

Surat - EPBC Approval 2010/5344 Annual Compliance Report 2020/2021

Surat Gas Project

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EPBC Approval 2010/5344 Annual Compliance 2020/2021 Report

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1. Purpose

This report addresses compliance with EPBC Approval 2010/5344 for the annual period between 22 October 2020 to 21 October 2021.

2. Description of activities

2.1 Approved activities

EPBC Number – 2010/5344

Arrow Surat Gas 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: 31/10/2018

Location of Project: Surat Basin

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

Dates for Reporting period: 22 October 2020 to 21 October 2021

Date of Preparation of report: 20 December 2021

2.2 Current activities

Clearing activities for three work packages (Broadwater Road / Nandi South, Duleen Kupunn West and David Daandine Connections) occurring in PL's 198, 230, 252 & 260, have recently commenced.

The 'as-disturbed' clearing extents associated with these projects are not available at the time of writing. The disturbances presented in this report are based on 'as-planned' extents only and include the entire work package. These will be reconciled with approved disturbance limits in subsequent compliance reports.

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 noting compliance with these conditions.

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 EPBC Approval 2010/5344 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 (WMMP)
- Surat Gas Project Updated CSG Water Monitoring and Management Plan, October 2019

4. Non-compliance

Nil

5. New environmental risks

Nil

6. Reconciliation of impacts against disturbance limits

In accordance with Condition 28, Table 1 below provides "*a report against disturbance limits*". The 'Stage 1 proposed disturbance' limits presented in the table below are those specified in Condition 6 of the EPBC Approval 2010/5344.

Values presented in this table represent the cumulative totals based upon 'planned disturbance' footprints only for the current work packages. The adjustment of cumulative impact in Table 1 will be updated to reflect 'as-disturbed' footprints in subsequent annual reports.

Table 1: Reconciliation of planned impacts against project maximum disturbance limits

Threatened Species#	Whole of project approved limits (ha)	Stage 1 max. disturbance (ha)	Cumulative impact total (ha)*
Curly-bark Wattle, <i>Acacia curranii</i>	1,210		0
Hando's Wattle, <i>Acacia handonis</i>	1,210		0
Belson's Panic, <i>Homopholis belsonii</i>	140		0
# Lobed Blue Grass, <i>Bothriochloa biloba</i>	305		NA
# Kogan Waxflower, <i>Philotheca sporadica</i>	480	105	NA
<i>Prostanthera</i> sp Dunmore	380		0
Small-leaved Denhamia, <i>Denhamia parvifolia</i>	50		0
<i>Calytrix gurulmundensis</i>	1,210		0
Ooline, <i>Cadellia pentastylis</i>	No disturbance		0
# Finger Panic Grass, <i>Digitaria porrecta</i>	174		NA
Austral Toadflax, <i>Thesium australe</i>	160		0
<i>Acacia lauta</i>	990		0
# Cobar Greenhood Orchid, <i>Pterostylis cobarensis</i>	2,170		NA
<i>Xerothamnella herbacea</i>	110		0
Hawkweed, <i>Picris evae</i>	120		0
Austral Cornflower, <i>Rhaponticum australe</i>	160		0
<i>Eucalyptus virens</i>	170		0
King Blue-grass, <i>Dichanthium queenslandicum</i>	160		0
Queensland White-gum, <i>Eucalyptus argophloia</i>	10		0
<i>Macrozamia machinii</i>	No disturbance		0
South-eastern Long-eared Bat, <i>Nyctophilus corbeni</i>	4,080	225	54.8
Dunmall's Snake, <i>Furina dunmalli</i>	4,400	300	94.7
Five-clawed Worm-skink, <i>Anomalopus mackayi</i>	560	2	0
Squatter Pigeon (Southern), <i>Geophaps scripta scripta</i>	3,261	203	0
Regent Honeyeater, <i>Anthochaera phrygia</i>	20	1	0
Collared Delma, <i>Delma torquata</i>	90	11	0
Yakka Skink, <i>Egernia rugosa</i>	310	19	0
Australian Painted Snipe, <i>Rostratula australis</i>	5		0
Koala, <i>Phascolarctos cinereus</i>	Not referenced in approval 2010/5344, however these species are addressed in the approved SIMP and listed here for completeness		6.007
Greater Glider, <i>Petauroides volans</i>			2.33
Painted Honeyeater, <i>Grantiella picta</i>			2.657
Threatened Ecological Communities			
Brigalow (<i>Acacia harpophylla</i> dominant and co- dominant)	106	39	0
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	8	8	0
Weeping Myall Woodlands	1	0	0
Natural Grasslands of the Queensland Central Highlands and the northern Fitzroy Basin	0	0	0
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	0	0	0

Threatened Species#	Whole of project approved limits (ha)	Stage 1 max. disturbance (ha)	Cumulative impact total (ha)*
Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions	0	0	0

*Areas based upon 'as planned' footprints. Further reconciliation will occur when 'as-disturbed' footprints become available.

Denotes delisted species – Arrow has prepared an amendment application to DAWE (dated 18th November 2021) to remove these species from the current approval.

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: 15/01/2022

8. Document Administration

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Revision history

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1.0	20 December 2021	Issued for Use	Daniel Potter

Controlled document location

Related documents

Document Number	Document title

Acceptance and release

Author

Position	Incumbent	Release Date
Senior Environment Advisor Biodiversity Offsets	Daniel Potter	20 December 2021

Stakeholders and reviewers

Position	Incumbent	Review Date
Hydrogeology Team Lead	Stephen Denner	30 November 2021
General Manager Development	Guy Young	01 December 2021
Principal Sustainable Development & Government	Jamie Reilly	16 November 2021

Approver(s)

Position	Incumbent	Approval Date
Environment Manager	Scott Nairn	

**Appendix A: EPBC Approval 2010/5344 Conditions
Compliance Table**

Table 2: EPBC Conditions Compliance Table

Condition	Description	Compliant/non-compliant or not applicable	Compliance status
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	
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 PL198, PL230, PL238, PL252, PL260 and PL1040.
3	The action is limited to a maximum of 6,500 coal seam gas production wells and associated infrastructure	Compliant	A total of 79 production wells were drilled during the reporting period.
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	Table 1 of this EPBC 2010/5344 Annual Compliance Report reconciles the planned impact with the maximum disturbance limits and confirms that Arrow 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	Compliance status
7A	<p>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:</p> <p>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;</p> <p>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;</p> <p>c. a monitoring program to determine the success of mitigation and management measures to ensure adaptive management for the duration of this approval; and</p> <p>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.</p>	Compliant	Arrow prepared and had approved by the minister, an EPBC SIMP for Project Stage 1 (approval date 14 December 2018) which was prior to the start of the SGP Project (22 nd October 2020).
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 nd 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.	Noted, only just commenced Stage 1 and securing an offset property. Reconciliation will be undertaken at next stage	Arrow is currently securing offset properties that comply with the principles of the EPBC Act Environmental Offsets Policy. Currently, Arrow is negotiating to secure a single offset property for the delivery of land based offsets.

Condition	Description	Compliant/non-compliant or not applicable	Compliance status
8B	<p>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.</p>	Compliant	<p>Arrow submitted an Offset Strategy for Project Stage 1 to the Minister which was approved on 7 July 2019.</p>
8C	<p>The Offset Strategy must:</p> <ul style="list-style-type: none"> 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; b. include a map fo the location of each EPBC listed threatened species and its habitat and EPBC community in relation to infrastructure for the subsequent development stage; 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; d. detail how the approval holder will address any residual significant imapcts 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 e. specify the proposed legal mechanism and timeframe for securing the offset(s). 	Compliant	<p>The approved Offset Strategy included all aspects in Condition 8C.</p>
8D	<p>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.</p>	Compliant	<p>Arrow submitted an Offset Strategy for Project Stage 1 to the Minister which was approved on 7 July 2019.</p> <p>Project Stage 1 commenced on 22 October 2020.</p> <p>The approved Offset Strategy is being implemented.</p>

Condition	Description	Compliant/non-compliant or not applicable	Compliance status
<p>9A</p>	<p>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:</p> <ul style="list-style-type: none"> 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 its 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. 	<p>Not applicable</p>	<p>Arrow has not commenced and is not commencing the next Project development stage within 3 months of this report.</p>
<p>10A</p>	<p>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.</p>	<p>Not applicable</p>	<p>Arrow is currently preparing an OAMP for approval by the Minister. The OAMP will contain detail on the proposed Offset Property and once approved the Property will be secured via a Voluntary Declaration as per the Strategy. Arrow has not commenced next Project Stages.</p>

Condition	Description	Compliant/non-compliant or not applicable	Compliance status
<p>10B</p>	<p>Within 12 months of project commencement or the Minister approving 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:</p> <ul style="list-style-type: none"> 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. 	<p>Compliant</p>	<p>Arrow is currently preparing an OAMP for approval by the Minister within 12 months of project commencement.</p>
<p>11A</p>	<p>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.</p>	<p>Not applicable</p>	<p>Arrow has not commenced next Project development stage.</p>

<p>13</p>	<p>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:</p> <ul style="list-style-type: none"> 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; 	<p>Compliant</p>	<p>The SGP Stage 1 CSG WMMP was approved by DoEE on 18 December 2018. The WMMP addresses all parts of Condition 13.</p>
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<p>h. provisions to make monitoring results publicly available on the approval holder's website to facilitate a greater understanding of cumulative impacts;</p> <p>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;</p> <p>j. a groundwater early warning monitoring system, including:</p> <ul style="list-style-type: none"> 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. <p>k. early warning indicators and trigger thresholds, including corrective actions for both early warning indicators and trigger thresholds, for aquatic ecology and aquatic ecosystems;</p> <p>l. 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 the context of other coal seam gas activities in the Surat Basin;</p> <p>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;</p> <p>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</p>		
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Condition	Description	Compliant/non-compliant or not applicable	Compliance status
	<p>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;</p> <p>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> <p>p. a cumulative impact assessment based on the outputs of the OGIA model which integrates groundwater model outputs with known and potential groundwater dependent ecosystems and presents the outputs in map form. Contribute to investigations coordinated through the OGIA to assess hydrological and ecological characteristics of impacted groundwater dependent ecosystems;</p> <p>q. details of performance measures; annual reporting to the Department; and publication of reports on the internet; and</p> <p>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 environmental benefit.</p>		
14	<p>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.</p>	Compliant	<p>The approved SGP Stage 1 CSG WMMP was peer reviewed by a 3rd party reviewer on 14 December 2017 and the review submitted to the Minister prior to approval of the WMMP.</p>
15	<p>The approval holder must not exceed the groundwater drawdown or groundwater limits for each aquifer specified in the Stage 1 CSG WMMP.</p>	Compliant	<p>Arrow has not exceeded the groundwater drawdown or groundwater limits specified in the approved SGP Stage 1 CSG WMMP.</p>

Condition	Description	Compliant/non-compliant or not applicable	Compliance status
16	<p>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.</p>	Compliant	<p>Arrow is implementing the WMMP noting that as per Section 9.2.4 of the SGP Stage 1 CSG WMMP, an annual report on the WMMP will be prepared for the preceding 12 month period. It will be submitted to the Department and published on Arrow's website within three months of every 12-month anniversary of the commencement of the SGP. Annual reporting of the Stage 1 CSG WMMP will cease following commencement of the Stage 2 (Updated) CSG WMMP, which will include all matters relating to the Stage 1 CSG WMMP and supersede the Stage 1 reporting requirements.</p> <p>The SGP commenced on 22 October 2020 and the first annual report will be for the period 22 October 2020 to 21 October 2021.</p>
17	<p>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:</p> <ul style="list-style-type: none"> 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; 	Compliant	<p>The <i>SGP Updated CSG WMMP</i> was approved by the Minister on 22 November 2019. The WMMP addresses all parts of Condition 17.</p>

Condition	Description	Compliant/non-compliant or not applicable	Compliance status
	<p>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;</p> <p>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;</p> <p>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;</p> <p>g. address any uncertainty in the groundwater-dependency of ecosystems and springs with supporting evidence from field-based investigations for any groundwater-dependent ecosystems and springs confirmed in the OGIA model;</p> <p>h. provide details of an ongoing monitoring plan that:</p> <ul style="list-style-type: none"> i. sets out the frequency of monitoring and rationale for the frequency; ii. includes continued collection of baseline data for each monitoring site over the life of the project; 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. <p>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.</p>		

Condition	Description	Compliant/non-compliant or not applicable	Compliance status
18	<p>The Updated CSG WMMP must be peer reviewed by a suitably qualified water resources expert/s 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:</p> <p>a. a copy of the peer review; and</p> <p>b. a statement from the suitably qualified water resources expert/s stating that they carried out the peer review and endorse the findings of the Updated CSG WMMP.</p>	Compliant	The approved <i>SGP Updated CSG WMMP</i> 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	<p>Based on the available data at the time of writing, Arrow has not exceeded the groundwater drawdown or groundwater limits specified in the approved <i>SGP Updated CSG WMMP</i>. A full comparison of monitoring data against the approved early warning monitoring system will be provided in the annual report.</p> <p>The SGP commenced on 22 October 2020 and the first annual report will be for the period 22 October 2020 to 21 October 2021.</p>
20	<p>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:</p> <p>a. an early warning indicator, trigger threshold or limit is exceeded, and</p> <p>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.</p>	Not applicable	Arrow has not received any notification from the Minister.
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	Arrow has not received any notification from the Minister.

Condition	Description	Compliant/non-compliant or not applicable	Compliance status
20B	<p>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.</p> <p>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.</p> <p>b. If the Minister approves the recommencement of extraction, discharge or use subject to conditions, the approval holder must comply with such conditions.</p>	Not applicable	Arrow has not received any notification from the Minister.
21	<p>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.</p>	Compliant	<p>The <i>SGP Updated CSG WMMP</i> was approved by the Minister on 22 November 2019. No extraction of water or coal seam gas authorised under this approval occurred prior to this approval.</p> <p>Arrow is implementing the <i>SGP Updated CSG WMMP</i>. An annual report on the <i>Updated CSG WMMP</i> will be prepared for the preceding 12 month period. It will be submitted to the Department and published on Arrow's website within three months of every 12-month anniversary of the commencement of the SGP. Each annual report will present a summary of progress towards Arrow's commitments and document Arrow's compliance against the approval conditions.</p>

Condition	Description	Compliant/non-compliant or not applicable	Compliance status
21A	<p>If the Minister has approved the Updated CSG WMMP, the approval holder may commence extraction of gas from:</p> <ul style="list-style-type: none"> a. 250 coal seam gas production wells; b. a larger number of coal seam gas production wells as specified by the Minister if he or she is satisfied that: <ul style="list-style-type: none"> i. the approval holder has commenced gas extraction from at least 125 coal seam gas production wells; 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 iii. extraction of gas from the additional number of coal seam gas production wells will not have an unacceptable impact on MNES. 	Compliant	The <i>SGP Updated CSG WMMP</i> was approved by the Minister on 22 November 2019. Arrow has not yet commenced extraction of gas from up to 250 CSG production wells.
23	<p>If the OGIA model ceases to exist, the approval holder must:</p> <ul style="list-style-type: none"> a. submit an alternate model that replaces the OGIA model for the approval of the Minister; b. revise the Updated CSG WMMP to incorporate the approved alternate model, and submit the revised plan to the Minister for approval; and c. implement the approved revised plan. 	Not applicable	The current OGIA model remains valid.
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 notification 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 Project Stage 1 (22 October 2020) on 18 November 2020.

Condition	Description	Compliant/non-compliant or not applicable	Compliance status
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	Records of the implementation of Management Plans prepared for the EPBC approval are stored in Arrow file directories.
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 2020 to 21 October 2021). The report was published within the required three month timeframe.

Condition	Description	Compliant/non-compliant or not applicable	Compliance status
29	<p>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 instrument is signed business days of becoming aware of the potential non- compliance. The notice provided to the Department under this condition must specify:</p> <ul style="list-style-type: none"> a. the condition which the approval holder has potentially breached; 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. 	Not applicable	No potential non-compliances have occurred during the reporting period.
30	<p>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.</p>	Not applicable	Arrow has not received any notification from the Minister.

Condition	Description	Compliant/non-compliant or not applicable	Compliance status
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-ever 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 carry out any activity other than in accordance with the Management Plans as specified in the Conditions.
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 notification 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 approval commenced on 22 October 2020 which is within 7 years of the current approval date of 02 July 2019.
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 Plans have been published on Arrow's website. Management plans approved by the Department and published within 1 month on the Arrow website include those listed in Section 3.2.