Report BOO-ARW-ENV-REP-000020

Safe Work. Strong Business.



EPBC 2012/6377 Compliance Report 2019/20

Bowen Gas Project

Released	May 2020
Document Owner	Operations Environment Manager
Document Author	Project Environment Manager

Please see document administration section for more information



Report

Contents

1.	Purpose	3
2.	Description of Activities	3
2.1	Activity from February 14 2019 to February 14 2020	3
3.	Approval Conditions	3
3.1	Compliance Table	3
3.2	Referenced Management Plans	3
3.3	Records	4
4.	Non-Compliances	4
5.	New Environmental Risks	4
6.	Condition 30 reporting	4
7.	Declaration of Accuracy	6
8.	Document Administration	7
Appen	dix A: Compliance Table	8



1. Purpose

The purpose of this report is the annual report on the Compliance of EPBC Approval 2012/6377 for the year of of February 14 2019 to February 14 2020.

2. Description of Activities

EPBC Number - 2012/6377

Arrow Bowen Gas Project (BGP)

Approval Holder : Arrow Energy Pty Ltd

ABN :73 078 521 936

Approved Action: To develop, operate and decommission a coal seam gas field in the Bowen basin, Queensland referred under the EPBC Act on May 9 2012; and as described in the Arrow Bowen Gas Project Environmental Impact Statement (March 2013) and Supplementary Report (May 2014)

Location of Project: Bowen Basin

Person Accepting responsibility for the report: Chris Mijnssen

Dates for Reporting period: February 14 2019 – February 14 2020

Date of Preparation of report: May 5 2020

2.1 Activity from February 14 2019 to February 14 2020

Two work packages were undertaken on PL486 in the Bowen Basin between February 14 2019 and February 14 2020:

PL486 IDP 1 - 14 wells and ~9.3km of gathering and

Red Hill GLs – 3 wells and 2.3 km of gathering

3. Approval Conditions

3.1 Compliance Table

The compliance table - List of Conditions and how they have been met is in Appendix A at the back of this report.

3.2 Referenced Management Plans

Species Impact Management Plan (SIMP) – is available on the Arrow website.

BGP Offset Strategy - is available on the Arrow website.



Offset Area management Plan (OAMP) – currently being assessed/ approved by Department of Agriculture, Water and the Environment (DAWE).

Groundwater Monitoring and Management Plan GMMP - is available on the Arrow website.

3.3 Records

Records substantiating all activities associated with or relevant to approval conditions are stored in Arrow's file directories.

4. Non-Compliances

Nil

5. New Environmental Risks

Nil

6. Condition 30 reporting

As per Condition A30:

 a. - a reconciliation of actual impacts against whole of project maximum disturbance limits for EPBC listed threatened species and communities listed in Table 1. This reconciliation is shown in Table 1 below showing the Proposed disturbance vs Actual disturbance.

Threatened Species	Whole of project approved	Phase 1 proposed disturbance (ha)	Actual disturbance (ha) as of February 14 2020
Black Ironbox (Eucalyptus raveretiana)	258.32		0
Bluegrass (Dichanthium setosum)	809.59	25	2.6
King Bluegrass (Dichanthium queenslandicum)	1161.23	0	0
Ornamental Snake (Denisonia maculata)	1030.31	104	3.7
Squatter Pigeon (Geophaps scripta scripta)	1415.44	75	13.6
Red Goshawk (Erythrotriorchis radiatus)	187.14	39	1.69
Koala (<i>Phascolarctos cinereus</i>) (combined populations of Queensland, New South Wales and the Australian Capital Territory)	2466.04	34	2.4
South-eastern long-eared bat (Nyctophilus corbeni)	2282.57	0	0
Large-eared Pied Bat (Chalinolobus dwyeri)	1451.44	0	0
Threatened Ecological Communities			
Brigalow (<i>Acacia harpophylla</i> dominant and co- dominant)	781.16	10	0.16
Weeping Myall Woodlands	198.48	0	0
Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin	871.10	0	0
Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions	107.42	0	0

 Table 1 – Proposed vs Actual Disturbance



b. the number and spatial distribution of boreholes where hydraulic fracturing is expected to occur or has occurred; - NO hydraulic fracturing has been undertaken since commencemnt of the project in February 2019.

c. details of constituent components of hydraulic fracturing agents used and any other reinjected fluid(s), their toxicity as individual substances and as total effluent toxicity and ecotoxicity. NO hydraulic fracturing has been undertaken since commencement of the project in February 2019.

7. Declaration of Accuracy

Declaration of accuracy

In making this declaration, I am aware that sections 490 and 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) make it an offence in certain circumstances to knowingly provide false or misleading information or documents. The offence is punishable on conviction by imprisonment or a fine, or both. I declare that all the information and documentation supporting this compliance report is true and correct in every particular. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed :

Full name (please print) : Chris Mijnssen

Position (please print) : General Manager Bowen and Non-core Opportunities

Organisation (please print including ABN/ACN if applicable) : Arrow Energy Pty Ltd

ABN: 73 078 521 936

Date: 11 / 05 /2020



8. Document Administration

This document has been created using ORG-ARW-IMT-TEM-00005 v4.0

Revision	Revision Date	Revision Summary	Author
0	May 11 2020	Final version	Alison Way
Controllec	d document loca	tion	
DOCUMENT	CONTROL TO CRE	ATE LINK TO KEY DOCUMENT LIBRARY	ON THE RESERVOIR]
Related d	ocuments		
Document N	umber	Document title	
Acceptan	ce and release		
Author			
Position		Incumbent	Release Date
Projects Envi	ronment Manager	Alison Way	11/05/2020
Stakehold	lers and reviewe	ers	
Position			
		Incumbent	Review Date
Hydrogeology	/ Team Lead	Incumbent Stephen Denner	Review Date 11/05/2020
	/ Team Lead ager Asset (Bowen)		
General Man		Stephen Denner	11/05/2020
General Man	ager Asset (Bowen) Relations Manager nmunity and	Stephen Denner Grahame Shann	11/05/2020 11/05/2020
General Man Government Manager Con	ager Asset (Bowen) Relations Manager nmunity and ons	Stephen Denner Grahame Shann Michael Todd	11/05/2020 11/05/2020 11/05/2020
General Man Government Manager Con Communicati	ager Asset (Bowen) Relations Manager nmunity and ons	Stephen Denner Grahame Shann Michael Todd	11/05/2020 11/05/2020 11/05/2020
General Man Government Manager Con Communicati Approver Position	ager Asset (Bowen) Relations Manager nmunity and ons (S) ager Bowen and	Stephen Denner Grahame Shann Michael Todd Liz Edwards	11/05/2020 11/05/2020 11/05/2020 11/05/2020

Scott Nairn

11/05/2020

Environment Manager

Appendix A: Compliance Table



EPBC Approval 2012/6377 - Bowen Gas Project Compliance report for 2019/2020

Condition				De	scription			Compliant/Non-Compliant or Not applicable				
A01	1		may determine that a p uired under these condi		roved by the Queensland Governmen	t satisfies a pla	an, strategy or	na				
A02	2	For the purpose of the action, the approval holder must not take any action outside the Authorities to Prospect (ATPs) 1103, 1031, 1025, 749, 742 and 759, shown as the Bowen Gas Project Tenements at Attachment A.						Compliant	2019 activities were unde			
A03	3	The action is	limited to a maximum o	f 4,000 coal seam gas produc	tion wells and associated infrastructu	ire		Compliant	A total of 17 wells were c PL486			
			project area. The appro		protect those EPBC listed species and hese maximum disturbance limits. ts	communities	(identified in Table		The whole of project max 2012/6377 were not exc planned and actual is in t			
			Threatened Species		Maximum disturbance (hectares) to core habitat known and core habitat possible							
			Black Ironbox (Eucalypt	us raveretiana)	258.32							
			Bluegrass (Dichanthium		809.59							
			King Bluegrass (Dichan		1161.23							
			Ornamental Snake (Der		1030.31							
			Squatter Pigeon (Geopl		1415.44							
A04	4		Red Goshawk (Erythrot		187.14			Compliant				
A04	4		Koala (Phascolarctos ci	inereus) (combined and, New South Wales and the	2466.04			Compliant				
			South-eastern long-ear	ed bat (Nyctophilus corbeni)	2282.57							
			Large-eared Pied Bat (Chalinolobus dwyeri)	1451.44							
			Threatened Ecological	Communities	Maximum disturbance (hectares)							
				phylla dominant and co-	781.16							
			Weeping Myall Woodla	nds	198.48							
				he Queensland Central	871.10							
			Semi-evergreen vine th (North and South) and	ickets of the Brigalow Belt Nandewar Bioregions	107.42							
		Table 2 apply	y to Project Phase 1. The	approval holder must not ex	in Table 2) within the project area the ceed these maximum disturbance lim 7 and shows the amended maximum o	its for Project	Phase 1. Table 4.1		The whole of project may approval) were not excer contains amended Phase A Table detailing the Offs			
				Table 2: Maxim	um disturbance limits for Project Pha	se 1	Table 4.1 - Approved Phase 1 maximum disturbance limits	and proposed impacts	Phase 1.proposed ¤		Compliance Report Table	
					Threatened Sp	ecies	Maximum disturbance (hectares) to core habitat known and core habitat possible	MNES¤ Terrestrial·Species¤	limit (ha)¤	disturbance (ha)*¤		
								Black Irophox (21.33	Black Ironbox (Eucalyptus raveretiana)¤	21.33¤
		Black Ironbox	Eucalyptus raveretiana)				25¤ ¤					
		Bluegrass (Dic	hanthium setosum)	249.84	Bluegrass (<i>Dicanthium</i> · <u>setosum</u>)¤	249.84¤						
		Bluegrass (<i>Dic</i> King Bluegrass	hanthium setosum) s (Dichanthium queenslandicum)	249.84 429.36	King Bluegrass (<i>Dichanthium gueenslandicum</i>)¤	429.36¤	0¤ ¤					
		Bluegrass (<i>Dic</i> King Bluegrass Ornamental Sr	hanthium setosum)	249.84	King-Bluegrass (<i>Dichanthium: queenslandicum</i>)¤ Ornamental: Snake (<i>Denisonia: maculata</i>)¤ Squatter-Pigeon: (Southern): (<i>Geophaps: scripta</i> :	429.36¤ 296.20¤	104¤ ¤					
A05	5	Bluegrass (<i>Dio</i> King Bluegrass Ornamental Sr Squatter Pigeo Red Goshawk	hanthium setosum) (Dichanthium queenslandicum) Nake (Denisonia maculata) n (Geophaps scripta scripta) (Erythrotriorchis radiatus)	249.84 429.36 296.2 313.1 49.4	King-Bluegrass (<i>Dichanthium: queenslandicum</i>)¤ Ornamental: Snake (<i>Denisonia: maculata</i>)¤ Squatter-Pigeon: (Southern): (<i>Geophaps: scripta</i> : scripta)¤	429.36α 296.20α 313.10α	104α ¤ 75α ¤	Compliant				
A05	5	Bluegrass (Dic King Bluegrass Ornamental Sr Squatter Pigeo Red Goshawk Koala (Phasco populations of	hanthium setosum) (Dichanthium queenslandicum) (ake (Denisonia maculata) n (Geophaps scripta scripta) (Erythrotriorchis radiatus) larctos cinereus) (combined Queensland, New South Wales and the	249.84 429.36 296.2 313.1	King-Bluegrass (<i>Dichanthium: queenslandicum</i>)¤ Ornamental: Snake (<i>Denisonia: maculata</i>)¤ Squatter-Pigeon: (Southern): (<i>Geophaps: scripta</i> :	429.36¤ 296.20¤	104¤ ¤	Compliant				
A05	5	Bluegrass (Dic King Bluegrass Ornamental Sr Squatter Pigeo Red Goshawk Koala (<i>Phasco</i> populations of Australian Cap	hanthium setosum) (Dichanthium queenslandicum) (ake (Denisonia maculata) n (Geophaps scripta scripta) (Erythrotriorchis radiatus) larctos cinereus) (combined Queensland, New South Wales and the ital Territory)	249.84 429.36 296.2 313.1 49.4	King-Bluegrass (<i>Dichanthium: queenslandicum</i>) ^a Ornamental-Snake (<i>Denisonia maculata</i>) ^a Squatter-Pigeon (Southern)- (<i>Geophaps: scripta- scripta</i>) ^a Red-Goshawk-(<i>Erythrotriorchis:tadiatus</i>) ^a Koala (<i>Phascolarctos: cinereus</i>) ^a South-eastern-Long-Eared Bat (<i>Nyctophilus: corbeni</i>) ^a	429.36α 296.20α 313.10α 49.40α 376.59α 618.12α	104α α 75α α 39α α 34α α Οα α	Compliant				
A05	5	Bluegrass (<i>Dic</i> King Bluegrass Ornamental Sr Squatter Pigeo Red Goshawk Koala (<i>Phascc</i> populations of Australian Cap South-eastern	hanthium setosum) (Dichanthium queenslandicum) (ake (Denisonia maculata) n (Geophaps scripta scripta) (Erythrotriorchis radiatus) larctos cinereus) (combined Queensland, New South Wales and the	249.84 429.36 296.2 313.1 49.4 376.59	King-Bluegrass (<i>Dichanthium: queenslandicum</i>)¤ Ornamental-Snake (<i>Denisonia: maculata</i>)¤ Squatter-Pigeon-(Southern)- (<i>Geophaps: scripta- scripta</i>)¤ Red-Goshawk-(<i>Erythrotriorchis:radiatus</i>)¤ Koala (<i>Phascolarctos: cinereus</i>)¤ South-eastern-Long-Eared Bat (<i>Nyctophilus: corbeni</i>)¤ Large-eared: Pied-Bat (<i>Chalinolobus: dwyeri</i>)¤	429.36α 296.20α 313.10α 49.40α 376.59α	104α α 75α α 39α α 34α α	Compliant				
A05	5	Bluegrass (Dic King Bluegrass Ornamental Sr Squatter Pigee Red Goshawk Koala (Phasoc populations of Australian Cap South-eastern Large-eared P Threatened Ec	hanthium setosum) (Dichanthium queenslandicum) (ake (Denisonia maculata) In (Geophaps scripta scripta) (Erythrotriorchis radiatus) larctos cincerus) (combined Queensland, New South Wales and the ital Territory) long-eared bat (Nyctophilus corbeni) led Bat (Chalinolobus dwyeri) ological Communities	249.84 429.36 296.2 313.1 49.4 376.59 618.12 723.67 Maximum disturbance (hectares)	King Bluegrass (<i>Dichanthium: queenslandicum</i>) ^a Ornamental: Snake (<i>Denisonia: maculata</i>) ^a Squatter-Pigeon (Southern): (<i>Geophaps: scripta</i> <i>scripta</i>) ^a Red-Goshawk: (<i>Erythrotriorchis radiatus</i>) ^a Koala (<i>Phascolarctos: cinereus</i>) ^a South-eastern: Long-Eared Bat (<i>Nyctophilus: corbeni</i>) ^a Large-eared Pied Bat (<i>Chalinolobus: dwyeri</i>) ^a EPBC: Community a Brigalow (<i>Acacia: happophylla</i> : dominant: and: co-	429.36a 296.20a 313.10a 49.40a 376.59a 618.12a 723.67a	104α α 75α α 39α α 34α α 0α α 0α α	Compliant				
A05	5	Bluegrass (Dic King Bluegrass Ornamental Sr Squatter Pigee Red Goshawk Koala (Phasoc populations of Australian Cap South-eastern Large-eared P Threatened Ec	hanthium setosum) (Dichanthium queenslandicum) (ake (Denisonia maculata) n (Geophaps scripta scripta) (Erythrotriorchis radiatus) (arctos cincreus) (combined Queensland, New South Wales and the ital Territory) tong-eared bat (Nyctophilus corbeni) ied Bat (Chalinolobus dwyeri)	249.84 429.36 296.2 313.1 49.4 376.59 618.12 723.67	King-Bluegrass (<i>Dichanthium: queenslandicum</i>) ^a Ornamental: Snake. (<i>Denisonia: maculata</i>) ^a Squatter-Pigeon (Southern): (<i>Geophaps: scripta</i>) <i>scripta</i>) ^a Red-Goshawk: (<i>Erythrotriorchis: radiatus</i>) ^a Koala (<i>Phascolarctos: cinereus</i>) ^a South-eastern: Long-Eared: Bat: (<i>Nyctophilus: corbeni</i>) ^a Large-eared: Pied: Bat: (<i>Chalinolobus: dwyeri</i>) ^a EPBC: Community ^a Brigalow: (<i>Acacia: harpophylla</i> : dominant: and: co- dominant) ^a	429.36a 296.20a 313.10a 49.40a 376.59a 618.12a 723.67a 283.92a	104α α 75α α 39α α 34α α 0α α 0α α 10α α	Compliant				
A05	5	Bluegrass (Dic King Bluegrass Ornamental Sr Squatter Pigec Red Goshawk Koala (Phasec populations of Australian Cap South-eastern Large-eared P Threatened Ec Brigalow (Aca dominant) Weeping Myal	hanthium setosum) (Dichanthium queenslandicum) (ake (Denisonia maculata) n (Geophaps scripta scripta) (Erythrotriorchis radiatus) larotos cinereus) (combined Queensland, New South Wales and the tial Territory) long-eared bat (Nyctophilus corbeni) ied Bat (Chalinolobus dwyeri) ological Communities sia harpophylla dominant and co- Woodlands	249.84 429.36 296.2 313.1 49.4 376.59 618.12 723.67 Maximum disturbance (hectares) 283.92 79.68	King-Bluegrass (<i>Dichanthium: queenslandicum</i>)¤ Ornamental-Snake (<i>Denisonia: maculata</i>)¤ Squatter-Pigeon-(Southern)- (<i>Geophaps: scripta</i> - <i>scripta</i>)¤ Red-Goshawk-(<i>Erythrotriorchis:radiatus</i>)¤ Koala (<i>Phascolarctos: cinereus</i>)¤ South-eastern-Long-Eared Bat (<i>Nyctophilus: corbeni</i>)¤ Large-eared-Pied Bat (<i>Chalinolobus: dwyeri</i>)¤ EPBC-Community Brigalow-(<i>Acacia:harpophylla</i> -dominant-and-co- dominant)¤	429.36a 296.20a 313.10a 49.40a 376.59a 618.12a 723.67a 283.92a 79.68a	104a a 75a a 39a a 34a a 0a a 0a a 10a a 10a a	Compliant				
A05	5	Bluegrass (Dic King Bluegrass Ornamental Sr Squatter Pigec Red Goshavk Koala (Phasoc populations of Australian Cag South-eastern Large-eared P Threatened Ec Brigalow (Aca dominant) Weeping Myal Natural Grass	hanthium setosum) (Dichanthium queenslandicum) (ake (Denisonia maculata) n (Geophaps scripta scripta) (Erythrotriorchis radiatus) larctos cincreus) (combined Queensland, New South Wales and the tial Territory) long-eared bat (Nyctophilus corbeni) led Bat (Chalinolobus dwyeri) ological Communities sia harpophylla dominant and co-	249.84 429.36 296.2 313.1 49.4 376.59 618.12 723.67 Maximum disturbance (hectares) 283.92	King Bluegrass (<i>Dichanthium: queenslandicum</i>) ^a Ornamental: Snake (<i>Denisonia: maculata</i>) ^a Squatter-Pigeon: (Southern): (<i>Geophaps: scripta</i> : <i>scripta</i>) ^a Red-Goshawk: (<i>Erythrotriorchis radiatus</i>) ^a Red-Goshawk: (<i>Erythrotriorchis radiatus</i>) ^a Koala: (<i>Phascolarctos: cinereus</i>) ^a South-eastern: Long-Eared Bat (<i>Nyctophilus: corbeni</i>) ^a Large-eared Pied Bat (<i>Chalinolobus: dwyeri</i>) ^a EPBC: Community a Brigalow: (<i>Acacia: harpophylla</i> : dominant: and: co- dominant) ^a Weeping: Myall: Woodlands ^a Naturai: Orrasslands of the Queensland: Central- Highlands: and: the-northern: Fitzroy-Basin ^a	429.36a 296.20a 313.10a 49.40a 376.59a 618.12a 723.67a 283.92a	104α α 75α α 39α α 34α α 0α α 0α α 10α α	Compliant				
A05	5	Bluegrass (Dic King Bluegrass Ornamental Sr Squatter Pigec Red Goshawk Koala (<i>Phasoc</i> populations of Australian Cap South-eastern Large-eared P Threatened Ec Brigalow (Acac dominant) Weeping Myal Natural Grass Highlands Semi-evergret	hanthium setosum) (Dichanthium queenslandicum) (ake (Denisonia maculata) In (Geophaps scripta scripta) (Erythrotriorchis radiatus) Jarotos cinereus) (combined Queensland, New South Wales and the tal Territory) long-eared bat (Nyctophilus corbeni) ed Bat (Chalinolobus dwyeri) ological Communities sia harpophylla dominant and co- Woodlands ands of the Queensland Central	249.84 429.36 296.2 313.1 49.4 376.59 618.12 723.67 Maximum disturbance (hectares) 283.92 79.68	King Bluegrass (<i>Dichanthium: queenslandicum</i>) ^a Ornamental: Snake (<i>Denisonia: maculata</i>) ^a Squatter-Pigeon (Southern): (<i>Geophaps: scripta: scripta</i>) Red: Goshawk. (<i>Erythrotriorchis radiatus</i>) ^a Roala: (<i>Phascolarctos: cinereus</i>) ^a South-eastern: Long-Eared Bat (<i>Nyctophilus: corbeni</i>) ^a Large-eared Pied Bat (<i>Chalinolobus: dwyeri</i>) ^a EFBC: Community Brigalow. (<i>Acacia: hatpophylla:</i> dominant: and: co- dominant) ^a Weeping: Myall: Woodlands ^a Natural: Grasslands: of the Queensland: Central-	429.36a 296.20a 313.10a 49.40a 376.59a 618.12a 723.67a 283.92a 283.92a 79.68a 278.40a 97.60a	104α α 75α α 39α α 0α α 0α α 10α α 0α α	Compliant				

2019 Compliance Status

dertaken in PL486 (which was ATP 1103)

e constructed between February 2019 and February 2020 on

aximum disturbance limits in Table 1 of EPBC approval xceeded in 2019. A Table detailing the Offset disturbance in the EPBC Annual Report Table 1 Section 6.

aximum disturbance limits in Table 2 (from the original EPBC ceeded in 2019. Table 4.1 in the approved Offset Strategy se 1 disturbance limits and these limits were not exceeded. ffset disturbance planned and actual is in the EPBC Annual ole 1 Section 6.

Condition		Description	Compliant/Non-Compliant or Not applicable	
A06	6	The approval holder must undertake pre-clearance surveys of proposed disturbance areas.	Compliant	Pre-clearance surveys of sites
5	7	Pre-clearance surveys must be supervised by a suitably qualified person and undertaken in accordance with the Department's survey guidelines in effect at the time of the survey or other survey methodology endored by the Department in writing	Compliant	All pre-clearance surveys qualified person. The DoE Arrow's Ecological Impact
A08	8	A report of the outcomes of pre-clearance surveys must be included in annual reporting required by condition 30.	Compliant	The outcomes of the pre- Compliance Report Table
A09	9	Prior to the commencement of Project Phase 1, the approval holder must prepare and submit an EPBC Species Impact Management Plan for the Minister's written approval. The EPBC Species Impact Management Plan must include: a. measures that will be taken to avoid, mitigate and manage impacts to EPBC listed threatened species and their habitat during clearance of vegetation, including the involvement of a suitably qualified person at all times during clearance of vegetation; b. measures that will be taken to avoid, mitigate and manage impacts to EPBC listed threatened species and their habitat and to EPBC communities during construction, operation and decommissioning of the action; c. a monitoring program to determine the success of mitigation and management measures to ensure adaptive management for the duration of this approval; d. a discussion of relevant conservation advice, recovery plans and threat abatement plans and how measures proposed in the EPBC Species Impact Management Plan are consistent with the measures in these documents; and e. details of how the approval holder has addressed any residual significant impacts to any EPBC listed threatened species and its habitat and/or EPBC communities not identified in Table 1, to be offset in accordance with the EPBC Act Environmental Offsets Policy.	Compliant	Arrow prepared and had a Management Plan for Pro commencement of Projec
A10	10	The approval holder cannot commence Project Phase 1 until an EPBC Species Impact Management Plan has been approved by the Minister in writing. The approved EPBC Species Impact Management Plan must be implemented by the approval holder.	Compliant	Arrow prepared and had Management Plan for Pro commencement of Projec being implemented.
A11	11	The approval holder must ensure that environmental offsets comply with the principles of the EPBC Act Environmental Offsets Policy (2012). If the approval holder has provided an offset in respect of impacts predicted for a stage of the project which subsequently are not realised, such parts of the offset in excess of the obligation for that stage can be applied towards offsets required for the impacts of subsequent project stages.	Compliant	Arrow is currently securin EPBC Act Environmental (
A12	12	The approval holder may carry out the action in stages. The approval holder must deliver environmental offsets for each Project Phase related to the residual impacts of each respective Project Phase on EPBC listed threatened species and communities.	not applicable	Arrow is currently securin impacts of the EPBC listed
A13	13	The Offset Strategy may be prepared and submitted to the Minister for approval in stages. Each stage of the OffsetStrategy must provide information in respect of the next Project Phase to commence and all earlier Project Phases. A Project Phase must not commence until an Offsets Strategy addressing offset obligations for that Project Phase has been approved by the Minister.	Compliant	Arrow prepared and subn approved October 12 201
A14	14	The Offset Strategy must include: a. a strategy to secure the minimum offsets proposed for the residual significant impacts for the next Project Phase; b.a reconciliation of impacts predicted in the next Project Phase and actual disturbance in earlier Project Phases against the maximum disturbacne limits set out in Table 1; c. a process to offset, in accordance with the EPBC Act Environmental Offsets Policy, any significant impact for the next Project Phase to any EPBC listed threatened species or EPBC community not identified in Table 1; d. a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; e. a description of potential risks to the successful implementation of the plan, and a description of the contingency measures that would be implemented to mitigate against these risks; f. a timeline for when actions identified in the Offset Strategy will be implemented for each offset area; and g. the proposed legal mechanism for securing the offset.	Compliant	The approved Offsets Stra

2019 Compliance Status

of proposed disturbance areas were undertaken on the 2019

ys in 2019 were undertaken or supervised by a suitably DOEE survey guidelines were followed and are reflected in act Assessment Procedure (ORG-ARW-HSM-PRO-00070)

re-clearance surveys are included in the EPBC Annual ole 1 Section 6 as required by Condition 30.

ad approved by the minister an EPBC Species Impact Project Phase 1 (approval date October 15 2018) prior to ject Phase 1 in February 14 2019.

ad approved by the minister an EPBC Species Impact Project Phase 1 (approval date October 15 2018) prior to ject Phase 1 in February 14 2019. The approved SIMP is

ring Offset Properties that comply with the principles of the al Offsets Policy .

ring an Offset Property for Project Phase 1 for the residual ted threatened species and communities.

bmitted an Offset Strategy to the Minister which was 018

strategy included all aspects in Condition 14

Condition		Description	Compliant/Non-Compliant or Not applicable	
A15	15	The approval holder must not commence Project Phase 1 until the Offset Strategy has been approved by the Minister in writing. The approved Offset Strategy must be implemented by the approval holder.	Compliant	Arrow prepared and subm approved October 12 201 The Offset Strategy is curr DAWE on Feb 14 2020 for Offset Property and once Strategy.
A16	16	Offsets for Project Phases must must be in accordance with the mechanism identified in the Offset Strategy and must be registered and legally secured in accordance with Queensland legislation prior to commencement of any subsequent Project Phase.	not applicable	Arrow has not commence
A17	17	At least 3 months prior to the commencement of any Project Phase after Project Phase 1, the approval holder must submit a revised Offset Strategy required at conditions 13 and 14 for approval by the Minister. The updated Offset Strategy must include: a. a strategy to secure the minimum offsets propoesed for the residual significant impacts to the EPBC listed species and communities for the next Project Phase; b. a map of the location of each EPBC listed threatened species and it habitat and EPBC Community in relation to infrastructure for the next Project Phase; c. the information required for the Offset Strategy Conditions 14a to 14 g for the next Project Phase; d. demonstration of how any proposed offset builds on offsets already secured and will contribute to a larger strategic criteria for whole of project impacts;evaluating the management of offset; e. performance and completion criteria for evaluating the management of offset areas	not applicable	Arrow has not commence
	17A	Within 12 months of project commencement or the Minister approving a version of the Offset Strategy for a Project Phase, the approbval holder must submit for approval of the Minister an Offset Area Management Plan which includes: a. a description of the management measures that will be implemented for the protection of EPBC listed threatened species and communities in each offset area, b. details of how the proposed offsets and Offset Area Management Plan meet the requirements of the EPBC Act Environmental Offsets Policy, c. a field validation survey and baseline description of the current condition (prior to any management activities) of the offset areas, including existing vegetation, d. a description and map (including shapefiles) to clearly define the location and boundaries of the offset areas, accompanied by the offset attributes, e. information about how the offset areas provide connectivity with other relevant habitats and biodiversity corridors including a map depicting the offset areas in relation to other habitats and biodiversity corridors, f. details of how proposed management measures take into account relevant approved conservation advices and are consisitent with the measures contained in relevant recovery plans and threat abatement plans, g. completion criteria and performance targets for evaluating the effectiveness of OAMP implementation, criteria for triggering corrective actions (if necessary), h. a program to monitor, report on and review the effectiveness of the OAMP, i. a description of potential risks to the successful implementation of the offsets, and contingency measures that would be implemented to mitigate against these risks. 	Compliant	Arrow submitted an Offse February 14th 2020 (with currently in discussion wit
	17B	The approval holder must not commence the next project phase until the OAMP for the current project phase has been approved in writing by the Minister.	not applicable	Arrow has not commence
A18	18	Offsets for each Project Phase subsequent to Project Phase 1 must be registered and legally secured in accordance with Queensland legislation prior to commencement of the next Project Phase	not applicable	Arrow is currently securing properties will also be suit
A19	19	The approval holder must not commence the next Project Phase until the Offset Management Plan updated for that Project Phase, has been approved by the Minister in writing. The apporved Offset Management Plan as updated for each Project Phase must be implemented by the apporval holder.	not applicable	Arrow has not commence
A20	20	The approval holder must not discharge, irrigate or otherwise release CSG produced water, wastewater, stormwater or harvested water, into the Isaac River and its tributaries unless the discharge complies with the discharge criteria defined for the site and is in accordance with the requirements of an environmental authority issued under the Environmental Protection Act 1994 (Qld) for the action.	Compliant	Arrow has not discharged harvested water into the I

2019 Compliance Status

bmitted an Offset Strategy to the Minister which was 018. The first phase commenced in February 2019. surrently being impletmented with an OAMP submitted to for approval. The OAMP contains detail on the proposed ce approved the Property will secured with a VDec as per the

ced further Project Phases in 2019.

nced further Project Phases in 2019.

fset Area Management Plan to DAWE for approval on ithn 12 months of project commencement) . The OAMP is with DAWE.

ced next Project Phases

ring Offset Properties for Project Phase 1 . These 2 suitable for future Phases of the BGP when they commence.

nced next Project Phases

ed any CSG produced water, wastewater, stormwater or ne Isaac River and its tributaries.

Condition		Description	Compliant/Non-Compliant or Not applicable	
A21	21	The approval holder must submit a Groundwater Management and Monitoring Plan (GMMP) for the written approval of the Minister who may seek the advice of an expert panel. The GMMP must contain: a. details of a groundwater monitoring network for the measurement of impacts on water resources associated directly or indirectly with the action, including the ability to: (i) provide for the early detection of any changes in the groundwater regime in terms of amplitude and frequency of fluctuations in water pressure, water level and water quality in groundwater systems and changes in connectivity with surface water; (ii) monitor relevant formations to determine hydraulic connectivity and provide for early detection of impacts prior to reaching migration pathways to other formations (eg faults and areas of unconformities known to connect two or more formations); (iii) monitor rolevant formations (eg faults and areas of unconformities known to connect two or more formations); (iii) monitor changes to the project area groundwater balance; and (v) monitor changes to the project area groundwater balance; and (v) monitor changes to water availability for water users and the environment. b. details of a baseline monitoring data acquisition program for the approved action; c. a rationale for the design of the monitoring network with respect to the nature of potential impacts on groundwater levels and a description of how and when these measures will be finalised and subsequently reviewed in accordance with the requirements of the Underground Water Impact Report; e. details of a risk based exceedance response for the actions the approval holder will take, and the timeframes in which these actions will be undertaken, if early warning indicators and trigger threshold values are exceeded; f. details of a the timeframe for a regular review of the GMMP, including to incorporate the outcomes of updates to the numerical groundwater impact Report; and h. provisions to make monitoring results publicly available on the approval	Compliant	The Bowen Gas Project G contained all parts of Con
A22	22	The GMMP, including any revised plans, must be peer reviewed by a suitably qualified water resources expert/s approved by the Minister in writing. A peer review must be submitted to the Minister together with the GMMP and a statement from the suitably qualified water resources expert/s stating that they carried out the peer review and endorse the findings and the content of the GMMP.	Compliant	The Approved GMMP was Minister prior to approva party reviewer 14 March
A23	23	The approval holder must not commence the extraction of water or coal seam gas until the GMMP has been approved by the Minister in writing. The approved GMMP must be implemented by the approval holder.		No extraction of water or
A24	24	The Minister may direct in writing that the approval holder cease water or gas extraction and/or water discharge or use if an early warning indicator, trigger threshold or limit is exceeded, and if the Minister is not satisfied that the action proposed or taken by the approval holder will remedy the situation. The Minister may direct the approval holder to implement alternative action at the expense of the approval holder.		Arrow has received no no
A25	25	If the Minister has directed in writing that the approval holder must cease water or gas extraction and/or water discharge or use pursuant to condition 24 the approval holder must not recommence such activities. until the Minister has given approval in writing for the recommencement of those activities. Approval to recommence activities may be subject to conditions that the Minister considers reasonable.	Not applicable	Arrow has received no no
A26	26	In the event that hydraulic fracturing is required, no more than 1,000 of the total coal seam gas production wells may be hydraulically fractured.	Not applicable	No hydraulic fracturing w
A27	27	The approval holder must ensure that gas wells are constructed, operated and decommissioned in accordance with best practice principles in the Queensland Code of Practice for Construction and Abandoning CSG wells.	Compliant	All gas wells are construc best practice principles in Abandoning CSG wells.
A28	28	Within 20 business days after the commencement of the action, the approval holder must advise the Department in writing of the actual date of commencement.	Compliant	The Department was advi Project Phase 1 on March
A29	29	The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the management plans, reports or strategies required by this approval, and make them available upon request to the Department. The annual report (condition 30) must state all confirmed cases of non-compliance along with details of any remedial actions. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.	Compliant	Records of the implement approval are stored in Arr

2019 Compliance Status
2019 Compliance Status GMMP was approved by DoEE October 2019. The GMMP condition 21.
was peer reviewed and a peer review submitted to the val of the GMMP. The peer review was completed by a 3rd ch 2019. by
or coal seam gas occurred in 2019.
notification from the Minister
notification from the Minister
was undertaken in 2019
ucted, operated and decommissioned in accordance with in the Queensland Code of Practice for Construction and
dvised of the commencement date (February 14 2019) of rch 7 2019.
entation of Management plans prepared for this EPBC Arrow file directories.

Condition		Description	Compliant/Non-Compliant or Not applicable	
A30	30	 Within three months of every 12 month anniversary of the commencementof the action, the approval holder must publish a report on its website for the life of the approval outlining how they have been compliant with the conditions of this approval over the previous 12 months, including the implementation of any management plans, strategies or programs as specified in the conditions. The approval holder must also provide in this report: a. a reconciliation of actual impacts against whole of project maximum disturbance limits for EPBC listed threatened species and communities listed in Table 1; b. the number and spatial distribution of boreholes where hydraulic fracturing is expected to occur or has occurred; and c. details of constituent components of hydraulic fracturing agents used and any other reinjected fluid(s), their toxicity as individual substances and as total effluent toxicity and ecotoxicity. 	Compliant	This report was published commencement anniversa The approval holder must a. a reconciliation of actua limits for EPBC listed threa Table 1 of the EPBC Annua b. the number and spatial expected to occur or has o since commencemnt of th c. details of constituent co other reinjected fluid(s), th toxicity and ecotoxicity. N commencemnt of the proj
A31	31	The approval holder must provide documentary evidence to the Department providing proof of the date of publication of any non- compliance with any of the conditions of this approval at the same time as the report required at condition 30 is published.	Not applicable	No non-compliances have
A32	32	Image: Constraint of the second se	Not applicable	No potential non-compliar
A33	33	Upon the direction of the Minister, the approval holder must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The audit must not commence unless and until the Minister has approved the independent auditor and audit criteria. The audit report must address the criteria to the satisfaction of the Minister.	Not applicable	No notification has been re
A34	34	If the approval holder wishes to carry out any activity other than in accordance with the management plans as specified in the conditions, the approval holder must submit to the Department for the Minister's written approval a revised version of that management plan. The approval holder must not commence the varied activity until the Minister has approved the varied management plan. The Minister will not approve a varied management plan unless the revised management plan would result in an equivalent or improved environmental outcome over time. If the Minister approves the revised management plan, that management plan must be implemented in place of the management plan originally approved.	Not applicable	Arrow does not plan to car management plans as spec
A35	35	If the Minister believes that it is necessary or convenient for the better protection of EPBC Act listed threatened species, listed migratory species or water resources to do so, the Minister may request that the approval holder make specified revisions to the management plans specified in the conditions and submit the revised management plan for the Minister's written approval. The approval holder must comply with any such request within the timeframe specified by the Minister. The revised approved management plan must be implemented. Unless the Minister has approved the revised management plan, then the person taking the action must continue to implement the management plan originally approved, as specified in the conditions.	Compliant	No notification has been re
A36	36	If, at any time after five years from the date of this approval, the approval holder has not commenced the action, then the approval holder must not commence the action without the written agreement of the Minister.	Compliant	The approval commenced original approval date of O

2019 Compliance Status
ned within 3 months of the the February 14 2020 ersary date. The report was published on 14 May 2020. ust also provide in this report:
ctual impacts against whole of project maximum disturbance nreatened species and communities is listed in Section 6 nnual Compliance Report for 2019/2020. tial distribution of boreholes where hydraulic fracturing is
as occurred; - NO hydraulic fracturing has been undertaken of the project in February 2019. t components of hydraulic fracturing agents used and any
 i), their toxicity as individual substances and as total effluent NO hydraulic fracturing has been undertaken since project in February 2019.
ave occurred since commencement in 2019
pliances have occurred since commencement in 2019
en received from the Minister
o carry out any activity other than in accordance with the specified in the Conditions.
en received from the Minister
ced on February 14 2019 which is within 5 years of the of October 27 2014

Condition		Description	Compliant/Non-Compliant or Not applicable	
A37	37	Unless otherwise agreed to in writing by the Minister, the approval holder must publish all management plans referred to in these conditions of approval on their website. Each management plan must be published on the website within 1 month of being approved by the Minister and remain available on that website for the life of the approval.		All approved Plans have be approved by DoEE and pul Bowen Gas Project Phase Bowen Gas Project EPBC S CSG Groundwater Manage

2019 Compliance Status

been published on Arrow's website. Management plans bublished within 1 month on the Arrow website include: se 1 Offset Strategy, Rev 2,3 October 2018 C Species Impact Management Plan, Rev 2, 11 October 2018. agement and Monitoring Plan, dated 18 October 2019.