

Santos Gas Field Development Project (GFD Project)

**EPBC Approval No. 2012 / 6615
Annual Environmental Return 2020**

Introduction

In November 2012, the Gas Field Development Project (the GFD Project) was referred to the Commonwealth Minister under the Commonwealth EPBC Act. The GFD Project is an extension of the existing approved GLNG gas field development and will involve the construction, operation, decommissioning and rehabilitation of an additional 6,100 production wells and the associated supporting infrastructure needed to provide additional gas. On 22 March 2016, the GFD project received conditional approval (EPBC Act Approval 2012/6615) from the Minister for the Environment.

The 2020 Annual Environmental Return (**2020 AER**) has been developed to satisfy Condition 34 of the EPBC Approval.

Condition 34 states:

*Unless otherwise agreed to in writing by the Minister, within three months of every 12 month anniversary of the **commencement** of the **action**, the **approval holder** must publish a report on its website addressing compliance with each of the conditions of this **approval**, including implementation of any management plans as specified in the conditions. Documentary evidence providing proof of the date of publication and details of non-compliance with any of the conditions of this **approval** must be provided to the **Department** at the same time as the compliance report is published. Reports must remain published for life of the approval.*

The date of commencement of the action was 20 November 2016. The relevant anniversary date of the EPBC Approval for the purposes of the 2020 AER is 20 February 2020.

The 2020 AER covers the period 20 November 2019 – 20 November 2020 (**AER Period**). The following table outlines Santos' compliance with the conditions of the GFD approval during this period.

Date of decision	Conditions attached to approval	Compliance Notes
As varied on the date this instrument was signed	1. The approval holder must only construct coal seam gas production wells within the GFD Project Tenements shown at <u>Attachment A</u> .	All development including the construction of coal seam gas production wells was within the GFD Project Tenures shown at Attachment A. EPBC Act approval 2012/6615 was varied on 28 August 2017 to reflect contemporary project boundaries. To affect this change Attachment A was substituted with a new Attachment A.
Original dated 22 March 2016	2. The action is limited to a maximum of 6,100 coal seam gas production wells and associated infrastructure.	The action is limited to a maximum of 6,100 coal seam gas production wells. The number of production wells has not exceeded 6,100.
Variation dated 23 December 2016	2A. a. The approval holder must not release or discharge CSG produced water to surface water b. Condition 2A (a) will not apply if: i. the approval holder has referred the proposed release or discharge of CSG produced water to surface water to the Minister ; and ii. either: <ul style="list-style-type: none"> • the Minister has approved that release or discharge of CSG produced water; or • the Minister has determined that the proposed release or discharge of CSG produced water does not require approval under the EPBC Act. 	No CSG produced water has been released to surface water during the reporting period
Original dated 22	3. The maximum disturbance limits in Annex 1 apply to the action to protect those EPBC threatened species, EPBC communities and EPBC migratory species (identified in Annex 1) within the	The disturbance limits provide in Annex 1 have not been exceeded.

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March 2016	project area. The approval holder must not exceed these maximum disturbance limits.	
	<u>Pre-disturbance surveys</u>	
Original dated 22 March 2016	4. The approval holder must undertake pre-disturbance surveys of proposed disturbance areas, unless the approval holder has an alternative methodology to identify EPBC threatened species, EPBC communities and migratory species or habitat for an EPBC threatened species or EPBC migratory species approved by the Minister in writing.	An alternative methodology to identify EPBC threatened species, EPBC communities and migratory species or habitat for an EPBC threatened species or EPBC migratory species is provided in Appendix A of the Environmental Protocol for Constraints Planning and Field Development (Constraints Protocol). This Constraints Protocol was approved by the Minister in writing on 26 October 2016. The surveys conducted within this reporting period were undertaken in accordance with Appendix A of the Constraints Protocol.
Original dated 22 March 2016	<i>Note 1: The approval holder may submit the alternative methodology for identifying EPBC threatened species, EPBC communities or habitat for an EPBC threatened species as part of the Constraints Protocol required at condition 7.</i>	
Original dated 22 March 2016	5. Pre-disturbance 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 equivalent survey methodology.	Surveys conducted within this reporting period were supervised by a suitably qualified person and accordance with Appendix A of the Constraints Protocol.
Original dated 22 March 2016	6. When an EPBC threatened species, EPBC community or EPBC migratory species found in the project area for which there is no maximum disturbance limit identified in Annex 1, the approval holder must notify the Department in writing within five business days of finding the EPBC threatened species, EPBC community or EPBC migratory species . The approval holder must cease any activities that may or will impact on that EPBC threatened species, EPBC community or migratory species until relevant	No EPBC threatened species, EPBC community or EPBC migratory species for which there is no maximum disturbance limit identified in Annex 1 was found in the project area during the reporting period.

Date of decision	Conditions attached to approval	Compliance Notes
	management plans have been revised to address these impacts and approved by the Minister in writing.	
	<u>EPBC Species Impact Management</u>	
Original dated 22 March 2016	<p>7. The approval holder must submit an Environmental Protocol for Constraints Planning and Field Development (Constraints Protocol) for the Minister's written approval. The Constraints Protocol must:</p> <ul style="list-style-type: none"> a. detail the constraints which will apply to project activities with regard to their impact on EPBC threatened species, EPBC migratory species and their habitat, and to EPBC communities. b. be based on levels of constraints, including, but not limited to: <ul style="list-style-type: none"> i. the listing status of an EPBC threatened species and EPBC community; ii. the quality of the EPBC community and habitat for an EPBC threatened species and EPBC migratory species; iii. the number of different EPBC threatened species, EPBC migratory species and EPBC communities impacted by a project activity; and iv. the value of the EPBC community and habitat for an EPBC threatened species and EPBC migratory species in a regional context. 	The Environmental Protocol for Constraints Planning and Field Development (Constraints Protocol) inclusive of the details required in Conditions 7a and 7b, was approved by the Minister in writing on 26 October 2016.
Original dated 22 March 2016	8. The approval holder must not commence the action until the Constraints Protocol is approved by the Minister in writing.	The Environmental Protocol for Constraints Planning and Field Development (Constraints Protocol) was approved by the Minister in writing on 26 October 2016. The action had not commenced before this date.

Date of decision	Conditions attached to approval	Compliance Notes
Original dated 22 March 2016	<p>9. The approval holder must submit a Significant Species Management Plan for the Minister's written approval. The Significant Species Management Plan must include:</p> <ul style="list-style-type: none"> a. measures that will be taken to avoid, mitigate and manage impacts to EPBC threatened species and EPBC migratory species and their habitat, and EPBC communities during clearance of vegetation, including supervision by 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 threatened species and EPBC migratory species and their habitat, and to EPBC communities during construction, operation and decommissioning of the action; c. details of how the approved Constraints Protocol has been applied to avoid and minimise impacts to EPBC threatened species and EPBC migratory species and their habitat and EPBC communities during construction, operation and decommissioning of the action; d. a monitoring program to determine the success of mitigation and management measures to ensure adaptive management for the duration of this approval; e. details of the timeframe for a regular review of the approved Significant Species Management Plan; and f. a discussion of relevant conservation advice, recovery plans and threat abatement plans and how measures proposed in the Significant Species Management Plan take into account relevant conservation advice and are 	<p>The Significant Species Management Plan (SSMP) inclusive of the details required in Conditions 9a and 9f, was approved by the Minister in writing on 27 October 2016.</p> <p>EPBC Act approval 2012/6615 was varied on 28 August 2017 to reflect contemporary project boundaries. In accordance with Condition 36, the SSMP was revised to reflect the project variation and Revision 1 of the SSMP was submitted to the Department on the 20 November 2017.</p> <p>No revisions of the SSMP were sought during the reporting period.</p>

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	consistent with the measures contained in relevant recovery plans and threat abatement plans .	
Original dated 22 March 2016	10. The approval holder must not commence the action until the Significant Species Management Plan has been approved by the Minister in writing. The approved Significant Species Management Plan must be implemented by the approval holder .	The Significant Species Management Plan (SSMP) was approved by the Minister in writing on 27 October 2016. The action had not commenced before this date.
Original dated 22 March 2016	<i>Note 2: The approval holder may submit an update to an existing management plan as required under the conditions of approval for the GLNG project (EPBC 2008/4059) provided the relevant matters under the conditions of this approval are clearly and adequately addressed. The approval holder may prepare and align a management plan required under these conditions with the requirements of the Queensland Government, provided the relevant matters under the conditions of this approval are clearly and adequately addressed.</i>	
	<u>Offsets</u>	
Original dated 22 March 2016	11. The approval holder must ensure that environmental offsets comply with the principles of the EPBC Act Environmental Offsets Policy .	No offsets have been delivered during the reporting period. All existing offsets are being managed in accordance with the relevant approved Offset Plans.
As varied on the date this instrument was signed	12. The approval holder may carry out the action in project phases . The approval holder must deliver environmental offsets for residual significant impacts to matters of national environmental significance for each project phase .	For the purposes of environmental offsets, Santos GLNG have carried out the approval in stages. Environmental offsets for residual significant impacts resultant from the Project have been delivered through the Staged Offset Plans.
As varied on the date this	13. The approval holder must submit an Offset Management Plan for the Minister's written approval. The Offset Management Plan may be prepared and submitted to the Minister for written approval	The Stage 1 Offset Plan was approved by the Minister in writing on 31 October 2016.

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instrument was signed	in stages. If the approval holder submits the Offset Management Plan in stages, each stage of the Offset Management Plan must correspond with a project phase .	<p>The Stage 2 Offset Plan was approved by the Minister in writing on 29 June 2018.</p> <p>A revised Stage 2 Offset Plan (Revision 6) was approved by the Minister in writing on 24 October 2019.</p> <p>A Stage 3 Offset Plan was submitted to the Department on 13 November 2020. This plan is still under assessment.</p>
As varied on the date this instrument was signed	<p>14. The Offset Management Plan must include for the first project phase:</p> <ul style="list-style-type: none"> a. a method for assessing residual significant impacts to EPBC threatened species, EPBC migratory species and EPBC communities; b. results from pre-disturbance surveys and/or an alternative approved methodology (if used) for the project phase as required under conditions 4 and 5; c. details of the offset areas required to address residual significant impacts to EPBC threatened species, EPBC migratory species and EPBC communities for the project phase; d. a survey and description of the current condition (prior to any management activities) of each offset area proposed, including existing vegetation (the baseline condition). This must include a shapefile of each offset property boundary; 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; 	<p>The Stage 1 Offset Plan, inclusive of the details required in Conditions 14a to 14k, was approved by the Minister in writing on 31 October 2016.</p> <p>The Stage 2 Offset Plan was approved by the Minister in writing on 29 June 2018. A revised Stage 2 Offset Plan (Revision 6) was approved by the Minister in writing on 24 October 2019.</p> <p>All approved plans address these conditions</p> <p>The Stage 3 Offset plan was submitted to the Department on 13 November 2020. This plan is still under assessment. It was drafted to meet these conditions.</p>

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	<ul style="list-style-type: none"> f. performance and completion criteria for evaluating the management of the offset area, and criteria for triggering remedial action (if necessary); g. a description of the management measures that will be implemented for the protection of EPBC threatened species, EPBC migratory species and EPBC communities, including a discussion of how measures outlined take into account relevant conservation advice and are consistent with the measures in relevant recovery plans and threat abatement plans; h. a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; i. 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; j. a timeline for when actions identified in the Offset Management Plan will be implemented for each offset area; and k. the proposed legal mechanism for securing the offset. 	
As varied on the date this instrument was signed	15. An approved Offset Management Plan must be implemented by the approval holder .	The Stage 1 Offset Plan was approved by the Minister in writing on 31 October 2016. The action had not commenced before this date.

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As varied on the date this instrument was signed	16. The approval holder must register and legally secure offsets for the first project phase identified in the Offset Management Plan within two years of commencement of the first project phase .	On 6 April 2018, the voluntary declaration was certified, thereby satisfying the legal security requirement. The Springwater Offset Area is now identified as an area of high nature conservation value under section 19F of the <i>Vegetation Management Act 1999</i> (Queensland).
As varied on the date this instrument was signed	17. The approval holder must register and legally secure offsets for a project phase which are sufficient to acquit the residual significant impacts of that project phase .	<p>On 6 April 2018, the voluntary declaration was certified, thereby satisfying the legal security requirement. The Springwater Offset Area is now identified as an area of high nature conservation value under section 19F of the <i>Vegetation Management Act 1999</i> (Queensland).</p> <p>The area subject to the voluntary declaration; the Springwater Offset Area is sufficient to acquit the residual significant impacts of Stage 1 and Stage 2 of the project.</p> <p>The Springwater Offset Area builds on offsets already secured for previous project stages and contributes to a larger strategic offset for cumulative project impacts.</p>
As varied on the date this instrument was signed	<p>18. If the approval holder submits the Offset Management Plan in stages, the approval holder must prepare and submit an updated Offset Management Plan for each subsequent project phase, for written approval by the Minister. The updated Offset Management Plan must:</p> <ul style="list-style-type: none"> a. include the information required for the Offset Management Plan at condition 14 for the relevant project phase; b. include a reconciliation of actual residual significant impacts to EPBC threatened species, EPBC migratory species and EPBC communities against offsets secured for the previous project phase. The reconciled offset 	<p>All offset plans have been drafted to meet the requirements of Conditions 14a to 14k and 18a-18c.</p> <p>The Stage 2 Offset Plan was approved by the Minister in writing on 29 June 2018. A revised Stage 2 Offset Plan (Revision 6) was approved by the Minister in writing on 24 October 2019.</p> <p>The Stage 3 Offsets Plan was submitted to the Department on 13 November 2020. This plan is still under assessment.</p>

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	<p>obligations may be subtracted from the obligations required for the subsequent project phase; and</p> <p>c. demonstrate how the offset builds on offsets already secured for previous project phases and will contribute to a larger strategic offset for cumulative project impacts.</p>	
As varied on the date this instrument was signed	<p>19. The approval holder must not commence the project phase until:</p> <p>a. the Offset Management Plan, for that project phase, has been approved by the Minister in writing; and</p> <p>b. the offset for that project phase has been registered and legally secured.</p>	<p>The Stage 2 Offset Plan was approved by the Minister in writing on 29 June 2018. The action had not commenced before this date.</p> <p>On 6 April 2018, the voluntary declaration was certified, thereby satisfying the legal security requirement.</p> <p>The Stage 3 Offset Plan has not yet been approved by the Minister. The Stage 3 action has not commenced.</p>
	<u>Water management and monitoring</u>	
As varied on the date this instrument was signed	<p>20. The approval holder must submit a Groundwater Management and Monitoring Plan for the full project area (Full project GMMP) for the written approval of the Minister. The Full project GMMP must contain:</p> <p>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:</p> <p>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;</p>	<p>The requirement to submit a GMMP for the full project area has not yet been triggered.</p>

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	<ul style="list-style-type: none"> ii. monitor relevant formations to determine hydraulic connectivity and provide for early detection of impacts prior to reaching migration pathways to other formations (e.g. faults and unconformities known to connect two or more hydrogeological units); iii. monitor potential impacts on groundwater dependent ecosystems, including spring based and non-spring based ecosystems, and provide for the early detection of impacts; iv. monitor changes to the project area water balance; and v. monitor changes to water availability for water users and the environment. <ul style="list-style-type: none"> b. details of a baseline monitoring data acquisition program for the action; c. a rationale for the design of the monitoring network with respect to the nature of potential impacts and the location and occurrence of matters of national environmental significance; d. details of early warning indicators, trigger thresholds and limits for detecting impacts on groundwater resources and a description of how and when these measures will be reviewed in accordance with the requirements of the Underground Water Impact Report, including that groundwater drawdown does not exceed 0.2 metres at EPBC springs as a result of the project; 	

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	<ul style="list-style-type: none"> 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 or trigger threshold values are exceeded, including reporting of the location and severity of exceedance/s to the Minister; f. details of the timeframe for a regular review of the approved GMMP in accordance with the requirements of the Underground Water Impact Report, and the incorporation of the outcomes of any updates to the numerical groundwater model and water balance calculations; g. provisions to make monitoring results publicly available on the approval holder's website for the life of the project; and h. provisions to make monitoring data available to the Department and Queensland Government authorities (if requested) for inclusion in any cumulative impact assessment, regional water balance model, bioregional assessment or relevant research. 	
As varied on the date this instrument was signed	21. The Full project GMMP, including any revised plans, must be peer reviewed by a suitably qualified water resources expert/s approved by the Minister in writing. The peer review must be submitted to the Minister together with the Full project GMMP and a statement from the suitably qualified water resources expert/s stating that they carried out the peer review and evaluated the adequacy of the monitoring, mitigation and management measures proposed.	The requirement to submit a GMMP for the full project area has not yet been triggered.

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As varied on the date this instrument was signed	<p>22. The approval holder must not commence the extraction of water or coal seam gas from a coal seam gas well in areas other than the Project stage 1 area and the Project stage 2 area until the Full project GMMP has been approved by the Minister in writing.</p> <p>The approved Full project GMMP must be implemented by the approval holder.</p>	Santos has not extracted water or gas other than for Project stage 1 area and Project area stage 2.
As varied on the date this instrument was signed	<p>22A. The approval holder must submit a Groundwater Management and Monitoring Plan specific to the Project stage 1 area (the Project stage 1 GMMP) for the written approval of the Minister. The Project stage 1 GMMP must contain:</p> <ul style="list-style-type: none"> a. the details of a groundwater monitoring network for the measurement of impacts on water resources associated directly or indirectly with Project stage 1, details of a baseline monitoring data acquisition program for Project stage 1, a rationale for the design of the monitoring network with respect to the nature of potential impacts and the location and occurrence of matters of national environmental significance; b. details of proposed early warning indicators, trigger thresholds and limits for detecting impacts on groundwater levels, provisions to make monitoring results publicly available on the approval holder's website; and c. provisions to make monitoring data available to the Department and Queensland Government authorities (if requested) for inclusion in any cumulative impact assessment, regional water balance model, bioregional assessment or relevant research. 	The ' <i>Groundwater Management and Monitoring Plan (GMMP) Project Stage 1</i> ' was approved by the Minister in writing on 5 October 2017 and was subsequently implemented.

Date of decision	Conditions attached to approval	Compliance Notes
	<p>The approval holder must not commence the extraction of water or coal seam gas from the Project stage 1 area until the Project stage 1 GMMP has been approved by the Minister in writing.</p> <p>The approved Project stage 1 GMMP must be implemented by the approval holder.</p>	
<p>As varied on the date this instrument was signed</p>	<p>22B. The approval holder must submit a Groundwater Management and Monitoring Plan specific to the Project stage 2 area (the Project stage 2 GMMP) for the written approval of the Minister. The Project stage 2 GMMP must contain:</p> <ul style="list-style-type: none"> a. the details of a groundwater monitoring network for the measurement of impacts on water resources associated directly or indirectly with operations within the Project stage 2 area; b. details of a baseline monitoring data acquisition program for operations within the Project stage 2 area; c. a rationale for the design of the monitoring network with respect to the nature of potential impacts and the location and occurrence of matters of national environmental significance; d. details of early warning indicators, trigger thresholds and limits for detecting impacts on groundwater resources resulting from operations within the Project stage 2 area; e. details of the timeframe for review of the approved Project stage 2 GMMP in accordance with the requirements of the Underground Water Impact Report, f. provisions to make monitoring results publicly available on the approval holder's website; and 	<p>The 'Groundwater Management and Monitoring Plan (GMMP) Project Stage 2', inclusive of the details required in Condition 20, was approved by the Minister in writing on 19 February 2019.</p>

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	<p>g. provisions to make monitoring data available to the Department and Queensland Government authorities (if requested) for inclusion in any cumulative impact assessment, regional water balance model, bioregional assessment or relevant research.</p> <p>The approval holder may submit for the Minister's approval a proposal to not include the information at (d) in relation to terrestrial groundwater resources and the reasons why. If the Minister approves the proposal, the Project Stage 2 GMMP is not required to include the information at (d) in relation to terrestrial groundwater resources.</p> <p>The approval holder must not commence the extraction of water or coal seam gas from the Project stage 2 area until the Project stage 2 GMMP has been approved by the Minister in writing.</p> <p>The approved Project stage 2 GMMP must be implemented by the approval holder.</p>	
As varied on the date this instrument was signed	<p>22C. The approved Project stage 1 GMMP and the approved Project stage 2 GMMP are in force until the later of:</p> <p>a. 31 December 2019; or</p> <p>b. a date specified by the Minister.</p>	<p>This condition permits the implementation of Project Stage 1 GMMP and Project stage 2 GMMP throughout the reporting period.</p> <p>On 27 January 2021, the delegate of the Minister extended the inforce date of the Project Stage 1 and Stage 2 plans until 30 April 2021.</p>
As varied on the date this instrument was signed	<p>23. The Minister may direct, in writing, that the approval holder cease water or coal seam gas extraction from one or more coal seam gas wells if:</p> <p>a. an early warning indicator, trigger threshold or limit in any approved GMMP is exceeded; and</p> <p>b. the Minister is not satisfied that the corrective activities proposed or taken by the approval holder will reduce</p>	<p>No early warning indicator, trigger threshold or limit were exceeded during the reporting period.</p> <p>The minister did not make any directions to cease water extraction from a coal seam gas well/s.</p>

Date of decision	Conditions attached to approval	Compliance Notes
	likely impacts on matters of national environmental significance to acceptable levels.	
As varied on the date this instrument was signed	23A. If condition 23 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 matters of national environmental significance .	
As varied on the date this instrument was signed	24. If condition 23 applies, the approval holder must not recommence such extraction until the Minister has given approval in writing for the recommencement of that extraction. Approval to recommence extraction may be subject to conditions that the Minister considers reasonable.	
Original dated 22 March 2016	<i>Note 3: The approval holder may prepare and align the GMMP with the requirements of the UWIR, provided the relevant matters under the conditions of this approval are clearly and adequately addressed.</i>	
	<u>CSG Waste Management</u>	
As varied on the date this instrument was signed	25. The approval holder must submit a CSG Waste Management Plan (CSGWMP) to the Minister for approval.	The 'Project Stage 1 Coal Seam Gas Waste Management Plan' (CSGWMP), inclusive of the details required in Conditions 25B, was approved by the Minister in writing on 5 October 2017.
As varied on the date this instrument was signed	25A. A CSGWMP may cover: <ul style="list-style-type: none"> a. the project stage 1 area; or b. the project stage 2 area; or c. a project stage area that has been approved by the Minister. 	The 'Project Stage 2 Coal Seam Gas Waste Management Plan' (CSGWMP), inclusive of the details required in Conditions 25B, was approved by the Minister in writing on 1 March 2019.

Date of decision	Conditions attached to approval	Compliance Notes
As varied on the date this instrument was signed	<p>25B. A CSGWMP must include, for the relevant area:</p> <ul style="list-style-type: none"> a. measures that will be implemented to avoid, mitigate and manage impacts to surface water and groundwater resources, EPBC threatened species, EPBC migratory species and EPBC communities as a result of the production, storage and disposal of CSG produced water and waste products during the life of the action; b. monitoring to measure the amount of CSG produced water and waste products produced during the life of the action; c. how the CSG produced water and waste products will be stored, managed and disposed of including, but not limited to: <ul style="list-style-type: none"> i. beneficial reuse; ii. re-injection into groundwater aquifers; iii. irrigation; and iv. transfer to a licensed waste management facility. d. the proposed early warning indicators, trigger thresholds and limits for detecting impacts on surface water and ground water quality; and e. details of a risk based exceedance response for the activities the approval holder will undertake, and the timeframes in which these activities will be undertaken, if early warning indicators or trigger threshold values are exceeded, including reporting of the location and severity of exceedances to the Minister; 	

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	<p>f. if a CSGWMP has previously been approved by the Minister for a different area – how the CSGWMP will contribute to the management of cumulative impacts of the action on matters of national environmental significance.</p>	
<p>As varied on the date this instrument was signed</p>	<p>26. The Minister may direct, in writing, that the approval holder cease water or coal seam gas extraction from one or more coal seam gas wells if:</p> <ul style="list-style-type: none"> 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 to acceptable levels. 	<p>No early warning indicator, trigger threshold or limit were exceeded during the reporting period.</p> <p>The minister did not make any directions to cease water extraction from a coal seam gas well/s.</p>
<p>As varied on the date this instrument was signed</p>	<p>26A. If condition 26 applies, the Minister may direct the approval holder to implement alternate corrective activities at the expense of the approval holder, provided those corrective activities are unlikely to have a significant impact on matters of national environmental significance.</p>	
<p>As varied on the date this instrument was signed</p>	<p>26B. If condition 26 applies, the approval holder must not recommence such extraction until the Minister has given approval in writing for the recommencement of that extraction. Approval to recommence extraction may be subject to conditions that the Minister considers reasonable.</p>	<p>Not applicable – see the response above</p>
<p>As varied on the date this</p>	<p>27. The approval holder must not commence the extraction of water or coal seam gas:</p> <ul style="list-style-type: none"> a. in the project stage 1 area unless a CSGWMP has been approved for project stage 1 area; 	<p>During the reporting period petroleum activities conducted under this approval were restricted to activities within Project Stage 1 and Project Stage 2 areas.</p>

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instrument was signed	<p>b. in the project stage 2 area unless a CSGWMP has been approved for project stage 2 area;</p> <p>c. in an area other than the project stage 1 area or project stage 2 area unless a CSGWMP has been approved for the relevant area.</p> <p>An approved CSGWMP must be implemented by the approval holder.</p>	
As varied on the date this instrument was signed	27A. Revoked	This condition was inserted on 29 September 2017. Revoked 18 December 2018.
Variation dated 23 December 2016	<i>Note 4: Revoked</i>	
	<u>Water Quality Management</u>	
Original dated 22 March 2016	<p>28. The approval holder must submit terms of reference for a chemical risk assessment of the chemicals proposed to be used in coal seam gas extraction to the Minister for written approval. The terms of reference must incorporate best practice risk assessment methodology for the assessment of the potential impacts of the chemicals proposed to be used in coal seam gas extraction on matters of national environmental significance.</p>	The terms of reference for a chemical risk assessment incorporating best practice risk assessment methodology for the assessment of the potential impacts of the chemicals proposed to be used in coal seam gas extraction was submitted and approved by the minister on 20 October 2016.
As varied on the date this	<p>29. The approval holder must submit a water quality management plan (WQMP) for a purpose where chemicals are proposed to be used in coal seam gas extraction (purpose) to the Minister for approval.</p>	Santos GLNG Gas Field Development Project - Water Quality Management and Chemical Risk Assessment Plan- Revision 2 was approved on 3 November 2016. During the reporting period petroleum activities conducted under this approval were restricted

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instrument was signed		<p>to activities on Petroleum Lease (PL) 176. The Water Quality Management Plan was developed to monitor and manage the chemicals used in drilling on PL 176.</p> <p>Revision 5 of the Water Quality Management Plan was approved by the department on 5 October 2017. This version of the plan contemplated chemicals used in hydraulic fracturing.</p> <p>On 10 October 2017, Revision 6 of the Water Quality Management Plan was provided to the Department. This version contained an updated description of Project Stage 1. This version was submitted in accordance with Condition 36.</p> <p>The 'Water Quality Management Plan – Maisey Stage 2 Drilling Chemical Risk Assessment' was approved by the Minister in writing on 18 December 2018.</p> <p>The 'Chemical Risk Assessment Report – Maisey Stage 2: Water Treatment Chemicals' was approved by the Minister in writing on 4 June 2019.</p>
As varied on the date this instrument was signed	<p>29A. A WQMP for a purpose may cover its use in the:</p> <ul style="list-style-type: none"> a. full project area; or b. project stage 1 area; or c. project stage 2 area. 	<p>The construction of coal seam gas production wells had not occurred prior to 20 October 2016. All updates to the Water Quality Management Plan are detailed above.</p>
As varied on the date this instrument was signed	<p>29B. A WQMP for a purpose must include the following information:</p> <ul style="list-style-type: none"> a. a complete list of all chemicals that are proposed to be used in coal seam gas extraction: <ul style="list-style-type: none"> i. for the relevant purpose; and ii. in the area that is the subject of the WQMP. 	<p>The approved Water Quality Management Plans were implemented.</p>

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	<p>This list must include each chemical name, CAS registry number, likely quantities, concentrations and the chemical's general use and function.</p> <ul style="list-style-type: none"> b. a chemical risk assessment, in accordance with the terms of reference approved under condition 28, of all chemicals that are listed under (a). c. consideration of the chemical life-cycle, under specific site conditions in the area that is the subject of the WQMP, at both the surface and subsurface. d. mitigation and management measures to reduce the risk to matters of national environmental significance to a low level for each chemical listed under (a). e. a monitoring and reporting framework to assess the efficacy of the mitigation and management measures identified at (d). f. if the relevant purpose is hydraulic fracturing– <ul style="list-style-type: none"> i. a description of the scale of hydraulic fracturing proposed, including the likely number of wells, number of fracturing events per well and types of wells to be stimulated. ii. a monitoring and reporting framework for the measurement and monitoring of fracture propagation. g. if a WQMP has previously been approved by the Minister for the same purpose in the project stage 1 area or project stage 2 area – how the WQMP will contribute to 	

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	<p>the management of cumulative impacts of the action on matters of national environmental significance.</p> <p>h. a schedule for the regular review of the WQMP, including to assess whether the WQMP needs to be revised to include new chemicals.</p> <p>i. a peer review by a suitably qualified chemical risk assessment expert. The peer review must include a statement from the suitably qualified chemical risk assessment expert stating that they carried out the peer review of the findings of the chemical risk assessment required at (b) and evaluated the adequacy of the monitoring, mitigation and management measures at (d) and (e).</p>	
As varied on the date this instrument was signed	<p>30. The approval holder must not commence the construction of coal seam gas wells:</p> <p>a. in project stage 1 area unless a WQMP for the purpose of drilling has been approved by the Minister for the project stage 1 area or for the full project area;</p> <p>b. in project stage 2 area unless a WQMP for the purpose of drilling has been approved by the Minister for project stage 2 area or for the full project area;</p> <p>c. in an area that is not in project stage 1 area or project stage 2 area unless a WQMP for the purpose of drilling has been approved by the Minister for the full project area.</p>	<p>Coal seam gas wells were not constructed until the relevant Water Quality Management Plans were approved for Stages 1 and 2.</p> <p>A full project area Water Quality Management Plan has not yet been submitted or approved.</p>
As varied on the date this	30A. The approval holder must not commence hydraulic fracturing :	Hydraulic Fracturing was not undertaken in the Stage 1 area until after the relevant Water Quality Management Plan was approved.

Date of decision	Conditions attached to approval	Compliance Notes
instrument was signed	<ul style="list-style-type: none"> a. in the project stage 1 area unless a WQMP for the purpose of hydraulic fracturing has been approved by the Minister for the project stage 1 area or for the full project area; b. in the project stage 2 area unless a WQMP for the purpose of hydraulic fracturing has been approved by the Minister for the project stage 2 area or for the full project area; c. in an area that is not the project stage 1 area or the project stage 2 area unless a WQMP for the purpose of hydraulic fracturing has been approved by the Minister for the full project area. 	<p>Hydraulic fracturing is not approved to occur in the Stage 2 area.</p> <p>The requirement for a full project area Water Quality Management Plan has not yet been triggered.</p>
As varied on the date this instrument was signed	<p>30B. The approval holder must not commence treatment of flowback or CSG produced water:</p> <ul style="list-style-type: none"> a. from the project stage 1 area unless a WQMP for the purpose of water treatment has been approved by the Minister for project stage 1 area or for the full project area; b. from the project stage 2 area unless a WQMP for the purpose of water treatment has been approved by the Minister for project stage 2 area or for the full project area; c. from an area that is not in project stage 1 area or project stage 2 area unless a WQMP for the purpose of water treatment has been approved by the Minister for the full project area. 	<p>Water treatment was not undertaken in the Stage 1 area.</p> <p>Water treatment was not undertaken in the Stage 2 area until after the relevant Water Quality Management Plan was approved.</p> <p>The requirement for a full project area Water Quality Management Plan has not yet been triggered.</p>
As varied on the date	31. The approval holder must implement an approved WQMP.	The approved WQMPs were implemented during the annual return period.

Date of decision	Conditions attached to approval	Compliance Notes
this instrument was signed	The approval holder must not, in taking the action , use a chemical that has not been included in a WQMP that has been approved by the Minister for the relevant purpose and the relevant area.	
	<u>General</u>	
Original dated 22 March 2016	32. Within 20 days after the commencement of the action , the approval holder must advise the Department in writing of the actual date of commencement .	The GFD project commenced on 20 November 2016. The Department was notified in writing via a letter dated 21 November 2016.
Original dated 22 March 2016	33. 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 required by this approval, and make them available upon request to the Department . 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.	Accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the management plans required by this approval have been maintained
Original dated 22 March 2016	34. Unless otherwise agreed to in writing by the Minister , within three months of every 12 month anniversary of the commencement of the action , the approval holder must publish a report on its website addressing compliance with each of the conditions of this approval, including implementation of any management plans as specified in the conditions. Documentary evidence providing proof of the date of publication and details of non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published. Reports must remain published for life of the approval.	This document is the Annual Environmental Return. This report addresses compliance with each of the conditions of this approval.

Date of decision	Conditions attached to approval	Compliance Notes
Original dated 22 March 2016	35. 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 and audit criteria must be approved by the Minister prior to the commencement of the audit. The audit report must address the approved criteria to the satisfaction of the Minister .	During the reporting period there was no independent audit of compliance directed by the minister.
As varied on the date this instrument was signed	36. The approval holder may choose to revise a management plan approved by the Minister under conditions 9, 20, 22A, 22B, 25, and 29 without submitting it for approval under section 143A of the EPBC Act , if the taking of the action in accordance with the revised plan or strategy would not be likely to have a new or increased impact . If the approval holder makes this choice it must: <ul style="list-style-type: none"> a. notify the Department in writing that the approved plan has been revised and provide the Department with an electronic copy of the revised plan or strategy; b. implement the revised plan or strategy from the date that the plan or strategy is submitted to the Department; and c. for the life of this approval, maintain a record of the reasons the approval holder considers that taking the action in accordance with the revised plan or strategy would not be likely to have a new or increased impact. 	All amendments made to management plans approved by the Minister under conditions 9, 20, 22A, 25, and 29 are discussed in the relevant sections above.
Original dated 22 March 2016	37. The approval holder may revoke its choice under condition 36 at any time by notice to the Department . If the approval holder revokes the choice to implement a revised plan or strategy, without approval under section 143A of the Act, the plan or strategy most recently approved by the Minister must be implemented.	During the reporting period the choice provided for under condition 36 was not revoked.

Date of decision	Conditions attached to approval	Compliance Notes
Original dated 22 March 2016	<p>38. If the Minister gives a notice to the approval holder that the Minister is satisfied that the taking of the action in accordance with the revised plan or strategy would be likely to have a new or increased impact, then:</p> <ul style="list-style-type: none"> a. condition 36 does not apply, or ceases to apply, in relation to the revised plan or strategy; and b. the approval holder must implement the plan or strategy most recently approved by the Minister. <p>To avoid any doubt, this condition does not affect any operation of conditions 36 and 37 in the period before the day the notice is given.</p> <p>At the time of giving the notice the Minister may also notify that for a specified period of time that condition 36 does not apply for one or more specified plans or strategies required under the approval.</p>	All amendments made to management plans approved by the Minister under conditions 9, 20, 22A, 25, and 29 are discussed in the relevant sections above.
As varied on the date this instrument was signed	38A. If the approval holder proposes to vary a management plan approved under conditions 9, 20, 22A, 22B, 25, and 29, and the taking of the action in accordance with the revised plan would have a new and increased impact on a matter of national environmental significance , the approval holder must submit the revised plan to the Minister for approval.	All amendments made to management plans approved by the Minister under conditions 9, 20, 22A, 22B, 25, and 29 are discussed in the relevant sections above.
As varied on the date this instrument was signed	38B. If condition 38A applies, the approval holder must not implement the revised plan unless it has been approved by the Minister .	No plans varied under condition 38A were implemented without first being approved by the Minister
As varied on the date this	38C. If condition 38A applies, the approval holder must implement the revised plan if it has been approved by the Minister .	All approved plans have been implemented

Date of decision	Conditions attached to approval	Compliance Notes
instrument was signed		
As varied on the date this instrument was signed	39. Conditions 36, 37, 38, 38A, 38B and 38C are not intended to limit the operation of section 143A of the EPBC Act which allows the approval holder to submit a revised plan or strategy to the Minister for approval.	Noted
Original dated 22 March 2016	40. If, at any time after 10 years from the date of this approval, the approval holder has not substantially commenced the action , then the approval holder must not substantially commence the action without the written agreement of the Minister .	The GFD project commenced on 20 November 2016. The Department was notified in writing via a letter dated 21 November 2016.
Original dated 22 March 2016	41. Unless otherwise agreed to in writing by the Minister , the approval holder must publish all management plans, strategies and reports, referred to in these conditions of approval on its website. Each management plan and/or strategy must be published on the website within 1 month of being approved by the Minister . All published reports must remain on website for the life of the approval.	All management plans, strategies and reports, referred to in these conditions of approval were published on the Santos website within 1 month of being approved by the Minister. All published reports will remain on website for the life of the approval.