





# Surat - EPBC Approval 2010/5344 Annual Compliance Report 2021/2022

Surat Gas Project

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#### 1. Purpose

This report addresses compliance with EPBC Approval 2010/5344 (EPBC Approval) for the annual period between 22 October 2021 to 21 October 2022.

#### 2. Description of activities

#### 2.1 Approved activities

EPBC Number - 2010/5344

Arrow Surat Gas Expansion Project (SGP)

Approval Holder: Arrow Energy Pty Ltd

ABN: 73 078 521 936

Approved Action: To expand coal seam gas operations in the Surat Basin, Queensland, as described in the referral received under the EPBC Act on 2 February 2010; and as described in the Surat Gas Project Environmental Impact Statement (March 2012) and Supplementary Report to the Environmental Impact Statement (June 2013). [See EPBC Act referral 2010/5344].

Decision Date: 19/12/2013

Action Commencement Date: 22/10/2020

Location of Project: Surat Basin

Person Accepting responsibility for the report: Cecile Wake, CEO Arrow Energy

Dates for Reporting period: 22 October 2021 to 21 October 2022

Date of Preparation of report: 12 January 2022

#### 2.2 Current activities

Clearing activities for three work packages (Broadwater Road / Nandi South, Kupunn Nandi Part 1 and Nandi Springvale Parts 1 & 2) occurring in Petroleum Leases (PL) 194, 198 & 260 were completed or commenced during the current reporting period.



#### 3. Approval conditions

#### 3.1 Compliance table

Refer to Appendix A for the EPBC Approval Conditions Compliance Table, which demonstrates that all EPBC Approval 2010/5344 conditions have been considered and addressed and compliance status of these conditions noted.

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

#### 3.2 Referenced management plans

The following management plans required under the EPBC Approval conditions are implemented and available on Arrows website.

- Surat Gas Project Species Impact Management Plan, November 2018 (SIMP).
- Surat Gas Project Stage 1 Offset Strategy, June 2019 (Offset Strategy).
- Surat Gas Project Stage 1 CSG Water Monitoring and Management Plan, December 2018 (Stage 1 CSG WMMP).
- Surat Gas Project Updated CSG Water Monitoring and Management Plan, October 2019 (Updated CSG WMMP).

#### 4. Non-compliances

Nil

#### 5. New environmental risks

Nil

#### 6. Report against disturbance limits

In accordance with Condition 28, Table 1 below provides "*a report against disturbance limits*" as against the whole of project maximum disturbance limits in Condition 5 of the EPBC Approval, and the maximum disturbance limits for Stage 1 in Condition 6 of the EPBC Approval.

For previous annual return reports 'as-planned' footprints were used to calculate disturbance values to Matters of National Environmental Significance (MNES) as disturbance footprints were unavailable at the time of reporting. For this annual return, all MNES disturbance calculations (see Table 1) are based on 'as-disturbed' survey data available as at 26 October 2022.



Threatened Species#	Whole of project approved limits (ha)	Stage 1 max. disturbance limits (ha)	Cumulative impact total (ha)*	
Curly-bark Wattle, Acacia curranii	1,210		0	
Hando's Wattle, Acacia handonis	1,210		0	
Belson's Panic, Homopholis belsonii	140		0	
Prostanthera sp Dunmore	380		0	
Small-leaved Denhamia, Denhamia parvifolia	50		0	
Calytrix gurulmundensis	1,210		0	
Ooline, Cadellia pentastylis	No disturbance		0	
Austral Toadflax, Thesium australe	160		0	
Acacia lauta	990		0	
Xerothamnella herbacea	110		0	
Hawkweed, <i>Picris evae</i>	120		0	
Austral Cornflower, Rhaponticum australe	160		0	
Eucalyptus virens	170		0	
King Blue-grass, Dichanthium queenslandicum	160		0	
Queensland White-gum, Eucalyptus argophloia	10		0	
Macrozamia machinii	No disturbance		0	
South-eastern Long-eared Bat, Nyctophilus corbeni	4,080	225	39.08	
Dunmall's Snake, <i>Furina dunmalli</i>	4,400	300	39.13	
Five-clawed Worm-skink, Anomalopus mackayi	560	2	0	
Squatter Pigeon (Southern}, Geophaps scripta scripta	3,261	203	0	
Regent Honeyeater, Anthochaera phrygia	20	1	0	
Collared Delma, <i>Delma torquata</i>	90	11	0	
Yakka Skink, <i>Egernia rugosa</i>	310	19	0	
Australian Painted Snipe, Rostratula australis	5		0	
Koala, Phascolarctos cinereus Not reference		approval 2010/53		
Greater Glider, Petauroides volans	•	species were listed after approval was granted. However these species are addressed in the		
Painted Honeyeater, Grantiella picta		approved SIMP and listed here for completen		
Threatened Ecological Com	munities			
Brigalow (Acacia harpophylla dominant and co- dominant)	106	39	0.04	
Caplibab Plack Pay Weadlands of the Darling Rivering Plains and the			0	

#### Table 1: Report against project maximum disturbance limits

Coolibah - Black Box Woodlands of the Darling Riverine Plains and the 0 8 8 **Brigalow Belt South Bioregions** Weeping Myall Woodlands 1 0 0 Natural Grasslands of the Queensland Central Highlands and the northern 0 0 0 Fitzroy Basin White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived 0 0 0 Native Grassland Semi-evergreen vine thickets of the Brigalow Belt (North and South) and 0 0 0 Nandewar Bioregions

\*Areas based upon 'as disturbed' footprints current at 26 October 2022.



#### 7. 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:	Cecile Wake	
Position:	Chief Executive Officer	
Organisation:	Arrow Energy Pty Ltd	
	ABN: 73 078 521 936	

Date:



Appendix A: EPBC Approval 2010/5344 Conditions Compliance Table



# EPBC 2010/5344 Compliance Report 2020/2021

#### Table 2: EPBC Conditions Compliance Table

Condition	Description	Compliant/non- compliant or not applicable	Comments
1	The Minister may determine that a plan, strategy or program approved by the Queensland Government satisfies a plan, strategy or program required under these conditions.	Not applicable	Not applicable
2	For the purpose of the action, the approval holder must not take any action outside the project area.	Compliant	Activities during the reporting period were undertaken in PL194, PL198, and PL260.
3	The action is limited to a maximum of 6,500 coal seam gas production wells and associated infrastructure	Compliant	A total of 75 production wells were drilled during the reporting period, taking the total number of production wells to 151 since the Action commenced.
4	The approval holder must not undertake hydraulic fracturing.	Compliant	Hydraulic fracturing was not undertaken during the reporting period.
5	To protect those EPBC listed species and communities within the project area the maximum disturbance limits in Table 1 apply to the project. The approval holder must not exceed these maximum disturbance limits.	Compliant	Refer to Table 1 of this EPBC 2010/5344 Annual Compliance Report. Arrow confirms that it has not exceeded these limits.
6	To protect those EPBC listed species and communities within the project area the maximum disturbance limits in Table 2 apply to Stage 1. The approval holder must not exceed these maximum disturbance limits.	Compliant	Table 1 of this EPBC 2010/5344 Annual Compliance Report reconciles the planned impact of Project Stage 1 with the Project Stage 1 maximum disturbance limits as referenced in the approved SGP Offset Strategy and confirms that Arrow has not exceeded these limits.



Condition	Description	Compliant/non- compliant or not applicable	Comments
7A	<ul> <li>Prior to the commencement of Stage 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:</li> <li>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;</li> <li>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;</li> <li>c. a monitoring program to determine the success of impacts avoidance and mitigation measures and that will inform adaptive implementation of the action to ensure adaptive management for the duration of this approval; and</li> </ul>	Compliant	Arrow prepared and had approved by the minister, an EPBC Species Impact Management Plan (SIMP) for Project Stage 1 (approval date 14 December 2018) which was prior to the start of the SGP Project (22 <sup>nd</sup> October 2020).
	d. a description of how measures proposed in the EPBC Species Impact Management Plan are consistent with the measures in relevant conservation advice, recovery plans and threat abatement plans.		
7B	The approval holder must not commence Stage 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 approved by the Minister (in writing) an EPBC SIMP for Project Stage 1 (approval date 14 December 2018) which was prior to the start of the SGP Project (22 October 2020). The approved SIMP is being implemented.
8A	If the approval holder has provided an offset in respect of impacts predicted for a development stage of the project which subsequently are not realised, such parts of the offset in excess of the obligation for that development stage can be applied towards offsets required for the impacts of subsequent development stages.	Not applicable	Arrow has only commenced Stage 1 and has not commenced any other subsequent stages.



Condition	Description	Compliant/non- compliant or not applicable	Comments
8B	The Offset Strategy may be prepared and submitted to the Minister for approval in stages. Each stage of the Offset Strategy must provide information in respect of the subsequent development stage to commence and all earlier development stages. A development stage must not commence until an Offsets Strategy addressing offset obligations for that development stage has been approved by the Minister.	Compliant	Arrow submitted an Offset Strategy for Stage 1 to the Minister. This strategy was approved by the Minister on 7 July 2019.
8C	<ul> <li>The Offset Strategy must:</li> <li>a. include a strategy to secure the offsets proposed for the residual significant impacts to the EPBC listed species and EPBC communities for the subsequent development Stage;</li> <li>b. include a map of the location of each EPBC listed threatened species and its habitat and EPBC community in relation to infrastructure for the subsequent development stage;</li> <li>c. describe the potential risks to the successful implementation of the Offset Strategy, and the contingency measures that would be implemented to mitigate against these risks;</li> <li>d. detail how the approval holder will address any residual significant impacts to any EPBC listed threatened species and its habitat and/or EPBC communities not identified in Table 1, in accordance with the EPBC Act Offsets Policy; and</li> <li>e. specify the proposed legal mechanism and timeframe for securing the offset(s).</li> </ul>	Compliant	The Offset Strategy, as approved by the Minister, included all aspects of Condition 8C.
8D	The approval holder must not commence the action until the Offset Strategy for Stage 1 has been approved by the Minister in writing. The approved Offset Strategy must be implemented by the approval holder.	Compliant	Arrow submitted an Offset Strategy for Stage 1 to the Minister which was approved on 7 July 2019. Stage 1 commenced on 22 October 2020, being after the Offset Strategy was approved. The approved Offset Strategy is being implemented.



Condition	Description	Compliant/non- compliant or not applicable	Comments
9A	At least 3 months prior to the commencement of any development stage after Stage 1, the approval holder must submit a revised Offset Strategy for approval by the Minister. The updated Offset Strategy must include:	Not applicable	Arrow is currently executing Stage 1 and has not yet commenced any other stages to trigger the application of this Condition 9A.
	a. a strategy to secure the minimum offsets proposed for the residual significant impacts to the EPBC listed species and communities for the subsequent development stage;		
	b. a map of the location of each EPBC listed threatened species and it habitat and EPBC Community in relation to infrastructure for the subsequent development stage;		
	c. the information required for the Offset Strategy Conditions 8Ca to 8Ce for the subsequent development stage;		
	d. demonstration of how any proposed offset builds on offsets already secured and will contribute to a larger strategic offset for whole of project impacts;		
	e. performance and completion criteria for evaluating the management of offset areas;		
	f. reconciliation of impacts predicted in the subsequent development stage and actual disturbance in preceding development stages against the maximum disturbance limits set out in Table 1.		
10A	Offsets for development stages 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 development stage.	Not applicable	Arrow has not commenced any other development stages subsequent to Stage 1. In accordance with the Offset Strategy, Arrow is progressing toward legally securing offsets for Stage 1.



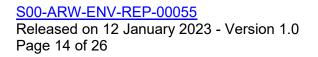
# Report

the Offset Strategy for a subsequent development stage, the approval holder must submit for approval of the Minister an Offset Area Management Plan which includes:	(OAMP) that addresses the requirements of Condition 10 within 12 months of project commencement. Arrow is presently engaging with the Department to obtain the necessary approval by the Minister.
a. a description of the management measures that will be implemented to protect EPBC listed threatened species and communities in each offset area;	
b. details of how the proposed offset(s) and Offset Area Management Plan are consistent with the principles EPBC Act Offsets Policy;	
c. a field validation survey and baseline description of the current condition (prior to any management activities) of the offset area(s), including existing vegetation;	
d. a description and map (including shapefile(s)) to clearly define the location and boundaries of the offset area(s), accompanied by the offset attributes;	
e. information about how the offset area(s) 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 consistent with the measures contained in relevant recovery plans and threat abatement plans;	
g. completion criteria and performance targets for evaluating the effectiveness of Offset Area Management Plan implementation, and criteria for triggering corrective actions (if necessary);	
h. a program to monitor, report on and review the effectiveness of the Offset Area Management Plan;	
i. a description of potential risks to the successful implementation of the offset(s) and Offset Area Management Plan, and contingency measures that would be implemented to mitigate against these risks.	





Condition	Description	Compliant/non- compliant or not applicable	Comments
11A	The approval holder cannot commence the subsequent development stage until the Offset Area Management Plan for the current development stage has been approved by the Minister in writing.	Not applicable	The OAMP is yet to be approved by the Minister and Arrow is yet to commence any development stages subsequent to Stage 1.





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13	Prior to commencement, the proponent must submit a Stage 1 Coal Seam Gas Water Monitoring and Management Plan (Stage 1 CSG WMMP) for the approval of the Minister who may seek the advice of an expert panel. The Stage 1 CSG WMMP must include:	Compliant	The Stage 1 CSG WMMP, addressing all of the requirements of Condition 13, was approved by the then Department of the Environment and Energy on 18 December 2018. This was prior to the commencement of the EPBC Approval.
	a. an analysis of the results of the most recent OGIA model (built or endorsed by OGIA), relevant to all of the project's tenement areas;		
	b. a fit for purpose numerical simulation to assess potential impacts on water resources arising from the action in the project area, subsequent surface water-groundwater interactions in the Condamine Alluvium and impacts to dependent ecosystems;		
	c. an assessment of potential impacts from the action on non-spring based groundwater dependent ecosystems through potential changes to surface-groundwater connectivity and interactions with the sub- surface expression of groundwater;		
	d. an assessment of predicted project wide groundwater drawdown levels and pressures from the action, together with confidence levels;		
	e. parameters and a sampling regime to establish baseline data for surface and groundwater resources that may be impacted by the action, including: surface and water quantity and quality in the project area, and upstream and downstream of potential impact areas; groundwater quality, levels and pressures for areas that may be impacted by the project; and for determining connectivity between surface water and groundwater that may be impacted by the project;		
	f. a best practice baseline monitoring network that will enable the identification of spatial and temporal changes to surface and groundwater. This must include a proposal for aquifer connectivity studies and monitoring of relevant aquifers to determine hydraulic connectivity (including potential groundwater dependence of Long Swamp and Lake Broadwater) and must also enable monitoring of all aquatic ecosystems that may be impacted by the action;		
	g. a program to monitoring subsidence impacts from the action, including trigger thresholds and reporting of monitoring results in annual reporting required by condition 28. If trigger thresholds are		





exceeded, the approval holder must develop and implement an action plan to address impacts within 90 calendar days of a trigger threshold being exceeded;

h. provisions to make monitoring results publicly available on the approval holder's website to facilitate a greater understanding of cumulative impacts;

i. a discussion on how the approval holder is contributing to the Joint Industry Plan, including its periodic review. The approval holder must contribute to the Joint Industry Plan and comply with any part of the Joint Industry Plan, or future iterations of the Joint Industry Plan, that applies to the approval holder;

j. a groundwater early warning monitoring system, including:

i. groundwater drawdown limits for all consolidated aquifers potentially impacted by the action, excluding the Walloon Coal Measures;

ii. for the Condamine Alluvium, appropriate triggers and groundwater limits and a rationale for their selection;

iii. early warning indicators and trigger thresholds, including for Lake Broadwater, Long Swamp and other groundwater dependent ecosystems that may potentially be impacted by the action, including those that may occur outside the project area and may be impacts by the action; and

iv. investigation, management and mitigation actions, including substation and/or groundwater repressurisation, for both early warning indicators and trigger thresholds to address flux impacts on the Condamine Alluvium.

k. early warning indicators and trigger thresholds, including corrective actions for

both early warning indicators and trigger thresholds, for aquatic ecology and

aquatic ecosystems;

I. a CSG water management strategy for produced salt/brine, which discusses

how co-produced water and brine will be managed for the action, including in

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the context of other coal seam gas activities in the Surat Basin;	
m. an analysis of how the approval holder will utilise beneficial use and/or	
groundwater repressurisation techniques to manage produced CSG water	
from the action, and how any potential adverse impacts associated with	
groundwater repressurisation will be managed;	
n. a discharge strategy, consistent with the recommendations and requirements of	
the Department of the Environment and Heritage Protection in its Assessment	
Report (pages 94 to 95 and pages 254 to 255) and that includes scenarios	
where discharge may be required, the quality of discharge water (including	
water treated by reverse osmosis), the number and location of monitoring sites	
(including upstream and downstream sites), frequency of monitoring and how	
the data from monitoring will be analysed and reported, including	
recommendations on any changes or remedial actions that would be required;	
o. a flood risk assessment for processing facilities and any raw co- produced water	
and brine dams, which addresses flood risks to the environment from the action	
in the case of a 1 :1000 ARI event. The risk assessment should estimate the	
consequences if major project infrastructure was subject to such an event,	
including release of brine and chemicals into the environment;	
p. a cumulative impact assessment based on the outputs of the OGIA model	



Condition	Description	Compliant/non- compliant or not applicable	Comments
	<ul> <li>which integrates groundwater model outputs with known and potential groundwater dependent ecosystems and presents the outputs in map form.</li> <li>Contribute to investigations coordinated through the OGIA to assess hydrological and ecological characteristics of impacted groundwater dependent ecosystems;</li> <li>q. details of performance measures; annual reporting to the Department; and publication of reports on the internet; and</li> <li>r. an explanation of how the Stage 1 CSG WMMP will contribute to work undertaken by other CSG proponents in the Surat Basin to understand cumulative impacts, including at the local and regional scale, and maximise</li> </ul>		
14	environmental benefit. The Stage 1 CSG WMMP must be peer reviewed by a suitably qualified water resources experts approved by the Minister in writing. The peer review must be submitted to the Minister together with the Stage 1 CSG WMMP and a statement from the suitably qualified. water resources expert(s) stating that they carried out the peer review and endorse the findings of the Stage 1 CSG WMMP.	Compliant	The approved Stage 1 CSG WMMP was peer reviewed by an independent and suitably qualified water resources expert (who was approved by the Minister) on 14 December 2017. the peer review and the requisite statement from the expert were submitted to the Minister prior to the approval of the Stage 1 CSG WMMP
15	The approval holder must not exceed the groundwater drawdown or groundwater limits for each aquifer specified in the Stage 1 CSG WMMP.	Compliant	Arrow has not exceeded the groundwater drawdown or groundwater limits specified in the approved Stage 1 CSG WMMP.
16	Unless otherwise agreed in writing by the Minister, the approval holder must not commence the action until the Stage 1 CSG WMMP is approved in writing by the Minister. The approved Stage 1 CSG WMMP must be implemented.	Compliant	The action commenced on 22 October 2020, which was after when the Stage 1 CSG WMMP was approved in writing by the Minister on 18 December 2018. Prior to receiving the Minister's approval of the Updated CSG WMMP on 22 November 2019 under Condition 17 Arrow implemented the Stage 1 CSG WMMP.



Description	Compliant/non- compliant or not applicable	Comments
The approval holder must submit an updated CSG Water Monitoring and Management Plan (Updated CSG WMMP) for the written approval of the Minister. The Updated CSG WMMP must:	Compliant	The Updated CSG WMMP, addressing all of the requirements of Condition 17, was approved by the Minister on 22 November 2019.
a. include all matters in the Stage 1 CSG WMMP, and discuss how the Stage 1		
CSG WMMP is informing adaptive management for the Updated CSG WMMP;		
b. include any updated modelling for the project, including in respect of the OGIA model or any updates to the OGIA model by OGIA;		
c. include an explanation of how the approval holder will contribute to the		
Condamine Interconnectivity Research Project. The Updated CSG WMMP		
must present the findings of the Condamine Interconnectivity Research project		
and any modelling done by the OGIA to validate predicted drawdown and a		
review of trigger thresholds and corrective activities for the action;		
d. report on the potential for flow reversal from the Condamine Alluvium to		
underlying aquifers, based on data obtained during the Stage 1 CSG WMMP;		
e. review and update the monitoring network in Stage 1 WMMP to reflect changes in understanding of impacts to water resources, including from baseline monitoring and relevant research;		
f. identify any predicted changes in stream connectivity due to groundwater drawdown from the action and assess potential impacts to groundwater dependent ecosystems due to any predicted changes in stream connectivity, including to water quality, quantity and ecology;		
	The approval holder must submit an updated CSG Water Monitoring and Management Plan (Updated CSG WMMP) for the written approval of the Minister. The Updated CSG WMMP must: a. include all matters in the Stage 1 CSG WMMP, and discuss how the Stage 1 CSG WMMP is informing adaptive management for the Updated CSG WMMP; b. include any updated modelling for the project, including in respect of the OGIA model or any updates to the OGIA model by OGIA; c. include an explanation of how the approval holder will contribute to the Condamine Interconnectivity Research Project. The Updated CSG WMMP must present the findings of the Condamine Interconnectivity Research project and any modelling done by the OGIA to validate predicted drawdown and a review of trigger thresholds and corrective activities for the action; d. report on the potential for flow reversal from the Condamine Alluvium to underlying aquifers, based on data obtained during the Stage 1 CSG WMMP; e. review and update the monitoring network in Stage 1 WMMP to reflect changes in understanding of impacts to water resources, including from baseline monitoring and relevant research; f. identify any predicted changes in stream connectivity due to groundwater drawdown from the action and assess potential impacts to groundwater dependent ecosystems due to any predicted changes	Compliant or not applicableThe approval holder must submit an updated CSG Water Monitoring and Management Plan (Updated CSG WMMP) for the written approval of the Minister. The Updated CSG WMMP must:Complianta. include all matters in the Stage 1 CSG WMMP, and discuss how the Stage 1CSG WMMP is informing adaptive management for the Updated CSG WMMP;Compliantb. include any updated modelling for the project, including in respect of the OGIA model or any updates to the OGIA model by OGIA;Image: Compliantc. include an explanation of how the approval holder will contribute to the Condamine Interconnectivity Research Project. The Updated CSG WMMPImage: Compliantmust present the findings of the Condamine Interconnectivity Research project and any modelling done by the OGIA to validate predicted drawdown and a review of trigger thresholds and corrective activities for the action;Image: Compliantd. report on the potential for flow reversal from the Condamine Alluvium to underlying aquifers, based on data obtained during the Stage 1 CSG WMMP;CSGe. review and update the monitoring network in Stage 1 WMMP to reflect changes in understanding of impacts to water resources, including from baseline monitoring and relevant research;Image: Compliantf. identify any predicted changes in stream connectivity due to groundwater drawdown from the action and assess potential impacts to ognundwater drawdown from the action and assess potential impacts to groundwater drawdown from the action and assess potential impacts



Condition	Description	Compliant/non- compliant or not applicable	Comments
	<ul> <li>g. address any uncertainty in the groundwater-dependency of ecosystems and</li> </ul>		
	springs with supporting evidence from field-based investigations for any		
	groundwater-dependent ecosystems and springs confirmed in the OGIA		
	model;		
	h. provide details of an ongoing monitoring plan that:		
	<ul> <li>i. sets out the frequency of monitoring and rationale for the frequency;</li> </ul>		
	<li>ii. includes continued collection of baseline data for each monitoring site over the life of the project;</li>		
	iii. outlines the approach to be taken to analyse the results including the		
	methods to determine trends to indicate potential impacts; and		
	iv. builds on the groundwater early warning system required at condition 13 (j) and sets out early warning indicators and trigger thresholds and limits for		
	groundwater and surface water.		
	i. include a risk based exceedance response plan that details the corrective		
	activities the approval holder will take and the timeframes in which those		
	activities will be undertaken if: early warning indicators and trigger threshold		
	values contained in the Updated CSG WMMP are exceeded, or there are any		
	emergency discharges.		

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Condition	Description	Compliant/non- compliant or not applicable	Comments
18	The Updated CSG WMMP must be peer reviewed by a suitably qualified water resources expert approved by the Minister in writing prior to the plan being submitted to the Minister for approval. The approval holder must, at the same time as the Updated CSG WMMP is submitted for approval, provide to the Minister: a. a copy of the peer review; and b. a statement from the suitably qualified water resources expertls stating that they carried out the peer review and endorse the findings of the Updated CSG WMMP.	Compliant	The approved SGP Updated CSG WMMP was peer reviewed by a 3rd party reviewer on 19 March 2019 and the review submitted to the Minister prior to approval of the WMMP.
19	The approval holder must not exceed the groundwater drawdown or groundwater limits specified in the approved Updated CSG WMMP.	Compliant	Arrow has not exceeded the groundwater drawdown or groundwater limits specified in the approved SGP Updated CSG WMMP. A full comparison of monitoring data against the approved early warning monitoring system will be provided in the annual report(s).
20	The Minister may direct, in writing, that the approval holder cease water or gas extraction from one or more coal seam gas production wells, or water discharge or use, if: a an early warning indicator, trigger threshold or limit is exceeded, and b. the Minister is not satisfied that the corrective activities proposed or taken by the approval holder will reduce likely impacts on matters of national environmental significance (MNES) to acceptable levels.	Not applicable	No directions have been received.
20A	If condition 20 applies, the Minister may direct the approval holder to implement alternative corrective activities at the expense of the approval holder, provided those corrective activities are unlikely to have a significant impact on MNES.	Not applicable	No directions have been received.



Condition	Description	Compliant/non- compliant or not applicable	Comments
20B	If condition 20 applies, the approval holder must not recommence such extraction or discharge or use until the Minister has given approval in writing for the recommencement of that extraction, discharge or use.	Not applicable	No directions have been received.
	a. Approval to recommence such extraction, discharge or use may be subject to such conditions as the Minister considers reasonably necessary to ensure that impacts on MNES will be acceptable.		
	<ul> <li>b. If the Minister approves the recommencement of extraction, discharge or use</li> <li>subject to conditions, the approval holder must comply with such conditions.</li> </ul>		
21	The approval holder must not commence the extraction of gas from any coal seam gas production wells unless the Updated CSG WMMP has been approved by the Minister in writing. The approved Updated CSG WMMP must be implemented. The Stage 1 CSG WMMP will apply until the commencement of the approved Updated CSG WMMP.	Compliant	No extraction of water or coal seam gas authorised under this EPBC Approval occurred prior to the Minister's approval of the Updated CSG WMMP on 22 November 2019. Arrow is fully implemementing the Stage 1 CSG WMMP and continues to comply with this until the commencement of the Updated CSG WMMP.
21A	If the Minister has approved the Updated CSG WMMP, the approval holder may commence extraction of gas from: a. 250 coal seam gas production wells;	Compliant	The SGP Updated CSG WMMP was approved by the Minister on 22 November 2019. Arrow has not exceeded the well limit specified by Condition 21A. Refer to the comments for Condition 3 in this Table 2 of this report.
	b. a larger number of coal seam gas production wells as specified by the Minister if he or she is satisfied that:		
	i. the approval holder has commenced gas extraction from at least 125 coal seam gas production wells;		
	<li>ii. the approval holder has requested an increase in the number of wells from which gas can be extracted under the approved Updated CSG WMMP; and</li>		
	<li>iii. extraction of gas from the additional number of coal seam gas production wells will not have an unacceptable impact on MNES.</li>		



Condition	Description	Compliant/non- compliant or not applicable	Comments
23	<ul> <li>If the OGIA model ceases to exist, the approval holder must:</li> <li>a. submit an alternate model that replaces the OGIA model for the approval of the Minister;</li> <li>b. revise the Updated CSG WMMP to incorporate the approved alternate model, and submit the revised plan to the Minister for approval; and</li> <li>c. implement the approved revised plan.</li> </ul>	Not applicable	The current OGIA model continues to exist.
25	The Minister may, by written request to the approval holder, require the Stage 1 CSG WMMP or the Updated CSG WMMP to be revised, including to address expert advice. Any request must be acted on by the approval holder within the timeframe specified in the request.	Not applicable	Arrow has not received any such request from the Minister.
26	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 advised of the commencement of Stage 1 (22 October 2020) on 18 November 2020.
27	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 28) 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	Accurate records substantiating all activities associated with or relevant to the conditions of this approval, including measures taken to implement the management plans, reports or strategies required are stored in Arrow file directories. There have been no confirmed cases of non-compliance for the period 22 October 2021 to 21 October 2022.

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Condition	Description	Compliant/non- compliant or not applicable	Comments
28	Within three months of every 12 month anniversary of the commencement of 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 implementation of any management plans as specified in the conditions. The approval holder must also report against disturbance limits. Documentary evidence providing proof of the date of publication and noncompliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published.	Compliant	This report has been published to provide information required by Condition 28 for the current reporting period (being 22 October 2021 to 21 October 2022). The report was published within the required three month timeframe. Evidence proving publication of this report has been provided to the Department.
29	The approval holder must notify the Department in writing of potential non-compliance the date this with any condition of this approval as soon as practical and within no later than ten business days of becoming aware of the potential non- compliance. The notice provided to the Department under this condition must specify: a. the condition which the approval holder has potentially breached;	Not applicable	There have been no potential or actual non-compliances identified for the period 22 October 2021 to 21 October 2022.
	b. the nature of the potential non-compliance;		
	c. when and how the approval holder became aware of the non- compliance;		
	d. how the non-compliance will affect the approved action;		
	e. how the non-compliance will affect the anticipated impacts of the approved action, in particular how the non-compliance will affect the impacts on the MNES;		
	f. the measures the approval holder will take to address the impacts of the non-compliance on the MNES and rectify the non-compliance; and		
	g. the time by when the approval holder will rectify the non-compliance.		

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Condition	Description	Compliant/non- compliant or not applicable	Comments
30	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 independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.	Not applicable	Arrow has not received any such direction from the Minister.
31	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's activities have been carried out in accordance with the management plans.
32	If the Minister believes that it is necessary or convenient for the better protection of 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.	Not applicable	Arrow has not received any such request from the Minister.
33	If at any time after seven 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 action under the EPBC Approval commenced on 22 October 2020 which was within 7 years of the of the date of the EPBC Approval.



Condition	Description	Compliant/non- compliant or not applicable	Comments
34	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.	Compliant	All approved management plans (as listed in Section 3.2 of this report) have been published on Arrow's website within 1 month of being approved by the Minister. The approved management plans can be found at: <a href="https://www.arrowenergy.com.au/environment/environmental-management-plans-and-reports">https://www.arrowenergy.com.au/environment/environmental-management-plans-and-reports</a>

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