

GLNG

Annual Environmental Return 2012 EPBC No 2008/4096 Gas Transmission Pipeline

3380-GLNG-4-1.3-0138







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1. INTRODUCTION

On 22 October 2010, Santos and PETRONAS (**GLNG**) received approval to develop, construct, operate and decommission a 430 km pipeline network to link coal seam gas fields to a proposed LNG facility on Curtis Island as described in referral EPBC No 2008/4096 (**EPBC Approval**).

The 2012 Annual Environmental Return (**2012 AER**) has been developed to satisfy Condition 62 of the EPBC Approval.

Condition 62 states:

- 62. The Proponent must produce an Annual Environmental Return, which:
- a) addresses compliance with these conditions;
- b) records any unavoidable adverse impacts on MNES, mitigation measures applied to avoid adverse impacts on MNES, and any rehabilitation work undertaken in connection with any unavoidable adverse impact on MNES;
- c) identifies all non-compliances with these conditions; and
- d) identifies any amendments needed to plans to achieve compliance with these conditions.

The 2012 AER is structured as follows:

- Section 2 addresses the matters required by Condition 62(a);
- Section 3 addresses the matters required by Condition 62(b);
- Section 4 addresses the matters required by Condition 62(c); and
- Section 5 addresses the matters required by Condition 62(d).

Condition 63 of the EPBC Approval also states:

63. The proponent must publish the Annual Environmental Return on the on the Internet within 20 business days of each anniversary date of this approval.

The anniversary date of the EPBC Approval is 22 October 2011.

The 2012 AER covers the period 22 October 2011 – 22 October 2012 (**AER Period**) and will be published on the internet by 19 November 2012.

2. COMPLIANCE WITH CONDITIONS - CONDITION 62(A)

The table below provides an update on how GLNG is addressing each of the conditions imposed by the EPBC Approval.

3. MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE - CONDITION 62(B)

3.1. Unavoidable Adverse Impacts on MNES

GLNG commenced construction of the Gas Transmission Pipeline (GTP) during the AES Period in accordance with the EIS for the GLNG Project and the EPBC Approval.

Unavoidable impacts for those listed threatened ecological communities and potential habitat for listed threatened species or migratory species set out in Condition 11 as a result of the GTP construction during the AES Period were as follows:







Table 1: EPBC Listed threatened ecological communities					
Ecological community EPBC Status Disturbance limit (ha) Actual Distur					
Brigalow (Acacia harpophylia dominant and co-dominant)	Endangered	4.4	1.475		
Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nadewar Bioregions	Endangered	2.4	0		
Species	EPBC Status	Disturbance limit (ha)			
Cycas megacarpa (Large- fruited Zamia)	Endangered	27.8	0		

Threatened species or migratory species or their habitat, or listed ecological communities encountered and unavoidably impacted during construction of the GTP during the AES Period which are not listed in Conditions 11 and 12 are as follows:

MNES Species	Species number or habitat area disturbed (ha)
Ooline	30 individual specimens
Squatter pigeon	473.18
Star finch	0.45
South-eastern long-eared bat	0.45
Ornamental snake	0.008
Rainbow bee-eater	432
Fork-tailed swift	0
White-bellied sea-eagle	31.34
Great egret	0.06
Cattle egret	477
Australian painted snipe	0.06
Cotton pygmy-goose	93.63

3.2. Mitigation Measures Applied to Avoid Adverse Impacts on MNES

The Significant Species Management Plan (SSMP) has been developed based on pre-clearance ecological surveys to include MNES species as listed in Conditions 11 and 12 of the EPBC Act as well as those encountered that are not already mentioned in the EPBC Approval. Work has not commenced within the construction area where the relevant MNES listed in Conditions 11 and 12 are located until the applicable SSMP has been approved by DSEWPaC. Where MNES species not mentioned in the EPBC Approval are encountered, construction has been suspended in the relevant area until a SSMP for the species or ecological community has been submitted and approved.

Specific preventative actions and mitigation measures as detailed in the relevant SSMP, Significant Management Plant and Aquatic Values Management Plan have been applied during construction in order to minimise adverse impacts on MNES.

3.3. Rehabilitation Work Undertaken in Connection with any Unavoidable Adverse Impacts on MNES

No rehabilitation works have been implemented to date. Rehabilitation works are due to commence as soon as reasonably practicable following the completion of construction activities.







4. NON-COMPLIANCES – CONDITION 62(C)

Potential non-compliances with State environmental authorisations relevant to the activities carried out under the EPBC Approval have occurred within the AER period as per the table below. The non-compliances may have in some instances also have constituted a non-compliance with the Environmental Management Plan approved by the Minister for the GTP construction. All incidents have been reported to SEWPaC in accordance with the requirements of Condition 58.

	Date	Time	Location	Туре	Incident Details
1	19/07/2012	1600h	Lots 5 & 6	Erosion and Sediment Control	Overtopping of 2x sediment ponds in a manner not in accordance with site ESCP and Mainland EA - triggered notification under conditions L1(a).
	4/10/12	1	Lot 13 RP620842	Line pipe stockpile	Stockpile location not in accordance with EA
2	5/10/2012	·	Camp 2 Fly camp	Wastewater Management	Release of raw sewage not in accordance with the Mainland EA triggering notification under Condition L1(a).
3	12/10/2012	-	Camp 2 Fly camp	Wastewater Management	Uncontrolled release of treated sewage to land.
4	21/10/2012	0900h	Camp 2 Fly camp	Wastewater Management	Uncontrolled release of treated sewage to land.
5	27/10/2012	1225h	The Narrows- adjacent Curtis Island- Gladstone	Hydrocarbon Spill	Spill of approximately 1L of hydrocarbons was released to marine waters at the Narrows. The hydrocarbon was released from a spilt hose on the Moorooka drill rig.

5. AMENDMENTS TO PLANS – CONDITION 62(D)

No amendments to plans have been identified as required to achieve compliance with the conditions of the EPBC Approval.

6. APPENDICES

APPENDIX 1 – Compliance with EPBC Approval for the Gas Transmission Pipeline.

APPENDIX 2 - Updated map including route changes.







APPENDIX 3 - Environmentally Significant Areas data base

APPENDIX 4 – DEHP Register

APPENDIX 5 - Ooline (Cadellia pentastylis) Records







Condition	Compliance Notes
The pipeline route and ROW is depicted in the map at Attachment 1.	The updated Gas Transmission Pipeline (GTP) route and ROW depicted in the Environmental Authority has been included in the GTP Environmental Management Plans approved by SEWPaC. The GTP is being constructed within the updated ROW.
2. The proponent must prepare a Environmental Management Plan to manage the impacts of construction, operation and decommissioning of the pipeline (other than in relation to the Narrows) on listed threatened species and ecological communities, listed migratory species and values of the World and National Heritage-listed Great Barrier Reef.	Environmental Management Plans have been prepared for the Mainland, Marine Crossing and Curtis Island sections of the GTP and have been approved by the Department.
 3. The Environmental Management Plan must include: a. provisions for detailed pre-clearance surveys by a suitably qualified ecologist along the entire length of the ROW, in accordance with conditions 5 to 10; b. measures to minimise native and riparian vegetation clearance and to minimise the impact on listed species, their habitat and ecological communities in accordance with management plans required for MNES 	All Environmental Management Plans have been developed in accordance with this condition and have been approved by the Department. These plans have been uploaded onto the Santos GLNG Project website. a. Suitably qualified ecologists (Ausecology, URS, and Cardno) conducted pre-
species, their habitat and ecological communities in accordance with management plans required for MNES under this approval; c. measures to manage the impact of clearing on each listed species and ecological community in accordance with management plans required for MNES under this approval; d. measures to regenerate vegetation on the ROW where natural regeneration is not successful to a condition at least equivalent to the ROW condition prior to commencement; e. measures to minimise impacts on fauna during pipeline construction, including:	clearance surveys of all areas proposed to be disturbed as well as surrounding ecosystems that may be impacted by construction activities. These surveys have been conducted in accordance with conditions 5 to 10 and their results have been compiled in reports. Fauna spotters also conduct pre-clearance surveys one to seven days prior to construction commencing. Reports are available to SEWPaC upon request.
i. measures to protect MNES in the areas of the ROW where trenching is being undertaken, including measures to exclude listed terrestrial fauna from gaining access to those areas of the ROW where trenching is currently being undertaken	Measures to minimise vegetation clearance and consequent impacts to MNES are covered by the Aquatic values Management plan, Significant Species Management Plan, Fauna Handling Management plan and other EMPs.
ii. mechanisms to allow fauna to escape from the pipeline trench; iii. daily morning surveys for trapped fauna;	c. Measures to manage the impact of clearing on listed species and ecological communities is included in the EMP's
 iv. mechanisms for a suitably qualified person to relocate fauna; and v. record keeping for all survey, removal and relocation activities. f. machinery wash down procedures and ongoing monitoring to minimise the spread and establishment of weeds in the ROW. Monitoring of weed infestations within disturbed areas must occur at least monthly during 	d. Land rehabilitation/reinstatement management plan covers all issues relating to re-establishing vegetation communities as close as practicable to their original state.
construction and then quarterly for a period of two years after completion of construction. Appropriate weed	e. Measures to minimise impacts to fauna are detailed in the fauna handling plan.
control measures must be implemented. After the two-year period, the frequency of monitoring must be reconsidered by the proponent, based on the success of control measures, the level of infestations and pipeline maintenance activities; g. measures to manage and control feral animals that may spread due to the establishment of the ROW; h. measures for the prevention of ignition sources to protect habitat values; i. measures for the management of acid sulfate soils;	f. The Pest and weed management plan sets out mitigation measures undertaken in order to minimise weed infestations. Subcontractors have been employed to treat weeds prior to clearing, during construction and during rehabilitation. Three washdown bays have been installed at locations along the pipeline route and weed hygiene procedures have been implemented across the project. Regular monitoring of weed presence also occurs as extra control measures.
	g. As per Pest and weed management plan measures to monitor and manage the possible spread of feral animals are in place.
	h. Hot Work can be any work that may create an ignition source e.g. welding, thermal or oxygen cutting or heating, grinding, and other related heat or spark producing operations. Hot works are not permitted during periods of Total Fire Ban. Additional permits to be sourced and approved by Queensland fire. Hot Work Permit are required for:
	Areas that have flammable liquids/materials present;
	Areas that have explosive/toxic gas atmospheres;
Santos PETRONAS TOTAL KOGAS UNCONTROLLED IF PRINTED	GLNG PROJECT Annual Environmental Return EPBC No 2008/4096 GTP Page 6 of 18



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	Areas that have live services present; and; Areas that are identified as a confined space Personnel appointed as Fire Watchers shall be adequately trained and shall monitor Work areas and the precautionary measures taken in those areas, when specified by the Issuing Authority on the PTW, and shall undertake response activities as required. i. The Acid Sulfate Soils Management Plan provides measures for adequate management of Acid sulphate soils.
4. The Environmental Management Plan must be submitted for the approval of the Minister. Commencement must not occur without approval (except for activities critical to commencement and associated with mobilisation of plant, equipment, materials, machinery and personnel prior to start of pipeline construction which will have no adverse impact on MNES). The approved plan must be implemented.	The Environmental Management Plans have been approved by the Department and are being implemented.
5. Before the clearance of native vegetation in the pipeline ROW, the proponent must: a. undertake pre-clearance surveys for the presence of listed threatened species and migratory species, their habitat and listed ecological communities. b. alternatively, where recent surveys have already been undertaken and those surveys meet the Department's requirements for surveys for the relevant MNES, the proponent may elect to develop management plans based on those surveys in accordance with the requirements of Condition 8. 6. Pre-clearance surveys must: a. for each listed species, be undertaken in accordance with the Department's survey guidelines in effect at the time of the survey. b. be undertaken by a suitably qualified ecologist approved by the Department in writing; c. document the survey methodology, results and significant findings in relation to MNES; d. apply best practice site assessment and ecological survey methods appropriate for each listed threatened species, migratory species, their habitat and listed ecological communities.	Preclearance ecological surveys commenced in October 2011 and are continuing prior to vegetation clearance in those areas. Ecological reports of areas surveyed incorporate all aspects mentioned in Conditions 5 and 6 and are available upon request.
7. Pre-clearance survey reports (which document the methods used and the results obtained) must be published by the proponent and provided to the Department on request.	Preclearance surveys currently being undertaken ahead of construction by qualified ecologists (Ausecology, URS, Cardno, RPS, Aurecon) in order to allow adequate time for permit applications and notifications to be submitted and/or approved. Ecological reports are available upon request and are published on-line <available at:="" content.aspx?p="101" http:="" www.glng.com.au="">.</available>
8. If a listed threatened species or migratory species or their habitat, or a listed ecological community is encountered during the surveys undertaken as required by condition 5 and is not specified in the Table 1 or 2 at condition 11 and 12, the proponent must submit a separate management plan for each species or ecological community to manage the unexpected impacts of clearing. In relation to each listed species or ecological community, each plan must address: a. the relevant characteristics describing each ecological community b. a map of the location of species, species' habitat, or ecological community in proximity to the ROW; c. measures that will be employed to avoid impact on the species, species' habitat, or ecological community; d. a quantification of the unavoidable impact (in hectares and/or individual specimens);	GLNG has developed the following GTP Project management plans: • Cycas megacarpa Management Plan • Significant Species Management Plans • Aquatic Values Management Plans These ecological reports (including constraints maps and pre-clearance data) cover the required information on the ecological communities, listed flora and fauna, and habitat for listed species present throughout all regions proposed to be affected by









	Condition	Compliance Notes	
e. where impacts are unavoidable and a disturbance limit is not specified for the listed species or ecological community under condition 11, propose offsets to compensate for the impact on the population of the species' habitat, or the ecological community; f. current legal status (under the EPBC Act); g. known distribution. For listed species, each plan must also include: a. known species' populations and their relationships within the region; b. biology and reproduction; c. preferred habitat and microhabitat including associations with geology, soils, landscape features and associations with other native fauna and/or flora or ecological communities; d. anticipated threats to MNES from pipeline construction, operation and decommissioning; e. management practices and methods to minimise impacts, such as: i. site rehabilitation timeframes, standards and methods; ii. use of sequential clearing to direct fauna away from impact zones; iii. re-establishment of native vegetation in linear infrastructure corridors; iv. handling practices for flora specimens; v. translocation and/or propagation practices and monitoring for translocation/propagation success; vi. monitoring methods including for rehabilitation success and recovery; f. reference to relevant conservation advice, recovery plans, or other policies, practices, standards or guidelines relevant to MNES published or approved from time to time by the Department. 9. Each plan required under condition 8 must be submitted for the approval of the Minister. Commencement in the location covered by the management plan must not occur without approval. Each approved plan must be implemented.		construction. Where impacts are unavoidable mitigation measures (as included in the management plans) have been suggested to minimise the effects of any disturbances. Offset strategies have been proposed by GLNG to compensate unavoidable impacts. Efforts are being made to translocate species where practicable and rehabilitation methodologies will commence as soon as construction is complete. Ongoing monitoring will occur as per the Project Monitoring and Reporting Management Plan. Quantification of the unavoidable impact to listed threatened species, migratory species, their habitat, or a listed ecological community is recorded in the Significant Species Management Plan (SSMP). In accordance with 8 (e), GLNG will propose Environmental offsets for unavoidable impacts to MNES within 6 months of the approval of the last SSMP by the Department. Species encountered during clearing activities and other disturbance activities are recorded by the Fauna Handlers. Squatter Pigeons to date are the only species listed in the EPBC Act Table 2 that have been encountered. Two Squatter Pigeons (Geophaps scripta scripta) were encountered during a preclearance walk prior to commencement of grading activities on the 15/10/12 at lot 401 on DT4026. They were disturbed by activity and self-dispersed to a safe location in neighbouring grasslands. A total of 30 Ooline plants (Cadellia pentastylis) have been cleared during this AER period.	
10. If, during construction a listed threatened species or migratory species or their habitat, or a listed ecological community is encountered and is not specified in the table at condition 11 or 12, the proponent must submit a separate management plan for each species or ecological community in accordance with condition 8 within 20 business days of encountering that MNES. Work must not continue at the construction site where the MNES is encountered until the relevant management plan has been approved.			. No additional EVNT species cleared. No other species have been encountered during the AER period.
11. The following maximum disturbance limits apply to any disturbances authorised for unavoidable impacts on listed threatened communities and potential habitat for listed threatened species or migratory species as a result of the construction, operation and decommissioning of the pipeline (and all associated activities). Table 1: EPBC Listed threatened ecological communities			As per the SSMP disturbance limits are within the maximum disturbance limit authorised for the GTP footprint. All clearing activities identified as sensitive areas are being supervised by the relevant EO.
Table 1: EPBC Listed threatened ecological communities			No disturbance to Cycas megacarpa or SEVT has occurred during the AER Period as a result of the GTP construction. 1.475 ha of Brigalow occurred during this period as stated in the SSMP KP40-130.
Ecological community	EPBC Status	Disturbance limit (ha)	
Brigalow (Acacia harpophylia dominant and co-dominant)	Endangered	4.4	SSMPs for KP30-40 and KP130-420 are under development and disturbance limits for listed communities are provided in these plans.
Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nadewar Bioregions	Endangered	2.4	
Species	EPBC Status	Disturbance limit (ha)	
Cycas megacarpa (Large-fruited Zamia)	Endangered	27.8	









Condition		Compliance Notes
prepared in accordance with the requirements of condition 8.		The SSMP includes management plans for each individual species listed in Table 2. Each individual plan covers the biological and ecological characteristics of the species the distribution, description of the species preferred habitats, threats of the pipeline
		activities, unavoidable impacts, management methods and mitigation measures across
Table 2: Species management plans required before co		the different stages (pre-construction, construction, operation and decommissioning) of
Listed species	EPBC Act Status	the project.
Philotheca sporadica	Vulnerable	In accordance with Condition 8 (e), GLNG is preparing SSMPs in a staged approach
Cadellia pentasylis (Ooline)	Vulnerable	that aligns with the proposed GTP construction schedule. SSMPs have been
Paradelma orientalis (Brigalow Scaly-foot)	Vulnerable	developed and approved for KP 0-30, 40-130, 130 – 312 and 408.81 – 409.04. Once
Furina dunmalli (Dunmall's Snake)	Vulnerable	the last SSMP is approved, GLNG will within 6 months submit a revised Offset Plan to
Egernia rugosa (Yakka Skink)	Vulnerable	address unavoidable impacts to MNES resulting from the construction of the GTP.
Geophaps scripta scripta (Squatter pigeon – southern)	Vulnerable	
Nyctophilus timoriensis (Eastern Long-eared Bat)	Vulnerable	
Chalinolobus dwyeri (Large-eared Pied Bat)	Vulnerable	
Xeromys myoides (Water Mouse)	Vulnerable	On 24/09/2012, GLNG submitted the Monte Christo Offset Proposal. The Proposal will address the EPBC Act offset requirements for the GLNG Project including the: • LNG Facility on Curtis Island; • Marine Facilities on Curtis Island; • Gas Transmission Pipeline crossings of the Kangaroo Island Wetlands and the Marine Crossing of The Narrows; and • GTP Right of Ways on Curtis Island. The Monte Christo Offset Proposal will also address the offset requirements for a number of those listed species identified in the approved SSMPs (e.g. Water Mouse). The final offset requirements will be quantified once the final SSMP has been approved. The proposal is currently under review by the Department.
13. Each management plan must be submitted for the approcur without approval. Commencement in the location cover		The SSMP has been separated into sections of the ROW allowing a staged approach to the approval of the SMMP. Construction has not occurred without an approved









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without approval. Each approved plan must be implemented.	SSMP for that area.
14. Disturbance of vegetation related to the construction and maintenance of the pipeline must be confined to the ROW. Any proposed siting of construction camps, vehicle access tracks and pipe lay-down areas	Clearing outside the RoW has and will continue to be undertaken in a way that
outside the ROW during construction must be undertaken so as to minimise potential adverse impacts on	minimises the potential impacts caused by construction activities. All clearing will be conducted in compliance with the site specific Management plans and set conditions.
MNES and must comply with conditions 5 to 13.	conducted in compliance with the one opposite management plane and oct conductors.
15. Within 12 months of the commencement of pipeline development the proponent must prepare an Offset Plan to provide an offset area for the approved disturbance limits relating to Semi-evergreen vine thickets of	GLNG submitted an Environmental Offset Plan for the GTP Project on 22/4/2011
the Brigalow Belt (North and South) and Nandewar Bioregions within the project area. The offset area to be	(within 12 months of commencement of GTP construction on 2/8/12) The Plan included properties that would be suitable to meet the offset requirement for SEVT Semi-
secured must be an area of private land which includes at least 19.2 ha of Semi-evergreen vine thickets of the	evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar
Brigalow Belt (North and South) and Nandewar Bioregions. 16. The Offset Plan must include details of the offset area including: the timing and arrangements for	Bioregions. The GTP Offset Plan is being updated based on comments from the
property acquisition, maps and site description, environmental values relevant to MNES, connectivity with	Department.
other habitats and biodiversity corridors, a rehabilitation program, and mechanisms for long-term protection,	
conservation and management. 17. The Offset Plan must be submitted for the approval of the Minister within 12 months of the	
commencement of gas field development. The approved Offset Plan must be implemented within 30 business	
days of approval.	
18. If the approved Offset Plan cannot be implemented because of failure of arrangements to secure the necessary area of private land then the proponent must submit for the Minister's approval an alternative	Not applicable for this AER period.
Offset Plan. The alternative Offset Plan must provide at least an equivalent environmental outcome to those	
specified under condition 15. The approved alternative Offset Plan must be implemented.	
19. If the proponent proposes any action within a proposed offset area, other than actions related to managing that area as an offset property, approval must be obtained, in writing from the Department. In	Not applicable for this AER period.
seeking Departmental approval the proponent must provide a detailed assessment of the proposed action	
including a map identifying where the action is proposed to take place and an assessment of all associated	
adverse impacts on MNES. If the Department agrees to the action within the proposed offset site, the area identified for the action must be excised from the proposed offset and alternative offsets secured of equal or	
greater environmental value in relation to the impacted MNES.	
20. The proponent must secure the offset within 2 years of commencement.	The proposed offset property for SEVT TEC (Kentucky) has been secured by GLNG.
21. Within 12 months of securing the offset area required under the approved Offset Plan, the proponent	Not applicable for this AER period.
must develop an Offset Area Management Plan which must specify measures to improve the environmental values of the offset area in relation to MNES, including;	
a. the documentation and mapping of current environmental values relevant to MNES of the area;	
 b. measures to address threats to MNES including but not limited to grazing pressure and damage by livestock and adverse impacts from feral animals and weeds; 	
c. measures to provide fire management regimes appropriate for the MNES;	
d. measures to manage the offset area to improve the condition of the SEVT ecological community within	
the offset area and to increase the areal extent of SEVT ecological community within the offset area as objectives of the program.	
e. monitoring, including the undertaking of ecological surveys to assess the success of the management	
measures against identified milestones and objectives;	
f. performance measures and reporting requirements against identified objectives, including trigger levels for corrective actions and the actions to be taken to ensure performance measures and objectives are met.	
for corrective actions and the actions to be taken to ensure performance measures and objectives are met.	









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22. Within 12 months of securing the offset area the Offset Area Management Plan must be submitted for	
the approval of the Minister. The approved Offset Area Management Plan must be implemented.	
23. To offset the unavoidable impacts to <i>Cycas megacarpa</i> from all activities associated with this approval, the proponent must: If the baseline route through the Callide and Calliope Ranges assessed in the EIS is pursued: a. within 12 months of the date of this approval, secure an area of at least 166.8ha as an offset for receiving no less than 3990 translocated and propagated individuals; b. identify alternative recruitment methods if it is considered unlikely that translocation and propagation will be successful; c. notify the Department in writing of the acquisition or transfer of ownership of the area identified in Condition 23(a) within one month of securing the land; d. if the proponent proposes any action within a proposed offset area, other than actions related to managing that area as an offset property, approval must be obtained, in writing from the Department. In seeking Departmental approval the proponent must provide a detailed assessment of the proposed action including a map identifying where the action is proposed to take place and an assessment of all associated adverse impacts on MNES. If the Department agrees to the action within the proposed offset site, the area identified for the action must be excised from the proposed offset and alternative offsets secured of equal or greater environmental value in relation to the impacted MNES; e. demonstrate that the measures for securing and managing the offset will ensure that the offset is protected in perpetuity. or, if the Callide Range Alternative Route (CRAR) is pursued: a. within 12 months of the date of this approval, secure an area of at least 166.8ha as an offset for receiving no less than 2610 translocated and propagated individuals; b. identify alternative recruitment methods if it is considered unlikely that translocation and propagation will be successful; c. notify the Department in writing of the acquisition or transfer of ownership of the area identified in Condition 23(a) within one month of securing the land; d. if the proponent p	GLNG is pursuing the [PIPELINE TEAM TO ADVISE WHICH OPTION IN CONDITION 23 APPLIES] route. GLNG submitted an Environmental Offset Plan for the GTP on 22/04/2011. The Plan identified a number of properties that would be suitable as potential recipient sites for the translocated and propagated Cycads. Since the original Plan was submitted, GLNG identified another two priority properties deemed to be more suitable for a translocation and as an offsite site. GLNG commissioned an Ecological Equivalence Methodology (EEM) assessment to confirm the attributes of each property and landholder negotiations to secure one of the properties are currently underway. GLNG wrote to the Department on 19/10/2012, requesting a further extension of time to secure the preferred property. The EEM report was also provided to SEWPaC on 25/10/2012. A response from the Department is pending.
protected in perpetuity. 24. The proponent must prepare a <i>Cycas megacarpa</i> Management Plan in consultation with an expert	In accordance with condition 04 to 00. CLNO developed and submitted a Const-
approved by the Department in writing.	In accordance with condition 24 to 26, GLNG developed and submitted a <i>Cycas</i> megacarpa Management Plan to the Department on 27/05/2012. The Plan is now
25. The Cycas megacarpa Management Plan must include:	being updated to address comments received from the Department on 26/10/2012.
a. confirmation of the pipeline route across the Callide Range	The Plan includes additional information on the preferred translocation property.
b. measures to ensure all <i>Cycas megacarpa</i> within the ROW are avoided using, for example suitable	
trenchless technique(s) as necessary or, if avoidance is not possible, individual plants must be removed and	Construction within the section of RoW containing Cycas megacarpa will not
kept offsite and replanted in the same location, or alternatively translocated. Where it can be demonstrated that removal and translocation of individuals is unlikely to succeed, translocation may be substituted by	commence until the <i>Cycas megacarpa</i> Management Plan is approved by the
establishing propagated individuals;	on interior difficience by the
establishing propagated individuals,	l





Condition





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c. measures to propagate and plant <i>Cycas megacarpa</i> individuals removed or impacted by construction activities to maintain a population of no less than 3990 (2610 if the CRAR is pursued) individuals within the offset site required by Condition 23(a); d. a detailed methodology for translocation, propagation, and planting, including a map of the location of the offset site; e. details of funding required to secure, maintain and enhance the values of the offset site in perpetuity; f. details of a suitably qualified person to undertake translocation, propagation and planting; g. details of the erosion and sediment control measures to be implemented in the ROW in the Callide and Calliope Ranges; h. measures to rehabilitate the ROW in the Callide and Calliope Ranges; i. measures for the control and management of weeds, fire, feral animals, access and grazing in translocation sites; j. measures for the management, maintenance and protection of the population of <i>Cycas megacarpa</i> individuals in the offset site for a period of five years following final planting; k. details of monitoring practices to assess the success of proposed management regimes of the offset; l. performance measures, reporting requirements, trigger levels for corrective actions and identification of those actions to be taken to ensure performance measures are met; and m. a reconciliation statement of impacts against the agreed limit of disturbance, as defined above in condition 11 must be updated by the proponent every 12 months from commencement until construction is complete. 26. The <i>Cycas megacarpa</i> Management Plan must be submitted for the approval of the Minister. Commencement in the location covered by the management plan must not occur without approval. The approved plan must be implemented.	Department. The approved plan will be implemented.
27. To avoid doubt, a single offset management plan can be submitted to meet all offset management plan requirements.	GLNG submitted an Environmental Offset Plan for the GTP on 22/04/2011. This Plan addressed the offset requirements for the entire GTP Project. Based on feedback from the Department, separate Offset Plans will be developed to address the requirements for: • SEVT TEC; • Cycas megacarpa; and • Offsets for unavoidable impacts to MNES for impacted TECs, listed flora species, listed fauna and migratory species habitats. On 24/09/2012, GLNG submitted the Monte Christo Offset Proposal. The Proposal will address the EPBC Act offset requirements for the GLNG Project including: • LNG Facility on Curtis Island; • Marine Facilities on Curtis Island; • Gas Transmission Pipeline crossings of the Kangaroo Island Wetlands and the Marine Crossing of The Narrows; and • GTP Right of Ways on Curtis Island. The proposal will also likely address the offset requirements for a significant proportion









28. To offset the unavoidable impacts to MNES for the Mainland GTP. The Offset requirement for the Mainland will be documented within the final SSMP. 29. To proponent must propose in must contribute at least \$250,000 to the Gladstone Ports and Disposal Project (EPBC 20084904). 29. The proponent must prepare an Environmental Management Plan for the crossing of the Narrows. This must include: a. If the crossing is undertaken concurrently with the construction of one or more additional gas transmission pipelines (a bundled crossing): i. the roles and responsibilities of each party involved in the bundled crossing; ii. potential impacts to the final pipeline route, engineering design and construction methodology, including details of the total rumber of gas transmission pipes including any pipelines for water supply and/or severage; iii. potential impacts from the construction of the pipelines of water supply and/or severage; iii. potential impacts from the construction of the pipelines of water supply and/or severage; iii. potential impacts from the construction of the pipelines of water supply and/or severage; iii. potential impacts from the construction of the pipelines of water supply and/or severage; iii. potential impacts from the construction of the pipelines of water supply and/or severage; iii. potential impacts from the construction of the pipelines of water supply and/or severage; iii. mitigation measures to compensate for unavoidable impacts cological communities, were communities, listed migratory species and values of the World and National Heritage-listed offered Barner Reef; vi. measures for right maniferance and decommissioning of the pipelines, or listed threatened species, ecological communities, migratory species and World and National Heritage-listed values of the Great Barner Reef; vi. proposed offsets to compensate for the unavoidable impacts of the action on listed threatened species, ecological communities, insted migratory species and world and water provided in the potential	Condition	Compliance Notes
wetlands west of the Narrows, the proponent must contribute at least \$250,000 to the Gladstone Ports Corporation's migratory bird season's tudy required by conditions for the Gladstone Wostern Basin Dredging and Disposal Project (EPBC 2009/4904). 29. The proponent must prepare an Environmental Management Plan for the crossing of the Narrows. This must include: a. if the crossing is underfaken concurrently with the construction of one or more additional gas transmission pipelines (a bundled crossing): i. the roles and responsibilities of each party involved in the bundled crossing; ii. potential impacts in the stransmission pose including any pleplines for water supply and/or sewerage; iii. potential impacts from the construction of the spipeline of the vater supply and/or sewerage; iii. potential impacts from the construction of the spipeline for water supply and/or sewerage; iii. potential impacts from the construction of the spipeline of water supply and/or sewerage; iii. potential impacts from the construction of the spipeline for water supply and/or sewerage; iii. potential impacts from the construction of the spipeline of water supply and/or sewerage; iii. potential impacts from the construction of the Spipelines for water supply and/or sewerage; iii. potential impacts from the construction of the spipeline of water supply and/or sewerage; iii. potential impacts from the construction of the spipeline of water supply and/or sewerage; iv. proposed offset measures to compensate for unavoidable impacts on listed threatened species and ecological communities, listed migratory species and values of the World and National Heritage-listed values of the Narrows (preferably achieved by horizontal directional diffling or tunnolling); i. details of the final pipeline route, design and construction method which, in the opinion of the Minister, will result in minimal surface disturbance to the Kangaroo Island Wetlands and minimal olditurbance to the area of the establishment of the pipeline of the pipeline		of the offsets for unavoidable impacts to MNES for the Mainland GTP. The Offset requirements for the Mainland will be documented within the final SSMP.
a. If the crossing is undertaken concurrently with the construction of one or more additional gas transmission pipelines (a 'bundled crossing): i. the roles and responsibilities of each party involved in the bundled crossing; ii. details of the final pipeline route, engineering design and construction methodology, including details of the final pipeline route, engineering design and construction methodology, including details of the final pipeline route, engineering design and construction methodology, including details of the tinal pipeline route, engineering design and construction methodology, including details of the final pipeline route, design and construction of the pipeline on listed threatened species, ecological communities, migratory species and World and National Heritage-listed values of the Great Barrier Reef; v. proposed offset measures to compensate for unavoidable impacts on listed threatened species and ecological communities, sited migratory species and values of the Great Barrier Reef; v. measures for management of acid sulfate soils (both potential and actual); vi. measures for management of acid sulfate soils (both potential and actual); vi. measures for management and decommissioning of the pipelines, or fit the proponent does not proceed in a bundled crossing: b. a construction method which, in the opinion of the Minister, will result in minimal surface disturbance to the Kangaroo Island Wetlands and minimal disturbance to the area of the stuary of the Narrows (preferably achieved by horizontal directional drilling or tunnelling); i. details of the final pipeline route, design and construction methodology, including details of inclusion of pipes for water supply and sewerage; iii. potential impacts from the construction of the pipeline on listed threatened species, ecological communities, migratory species and World and National Heritage-listed values of the Great Barrier Reef; iv. proposed offsets to compensate for the unavoidable impacts of the action on listed threatened species, e	wetlands west of the Narrows, the proponent must contribute at least \$250,000 to the Gladstone Ports Corporation's migratory bird research study required by conditions for the Gladstone Western Basin Dredging	
of pipes for water supply and sewerage; ii. potential impacts from the construction of the pipeline on listed threatened species, ecological communities, migratory species and World and National Heritage-listed values of the Great Barrier Reef; iii. mitigation measures to reduce impacts to listed threatened species, ecological communities, migratory species and World and National Heritage-listed values of the Great Barrier Reef; iv. proposed offsets to compensate for the unavoidable impacts of the action on listed threatened species and ecological communities, listed migratory species and values of the World and National Heritage-listed Great Barrier Reef; v. measures for the management of acid sulfate soils; vi. measures for ongoing maintenance and decommissioning of the pipeline. 30. The Environmental Management Plan must be submitted for the approval of the Minister. The activity which is the subject of the Environmental Management Plan must not start without approval. The approved plan must be implemented. 31. If the pipeline construction involves dredging to be undertaken by the proponent under the approval to which these conditions are attached, the proponent must prepare a Dredge Management Plan. 32. The Dredge Management Plan required under these conditions must include: Not applicable. Dredging is not proposed as part of the GTP construction.	must include: a. if the crossing is undertaken concurrently with the construction of one or more additional gas transmission pipelines (a 'bundled crossing'): i. the roles and responsibilities of each party involved in the bundled crossing; ii. details of the final pipeline route, engineering design and construction methodology, including details of the total number of gas transmission pipes including any pipelines for water supply and/or sewerage; iii. potential impacts from the construction of the pipeline on listed threatened species, ecological communities, migratory species and World and National Heritage-listed values of the Great Barrier Reef; iv. mitigation measures to reduce impacts on listed threatened species, ecological communities, migratory species and World and National Heritage-listed values of the Great Barrier Reef; v. proposed offset measures to compensate for unavoidable impacts on listed threatened species and ecological communities, listed migratory species and values of the World and National Heritage-listed Great Barrier Reef; vi. measures for the management of acid sulfate soils (both potential and actual); vii. measures for ongoing maintenance and decommissioning of the pipelines, or If the proponent does not proceed in a bundled crossing: b. a construction method which, in the opinion of the Minister, will result in minimal surface disturbance to the Kangaroo Island Wetlands and minimal disturbance to the area of the estuary of the Narrows (preferably achieved by horizontal directional drilling or tunnelling);	single crossing) has been approved by the Department. Construction of The Narrows crossing will be undertaken by tunnel boring machine (TBM). Management strategies for the Narrows crossing have been incorporated into the overall project Environmental Management Plans. A Receiving Environment Monitoring Program has been developed by Cardno to monitor the actual and potential impacts of the construction activities on the receiving environment within the Narrows region. The EMP for the Marine Crossing includes as Acid Sulfate Soils Management Plan (ASSMP). This ASSMP has been approved by DEHP. This plan outlines the measures
which these conditions are attached, the proponent must prepare a Dredge Management Plan. 32. The Dredge Management Plan required under these conditions must include:	of pipes for water supply and sewerage; ii. potential impacts from the construction of the pipeline on listed threatened species, ecological communities, migratory species and World and National Heritage-listed values of the Great Barrier Reef; iii. mitigation measures to reduce impacts to listed threatened species, ecological communities, migratory species and World and National Heritage-listed values of the Great Barrier Reef; iv. proposed offsets to compensate for the unavoidable impacts of the action on listed threatened species and ecological communities, listed migratory species and values of the World and National Heritage-listed Great Barrier Reef; v. measures for the management of acid sulfate soils; vi. measures for ongoing maintenance and decommissioning of the pipeline. 30. The Environmental Management Plan must be submitted for the approval of the Minister. The activity which is the subject of the Environmental Management Plan must not start without approval. The approved plan must be implemented.	
	which these conditions are attached, the proponent must prepare a Dredge Management Plan. 32. The Dredge Management Plan required under these conditions must include:	Not applicable. Dredging is not proposed as part of the GTP construction.









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Condition	Compliance Notes
b. identification of areas of potentially impacted seagrass habitat and their environmental tolerances; c. site specific water quality objectives for the designated habitats as a guideline for habitat protection and that are in accordance with the National Water Quality Management Strategy including the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, the Australian Guidelines for Water Quality Monitoring and Reporting, the Great Barrier Reef Water Quality Guidelines and the Queensland Water Quality Guidelines; d. measures to refine the plume modelling data presented in the proponent's Environmental Impact Statement; e. mitigation measures and controls for the dredging and spoil disposal activities; f. triggers for initiating adaptive management and potential remediation measures; g. monitoring of: i. potential impacts of dredging on seagrass including but not limited to turbidity and light attenuation; ii. the triggers established under condition 32(f); and iii. the long term impacts of the action; h. options, linked to the triggers established under condition 32(f), for adaptively managing the action — including options for varying the timing and location of dredging and spoil disposal activities; i. details for monitoring of dredging activities, including timing and variables measured such as turbidity and light attenuation in a format as directed by the Department to allow validation of other modelling of dredging impacts relating to the Port of Gladstone; j. measures to minimise the impact on listed migratory birds from noise associated with construction activities; k. measures to prevent and respond to the introduction of marine pest species; l. measures to prevent and respond to the introduction of marine pest species; l. measures to prevent and respond to the introduction of marine pest species; l. measures to protect dugongs and listed turtles including the use of turtle excluder devices; m. details of dredge spoil placement; n. provisions to sample and analyse dredge spoil com	
implemented. 34. East of the Callide Range, the proponent must locate the pipeline within the Callide Infrastructure Corridor State Development Area as indicated in the map at Attachment 1.	The Pipeline will be located within the Callide Infrastructure Corridor State Development Area (CICSDA) as described in the Environmental Management Plan for the mainland pipeline. GTP construction in the CICSDA has not yet commenced.
35. Where reasonably possible horizontal directional drilling must be used for major waterway crossings, including: a. those within the Fitzroy and Calliope River catchments and any water crossing within the known distribution of the Fitzroy River Turtle (<i>Rheodytes leukops</i>) and Murray Cod (<i>Maccullochella peelii</i>). Pipeline construction across waterways must not take place during the nesting and breeding season of the Fitzroy River Turtle; b. Humpie and Targinie Creeks before marshlands near Kangaroo Island and The Narrows	No construction across major waterway crossings took place during the AER Period. The Aquatic Values Management Plan (AVMP) covers the construction methodology to be used for each individual watercourse crossing in order to minimise the impact on MNES. Seasons and the ecology of species is taken into consideration within the AVMP and SSMP. The AVMP (Mainland) has been submitted to the Department for approval prior to construction within watercourses.
36. Trenchless techniques are not required in minor creek beds within the known distribution of the Fitzroy River Turtle (<i>Rheodytes leukops</i>) and Murray Cod (<i>Maccullochella peelii peelii</i>) where there is no water at the crossing site and the distance to the nearest water is sufficient to buffer any potential impacts resulting from the crossing technique.	The AVMP covers the recommended techniques to be used for each specific watercourse.







Condition	Compliance Notes
37. The proponent must prepare an Aquatic Values Management Plan. This plan must include: a. a detailed assessment of aquatic values, including animal breeding locations for listed threatened and migratory species within the ROW; b. measures to minimise impacts on listed riparian, aquatic and water dependent flora and fauna;	The AVMP (Mainland) has been submitted to the Department for approval prior to construction within watercourses.
c. measures to minimise erosion and sediment impacts to waterways; d. measures to maintain water quality and water flow requirements, including treatment and disposal methods for hydrostatic test water; e. site-specific mitigation measures for any potential impacts from construction and operation of the pipeline	Activities the subject of the AVMP have not commenced during this AER Period.
on listed threatened species, including but not limited to the Fitzroy River Turtle. 38. The Aquatic Values Management Plan must be approved in writing by the Minister. Activities the subject of the plan must not start without approval. The Plan must be implemented.	Works will not commence until the AVMP is approved.
39. Within 20 business days of commencement, the proponent must advise the Department in writing of the actual date of commencement.	The Department was informed of commencement date of the GTP Project on 23 August 2012.
40. If, at any time after five years from the date of this approval, the Minister notifies the proponent in writing that the Minister is not satisfied that there has been commencement of the action, the action must not commence without the written agreement of the Minister.	Not applicable
 41. If the proponent wants to act other than in accordance with a plan approved by the Minister under these conditions, the proponent must submit a revised plan for the Minister's approval. 42. If the Minister approves the revised plan, then that plan must be implemented instead of the plan 	Not applicable
originally approved. 43. Until the Minister has approved the revised plan, the proponent must continue to implement the original	
plan. 44. If the Minister believes that it is necessary or desirable for the better protection of a relevant controlling provision for the action, the Minister may request the proponent to make, within a period specified by the Minister, revisions to a plan approved under these conditions.	No requests have been made by the Department during the AER Period.
45. If the Minister makes a request for revision to a plan, the proponent must: a. comply with that request; and	
b. submit the revised plan to the Minister for approval within the period specified in the request. 46. The proponent must implement the revised plan on approval of the Minister.	
47. Until the Minister has approved the revised plan, the proponent must continue to implement the original plan.	
48. For any plan required to be approved by the Minister under these conditions, the proponent must ensure the Minister is provided at least 20 business days for review and consideration of the plan, unless otherwise agreed in writing between the proponent and the Minister.	Not applicable
49. The proponent must comply with all environmental authorisations issued by the State, including conditions of an environmental authority issued under the EP Act.	Refer to section 4 of this AER.
50. If a condition of a State approval requires the proponent to provide a plan then the proponent must also provide the plan to the Department or Minister on request, within the period specified in the request.	State required plans have been finalised or are in preparation. Plans will be submitted to the Department upon their request.
51. If these conditions require the proponent to provide something by a specified time, a longer period may be specified in writing by the Minister.	Not relevant to AER
52. On the request of and within a period specified by the Department, the proponent must ensure that: a. an independent audit of compliance with these conditions is conducted; and	No independent audit of compliance with these conditions was requested by the









Condition	Compliance Notes
b. an audit report, which addresses the audit criteria to the satisfaction of the Department, is published on the Internet and submitted to the Department. 53. Before the audit begins, the following must be approved by the Department: a. the independent auditor; and	Department during the AER Period.
b. the audit criteria. 54. The audit report must include: a. the components of the project being audited; b. the conditions that were activated during the period covered by the audit; c. a compliance/non-compliance table; d. a description of the evidence to support audit findings of compliance or non-compliance; e. recommendations on any non-compliance or other matter to improve compliance; f. a response by the proponent to the recommendations in the report (or, if the proponent does not respond	
within 20 business days of a request to do so by the auditor, a statement by the auditor to that effect); g. certification by the independent auditor of the findings of the audit report. 55. The financial cost of the audit will be borne by the proponent.	
56. The proponent must: a. implement any recommendations in the audit report, as directed in writing by the Department after consultation with the proponent; b. investigate any non-compliance identified in the audit report; and	
c. if non-compliance is identified in the audit report - take action as soon as practicable to ensure compliance with these conditions. 57. If the audit report identifies any non-compliance with the conditions, within 20 business days after the	
audit report is submitted to the Department the proponent must provide written advice to the Minister setting out the: a. actions taken by the proponent to ensure compliance with these conditions; and b. actions taken to prevent a recurrence of any non-compliance, or implement any other recommendation to	
improve compliance, identified in the audit report. 58. The proponent must, when first becoming aware of a non-compliance with these conditions, or a plan	
required to be approved by the Minister under these conditions: a. report the non-compliance and remedial action to the Department within five business days; b. bring the matter into compliance within a reasonable time frame specified in writing by the Department.	Refer to section 4 of this AER. All potential non-compliances were reported within five business days.
59. The proponent must: a. maintain accurate records substantiating all activities associated with or relevant to these conditions of approval, including measures taken to implement a plan approved under these conditions; and b. make those records available on 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 these conditions.	All required records are maintained in a central compliance database and are available to the Department on request.
60. The proponent must: a. provide the Minster with a financial assurance in the amount and form required from time to time by the Minster for activities to which these conditions apply; and b. review and maintain the amount of financial assurance based on proponent reporting on compliance with these conditions, and any auditing of the activities.	Not applicable
61. The financial assurance is to remain in force until the Minister is satisfied that no claim is likely to be made on the assurance.	









Condition	Compliance Notes
62. The proponent must produce an Annual Environmental Return which: a. addresses compliance with these conditions; b. records any unavoidable adverse impacts on MNES, mitigation measures applied to avoid adverse impacts on MNES; and any rehabilitation work undertaken in connection with any unavoidable adverse impact on MNES; c. identifies all non-compliances with these conditions; and d. identifies any amendments needed to plans to achieve compliance with these conditions.	This document: Annual Environmental Return 2012 EPBC No 2008/4096 Gas Transmission Pipeline 3301-GLNG-4-1.3-0138.
63. The proponent must publish the Annual Environmental Return on its website within 20 calendar days of each anniversary date of this approval. In complying with this publication requirement, the proponent must ensure that it has obtained relevant rights in relation to confidentiality and intellectual property rights of third parties	The Annual Environmental Return 2012 will be published on the GLNG website by 19 November 2012.
64. If requested by the Department, the proponent must provide all species and ecological survey data and related survey information from ecological surveys undertaken for MNES. The data must be collected and recorded to conform to data standards notified from time to time by the Department.	Not applicable
65. All plans approved by the Minister under these conditions must be published on the proponent's website within 30 business days of approval by the Minister.	All plans which have been approved by the Minister will be published in accordance with this condition and are available at http://www.glng.com.au/Content.aspx?p=101 .
66. The Department may request the proponent to publish on the internet a plan in a specified location or format and with specified accompanying text. The proponent must comply with any such request.	Not applicable



