

Appendix E
***Secretary's Environmental
Assessment Requirements***

Table 1
Secretary's Environmental Assessment Requirement Relevant to the *Environmental Protection and Biodiversity Conservation Act 1999*
Boggabri Coal Mine Modification (MP 09_0182 Mod 8) (EPBC 2021/8875)

Ref	Requirement	Where Addressed in Modification Report
INTRODUCTION		
1.	On 28 May 2021, a delegate of the Federal Minister for the Department of Agriculture, Water and the Environment (DAWE) determined that the Boggabri Coal Mine Mod 8 was a controlled action under section 75 of the <i>Environmental Protection and Biodiversity Conservation Act 1999</i> (EPBC Act). The EPBC Act controlling provision for the proposed action is a water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E).	-
2.	The proposed action will be assessed using an accredited process for the purposes of the EPBC Act. The assessment documentation must include:	-
	i. an assessment of all impacts that the action is likely to have on each matter protected by a provision of Part 3 of the EPBC Act;	Water resource assessments are included in Sections 7.3, 7.4 and 7.10 and Appendices H, J and Q.
	ii. enough information about the proposal and its relevant impacts to allow the Federal Minister to make an informed decision on whether or not to approve; and	This document.
	iii. information addressing the matters outlined in Schedule 4 of the <i>Environmental Protection and Biodiversity Conservation Regulations 2000</i> (EPBC Regulations). Schedule 4 of the EPBC Regulations states: Schedule 4—Matters to be addressed by draft public environment report and environmental impact statement (regulation 5.04) 1 General information 1.01 The background of the action including: (a) the title of the action; (b) the full name and postal address of the designated proponent; (c) a clear outline of the objective of the action; (d) the location of the action; (e) the background to the development of the action; (f) how the action relates to any other actions (of which the proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action; (g) the current status of the action; (h) the consequences of not proceeding with the action.	(a) Section 1 (b) Section 1.2 (c) Section 3.1 (d) Figure 4 (e) Section 2 & Section 3 (f) Section 2 & Section 3 (g) Section 2 (h) Sections 3.9 & 3.10

Ref	Requirement	Where Addressed in Modification Report
	<p>2 Description</p> <p>2.01 A description of the action, including:</p> <ul style="list-style-type: none"> (a) all the components of the action; (b) the precise location of any works to be undertaken, structures to be built or elements of the action that may have relevant impacts; (c) how the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts; (d) relevant impacts of the action; (e) proposed safeguards and mitigation measures to deal with relevant impacts of the action; (f) any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action; (g) to the extent reasonably practicable, any feasible alternatives to the action, including: <ul style="list-style-type: none"> (i) if relevant, the alternative of taking no action; (ii) a comparative description of the impacts of each alternative on the matters protected by the controlling provisions for the action; (iii) sufficient detail to make clear why any alternative is preferred to another; (h) any consultation about the action, including: <ul style="list-style-type: none"> (i) any consultation that has already taken place; (ii) proposed consultation about relevant impacts of the action; (iii) if there has been consultation about the proposed action—any documented response to, or result of, the consultation; (i) identification of affected parties, including a statement mentioning any communities that may be affected and describing their views. 	<ul style="list-style-type: none"> (a) Section 3. (b) Section 3. (c) Section 3. (d) Section 7 (e) Section 7 (f) Section 7 (g) Section 3.10
	<p>3 Relevant impacts</p> <p>3.01 Information given under paragraph 2.01(d) must include:</p> <ul style="list-style-type: none"> (a) a description of the relevant impacts of the action; (b) a detailed assessment of the nature and extent of the likely short term and long term relevant impacts; (c) a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible; (d) analysis of the significance of the relevant impacts; (e) any technical data and other information used or needed to make a detailed assessment of the relevant impacts. 	<p>Water resource assessments are included in Sections 7.3, 7.4 and 7.10 and Appendices H, J and Q.</p>
	<p>4 Proposed safeguards and mitigation measures</p> <p>4.01 Information given under paragraph 2.01(e) must include:</p> <ul style="list-style-type: none"> (a) a description, and an assessment of the expected or predicted effectiveness of, the mitigation measures; (b) any statutory or policy basis for the mitigation measures; (c) the cost of the mitigation measures; 	<p>Water resource assessments are included in Sections 7.3, 7.4 and 7.10 and Appendices H, J and Q.</p>

Ref	Requirement	Where Addressed in Modification Report
	(d) an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing; (e) the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program; (f) a consolidated list of mitigation measures proposed to be undertaken to prevent, minimise or compensate for the relevant impacts of the action, including mitigation measures proposed to be taken by State governments, local governments or the proponent.	
	5 Other approvals and conditions 5.01 Information given under paragraph 2.01(f) must include: (a) details of any local or State government planning scheme, or plan or policy under any local or State government planning system that deals with the proposed action, including: (i) what environmental assessment of the proposed action has been, or is being, carried out under the scheme, plan or policy; (ii) how the scheme provides for the prevention, minimisation and management of any relevant impacts; (b) a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the Act), including any conditions that apply to the action; (c) a statement identifying any additional approval that is required; (d) a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.	Water resource assessments are included in Sections 7.3, 7.4 and 7.10 and Appendices H, J and Q.
	6 Environmental record of person proposing to take the action 6.01 Details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against: (a) the person proposing to take the action; and (b) for an action for which a person has applied for a permit, the person making the application. 6.02 If the person proposing to take the action is a corporation—details of the corporation’s environmental policy and planning framework.	Refer to information provided within EPBC Referral 2021/8875.
	7 Information sources 7.01 For information given in a draft public environment report or environmental impact statement, the draft must state: (a) the source of the information; and (b) how recent the information is; and (c) how the reliability of the information was tested; and (d) what uncertainties (if any) are in the information.	References are included in Sections 10 and Appendices H, J and Q.
3.	The Applicant must undertake an assessment of all protected matters that may be impacted by the development under the controlling provision identified in paragraph 1. The DAWE considers that the proposed action is likely to result in changes to groundwater and surface water quality and hydrological regimes, including potential impacts to groundwater dependent ecosystems from cumulative mining in the area.	Water resource assessments are included in Sections 7.3, 7.4 and 7.10 and Appendices H, J and Q.

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4.	The Applicant must consider each of the protected matters under the triggered controlling provision that may be impacted by the action. Note that this may not be a complete list and it is the responsibility of the Applicant to undertake an analysis of the significance of the relevant impacts and ensure that all protected matters that are likely to be significantly impacted are assessed for the Commonwealth Minister's consideration.	Water resource assessments are included in Sections 7.3, 7.4 and 7.10 and Appendices H, J and Q.
GENERAL REQUIREMENTS		
Relevant Regulations		
5.	The Modification Report must address the matters outlined in Schedule 4 of the EPBC Regulations and the matters outlined below in relation to the controlling provisions.	As above
Project Description		
6.	The title of the action, background to the action of the action and current status.	Sections 1, 2 and 3.
7.	The precise location and description of all works to be undertaken (including associated offsite works and infrastructure), structures to be built or elements of the action that may have impacts on MNES.	Figure 4
8.	How the action relates to any other actions that have been, or are being taken in the region affected by the action.	Sections 2 and 3
9.	How the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts on MNES.	Section 3
Impacts		
10.	<p>The Modification Report must include an assessment of the relevant impacts¹ of the action on the matters protected by the controlling provisions, including:</p> <ul style="list-style-type: none"> i. a description and detailed assessment of the nature and extent of the likely direct, indirect and consequential impacts, including short term and long term relevant impacts; ii. a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible; iii. analysis of the significance of the relevant impacts; and iv. any technical data and other information used or needed to make a detailed assessment of the relevant impacts. <p>¹ Relevant impacts are those impacts likely to significantly impact on any matter protected under the EPBC Act</p>	Section 3
Avoidance, Mitigation and Offsetting		
11.	<p>For each of the relevant matters protected that are likely to be significantly impacted by the action, the Modification Report must provide information on proposed avoidance and mitigation measures to manage the relevant impacts of the action including:</p> <ul style="list-style-type: none"> i. a description, and an assessment of the expected or predicted effectiveness of the mitigation measures, ii. any statutory policy basis for the mitigation measures; iii. the cost of the mitigation measures; 	Section 7

Ref	Requirement	Where Addressed in Modification Report
	iv. an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing; v. the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program.	
KEY ISSUES		
Water resource, in relation to coal seam gas development and large coal mining development		
12.	<u>Comments</u> The Applicant has provided preliminary hydrological information that is insufficient for an adequate assessment of the impacts of the proposed action on water resources, however the Department considers key impacts to water resources are likely to arise from altered surface hydrology and quality as well as increased groundwater drawdown. The Department understands that the Applicant will provide detailed water modelling as part of the Modification Report which will allow a detailed assessment of the potential impacts of the proposed action on water resources be undertaken. A joint Request for Advice (RFA) from the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC) will need to be developed for this project.	Water resource assessments are included in Sections 7.3, 7.4 and 7.10 and Appendices H, J and Q.
Assessment Requirements		
13.	The Modification Report must include a detailed water assessment undertaken in accordance with the IESC Information Guidelines (http://iesc.environment.gov.au/publications/information-guidelines-independent-expert-scientific-committee-advice-coal-seam-gas). The Modification Report should present sufficient evidence for independent verification of: <ul style="list-style-type: none"> • the processes of cause and effect between the project and water resource; and • the magnitude of the impacts on water resources. 	Water resource assessments are included in Sections 7.3, 7.4 and 7.10 and Appendices H, J and Q.
14.	Sufficient information should be provided to consider the appropriateness of the underlying assumptions and conceptual models on which numerical models are based. An independent reader of the environmental assessment documents should be able to verify all significant conclusions made by the proponent.	Section 7.3 and Appendix H
15.	The Modification Report should provide the following information outlined in the IESC Information Guidelines:	-
16.	<u>A description of current regional and proposed impacts to water resources and water-dependent assets.</u> The water assessment should provide a regional overview of the project area including a description of the geological basin, coal resource, surface water catchments, groundwater systems, water-dependent assets, and current and reasonably foreseeable coal mining, CSG development and other water-intensive activities, including irrigation. This should include any relevant information generated by a bioregional assessment.	Section 7.3 and Appendix H
17.	Provide descriptions of existing conditions, values and sensitivity to potential impacts.	Section 7.3 and Appendix H
18.	Provide conceptual and/or numerical modelling of potential impacts.	Section 7.3 and Appendix H
19.	Propose mitigation and management measures.	Section 7.3.4 and Appendix H

Ref	Requirement	Where Addressed in Modification Report
20.	<p><u>Groundwater modelling</u></p> <p>Include a groundwater model that uses a wider variety of parameters and predictions to enable clarification of potential drawdown impacts and include, accordingly, the assessment of impacts on the creeks and tributaries traversing the mining area and downstream. The modelling should show the range of likelihood of possible outcomes, based on sensitivity and uncertainty analysis.</p>	Section 7.3 and Appendix H
21.	Predictions of groundwater changes over the life of the proposed projects (for example, using numerical groundwater models)	Section 7.3 and Appendix H
22.	Predictions of groundwater recovery beyond the life of the proposed projects (for example, using numerical groundwater models).	Section 7.3 and Appendix H
23.	<p><u>Analysing potential impacts to groundwater dependant ecosystems (GDEs)</u></p> <p>Confirm the distribution of GDEs in the region and the depth to groundwater in areas of potential GDEs.</p>	Section 7.10 and Appendix Q
24.	Include an assessment of GDEs	Section 7.10 and Appendix Q
25.	<p><u>Surface water modelling</u></p> <p>The Modification Report should provide surface water modelling which considers water loss from surface waters due to groundwater drawdown, cracking and ponding. The modelling should show the range and likelihood of possible outcomes, based on sensitivity and uncertainty analysis.</p>	Section 7.4 and Appendix J
26.	Include a surface water assessment.	Section 7.4 and Appendix J
27.	<p><u>Cumulative impact assessment</u></p> <p>The Modification Report should include a cumulative impact assessment and consider all relevant past, present and reasonably foreseeable actions, including impacts from water-intensive activities other than mining and CSG, and programs and policies that are likely to impact water resources. Where impacts from a new project are considered small, these need to be considered with the impacts from existing development and the cumulative impact must be assessed to determine if a threshold of acceptable total impact may be crossed.</p>	Sections 7.3 and 7.4 and Appendix H and Appendix J
28.	<p><u>Comprehensive and detailed monitoring</u></p> <p>The Modification Report should derive site-specific water quality guidelines and provide more information on how they plan to monitor impacts. For example, the parameters and frequency of monitoring should be detailed.</p>	Sections 7.3.4 and 7.4.4 and Appendix H and Appendix J
29.	<p><u>Final landform and rehabilitation assessment</u></p> <p>Predictions of final void water quality and quantity.</p>	Section 7.3.3 & Appendix H
30.	Discussion on re-equilibration of groundwater and eventual discharges to the environment.	Section 7.3.3 & Appendix H

Ref	Requirement	Where Addressed in Modification Report
Other approvals and conditions		
31.	Information in relation to any other approvals or conditions required must include the information prescribed in Schedule 4 Clause 5 (a) (b) (c) and (d) of the EPBC Regulations 2000.	Section 7
Information Sources		
32.	For information given in a Modification Report, the Modification Report must state the source of the information, how recent the information is, how the reliability of the information was tested; and what uncertainties (if any) are in the information.	Section 10
REFERENCES		
	REFERENCES <ul style="list-style-type: none"> • <i>Environment Protection and Biodiversity Conservation Regulations 2000 Schedule 4</i> • <i>NSW Assessment Bilateral Agreement (2015) - Item 18.1, Item 18.5, Schedule 1</i> • <i>Matters of National Environmental Significance - Significant impact guidelines 1.1 (2013) EPBC Act</i> • <i>Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals (2014)</i> 	-