawdown of greater than 2 metres as a result of the development providing (i) notification of bore owners, including an indication of the level of risk of impact to their water supply; (ii) ongoing engagement and consultation with bore owners in accordance with the Make Good Strategy contained in the EIS; (iii) detailed baseline data

regarding groundwater levels, yield and quality for privately-owned groundwater bores; and (iv) a condition assessment of existing groundwater bores and monitoring equipment; to the satisfaction of the Planning Secretary

- b. Condition B26 requires the proponent to provide a compensatory water supply to any landowner of privately-owned land whose rightful water supply is adversely and directly impacted (other than an impact that is minor or negligible) as a result of the proposed action.
 - c. Condition B27 requires that the compensatory water supply measures must provide an alternative long-term supply of water that is equivalent, in quality and volume, to the loss attributable to the proposed action.
 - d. Condition B28 requires that if the proponent and a landowner cannot agree on whether the loss of water is to be attributed to the development of the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the NSW Planning Secretary for resolution.
 - e. Condition B29 requires that if the proponent is unable to provide an alternative long-term supply of water, then the proponent must provide compensation to the affected land owner.
41. NSW development consent condition B30 relates to water treatment, and requires that, prior to the commencement of second workings, the applicant must commission the water treatment plant required under Special Condition E1.1 of the Environmental Protection Licence (EPL) 1389.
42. NSW development consent condition B31 relates to water discharges and transfers, and requires the proponent to ensure all surface discharges from the site comply with the relevant provisions of the *Protection of the Environment Operations Act 1997* (NSW) including any discharge limits (both volume and quantity) set for the development in any EPL.
43. NSW development consent condition B32 relates to off-site mine water transfers, and states that the development consent does not permit the transfer of water to and from the underground workings and goaf areas of the Tahmoor North Mine, noting nothing in the consent prevents appropriate consent being granted for such transfers.
44. NSW development consent condition B33 relates to water management performance measures, and requires the proponent to comply with specified water management performance measures.
45. NSW development consent conditions B34 to B36 relate to the Water Management Plan:
- a. Condition B34 requires the proponent to prepare a Water Management Plan for the development, to the satisfaction of the Planning Secretary.
 - b. Condition B51 states that the proponent must not commence construction until the Water Management Plan is approved by the Planning Secretary.
 - c. Condition B52 requires the proponent to implement the Water Management Plan as approved by the Planning Secretary.
46. NSW development consent conditions B56 to B60 relate to rehabilitation of the site:
- a. Condition B56 requires the proponent to rehabilitate the site in accordance with the conditions imposed on the mining lease(s) associated with the development under

the *Mining Act 1992*. This rehabilitation must be generally consistent with the proposed rehabilitation activities described in the EIS and must comply with specified 'rehabilitation objectives'.

- b. Condition B57 requires the proponent to rehabilitate the site progressively, as soon as practicable following disturbance. All reasonable steps must be taken to minimise the total area exposed at any time. Interim stabilization and temporary vegetation strategies must be employed when areas prone to dust generation, soil erosion, and weed incursion cannot be permanently rehabilitated.
 - c. Condition B58 requires the proponent to prepare a Rehabilitation Strategy for the site to the satisfaction of the Planning Secretary.
 - d. Condition B59 requires the proponent to implement the Rehabilitation Strategy approved by the Planning Secretary.
 - e. Condition B60 requires the proponent to prepare a Rehabilitation Management Plan for the development, in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*.
47. NSW development consent conditions C1 to C16 relate to subsidence. NSW development consent conditions C1 and C2 relate to performance measures for natural and heritage features:
- a. Condition C1 requires the proponent to ensure that the proposed action does not cause any exceedances of specified performance measures, which relate to water resources, land, biodiversity, heritage sites and mine workings.
 - b. Condition C2 states that measurement and monitoring of compliance with performance measures and performance indicators in the development consent is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located, and which are to be fully described in relevant management plans
48. NSW development consent conditions C8 to C10 to relate to the Extraction Plan:
- a. Condition C8 requires the proponent to prepare an Extraction Plan for all second workings on the site to the satisfaction of the NSW Planning Secretary. The Extraction Plan must include a subsidence monitoring plan, a built features management plan, a water management plan, a biodiversity management plan, a land management plan, a heritage management plan, public safety management plan, trigger action response plans and a contingency plan.
 - b. Condition C9 states that the proponent must not undertake second workings until the Extraction Plan is approved by the NSW Planning Secretary.
 - c. Condition C10 requires the proponent to implement the Extraction Plan approved by the Planning Secretary.

IESC recommendations largely addressed by NSW assessment process and conditions

49. The IESC advice identified the key potential impacts from the proposed action as:
- a. subsidence and related ground movement induced changes to groundwater and surface water hydrology

- b. reduced flow and pool persistence in watercourses in the project area due to surface and near-surface cracking
 - c. possibility of irreversible changes to surface and groundwater dependent ecosystems and water-dependent species, including the EPBC Act listed vulnerable Rufous Pomaderris (*Pomaderris brunnea*)
 - d. groundwater drawdown that could affect numerous private bore users, and
 - e. cumulative impacts from past, current and future mining on all land and water uses in the region.
50. 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 largely been addressed by the NSW assessment process, and/or by the conditions attached to the NSW development consent. I summarise the matters raised by the IESC and OWS, and how they have been addressed, or will be addressed by the conditions I have decided to attach to the approval, below.

Assessment of impacts on ground-water dependent ecosystems

51. The IESC recommended that additional evidence was needed to determine whether EPBC Act-listed Rufous Pomaderris (*Pomaderris brunnea*), which was recorded along Teatree Hollow, is occasionally dependent on groundwater and therefore might be affected by groundwater drawdown. Other potential impacts of the proposed action on this species are discussed below under 'Listed threatened species and ecological communities'.
52. OWS advised the issue of groundwater dependence for Rufous Pomaderris had not been addressed by the proponent or the NSW assessment and recommended that it was necessary to attach a condition to the approval to protect Rufous Pomaderris from potential impacts. Accordingly, when I made my proposed decision, I proposed to attach a condition to the approval which required the approval holder to engage a suitably qualified expert to undertake field studies and analyse and evaluate the groundwater dependency of Rufous Pomaderris within the area impacted by the proposed action. The final report on the outcomes of this evaluation were to be reviewed by an independent expert.
53. On 24 September 2021, the proponent provided comments on the conditions I proposed to attach to the approval. The proponent submitted that the condition about Rufous Pomaderris was not required, because the conditions of the NSW development consent adequately addressed this issue. The proponent noted that the performance measures in condition C1 of the NSW development consent in relation to threatened species, populations and endangered ecological communities (which includes Rufous Pomaderris) and aquatic habitat, include:
- No greater subsidence impacts or environmental consequences than predicted in the EIS
 - negligible environmental consequences to aquatic and riparian ecosystems beyond those predicted in the EIS.
54. Condition C1 requires that the proponent must ensure that the proposed action does not cause any exceedances of these performance measures. The proponent noted that the EIS concluded that no direct impacts to Rufous Pomaderris are predicted as result of proposed action, and indirect impacts as a result of subsidence were found to be unlikely.
55. The proponent is required to refine more detailed performance indicators (including impact assessment criteria) for each of these performance measures in various management plans required under condition C8, including trigger action response plans addressing the

performance measures. If a performance measure is exceeded and the subsidence impacts or environmental consequences cannot be remediated, the proponent must provide offsets (conditions C3 and C4).

56. Having considered the operation of the NSW development consent conditions further, the department advised that it considered that these conditions appropriately manage potential impacts of the proposed action on Rufous Pomaderris, and that a further condition was not required. I accepted this advice, and accordingly decided not to attach the proposed condition to the approval.

Potential impacts on Thirlmere Lakes

57. Thirlmere Lakes are a series of five shallow freshwater bodies located along a horseshoe bend in Blue Gum Creek, within the Thirlmere Lakes National Park which is part of the Greater Blue Mountains World Heritage Area. Potential impacts of the proposed action on Thirlmere Lakes, which is a groundwater dependent ecosystem, was a key issue raised in public submissions on the EIS and to the IPC.
58. The NSW Government has established several monitoring and research programs to expand the scientific data and knowledge into the causes of changes in water levels in Thirlmere Lakes. The most recent is the Thirlmere Lakes Research Program, led by the Biodiversity, Conservation and Science Directorate of NSW DPIE. This program was commissioned in 2017 to investigate the sensitivity of these wetland systems to external influences, including mining. This program is due to be completed in late 2021.
59. The IESC advice questioned the conclusion that Thirlmere Lakes would not be impacted by the proposed action. Of greatest concern to the IESC was the potential risks from regional groundwater drawdown that could occur along geological structures beyond the subsidence zone.
60. In response to IESC's concerns, the proponent's revised groundwater assessment incorporated conservative assumptions in the sensitivity analysis which included treating faults as transmissive. The NSW DPIE commissioned an independent review of the proponent's groundwater assessment, and was satisfied that the sensitivity analysis confirms relatively low sensitivity to fault/lake connectivity and increased fault transmissivity. The independent review concluded at p 18:

Given that the Tahmoor North longwalls closest to the Thirlmere Lakes were mined (under approval) more than 15 years ago, and that the nearest Tahmoor South proposed longwalls are more than 3.5 km from the nearest lake, there appears to be a relatively low risk groundwater impact context to the proposed Tahmoor South project.
61. NSW DPIE accepted this conclusion, but recommended that more rigorous uncertainty analysis be undertaken on the potential impacts of mining the proposed longwalls on the water levels in Thirlmere Lakes, when additional data from ongoing monitoring and investigations is available. Condition B34 of the NSW development consent reflects this recommendation, and requires that the Groundwater Management Plan include uncertainty analysis of the potential impacts of mining the proposed longwalls on the water levels in Thirlmere Lakes, based upon results of the current Thirlmere Lakes Research Program and other monitoring and investigations.
62. The department considered, and I agreed, that the requirements in the NSW development consent conditions requiring preparation and implementation of a Water Management Plan (conditions B34 to B36) adequately manage potential impacts to Thirlmere Lakes.

Groundwater modelling

63. The IESC made a number of recommendations about the groundwater modelling the proponent had obtained, and further analysis and modelling required. The proponent's revised groundwater assessment reflected these recommendations. The independent expert engaged by NSW DPIE to review the assessment concluded that the groundwater modelling was fit for purpose, and that the impact assessments were supported by the available data.
64. The Groundwater Management Plan required under NSW development consent condition B34 must include a Groundwater Modelling Plan that provides for periodic validation and, where necessary, recalibration of the groundwater model, including an independent review ever three years and comparison of monitoring results with modelled predictions (condition B34(v)).
65. On the basis of the department's advice, including advice from OWS, I was satisfied that the proponent's revised groundwater assessment and the NSW development consent conditions that require the proponent to prepare and implement a Water Management Plan (conditions B34 to B36) address the IESC's concerns about groundwater modelling.

Avoidance of impacts on a water resource

66. The IESC suggested that consideration should be given to reducing impacts of connective fracturing above the longwall and reducing surface cracking and near-surface fracturing on creeks and associated groundwater dependent ecosystems by additional alterations to the mine plan.
67. In response to the IESC advice, the proponent made amendments to the mine plan to remove three longwalls, and reconfigure remaining longwalls, to avoid sections of Dog Trap Creek, Teatree Hollow and Hornes Creek. Condition A7 of the NSW development consent requires the proponent to shorten the length of two longwalls to reduce impacts on Dog Trap Creek (condition A7).
68. The NSW development consent conditions require the proponent to prepare and implement a Water Management Plan (conditions B34-B36) and an Extraction Plans (condition C8) which contain trigger action response plans in case a performance measure is exceeded. OWS noted that these trigger action response plans do not provide for cease work provisions. OWS advised that, in relation to Dog Trap Creek, the Commonwealth may wish to consider a cease-to-mine provision for the longwall panels likely to impact on the groundwater-dependent ecosystems, should the results of the Extraction Plan reviews show these impacts to be likely. The Water Resources Strategy Section within the department provided advice on performance limits and triggers, and when first workings and second workings should cease in order to protect groundwater resources and ground-water dependent ecosystems.
69. I accepted the department's advice, and decided that it was necessary to attach conditions that specify what the proponent must do in the event that a performance measure in the NSW development consent conditions is exceeded.
70. These conditions are discussed in more detail below, but in summary they require that the proponent must, in the event of an exceedance, prepare an Impact Response Plan for my approval. The proponent cannot commence second workings (i.e. the extraction of coal) from any longwall panel not yet commenced until I have approved the plan, or (in limited and specified circumstances) otherwise agreed. The conditions also provide that in the event that I am not satisfied with the actions or rectification matters specified in a Plan, I can direct the proponent to undertake specific corrective actions or mitigation measures to limit and protect

impacts to water resources. If I make such a direction, the proponent cannot commence second workings of any longwall panel not yet commenced without my written approval.

71. These conditions are different to the proposed conditions indicated in my proposed decision. Among other differences, the proposed conditions required that in the event work had to cease as a result of an exceedance, second workings could not recommence unless it could be demonstrated that new or increased impacts would not occur. The proposed conditions were changed in response to comments received from the proponent and Geoscience Australia. The conditions I decided to attach the proposal allow more flexibility in responding to and addressing exceedances, while still ensuring that the department retains oversight and compliance capabilities. The changes also make the conditions more consistent with the requirements in the conditions of the NSW development consent conditions (including the performance measures, criteria and limits).
72. 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.

Water quality and contamination

73. The IESC recommended development of a receiving environment management plan, including management and monitoring measures to effectively protect the environment from discharges. The department advised, and I accepted, that this recommendation is addressed by the NSW development consent conditions. Specifically, condition B31 requires that the proponent must ensure that all surface discharges from the site comply with the relevant provisions of the *Protection of the Environment Operations Act 1997* (NSW) and any discharge limit set for the proposed action in any environment protection licence. Conditions B34 to B36 require the proponent to develop and implement a Water Management Plan that includes (among other things):
 - a. surface water performance criteria including trigger levels for identifying, investigating and responding to potentially adverse impacts on downstream surface water flows and quality, and post-mining water pollution from rehabilitation measures
 - b. a program to monitor and evaluate controlled and uncontrolled discharges from the site.

Ecohydrological model

74. The IESC stated that an ecohydrological conceptual model is needed that illustrates potential pathways and mechanisms of the effects of altered surface flows, and of the effects on groundwater exchanges and in stream water quality on surface and groundwater ecosystems. The IESC made this recommendation because the proposed management plans incorporating mitigation strategies were not yet available for review.
75. The department advised, and I accepted, that the NSW development consent conditions which require preparation of a Water Management Plan (conditions B34-B36) and an Extraction Plan (condition C8) will ensure that the monitoring and mitigation plans will be prepared in a holistic manner that considers the interrelationship between hydrology and ecology.

Conditions of approval in relation to water resources

76. In light of the possible impacts of the proposed action on water resources, I considered that it was necessary and convenient to attach conditions to the approval to protect water resources.

77. 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 the conditions of the NSW development consent.
78. I decided to attach conditions that reinforce and build upon the conditions of the NSW development consent, and require the proponent to:
- a. comply with NSW development consent conditions A7, B23, B24, B30, B31, B32, B33, B34, B35, B36, C1, C2, C8, C9 and C10 (condition 3).
 - b. ensure that there is no adverse effect on the functions of a water resource as result of the action (condition 4).
79. These conditions require the proponent to comply with the requirements in the NSW development consent conditions in relation to water resources, and to provide evidence of compliance in the annual compliance report to be provided to the department.
80. These conditions will ensure that the department has the ability to enforce compliance with the requirements in the NSW development conditions, and mean that the proponent will need to provide evidence of compliance to the department as part of its annual compliance reports.
81. In its comments on my proposed decision, Geoscience Australia noted that it may be difficult for the Commonwealth to approve performance criteria and limits, without considering aspects of the Water Management Plan that may affect the function of a water resource and whether the justification for the limits and measures are suitable. The department considered, and I agreed, that approval by the NSW Planning Secretary is sufficiently rigorous, and it is not necessary for the proponent to seek additional endorsement from the department, including in relation to approving performance criteria and limits.
82. I decided to attach conditions which require the proponent to provide information and notify the department promptly about matters relating to water resources. These conditions require the proponent to:
- a. provide the department with a copy of the approved Water Management Plan required under NSW development consent condition B34 within 2 business days of its approval by the NSW Planning Secretary (condition 5).
 - b. notify the Department within 5 business days of any proposed changes to the approved Water Management Plan. If the NSW Planning Secretary approves a revised version of the Water Management Plan, the proponent must provide the Department with the approved revised Water Management Plan within 5 business days of its approval by the NSW Planning Secretary, explaining what changes have been made and any implications for protected matters (condition 6).
 - c. notify the department of any exceedance of any surface or groundwater performance criteria specified in the approved Water Management Plan(s) required by NSW development consent condition B34, within 10 business days, and publish the notification and what corrective actions have been taken on their website within 3 months of the detection or exceedance, unless I agree to an alternative timeframe (condition 7).
 - d. provide the department with each approved Extraction Plan for all second workings required by NSW development consent condition C8 within 2 business days of its approval by the NSW Planning Secretary (condition 8).

- e. notify the department within 5 business days of any proposed changes to approved Extraction Plans. If the NSW Planning Secretary approves a revised version of an Extraction Plan, the proponent must provide the Department with the approved revised Extraction Plan within 5 business days of its approval by the NSW Planning Secretary, explaining what changes have been made and any implications for protected matters (condition 9).
 - f. notify the department of any exceedance of the thresholds in the Extraction Plans required by NSW development consent condition C8 within 2 business days, as they relate to the performance measures in condition C1 (condition 10).
83. These conditions will ensure that the department has up to date information for post approval and compliance matters. Condition 7 will also ensure that there is public visibility of corrective actions taken in the event that there is an exceedance of the performance criteria in the Water Management Plan.
84. Finally, and as discussed above, I decided to attach conditions which specify what action the proponent must take in the event that a performance measure in NSW development consent condition C1 is exceeded, including cease work requirements. These conditions require that in the event that the proponent detects an exceedance, it must:
- a. provide an Impact Response Plan prepared by a suitably qualified person that has been peer reviewed to the department for approval, and implement the approved Impact Response Plan (condition 11).
 - b. publish any Impact Response Plan within on its website within 5 business days of approval (condition 12)
 - c. not commence mining, other than first workings, of subsequent longwall panels unless and until I approve the Impact Response Plan in writing (condition 13), except where the exceedance is detected within two months of the forecast completion of a longwall panel and it can be demonstrated that any commencement or continuation of mining will not result in a new or increased impact, and I have given approval (condition 14).
85. The conditions provide that if I am not satisfied that the actions or rectification measures outlined in the Impact Response Plan will ensure that there is no adverse effect on the function of a water resources as a result of the proposed action, I may direct the proponent to undertake specific corrective action(s) or mitigation measures to manage impacts to water resources (condition 14). If this occurs, the proponent must not commence mining, other than first workings, of subsequent longwall panel without my written approval (condition 15).
86. In their comments on the proposed decision, Geoscience Australia stated that the timeframes stipulated for notifying of a limit exceedance may not be sufficient to enable the proponent to address the requirements. The proponent has reviewed and agreed to the conditions, and I was satisfied that the timeframes are appropriate.
87. Geoscience Australia also raised concerns about the efficacy of enforcing the cessation of second workings for any limit exceedance. Geoscience Australia noted that an exceedance may not be related to second workings. For example, the exceedance may be related to other external environmental influences, for which ceasing second workings would have no benefit. As noted above the proposed conditions were modified to address these comments, and I was satisfied that the cease-work requirements in the modified conditions and the requirements in relation to Impact Response Plans allow for sufficient flexibility as to remediation action.

88. Geoscience Australia also raised concerns about the cease-work provision that was included in the proposed conditions, which stated that if the proponent was required to cease second workings because a performance measure was exceeded, extraction could not recommence until I agreed, in writing, that the impact has been remediated. In its comments on my proposed decision the proponent also raised concerns about this proposed condition. As discussed above, this condition has been modified to address these concerns.

Conclusion about water resources

89. 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)

90. On the basis of the Environmental Reporting Tool (ERT) report, the Biodiversity Assessment Report in the EIS, the DPIE AR and the department's advice, I considered that the proposed action could have a significant impact on the following listed threatened species and ecological communities:
- a. Shale Sandstone Transition Forest of the Sydney Basin Bioregion (Shale Sandstone Transition Forest) - Critically Endangered.
 - b. Rufous Pomaderris (*Pomaderris brunnea*) – Vulnerable;
 - c. Small-flower Grevillea (*Grevillea parviflora* subsp. *parviflora*) – Vulnerable;
 - d. Bargo Geebung (*Persoonia bargoensis*) – Vulnerable; and
 - e. Koala (combined populations of Qld, NSW and the ACT, *Phascolarctos cinereus*) – Vulnerable.
91. When the proposed action was referred in 2017, 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 Biodiversity Assessment report, 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 other listed threatened species or ecological communities.
92. In accordance with s 158A of the EPBC Act, I disregarded listing events that happened after the controlled action decision was made on 12 January 2018.

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

Shale Sandstone Transition Forest

93. The conservation advice for Shale Sandstone Transition Forest came into force in 2014 and identifies major threats to the ecological community as clearing and fragmentation of native vegetation (including alteration of habitat following subsidence due to longwall mining), infection of native plants, high frequency fire and invasive species.
94. The conservation advice for Shale Sandstone Transition Forest identifies competition and land degradation by Rabbits, predation by European Red Fox, predation by feral Cats and dieback caused by the root-rot fungus (*Phytophthora cinnamomi*) as key threatening processes.
95. The main priority actions recommended in the conservation advice include to avoid further clearance and fragmentation of patches of the ecological community, minimise impacts from

any developments and activities adjacent to patches that might result in further degradation, protect mature trees with hollows and plant native hollow producing species, retain fallen logs as habitat for fauna (and add logs to areas where they have been removed), monitor for signs of new disease and identify new weed incursions early and manage for local eradication, and use appropriate hygiene to minimise the introduction or spread of plant diseases and weeds at susceptible sites.

96. The following threat abatement plans are relevant to this ecological community:
 - a. threat abatement plan for disease in natural ecosystems caused by *Phytophthora cinnamomi*;
 - b. threat abatement plan for competition and land degradation by Rabbits;
 - c. threat abatement plan for predation by the European Red Fox; and
 - d. threat abatement plan for predation by feral Cats.

Rufous Pomaderris

97. The conservation advice for Rufous Pomaderris came into force in 2021 and identified major threats to the species as direct and indirect effects of mining, invasive weeds, browsing, low genetic diversity and damage by vehicles and track maintenance.
98. The main priority management actions recommended in the conservation advice include to protect all remaining subpopulations of Rufous Pomaderris from direct destruction and indirect degradation of habitat by inundation, mining operations and timber harvesting, exclude domestic livestock from subpopulations of the species, monitor the impacts of weeds across all subpopulations and implement appropriate control measures, and conduct targeted surveys throughout the species' range to regularly update estimates of population size and structure.
99. The adopted recovery plan for Rufous Pomaderris commenced in 2011 and identifies the main threats to the species as development for sand extraction, weed invasion, grazing, disturbance and destruction, stormwater run-off, timber harvesting and altered fire regimes. There is no approved conservation advice for the species.
100. The overall objective of recovery is to minimise the probability of extinction of Rufous Pomaderris in the wild and to increase the probability of populations becoming self-sustaining in the long term.
101. Recovery actions include: improve the long-term security of sites on public and private land that are outside reserves; prepare and implement management plans including threat control for public land sites; protect populations on private land; monitor response to management/threat abatement actions at actively managed sites; and evaluate current reproductive status, seed bank status, longevity, fecundity and recruitment levels.
102. There are no threat abatement plans relevant to Rufous Pomaderris.

Small-flower Grevillea

103. The conservation advice for Small-flower Grevillea came into force in 2008 and identifies the main threats to the species as "habitat loss and fragmentation through clearing for urban development; agriculture; road maintenance; weed invasion; rubbish dumping; recreational activities; and inappropriate fire regimes".
104. Regional and local priority actions set out in the conservation advice include: to minimise adverse impacts from land use at known sites; ensure road widening and maintenance

activities (or other infrastructure or development activities) in areas where the species occurs do not adversely impact on known populations; monitor known populations to identify key threats and the progress of recovery; avoid use of heavy machinery in areas of known populations; identify and remove weeds in the local area, which could become a threat to Small-flower Grevillea; manage sites to prevent introduction of invasive weeds which could become a threat to Small-flower Grevillea, and reinstate appropriate fire regimes.

105. There are no threat abatement plans relevant to Small-flower Grevillea.

Bargo Geebung

106. The approved conservation advice came into force in 2014 and identifies the main threats to the species as "the very small scattered population sizes, presenting a threat from inbreeding depression and their scattered distribution; habitat loss and fragmentation due to clearing for rural and residential development; inappropriate maintenance activities and slashing for hazard reduction". Many *Persoonia* species are killed following infection by Cinnamon Fungus *Phytophthora cinnamomi*. Further threats, as identified in the conservation advice include inappropriate fire regimes, grazing and other farming activities, and the European Honey-bee (*Apis mellifera*).

107. Regional and local priority actions set out in the conservation advice include: to ensure there is no detrimental disturbance in areas where Bargo Geebung occurs (excluding necessary actions to manage the conservation of the species); monitor known populations to identify key threats and monitor progress of recovery; develop and implement suitable hygiene protocols to protect known sites from outbreaks of dieback caused by *Phytophthora cinnamomic*; and implement an appropriate fire management regime for local populations.

108. The threat abatement plan for disease in natural ecosystems caused by *Phytophthora cinnamomic* is relevant to Bargo Geebung.

Koala

109. The 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.

110. The conservation advice identifies research priorities to fill gaps in the knowledge of the species and develop effective conservation management measures and priority management actions to support the recovery of the Koala population. The research priorities include population monitoring and abundance estimation, landscape-scale population models and gene flow and landscape connectivity. Priority management actions aim to address habitat loss, disturbance and modification. The high priority actions include:

- e. 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;
- f. Development plans should explicitly address ways to mitigate risk of vehicle strike when development occurs adjacent to, or within, koala habitat;
- g. Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary;
- h. Identify populations of high conservation priority.

111. There are no threat abatement or recovery plans relevant to the Koala.

Direct impacts on listed threatened species and communities as a result of clearing

112. As noted above, the variation of the proposed action during the assessment process resulted in a reduction of the area of vegetation to be cleared. Condition A9 of the NSW development consent, which requires that both ventilation shafts to be constructed are constructed on the same site, will further reduce the area of vegetation to be cleared. The proposed action, as varied and undertaken in accordance with the NSW development consent conditions, will involve the clearing of 21.52 ha of vegetation comprising:

- a. 7.3 ha of native vegetation associated with the construction of the two ventilation shafts (6.04 ha) and powerline easement (1.26 ha); and
- b. 14.22 ha of mine rehabilitated native vegetation within the current rejects emplacement area footprint to enable an increase in the height of the rejects emplacement area.

113. This will result in clearance of:

- a. 7.3 ha of the Shale Sandstone Transition Forest;
- b. 1.3 ha of potential Koala foraging habitat; and

114. The changes to the proposed action during the assessment process and as a result of condition A9 of the NSW development consent, mean that no individuals of Rufous Pomaderris, Small-flower Grevillea or Bargo Geebung will be cleared as a result of the proposed action.

115. In determining the impact of the proposed action on listed threatened species and communities, I considered the department's analysis of the extent of the 2019/2020 bushfires on the relevant species. I noted that areas of the proposed action area were impacted by the 2019/2020 bushfires. Regionally and nationally, the 2019/2020 bushfires reduced the overall area of Shale Sandstone Transition Forest, and the available habitat for Rufous Pomaderris and Koala. The Small-flower Grevillea and Bargo Geebung are not included on the department's revised provisional list of animals, ecological communities and plants requiring urgent management intervention as a result of the 2019/20 bushfires.

Indirect impacts on listed threatened species and communities

116. The nature of the proposed action as an underground mine means that it is unlikely to contribute to increased feral animal activity within the proposed action area.

117. I considered that the proposed action could have indirect impacts on listed threatened species and communities as a result of habitat degradation and weed incursion.

118. On the basis of the DPIE AR, I was satisfied that indirect adverse impacts on terrestrial vegetation as a result of subsidence are unlikely, and if they did occur would be localised and minor.

119. As discussed above under water resources, the IESC recommended that additional evidence was needed to determine whether Rufous Pomaderris is occasionally dependent on groundwater, and therefore might be affected by groundwater drawdown. I was satisfied that the NSW development consent conditions adequately manage any potential impacts of the proposed action on Rufous Pomaderris.

NSW development consent conditions relevant to listed threatened species and communities

120. As part of the EIS, a Biodiversity Offset Strategy was proposed to compensate for biodiversity impacts. Under this strategy, biodiversity offsets could potentially be sourced from the proponent's biodiversity stewardship sites. The strategy was prepared in accordance with the 2014 Framework for Biodiversity Assessment – NSW Biodiversity Offsets Policy for Major Projects, which has been endorsed by the Commonwealth.

121. NSW development condition B37 requires the proponent to retire specified biodiversity credits within two years of commencement of construction. The retirement of credits must be carried out in consultation with NSW DPIE - Biodiversity, Conservation and Science Directorate and in accordance with the Biodiversity Offsets Scheme of the NSW *Biodiversity Conservation Act 2016* (BC Act), to the satisfaction of the Biodiversity Conservation Trust. These specified credits include credits for listed threatened species and communities as follows:

- a. Shale Sandstone Transition Forest (referred to in the conditions as PCT 1395: Narrow-leaved Ironbark – Broad-leaved Ironbark – Grey Gum open forest) – 455 credits
- b. Small-flower Grevillea – 770 credits
- c. Bargo Geebung – 77 credits
- d. Koala - 107 credits.

122. The NSW development consent conditions require the proponent to prepare a Biodiversity Management Plan for approval by the NSW Planning Secretary before construction can commence and implement this Plan (conditions B38-B40). The conditions stipulate that the Plan must describe measures to be implemented within the approved disturbance area and on the site more generally to (among other things):

- a. minimise the amount of vegetation clearing;
- b. minimise impacts on fauna, including undertaking pre-clearance surveys;
- c. re-establish habitat for the Koala, as well as other threatened fauna;
- d. enhance the quality of vegetation, vegetation connectivity and wildlife corridors;
- e. control weeds, including measures to avoid and mitigate the spread of weeds; and,
- f. control feral pests with consideration of actions identified in relevant threat abatement plans.

123. The NSW development consent conditions also require that the proponent rehabilitate the proposed action area, including by preparing and implementing a Rehabilitation Strategy and a Rehabilitation Management Plan (conditions B56-60). These conditions are described in more detail above under water resources.

124. The NSW development consent conditions in relation to subsidence set performance measures for natural and heritage features (C1) and require monitoring of compliance with performance measures (C2), additional offsets if performance measures are exceeded (C3-C4). The conditions also require preparation and implementation of an Extraction Plan for all second workings on site of the development to the satisfaction of the NSW Planning

Secretary, which includes a biodiversity component (C8-C10). Again, these conditions are described in more detail above under water resources.

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

125. I considered that the action will have a significant impact on the Shale Sandstone Transition Forest because it will reduce the area of occupancy of this ecological community. Given the scale of the proposed vegetation clearing, I did not consider that the impacts of the action on the other 4 listed threatened species will be significant.
126. I considered that the NSW development consent conditions effectively require the proponent to minimise the direct and indirect impacts of the proposed action on listed threatened species and ecological communities.
127. I decided to attach a condition that requires the proponent to comply with conditions A9, B37-B40, B56-B60, C1-C4 and C8-C10 of the NSW development consent (condition 2). The proponent must also notify the department if a change is proposed to these conditions, and if the conditions are changed (conditions 30 and 31). This will allow the department to retain an ongoing compliance role and ensure that the outcomes in relation to listed threatened species and ecological communities required under the NSW development consent conditions, including in relation to offsets, biodiversity and subsidence management, and rehabilitation, are delivered.
128. I also decided to impose a condition that the proposed action must not impact any listed threatened species and ecological communities outside the proposed action area and limiting the impact within the proposed action area to 7.3 ha of Shale Sandstone Transition Forest, 1.3 hectares of Koala habitat, and 0 individuals of Small-flower Grevillea, Bargo Geebung and Rufous Pomaderris. These limits are consistent with the description of the proposed action in the EIS and the DPIE AR. This condition will ensure that no additional habitat of these species, or area of this ecological community, will be cleared (condition 1).

Conclusion on listed threatened species and ecological communities

129. 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

130. 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:
- a. scope 1: direct emissions from owned or controlled sources of an organisation/development;
 - b. scope 2: indirect emissions from the generation of purchased energy electricity, heat and steam used by an organisation/development; and
 - c. scope 3: all other upstream and downstream emissions related to an organisation/development.

131. 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 metallurgical/coking coal in a steel plant in Australia or an overseas country would form part of the scope 1 emissions of the organisation / development using the coal to make steel and would also form part of the scope 1 emissions of the country where the coal is combusted under applicable international and national accounting frameworks.

Proponent Assessment

132. The proponent's EIS included a Greenhouse Gas Assessment, updated to reflect the project amendments, estimated scope 1, 2 and 3 GHG emissions over the life of the proposed action in both an abated and unabated scenario.

133. The main sources of scope 1 emissions include fugitive methane emissions from mine ventilation, pre and post-drainage and CO₂ emissions from flaring and power generation. The proponent has committed to implementing a range of measures to minimise the fugitive methane emissions, with a key focus on flaring and beneficial re-use for power generation. Other GHG emissions include consumption of diesel and petrol (scope 1) and electricity use (scope 2). Scope 3 GHG emissions predominantly relate to the combustion of product coal by end users.

134. Under the 'abated' scenario, around 35 per cent of the methane gas would be captured and either flared or used for power generation. This would reduce scope 1 emissions by around 26.5 per cent. The proponent advised that the concentration of methane within captured gas is not always suitable for beneficial re-use and therefore flaring and power generation is subject to variability. Additionally, gas management infrastructure on the site is operated by a third party and is therefore subject to commercial contractual considerations.

135. Over the life of the proposed action, the maximum estimated total GHG emissions for unabated or abated scenarios, are predicted to total:

- 93.8 Mt CO₂-e (with scope 1 Unabated) including approximately:
 - 26.7 Mt CO₂ of unabated scope 1 (with an annual average of 2.22 Mt CO₂);
 - 1.24 Mt CO₂ of scope 2 (with an annual average of 0.1 Mt CO₂); and
 - 65.8 Mt CO₂ of scope 3 (with an annual average of 7.81 Mt CO₂).
- 86.35 Mt CO₂-e (with scope 1 Abated) including approximately:
 - 19.31 Mt CO₂ of abated scope 1 (with an annual average of 1.61 Mt CO₂);
 - 1.24 Mt CO₂ of scope 2 (with an annual average of 0.1 Mt CO₂); and
 - 65.8 Mt CO₂ of scope 3 (with an annual average of 7.81 Mt CO₂).

Public Comments

136. One of the key issues raised during public submission on the EIS included anthropogenic climate change and GHG emissions;

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 J of Final Decision Brief)
Page 23 of 66

137. 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.

NSW Assessment

Source of emissions and amount of emissions

138. The DPIE AR considered the likely GHG emissions associated with the proposed underground coal mine.

139. The DPIE AR stated that the emissions from the project would generate approximately 19.31 Mt carbon dioxide equivalent (CO₂-e) of abated scope 1 emissions, 1.24 Mt CO₂-e scope 2 emissions and 65.8 Mt CO₂-e scope 3 emissions. The abated scope 1 emissions scenario assumes both methane flaring and power generation would be undertaken on site. Unabated scope 1 emissions would generate approximately 26.7 Mt CO₂-e.

140. Annually, the project would contribute an average of approximately 1.16 Mt CO₂-e of scope 1 emissions, and approximately 0.1 Mt CO₂-e of Scope 2 and 7.81 MT CO₂-e scope 3 emissions, over its life.

Scope 1 emissions

141. The main GHG emissions for the proposed action are scope 1 emissions from four main streams:

- mine ventilation air;
- pre and post gas drainage;
- flaring (which converts fugitive methane to CO₂); and
- power generation (through utilising fugitive methane to convert to electricity and CO₂)

142. Fugitive methane emissions are only produced via two streams from the mine, including in the ventilation air (extracted from underground workings), and via the pre and post-drainage operations (where methane is actively extracted from the coal seam and goaf areas to ensure worker safety underground).

143. The proponent's response to the IPC stated that 98.75 per cent of methane captured and utilised in pre and post drainage for the proposed action will be abated through power generation and flaring, reflecting current Tahmoor North operations. This will result in the reduction of total scope 1 and 2 emissions from approximately 28 Mt CO₂-e to 21 Mt CO₂-e. The State Development Consent (condition B19) requires Tahmoor Coal to achieve this scope 1 emissions reduction. Abatement through methane capture and utilisation method will apply to approximately 35 per cent of fugitive methane emissions from the mine expansion.

144. The proponent's response to the IPC also stated that mine ventilation air is not used in power generation, nor flared, due to the very low concentration of methane in this gas stream of 0.3-0.4 per cent. By contrast, the methane content in the pre and post-drainage gas stream of approximately 50 per cent, makes it possible to beneficially use the methane gas through power generation and flaring, for conversion to the lesser global warming CO₂ gas.

Scope 2 emissions

145. The main scope 2 emissions of the proposed action include the use of electricity, used to power much of the infrastructure on the surface including the longwall and development mining equipment, coal handling and preparation equipment, ventilation fans and lighting. Electricity usage is monitored and reported in accordance with NGER requirements.

Scope 3 emissions

146. Scope 3 emissions (65.8 Mt CO₂) account for approximately 70 per cent of the proposed action's total GHG emissions, with the majority of these emissions arising from the consumption of coal for steelmaking. The coal produced from the proposed action will be at least 90 per cent metallurgical or coking coal (all coking coal produced by the proposed action will be hard coking coal). The proponent advised that the proposed action's thermal coal is also intended to be used in steelmaking and noted there have been no thermal coal sales in recent years, as the small percentage of thermal product has been fully blended into the metallurgical coking coal product.

NSW consideration of scope 1 & 2 emissions

147. The NSW AR noted that the total of scope 1 (19.31 Mt CO₂, abated) and 2 emissions (1.24 Mt CO₂) from the proposed action represents approximately 0.65 per cent of total NSW emissions and 0.2 per cent of total Australian emissions.

148. NSW DPIE recommended conditions requiring the proponent to implement all reasonable and feasible measures to maximise the beneficial re-use of methane on site and to reduce fugitive GHG emissions of the development, and that all mitigation measures are detailed in an Air Quality and Greenhouse Gas Management Plan.

149. DPIE considered, in the DPIE AR, that the project is not inconsistent with the NSW Government's NSW Climate Change Policy Framework and noted that the proponent has committed to minimising the scope 1 emissions over which it has direct control.

150. In terms of scope 1 and scope 2 emissions, the DPIE AR concludes that the proposed action's direct GHG emissions and bought-in electricity use would make a very small contribution towards anthropogenic climate change at the State, national or global scale.

151. The IPC, based on the estimated emissions and production of 33 Mt run-of-mine coal, calculated the greenhouse intensity of the proposed action in order of 0.76 t CO₂-e (abated) to 1.05 t CO₂-e (unabated) per tonne of saleable coal. The IPC noted that the Scope 1 CO₂ emissions per tonne of saleable coal produced by the proposed action was amongst the highest of Australian coal mines, this is in part due to it being a particularly gaseous underground mine.

152. The IPC received submissions from the proponent addressing the scope 1 emissions and noted that the proponent advised that no reductions beyond those scope 1 emissions figures contained in the Greenhouse Gas Assessment could reasonably and feasibly be achieved.

153. The IPC accepted the proponent's position that further abatement was not currently feasible and imposed conditions relating to air quality and greenhouse gas regulation (NSW development consent conditions B14, B18, B19, B20 and B21), including that the approval holder must:

- a. not exceed the abated GHG emission criteria (19.31 Mt CO₂ of scope 1 emissions; 1.24 Mt CO₂ of scope 2 emissions);
- b. take all reasonable steps to improve energy efficiency and reduce scope 1 and scope 2 GHG emissions;
- c. implement GHG abatement measures (including beneficial reuse and/or flaring) with respect to methane produced by underground coal mining;
- d. ensure that major mobile diesel mining equipment used in undertaking the development includes reasonable and feasible diesel emissions reduction technology;
- e. prepare and implement an Air Quality and Greenhouse Gas Management Plan; and
- f. within two years of the development consent (and each third year after that), commission and prepare a study to determine whether there are any reasonable and feasible measures that can be implemented to further reduce scope 1 and 2 GHG emissions.

NSW consideration of Scope 3 emissions

154. Scope 3 emissions account for approximately 70 per cent of the proposed action's total GHG emissions.

155. The IPC acknowledged that there is limited scope for Tahmoor Coal to directly reduce scope 3 emissions, which account for more than 70 per cent of the total GHG emissions from the proposed expansion.

156. NSW DPIE AR noted that there are no current alternatives to the use of coking coal to produce large scale raw steel materials. Whilst there is potential for the development of coal-free steelmaking technologies over the medium to long term, these alternatives are unlikely to be available on a commercial scale during the life of the proposed action. This view is supported by the *NSW Government's Strategic Statement on Coal Exploration and Mining in NSW (2020)*, which identified that in the medium term there would still be a strong global demand for both thermal and metallurgical coal for power generation and steelmaking.

157. Coal from the proposed action is intended to be used for steelmaking in Australia, Japan, Korea, Taiwan, Europe, the United Kingdom and India. I noted that all coal products from the proposed action will be sold to countries that are signatories to the Paris Agreement or with equivalent domestic policies for emissions reductions.

158. Overall, DPIE considered that the GHG emissions for the proposed action would make a very small contribution towards anthropogenic climate change at the State, national or global scale. I noted the advice obtained from DISER (discussed further in my reasons below) indicates that it is unlikely that the emissions from the proposed action would be additional in circumstances where other metallurgical and thermal coal sources would be expected to be utilised if the proposed action were not approved.

159. The IPC considered that in absolute terms the projected total project life GHG emissions were reasonable.

Conclusion on GHG emissions

160. I noted that the proposed action would result in approximately:

- a. 19.31 Mt CO₂ of scope 1;
- b. 1.24 Mt CO₂ of scope 2; and
- c. 65.8 Mt CO₂ of scope 3 emissions.

161. I noted that NSW development consent condition B19 limits the total scope 1 and 2 emissions of the proposed action, requires the proponent to continually review options to reduce Scope 1 emissions, require any exceedance of the GHG emissions limit to be offset through an appropriate mechanism and requires ongoing investigation of further scope 1 and 2 abatement options.

162. 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))

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

Economic matters

164. The DPIE AR stated that the project would provide economic benefits for the region and NSW as whole. The DPIE AR identified the economic benefits of the proposed action.

165. The Second Project Amendment Report included an economic assessment prepared in accordance with the NSW Government *Guidelines for the Economic Assessment of Mining and Coal Seam Gas Proposals* (2015). The economic assessment estimated that the net benefit of the proposed action is \$664.9 million in net present value, comprised on \$215.0 million in direct benefits and \$450.0 million in indirect benefits.

166. The proposed action is expected to require an operational workforce of up to 400 employees and contractors during the early stages of operation, as well as an additional short-term construction workforce of up to 175 employees.

167. The proposed action will provide 25 per cent of the high-quality metallurgical coal, important to the steelmaking industry, produced to be sold to domestic markets.

168. NSW DPIE accepted that the proposed action would generate a significant number of direct and indirect jobs, and that a significant percentage of the workers would reside in the local and regional area. Further, NSW DPIE noted that a large proportion of workers' salaries would be reinvested and circulated within the region.

169. NSW DPIE commissioned the Oxford Economics to provide an expert review of the EIA. Overall, Oxford considered that the costs benefits analysis was broadly consistent with the Economic Guidelines, but identified areas requiring further consideration. Oxford noted that it was unlikely that the entire project workforce would be drawn from the non-mining sector or that workers would be employed in non-mining occupations if the mine did not exist. Oxford also considered that the global cost of GHG emission costs would be calculated as \$102.3 million NPV.

170. NSW DPIE noted that there is inherent uncertainty in estimating costs and benefits over the life of a mine. However, when considering conservative assumptions, including a zero worker benefit and the global proportion of GHG emission costs, NSW DPIE concluded in the assessment report that the proposed action would still result in significant economic

benefits to local and regional areas, and to the State of NSW. As such, NSW DPIE considered the project justified from an economic efficiency perspective.

171. The IPC noted a lack of consensus on the net present value economic predictions but was satisfied that the proposed action is likely to generate a positive net present value.

Social matters

172. Tahmoor Colliery has been operating in the community for over four decades. The proposed action presents an extension to existing operations, as opposed to a new development.

173. The EIS included a social impact assessment with updated assessments provided in the Project Amendment Report and the Second Project Amendment Report.

174. The social impact assessment was undertaken generally in accordance with the NSW *Social Impact Assessment Guideline for State Significant Mining, Petroleum and Extractive Industry Development* (2017).

175. According to the NSW DPIE AR, the proposed action will result in a range of both positive and negative social impacts. The positive impacts relate to the proponent's existing support for local businesses and community organisations and increased wellbeing associated with local employment opportunities and investment, as well as flow-on benefits to the State associated with mining royalties and taxes attributable to NSW.

176. Key stakeholders were consulted during the preparation of the social impact assessment including residents of Bargo and nearby receivers, local community groups, Registered Aboriginal Parties and Wollondilly Shire Council.

177. Key issues raised in consultation included adverse impacts on natural features and heritage values in the surrounding landscape and impacts on amenity, infrastructure and health associated with subsidence, noise, dust and other key operating features of the Project.

178. Stakeholders also identified positive social outcomes of the project related to local employment and increased opportunities for community investment.

179. The social impact assessment identified that there was a high likelihood of stress and anxiety impacts associated with subsidence impacts on private properties and bores.

180. To further mitigate the social impacts of the project, the proponent proposed to:

- a. continue engagement with the community through a Community Consultative Committee, regular community information days and opinion surveys;
- b. continue contributions to the local community through the Tahmoor Corporate Social Involvement Plan, including contributions to community partnerships and initiatives; and
- c. establish a Voluntary Planning Agreement with Wollondilly Shire Council, that would contribute 1 per cent of the project's capital investment value (approximately \$3.4 million) towards upgrades at the Bargo Sportsground. The DPIE AR states that the Council advised that this agreement is supported in principle, with final terms to be agreed and established in an executed agreement following further consultation.

181. NSW DPIE recommended that the proponent prepare a social impact management plan in consultation with Wollondilly Shire Council, local affected communities and key stakeholders (NSW development consent conditions B70-72). This condition requires communication with the local community and the plan to outline adaptive strategies to avoid, minimise and mitigate negative social impacts of the proposed action, as well any future negative impacts following mine closure and opportunities to enhance the proposed action's positive impacts.
182. NSW DPIE considered that with the implementation of the mitigation measures proposed for the various environmental impacts, the extent of actual and perceived social impacts could be appropriately managed.
183. Overall, NSW DPIE considered that with these measures in place the proposed action would not significantly impact the local community.
184. The IPC considered that the predicted subsidence impacts for the proposed action present a risk of significant social impacts for those affected. Mitigating such social impacts depends largely on effective and timely restitution for subsidence impacted households. The IPC considered it necessary for the proponent to provide appropriate, regular and proactive communication to those at risk of subsidence in order to best management social impacts. The IPC concluded that the required communication can be managed through the social impact management plan (NSW development consent condition B70-B72).
185. Subject to the imposed conditions of consent, the IPC found that the predicted social impacts of the proposed action are acceptable.

Conclusion on economic and social impacts

186. On balance, the NSW DPIE and IPC considered that social and economic impacts have been minimised to the greatest practicable extent and residual impacts can be appropriately managed and regulated through the development of a series of management plans, and strategies required under the NSW development consent which have been developed in consultation with relevant government agencies.
187. I noted that the DPIE AR and IPC assessment concluded that, with appropriate management, communication and mitigation, the negative social impacts could be managed to achieve the benefits of the project. The IPC and DPIE AR also concluded that the proposed action would result in positive economic and social impacts.
188. 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

189. The proposed action is located within the Tharawal Local Aboriginal Land Council's boundary.
190. The EIS included an Aboriginal cultural heritage assessment with updated assessments provided in the Project Amendment Report and the Second Project Amendment Report.
191. The Aboriginal cultural heritage assessment identifies that the proposed action area was a significant cultural precinct for Aboriginal people in the past, particularly due to the density and diversity of sites within Dog Trap Creek.
192. The Aboriginal cultural heritage assessment identified that the majority of potential impacts on cultural heritage sites are due to potential subsidence impacts, in particular to rock

shelters which are more likely to experience adverse impacts that could result in harm such as increased rock falls and cracking. One archaeological site was within the disturbance footprint of a ventilation shaft and would be directly impacted.

193. The proponent proposed to implement mitigation and management measures, including:

- a. during detailed design of the TSC2 ventilation shaft site seek to avoid disturbance of the identified site. In the event that direct disturbance cannot be avoided, salvage measures would be implemented in consultation with Registered Aboriginal Parties and a qualified archaeologist;
- b. pre- and post-mining subsidence monitoring of Aboriginal sites within the subsidence study area;
- c. developing a specific heritage management plans in consultation with Registered Aboriginal Parties and NSW DPIE - Biodiversity, Conservation and Science Directorate; and
- d. implementing trigger action response plans to identify and respond to adverse subsidence impacts.

194. NSW DPIE recommended that Longwall 103B be further amended to avoid mining directly below Dog Trap Creek (NSW development consent condition A7). The NSW DPIE AR noted that this condition would result in significant environmental benefits while maintaining the economic viability of the proposed action. It would reduce the likelihood of impacts to 17 pools, avoid directly undermining a further 2 Aboriginal heritage sites and reduce the risk of impact to an additional 3 Aboriginal sites. The IPC agreed with NSW DPIE's recommendation.

195. NSW DPIE also recommended conditions to ensure the proposed action's impact on Aboriginal cultural heritage is appropriately managed, including:

- a. specific subsidence performance measures for all identified heritage items;
- b. the preparation of a heritage management plan under each Extraction Plan; and
- c. operating conditions regarding protection of Aboriginal heritage including requirements for unexpected finds.

196. The proposed action has the potential to impact a number of Aboriginal heritage sites within the subsidence study area. However, NSW DPIE concluded in the assessment report that these impacts can be appropriately managed and mitigated subject to the recommended conditions.

197. The IPC noted that the potential impact to on Aboriginal cultural site (an open camp site) has been avoided through the relocation of ventilation shaft TSC2 (NSW development consent condition A9). The IPC agreed with the NSW DPIE finding that impacts of the proposed action on Aboriginal cultural heritage can be appropriately managed through the imposed conditions of consent.

Comments from the Minister for Indigenous Australians

198. 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.

199. Minister Wyatt responded on 23 September 2021. Minister Wyatt supported the measures proposed as part of the Commonwealth's approval to minimise potential impacts to species such as the koala, which is high cultural significance to Indigenous Australians.
200. 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.
201. Minister Wyatt noted the NSW approval requires that the NSW Planning Secretary be satisfied with any measures implemented regarding the management of any unknown Aboriginal objects. He suggested any procedures should, as a matter of best practice, be prepared in consultation with traditional owners. He considered that best practice would see the proponent engage with traditional owners and Indigenous stakeholders of the project area to develop a Cultural Heritage Management Plan that includes protocols to manage identified cultural heritage values in the project area.
202. Minister Wyatt sought to ensure that NSW has considered the requirements of the future acts regime under the *Native Title Act 1993* (Cth). The *Native Title Act 1993* provides processes for native title claimants and holders to enter into voluntary agreements with third parties regarding the use of land and water on native title land in relation to mining, exploration and building public infrastructure. He encouraged NSW to seek legal advice on the application of the future acts regime in relation to the crown land with the project area.
203. Minister Wyatt noted that while there is no native title claims or determinations over the project area, the South Coast People claim is adjacent to the expanded project area. He recommended the proponent engage with the native title representative body for the region, NTSCorp, with the view of entering into an indigenous Land Use Agreement. This would assist with the formalisation of consultation and heritage frameworks for the project.
204. Minister Wyatt noted that neither the Commonwealth nor the NSW Government attach any requirement for Indigenous enterprise or employment outcomes to the approval of privately funded projects. He encouraged the engagement of Indigenous employees and businesses. He encouraged the proponent to engage with services such as Supply Nation, which maintains a free online directory that be used to identify suitable Indigenous businesses to support activities under the project. He further advised it may be useful to connect with local job-active providers, Vocational Training and Employment Centres and other employment providers to connect to Indigenous jobseekers as part of the project.

Conclusion on Indigenous and cultural matters

205. I noted that the letter to the proponent notifying them of my decision includes the advice of Minister Wyatt and encourages ongoing Indigenous stakeholder consultation.
206. 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

207. 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

208. 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) (**Extension Project**), 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**.
209. 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 GHGs.
210. 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].
211. I am appealing from 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.
212. Although I am appealing from the Federal Court's judgment in *Sharma*, I have applied the *Sharma* reasoning to my decision.
213. 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, how GHG emissions will be managed by the company, and NSW DPIE and Independent Planning Commission (IPC) Assessment and Conditions;
 - d. Risks of a warming climate;
 - e. Social and economic considerations; and
 - f. Conclusion.

214. The proposed action will produce 33 Mt of coal over a 10 year period. The coal will be metallurgical coal used for steel making. The grade of Tahmoor's metallurgical coal (hard coking coal) is high relative to Australian and international competitors. Approximately 25% of the coal will go to primary steelmakers (GFG Whyalla and Bluescope Port Kembla) in Australia and 20% will be exported to steel makers in Japan, Korea, Taiwan, 15% to Europe and the United Kingdom and 40% to India.

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

215. 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 and energy related technologies, including the 'World Energy Outlook 2020' (**WEO 2020**), 'Iron and Steel Roadmap 2020' (**2020 IEA Iron and Steel Roadmap**) and '2021 IEA Net Zero by 2050' (**Net Zero by 2050**). I also had regard to the letter from the proponent dated 29 June 2021 addressing the GHG emissions of the proposed action (**Proponent's Letter**).

216. I have also taken into account the reports of Professor Penny Sackett submitted to the NSW IPC and dated 20 April 2021, 17 February 2021, 18 March 2020 and 7 October 2019 (**Sackett Reports**). This report was submitted to the department in a letter dated 24 August 2021 from the Environmental Defenders Office (EDO) on behalf of Undermined Inc. I also took into account the letters (and documents attached) of 14 June 2021 and 24 August 2021 from the EDO on behalf of Undermined Inc.

217. I have also considered the expert reports of Professor William Steffen filed in the *Sharma* proceedings, dated 30 June 2020, 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. I also noted a letter addressed to me from School Strike 4 Climate dated 24 August 2021, which also referred me to the Sackett Reports.

218. 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.

219. As above, the proponent has advised that the total amount of coal extracted is to be used for steelmaking. The grade of Tahmoor's metallurgical coal (hard coking coal) is high relative to Australian and international competitors. Approximately 25% of the coal will go to primary steelmakers (GFG Whyalla and Bluescope Port Kembla) in Australia and 20% will be exported to steel makers in Japan, Korea, Taiwan, 15% to Europe and the United Kingdom and 40% to India.

Global steel production

220. Global crude steel production reached 1,864.0 million tonnes (Mt) for the year 2020, down by 0.9% compared to 2019.

221. Steel is produced via two main routes: the blast furnace-basic oxygen furnace route (using predominantly iron ore and coal) and electric arc furnace route (using mainly recycled steel and electricity). Variations and combinations of production routes also exist.
222. Around 70 per cent of steel is produced using the blast furnace-basic oxygen furnace route.
223. In 2019, worldwide, blast furnace-basic oxygen furnace production increased by 6.5 per cent to 1.343 billion tonnes whereas the global electric furnace total was virtually unchanged at 523 million tonnes.
224. Most steel products remain in use for decades before they can be recycled. Therefore, there is not enough recycled steel to meet growing demand using the electric arc furnace steelmaking method alone. Current demand is met through a combined use of the blast furnace-basic oxygen furnace and electric arc furnace production methods.

Global demand for steel

225. 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.
226. Transmission and distribution lines also require steel. As installations move further offshore more steel will be required. Demand is growing for electrical steels to serve this market.
227. 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.
228. OECD modelling 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.
229. 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.

Global demand for coal

230. 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.

231. 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.

232. The DISER Advice details predicted coal demand in the STEPS scenario and demonstrates that demand for both metallurgical/coking and thermal coal in the Asia Pacific region will remain relatively steady up to 2040. It noted that 85% of the proposed action's coal is intended to be used for steelmaking in the Asia Pacific region (Australia, Korea, Taiwan, India and Japan). The DISER Advice states:

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.

233. The DISER Advice details predicted coal demand in the SDS scenario and demonstrates that demand for coal will decrease to 2040. In India demand will decrease from 590 Mtce in 2019 to 516 Mtce in 2025, 454 Mtce in 2030 and 298 Mtce in 2040. In Japan, demand will decrease from 157 Mtce in 2019 to 104 Mtce in 2025, 57 Mtce in 2030 and 41 Mtce in 2040. In Southeast Asia, demand will decrease from 246 Mtce in 2019 to 234 Mtce in 2025, 170 Mtce in 2030 and 79 Mtce in 2040. Although in this scenario there is a decline in overall demand, this decline is much less significant for the life of the proposed action which is 8 years. 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.

234. 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.

Iron and Steel Roadmap and Net Zero by 2050 (IEA)

235. 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.

236. 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.

237. The IEA's Net Zero by 2050 (2021) points out that countries pledging net zero emissions has grown rapidly to cover 70% of global emissions of CO₂-e; but many of these pledges are not yet underpinned by near term policies and measures. The IEA provides 'a' pathway of 400 milestones across energy generation and energy using sectors to reach what it calls an "extremely ambitious transformation" of the global energy system.
238. The IEA Net Zero by 2050 report notes that the steel industry will remain one of the last sectors using significant amounts of coal in 2050, primarily due to its importance as a chemical reduction agent, albeit mostly in conjunction with carbon capture, utilisation and storage. To reach net zero by 2050 the IEA extrapolates that by 2030 the world will need to have developed and commercialised and be producing 2 per cent of primary steel by hydrogen-based DRI (direct-reduced iron) and renewable electricity based EAF (electric arc furnace), rising to 28 per cent in 2050 and 6 per cent of steel production using carbon capture, utilisation and storage in 2030, rising to 53 per cent in 2050.
239. The DISER Advice also notes that, while producing steel with DRI and EAF technologies, using either green hydrogen or zero-emission electricity are technically possible, such processes currently present technical and cost challenges and are not yet available at the scale needed to meet global demand for steel.
240. Coal from the proposed action is intended to be used for steelmaking in Australia, Japan, Korea, Taiwan, Europe, the United Kingdom and India. I noted that India is the second-largest steel producing country in the world after China and that steel production is expected to continue to grow in India in coming years.

NSW Strategic Statement on Coal

241. 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.
242. I noted that the NSW AR states that NSW DPIE considers that the proposed action aligns with the objectives of the strategic statement as the proposal is for an extension to an existing underground coal mine targeting coking coal resources for steelmaking.

Alternative sources of coal and related GHG emissions

243. 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.

244. I noted that based on DISER's advice that the metallurgical coal from the proposed action is of high quality with a sulphur content of 0.3–0.4 per cent, at the low end of the national range of 0.3–1.3 per cent for Australian metallurgical coal. Sulphur is deleterious to the quality of steel and costly to remove during the steelmaking process.

245. 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, are readily substitutable for any coal that might be produced by the Coal Mining Projects.

246. I noted that 100% of the product coal will be used in steelmaking.

247. I also took into account DISER's advice that:

- a. 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 Project will necessarily increase greenhouse gas emissions associated with coal consumption.

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

248. 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.

249. 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.

250. 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.

251. 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 [230]-[234] 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

252. 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.

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

254. 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

255. 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

256. 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.

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

258. 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.

259. 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).
260. 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.
261. 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 the proposed action's coal

262. I found on the material before me that the coal from the proposed action is proposed to be used for steelmaking in Australia (approximately 25 per cent), Japan/Korea/Taiwan (approximately 20 per cent), Europe and the United Kingdom (approximately 15 per cent) and India (approximately 40 per cent).
263. On 16 September 2021, DISER provided supplementary information in relation to the proposed action, including emission reduction measures, commitments, goals and policies for the identified importing countries.
264. I noted that all coal products from the action will be sold to countries that are signatories to the Paris Agreement or with equivalent domestic policies for emissions reductions. Further, up to 30 per cent of anticipated coal product markets (Japan, Europe and the United Kingdom) have announced greater emissions reductions in line with Net Zero by 2050 and have net zero commitments established or proposed to be established in domestic legislation.

Japan

Japan's official NDC commits to emissions reduction of 26% below 2013 by 2030. In addition:

- Japan's Global Warming Countermeasures Law 2021 commits that "a decarbonised society will be realized by 2050".
- At the US-hosted Leaders' Summit on Climate in April 2021, Japan announced it will reduce emissions 46% below 2013 by 2030.

- 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

The Republic of Korea (South Korea)

- South Korea's official NDC commits to emissions reduction of 24.4% below 2017 emissions by 2030. In addition:
- 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.

Taiwan

- Taiwan is not a Party to the Paris Agreement. It submitted an intended NDC in 2015 committing to reduce emissions 20% below 2005 levels by 2030. In addition:
- Taiwan legislated its Greenhouse Gas Reduction and Management Act in 2015 with the long-term goal to reduce emissions 50% below 2005 levels by 2050.

European Union

The EU's official NDC commits the EU and its Member States, acting jointly, to a binding target of a net domestic reduction of at least 55% in greenhouse gas emissions by 2030 compared to 1990. In addition:

- The proposed European Climate Law – European Green Deal: 'Fit for 55 package' (provisionally agreed, awaiting formal approval before entering into force) would legislate the NDC target to achieve net zero by 2050. The proposed package includes:
 - The EU's existing Emissions Trading Scheme together with the Effort Sharing Regulation and the Regulation on Land use and forestry, aim to provide economy-wide coverage of the EU's sources and sinks:
 - The EU's existing Effort Sharing Regulation (ESR), sets annual emissions budgets for each Member State that decline towards their individual ESR target for 2030.
 - The EU proposes to revise the current Regulation on Land use and forestry, setting an overall EU target for carbon removals by natural sinks, equivalent to 310 million tons of CO₂ emissions by 2030.
 - The Renewable Energy Directive will set an increased target to produce 40% of energy from renewable sources by 2030.

- The Energy Efficiency Directive will set a more ambitious binding annual target for reducing energy use at EU level – proposed 39% reduction for primary energy consumption and 36% reduction for final energy consumption (from 2005 levels).
 - Stronger CO₂ emissions standards for cars and vans will accelerate the transition to zero-emission mobility by requiring average emissions of new cars to come down by 55% from 2030 and 100% from 2035 compared to 2021 levels. All new cars registered as of 2035 will be zero-emission.
 - The Alternative Fuels Infrastructure Regulation requires that aircraft and ships have access to clean electricity supply in major ports and airports.
 - A revision of the Energy Taxation Directive proposes to align the taxation of energy products with EU energy and climate policies.
 - A new Carbon Border Adjustment Mechanism (CBAM) will put a carbon price on imports of a targeted selection of products to ensure that ambitious climate action in Europe does not lead to 'carbon leakage'.
- The EU is a Member of the Climate Ambition Alliance - committed to reach net zero CO₂ emissions by 2050.

United Kingdom

- The UK's official NDC commits to reduce economy-wide emissions by at least 68% below 1990 levels by 2030. In addition:
- In 2019, the UK legislated a 100% reduction of GHG emissions by 2050.
- It is a Member of the Climate Ambition Alliance - committed to reach net zero CO₂ emissions by 2050.
- On 20 April 2021, the UK announced it will reduce emissions 78% below 1990 levels by 2035.
- In November 2020, the UK announced its 'Ten Point Plan for a Green Industrial Revolution', which includes advancements towards: Offshore Wind; Low Carbon Hydrogen; New and Advanced Nuclear Power; Zero Emission Vehicles; Green Public Transport, Cycling and Walking initiatives; Aviation & Shipping; Greener Buildings; CCUS; Protection of the Natural Environment; and Green Finance and Innovation.

India

- India's official NDC commits to reducing the emissions intensity of its GDP by 33 to 35 percent by 2030 from 2005 levels; achieving about 40 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030 with the help of transfer of technology and low cost international finance including from Green Climate Fund; and creating an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030.

- In addition, India first announced a target of 450 GW of renewable energy capacity by 2030 at the 2019 Climate Action Summit, and reiterated the target at the US-hosted Leaders Summit on Climate in April 2021.

Domestic measures

265. 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.² 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.

266. 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.

267. 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*.

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

² <https://www.industry.gov.au/policies-and-initiatives/australias-climate-change-strategies/tracking-and-reporting-greenhouse-gas-emissions>.

269. 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

270. 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.

271. 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.

272. 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.

273. The NSW Government has recently announced it will further extend this commitment to deliver a 50% reduction in emissions by 2030, compared to 2005 levels.

274. 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:

- d. 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
- e. 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).

275. As discussed above, the NSW IPC assessed the GHG emissions of the proposed action and imposed conditions relating to air quality and GHG regulation (NSW development consent conditions B14, B18, B19, B20 and B21).

276. 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.

New technologies

277. Ventilation air methane (**VAM**) is a source of fugitive emissions. Methane poses a unique challenge in the coal industry as risks associated with it are not only a safety hazard, but a significant contributor of GHG into the atmosphere (being 28-times more potent than carbon dioxide per molecule in trapping heat in the atmosphere). Underground coal mines use large-scale ventilation systems to move fresh air into the mine and flush out methane and other gases. This dilutes methane released into the mine workings to enable safer

working conditions. However, VAM is ultimately vented into the atmosphere, significantly adding fugitive GHG emissions.

278. The CSIRO have been developing VAM technologies to mitigate methane emissions associated with underground mining by either destroying, enriching or capturing VAM.
279. The Australian Government's low emissions technology roadmap³ will be looking further into how such technologies can be further supported and developed for commercial use, as fugitive methane from coal mines continues to be a significant contributor to our national GHG emissions representing 4.8 per cent of emissions in 2019.
280. I noted that the proponent advised that VAM technologies are not currently feasible for the proposed action. However, the NSW conditions require the proponent to commission and prepare studies throughout the life of the project to identify whether there are any further reasonable and feasible measures to reduce GHG emissions.
281. In regard to the VAM, the IPC noted that technology available for the management of the VAM may improve throughout the proposed life of the proposed expansion and that this technology could offer a feasible means of further abating fugitive methane emissions from the mine.

Summary of GHG emissions for the proposed action, how GHG emissions will be managed by the company, and NSW DPIE and Independent Planning Commission (IPC) assessment and conditions

282. I noted that the proponent currently monitors and reports GHG emissions from the Tahmoor North mine site in accordance with the National Greenhouse and Energy Reporting (NGER) Measurement Determination 2008 which provides methods and criteria for calculating GHG emissions and energy data under the *National Greenhouse and Energy Reporting Act 2007*.
283. A full description of the proposed action is contained earlier in these reasons. The proposed action will facilitate the recovery of 33 million tonnes of run-of-mine coal over a 10 year period. The proposed action will continue longwall mining of the Bulli coal seam. Product coal would be sold to domestic and international markets for use in steelmaking. The proposed action will produce GHG emissions, as stated in the DPIE AR. The emissions of the project and the NSW assessment of its GHG emissions are discussed above at [130] - [162]. The emissions of the proposed action consist of approximately:
- 19.31 Mt CO₂ of scope 1;
 - 1.24 Mt CO₂ of scope 2; and
 - 65.8 Mt CO₂ of scope 3, which would be generated by third parties who transport and consume the extracted coal.
284. The IPC assessed the GHG emissions of the proposed action and imposed conditions relating to air quality and greenhouse gas regulation (State Development Consent conditions B14, B18, B19, B20 and B21), including that the approval holder must:
- not exceed GHG emission criteria (19.31 Mt CO₂ of scope 1 emission; 1.24 Mt CO₂ of scope 2 emissions) and require any exceedance of the GHG emissions limit to be offset through an appropriate mechanism (State Development Consent conditions B19);

³ [Technology Investment Roadmap: First Low Emissions Technology Statement 2020](#)

- take all reasonable steps to improve energy efficiency and reduce scope 1 and scope 2 GHG emissions (State Development Consent conditions B19);
- implement GHG abatement measures (including beneficial reuse and/or flaring) with respect to methane produced by underground coal mining (State Development Consent conditions B14);
- prepare and implement an Air Quality and Greenhouse Gas Management Plan (State Development Consent conditions B18 and B20-B21); and
- within two years of the development consent (and each third year after that), commission and prepare a study to determine whether there are any reasonable and feasible measures that can be implemented to further reduce scope 1 and 2 GHG emissions (State Development Consent conditions B19).

State assessment

285. The emissions of the proposed action and the NSW assessment of its GHG emissions are discussed in greater detail above at [130]-[162]. 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 which must include all reasonable and feasible measures to maximise the beneficial re-use of methane on site.
286. The IPC, in its statement of reasons, agreed with the DPIE assessment, stated it accepts there will continue to be demand for coking coal over the projected life of the mine and that there are significant environmental, social and economic benefits arising from extending the life of an existing mine that has established infrastructure and an existing environment footprint, rather than developing a completely new mine.
287. The IPC weighed up the impacts of the GHG emissions intensity and total projects GHG emissions associated with the proposed development against the benefits, including the use of existing infrastructure and economic benefits, and found that the GHG emissions of the proposed development are acceptable, subject to a requirement for ongoing investigation and implementation of measures to reduce GHG emissions.

Company actions to manage greenhouse gas emissions

288. Tahmoor Coal Pty Ltd is a wholly owned entity within the SIMEC division of the Sanjiv Gupta Family Group (GFG) Alliance. In early 2020, GFG Alliance announced its commitment to progress to carbon neutrality, as a group, by 2030 (GFG CN30 initiative brochure).
289. As part of the global GFG Alliance, SIMEC Group has a key focus on developing large scale green energy capacity to support GFG's **carbon neutrality** commitment and low-carbon metals and industrials strategy.
290. As described in the proponent's submission to the IPC (dated February 2021), GFG's Subsidiary SIMEC Group is committed to becoming carbon neutral or achieving net-zero greenhouse gas Alliance emissions by 2030 from its consolidated operations under their Carbon Neutral 30 (**CN30**) initiative, through the development and implementation of low emission technologies, including to enable the manufacture of steel with hydrogen.
291. A vital contribution to this CN30 commitment initiative is through greener technologies and renewable energy offsets. While the primary production of steel without coking coal or gas

is not currently commercially viable, and low emission alternatives are expected to take approximately another 10 years, the proposed action will bridge this gap over the next decade by continuing the supply of high-quality coking coal while SIMEC develops and implements new technologies in steelmaking.

292. The proponent advised that the proposed action involves the extension of mining at the Tahmoor Mine to continue the supply of coking coal until 2032, thereby enabling a bridging of the gap during the transition phase while low emission technology is developed to a point of viability and implementation.
293. On 9 August 2021, the proponent provided further information on the CN30 initiative and specific projects that are expected to contribute to that commitment. The proponent states in the letter that GFG Alliance is exploring the potential of new technologies, such as hydrogen steelmaking powered by renewable energy, to significantly reduce emissions from primary steel production via direct-reduced iron furnaces that can feed electric arc furnaces.
294. The proponent states that the proposed action is consistent with the latest research and anticipated timing of the transition away from coal-based steel production. NSW DPIE stated that alternatives to the use of coking coal to produce the large scale raw steel materials are unlikely to be available on a commercial scale during the life of the Tahmoor South project.
295. GFG has executed a 10-year Power Purchase Agreement for 15 MW capacity from the Molong Solar Farm to offset GHG emissions, providing 48,000 MWh per year of electricity, with this secured renewable energy for the proposed action site planned for later in 2021. This voluntary commitment is anticipated to offset the approximate daytime power requirements at the Tahmoor Coal mine in conjunction with the power generation plant. In terms of CO₂-e, the Molong Solar Farm would offset approximately 300,000 t CO₂-e, based on the forecast carbon intensity of the NSW grid over the 10-year Project life.
296. The purchase of electricity from the Molong Solar Farm would therefore effectively further reduce the total scope 1 and 2 emissions of the Project from approximately 20.55 Mt CO₂-e to 20.25 Mt CO₂-e.

Relevance of proponent's voluntary commitments

297. The proponent provided the above information regarding measures that the proponent has committed to undertake to achieve emissions reductions from the proposed action and across the operations of the GHG alliance, in addition to those measures that will be required by the NSW conditions. The department noted that the proponent and parent company's voluntary commitments, if achieved, would be beneficial to the transition of the steel industry and to reducing GHG emissions in the 2030s and beyond.
298. However, noting that these commitments are voluntary, in deciding whether or not to approve the proposed action, I have taken into account only those measures required by the NSW conditions that must be carried out in accordance with the NSW development consent.

Risks of a warming climate

299. 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 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.

300. 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.
301. 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.
302. I also noted the expert evidence regarding the risks of a warming climate filed by the Applicants in *Sharma* and the Sackett Reports. 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.
303. 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.

Contribution of the proposed action to climate change

304. 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].
305. 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

306. As outlined above at [256]-[269], 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.
307. As outlined above, the proponent has advised that the likely customers of the coal will be in Australia, Japan, Korea, Taiwan, Europe, the United Kingdom and India. I considered that these are the likely consumers of the product coal. I noted that Australia, Japan, Korea, Europe, the United Kingdom and India 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.

308. I noted the advice of DISER which stated:

Projected emissions from the Tahmoor South Coal Project (the Project) 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.

309. 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.
310. 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 noted at [262]-[264]. 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).
311. 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."
312. While I also took into account the Steffen Reports and Sackett Reports in considering the impact of the proposed action on climate change, I disagreed with Professor Sackett's and 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.
313. Professor Sackett 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. The Steffen Reports similarly use a carbon budget approach to assert that no new coal mines or extensions to existing coal mines can be approved.
314. The EDO highlighted that the Net Zero by 2050 pathway proposed in the Net Zero report requires no more new mines or extensions to achieve net zero emissions. The Department noted that the Net Zero by 2050 presents a global pathway to achieve a net zero outcome and that the Net Zero by 2050 report is not a forecast or a mandate but rather what IEA analysis finds to be "technically feasible, cost effective and socially acceptable", noting that "each country will need to design its own strategy taking into account its specific circumstances".
315. I disagreed with the 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.

316. 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.

317. 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

318. 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 [153].

319. 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 and that the GHG emissions of the proposed action were acceptable.

320. 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

321. I have outlined my findings on the relevant economic and social matters above in Part 6.

322. 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.

323. The economic assessment estimated that the net benefit of the proposed action is \$664.9 million in net present value, comprised on \$215.0 million in direct benefits and \$450.0 million in indirect benefits. As discussed in paragraphs [163]-[206] above, the IPC noted some uncertainties in determining the net economic benefit and the lack of consensus on the NPV of the proposed action, but was satisfied that, even allowing for the reported sensitivities, the proposed action would generate a positive NPV.
324. The proposed action is expected to require an operational workforce of up to 400 employees and contractors during the early stages of operation, as well as an additional short-term construction workforce of up to 175 employees.
325. 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

326. 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.
327. 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.
328. 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

329. 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. 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
 - d. 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)

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

- e. decision-making processes should effectively integrate both long-term and short-term economic, environmental, social, and equitable considerations;
- f. 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);
- g. 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;
- h. the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making; and
- i. improved valuation, pricing and incentive mechanisms should be promoted.

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

- j. I was satisfied that the likely impacts on the environment as a result of the proposed action are satisfactory in terms of their long-term and short-term economic, environmental and social impacts. The DPIE AR integrates all significant environmental, social and economic considerations in the assessment of the proposed action.
- k. I agreed with the department's conclusion that there is sufficient scientific information to know of, and understand, the likely impacts of the proposed action on listed threatened species and communities and water resources. 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.
- l. 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 listed threatened species and communities.
- m. I considered the importance of conserving biological diversity and ecological integrity, and was satisfied that this has been a fundamental consideration in the assessment of this proposed action and is reflected in the NSW development consent conditions.
- n. I noted that the referral and NSW assessment documentation, and the department's advice, consider a range of information on the economic costs, benefits and impacts of the proposed action.

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

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

- o. the letter from DPIE advising of state approval and Commonwealth matters;
- p. the DPIE AR;
- q. the IPC's statement of reasons;
- r. the NSW development consent conditions; and
- s. the NSW Biodiversity Conservation Division advice on Matters of National Environmental Significance.

333. 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))

334. All of the information on the relevant impacts of the proposed action that I considered was contained in the final approval decision brief, and is listed above.

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

335. As noted above, comments on the proposed action were received on behalf of the Minister for Resources and Water, and the Minister for Indigenous Australians. 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))

336. 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))

337. 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.

Department's environmental history records

338. On 1 October 2020, the department's Environment Compliance Branch advised that a search of the department's Compliance and Enforcement Management System database and records held by the department indicated that there is no adverse compliance history for the proponent.

Environmental history from the proponent

339. I noted the department's advice that the proponent has been issued the following notices and penalties under NSW legislation in the past 10 years in relation to the Tahmoor Coal Mine:

<u>Date Penalty Received</u>	<u>Issue</u>	<u>Regulatory Action</u>
5/12/2016	Exceedances of impact assessment criteria or predictions in relation to surface water trigger action response plans specified in the relevant Environmental Management Plan	Notice
3/5/2016	Proponent given direction to take steps to conserve the environment, protect it from harm as a result of activities under the mining leases to prevent, control or mitigate any such harm - Redbank and Myrtle Creeks	Notice
4/5/2018	Evidence of subsidence impacts identified during field inspection and in correspondence with the NSW Division of Resources and Geosciences - included impacts associated with Redbank and Myrtle Creek	\$2500 PIN and Notices
18/6/2018	Failure to comply with a direction from the NSW Department of Planning and Environment to undertake draining works to the Reject Emplacement Area at Tahmoor Coal's facility	Enforceable undertaking: \$40,000 to Wollondilly Council and \$13,000 to the Resources Regulator
22/5/2019	Proponent given direction to the Redbank Creek Corrective Action Management Plan	Notice
29/6/20 (Notice), 17/4/20 (Event)	Discharge of water from Licence Discharge Point 1 above the concentration limits for turbidity and total suspended solids set out in the relevant Environment Protection Licence	Show Cause Notice
8/9/20 (Notice), 17/4/20 (Event)	Non-compliance with license condition regarding water pollution – clay discharge. No actual harm to the environment resulting from the incident, as confirmed by NSW Environmental Protection Agency.	PIN \$15 000

340. The General Manager of the proponent was the General Manager at the time of the above contraventions.

341. Since 28 June 2019, the proponent has been wholly owned by Liberty Primary Metals Australia Pty Ltd. This is not an operating entity, and therefore has no history in relation to environmental matters. The current executive officer of Liberty Primary Metals Australia Pty Ltd was appointed on 1 September 2017. Other than the contraventions summarised above, companies in the Liberty Primary Metals Australia Pty Ltd group have not contravened national or state environmental laws since 1 September 2017.

Conclusion on environmental history

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

343. The department advised that the penalties imposed were at the low end, which indicated that these contraventions did not result in significant environmental harm. The department advised that the proponent accepted and acknowledged these infringements and penalties,

and that examination of the publicly available independent audit reports for the proponent identified that instances of non-compliance have been addressed through corrective actions, indicating that the proponent has responded to identified issues. The department advised that this demonstrates the proponent's commitment to taking responsibility for incidents that result in environmental harm.

344. On the basis of this advice, which I accepted, I found that the proponent is a suitable person to be granted an approval.

Considerations in deciding on conditions – section 134

345. 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:

- t. 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
- u. 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).

346. 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.

347. 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.

348. 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))

349. 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.

350. 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))

351. 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))

352. 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)

353. 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.

354. Section 139(2) states, if:

- c. 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
- d. 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

355. 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.

356. The Biodiversity Convention promotes environmental impact assessment to avoid and minimise adverse impacts to biological diversity. 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.

357. 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.

358. 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

359. 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

360. 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.

361. The Apia Convention was suspended with effect from 13 September 2006.

362. While this Convention has been suspended, the department's advice included consideration of whether the proposed action would be consistent with the Apia Convention.

363. The proposed action has undergone a rigorous environmental assessment which concluded that the proposed action will result in relatively minor impacts to biodiversity.

364. The NSW development consent conditions 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. These 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. As set out in paragraphs [90]-[129] above, I have attached a condition that requires the proponent to comply with the relevant NSW development consent conditions.

365. 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

366. 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.

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

- a. Sutter, G. (2011). *National Recovery Plan for Rufous Pomaderris* (*Pomaderris brunnea*). Department of Sustainability and Environment.

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

- b. Department of the Environment and Energy (2018). *Threat abatement plan for disease in natural ecosystems caused by Phytophthora cinnamomi*. Canberra: Commonwealth of Australia.
- c. Department of the Environment (2015). *Threat abatement plan for predation by feral cats*. Canberra, ACT: Commonwealth of Australia.
- d. Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008). *Threat abatement plan for predation by the European red fox*. DEWHA, Canberra.
- e. Department of the Environment and Energy (2016). *Threat abatement plan for competition and land degradation by rabbits*. Canberra, ACT: Commonwealth of Australia.

369. 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 the relevant recovery plan or any of the relevant threat abatement plans.

Conservation advices

370. 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.

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

- a. Department of the Environment (2014). *Approved Conservation Advice (including listing advice) for Shale Sandstone Transition Forest of the Sydney Basin Bioregion (EC25R)*. Canberra: Department of the Environment.
- b. Department of the Environment, Water, Heritage and the Arts (2008). *Approved Conservation Advice for Grevillea parviflora subsp. parviflora (Small-flower Grevillea)*. Canberra: Department of the Environment, Water, Heritage and the Arts.
- c. Department of the Environment (2014). *Approved Conservation Advice for Persoonia bargoensis*. Canberra: Department of the Environment.
- d. Department of Sustainability, Environment, Water, Population and Communities (2012). *Approved Conservation Advice for Phascolarctos cinereus (combined populations of Queensland, New South Wales and the Australian Capital Territory)*. Canberra: Department of Sustainability, Environment, Water, Population and Communities.
- e. Threatened Species Scientific Committee (2021). *Conservation Advice Pomaderris brunnea*. Canberra: Department of Agriculture, Water and the Environment.

Bioregional Plans section (176(5))

372. 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

373. I accepted the department's recommendation that the approval timeframe should account for the construction period, proposed operational lifespan until no later than 31 December 2033, and site rehabilitation.

374. I accordingly decided to approve the proposed action until 1 September 2061.

CONCLUSION

375. In light of the findings in paragraphs [38]-[374], 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



Sussan Ley

Minister for the Environment

Date: 6/10/21

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.