



Australian Government
Department of the Environment

Ref: MC14-034981

Ms Ellen Roberts
Co-ordinator
Mackay Conservation Group
GPO Box 826
MACKAY QLD 4740

Dear Ms Roberts

Statement of Reasons for an Approval Decision - Carmichael Coal Mine and Rail Project, Queensland (EPBC 2010/5736)

I refer to your letter of 8 August 2014 requesting reasons for the Minister's decision of 24 July 2014 that the proposal by Adani Mining Pty Ltd to develop an open cut and underground coal mine, 189 km rail link and associated infrastructure approximately 160 km north west of Clermont in central Queensland, under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is approved under the EPBC Act. I regret the delay in responding.

I have enclosed a statement of the Minister's reasons in accordance with section 13 of the *Administrative Decisions (Judicial Review) Act 1977* (ADJR Act). The statement of reasons is provided to you without acknowledgement that you are a person aggrieved under the ADJR Act or the EPBC Act.

Thank you for writing on this matter.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Deb Callister', with a long horizontal flourish extending to the right.

Deb Callister
Assistant Secretary
Queensland and Sea Dumping Assessment Branch

15/12/14

DEPARTMENT OF THE ENVIRONMENT

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

I, GREG HUNT, Minister for the Environment, provide the following statement of reasons for my decision of 24 July 2014, under section 130(1) and section 133 of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* (the *EPBC Act*), to approve the proposed action by Adani Mining Pty Ltd to establish an open cut and underground coal mine, 189 km rail link and associated infrastructure (the Carmichael Coal Mine and Rail Infrastructure Project (EPBC 2010/5736)), approximately 160 km north west of Clermont in central Queensland.

A copy of this decision is available on the Department of the Environment's website at: www.environment.gov.au/cgi-bin/epbc/epbc_ap.pl?name=current_referral_detail&proposal_id=5736.

Background: Relevant Legislation

The following provisions do not form part of the Minister's reasons but are provided to you as contextual background for the decision:

130 Timing of decision on approval

Basic rule

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

...

What is an assessment report?

- (2) An assessment report is a report given to the Minister as described in:
 - (a) subsection 47(4) (about assessments under a bilateral agreement);

...

Notice of extension of time

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

...

DEPARTMENT OF THE ENVIRONMENT

133 Grant of approval

Approval

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

Content of approval

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

Persons who may take action covered by approval

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

Notice of approval

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

DEPARTMENT OF THE ENVIRONMENT

Definition

(8) In this section:

assessment documentation, in relation to a controlled action, means:

- (a) if the action is the subject of an assessment report—that report; or ...”

131 Inviting comments from other Ministers before decision

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

- (a) inform any other Minister whom the Environment Minister believes has administrative responsibilities relating to the action of the decision the Environment Minister proposes to make; and
- (b) invite the other Minister to give the Environment Minister comments on the proposed decision within 10 business days.

(2) A Minister invited to comment may make comments that:

- (a) relate to economic and social matters relating to the action; and
- (b) may be considered by the Environment Minister consistently with the principles of ecologically sustainable development.

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

131AA Inviting comments before decision from person proposing to take action and designated proponent

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

- (a) inform the person proposing to take the action, and the designated proponent of the action (if the designated proponent is not the person proposing to take the action), of:
- (i) the decision the Minister proposes to make; and
- (ii) if the Minister proposes to approve the taking of the action—any conditions the Minister proposes to attach to the approval; and
- (b) invite each person informed under paragraph (a) to give the Minister, within 10 business days (measured in Canberra), comments in writing on the proposed decision and any conditions.

DEPARTMENT OF THE ENVIRONMENT

- (6) In deciding whether or not to approve, for the purposes of a controlling provision, the taking of the action, the Minister must take into account any relevant comments given to the Minister in response to an invitation given under paragraph (1)(b).

...

131AB Minister must obtain advice from Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development

- (1) This section applies if:
- (a) the taking of an action, for the purposes of a controlling provision, involves:
 - (i) coal seam gas development; or
 - (ii) large coal mining development; and
 - (b) the Minister believes that the taking of the action:
 - (i) is likely to have a significant impact on water resources, including any impacts of associated salt production and / or salinity; and
 - (ii) may have an adverse impact on any matter protected by a provision of Part 3.
- (2) Before the Minister decides whether or not to approve, for the purposes of the controlling provision, the taking of an action, the Minister must obtain the advice of the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development.

...

134 Conditions of approval

Condition to inform persons taking action of conditions attached to approval

- (1A) An approval of the taking of an action by a person (the first person) is subject to the condition that, if the first person authorises, permits or requests another person to undertake any part of the action, the first person must take all reasonable steps to ensure:
- (a) that the other person is informed of any condition attached to the approval that restricts or regulates the way in which that part of the action may be taken; and
 - (b) that the other person complies with any such condition.

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

Generally

- (1) The Minister may attach a condition to the approval of the action if he or she is satisfied that the condition is necessary or convenient for:
- (a) protecting a matter protected by a provision of Part 3 for which the approval has effect (whether or not the protection is protection from the action); or

DEPARTMENT OF THE ENVIRONMENT

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

Conditions to protect matters from the approved action

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

This subsection does not limit subsection (1).

Examples of kinds of conditions that may be attached

- (3) The conditions that may be attached to an approval include:
 - (aa) conditions requiring specified activities to be undertaken for:
 - (i) protecting a matter protected by a provision of Part 3 for which the approval has effect (whether or not the protection is protection from the action); or
 - (ii) repairing or mitigating damage to a matter protected by a provision of Part 3 for which the approval has effect (whether or not the damage may or will be, or has been, caused by the action); and
 - (ab) conditions requiring a specified financial contribution to be made to a person for the purpose of supporting activities of a kind mentioned in paragraph (aa); and
 - (a) conditions relating to any security to be given by the holder of the approval by bond, guarantee or cash deposit:
 - (i) to comply with this Act and the regulations; and
 - (ii) not to contravene a condition attached to the approval; and
 - (iii) to meet any liability of a person whose taking of the action is approved to the Commonwealth for measures taken by the Commonwealth under section 499 (which lets the Commonwealth repair and mitigate damage caused by a contravention of this Act) in relation to the action; and
 - (b) conditions requiring the holder of the approval to insure against any specified liability of the holder to the Commonwealth for measures taken by the Commonwealth under section 499 in relation to the approved action; and
 - (c) conditions requiring a person taking the action to comply with conditions specified in an instrument (including any kind of authorisation) made or granted under a law of a State or self-governing Territory or another law of the Commonwealth; and

DEPARTMENT OF THE ENVIRONMENT

- (d) conditions requiring an environmental audit of the action to be carried out periodically by a person who can be regarded as being independent from any person whose taking of the action is approved; and
- (e) conditions requiring the preparation, submission for approval by the Minister, and implementation of a plan for managing the impacts of the approved action on a matter protected by a provision of Part 3 for which the approval has effect such as a plan for conserving habitat of a species or ecological community; and
- (f) conditions requiring specified environmental monitoring or testing to be carried out; and
- (g) conditions requiring compliance with a specified industry standard or code of practice; and
- (h) conditions relating to any alternative proposals in relation to the taking of the action covered by the approval (as permitted by subsection 133(1A)).

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

Certain conditions require consent of holder of approval

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

Conditions attached under paragraph (3)(c)

- (3C) A condition attached to an approval under paragraph (3)(c) may require a person taking the action to comply with conditions specified in an instrument of a kind referred to in that paragraph:
 - (a) as in force at a particular time; or
 - (b) as is in force or existing from time to time;even if the instrument does not yet exist at the time the approval takes effect.

DEPARTMENT OF THE ENVIRONMENT

Considerations in deciding on condition

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

Effect of conditions requiring compliance with conditions specified in another instrument

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

Validity of decision

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

Item 23 of Schedule 1 to the *Environment Protection and Biodiversity Conservation Amendment Act 2013* (Cth):

23 Transitional provision—Minister to decide whether provisions of new law are controlling provisions for certain controlled actions

Application

- (1) This item applies if:
- (a) immediately before the day this item commences, there was in force a decision of the Minister, under Division 2 of Part 7 of the old law, that an action involving coal seam gas development or large coal mining development is a controlled action; and
 - (b) on the day this item commences, either:

DEPARTMENT OF THE ENVIRONMENT

- (i) the taking of the action has not been approved by the Minister under Part 9 of the old law for the purposes of a provision of Part 3 of the old law; or
- (ii) the Minister had not informed the persons mentioned in paragraph 131AA(1)(a) of the old law of the decision the Minister proposes to make in relation to an action or advice from the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development in relation to the action has not been obtained by the Minister under section 131AB of the old law.

Are the provisions of the new law controlling provisions?

- (2) The Minister must, in accordance with this item and within the transitional period, decide whether sections 24D and 24E of the new law are controlling provisions for the controlled action.

Considerations in decision

- (3) Before deciding whether sections 24D and 24E of the new law are controlling provisions for a controlled action, the Minister must:
 - (a) notify the person proposing to take the action that:
 - (i) the Minister considers that sections 24D and 24E of the new law are controlling provisions for the action; or
 - (ii) the Minister considers that sections 24D and 24E of the new law are not controlling provisions for the action; and
 - (b) invite the person to give the Minister written comments on the proposed decision, within 10 business days (measured in Canberra).
- (4) Before deciding whether sections 24D and 24E of the new law are controlling provisions for a controlled action, the Minister (the *Environment Minister*) may:
 - (a) notify any other Minister whom the Environment Minister considers has administrative responsibilities relating to the proposed decision; and
 - (b) invite the relevant Minister to give the Environment Minister written comments on the proposed decision, within 10 business days (measured in Canberra).
- (5) If the Minister believes on reasonable grounds that he or she does not have enough information to decide whether sections 24D and 24E of the new law are controlling provisions for the controlled action, the Minister may request the person proposing to take the action to provide specified information relevant to making the decision.
- (6) If the Minister has requested more information under subitem (5), a day is not to be counted as a business day for the purposes of the transitional period if it is:
 - (a) on or after the day the Minister requested the information; and
 - (b) on or before the day on which the Minister receives the last of the information requested.

DEPARTMENT OF THE ENVIRONMENT

- (7) In making a decision under this item, the Minister must:
- (a) consider any comments received within the period specified in any invitation given under paragraph (3)(b) or (4)(b); and
 - (b) consider any further information provided in response to a request made under subitem (5)..."

Legislation

I was briefed with, and I took into account, the following extracts from the EPBC Act:

136 General considerations

Mandatory considerations

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

Factors to be taken into account

- (2) In considering those matters, the Minister must take into account:
- (a) the principles of ecologically sustainable development; and
 - (b) the assessment report (if any) relating to the action; and
 - (e) any other information the Minister has on the relevant impacts of the action (including information in a report on the impacts of actions taken under a policy, plan or program under which the action is to be taken that was given to the Minister under an agreement under Part 10 (about strategic assessments)); and
 - (f) any relevant comments given to the Minister in accordance with an invitation under section 131 or 131A; and
 - (fa) any relevant advice obtained by the Minister from the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development in accordance with section 131AB; and
 - (g) if a notice relating to the action was given to the Minister under subsection 132A(3)—the information in the notice.

DEPARTMENT OF THE ENVIRONMENT

Person's environmental history

- (4) In deciding whether or not to approve the taking of an action by a person, and what conditions to attach to an approval, the Minister may consider whether the person is a suitable person to be granted an approval, having regard to:
- (a) the person's history in relation to environmental matters; and
 - (b) if the person is a body corporate—the history of its executive officers in relation to environmental matters; and
 - (c) if the person is a body corporate that is a subsidiary of another body or company (the *parent body*)—the history in relation to environmental matters of the parent body and its executive officers.

Minister not to consider other matters

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

137 Requirements for decisions about World Heritage

In deciding whether or not to approve, for the purposes of section 12 or 15A, the taking of an action and what conditions to attach to such an approval, the Minister must not act inconsistently with:

- (a) Australia's obligations under the World Heritage Convention; or
- (b) the Australian World Heritage management principles; or
- (c) a plan that has been prepared for the management of a declared World Heritage property under section 316 or as described in section 321.

137A Requirements for decisions about National Heritage places

In deciding whether or not to approve for the purposes of section 15B or 15C the taking of an action, and what conditions to attach to such an approval, the Minister must not act inconsistently with:

- (a) the National Heritage management principles; or
- (b) an agreement to which the Commonwealth is party in relation to a National Heritage place; or
- (c) a plan that has been prepared for the management of a National Heritage place under section 324S or as described in section 324X.

138 Requirements for decisions about Ramsar wetlands

In deciding whether or not to approve for the purposes of section 16 or 17B the taking of an action, and what conditions to attach to such an approval, the Minister must not act inconsistently with Australia's obligations under the Ramsar Convention.

DEPARTMENT OF THE ENVIRONMENT

139 Requirements for decisions about threatened species and endangered communities

(1) In deciding whether or not to approve for the purposes of a subsection of section 18 or section 18A the taking of an action, and what conditions to attach to such an approval, the Minister must not act inconsistently with:

- (a) Australia's obligations under
 - (i) the Biodiversity Convention; or
 - (ii) the Apia Convention; or
 - (iii) CITES; or
- (b) A recovery plan or threat abatement plan.

(2) If:

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

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

140 Requirements for decisions about migratory species

In deciding whether or not to approve for the purposes of section 20 or 20A the taking of an action relating to a listed migratory species, and what conditions to attach to such an approval, the Minister must not act inconsistently with Australia's obligations under whichever of the following conventions or agreements because of which the species is listed:

- (a) the Bonn Convention;
- (b) CAMBA;
- (c) JAMBA;
- (d) An international agreement approved under subsection 209(4).

391 Minister must consider precautionary principle in making decisions

Taking account of the precautionary principle

(1) the Minister must take into account of the precautionary principle in making a decision listed in the table in subsection (3), to the extent he or she can do so consistently with the other provisions of this Act.

DEPARTMENT OF THE ENVIRONMENT

Precautionary principle

- (2) the **precautionary principle** is that a lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.

Decisions in which the precautionary principle must be considered

- (3) the decisions are:

Decisions in which precautionary principle must be considered		
Item	Section decision is made under	Nature of decision
2	133	whether or not to approve the taking of an action

DEPARTMENT OF THE ENVIRONMENT

Background

1. On 18 November 2010, a referral was received for the action from Adani Mining Pty Ltd (the **proponent**), under section 68 of the EPBC Act, to develop and operate the Carmichael Coal Mine and Rail Infrastructure Project, a new open-cut and underground coal mine proposed to be located at Moray Downs, 160 kilometres (km) northwest of Clermont, central Queensland, and for the construction and the operation of options for a rail link to transport coal between the mine and a coal export terminal located at the Port of Abbot Point and / or Port of Hay Point, Queensland (the **proposed action**). The proposed action was planned over a greenfield site which covers an area of almost 30 000 hectares (ha), including the mine and the rail options.
2. The proposed action includes the construction, operation and decommissioning of open cut mines and underground long wall mines. Infrastructure associated with the mine component of the proposed action includes coal handling and preparation facilities, a mine infrastructure area, mine waste and water storage facilities and mine access roads.
3. Three rail options were outlined for that proposed action encompassing the construction of rail lines to the Port of Abbot Point and / or Port of Hay Point.
4. The referral was available for public comment for 10 business days from 18 November 2010. Six public submissions were received regarding the potential impacts of the proposed action.
5. On 26 November 2010, the Queensland Coordinator-General, Mr Barry Broe (**QCG**) declared the Carmichael Coal Mine and Rail Infrastructure Project to be a Significant Project under section 26(1)(a) of the *State Development and Public Works Organisation Act 1971* (Qld). This declaration initiated the statutory environmental impact evaluation procedure of Part 4 of that Act, which required the proponent to prepare an environmental impact statement (**EIS**) for the proposed action.
6. On 26 November 2010, comments were received from the Queensland Government stating that the proposed action would be assessed at the level of an EIS under Part 4 of the *State Development and Public Works Organisation Act 1971* (Qld), and that in their view the assessment of the action would be accredited under the bilateral agreement in relation to assessment of matters under section 47 of the EPBC Act dated 17 December 2009 (the **Bilateral Agreement**).
7. On 6 January 2011, the proposed action was determined by the delegate of the then Minister to be a controlled action under section 75 of the EPBC Act, subject to the following controlling provisions:
 - World Heritage properties (sections 12 & 15A);
 - National Heritage places (sections 15B & 15C);
 - (Ramsar) Wetlands of international importance (sections 16 & 17B);
 - Listed threatened species and communities (sections 18 & 18A);
 - Listed migratory species (sections 20 & 20A); and
 - Great Barrier Reef Marine Park (sections 24B & 24C).

DEPARTMENT OF THE ENVIRONMENT

8. On 19 April 2012, 9 October 2012 and 24 July 2013, delegates of the Minister agreed to requests by the proponent to vary the proposed action. The variations involved the re-location of infrastructure, and the refinement of the action to include quarrying activities, increasing rail capacity, adding water supply and storage infrastructure, and the extension of some portions of the open cut mining.
9. For the purposes of the assessment of the acceptability of its impacts, the proposed action was only considered in its final iteration, following variations of 19 April 2012, 9 October 2012 and 24 July 2013.
10. On 29 June 2012, the Interim Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (*IIESC*) provided advice to the then Department of Sustainability, Environment, Water, Population and Communities (the *Department*) in relation to potential water-related impacts of the proposed action. The IIESC's advice highlighted the potential for the proposed action to have a number of direct and indirect water-related impacts, and suggested that the modelling of impacts be peer reviewed. That advice was provided by the Department to the QCG on 15 January 2013.
11. An EIS for the proposed action was made available for public comment between 15 December 2012 and 11 February 2013. On 26 March 2013, the QCG requested that the proponent submit additional information to address the issues raised in the EIS and the IIESC advice.
12. The additional information to the EIS, requested by the QCG, was made available for public comment from 25 November 2013 to 20 December 2013.
13. On 22 June 2013, new EPBC Act provisions commenced under the *Environment Protection and Biodiversity Conservation Amendment Act 2013 (Cth)* (the *Amendment Act*). These new provisions introduced a trigger for coal seam gas and large coal mining development that is likely to have a significant impact on a water resource.
14. On 24 October 2013, I determined that there was likely to be a significant impact on water resources and the action is a large coal mining development. I also determined that sections 24D and 24E of the EPBC Act are controlling provisions for the proposed action and therefore required assessment and approval for these controlling provisions before it could proceed.
15. My delegate sought advice jointly with the QCG from the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (*IIESC*), in accordance with section 131AB of the EPBC Act, in relation to water related impacts associated with the proposed action. The IIESC provided advice to the Department on the action on 16 December 2013.
16. The proponent provided a response to the advice from the IIESC on 7 February 2014.
17. The QCG provided his evaluation report of the proposed action (*QCG Report*) to the Department on 7 May 2014, recommending the action proceed subject to conditions.

DEPARTMENT OF THE ENVIRONMENT

18. The QCG Report also reviewed the IESC advice and included a peer review of the advice from Dr Noel Merrick. The IESC reviewed the responses from the proponent and the QCG, and wrote to me on 19 May 2014 outlining residual concerns relating to the potential impacts of the action.
19. I visited the site of the proposed action, and met the proponent and other stakeholders to discuss matters relating to the proposed action on various occasions.
20. Except where discussed in this statement of reasons, I have accepted the assessment and findings of the QCG Report in relation to the relevant impacts of the proposed action, as well as the effectiveness of proposed measures to avoid, mitigate or compensate for those impacts.
21. On 18 June 2014, I proposed to approve the proposed action subject to conditions, having regard to relevant information outlined in paragraphs 25 and 26.
22. In accordance with sections 131 and 131AA of the EPBC Act, I invited comments on my proposed decision from:
 - the proponent
 - the Commonwealth Minister for Industry, the Hon Ian Macfarlane MP
 - the Commonwealth Minister for Infrastructure and Regional Development, the Hon Warren Truss MP.
23. I also invited comments on my proposed decision from the QCG.
24. On 24 July 2014, I approved, subject to conditions, the taking of the proposed action under section 130(1) and section 133 of the EPBC Act for the purposes of sections 12 and 15A; sections 15B and 15C; sections 16 and 17B; sections 18 and 18A; sections 20 and 20A; sections 24B and 24C; and sections 24D and 24E of the EPBC Act.

DEPARTMENT OF THE ENVIRONMENT

Evidence or other material on which my findings were based

25. My decision to approve the proposed action was based on consideration of the final approval decision brief prepared by the Queensland and Sea Dumping Assessment Branch of the Department (the brief) dated 8 July 2014. The brief had the following attachments which I considered as part of that brief:
- Attachment A: QCG Report
 - Attachment B: Legal considerations
 - Attachment C: Departmental advice
 - Attachment D: Independent Expert Scientific Committee advice, responses and analysis
 - Attachment E1: Response to invitation for comment - Department of Industry / Geoscience Australia
 - Attachment E2: Response to invitation for comment – Adani Mining Pty Ltd
 - Attachment E3: Response to invitation for comment – QCG
 - Attachment F1: Approval decision notice
 - Attachment F2: Approval decision notice (tracked changes version)
 - Attachment G: Correspondence advising of my decision
 - Attachment H: Proposed approval decision brief prepared by the Queensland and Sea Dumping Assessment Branch of the Department dated 18 June 2014, including as attachments:
 - Attachment A: QCG Report
 - Attachment B: EPBC Act legal considerations
 - Attachment C: Independent Expert Scientific Committee advice, responses and analysis
 - Attachment C1: Independent Expert Scientific Committee advice
 - Attachment C2: Table of responses to Independent Expert Scientific Committee advice
 - Attachment C3: Letter from Independent Expert Scientific Committee Chair to the Minister
 - Attachment C4: Office of Water Science review of additional hydro-geological information from Adani
 - Attachment C5: Letter from the proponent in response to review from the Office of Water Science
 - Attachment D: Proposed decision
 - Attachment D1: Proposed decision notice
 - Attachment D2: Summary of proposed conditions
 - Attachment D3: Comparison of proposed conditions with the QCG's recommendations table
 - Attachment E: Letters to proponent, Commonwealth Ministers and the QCG

DEPARTMENT OF THE ENVIRONMENT

Attachment F: Maps on project location

Attachment G: Proponent's Assessment Documentation and Additional Information

Attachment G1: EIS

Attachment G2: Supplementary EIS

Attachment G3: Additional Information

Attachment H: Departmental Advice on Matters of National Environmental Significance

Attachment I: Public comment submissions

Attachment I1: EIS submissions

Attachment I2: Supplementary EIS submissions

Attachment I3: Public comment submissions summary

Attachment J: Recovery Plans, Threat Abatement Plans and Conservation Advices

Attachment J1: Recovery Plans

Attachment J2: Threat Abatement Plans

Attachment J3: Approved Conservation Advices and Listing Advices

Attachment K: Line Area Advice Office of Water Science

Attachment L: Timeline for assessment process

Attachment I: Summary of key changes to conditions

26. In making my decision to approve the proposed action, I also considered the draft Strategic Assessment of the Great Barrier Reef World Heritage Area (GBRWHA) and adjacent coastal zone which has been provided in previous briefs, including the approval brief for the Abbot Point Terminal 0, 2 & 3 Capital Dredging project (EPBC 2011/6213).

DEPARTMENT OF THE ENVIRONMENT

Findings on material questions of fact and matters I took into account

World heritage properties

Great Barrier Reef World Heritage Area

27. The Great Barrier Reef World Heritage Area (GBRWHA) was inscribed on the World Heritage List in 1981 for all four of the natural heritage criteria specified in the United Nations Educational, Scientific and Cultural Organisation's 2012 *Operational Guidelines for the Implementation of the World Heritage Convention*; criteria (vii), (viii), (ix) and (x). The current natural heritage criteria for World Heritage properties are that they:

- vii. contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance
- viii. be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features
- ix. be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals
- x. contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

28. The proponent's EIS notes that the proposed action is over 300 km downstream from the GBRWHA and is primarily within the Burdekin Basin, and concludes that given the substantial watercourse and overland barriers between the site of the proposed action and the GBRWHA, the construction and operation of the proposed mine and rail components are unlikely to have a direct impact on the outstanding universal value (OUV) of the GBRWHA.

29. The proponent's EIS states that the proposed action may have indirect impacts on the GBRWHA via impacts through watercourses due to:

- release of mine affected water
- storm water run-off
- reduction in downstream flow
- release of sewage effluent
- release of deleterious chemicals.

30. The proponent's EIS concludes that the potential for those possible scenarios to have any impacts on marine waters or marine areas of the GBRWHA is negligible, due to the distance from the proposed action, the design of the water management systems at the mine site (no uncontrolled release of contaminated water), and mitigation measures that will be implemented at the mine site and during the construction of the rail lines.

DEPARTMENT OF THE ENVIRONMENT

31. According to the proponent's EIS, the proponent has undertaken to implement water quality control measures including:

- water management and sediment control measures including diversion drains
- sediment fences
- mine affected water storage dams
- sediment ponds and sewage treatment

to mitigate any potential impacts to the GBRWHA.

32. Complementing these undertakings, the QCG has imposed conditions which specify the source, release point, maximum release rates, receiving waters, monitoring points and trigger levels for release of mine affected water to external waters, control, treatment, storage and release of sewage, and require the preparation and implementation of:

- a. a Receiving Environment Monitoring Program to monitor and report on downstream impacts of the action;
- b. an Erosion and Sediment Control Plan to limit release of sediments.

33. I found that those measures were adequate to mitigate any impact of surface water on the GBRWHA so I did not impose any additional conditions on my approval specifically in relation to these matters.

34. A number of submissions raised concerns about the proponent's assessment of greenhouse gas emissions in relation to impacts on the GBRWHA. The proponent has identified the direct emissions of the proposed action and the direct emissions resulting from energy required to undertake the proposed action. This approach is consistent with the provisions of the *National Greenhouse and Energy Reporting Act 2007* (Cth). The QCG Report states that control strategies provided in the mine, off-lease and rail environment management plans will include measures to minimise greenhouse gas emissions from the direct emissions of the proposed action.

35. I have not imposed any conditions on my approval specifically in relation to greenhouse gases.

36. There is no management plan prepared under sections 316 or 321 of the EPBC Act for the GBRWHA.

37. In making my decision I considered the proponent's EIS, the QCG Report and the Department's accompanying briefing. I made the following findings:

- vii The criterion states: *contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.*

I found that given the expanses of terrestrial and aquatic habitat that separates the proposed action and the GBRWHA, the proposed action will not impact on the OUV of the GBRWHA as it is unlikely to impact on visual amenity (both above and below the ocean surface), seabirds, dugongs, whales, dolphins or marine turtles.

DEPARTMENT OF THE ENVIRONMENT

- viii The criterion states: *to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features.*

I found that given that the proposed action does not include shipping, anchoring of vessels, dredging or sediment movement, the proposed action is unlikely to impact on the OUV of the GBRWHA, as it is unlikely to impact on coral or marine hydrodynamic processes.

- ix The criterion states: *to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.*

I found that given that the proposed action does not include shipping or anchoring of vessels, dredging or sediment movement, the proposed action is unlikely to impact on the OUV of the GBRWHA, as it is unlikely to impact on coral reef diversity, seagrass meadows, listed threatened species or migratory species.

- x The criterion states: *to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science and conservation.*

I found that given the mitigation measures required by the QCG to address the release of mine-affected water, stormwater runoff, reduction in stream flow, sewage effluent and deleterious chemicals into downstream waters, the proposed action is unlikely to impact on the OUV of the GBRWHA through impacts on threatened species relevant to the OUV from the point of view of science and conservation.

38. The Australian and Queensland Governments agreed to undertake a comprehensive Strategic Assessment of the GBRWHA and adjacent coastal zone. The comprehensive Strategic Assessment has two key components – a marine component and a coastal component. The Great Barrier Reef Marine Park Authority (**GBRMPA**) is leading the marine component which will look at the arrangements in place to manage and protect the Great Barrier Reef Marine Park (the **Marine Park**) and GBRWHA. The Queensland Government led the coastal component which looked at coastal development such as planning for urban, industrial and port development. Prior to making my decision to approve the proposed action, I had been separately briefed on the progress of the Strategic Assessment. A draft report of the Strategic Assessment had already been publicly exhibited and was therefore relevant to my decision for the purposes of section 136(e) of the EPBC Act and I took it into account.
39. I found that recommendations made in the QCG Report in relation to the impacts of the proposed action would not compromise the likely outcomes of the Strategic Assessment of the GBRWHA and adjacent coastal zone or the resulting long term plan for the sustainable development of the GBRWHA.

DEPARTMENT OF THE ENVIRONMENT

40. Based on the information in the QCG Report and the proponent's EIS, which outline the limited way in which the proposed action is likely to impact on the outstanding universal values of the GBRWHA, I found that there would be no unacceptable impacts on the GBRWHA. Based on the distance from the project and the mitigation measures and conditions imposed by the Coordinator-General I found that the proposed action will not have an unacceptable impact on the world heritage values of the GBRWHA.

National Heritage places

Great Barrier Reef National Heritage Place

41. In May 2007, the Great Barrier Reef was placed on the National Heritage List (*NHL*). This list comprises natural and cultural places that contribute to our national identity, providing a tangible link to past events, processes and people.
42. The Great Barrier Reef was one of 15 World Heritage properties included in the NHL in 2007. The Great Barrier Reef National Heritage place has national heritage values in respect of the following national heritage criteria, which are prescribed in regulation 10.01A of the *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth) for the purposes of section 324D of the EPBC Act:
- i. the place has outstanding heritage value to the nation because of the place's importance in the course, or pattern, of Australia's natural or cultural history
 - ii. the place has outstanding heritage value to the nation because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history
 - iii. the place has outstanding heritage value to the nation because of the place's potential to yield information that will contribute to an understanding of Australia's natural or cultural history
 - iv. the place has outstanding heritage value to the nation because of the place's importance in demonstrating the principal characteristics of:
 - i. a class of Australia's natural or cultural places
 - ii. a class of Australia's natural or cultural environments
 - v. the place has outstanding heritage value to the nation because of the place's importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.
43. The heritage values that cause the Great Barrier Reef National Heritage place to meet the above criteria (its national heritage values), are the same heritage values that cause it to meet the world heritage criteria set out above.

DEPARTMENT OF THE ENVIRONMENT

44. Therefore, I found that the potential impacts to the Great Barrier Reef National Heritage place are commensurate to the potential impacts from the proposed action on the Great Barrier Reef World Heritage property. Mitigation and management measures equally apply to the Great Barrier Reef National Heritage place. Based on the information in the QCG Report and the proponent's EIS, which outline the limited way in which the proposed action is likely to impact on the OUV of the GBRWHA in paragraphs 28 to 40 above, I also found that there would be no unacceptable impact on the Great Barrier Reef National Heritage place. I found that the proposed action will not have an unacceptable impact on a National Heritage Place.

Ramsar Wetlands of international importance

45. The Bowling Green Bay Ramsar site lies approximately 236 km north-east of the proposed action and the Shoalwater and Corio Bays Ramsar site is located approximately 380 km south west of the proposed action.
46. The proponent's EIS states that the proposed action is not hydrologically or ecologically connected with the two nearest Ramsar wetlands described above. Therefore the proponent concluded that no areas of Ramsar wetland are likely to be impacted.
47. The QCG Report states that the proposed action is hydrologically connected to the Burdekin River, which discharges at Upstart Bay, just south of the Bowling Green Bay Ramsar site. However, an assessment of sediment plumes discharged through the Burdekin River as a result of floods, undertaken by the proponent and included in the supplementary EIS, determined that the sediment loads from the Burdekin River did not reach the Bowling Green Bay or the Shoalwater and Corio Bays Ramsar wetlands.
48. Based on the distance from the project and lack of likely impacts on Ramsar sites, I found that the proposed action will not have an unacceptable impact on the Bowling Green Bay Ramsar site or the Shoalwater and Corio Bays Ramsar site.

Listed threatened species and communities

49. The following listed threatened species and ecological communities were considered for assessment:
- Black-throated Finch (southern subspecies) (*Poephilla cincta* subsp. *cincta*) – endangered
 - Squatter Pigeon (southern subspecies) (*Geophaps scripta* subsp. *scripta*) – vulnerable
 - Yakka Skink (*Egernia rugosa*) – vulnerable
 - Ornamental Snake (*Denisonia maculata*) – vulnerable
 - Brigalow (*Acacia harpophylla* dominant and co-dominant) – endangered
 - Waxy Cabbage Palm (*Livistona januginosa*) – vulnerable
 - Community of native species dependent on discharge from the Great Artesian Basin – endangered

DEPARTMENT OF THE ENVIRONMENT

50. Based on information provided in the proponent's EIS, I found that these listed threatened species and communities described above at paragraph 49 were either found on the site of the proposed action during surveys, or potential habitat for the species has been determined to occur on the site through habitat mapping undertaken by the proponent.
51. I found that the QCG Report did not consider the endangered Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin likely to occur within the area impacted by the proposed action. I concluded that the proposed action will not have an unacceptable impact on the following listed threatened species and communities, as they have either not been recorded on the site or in close proximity to the site of the proposed action, or the site is unlikely to support an important population:
- Red Goshawk (*Erythrorchis radiatus*) – vulnerable
 - Northern Quoll (*Dasyurus hallucatus*) – endangered
 - Australian Painted Snipe (*Rostratula australis*) – vulnerable
52. I found that the listed threatened species and communities listed at paragraph 49 are the only listed threatened species and communities likely to be significantly impacted by the proposed action.
53. I found that the vegetation clearing associated with the proposed action during both construction and operation will be 20 237 ha. I found that the amount of high-value habitat, as described in Attachment C (Appendix A) of the brief, that was modelled to be impacted for each species or ecological community for each component of the proposed action is as follows:

Listed species or ecological community	High value habitat affected by mine and on lease infrastructure (ha)	High value habitat affected by off lease infrastructure (ha)	High value habitat affected by rail west (ha)	High value habitat affected by rail east (ha)	TOTAL area of high value habitat affected
Black-throated finch (southern)	9,607.67	2.53	15.43	0.81	9,626.44
Brigalow ecological community	249.19	0.00	24.54	2.12	275.85
Ornamental snake	49.00	0.00	0.00	0.00	49.00
Squatter pigeon (southern)	762.00	0.00	0.00	0.00	762.00
Waxy cabbage palm	27.10	0.00	0.00	0.00	27.10
Yakka skink	1,854.00	0.62	3.86	0.20	1,858.68

DEPARTMENT OF THE ENVIRONMENT

54. The QCG Report states that the proposed action involves subsidence impacts of up to 5.5 metres in depth across an area of 7786.76 ha. I found that the amount of potential habitat (i.e. any regional ecosystem associated with presence of the relevant species) impacted for each species within the underground mining impact area is as follows:

Listed species or ecological community	Potential habitat affected by underground mining (ha)
Black-throated finch (southern)	6,883.00
Brigalow ecological community	3.00
Ornamental snake	3.00
Squatter pigeon (southern)	6,913.00
Waxy cabbage palm	0.00
Yakka skink	6,162.00

55. I accepted the information provided by the proponent in relation to the modelling of areas of habitat for listed threatened species and ecological communities likely to be impacted by clearing and subsidence.

56. The proponent has committed to the implementation of a number of avoidance, mitigation and management measures to reduce impacts to the listed threatened species listed at paragraph 49. These measures include:

- management of fire regimes
- minimising disturbance to existing vegetation where possible
- rehabilitation and subsidence management
- erosion and sediment control measures
- management of weeds and pests.

57. The proponent has committed to the development of a number of management plans to facilitate the implementation of the above measures, including:

- an Environmental Management Plan
- specific species management plans
- a Subsidence Management Plan
- a Mine Closure and Rehabilitation Strategy.

DEPARTMENT OF THE ENVIRONMENT

58. The QCG report states that the proponent has committed to a number of management measures to address impacts on listed threatened species and communities, which will be included in relevant management plans as required under conditions imposed by the QCG. The QCG Report concludes that with proposed conditions, and proposed offsets, the proposed action should not have unacceptable impacts on listed threatened species and communities.
59. I have imposed conditions of approval to ensure that the proponent implements measures to minimise impacts of mining operations on listed threatened species and ecological communities. In particular, conditions 5 to 7 require the proponent to develop a plan to manage direct and indirect impacts of the action, which includes the rehabilitation of areas and the implementation of specific criteria for assessing the success of management measures against goals, and triggers for implementing corrective measures if criteria are not met within specified timeframes. I have also imposed conditions requiring offsets, as discussed in paragraph 60. I found that the implementation of the requirements of the QCG Report were sufficient to address other impacts, including those from the construction and operation of rail infrastructure.
60. In order to offset the residual impact of the proposed action on listed threatened species and ecological communities I have imposed condition 8 requiring the following minimum offset in hectares for the various components of the action:

Environmental value	Initial contribution to underground mining component	Mine	Off-lease infrastructure	Rail east	Rail west	Upfront Offset Requirement
Black-throated finch (southern)	2,000.0	28,943.45	7.62	2.44	46.48	31,000.00
Brigalow ecological community		736.23	0.00	6.26	72.50	815.00
Ornamental snake		135.0	0.00	0.00	0.00	135.00
Squatter pigeon (southern)		2,500.0	0.00	0.00	0.00	2,500.00
Waxy cabbage palm		90.0	0.00	0.00	0.00	90.00
Yakka skink		5,585.9	1.87	0.60	11.63	5,600.00

61. I have also imposed conditions 9 to 14 requiring the management of offset areas and the addition of new offset areas beyond the requirements identified in paragraph 60, if the impacts to the various listed threatened species and ecological communities are greater than the modelling indicates in paragraph 53 and 54.

DEPARTMENT OF THE ENVIRONMENT

62. In order to address the cumulative impacts of the action I have imposed conditions 17 to 19 requiring the proponent to establish and contribute \$100 000 per annum for ten years to a pool of funds to facilitate research programs identified as a priority to manage development impacts to EPBC listed species and communities in the Galilee Basin identified in the conditions of approval.

63. I found that the following approved conservation advices are relevant to the proposed action:

- Waxy Cabbage Palm;
- Squatter Pigeon (southern);
- Brigalow Ecological Community.

In accordance with section 139(2) of the EPBC Act I took those conservation advices into account in approving the action.

64. I found that the following recovery plans are relevant to the proposed action:

- Black-throated Finch (southern subspecies)
- community of native species dependent on natural discharge of groundwater from the Great Artesian Basin

In accordance with section 139(1)(b) of the EPBC Act I found that approval of the action would not be inconsistent with those recovery plans.

65. In accordance with section 139(1)(b) of the EPBC Act I found that the following threat abatement plans are relevant to the management of the listed threatened species and ecological communities listed at paragraph 46:

- *Threat Abatement Plan for Predation by the European Red Fox* (Commonwealth of Australia, 2008)
- *Threat Abatement Plan for Predation by Feral Cats* (Commonwealth of Australia, 2008)
- *Threat Abatement Plan for Predation, Habitat Degradation, Competition and Disease Transmission by Feral Pigs* (Australian Government Department of the Environment and Heritage, 2005)

I found that approval of the action would not be inconsistent with those threat abatement plans.

66. Having regard to the relevant briefing material provided to me by the Department, I found that the proposed action would not have any unacceptable impacts on listed threatened species and communities in view of all relevant avoidance, mitigation and compensation (offset) measures to be adopted.

DEPARTMENT OF THE ENVIRONMENT

Listed migratory species

67. Based on information provided in the proponent's EIS for the proposed action, the following avian species which are listed migratory species for the purposes of the EPBC Act were recorded from or considered likely to occur within the areas directly impacted by the mine and rail components of the proposed action:
- Eastern Great Egret (*Ardea modesta*)
 - Satin Flycatcher (*Myiagra cyanoleuca*)
 - Rainbow Bee-eater (*Merops ornatus*)
 - White-bellied Sea-Eagle (*Haliaeetus leucogaster*)
 - Common Sandpiper (*Actitis hypoleucos*)
 - Latham's Snipe (*Gallinago hardwickii*)
 - Curlew Sandpiper (*Calidris ferruginea*)
 - Fork-tailed Swift (*Apus pacificus*)
 - White-throated Needletail (*Hirundapus caudacutus*)
 - Caspian Tern (*Hydroprogne caspia*)
 - Glossy Ibis (*Plegadis falcinellis*)
 - Black-tailed Godwit (*Limosa limosa*)
 - Common Greenshank (*Tringa nebularia*)
 - Marsh Sandpiper (*Tringa stagnatilis*)
68. The QCG Report confirmed that the following migratory species occur within the area to be directly impacted by the mine and rail components of the proposed action, as found through field surveys conducted by the proponent:
- Eastern Great Egret (*Ardea modesta*)
 - Satin Flycatcher (*Myiagra cyanoleuca*)
 - Rainbow Bee-eater (*Merops ornatus*)
 - White-bellied Sea-Eagle (*Haliaeetus leucogaster*)
69. The proponent's EIS concludes that the listed migratory birds above at paragraph 68 are relatively common and widespread, with potentially suitable habitat occurring for the different species throughout the proposed mine site and rail corridor. The migratory bird species that have been detected on site are all highly mobile species that may visit the study area periodically.
70. The QCG Report notes that listed migratory bird species could potentially be impacted by direct contact or through the loss or degradation of habitat. Changes to water quality, erosion or siltation or the spread of weeds brought about by construction activities could degrade habitat areas and in turn impact on the food or nesting resources provided by those areas. However, given the assessment undertaken in the QCG Report on the likelihood of occurrence of the various species, neither the proposed mine site and rail corridor, nor its immediate surrounds are considered to support important habitat for any of those migratory species identified in paragraph 68.

DEPARTMENT OF THE ENVIRONMENT

71. The QCG Report considers that the mitigation measures outlined by the proponent can adequately address the impacts of the proposed action. The QCG Report considers that the project area is not an important habitat for the listed migratory species listed above at paragraph 68. The migratory species that have been detected on site are all highly mobile species which may visit the study area periodically. According to the QCG Report, the proposed action mine footprint and adjoining areas do not include significant or locally uncommon habitat values and these species are unlikely to utilise the site for breeding purposes.
72. While individuals may occasionally visit the site, the departmental briefing material concludes that it is unlikely that the habitat on-site would represent important habitat; and the proposed action would be unlikely to have a significant impact.
73. Based on the relatively low level of occurrence of migratory bird species or their habitat and the mitigation and offset measures proposed, I found that the proposed action will not have a significant impact on the migratory species listed in paragraph 68.

Great Barrier Reef Marine Park

74. The Marine Park landside boundary generally follows the coastline. The Marine Park is a multiple-use area that supports a range of communities and industries that depend on the Great Barrier Reef for recreation or their livelihoods. Tourism, fishing, boating and shipping are all legitimate uses of the Marine Park. The entire Marine Park is covered by a Zoning Plan that identifies where particular activities are permitted and where some are not permitted. The Zoning Plan separates conflicting uses, with 33 per cent of the Marine Park afforded marine national park status.
75. In accordance with section 24B of the EPBC Act I assessed the impacts on the Marine Park in terms of impacts on the environment, as defined as follows under section 528 of the EPBC Act:
Environment includes:
 - (a) ecosystems and their constituent parts, including people and communities; and
 - (b) natural and physical resources; and
 - (c) the qualities and characteristics of locations, places and areas; and
 - (d) heritage values of places; and
 - (e) the social, economic and cultural aspects of a thing mentioned in paragraph (a), (b), (c) or (d).
76. I found that potential impacts to the Marine Park are the same as impacts to the GBRWHA. Based on the distance from the project and the mitigation measures and conditions imposed by the Coordinator-General, I found that the proposed action will not have an unacceptable impact on the Marine Park.

DEPARTMENT OF THE ENVIRONMENT

A water resource, in relation to coal seam gas development and large coal mining development

77. The IESC provided advice on 16 December 2013 in relation to the proposed action. I considered this advice in making my decision. The main issues raised in that advice in relation to modelling potential impacts and the management of potential impacts on a water resource were as follows:
- Substantiation of the groundwater flow conceptualisation
 - Justification of the use groundwater model boundaries
 - Assumptions in modelling regarding the hydraulic conductivity of the Rewan Formation
 - Impacts on groundwater dependent ecosystems
 - Cumulative impacts
 - Final mine voids
 - Flooding
 - Mine discharge to surface waters
78. I also considered the relevant comments received from the public on the EIS in relation to impacts to water resources.
79. I considered the information in the QCG Report, the proponent's EIS and the IESC on:
- the monitoring of water storage quality
 - water reuse
 - dams and levees
 - contaminant levels
 - sewage treatment
 - mine voids
 - flooding
 - mine discharges
80. The QCG Report states that the Queensland Government would impose thresholds and limits in relation to impacts on:
- a. surface water quantity and availability
 - b. stressors and contaminants
 - c. annual loads of salinity and sediment
 - d. management and response actions to be taken in the event that:
 - i. threshold values are exceeded
 - ii. subsidence or surface deformation occurswhich substantially impacts on surface water hydrology.

DEPARTMENT OF THE ENVIRONMENT

81. Having considered the management measures required or proposed in the QCG Report, I decided that no further conditions were required to prevent unacceptable impacts on matters identified in paragraph 79.
82. I am satisfied that the state can adequately address surface water impacts to landowner water supplies.

Groundwater impacts

83. I noted that the IESC found that there was insufficient data to substantiate the proponent's groundwater flow conceptualisation, and that the flow direction indicated therein is contrary to what is expected in the Great Artesian Basin. I noted the response from the proponent and the Queensland Government on the need to undertake monitoring to validate the modelling. I was also provided with a table of primary concerns raised by the IESC and responses from other parties prepared by the Department in Attachment D1 to the brief to approve the proposed action (**Water Resource Analysis Table**). Expert opinion differs on the accuracy of the conceptual groundwater flow model, specifically in regard to the influence of the model conditions on the direction of flow.
84. In order to address the concerns of the IESC with respect to groundwater modelling, I imposed conditions 22 to 24 requiring the proponent to re-run the groundwater flow model with new parameters, and a peer review of the work to be undertaken, within four months of approval. The information derived from the review would be input into plans required to manage groundwater impacts.
85. I noted that the IESC questioned the groundwater model assumption that the Rewan Formation will respond uniformly as an aquitard. I also noted the response from the proponent and the Queensland Government that the sensitivity analysis undertaken by the proponent addresses the potential variability in the Rewan Formation, based on all currently known information. I was also provided with the Water Resource Analysis Table. In order to address the IESC's concerns I imposed conditions 27 to 28 requiring the proponent to develop a Rewan Formation Connectivity Research Plan as recommended by the QCG.
86. In order to address the concerns of the IESC in relation to the impacts of the action on groundwater, I imposed conditions 3 to 4 requiring the proponent to develop a Groundwater Management and Monitoring Plan that has measures to address impacts from changes in groundwater levels on listed threatened species and ecological communities, as well as the Mellaluka Springs Complex.
87. I noted the IESC's concerns that it is not possible to accurately predict impacts from mining on the groundwater dependent ecosystems based on the proponent's groundwater model. In particular, impacts on the Mellaluka Springs Complex and the listed ecological community of Native Species Dependent on Discharge from the Great Artesian Basin. The Doongmabulla Springs Complex is one of the Spring Complexes of the Native Species Dependent on Discharge from the Great Artesian Basin. In order to address that concern I imposed conditions 25 to 26 requiring the proponent to develop a GAB Springs Research Plan.

DEPARTMENT OF THE ENVIRONMENT

88. In order to address the impacts of the action on the Great Artesian Basin, I have also imposed a requirement under condition 11.b) requiring the proponent to deliver 730 megalitres in new water savings per annum over five years, through some combination of measures to reduce groundwater extraction rates from the Great Artesian Basin, restore water pressure in the Great Artesian Basin, rehabilitate Great Artesian Basin springs or other appropriate measures. I found that in combination with the measures described in paragraphs 84 to 87 to address modelling uncertainties, this would take account of the likely impacts on groundwater dependent ecosystems.
89. I imposed conditions on the proponent to review the groundwater modelling and the research conditions relating to the connectivity of the Rewan Formation and impacts on groundwater dependent ecosystems. Those conditions require the proponent to adaptively manage groundwater impacts through the Groundwater Management and Monitoring Plan, as the results of the review and research plans become available. If impacts occur that are greater than those modelled by the proponent, then further mitigation measures and offsets will be required. These measures will be given force through contingency provisions required to be included in the biodiversity offset strategy described in condition 11, which is to be approved by me.
90. Similarly, the conditions of approval that I have imposed include the provision of offsets for water resources if management measures are not able to adequately mitigate impacts. The offsetting requirements must be described in a matters of national environmental significance offset plans described in condition 6, to be approved by me. The following offsetting measures are required to be implemented:
- a. protection and management of other groundwater-fed springs in the region to offset impacts to the Mellaluka Springs Complex and the listed Doongmabulla Springs Complex;
 - b. financial contribution to programs such as the Great Artesian Basin Sustainability Initiative (Cap and Pipe the Bores Program) to offset impacts to the *Community of native species dependent on discharge from the Great Artesian Basin*; and
 - c. protection and management of comparable river and riparian habitats to offset impacts to the Carmichael River, including the listed threatened Waxy Cabbage Palm.
91. My conditions of approval relating to the management of impacts from the operation of the proposed action and offsetting of impacts are consistent with other coal mine projects that I have approved in the Galilee Basin. In addition, the QCG Report states that the state has 'make good' legislative provisions to address impacts on landowner supplies of groundwater.
92. I found the combination of the QCG's conditions of approval for the proposed action and the conditions of approval I have required for the proposed action relating to groundwater discussed in paragraphs 84 to 91 above will ensure that the proposed action would not have an unacceptable impact on water resources and will address the concerns of the IESC.

DEPARTMENT OF THE ENVIRONMENT

Miscellaneous considerations

93. In making my decision on whether to approve the proposed action, I considered relevant public comments received on the EIS, advice provided by the IESC in relation to cumulative impacts and the findings of the cumulative impact assessment within the proponent's EIS.

Cumulative impacts

Related projects and cumulative impacts

94. The Terms of Reference for the EIS as issued by the QCG in May 2011 required the proponent to undertake a cumulative impact assessment that provides information on the cumulative effects of the proposed action, including the interrelationship of these impacts with other existing and proposed projects in the Galilee Basin.
95. For the purposes of the cumulative impact assessment, the proponent has considered the potential environmental, social and economic cumulative and consequential impacts of the projects listed in paragraphs 96 to 99.
96. On 15 November 2011, the proponent submitted a separate referral for the Abbot Point Coal Terminal 0 (EPBC 2011/6194). The Abbot Point Coal Terminal 0 project would provide for the expansion of the Port of Abbot Point to export coal that would be mined as a result of the proposed action. On 10 December 2013, I approved the Abbot Point Coal Terminal 0.
97. On 30 May 2013, the proponent submitted a separate referral for the North Galilee Basin Rail Project (EPBC 2013/6885). The North Galilee Basin Rail Project would connect the rail infrastructure from this proposed action with infrastructure at the Port of Abbot Point. On 23 September 2014, I approved the North Galilee Basin Rail Project.
98. The cumulative impacts of the proposed action in combination with EPBC 2011/6194 and EPBC 2013/6885 were considered during the assessment of the proposed action under the Bilateral Agreement, although more detailed assessments of the impacts of EPBC 2011/6194 and EPBC 2013/6885 were made through their own separate assessment processes.
99. Cumulative impacts of the proposed action were also considered during the assessment process under the Bilateral Agreement, in relation to other coal and infrastructure projects within the Galilee Basin and the expansion of port infrastructure. Those relevant projects included:
- Alpha Coal Project - Mine and Rail Development (EPBC 2008/4648);
 - Galilee Coal Mine and Associated Infrastructure (EPBC 2009/4737);
 - Kevin's Corner Project (EPBC 2009/5033);
 - South Galilee Coal Project (EPBC 2010/5496);
 - Dudgeon Point Coal Terminals Project (EPBC 2012/6240); and
 - Abbot Point Terminal 0, 2 & 3 Capital Dredging (EPBC 2011/6213).

DEPARTMENT OF THE ENVIRONMENT

Conditions on State government approval – section 134(4)

100. In deciding whether or not to approve the taking of the action with attached conditions, I considered relevant conditions and recommended conditions, as outlined in Appendix one and Appendix two of the QCG Report.
101. I consider that the conditions attached to my approval are generally complementary to those likely to be imposed under Queensland legislation, augmenting these where necessary to ensure the impacts of the proposed action on each relevant controlling provision of the EPBC Act are not unacceptable. The relationship between the QCG conditions and the conditions I imposed is described in the comparison of proposed conditions provided as part of departmental briefing material.

Consideration of relevant advice obtained from the IESC – in accordance with section 131AB

102. I considered the advice from the IESC in relation to impacts to water resources as a result of the proposed action. I found that the attached conditions will ensure potential impacts on a water resource resulting from the proposed action are reduced, mitigated and offset to the greatest extent possible. Further detail on my deliberations in this respect is provided at paragraphs 77 to 91 of this statement.

Person's environmental history – subsection 136(4)

103. In deciding to approve the taking of the action with attached conditions, in accordance with section 136(4) of the EPBC Act, I considered whether the proponent is a suitable person to be granted an approval, having regard to the person's history in relation to environmental matters and if the person is a body corporate, the history of its executive officers and if relevant, the history of the parent company and its executive officers in relation to environmental matters.
104. I noted that a number of public comments were made in relation to the environmental record of the Adani Group overseas.
105. The proponent's referral states that the Adani Group has a history of responsible environmental and community management applied to similar projects in other countries. The Department's compliance database shows there is no adverse environmental history for Adani Mining Pty Ltd in Australia.
106. I found no reason why the proponent would be unwilling or unable to undertake this proposed action in accordance with the conditions of approval.

Precautionary principle – section 391

107. In making my decision whether to approve the proposed action, I considered the precautionary principle in accordance with section 391 of the EPBC Act - "that lack of full scientific certainty should be not used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage."

DEPARTMENT OF THE ENVIRONMENT

108. I agreed with the conclusions of the QCG Report that there is sufficient scientific information to conclude that the proposal will not result in threats of serious or irreversible environmental damage to the Great Barrier Reef World Heritage Area, the Great Barrier Reef National Heritage Place, listed migratory species, listed threatened species and communities, wetlands of international importance and the Great Barrier Reef Marine Park.
109. However, I took a more precautionary approach to impacts on water resources, as reflected in the approval conditions that require a Groundwater Management and Monitoring Program. I also included conditions to provide additional protection and to improve the scientific understanding regarding the potential impacts on matters of national environmental significance likely to be impacted by the proposed action. In particular, I required an adaptive management approach for mitigation, monitoring, review and offsets to deal with any uncertainties over the proposed 60 year life of the proposed action.

Principles of ecologically sustainable development – section 136(2)(a)

110. The principles of ecologically sustainable development, as defined in section 3A of the EPBC Act are:
- a. decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;
 - b. if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
 - c. the principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
 - d. the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making; and
 - e. improved valuation, pricing and incentive mechanisms should be promoted.
111. In making my decision, I took into account the principles of ecologically sustainable development in accordance with section 136(2)(a) of the EPBC Act. In particular:
- a. I considered the likely long-term and short-term economic, environmental, social and equitable impacts in approving the action.
 - b. I considered threats of serious or irreversible environmental damage as outlined in paragraphs 107 to 109.
 - c. I imposed conditions of approval allow for the action to be delivered and operated in a sustainable way to protect matters of national environmental significance, and the environment for future generations. In addition, the adaptive management approach applied to the conditions takes account of the 60 year lifespan of the action.

DEPARTMENT OF THE ENVIRONMENT

- d. I addressed the conservation of biological diversity and ecological integrity in relation to all of the controlling provisions for the action through conditions that will avoid, mitigate and offset impacts to matters of national environmental significance.
- e. I imposed conditions of approval that included measures to address improved valuation through requirements for offsets for any unavoidable residual significant impacts.

Requirements for decisions about World Heritage properties and National Heritage places – sections 137 and 137A

- 112. In accordance with section 137 of the EPBC Act, I was satisfied that granting the approval was not inconsistent with Australia's obligations under the World Heritage Convention, the Australian World Heritage management principles, or a plan that has been prepared for the management of a declared World Heritage property under section 316 or as described in section 321. Further detail on my deliberations in this respect is provided at paragraphs 27 to 44 of this statement.
- 113. A plan of management for the GBRWHA has not been prepared under section 316 or section 321 of the EPBC Act.
- 114. In accordance with section 137A of the EPBC Act, I was satisfied that granting the approval was not inconsistent with National Heritage Management principles, an agreement to which the Commonwealth is a part in relation to a National Heritage place or a plan prepared for the management of a National Heritage place under section 324S or as described in section 324X.
- 115. The Commonwealth has not reached agreement with any party in relation to the management of the National Heritage values of the Great Barrier Reef, and a management plan for the Great Barrier Reef has not been prepared under section 324S or section 324X of the EPBC Act.

Ramsar wetlands – acting consistently with international obligations – in accordance with section 138

- 116. Section 138 of the EPBC Act states that in deciding whether or not to approve for the purposes of sections 16 or 17B the taking of an action, and what conditions to attach to such an approval, the Minister must not act inconsistently with Australia's obligations under the Ramsar Convention.
- 117. I was briefed by the Department (refer Attachment B to the proposed approval decision brief) on Australia's obligations under the Ramsar Convention and their implementation through the EPBC Act. As noted in paragraphs 45 to 48, I concluded that the proposed action will not have any unacceptable impacts on Ramsar sites, and on that basis I am satisfied that my decision is therefore not inconsistent with Australia's obligations under the Ramsar Convention.

DEPARTMENT OF THE ENVIRONMENT

Listed threatened species and communities considerations – acting consistently with international obligations – section 139

118. Section 139(1) of the EPBC Act requires that in deciding whether to approve a proposed action for which listed threatened species and communities is a controlling provision, and what conditions to attach to such an approval, the Minister must not act inconsistently with Australia's obligations under the Convention on Biological Diversity (CBD), the Convention on Conservation of Nature in the South Pacific (Apia Convention) or the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
119. I am satisfied that my decision to approve the proposed action subject to conditions is not inconsistent with the CBD, which promotes environmental impact assessment to avoid and minimise adverse impacts on biological diversity.
120. I considered the CBD's ultimate aim of conservation of listed threatened species in the wild when attaching the specific conditions for listed threatened species requiring mitigation, management and compensation (offset) measures. The research component of my conditions of approval (for example, condition 18) will also improve the understanding on which the measures to preserve biodiversity and improve protection for listed threatened species are based.
121. I was briefed by the Department (refer Attachment B to the proposed approval decision brief) on Australia's obligations under the CBD and their implementation through the EPBC Act. As noted in paragraphs 49 to 66, I concluded that the proposed action will not have any unacceptable impacts on listed threatened species and communities, and on that basis I am satisfied that my decision is therefore not inconsistent with Australia's obligations under the CBD.
122. I have also required through condition 18 that research outcomes are publicly available to encourage sharing of information and improved knowledge relating to biodiversity, specifically within the Galilee Basin region.
123. The Apia Convention was suspended with effect from 13 September 2006; however, I do not consider that approval of the proposed action would be inconsistent with the convention which has the general aim of conserving biodiversity.
124. The proposed action has no implications for CITES as it does not involve international trade in endangered species of wild fauna and flora.

DEPARTMENT OF THE ENVIRONMENT

Listed migratory species considerations – acting consistently with international obligations – section 140

125. Section 140 of the EPBC Act requires that in deciding whether to approve a proposed action for which listed migratory species is a controlling provision, and what conditions to attach to such an approval, the Minister must not act inconsistently with the Convention on Migratory Species (Bonn Convention), the Agreement between the Government of Japan and the Government of Australia for the Protection of Migratory Birds and Birds in Danger of Extinction and their Environment (JAMBA), the Agreement between the Government of Australia and the Government of the People's Republic of China for the Protection of Migratory Birds and their Environment (CAMBA); or an international agreement approved under subsection 209(4) of the EPBC Act, which includes the Agreement between the Government of Australia and the Government of the Republic of Korea on the Protection of Migratory Birds (ROKAMBA).
126. I found that impacts on migratory species are unlikely to be significant (and therefore unlikely to be unacceptable), and that approving the proposed action would therefore not be inconsistent with any of these conventions.

Consideration of relevant invitation for comments – in accordance with section 131 and 131AA

127. I considered comments received on my invitation to comment from the Minister for Industry, the Hon Ian Macfarlane MP in accordance with section 131 of the EPBC Act.
128. I considered comments received on my invitation to comment from the proponent in accordance with section 131AA of the EPBC Act. In response to those comments, revisions were made to my proposed decision of approval, so that the conditions attached to the approval could better reflect project sequencing and be better aligned with conditions imposed by the Queensland Government.

Social and economic matters

129. In making my decision to approve the proposed action subject to conditions, I considered economic and social matters in accordance with section 136(1)(b) of the EPBC Act.
130. A social impact assessment was undertaken in accordance with the terms of reference for the EIS administered by the QCG. I note the matters considered in the social impact assessment include community and stakeholder engagement, workforce management, housing and accommodation, and community health and wellbeing; and that the assessment reached generally positive conclusions on likely social impacts.
131. I noted potential negative impacts of the proposed action may occur through the disruption to cattle operations, increased labour requirements and reduced amenity for landholders. The proposed action would also result in increased demand on emergency and community services arising from the temporary accommodation camps and permanent workforce accommodation.

DEPARTMENT OF THE ENVIRONMENT

132. I found that the proponent has committed to an adaptive approach by which social impact mitigation and management strategies will be reviewed, monitored and updated on a regular basis for the life of the proposed action. As a consequence, the QCG has imposed conditions on the proponent to annually report on the actions taken to inform the community about the impacts of the proposed action, actions taken to enhance local and regional employment, training and development opportunities, and actions to avoid, manage or mitigate proposed action-related impacts on local community services, social infrastructure and community safety and wellbeing.
133. I noted the departmental advice that the proposed action is expected to contribute \$929.6 million annually to the Mackay Region's Gross Regional Product and \$2.97 billion annually to the Queensland economy at full export capacity. The proposed action is expected to generate an estimated 2475 construction jobs, and 3920 during the operations phase.

Reasons for decision

134. In deciding whether or not to approve the taking of the proposed action, I took into account (among other matters) the principles of ecologically sustainable development as required under section 136(2)(a) of the EPBC Act, and the precautionary principle as required under section 391 of the EPBC Act.
135. In light of my findings in paragraphs 26 to 133, I decided to approve, subject to conditions, the taking of the proposed action for the purposes of sections 12 and 15A, sections 15B and 15C, sections 16 and 17B, sections 18 and 18A, sections 20 and 20A, sections 24B and 24C and sections 24D and 24E of the EPBC Act.
136. My approval will remain valid until 30 June 2090. This allows for the proposed mine life of approximately 60 years, plus time to ensure the mine is closed, decommissioned and rehabilitated satisfactorily and so that offsets can be secured and managed to ensure a conservation gain is achieved.

Signed



The Hon Greg Hunt MP

Minister for the Environment

10 December 2014