



## Statement of Reasons for a Decision on Controlled Action and Assessment Approach Under the *Environment Protection and Biodiversity Conservation Act 1999*

I, Kate Gowland, Branch Head, Environment Assessments (NSW, ACT) Branch, Department of Climate Change, Energy, the Environment and Water (the **department**), delegate for the Minister for the Environment and Water (the **Minister**), provide the following statement of reasons for my decision of 13 December 2023.

Pursuant to section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (**EPBC Act**), I decided that the proposed action by Hunter Valley Operations (**HVO**) Pty Ltd (the **proponent**) to expand the existing Hunter Valley Operations South open-cut coal mine (**HVO South**) at Lemington Road, Liddell, New South Wales (NSW), including additional infrastructure upgrades and progressive rehabilitation, and to extend the mine life from 2030 to the end of 2045 (EPBC 2023/09652) (the **proposed action**), is a controlled action under the EPBC Act for which the controlling provisions are:

- 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).

I also decided, pursuant to section 87 of the EPBC Act, that the proposed action would be assessed by Public Environment Report (**PER**) under Division 5 of Part 8 of the EPBC Act.

### Legislation

- 1) Extracts of the EPBC Act relevant to my decision are set out in [Annexure A](#).

### Background

- 2) HVO South forms part of the 'HVO Complex', which includes the concurrent referral for the Hunter Valley Operations North Open Cut Coal Continuation Project (**HVO North**) (EPBC 2023/09651). The two mine sites area separated by the Hunter River, NSW.
- 3) Currently, both HVO South and HVO North hold separate development consents under the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act), however they operate as one complex (the **HVO Complex**), with a fully integrated environmental management system. For reasons I explain below at [32]-[37], I consider that the proposed action is part of a larger action (being the HVO Complex).
- 4) The proponent is seeking to maintain separate development consents for HVO South and HVO North and has submitted two development applications (**DA**) to the NSW Department of Planning and Environment (**DPE**).

**Description of the proposed action (including location)**

- 5) The proposed action is to expand the existing open-cut coal mining activities at HVO South at Lemington Road, Liddell, NSW from 2030 to the end of 2045, and includes additional infrastructure upgrades and progressive rehabilitation.
- 6) The proposed action area is located approximately 24 kilometres (**km**) north-west of Singleton in the Singleton Local Government Area (**LGA**) within the Hunter region of New South Wales.
- 7) The proposed action is located within the existing HVO Complex. The HVO Complex is comprised primarily of open-cut pits, coal handling infrastructure, water management infrastructure, tailings storage facilities and rehabilitated mining areas and has been operating since the 1950s.
- 8) According to the referral, the proposed action will include the following key components:
  - (i) continuation of mining operations from 2030 until the end of 2045,
  - (ii) a reduction of the approved maximum coal extraction from 20 Million tonnes per annum (**Mtpa**) to 18 Mtpa,
  - (iii) changes to the approved mine sequencing (although mining in the Riverview and Chestnut pits will remain generally within the approved footprint),
  - (iv) minor realignment of the north boundary of the Riverview Pit,
  - (v) construction of flood protection levees at the Riverview and Chestnut pits, and
  - (vi) enlargement of Lake James (Dam 15S) from approximately 0.7 giga-litres (**GL**) to approximately 2 GL.
- 9) Other ancillary infrastructure components of the proposed action are:
  - (i) realignment of transmission lines,
  - (ii) changes to ancillary infrastructure to facilitate operations,
  - (iii) development of access roads, use of demountable/temporary buildings,
  - (iv) revision and implementation of the tailings strategy, and
  - (v) amendments to final landform due to rescheduling and/or infrastructure relocations, and progressive rehabilitation.
- 10) Referral documentation identifies the HVO South referral area as 8,523 hectares (**ha**), with a proposed action area of approximately 465 ha of which approximately 124 ha is native vegetation with 341.22 ha identified as non-native vegetation and cleared land.

**Description of the environment**

- 11) The proposed action area is located within the Hunter River Basin catchment that is drained by the Hunter River, Wollombi Brook and tributary drainage channels such as Farrells, Parnells Creek, Bayswater Creek and Hobden Gully. It is bounded in the west by Waterfall Creek, in the southeast by Wollombi Brook and in the north and north-east by the Hunter River, its floodplains and tributaries.

- 12) The referral documentation states that the water quality of the Hunter River is generally poor due to typically high salt concentrations in the Hunter River basin. Salinity levels are typically low in the north-east of the Hunter River basin.
- 13) According to referral documentation, the proposed action area has been largely cleared of intact native vegetation as a result of current and historical agriculture and mining operations.
- 14) The Greater Blue Mountains World Heritage Area (**GBM WHA**), a listed World Heritage property and National Heritage place, is located approximately 5 km to the southwest of the proposed action area.

### **Procedural history**

- 15) In June 2022, the proponent referred two proposed actions for HVO South (EPBC 2022/09206) and HVO North (EPBC 2022/09207). During the referral process, the department identified that the proposed actions excluded certain areas of the project footprint from assessment under the EPBC Act.
- 16) Following consultation with the department, the proponent revised the areas of impact and identified that there was a substantial increase in the total area of impact that needed to be assessed under the EPBC Act. New referrals were therefore required, and the referrals submitted in the year 2022 (EPBC 2022/09207 and EPBC 2022/09206) were withdrawn.
- 17) On 15 November 2023, the proponent submitted a valid referral for HVO South (EPBC 2023/09652). The proponent acknowledged in the referral that the proposed action could be determined a controlled action because it will likely have significant impacts on listed threatened species and ecological communities (section 18 and section 18A of the EPBC Act).
- 18) In accordance with section 74(3) of the EPBC Act, the referral was published on the department's website on 15 November 2023 and public comments were invited for a period of 10 business days until 29 November 2023. Twenty submissions were received during the public comment period. An additional comment was received after cessation of the public comment period.
- 19) Comments were also invited from relevant Commonwealth and State Ministers on 15 November 2023, in accordance with sections 74(1) and 74(2) of the EPBC Act. Two Commonwealth Ministers provided comments on the referral. The State Ministers provided a response regarding the proposed action's assessment status. I discuss these comments below.
- 20) On 13 December 2023, I decided under section 75 of the EPBC Act that the proposed action was a controlled action, and that the controlling provisions were sections 18 and 18A (listed threatened species and ecological communities) and sections 24D and 24E (protection of water resources from coal seam gas and large coal mining development) of the EPBC Act.

### **Evidence or other material on which my findings were based**

- 21) In making my decision, I read and gave consideration to the referral decision brief (and its attachments) prepared by officers of the Department of Climate Change, Energy, Environment and Water (**decision brief**), which I signed on 13 December 2023. The documents attached to the decision brief are as follows:

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- (i) The referral, including attachments to the referral,
  - (ii) Protected Matters Search Tool (PMST) report,
  - (iii) EPBC Act Policy Statement – Significant Impact Guidelines 1.1 – Matters of National Environmental Significance,
  - (iv) EPBC Act Policy Statement – Significant Impact Guidelines 1.3: Coal seam gas and large coal mining developments— impacts on water resources,
  - (v) EPBC Act 1999 Referral guidelines for the vulnerable striped legless lizard, *Delma impar*,
  - (vi) Ministerial Comments,
  - (vii) Public Comments,
  - (viii) Advice from the department’s internal line areas:
    - a. Office of Water Science
    - b. Species Listing, Information and Policy Section
    - c. Ecological Communities Section Advice
    - d. Heritage Section
  - (ix) Conservation advice of the ECs and Species including:
    - a. Approved Conservation Advice (including listing advice) for the Central Hunter Valley eucalypt forest and woodland ecological community,
    - b. Approved Conservation Advice (including listing advice) for the Warkworth Sands Woodland of the Hunter Valley ecological community,
    - c. Conservation Advice for *Delma impar*, the striped legless lizard.
  - (x) Potential cumulative impacts of mining on the Outstanding Universal Value of the Greater Blue Mountains Area (Department of Agriculture, Water and the Environment, 2022), and
  - (xi) EPBC Act Policy Statement – Staged Developments – Split referrals: Section 74A of the EPBC Act.
- 22) I decided that there was enough information provided to me to make a decision under section 75 of the EPBC Act.

### Public consultation

- 23) I noted that the department received a total of 20 public submissions on the referral through the public portal and additional comment after the public comment period. A number of comments addressed this action and the proposed action for HVO North.
- 24) The department noted, and I agreed, that of the 21 submissions received, 14 submissions suggested that the proposed action was a controlled action decision and seven submissions objected to the proposed action.
- 25) I noted that submissions were made by individuals and non-government organisations.
- 26) I noted that the issues raised in the submissions included:

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- (i) that the proposed action should be a controlled action which included threatened species and ecological communities (sections 18 and 18A), water resources (sections 24D and 24E) and wetlands of international significance (sections 16 and 17B) as controlling provisions,
- (ii) climate change impacts on matters of national environmental significance (MNES) necessitates an EPBC assessment for this proposed action,
- (iii) concerns with the acceptance of split referrals for the proposed action because the ecological features and water resources form a continuum in the landscape,
- (iv) concerns about the need for impacts to be considered cumulatively,
- (v) the proposed actions would clear approximately 180 ha of bushland, half of which is the nationally critically endangered Central Hunter Valley Eucalypt Forest and Woodland,
- (vi) concerns about water impacts from the proposed action, including that:
  - the expansion of HVO North and HVO South combined are among the biggest water users in the Hunter region,
  - the draw down of the Hunter River alluvium through leakage and subsequent loss of base flows will affect the riparian zone and groundwater dependent ecosystems including the stygofauna,
- (vii) concerns about the impacts to Ramsar wetlands, including that there would be significant and permanent loss of freshwater flows to the Hunter Estuary and Kooragang Ramsar wetlands and the loss of water will affect the salinity of the Kooragang Ramsar site, which is located downstream of the proposed action,
- (viii) concerns that the expansion of the proposed actions would potentially lead to the release of substantial greenhouse gas emissions of about 1.2 billion tonnes of CO<sub>2</sub>t, mostly from scope 3 emissions,
- (ix) concerns that the proposed action would result in degraded air quality, with significant and prolonged air quality, with significant prolonged air pollution in the form of PM<sub>10</sub> and PM<sub>2.5</sub> emissions, and
- (x) concerns that pit lakes are expected to take 1,000 years to reach equilibrium level and these salty lakes will remain an environmental hazard.

### Commonwealth Ministers' comments

- 27) On 15 November 2023, and in accordance with section 74(1) of the EPBC Act, comments on the proposed action were invited from the following Commonwealth Ministers:
- a. The Hon Linda Burney MP, Minister for Indigenous Australians, and
  - b. The Hon Madeleine King MP, Minister for Resources and Northern Australia.

- 28) On 28 November 2023, Geoscience Australia (**GA**) responded on behalf of the Minister for Resources and Northern Australia via email and provided expert advice on the proposed action in relation to impacts to water resources. Geoscience Australia agreed with the list of potential impacts proposed by the proponent including decrease of groundwater levels/pressures/baseflow for both the project alone and the cumulative impacts of the approved and proposed mining. Geoscience Australia's assessment for the proposed action concluded that these potential impacts warrant further consideration on the significance of the following impacts:
- (i) the cumulative impact of other nearby coal mines on the groundwater system,
  - (ii) how the final void spaces of the HVO Complex may act as permanent groundwater sinks, contributing to ongoing losses of groundwater resources,
  - (iii) depending on the salt tolerance of individual species within Groundwater Dependent Ecosystems (**GDE**), the likely decrease in conductivity within the alluvium may impact stygofauna and other GDEs,
  - (iv) the cumulative impacts on the Hunter River,
  - (v) the proponent's proposed engineering solution to limit groundwater drawdown, noting that if the Carrington West Wing barrier wall fails in the next 1000 years there is the potential for high loss of groundwater from the alluvium as well as loss of water from the connected Hunter River, and
  - (vi) analysis of the stream gauge prior to the construction of the Glenbawn Dam in 1949 suggests that the cumulative decrease in streamflow due to mining (738 ML/year), as modelled in assessing the HVO Complex, would have the potential to increase the number of no-flow days in the Hunter River at Singleton by 15.9 %.
- 29) On 29 November 2023, the National Indigenous Australians Agency (**NIAA**) responded to the invitation for the Minister of Indigenous Australians. The NIAA provided a consolidated comment on both HVO South and HVO North that provided recommendations to the proponent around engagement, consultation and collaboration with the Traditional Owners and other First Nations stakeholders with an interest in a project.

#### **State Minister's comment**

- 30) In accordance with section 74(2) of the EPBC Act, by letter dated 15 November 2023, Mr Tim Kirby, delegate for the Hon Paul Scully MP, the NSW Minister for Planning, was invited to comment on the referral.
- 31) On 15 November 2023, the then NSW Department of Planning and Environment (now the NSW Department of Planning, Housing and Infrastructure) responded by email. Its response was confined to advising that the proposed action will not be assessed in a manner specified in Schedule 1 to the Bilateral Agreement made under section 45 of the EPBC Act, relating to environmental assessment between the Commonwealth and the New South Wales Government (**the Bilateral Agreement**).

## Findings on material questions of fact

### Is the proposed action part of a 'Larger Action'?

- 32) Before determining whether the proposed action was a controlled action, I considered whether the proposed action was a component of a larger action under s 74A of the EPBC Act and, if so, whether I should accept the referral pursuant to the discretion contained in s 74A(1) of the EPBC Act.
- 33) Section 74A(1) of the EPBC Act states that if the Minister (or me, as her delegate) is satisfied the action that is the subject of the referral is a component of a larger action the person proposes to take, the Minister (here, me as her delegate) may decide not to accept the referral. This is a discretionary decision and, as such, I was not obliged to exercise the power.
- 34) The *EPBC Act Policy Statement – Staged Developments – Split referrals: Section 74A of the EPBC Act* provides guidance on when the discretion should be exercised, and states that “[a] referred action that is part of a larger action can be refused only if there is a reasonable basis for doing so. The key question for the Minister is: does the splitting of the proposed action reduce the ability to achieve the objects of the Act?”
- 35) I noted that the proponent acknowledged (and therefore accepted) that the proposed action is part of a larger action, being the HVO Complex, in its referral.
- 36) Consistent with the *Policy Statement Staged Development – Split referrals: Section 74A of the EPBC Act* and the department’s recommendation, I decided that the proposed action is a component of a larger action based on the following reasons:
- (i) although HVO South and HVO North mining areas are currently approved under separate state development consents, both areas are operated as one fully integrated complex and currently share infrastructure such as coal handling facilities and transportation routes, and
  - (ii) the HVO South and HVO North actions are proposed to be undertaken by the same proponent.
- 37) However, I decided to exercise my discretion to accept the referral because I agreed with the department that assessing the proposed action separately to the larger action would not compromise or reduce the ability to assess impacts to matters of national environmental significance (**MNES**). I formed this view based on the following considerations:
- (i) The impacts from HVO South are of sufficient scale and intensity to determine that significant impacts under section 18 and 18A are likely. Further, I noted the department’s advice that it had not identified any species or communities, where splitting the impacts across the two referrals reduced the ability to achieve the objects of the Act.
  - (ii) The *Significant impact guidelines 1.3: Coal seam gas and large coal mining developments— impacts on water resources (Significant Impact Guidelines 1.3)* states that, when determining the significance of an impact on water resources, cumulative impacts can be considered. I accepted the department’s advice that impacts



to water resources (under section 24D and 24E) resulting from the HVO North proposed action can be considered in the assessment on impacts on the proposed action.

- (iii) Noting the proponent's assessment of impacts to water resources (including the water balance model and groundwater model) were based on the whole HVO complex, I accepted the department's advice that it could assess impacts to water resources across the HVO Complex without reducing the ability to achieve the objects of the Act.

**Is the proposed action a controlled action?**

- 38) Section 67 of the EPBC Act provides that an action is a controlled action if the taking of the action, without the Minister's approval for the purposes of a provision of Part 3, would be prohibited by the provision (the controlling provision for the action).
- 39) As a delegate of the Minister for the Environment and Water, I was required under section 75(1) of the EPBC Act to decide whether the referred action is a controlled action, and which provisions of Part 3 (if any) are controlling provisions for the proposed action.
- 40) In accordance with section 75(2) of the EPBC Act, in making my decision, I considered all adverse impacts the proposed action has, will have, or is likely to have on matters protected by each provision of Part 3 of the EPBC Act. I did not consider any beneficial impacts the proposed action has, will have or is likely to have on the matters protected by each provision of Part 3 of the EPBC Act.
- 41) In making my decision, I:
- (i) considered the public submissions and Ministerial comments received (and summarised above),
  - (ii) considered the *EPBC Act Policy Statement – Significant Impact Guidelines 1.1 – Matters of National Environmental Significance (Significant Impact Guidelines 1.1)* and Significant Impact Guidelines 1.3, which provides guidance on determining whether an action is likely to have a significant impact on a matter protected by Part 3 of the EPBC Act. This is a policy document, not a legal instrument. However, I considered the factors identified in Significant Impact Guidelines 1.1 and 1.3 were appropriate in assessing the likely impacts of the proposed action,
  - (iii) took account of the precautionary principle (as set out in section 391) when making my decision. The precautionary principle is triggered where there is a threat of serious or irreversible environment damage and scientific uncertainty as to the environmental damage. The precautionary principle requires that, if there are threats of serious or irreversible environmental damage, a lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation,
  - (iv) noted that, pursuant to section 176(5) of the EPBC Act, there were no bioregional plans relevant to the location of the proposed action which I was required to have regard to, and
  - (v) concluded that my decision that the proposed action is a controlled action would not be contrary to section 362(2) of the EPBC Act, as there were no Commonwealth reserve management plans relevant to the location of the proposed action.



- 42) Having regard to the matters relevant to my decision and the information before me (listed at [21] above) I agreed with the department's recommendation that I decided that the proposal is a controlled action because it is likely to have a significant impact on a matter protected by Part 3 of the EPBC Act.

**Part 3 provisions that are controlling provisions**

***Listed threatened species and communities (s 18 and s 18A)***

- 43) I considered the department's Protected Matters Search Tool report (**PMST**), dated 16 November 2023, which identified 63 listed threatened species and communities that are likely or known to occur within 10 km of the proposed action.
- 44) Based on the location of the action, the likely habitat present in the area of the proposed action, and the nature of the proposed action, I agreed with the department's view that impacts potentially arise in relation to the following Part 3 protected matters:
- (i) Central Hunter Valley Eucalypt Forest and Woodland (**CHVEFW**) – Critically endangered – listed ecological community,
  - (ii) Warkworth Sands Woodland of the Hunter Valley – Critically endangered – listed ecological community, and
  - (iii) Striped Legless Lizard (*D. impar*) – Vulnerable – listed threatened species.

***(i) Central Hunter Valley Eucalypt Forest and Woodland (CHVEFW) – Critically endangered - listed ecological community***

- 45) The CHVEFW occurs in the Hunter Valley region, occurring as an open forest or woodland, typically dominated by eucalypt species. It also occurs on moderately fertile erosional and transferral soils derived from Permian rock strata.
- 46) The CHVEFW is highly fragmented with a very restricted distribution and is limited to the Permian sediments in the Central Hunter Valley.
- 47) The canopy of the community is typically dominated by one or more of the following eucalypt species: Narrow-leaved Ironbark (*Eucalyptus crebra*), Spotted Gum (*Corymbia maculata* syn *Eucalyptus maculata*), Slaty Gum (*Eucalyptus dawsonii*) and Grey Box (*Eucalyptus moluccana*). Occasionally, Bulloak (*Allocasuarina luehmannii*) may form part of the dominant species.
- 48) The winter flowering species associated with the ecological community can be a valuable resource for transient species such as Regent Honeyeater (*Anthochaera phrygia*), Swift Parrot (*Lathamus discolor*) and Grey-headed Flying-fox (*Pteropus poliocephalus*).
- 49) I noted that the Approved Conservation Advice (including listing advice) for the Central Hunter Valley eucalypt forest and woodland ecological community:
- (i) identifies a key threat to this ecological community (**EC**) as including vegetation clearing from mining, agriculture and horticulture.
  - (ii) states that at least 70 % of this EC has been lost. It is highly fragmented with an estimated median patch size of 1.7 ha. Only 2 % of the Central Hunter Valley Woodland patches are larger than 100 ha.

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- 50) I also noted that, according to the conservation advice, areas that meet the minimum condition thresholds for the EC, or are within the buffer zone of the EC, are considered habitat critical to the survival of the CHVEFW.

### Environment within and surrounding the proposed action area

- 51) I noted that targeted surveys to map CHVEFW were undertaken in May, June, August and September 2020 using key diagnostic characteristics and condition thresholds provided in the conservation advice. A supplementary survey was undertaken in October 2021 to identify vegetation in additional disturbance areas following amendments to the project boundaries and again in May 2023 within mine rehabilitation and further additional disturbance areas.
- 52) Despite high fragmentation and disturbance as a result of historical land use, most of the identified patches meet high-quality condition thresholds.
- 53) I noted the department's advice that three Plant Community Types (**PCT**) within the referral area met the key diagnostic characteristics and condition thresholds for the CHVEFW EC. I noted that the three PCTs were Grey Box - Slaty Box shrub - grass woodland on sandstone slopes of the upper Hunter and Sydney Basin (PCT 1655), Narrow-leaved Ironbark - Grey Box grassy woodland of the central and upper Hunter (PCT 1691), and Bull Oak grassy woodland of the central Hunter Valley (PCT 1692). I agreed that these PCTs represented the CHVEFW EC and noted the department's advice that vegetation is in moderate condition.

### Potential impacts

- 54) Approximately 77.89 ha of CHVEFW occurs within the proposed action area, primarily located in remnant vegetation either side of the proposed Lemington Road realignment and adjacent to Lake James.
- 55) I noted that the proposed action will result in the direct loss of CHVEFW EC through vegetation removal. The department advised, and I agreed, that the proposed action is considered to impact on habitat critical to the survival of the CHVEFW, since the ecological community that occurs within the proposed action area meets high-quality condition thresholds.
- 56) In addition, I noted the department's advice that indirect impacts to the community include fragmentation, edge effects, light, noise, dust, and weed and feral animal encroachment. Therefore, I accepted that the proposed action is likely to lead to further fragmentation and degradation of the CHVEFW EC.
- 57) I also noted that the conservation advice for the CHVEFW EC states that "mining can lead to the disruption of hydrological processes, erosion and changes to soil structure and chemistry, all of which negatively impact the landscape and potentially the ecologically community". The department considered, and I agreed, that there is a potential for the proposed action to modify abiotic factors necessary for the survival of the CHVEFW EC within the proposed action area.

### Avoidance, mitigation and management measures

- 58) I noted that the referral states that approximately 101.1 ha of the CHVEFW EC has been avoided in the HVO Complex. The proponent identified mitigation measure relevant to the CHVEFW EC in the existing HVO Biodiversity Management Plan (**BMP**). I noted these measures included:

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- (i) staged progressive clearance limits clearly demarcated to prevent unnecessary disturbance,
- (ii) salvage of resources and habitat features (e.g. seed collection, topsoil, timber and native mulch) and translocation to a re-establishment site,
- (iii) progressive rehabilitation of woodland areas to create a network of vegetation corridors between rehabilitation areas and remnant vegetation areas and deliver a landform that is in line with the “Synoptic Plan: Integrated Landscapes for Coal Mine Rehabilitation in the Hunter Valley of New South Wales (Department of Mineral Resources 1999).”
- (iv) weed and pathogen management, fencing and access control, riparian zone management, erosion and sediment control, and
- (v) water management systems that seek to minimise the potential for damage to flora and fauna and their habitats from erosion, sedimentation and unnatural flooding events.

### Conclusion

- 59) In making my decision, I considered the nature of the proposed action, the referral documentation, relevant recovery plans, conservation advice, and the Significant Impact Guidelines 1.1.
- 60) On the basis of those materials, and in accordance with the Significant Impact Guidelines, the department considered, and I agreed, that in relation to the CHVEFW, the proposed action is likely to:
- (i) reduce the extent of an ecological community,
  - (ii) fragment or increase fragmentation of an ecological community,
  - (iii) adversely affect habitat critical to the survival of an ecological community
  - (iv) modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community’s survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns,
  - (v) cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, and
  - (vi) interfere with the recovery of an ecological community.
- 61) Therefore, I found that the proposed action is likely to have a significant impact on the critically endangered Central Hunter Vally Eucalyptus Forest and Woodland ecological community.

### ***(ii) Warkworth Sands Woodland - Critically endangered – listed ecological community***

- 62) I noted that Warkworth Sands Woodland of the Hunter Valley ecological community (**WSW EC**) is mid to low woodland, and it occurs in the Central Hunter region of the Hunter Valley on aeolian sands of the Warkworth Land System.
- 63) The ecological community is typically dominated by rough-barked apple (*Angophora floribunda*) and coast banksia (*Banksia integrifolia*).

- 64) I noted that the Approved Conservation Advice (including listing advice) for the Warkworth Sands Woodland of the Hunter Valley ecological community:
- (i) identifies key threats as vegetation clearing and landscape fragmentation, invasive flora species, altered fire regimes, and climate change,
  - (ii) states that at least 70 % of patches are currently less than 10 ha in size, with an estimated median patch size of less than 3 ha, and
  - (iii) states that all remaining patches that meet the key diagnostic characteristics and minimum patch size of 0.1 ha are critical to the survival of the ecological community. In addition, buffer zones are considered critical to the survival of this ecological community and condition thresholds have not been applied to this ecological community.

Environment within and surrounding the proposed action area

- 65) I noted that conservation advice identifies four known main occurrences of the Warkworth Sands Woodland: Wallaby Scrub Road, Warkworth Village, Archerfield, and Bulga. The occurrences at Wallaby Scrub Road and Bulga are directly south of the HVO Complex.
- 66) I noted that targeted surveys to map the WSW EC within the proposed action area were undertaken in August 2020, February and April 2021 and September 2023. I noted that additional surveys were undertaken in May 2023 in the mine site rehabilitation areas which are proposed to be re-disturbed as part of this referral and that surveys were undertaken in accordance with sampling protocols and with consideration of the key diagnostic characteristics described in the conservation advice.
- 67) I noted that soil sampling and geomorphological assessments to identify areas likely to contain aeolian sands were undertaken in October 2020 and February 2021. I noted that the referral documentation states that soil sampling did not conclusively determine that the sand present in the Biodiversity Impact Assessment Areas (**BIAA**) was of aeolian origin, however where the sand could not be proven to be non-aeolian, the precautionary principle was applied by the proponent, and they considered the sand to be aeolian.
- 68) I noted that the referral documentation identified that three PCTs conform to the WSW EC including PCT 1691 (Narrow-leaved Ironbark - Grey Box grassy woodland of the central and upper Hunter), PCT 1692 (Bull Oak grassy woodland of the central Hunter Valley) and PCT 1658 (Rough-barked Apple - Narrow-leaved Ironbark - Blakely's Red Gum - Bull Oak - Coast Banksia woodland on sands of the Warkworth area).
- 69) I noted that BioNet identifies that PCT 1658 is now decommissioned and replaced by PCT 3636 which conforms to the WSW EC. I also noted the department's advice that BioNet does not identify PCT 1691 and PCT 1692 as conforming to the WSW EC.
- 70) I noted that the department sought internal advice from the department's Ecological Communities Section on 23 November 2023, on the extent of the WSW EC within the proposed referral area and the inclusion of PCT 1691 and 1962 as part of the WSW EC and the inclusion of rehabilitated vegetation as part of the WSW EC.

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- 71) I noted that the advice from the department's Ecological Communities Section, which was provided on 24 November 2023, stated that vegetation characteristics should be assessed against the key diagnostics and descriptors for the EC outlined in the Approved Conservation Advice (including listing advice) for the WSW EC.
- 72) On consideration of this internal advice and the referral documentation outlining vegetation assessments, based on key diagnostics and descriptors for the WSW EC, I accepted the department's recommendation that PCT 1691 and 1692 should be included as representative of the WSW EC.
- 73) The department noted, and I agreed, that approximately 0.3 ha of WSW EC occurs within the proposed action area.

### Potential impacts

- 74) I noted the proposed action will directly impact 0.3 ha of WSW EC through vegetation removal.
- 75) I noted, and agreed, with the department's advice that indirect impacts to the community include fragmentation, edge effects, light, noise, dust, and weed and feral animal encroachment and changes to local hydrology and/or groundwater.

### Avoidance, mitigation and management measures

- 76) I noted that the referral documentation states that approximately 7.2 ha of WSW EC has been avoided.
- 77) I noted that, according to the referral documentation, mitigation measures contained in the existing approved HVO Integrated BMP relevant to this EC will be implemented.

### Conclusion

- 78) In making my decision, I considered the nature of the proposed action, the referral documentation, conservation advice, and the Significant Impact Guidelines 1.1.
- 79) On the basis of those materials, and in accordance with the Significant Impact Guidelines 1.1, the department considered, and I agreed, that in relation to the WSW EC, the proposed action is likely to:
- (i) reduce the extent of an ecological community,
  - (ii) fragment or increase fragmentation of an ecological community,
  - (iii) adversely affect habitat critical to the survival of an ecological community,
  - (iv) cause a substantial change in the species composition of an occurrence of an ecological community,
  - (v) cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, and
  - (vi) interfere with the recovery of an ecological community.
- 80) Therefore, I found that the proposed action is likely to have a significant impact on the critically endangered Warkworth Sands Woodland of the Hunter Valley ecological community.

**(iii) Striped Legless Lizard (*Delma impar*) – Vulnerable**

- 81) The Striped Legless Lizard (*D. impar*) is a grassland specialist and lacks forelimbs and has very reduced hind limbs. I noted that the *Approved Conservation Advice for Delma impar, striped legless lizard*:
- (i) identifies that the species is patchily distributed throughout multiple states and territories, including south-eastern NSW, with populations of the species are well known from the southern tablelands and south-west slopes of NSW and records from Gilgandra and Muswellbrook in NSW,
  - (ii) estimates that more than 99 % of its natural temperate grassland habitat has been destroyed or drastically altered and fragmented,
  - (iii) that key threats to the species include the loss, modification, degradation and fragmentation of habitat, invasive species, and fire,
  - (iv) that potential habitat for the species includes areas, which have or once had native grasslands or grassy woodlands and retain suitable tussock structure and soil type,
  - (v) that habitat critical to the survival of the species is habitat that provides for breeding, foraging, refuge, or has connectivity value, and
  - (vi) all populations of the species are likely to be important for the recovery of the species, and that the occurrence of one or more individuals at a site constitutes an important population.
- 82) I noted that:
- (i) the proponent's referral identified the Hunter Valley delma as being the species detected within the proposed action area. This is an unlisted species, not subject to assessment under the EPBC Act,
  - (ii) the department therefore on 21 November 2023, sought internal advice from the department's Species Listing, Information and Policy Section (Species Policy Section) regarding the classification of the striped legless lizard (*Delma impar*) and the Hunter Valley delma (*Delma vescolineata*),
  - (iii) I noted that the Species Policy Section previously advised on 5 April 2023, that the delma species, now being identified as Hunter Valley delma, would have been considered part of the Striped Legless Lizard at the time that the Striped Legless Lizard was included in the list of threatened species, and hence forms part of that protected matter, and
  - (iv) the department's Species Policy Section confirmed on 21 November 2023, that their previous advice remains the department's position in regard to delma species found in the Hunter Valley. The advice also states that the Threatened Species Scientific Committee's draft assessment acknowledges the previous circumscription of Hunter Valley delma as part of the Striped Legless Lizard.
- 83) Based on the line area advice, the department considered, and I agreed, that the delma species identified within the proposed action area is the vulnerable Striped Legless Lizard and, as such, I considered the impact of the proposed action on the Striped Legless Lizard.

Environment within and surrounding the proposed action area

- 84) I noted from the referral documentation that targeted artificial shelter surveys were undertaken in 2020 between August to October, and in 2021 between July and December for the Striped Legless Lizard. The surveys were undertaken in consideration of the methods outlined in the EPBC Act Referral Guidelines for the vulnerable striped legless lizard *Delma impar*. Surveys identified the species in seven locations across grassland and thinned grassy woodland habitats.
- 85) I noted the species has been recorded in the proposed action area, as well as Central Hunter around the Maxwell Underground Coal Mine project, Mt Pleasant mine and Bayswater Power Station, which are north and north-west of the BIAA.
- 86) I noted that the referral did not quantify impacts to potential habitat, however the department considered, and I agreed, that approximately 75 ha of Striped Legless Lizard habitat occurs within the proposed action area.

Potential impacts

- 87) I noted from the referral documentation that the Striped Legless Lizard has been recorded in the proposed action area. The proposed action will remove approximately 75 ha of potential habitat for the Striped Legless Lizard, although the exact size of the area is unknown.
- 88) I also noted that, according to the Conservation Advice, the proposed action area contains an important population and habitat critical to the survival of the species.
- 89) I accepted the department's advice that the proposed action will have a direct impact on the Lizard through vegetation clearing and will likely include loss of individuals. Indirect impacts of the proposed action include reduction of connectivity, light, noise, dust, and weed and feral animal encroachment.

Avoidance, mitigation and management measures

- 90) I noted that no specific mitigation and management measures have been proposed for the lizard.
- 91) I noted that the referral documentation states the following measures in general for listed fauna species:
- (i) a pre-clearing procedure will be implemented to minimise the potential for impacts on native fauna species as a result of the clearing of hollow-bearing trees, and
  - (ii) placement of habitat features (e.g. hollow logs, tree hollows, fallen timber and rocks/boulders) for mine rehabilitation.
- 92) The department considered, and I agreed that if the proposed avoidance and mitigation measures are implemented, the loss of potential habitat, is still likely.

Conclusion

- 93) In making my decision, I considered the nature of the proposed action, the referral documentation, conservation advice, and the Significant Impact Guidelines 1.1.



- 94) On the basis of those materials and in accordance with the Significant Impact Guidelines, the department considered, and I agreed, that in relation to the Striped Legless Lizard the proposed action is likely to:
- (i) lead to a long-term decrease in the size of an important population of a species,
  - (ii) reduce the area of occupancy of an important population,
  - (iii) adversely affect habitat critical to the survival of a species,
  - (iv) disrupt the breeding cycle of an important population,
  - (v) modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline, and
  - (vi) interfere substantially with the recovery of the species.
- 95) Therefore, I found that the proposed action is likely to have a significant impact on the Striped Legless Lizard.

**Conclusion on likely impacted listed threatened species and communities**

- 96) For the reasons given above, I found that the proposed action is likely to have significant impacts on the Central Hunter Valley Eucalypt Forest and Woodland, Warkworth Sands Woodland of the Hunter Valley and Striped Legless Lizard.

**Other listed species**

- 97) I noted that the department considers there is potential for the action to have an impact on additional species, including but not limited to:
- (i) Spotted-tailed Quoll (*Dasyurus maculatus maculatus*) (southeastern mainland population) – Endangered,
  - (ii) Large-eared Pied Bat (*Chalinolobus dwyeri*) – Endangered,
  - (iii) Grey-headed Flying-fox (*Pteropus poliocephalus*) – Vulnerable,
  - (iv) Regent Honeyeater (*Anthochaera phrygia*) – Critically endangered, and
  - (v) Swift Parrot (*Lathamus discolor*) – Critically endangered.
- 98) I noted the department's advice that the Spotted-tailed Quoll has been recorded within and in the vicinity of the proposed action area and that the proposed action area contains suitable foraging habitat for the species.
- 99) I noted that there is a nationally important camp for the Grey-headed Flying-fox is located in Muswellbrook, approximately 20 km north of the proposed action area. The proposed action area contains 37.18 ha of potential foraging habitat which is also considered habitat critical for the species, which will be removed as part of the proposed action. The foraging habitat contains important winter and spring flowering species including *E. tereticornis*, *E. crebra*, *E. melliodora*, *Corymbia maculata* and *Grevillea robusta*.

- 100) Approximately 33.26 ha of the CHVEFW representing important winter foraging resources for the Regent honeyeater and the Swift Parrot will be removed as part of the proposed action. I noted that while neither species has been observed in the proposed action area, BioNet records indicate both species have been observed within 10 km of the proposed action area within the last three years.
- 101) The department noted, and I agreed, that further information should be sought during the assessment stage in relation to the potential impacts on these species.
- 102) The department considered, and I agreed, that based on the nature of the action, the landscape context, and available ecological information, the proposed action is unlikely to present threats of serious or irreversible environmental damage to other species and communities and is unlikely to have a significant impact on:
- (i) White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland – Critically endangered, and
  - (ii) White-throated Needletail (*Hirundapus caudacutus*) – Vulnerable, migratory.

**A water resource, in relation to a large coal mining development or coal seam gas development (s 24D and s 24E)**

Is the proposed action a large coal mining development?

- 103) I noted that the proposed action involves the large-scale extraction of coal and that, accordingly, it was necessary to assess whether the proposed action satisfies the definition of a 'large coal mining development' under section 528 of the EPBC Act. This assessment requires an examination of whether the coal mining activity has, or is likely to have, a significant impact on water resources, using the Significant Impact Guidelines 1.3 as a guide.

Background

- 104) The proposed action is located within the lower sector of the Hunter River Catchment which forms part of the Murray-Darling Basin. The Hunter is the largest coastal catchment in NSW, with an area of about 21,500 square kilometres.
- 105) The referral identified two main water resources within the area, the Hunter River and the Wollombi Brook and that the proposed mine plan will intercept groundwater and result in changes to the existing groundwater system.
- 106) The referral documentation states that the water quality of the Hunter River is generally poor due to typically high salt concentrations in the Hunter River basin with salinity levels typically low in the north-east of the Hunter River basin.
- 107) The Hunter River, and highly connected alluvial groundwater within 40 m of the riverbank, is managed under the NSW Water Sharing Plan (**WSP**) for the Hunter Regulated River Water Source 2016. The tributaries to the Hunter River are managed under the WSP for the Hunter Unregulated and Alluvial Water Sources 2022.
- 108) The Hunter River is a regulated river, regulated by releases from Glenbawn Dam upstream of HVO and Glennies Creek Dam further downstream.

Potential impacts

- 109) The proponent noted in its referral that the proposed action is unlikely to have a significant impact on water resources under sections 24D and 24E of the EPBC Act. The referral documentation acknowledged that the proposed mine plan will intercept groundwater and result in changes to the existing groundwater and surface water environment. However, it stated that the HVO Complex already comprises active and approved open cut pits and, as such, the potential for the HVO Complex to result in a significant incremental impact on water resources and water-dependent assets is low.
- 110) I noted that as part of the Environmental Impact Statement (EIS) the proponent provided a water assessment report for the HVO Complex which included:
- (i) a groundwater impact assessment,
  - (ii) a surface water impact assessment,
  - (iii) an aquatic ecology and groundwater dependent ecosystems (GDE) assessment, and
  - (iv) a geochemical assessment.
- 111) The proponent proposed the following key changes at HVO South, which have the potential to impact on water resources:
- (i) construction of flood protection levees at the Riverview and Chestnut pits,
  - (ii) enlargement of Lake James (Dam 15S) from approximately 0.7 giga-litres (GL) to approximately 2 GL, and
  - (iii) changes to the approved mine sequencing (although noting that mining within the two primary open cut pits, Riverview and Cheshunt, will remain generally within the same footprint as approved).
- 112) I noted that on 17 November 2023 the department sought advice from the Office of Water Science (OWS) on the potential impacts of the proposed action on water resources. OWS provided its advice on 11 December 2023. I also noted that, in undertaking its assessment, the department considered the comments provided by Geoscience Australia (GA), as part of the Ministerial consultation process. These comments focused on the proposed action's potential impacts to groundwater resources and other technical geoscience or geotechnical factors.
- (i) Groundwater**
- 113) I noted the department's assessment that the main groundwater resources that could be impacted by the proposed action include:
- (i) alluvial aquifers, occurring mainly along the Hunter River and Wollombi Brook, and
  - (ii) Permian groundwater systems.
- 114) The proponent provided a groundwater impact assessment (GIA), informed by a geochemical assessment and groundwater flow modelling the proponent had commissioned. I noted the GIA concluded that:
- (i) no impact is predicted at privately-owned groundwater bores,

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- (ii) construction of the approved Carrington West Wing barrier wall will limit the long-term drawdown in the Hunter River alluvium and the potential for seepage from the backfilled mine areas to the alluvium,
  - (iii) the potential impact on water quality is minor to negligible,
  - (iv) groundwater modelling predicts a short-term increase in groundwater drawdown in the alluvium in the Carrington West Wing area (noting this area is already approved for coal extraction under the existing development consent at HVO North) prior to construction of the barrier wall. Following installation of the approved barrier wall, groundwater levels are predicted to recover. During the short-term peak drawdown period, saturation in the alluvium will remain due to leakage from the Hunter River,
  - (v) minimal drawdown (less than 0.5 m) is predicted in the Hunter River alluvium near mapped river red gum communities and dewatering will not occur. This predicted drawdown will be buffered by leakage through the riverbed. Therefore, no significant impact is predicted,
  - (vi) no additional drawdown in the Wollombi Brook alluvium is predicted. The avoidance measure of removing mining in the South Lemington Pit 1 and 2 areas from the mine plan is predicted to result in a reduction in potential drawdown in the Wollombi Brook alluvium (in comparison to the approved operations), and
  - (vii) no changes to the environmental, community and cultural values are predicted due to the proposed action.
- 115) The proponent's GDE assessment concluded that, while the predicted cumulative alluvial drawdown (post-mining) exceeds the NSW aquifer interference policy level 1 minimal impact considerations in a small area, the predicted change in water table will not prevent the long-term viability of the ecosystem.
- 116) The OWS highlighted the following potential impacts of the proposed action on groundwater, which I considered in making my decision:
- (i) *proposed enlargement of Lake James* - enlargement may provide additional recharge to a wider extent of the alluvial aquifer in the vicinity of the dam, dependent on the lateral geometry of the enlargement. If the enlargement is a vertical increase in water volume, this may exert higher pressure on underlying strata. Groundwater modelling over the extended mine life, should include investigations of altered groundwater flow pathways which may intersect nearby pits. As the enlargement of Lake James will affect the volume of stored water and impact baseflow leakage rates, a water balance model should include evaporative loss and a range of climate scenarios and seasonal variability.
  - (ii) *dewatering over the extended mine life* - possible impacts of dewatering are a cone of depression beneath pits affecting groundwater availability and flow pathways, increased salinity impacting groundwater quality of alluvial aquifers and impacts on surface watercourses due to reduced baseflow.

- (iii) increased mining depth of the Barrett Seam within the Carrington Pit and mining extent between the existing West and Mitchell pits - such development may lead to increased dewatering over an extended time period, impacted groundwater flow direction in the alluvial aquifer by removal of overburden, increased salinity from post-mining groundwater level recovery, and impacts to groundwater hydraulic gradients due to disruption of groundwater flow paths.
- 117) I noted GA's comments that, although the proponent considered the proposed action will not have a significant impact, the significance of the action's impacts warrants further consideration because:
- (i) the proponent has not considered the cumulative impact of other nearby coal mines on the groundwater system. A search conducted by GA indicated that 180 coal mining leases (including the project) are operating within 40 km of the Project. The total area of these leases (including the project) is 972.4 km<sup>2</sup>,
  - (ii) the final voids spaces of both the proposed action and the HVO North proposal will be permanent groundwater sinks that are modelled to increase in salinity to the end of the modelling period (1,000 years post closure), and
  - (iii) if the proposed CWW barrier wall, which is intended to limit the drawdown of groundwater in the Hunter River alluvium, fails anytime in the next 1,000 years (limit of future modelling) there is the potential for high loss of groundwater from the alluvium as well as loss of water from the connected Hunter River.
- 118) Having considered the OWS' advice, GA's comments, and the lack of adequate information about cumulative impacts from associated mines the department concluded, and I agreed, that the proposed action is likely to have a significant impact on groundwater resources. This is because, without mitigation, it is likely to change the hydrology and water quality of groundwater to the extent that it will change the current or existing utility of a water resource for third party users.
- (ii) Surface water**
- 119) I noted that referral documentation outlined the following features of the HVO Complex's current operations:
- (i) surface water is taken directly from the Hunter River for water use on-site,
  - (ii) the proponent holds approval to release water via licensed discharge points into the Hunter River under EPL 640 and the Hunter River Salinity Trading Scheme (**HRSTS**),
  - (iii) the existing operation has a well-established water management system (**WMS**) in place to minimise surface water impacts and operates in accordance with existing water access licences (for surface water and groundwater take) and environment protection licence 640, as well as the Hunter River Salinity Trading Schedule (**HRSTS**) to manage excess water,
  - (iv) Water runoff is managed in accordance with an approved water management plan (**WMP**) using the following classification:
    - a. Clean water from undisturbed or rehabilitated areas

- b. Sediment-laden water from disturbed areas (excluding mine water)
  - c. Mine water from areas exposed to coal or water used in coal processing or from coal stockpile areas
- (v) The existing surface water monitoring program, under the WMP, includes monitoring surface water quality at a number of locations both upstream and downstream of the HVO Complex. The WMP monitors compliance with approval conditions and contains mechanisms for ensuring impacts to surface water resources are minimised.
- 120) I noted the proponent's advice that the existing WMS will continue to be used to manage runoff with all water captured in active mining areas and mine surface runoff directed to the WMS. Furthermore, existing clean water diversions will continue to divert runoff around the WMS. There are no new creek diversions proposed or required as part of the proposed action, and there are no proposed changes to water access licences or HRSTS credits.
- 121) The proponent's referral documentation states that the proposed action will mine areas within existing approved disturbance boundaries, including mining previously disturbed areas. Consequently, it expects the incremental impact of the proposed action on adjacent surface water systems to be minor or negligible.
- 122) The proponent's surface water impact assessment and aquatic ecology assessment concluded that:
- (i) impacts on Hunter River and Wollombi Brook streamflow will be negligible compared to the existing loss,
  - (ii) minor changes in streamflow are predicted for three ephemeral watercourses due to small reductions in catchment areas. This will have a minor impact on the number of dry days and potential streamflow impacts are expected to be negligible post-mining. Changes are also predicted for surface water and groundwater interaction,
  - (iii) potential impacts on surface water downstream users will be negligible compared to the existing loss, as no changes in streamflow regimes are predicted in the Hunter River,
  - (iv) no impacts are predicted on the aquatic ecology of the Hunter River, particularly as flow will be mitigated through regulated releases from Glenbawn Dam. Hence, only minor impacts to the aquatic ecology in the tributaries to the Hunter River are expected,
  - (v) predicted drawdown during operations and the post-mining incremental alluvial drawdown, is not predicted to have a significant impact on surface water resources,
  - (vi) the expected water quality in the Hunter River due to discharge via the HRSTS is within the existing natural range of the Hunter River, and
  - (vii) the proposed action is predicted to have a negligible impact on Hunter River flow and flooding regime post-mining.
- 123) I noted that OWS outlined the following potential impacts to surface water from the proposed action:
- (i) if streams were diverted where need, increased erosion due to unstable stream banks and changes to in-stream characteristics may be possible,

- (ii) if streams have alluvial deposits containing groundwater that contributes to stream baseflow in other watercourses or to another alluvium, groundwater flow patterns and recharge may be impacted when streams are diverted (but not the alluvium),
  - (iii) construction activities for the Lemington Road realignment and bridge over the Hunter River could lead to increased erosion and sedimentation down the Hunter River, affecting downstream aquatic and riparian environments. The chemical characteristics of flows could also change, depending on construction activities, as well as physical, and
  - (iv) potential decreases in baseflow may occur due to groundwater drawdown from dewatering in the open cut pits. If drawdown removes baseflow contributions to the Hunter River, leakage may occur and exacerbate reduced flows.
- 124) I noted GA's comments that the significance of the action's impacts on surface water warrants further consideration because:
- (i) the proposed action and the HVO North proposal are modelled to decrease streamflow in the Hunter River. This is due to a decrease in baseflow volume and an increase in leakage volume from the river to the alluvium. The decrease in streamflow peaks at Year 11 and continues until end of modelling at Year 127, and
  - (ii) it is difficult to assess the impacts of the decrease of baseflow/leakage on the river system, however, analysis of historical stream gauge information concerning the Hunter River at Singleton, combined with modelling of cumulative decrease in streamflow due to the proposed action and HVO North proposal, suggests the proposed action has the potential to increase the number of no flow days in the Hunter River at Singleton.
- 125) Based on the information above from the referral documentation, the OWS' advice, GA's comments and taking into consideration the Significant Impact Guidelines 1.3, the department considered, and I agreed that, without mitigation, there is a real chance or possibility that the proposed action will have a significant impact on water resources. Further, it is likely that, as a result of the proposed action, there will be impacts to surface water quality and quantity for ecological communities.
- (iii) Potential cumulative impacts to surface and groundwater resources**
- 126) I accepted the OWS' statement that most impacts to groundwater and groundwater-dependent assets are likely to be cumulative given the range of developments affecting groundwater levels, flow pathways, and quality, in the Hunter Valley region.
- 127) I noted the OWS's comment that modelled outcomes included in the proponent's groundwater impact assessment should better identify the impacts caused by existing developments with and without the proposed action, to aid in understanding the proposed action's contribution to cumulative impacts.
- 128) The OWS also identified, and I noted, the following possible cumulative impacts:
- (i) surface water quality may be impacted by the number of mines discharging into the catchment. The potential increase of volume and timing of mine water discharge from the proposed project could further decrease the water quality in the catchment, and potentially impact downstream users,



- (ii) the proponent has not provided information concerning the abstraction of surface water for operational use,
- (iii) cumulative impacts to streamflow could further occur if alluvial groundwater is impacted by drawdown,
- (iv) cumulative impacts of increased dewatering from Carrington Pit, West and Mitchell pits over the long term may affect groundwater quality, such as increased salinity when groundwater levels recover post-mining. This may impact alluvial aquifers,
- (v) increased dewatering will alter groundwater flow rates and disrupt current groundwater flow paths within the project site, and
- (vi) additional volumes of extracted ore stockpiles could increase contaminants leaching into groundwater. Cumulative impacts to groundwater quality from the numerous mines within the catchment area may affect bore water use by third-party users.

129) I also took into account the GA's comments that:

- (i) ongoing impacts associated with approved and historic mining will continue to affect groundwater levels and pressures, and connected surface water resources, irrespective of whether the proposed action and HVO North proposal within the HVO Complex occurs, and
- (ii) cumulative impacts are more relevant for groundwater resources and water-dependent assets, including the predicted cumulative change in groundwater levels in the alluvium due to historical approved and proposed mining, which has the potential to affect receptors.

130) Based on the information above from the referral documentation, the OWS' advice, GA's comments and taking into consideration the Significant Impact Guidelines 1.3, the department considered, and I agreed, that, without mitigation, there is a real chance or possibility that the proposed action will have a significant impact on water resources. change the current or existing utility of a water resource for third party users and consequently is likely to have a significant impact on water resources.

**(iv) Groundwater dependent ecosystems (GDE) and aquatic ecology**

131) The ecological surveys conducted by the proponent observed that all vegetation stands were in low to moderate condition. In addition, the aquatic ecosystems surveyed as part of the aquatic ecology and GDE assessment were considered to be in poor ecological condition, based on the macroinvertebrate community and water quality (the ecological condition of the Hunter River is classed as poor to moderate).

132) The proponent's GDE impact assessment concluded that:

- (i) the post-mining incremental alluvial drawdown is not predicted to have a significant impact on GDEs or surface water resources,
- (ii) the aquatic ecology and GDE impact assessment demonstrates that the predicted change in watertable will not prevent the long-term viability of the ecosystem, and

- (iii) River red gums and Bull Oak Grassy Woodland of the Central Hunter Valley vegetation that opportunistically use shallow groundwater will continue to have access to shallow alluvial groundwater. In addition, the proposed action is predicted to have a negligible impact on Hunter River flow and flooding regime post mining. Therefore, river red gum communities will continue to rely on flooding for germination.

133) I noted the OWS' advice that:

- (i) the proponent's groundwater and surface water impact assessments for areas with critically endangered ecological communities (**CEECs**) should include comprehensive, site-specific risk analysis on the likelihood of water related impacts to these communities,
- (ii) potential impacts to CEECs from groundwater drawdown and changes to surface water flow may be substantial when considered collectively. The proponent has acknowledged that significant impacts are likely due to the clearing extent of CEECs, however, should project activities result in greater changes to groundwater and surface water regimes than anticipated, the cumulative impact may be larger than stated. Additionally, due to the highly fragmented nature of these CEECs, Approved Conservation Advices have stated that all remaining patches are critical to the survival of these communities. Detailed impact assessments are therefore required to fully comprehend impacts to these communities as a result of this project,
- (iii) the lack of connectivity between Warkworth Sands and Permian groundwater should be further justified to support the assertion that drawdown in Permian strata will not affect groundwater availability to this CEEC, and
- (iv) with respect to high-potential aquatic GDEs mapped on the Hunter River and Wollombi Creek and high-potential terrestrial GDEs mapped within the project and along the Hunter River:
  - a. potential impacts to surface water quality and quantity could result in reduced quality of riparian vegetation, which provides corridors between higher quality habitats and refuge to Matters of National Environmental Significance (**MNES**) species recorded in the area.
  - e. targeted flora transects were not conducted in certain sections of the Hunter River. As a result, additional fragments of CEECs may be present and not accounted for – this is exacerbated by the survey dates of October 2020 and October 2021, potentially overlooking species that are more easily identified in other seasons.

134) I also took into account GA's comment that the significance of the potential impacts the proposed action may have on GDE warrant further consideration. This is due to the existence of five potential GDE in the HVO Complex, including stygofauna within the Hunter River alluvium.

135) GA highlighted that a change of groundwater source for the Hunter River alluvium caused by the proposed action is likely to have an impact on water quality. Average conductivity of the alluvium is 2,185 Electrical Conductivity (**EC**) while the average conductivity of the Hunter River is 730 EC. Depending on the salt tolerance of individual species, the likely decrease in conductivity within the alluvium may impact stygofauna and other GDEs.

136) Having considered the OWS' advice and GA's comments, the department concluded, and I agreed, that the proposed action is likely to have a significant impact on stygofauna and other GDE as it is likely to change the quality of groundwater.

**(v) Final void**

137) The referral indicates that the proposed final landform will include one final void in the HVO South referral site.

138) The proponent provided an assessment of the potential impacts of the final void and post-closure impacts of the proposed action. This assessment stated that:

- (i) the predicted long-term watertable and pit lake level will be depressed, with groundwater flow directions towards the voids,
- (ii) the Hunter River alluvium is predicted to remain saturated due to the strong hydraulic connection with the Hunter River,
- (iii) evaporation will be the dominant loss from the voids and the voids are predicted to remain groundwater sinks,
- (iv) the long-term pit lake level is considerably deeper than the base of the alluvium and the base of weathering, therefore the risk of seepage from the pit lakes to shallow groundwater is negligible,
- (v) the risk of spill from the pit lakes is negligible,
- (vi) the runoff area contributing to the voids is sufficiently small so that evaporation dominates, and the voids remain as strong long-term groundwater sinks thereby attracting seepage from the surrounding strata (at a very low rate), and
- (vii) infiltration of rainfall in the backfilled mine areas will gradually flow towards the pit lakes, and the risk of seepage from the backfilled mine areas migrating through the existing and proposed barrier walls to the Hunter River alluvium is negligible.

139) The OWS provided advice, which I noted, that increasing salinity in final voids rehabilitated as pit lakes are expected to be contained as groundwater sinks; however, should throughflow occur, for instance following heavy rainfall, saline water could migrate to surrounding aquifers.

140) I noted GA's comment that the final voids spaces of the proposed action and the HVO North referral will be permanent groundwater sinks that are modelled to increase in salinity to the end of the modelling period (1,000 years post closure).

141) Based on the information above from the referral documentation, the OWS' advice, GA's comments and taking into consideration the Significant Impact Guidelines 1.3, the department considered, and I agreed that, without mitigation, there is a real chance or possibility that the proposed action will have a significant impact on water resources. Further, it is likely that, as a result of the proposed action, there is potential for increased in salinity of groundwater and impacts to alluvial aquifers.

Avoidance, mitigation and management measures

142) I noted the proponent proposes several avoidance, mitigation and management measures with respect to the proposed action's impact on water resources, as follows:

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- (i) the WMP will be reviewed and updated, including review of the existing surface water, groundwater and ecological monitoring, so that WMP performance criteria and verification of assessment findings can be assessed.
  - (ii) the proponent will expand the existing groundwater monitoring network to include additional monitoring bores within the zone of predicted short-term incremental drawdown in the Carrington West Wing alluvium area (south of the proposed barrier wall).
    - a. a network of eight nested monitoring bores will be installed in this area, with separate bores screened with the alluvium and Permian strata.
    - b. the locations and designs of the additional groundwater monitoring locations will be determined in consultation with DPE Water during updates to the WMP.
    - c. The bores will be installed approximately one year prior to mining commencing in the remnant paleochannel to allow collection of background groundwater level trends prior to the effects of mining.
  - (iii) Piezometers will be installed downstream of the Carrington West Wing barrier wall to monitor for changes in salinity (as EC) and pressure.
  - (iv) the proponent will develop a low permeability barrier monitoring and management plan following proposed action approval and in consultation with the NSW Government. The proposed monitoring and management plan would include the following:
    - a. identification and design of additional groundwater monitoring bores,
    - f. monitoring requirements and methodologies, including monitoring of groundwater levels/pressures and salinity at a suitable frequency, and sampling for comprehensive laboratory water quality analysis at a suitable frequency, to evaluate the efficacy of the Carrington West Wing barrier wall,
    - g. summary of the Carrington West Wing barrier wall construction methodology and design requirements,
    - h. identification of other monitoring requirements or adjustments, such as at the Hunter River and/or river red gum stands,
    - i. selection of trigger levels, and appropriate action response plan(s), for groundwater level and salinity in the Hunter River alluvium south of the Carrington West Wing barrier wall so that adequate management of groundwater level and quality is achieved, and
    - j. summarising reporting commitments that will evaluate multiple lines of evidence for assessing potential impacts at receptors.
- 143) Despite the measures outlined above, I agreed with the department's conclusion that the proposed action is still likely to have direct and indirect impacts on water resources. This conclusion was based on the OWS and Geoscience Australia's advice as detailed above.

Conclusion

- 144) My findings on impacts to a water resource, in relation to a large coal mining development or coal seam gas development, were informed by the referral decision brief supported by advice from GA and the OWS. In making my decision, I also considered the nature of the proposed action, referral documentation (including the proponent's water assessment report), Ministerial and public comments and the Significant Impact Guidelines 1.3.
- 145) On the basis of the materials referred to above, and in accordance with the Significant Impact Guidelines 1.3, the department considered, and I agreed, that the proposed action is likely to have a significant impact on water resources due to changes to surface/groundwater hydrology, surface water quality, groundwater quality and GDEs that are of sufficient scale to reduce the current or future utility of the water resource for third party users
- 146) Therefore, I found that the proposed action is likely to have a significant impact on water resources.

**Remaining protected matters that are not controlling provisions**

***World Heritage properties (section 12 and section 15A)***

- 147) The Greater Blue Mountains World Heritage Area (**GBMA**), a listed World Heritage property and National Heritage place, is located approximately 6 km to the southwest of the proposed action area. An assessment of potential impacts to World Heritage properties was included in the department's analysis due to the proximity of the HVO Complex, to the GBMA.
- 148) I noted that the department sought internal advice on the referral from the Heritage Division in relation to impacts on World and National Heritage properties. The advice received on 5 December 2023 noted that the HVO mining complex is one of 15 coal mines in the vicinity of the GBMA with a plausible pathway to contribute to the cumulative impact of mining on the GBMA and that fragmentation of potential habitat between the GBMA and the referral area may impact species movement and gene flow.
- 149) I noted that the department's PMST report indicated that at the closest point, the HVO Complex is approximately 5 km from the GBMA with the *Potential cumulative impacts of mining on the Outstanding Universal Value (OUV) of the Greater Blue Mountains Area* report determining that at this distance most of the impact pathways to the OUV are through changes to streamflow, groundwater, light and dust.

Potential impacts

- 150) The department considered, and I agreed, that impacts from light, streamflow, dust, and noise are unlikely to increase from the existing operation.
- 151) I noted the department's assessment of the proposed action against the relevant significant impact criteria relating to the biological and ecological values identified that:
- (i) *Reduce diversity or modify the composition of plant and animal species in all or part of a World Heritage Property.*
- a. No direct impacts will occur to plants or animals within the GBMA.

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- b. Species listed within the advice that will be impacted by the proposed action are typically widely distributed, have broad habitat preferences and are highly mobile, therefore any impacts to these species are unlikely to result in reduced diversity or modify the composition of species that are part of a World Heritage Property.

*(i) Fragment, isolate or substantially damage habitat important for the conservation of biological diversity in a World Heritage property.*

- a. For the reasons discussed above, it is unlikely that the proposed action area contains habitat important for the conservation of biological diversity of the GBMA. As such, it is considered unlikely that the proposed action will fragment, isolate or substantially damage habitat important for the conservation of biological diversity in a World Heritage property.

*(ii) Cause a long-term reduction in rare, endemic or unique plant or animal populations or species in a World Heritage property.*

- a. No direct impacts will occur to plants or animals within the GBMA.
- b. The species listed within the advice that will be impacted by the action are highly mobile, occurring over a broad geographic area. In addition, the proposed action is unlikely to result in the direct loss or mortality of individuals. Therefore, any impacts to individuals within the proposed action area are unlikely to result in a long-term reduction of populations.

*(iii) Fragment, isolate or substantially damage habitat for rare, endemic or unique animal populations or species in a World Heritage property.*

- a. The proposed action is located outside of the GBMA and will not fragment, isolate or substantially damage habitat for rare, endemic or unique animal populations or species in a World Heritage property.

152) I noted that no avoidance or mitigation measures have been proposed within the referral to manage possible impacts on the World Heritage values of GBMA.

### Conclusion

153) I agreed with the department's analysis that the risk of streamflow and groundwater impacts are considered low given the likely poor hydrological connection of the referral area to the GBMA.

154) I agreed with the department's assessment that the risk of potentially significant impacts on World Heritage values from the proposed action are considered unlikely as the groundwater drawdown impacts are likely to only be negligible compared to the existing operations.

155) The department considered, and I agreed, that it is unlikely the proposed action will:

- (i) reduce the diversity or modify the composition of plant and animal species in all or part of a World Heritage property,
- (ii) fragment, isolate or substantially damage habitat important for the conservation of biological diversity in a World Heritage property,

- (iii) cause a long-term reduction in rare, endemic or unique plant or animal populations or species in a World Heritage property, or
  - (iv) fragment, isolate or substantially damage habitat for rare, endemic or unique animal populations or species in a World Heritage property.
- 156) Based on the above reasons, I accepted that that it is unlikely that one or more of a world heritage value will be lost, destroyed, damaged, notably altered, modified, obscured or diminished due to the proposed action.
- 157) I decided the proposed action is not likely to have a significant impact on the World Heritage values of the GBMA. Therefore, in accordance with the Significant Impact Guidelines 1.1, I found that sections 15B and 15C are not controlling provisions for the proposed action.

***The National Heritage Values of a National Heritage Places (section 15B and section 15C)***

- 158) The only National Heritage place located in close proximity to the proposed action area is the GBMA.
- 159) Potential impacts to GBMA have been discussed above at [150] to [152] in relation to the World Heritage controlling provisions under s 12 and s 15A of the Act.
- 160) For the same reasons as stated above in consideration of World Heritage values, I agreed with the department's assessment that the risk of potentially significant impacts on National Heritage values from mining-induced groundwater drawdown is unlikely due to distance and poor hydrological connection.
- 161) I also agreed that the increase of impacts is unlikely to differ drastically from existing mining operations. Therefore, in accordance with the Significant Impact Guidelines 1.1, I found that sections 15B and 15C are not controlling provisions for the proposed action.

***Wetlands of International Importance (section 16 and section 17B)***

- 162) I noted that:
- (i) the Departmental PMST report identified one Ramsar Wetland (Wetlands of International Importance), the Hunter Estuary Wetlands approximately 70 km downstream of the proposed referral area,
  - (ii) the department considered the potential impacts of the proposed action to the Hunter Estuary Wetlands via an assessment of the proposed actions, landscape context, including surrounding land use of the referral area, and proximity of the wetlands, and

**Conclusion**

- 163) I considered the information contained in the department's recommendations in the referral brief, referral documentation, the nature and scale of the proposed action and its potential impacts, and the distance to Ramsar listed wetlands of international importance. On the basis of these materials, I agreed with the department's assessment that the proposed action is unlikely to have a significant impact on the ecological character of Ramsar listed wetlands of international importance.
- 164) For these reasons, I found that sections 16 and 17B are not controlling provisions for the proposed action.



***Listed migratory species (section 20 and section 20A)***

- 165) I noted that the department's PMST identified the potential presence of 14 migratory species within or adjacent to the proposed action area. I also noted that, based on information available to the department, such as the Species Profile and Threats database and information from the referral documentation, the department considered that significant impact to these migratory species is unlikely.
- 166) For these reasons, I found that sections 20 and 20A are not controlling provisions for the proposed action.

***Nuclear action (section 21 and section 22A)***

- 167) The department considered, and I agreed, that the proposed action does not meet the definition of a 'nuclear action' as defined in the EPBC Act.
- 168) For this reason, I found that sections 21 and 22A are not controlling provisions for the proposed action.

***Commonwealth marine environment (section 23 and section 24A)***

- 169) The department considered, and I agreed, that proposed action is not being undertaken in a Commonwealth marine area. Further, given the information contained in the referral documentation, the nature and scale of the proposed action and its potential impacts, and the distance to a Commonwealth marine area, I determined that the proposed action is unlikely to have a significant impact on the environment in a Commonwealth marine area.
- 170) For these reasons, I found that sections 23 and 24A are not controlling provisions for the proposed action.

***Great Barrier Reef Marine Park (section 24B and section 24C)***

- 171) The department noted, and I agreed, that the proposed action is not being undertaken in the Great Barrier Reef Marine Park. Further, given the information contained in the referral documentation, the nature and scale of the proposed action and its potential impacts, and the distance to the Great Barrier Reef Marine Park, I determined that the proposed action is unlikely to have a significant impact on the Great Barrier Reef Marine Park.
- 172) For these reasons, I found that sections 24B and 24C are not controlling provisions for the proposed action.

***Commonwealth land (section 26 and section 27A)***

- 173) The department noted, and I agreed, that the proposed action is not being undertaken on Commonwealth land. Further, given the information contained in the referral documentation, the nature and scale of the proposed action and its potential impacts, and the distance to Commonwealth land, I decided that the proposed action is unlikely to have a significant impact to the environment on Commonwealth land.
- 174) For these reasons, I found that sections 26 and 27A are not controlling provisions for the proposed action.

***Commonwealth Heritage places overseas (section 27B and section 27C)***

175) The department noted, and I agreed, that the proposed action is not being taken overseas. As such, I found that sections 27B and 27C are not controlling provisions for the proposed action.

***Commonwealth action (section 28)***

176) The department noted, and I agreed, that the person proposing to take the action is not a Commonwealth agency.

177) For this reason, I found that section 28 is not a controlling provision for the proposed action.

**Conclusion – controlling provisions**

178) For the above reasons, I was satisfied that the proposed action will, or is likely to have a significant impact on matters protected by Part 3 of the EPBC Act. Therefore, I decided that, under section 75(1) of the EPBC Act, the proposed action is a controlled action, and that the following provisions of Part 3 of the EPBC Act are controlling provisions:

- (i) sections 18 and 18A (listed threatened species and communities)
- (ii) sections 24D and 24E (a water resource, in relation to coal seam gas development and large coal mining development).

**Assessment approach**

179) As I decided that the proposed action was a controlled action, I was required to decide on the approach for an assessment in accordance with section 87 of the EPBC Act.

180) I considered that the information provided in the referral decision brief was sufficient for me to decide on the assessment approach under section 87 of the EPBC Act.

181) I noted that there are no guidelines or matters prescribed that I was required to consider under section 87(3)(d) and (e) of the EPBC Act. I also noted the comment that had been received from the NSW State Minister in response to an invitation under s 74(2) to comment on the referral.

182) The department noted, and I agreed, that a Public Environment Report (**PER**) is a suitable assessment method when an assessment of the relevant impacts is expected to raise complex issues, or an adequate assessment of these issues will require the collection of new information, or further analysis of existing information, and the degree of public concern associated with the proposal is moderate.

183) While the assessment of the impacts of the proposed action is expected to focus on a relatively small number of key issues, these issues are complex, and I accepted the department's advice that further information is required to adequately assess the impacts of the proposed action on listed threatened species and communities and water resources.

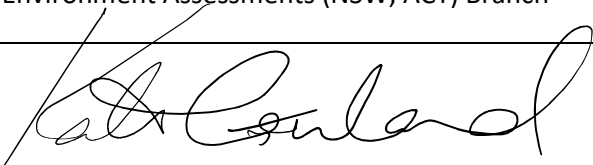
184) Given the large impact area, the number of EPBC listed threatened species and communities considered to occur within the proposed action area, the likely impact to the ground water and the GDE and the inadequacy of information provided regarding these species and water resources in the referral documentation, I accepted the department's recommendation that a Public Environment Report is an appropriate assessment approach for the proposed action.

- 185) I noted that a total of 21 public comments were received on the referral, with increased public interest in mining industries more broadly.
- 186) The department noted, and I agreed, that assessment of the proposed action by Public Environment Report will allow for the development of tailored guidelines for the preparation of the draft PER to inform a robust and thorough assessment of the impacts of the proposed action.
- 187) Therefore, for the reasons outlined above, I concluded that the appropriate assessment for this proposed action would be an assessment by Public Environment Report under Division 5.

**Conclusion**

- 188) For the reasons given above:
- (i) I considered that the proposed action will, or is likely to have, a significant impact on matters protected by Part 3 of the EPBC Act and decided that, pursuant to section 75 of the EPBC Act, the proposed action is a controlled action due to likely significant impacts to threatened species and communities (sections 18 and 18A) and a water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E); and
  - (ii) I decided that the relevant impacts of the proposed action will be assessed by Public Environment Report under Division 5 of Part 9 of the EPBC Act.

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<b>name and position</b>	Kate Gowland Branch Head Environment Assessments (NSW, ACT) Branch
<b>signature</b>	
<b>date of decision</b>	26 April 2024

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## Annexure A – Relevant Legislation

**Section 68 of the EPBC Act** relevantly provides:

1. A person proposing to take an action that the person thinks may be or is a controlled action must refer the proposal to the Minister for the Minister's decision whether or not the action is a controlled action.
2. A person proposing to take an action that the person thinks is not a controlled action may refer the proposal to the Minister for the Minister's decision whether or not the action is a controlled action.

**Section 74 of the EPBC Act** relevantly provides:

*Inviting other Commonwealth Ministers to provide information*

1. As soon as practicable after receiving a referral of a proposal to take an action, the Environment Minister must:
  - a) inform any other Minister whom the Environment Minister believes has administrative responsibilities relating to the proposal; and
  - b) invite each other Minister informed to give the Environment Minister within 10 business days information that relates to the proposed action and is relevant to deciding whether or not the proposed action is a controlled action.

*Inviting comments from appropriate State or Territory Minister*

2. As soon as practicable after receiving, from the person proposing to take an action or from a Commonwealth agency, a referral of a proposal to take an action in a State or self-governing Territory, the Environment Minister must, if he or she thinks the action may have an impact on a matter protected by a provision of Division 1 of Part 3 (about matters of national environmental significance):
  - a) inform the appropriate Minister of the State or Territory; and
  - b) invite that Minister to give the Environment Minister within 10 business days:
    - i) comments on whether the proposed action is a controlled action; and
    - ii) information relevant to deciding which approach would be appropriate to assess the relevant impacts of the action (including if the action could be assessed under a bilateral agreement).

*Inviting public comment*

3. As soon as practicable after receiving a referral of a proposal to take an action, the Environment Minister must cause to be published on the Internet:
  - a) the referral; and
  - b) an invitation for anyone to give the Minister comments within 10 business days (measured in Canberra) on whether the action is a controlled action.

**Section 75 of the EPBC Act** relevantly provides:

*Is the action a controlled action?*

1. The Minister must decide:
  - (a) whether the action that is the subject of a proposal referred to the Minister is a controlled action; and
  - (b) which provisions of Part 3 (if any) are controlling provisions for the action.

(1AA) To avoid doubt, the Minister is not permitted to make a decision under subsection (1) in relation to an action that was the subject of a referral that was not accepted under subsection 74A(1).

*Minister must consider public comment*

- (1A) In making a decision under subsection (1) about the action, the Minister must consider the comments (if any) received:
  - (a) in response to the invitation under subsection 74(3) for anyone to give the Minister comments on whether the action is a controlled action; and
  - (b) within the period specified in the invitation.

*Considerations in decision*

2. If, when the Minister makes a decision under subsection (1), it is relevant for the Minister to consider the impacts of an action:
  - (a) the Minister must consider all adverse impacts (if any) the action:
    - (i) has or will have; or
    - (ii) is likely to have; on the matter protected by each provision of Part 3; and
  - (b) must not consider any beneficial impacts the action:
    - (i) has or will have; or
    - (ii) is likely to have; on the matter protected by each provision of Part 3.

*Timing of decision and designation*

5. The Minister must make the decisions under subsection (1) and, if applicable, the designation under subsection (3), within 20 business days after the Minister receives the referral of the proposal to take the action.

**Section 87 of the EPBC Act** relevantly provides:

*Minister must decide on approach for assessment*

1. The Minister must decide which one of the following approaches must be used for assessment of the relevant impacts of an action that the Minister has decided is a controlled action:
  - c) assessment by an accredited assessment process;
  - aa) assessment on referral information under Division 3A;

- b) assessment on preliminary documentation under Division 4;
- c) assessment by public environment report under Division 5;
- d) assessment by environmental impact statement under Division 6;
- e) assessment by inquiry under Division 7.

*Considerations in making choice*

3. In making the decision, the Minister must consider:
- a) information relating to the action given to the Minister in the referral of the proposal to take the action; and
  - b) any other information available to the Minister about the relevant impacts of the action that the Minister considers relevant (including information in a report on the impacts of actions 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
  - c) any relevant information received in response to an invitation under subparagraph 74(2)(b)(ii); and
  - d) the matters (if any) prescribed by the regulations; and
  - e) the guidelines (if any) published under subsection (6).