



# **GLNG**

## **Annual Environmental Return 2016 EPBC No 2008/4057 LNG Facility**

Document Number: 3310-GLNG-5-1.3-0040

This document contains confidential information and is not to be disclosed to any third parties without prior written permission from the CEO GLNG Operations Pty Ltd.

**UNCONTROLLED IF PRINTED**

## **Table of Contents**

1.	Introduction .....	1
2.	Compliance with Conditions – Condition 67(a) .....	1
3.	Matters of National Environmental Significance – Condition 67(b) .....	2
3.1.	Unavoidable Adverse Impacts on MNES.....	2
3.2.	Mitigation Measures Applied to Avoid Adverse Impacts on MNES .....	2
3.3.	Rehabilitation Work Undertaken in Connection with any Unavoidable Adverse Impacts on MNES .....	2
4.	Non-Compliances – Condition 67(c).....	2
5.	Amendment to Plans – Condition 67(d).....	3
	Appendix 1- Compliance with EPBC Approval for the LNG Facility .....	4

## 1. Introduction

On 22 October 2010, Santos and PETRONAS (**GLNG**) received approval for the development of a Natural Gas Liquefaction Park associated with the Gladstone LNG Project, as described in referral EPBC No 2008/4057 (**EPBC Approval**).

The 2016 Annual Environmental Return (**2016 AER**) has been developed to satisfy condition 67 of the EPBC Approval.

Condition 67 states:

*“67. 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 2015 AER is structured as follows:

- Section 2 addresses the matters required by Condition 67(a);
- Section 3 addresses the matters required by Condition 67(b);
- Section 4 addresses the matters required by Condition 67(c); and
- Section 5 addresses the matters required by Condition 67(d).

Condition 68 of the EPBC Approval also states:

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

The anniversary date of the EPBC Approval is 22 October 2016.

The 2016 AER covers the period 22 October 2015 – 21 October 2016 (**AER Period**) and will be published on the Santos GLNG Project website by 19 November 2016.

## 2. Compliance with Conditions – Condition 67(a)

The table in Appendix 1 provides an update on how GLNG is addressing each of the conditions imposed by the EPBC Approval.

### 3. Matters of National Environmental Significance – Condition 67(b)

#### 3.1. Unavoidable Adverse Impacts on MNES

GLNG continued to undertake the construction and commissioning of the LNG Facility during the 2016 AER Period in accordance with Queensland statutory approvals and the EPBC Approval for the LNG Facility, including the Construction Environmental Management Plan (CEMP) required by conditions 23 to 25 and the Operational Environmental Management Plan (OEMP) required by conditions 26 to 28. Practical Completion of LNG Train 1 occurred in February 2016 and for LNG Train 2 in August 2016. Both Trains 1 and 2 are now in the operations phase.

#### 3.2. Mitigation Measures Applied to Avoid Adverse Impacts on MNES

GLNG applied the mitigation measures detailed in the GLNG Project Construction Environmental Management Plan to Address Matters of National Environmental Significance for the LNG Facility and other approved environmental plans as applicable during the 2016 AER Period.

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

No rehabilitation works were necessary during the 2016 AER Period.

### 4. Non-Compliances – Condition 67(c)

In relation to condition 55 of the EPBC Approval, potential non-compliances with State environmental authorisations have resulted in notifications to the Queensland State Environmental Regulator. As a result, incidents associated with the activities carried out under the EPBC Approval have been reported to the Department in accordance with the requirements of Condition 67 (c):

Reported Date	Description
29 February 2016	<p>In accordance with the Environmental Authority (EA), a weekly grab sample of the waste water discharge to the WW1 diffuser is taken at Monitoring Point S9. On 22 February 2016, the weekly S9 grab sample recorded pH reading of 8.69 which is outside the release range of 6.0 to 8.5. GLNG became aware of the monitoring result on 23 February 2016 and the Department of Environment and Heritage Protection (DEHP) was notified the same day.</p> <p>Given this small volume discharged (0.071ML) and the large volume of receiving water in China Bay, no environmental harm is expected to have occurred.</p>
26 May 2016	<p>In accordance with the (EA), a weekly grab sample of the waste water discharge to the WW1 diffuser is taken at Monitoring Point S9. On 19 May 16, the weekly S9 grab sample recorded pH reading of 8.89 which is outside the release range of 6.0 to 8.5. GLNG subsequently notified the Department of Environment and Heritage Protection (DEHP) on 20 May 2016. Prior to release of approximately 0.05ML of waste water, monitoring of the different waste water systems upstream of Monitoring</p>

Reported Date	Description
	<p>Point S9 indicated that the pH at these sources were within the permitted release range.</p> <p>Wastewater discharges to the WW1 diffuser were temporarily stopped and alternate management measures put in place whilst investigations into the elevated pH at Monitoring Point S9 were made. GLNG was not aware of any adverse environmental impacts having occurred; as a result, no environment remedial action was required.</p>

## 5. Amendment to Plans – Condition 67(d)

The GLNG Project Construction Environmental Management Plan to Address Matters of National Environmental Significance for the LNG Facility and Marine Facilities was updated in accordance with Condition 45 to address requirements of the Queensland regulatory agencies and to reflect the general progression of the project.

Revision 9 of the plan was approved by the Department on 25 October 2015.



## **Appendix 1- Compliance with EPBC Approval for the LNG Facility**

Condition	Compliance Notes
1. The LNG Facility site is the area outlined on the map at Figure 1.	The LNG Facility site has been constructed within the boundaries of the map contained in Figure 1.
2. The proponent must minimise the visual impact of the construction and operation of the LNG Facility by (a) constructing the LNG Facility within the site identified in Figure 1;	The LNG Facility site has been constructed within the boundaries of the map contained in Figure 1.
(b) applying a colour scheme to the LNG Facility and buildings, other than the LNG storage tanks and any necessary corrosion-protected structures and pipe insulation, from the palette of predominant colours found in the locality (Curtis Island) except where to do so would be in contravention of health and safety legislative requirements;	The colour scheme for the permanent buildings has been selected and implemented in accordance with this requirement.
(c) ensuring site works minimise tree clearing, with stabilisation and rehabilitation works on disturbed areas fully implemented within twelve months of completing each component of the LNG Facility (the worker accommodation facility and associated infrastructure; LNG storage tanks; and LNG trains and ancillary equipment and infrastructure); and	Site clearing works have been minimised to the extent necessary for construction. Areas of native vegetation which are outside the construction footprint (but within the site boundary) have physical barriers (fences or drainage ditches) put in place. During this AER period construction of the LNG storage tanks and LNG trains was still underway. Stabilisation works are in progress for those areas which are outside of the construction areas.
(d) minimising light spill and direct views of lights outside the LNG Facility boundary except where to do so would be in contravention of health and safety legislative requirements.	Lighting on site is directed inward towards the site to minimise light spill outside of the LNG Facility boundary, except where to do so would be in contravention of health and safety legislative requirements.
3. The proponent must not bring private motor vehicles onto the LNG site, or private watercraft into waters within 100 metres of the LNG site boundary, except for activities directly relating to pre-clearance surveys, site clearance, and the construction and operation of the LNG facility.	These requirements are included in the 'GLNG Project Curtis Island Environmental Protection Code of Conduct' which was approved by the Department on 21 March 2011. The Code of Conduct is implemented through site inductions for staff and visitors. GLNG has not brought private vehicles or watercraft onto or within 100 metres of the LNG site boundary, except as directly relating to the construction and operation of the LNG Facility.

Condition	Compliance Notes
<p>4. The proponent must not bring animals and plants (including domestic cats and dogs and other potential pests and weeds), other than for landscaping and rehabilitation purposes onto the LNG site, or on to Curtis Island.</p> <p><i>Note 1: For clarity, plants that are brought to Curtis Island for landscaping and rehabilitation purposes must be native Australian species sourced from the South Eastern Queensland and/or Brigalow Belt bioregion/s).</i></p>	<p>These requirements are included in the 'GLNG Project Curtis Island Environmental Protection Code of Conduct' which was approved by the Department on 21 March 2011. The Code of Conduct is implemented through site inductions for staff and visitors.</p> <p>GLNG has not brought animals and only plants used for landscaping or rehabilitation purposes onto the LNG site or to Curtis Island.</p> <p>With the approval of DoTE, GLNG has brought onto the island some indoor plants for use inside buildings only. Such plants will not survive outside and do not represent a weed threat.</p>
<p>5. Entry into the Curtis Island Environmental Management Precinct, as identified in Figure 2, must be prohibited for all the proponent's construction workers, construction contractors, and its employees, whilst they are rostered on shifts or accommodated by the proponent on Curtis Island, except with the prior consent in writing of the authority responsible for the management of this Precinct.</p>	<p>This restriction is included in the 'GLNG Project Curtis Island Environmental Protection Code of Conduct' which was approved by the Department on 21 March 2011. The Department of Employment, Economic Development and Innovation provided GLNG with permission on 8 April 2011 to access the Curtis Island Environmental Management Precinct (EMP) for the purposes of spotter/catchers and environmental professionals during and following the clearing of the GLNG facility footprint to ensure impacts to animal welfare and breeding areas are minimised.</p>
<p>6. An induction program must be implemented for all the proponent's employees and sub-contractors at the time or before they commence work on Curtis Island. The induction program must include:</p> <p>(a) an overview that clearly explains to all the proponent's employees and sub-contractors engaged on the construction and operation of the LNG Facility that they are working in a World Heritage Area and an explanation of the environmental values of the World Heritage Area;</p> <p>(b) information on listed species and ecological communities and other native species that are found in the area, and the related responsibilities of the proponent, its employees and subcontractors;</p> <p>(c) an explanation of the Rodds Bay Dugong Protection Area, and Great Barrier Reef Marine Park zoning on the eastern side of Curtis Island, Rodds Peninsula and the Capricorn Bunker group, and the responsibilities of the proponent, its employees and subcontractors within and in relation to these areas. This explanation must include the provision of maps depicting the zones, an explanation as to what can and cannot be done in the various zones, and information about how important the</p>	<p>All personnel who come on site are required to attend an induction program which addresses the requirements of condition 6 (a), 6 (b), 6 (c) and 6 (d).</p> <p>The information addressing this condition was included in the 'GLNG Project Curtis Island Environmental Protection Code of Conduct' which was approved by the Department on 21 March 2011, and was delivered to new employees and visitors prior to travelling to the LNG site during the construction phase of the LNG facility.</p> <p>The Operational Phase Environmental Induction material and Environmental Code of Conduct was submitted to the Department for review/approval on 9 December 2015. The Department approved these documents on 10 February 2016 and they form part of the current induction material for new employees and visitors travelling to the LNG site.</p>



Condition	Compliance Notes
<p>terrestrial and marine environments of the Capricorn Bunker group are to conserving biodiversity within the Great Barrier Reef Marine Park; and</p> <p>(d) information that fosters a culture of environmental awareness of the values of the area and also raises awareness among all employees and sub-contractors of the compliance and enforcement programs of the Great Barrier Reef Marine Park Authority and penalties that apply for offences.</p>	
<p>7. The obligations under conditions 3, 4, 5 and 6 must also apply to any visitors to the LNG site, or to Curtis Island, who are under the direction or control of the proponent.</p>	
<p>8. Within 20 business days of the final investment decision to proceed with the proposed action, the proponent must submit to the Minister for approval:</p> <p>(a) a Curtis Island environment protection code of conduct for the construction workforce while on site and while travelling to and from the mainland and the construction site; and</p> <p>(b) a code of conduct implementation strategy for enforcing compliance with the Curtis Island environment protection code of conduct.</p>	
<p>9. The code of conduct shall include, but not necessarily be limited to, the requirements set out in conditions 3, 4, 5 and 6.</p>	
<p>10. The approved Curtis Island environment protection code of conduct must be implemented.</p>	
<p>11. At least 60 business days before the commissioning of the first LNG train, the proponent must review, and if necessary revise, the Curtis Island environment protection code of conduct and implementation strategy and provide the Minister with evidence that this review has been carried out. If the Curtis Island environment protection code of conduct and/or implementation strategy are revised, the revised document or documents must be submitted to the Minister for approval within 20 business days of the review being finalised. Once the Minister has approved in writing the revised code of conduct and/or implementation strategy, the approved code of conduct and/or implementation strategy must be implemented.</p>	<p>The proponents submitted a copy of the proponent's review of the existing Gladstone LNG Project: Curtis Island Environmental Protection Code of Conduct which includes the implementation strategy for use during construction and commissioning on 13 July 2015, prior to commissioning of the first LNG train.</p> <p>As a result of the review for the construction and commissioning stages of the project, no changes are recommended to the existing Code of Conduct, however the Project Orientation (Environmental section) which is used to implement the Code of Conduct and is considered to form part of the implementation strategy has been updated to reflect changes to the project and reformatted.</p>

Condition	Compliance Notes
	<p>The Operational Phase Environmental Induction material and Environmental Code of Conduct was submitted to the Department for review/approval on 9 December 2015. The Department approved these documents on 10 February 2016.</p>
<p>12. An Environmental Offsets Plan to offset the loss of habitat and associated World Heritage and National Heritage values caused by the construction and operation of the LNG facility, must be developed.</p>	<p>The LNG Facility Environmental Offset Plan was submitted to the Department by GLNG on 15 August 2013. On 27 September 2013, the Department approved the Plan as meeting the requirements of conditions 12, 13(a), 13(b), 14(a), 14(b), 14(e), 14(f), 14(g), 14(h), 15(a), 15(b), 16, 22(c) and 32(d) of the EPBC Approval (Document reference number Ref:2013/01647).</p> <p>On 20 December 2013, the Department approved the Plan in relation to conditions 14(c) and (d).</p> <p>On 22 August 2014, the Qld State Government announced the LNG Industry Monte Christo Offset Proposal. The LNG Proponents have secured the Monte Christo Offset property on Curtis Island. The property will acquit the offsets required for each Proponents downstream project (LNG Plants, marine Facilities and GTP crossings of The Narrows. The mechanics of handover of the land to the State Government and subsequent transfer to protected status (National Park or Conservation Area) are underway.</p>
<p>13. The Plan must address, but not necessarily be limited to, impacts on vegetation, biodiversity and landscape aesthetics arising from:</p> <p>(a) the development and operation of the LNG facility;</p> <p>(b) other activities on Curtis Island that are associated with the LNG Facility (including workers' accommodation facilities, port works for the project, and ancillary works); and</p> <p>(c) increased risks to biodiversity values of the World Heritage and National Heritage property arising from increased shipping movements and other subsequent or indirect impacts beyond the immediate development site such as water quality impacts and increased recreational access arising from the development and operation of the LNG facility.</p>	<p>In relation to conditions 13(a) and (b), refer to condition 12 above.</p> <p>In relation to condition 13(c), the Department advised GLNG on 27<sup>th</sup> September 2013 that GLNG must address the funding requirements for GBRWHA [<i>refer to condition 15 c)</i>] and jointly undertake the Long Term Turtle Management Plan [<i>refer to condition 34</i>]. GLNG is progressing these matters.</p> <p>Funding arrangements have been negotiated with GBRMPA and GLNG has agreed the funds required to date. Payment for funding in arrears has been made and the most recent payment of \$664,000 was made by GLNG on (or before) 1 August 2016.</p>

Condition	Compliance Notes
<p>14. The Plan must detail:</p> <p>(a) the principles adopted in the Plan. These principles must reflect the objective of identifying, protecting, conserving, presenting, transmitting to future generations and, if necessary, rehabilitating, the World Heritage and National Heritage values of the Great Barrier Reef property;</p> <p>(b) the predicted total loss (in extent and type) of areas of ecological and aesthetic value, (including remnant vegetation, high value regrowth, significant conservation species, habitat, biodiversity corridors, scenic vistas of outstanding natural beauty);</p> <p>(c) the methodology for identifying the requirements for environmental offsets for specific components of the LNG Facility over the life of the project;</p> <p>(d) a proposed timeline for implementing the Environmental Offsets Plan;</p> <p>(e) relevance to any Commonwealth or State government requirements for offsets;</p> <p>(f) in relation to any land retained at the time of preparation of the Plan, the location, size and environmental values of the offsets (land);</p> <p>(g) in relation to any land retained at the time of preparation of the Plan, the management measures, including funding, required to secure, maintain and enhance the values of the proposed offset (land); and</p> <p>(h) a system for reporting to the Minister on offset arrangements, their management and how offset values are being maintained.</p>	<p>Refer to condition 12 above.</p>

Condition	Compliance Notes
<p>15. The Environmental Offsets Plan must as a minimum include:</p> <p>(a) to offset direct impacts, the securing by the proponent of an offset property:</p> <p>(i) that contains attributes or characteristics at least corresponding with those of the LNG facility site; and</p> <p>(ii) at a ratio of no less than 5:1 of the LNG facility site area (that is, a property of at least 1,200 ha in total area);</p> <p>(b) a commitment by the proponent must use its best endeavours to secure National Park status for the offset property. At a minimum the proponent must ensure the retention and management for conservation purposes, under a secure permanent land tenure arrangement, of the property.</p> <p>(c) to offset indirect impacts, a contribution of \$200,000 per annum for the life of the project (indexed at CPI) and in addition \$100,000 per annum (indexed at CPI) for each operating LNG Train (commencing upon commissioning of the relevant Train) to be provided to the Australian and Queensland Government's joint program of field management for the Great Barrier Reef World Heritage Area, for expenditure in the Mackay / Capricorn Section.</p> <p><i>Note 1: For clarity, contributions or offsets negotiated with the Queensland Government with respect to the LNG Facility site (e.g. including under the Environmental Management Precinct Agreement) may, in whole or in part, meet the requirements of Condition 15(a).</i></p> <p><i>Note 2: A Plan which sufficiently addresses the requirements of condition 15 will be considered to meet the purposes of the Plan as described in condition 13.</i></p> <p><i>Note 3: The joint program of field management is related to the objectives of the Great Barrier Reef Intergovernmental Agreement.</i></p>	<p>In relation to conditions 15(a) and (b), refer to condition 12 above.</p> <p>All financial payments to GBRMPA required by Condition 15(c) have been made by GLNG.</p>
<p>16. Subject to condition 17, any property that is purchased or otherwise retained under a secure land tenure arrangement for the purposes of the Environmental Offsets Plan must be located within the Great Barrier Reef World Heritage Area, preferably on Curtis island or nearby.</p>	<p>Refer to condition 12 above.</p>

Condition	Compliance Notes
<p>17. If, within the Great Barrier Reef World Heritage Area, no area of land containing attributes or characteristics at least corresponding with those of the LNG facility site can be secured and protected in the manner described in condition 15 within 24 months of the Minister's approval of this project, an alternative proposal and timetable for acquiring (by purchase, lease or otherwise) property other than in the GBRWHA must be provided to the Minister for approval in writing.</p>	<p>Not applicable. Refer to condition 12 above; the offset site approved by the Minister is wholly within the Great Barrier Reef World Heritage Area.</p>
<p>18. To avoid doubt, the offset required under condition 15 is additional to any similar offset required under an EPBC Act condition of approval for another proponent for an LNG facility on Curtis Island.</p>	<p>Compliance not required; condition 18 is an aid to interpretation.</p>
<p>19. Within 6 months of the date of this approval, the Environmental Offsets Plan must be submitted in writing for the approval of the Minister. The approved plan must be implemented.</p>	<p>Refer to condition 12 above; the Minister's approval of the Plan stated that the Plan had been submitted within the required timeframe and that condition 19 would be met when the Plan is implemented.  (Note the Plan approved replaced an earlier environmental offset plan submitted by GLNG to the Minister on 22 April 2011).  The Plan will be implemented once all necessary administrative processes including related land tenure dealings have been completed.</p>

Condition	Compliance Notes
<p>20. At least one week before the commencement of clearance of native vegetation associated with the construction and operation of the LNG facility, the proponent must undertake pre-clearance surveys to verify the presence or absence of listed ecological communities, listed threatened species, listed migratory species, their habitat, and species identified as contributing to the World Heritage and National Heritage values of the Great Barrier Reef World Heritage Area.</p> <p>21. Pre-clearance surveys must:</p> <p>(a) be undertaken consistent with the Department's survey guidelines in effect at the time of the survey. This information can be obtained from <a href="http://www.environment.gov.au/epbc/guidelines-policies.html#threatened">http://www.environment.gov.au/epbc/guidelines-policies.html#threatened</a>;</p> <p>(b) take account and reference previous ecological surveys undertaken by the proponent for the area and relevant new information on likely presence or absence of MNES;</p> <p>(c) be undertaken by a suitably qualified ecologist approved in writing by the Department;</p> <p>(d) document the survey methodology, targeted species and ecological communities, results and significant findings in relation to MNES; and</p> <p>(e) apply best practice site assessment and ecological survey methods appropriate for each listed threatened species, listed migratory species, their habitat, and listed ecological communities. Pre-clearance survey reports (which document the methods used and the results obtained) must be published by the proponent on the internet before commencement and provided to the Department on request.</p> <p>22. If a listed ecological community or threatened species or migratory species or their habitat, is found during the verification surveys undertaken as required by condition 20, and is not specified in conditions 31-38 inclusive, the proponent must submit a separate management plan for each such species, ecological community or other MNES, to manage the impacts of construction and operation of the LNG facility.</p>	<p>Pre-clearance surveys were undertaken between 21 and 23 January 2011 satisfying conditions 20 and 21. The 'GLNG LNG Facility Pre-clearance survey for EPBC-Listed Fauna and Flora Species, Migratory Species and Ecological Communities' was submitted to the Department on 17 February 2011. Due to the absence of any of the EPBC Act listed values identified by the survey, further management plans under Condition 22 of EPBC Approval 2008/4057 are not required.</p>

Condition	Compliance Notes
<p>Each such plan must be submitted before the commencement of construction of the LNG facility. Each plan must include:</p> <ul style="list-style-type: none"> <li>(a) a map of the location of species or species or ecological communities habitat in relation to the LNG Facility and its associated infrastructure;</li> <li>(b) a description of the measures that will be employed to avoid impact on the species or species or ecological communities habitat</li> <li>(c) where impacts are unavoidable, and if an impacted species or ecological community is not specified in conditions 32-39 inclusive, propose offsets to compensate for the impact on the population or impact on the species or ecological communities habitat.</li> </ul>	
<p>23. Before commencement the proponent must prepare a Construction Environmental Management Plan (CEMP). The CEMP may be submitted in stages (Staged CEMP) in which case commencement of a stage covered by the staged CEMP cannot commence until submitted and approved by the Minister.</p>	<p>The GLNG Project Construction Environmental Management Plan to address Matters of National Environmental Significance for the LNG Facility and Marine Facilities (CEMP for MNES) was approved by the Minister on 11 April 2011.</p>
<p>24. The CEMP must address, but not necessarily be limited to, an identification of all activities with potential to have an adverse impact on MNES proposed to be undertaken during the construction of LNG facilities, including the construction camp and supporting facilities. The CEMP must include:</p> <ul style="list-style-type: none"> <li>(a) design plans showing the type and extent of the works proposed;</li> <li>(b) a construction schedule and methodology, including plans and maps showing discharge points and emission controls for all construction stages;</li> <li>(c) an environmental monitoring and a sampling program which details baseline data collection and provides the basis for ongoing monitoring of specified parameters for the construction and operational phases, including appropriate triggers for mitigation and cessation of works;</li> <li>(d) any potential impacts or effects of the proposed works on the environment during both the construction and operational phases and the means by which adverse impacts will be avoided or mitigated;</li> <li>(e) details of the sewage treatment plant and desalination plant, including:</li> </ul>	<p>Since then GLNG have updated the CEMP for MNES in accordance with Condition 45 to address requirements of the Queensland regulatory agencies and to reflect the general progression of the project.</p> <p>Revision 9 of the plan was approved by the Department on 25 October 2015.</p>

Condition	Compliance Notes
<p>(i) design and operational performance information for sewage treatment and desalination (including acoustic performance of pumps and other machinery);</p> <p>(ii) design and operational performance information for any outfalls and diffusers for emissions, including liquid and solid emissions into Port Curtis including detailed analysis of existing water quality, effluent contaminants, acute and chronic toxic effects of contaminants on fauna and flora and any long term ecological effects from outfalls and emissions;</p> <p>(iii) a detailed description of impacts from the discharge of treated sewage and brine. Source water quality data and characteristics of additives must be provided, and the disposal methods to be used must be described in the plan. The information must be used to determine the site specific mitigation measures proposed, including monitoring and reporting regimes;</p> <p>(iv) information on the eco-toxicity of effluent at the point of release, in the mixing zone, and cumulative impacts of contaminants in the marine ecosystem over time;</p> <p>(v) the assumptions, adequacy and limitations of any modelling used to predict the dimensions and duration of the mixing zone;</p> <p>(f) details on any other plant, equipment or activities that involve emissions to the environment, including:</p> <p>(i) a description of the plant, equipment or activities;</p> <p>(ii) design and operational performance information for plant, equipment or activities;</p> <p>(iii) the potential for unforeseen or accidental incidents and proposed responses to these incidents;</p> <p>(g) a detailed list of waste streams including their handling, treatment and disposal arrangements;</p> <p>(h) the environmental protection commitments proposed for the activities (including all associated accommodation and recreation activities on the Island) to protect the environmental values under best practice environmental management;</p> <p>(i) a rehabilitation program for land proposed to be disturbed during construction of all infrastructure (including associated accommodation and recreation activities) on Curtis Island;</p>	



Condition	Compliance Notes
<p>(j) details of a response plan, with appropriate triggers, which will be initiated in response to any significant impacts on the environment from the works; and</p> <p>(k) identification and characterisation of all wastes and emissions produced by the LNG Facility and its associated support infrastructure including its source, handling, treatment, disposal, or release to the environment.</p>	
<p>25. The CEMP, or a stage of the CEMP, must be submitted for the approval of the Minister. Commencement of the action to which the staged CEMP relates must not occur without the approval in writing of the Minister of the CEMP. The approved plan must be implemented.</p>	
<p>26. Before the commissioning of the first LNG train, an Operational Environmental Management Plan (OEMP) must be prepared.</p>	
<p>27. The OEMP must address the matters required to be included in the CEMP while incorporating changes and any additions the proponent believes are necessary to reflect the shift from the construction phase to the operational phase.</p>	
<p>28. The OEMP must be submitted for the approval of the Minister. Commissioning of the first LNG train must not occur without the approval in writing of the Minister. The approved plan must be implemented.</p> <p><i>Note: To avoid doubt, if a condition of another approval held by the proponent requires a Construction Environmental Management Plan and/or Operational Environmental Management Plan, the proponent may simultaneously meet the relevant requirements of both conditions by submitting a single plan.</i></p>	
<p>29. Any discharge of treated sewage effluent into the waters surrounding Curtis Island must, at minimum, meet the definition of tertiary treatment as specified in section 135(3) of the <i>Great Barrier Reef Marine Park Regulations 1983</i> and be in accord with <i>GBRMPA Sewage Discharge Policy March 2005</i>, unless studies required to develop the CEMP under conditions 23 and 24 indicate that more stringent pollutant limits are necessary.</p>	<p>The OEMP was prepared and submitted to DoTE on 19<sup>th</sup> August 2015 and was subsequently approved by DoTE on 2<sup>nd</sup> October 2015.</p> <p>This is included in the CEMP for MNES. The latest version of the CEMP (Revision 9) was approved by the Department on 15 October 2015.</p>

Condition	Compliance Notes
<p>30. Before the commencement of construction of the LNG facility, the proponent must prepare a Quarantine Management Plan (QMP). The objectives of the QMP are to prevent the introduction of non-endemic species on to Curtis Island. The QMP must include measures to:</p> <ul style="list-style-type: none"> <li>(a) detect pests and weeds, and prevent weed introduction and/or proliferation;</li> <li>(b) control and, unless otherwise determined by the relevant State authorities, eradicate detected non-indigenous terrestrial species (including weeds);</li> <li>(c) mitigate adverse impacts of any control and eradication actions on indigenous species taken against detected pests and weeds;</li> <li>(d) assess risk, manage supply chains, and manage and inspect vessels;</li> <li>(e) mitigate any pest or weed impacts;</li> <li>(f) report and record any quarantine incidents;</li> <li>(g) identify performance standards to be achieved by the QMP; and</li> <li>(h) undertake a review of the QMP and identify the need for any further studies.</li> </ul> <p><i>Note: To avoid doubt, the QMP may be submitted in stages, for example to cover the period prior to any planned direct arrival at the MOF of international imports, and after this time.</i></p>	<p>GLNG has addressed this condition in stages as per the note on Condition 30 (h). As such the Department approved 'Appendix 2, Attachment 2 (GLNG Weed and Pathogen Control Plan)' to address works undertaken prior to the first international vessel using the Materials Offloading Facility at Curtis Island on 21 March 2011 and the 'GLNG – Curtis Island Quarantine Area Operations Manual' and 'GLNG – Curtis Island Biosecurity Management Plan' for international shipments was approved on 6 February 2013.</p>
<p>31. The QMP must be submitted for the approval of the Minister. Commencement must not occur without the approval in writing of the Minister. The approved Plan must be implemented.</p> <p><i>Note: To avoid doubt, if a condition of another approval held by the proponent requires a Quarantine Management Plan, the proponent may simultaneously meet the relevant requirements of both conditions by submitting a single plan. The plan, or components thereof, may also be prepared and implemented in consultation with the Gladstone Ports Corporation or other bodies.</i></p>	

Condition	Compliance Notes
<p>32. To protect the Water Mouse (<i>Xeromys myoides</i>), the proponent must submit to the Minister an Environmental Management Plan (the Water Mouse Environmental Management Plan) which must include:</p> <ul style="list-style-type: none"> <li>(a) results of a pre-clearance survey undertaken at the appropriate time and season for the species;</li> <li>(b) a map of the location of potential habitat for the Water Mouse in proximity to marine facilities;</li> <li>(c) measures that will be employed to avoid impacts on the Water Mouse or its potential habitat; and</li> <li>(d) if impacts on the Water Mouse or its potential habitat are unavoidable, propose offsets to compensate for the impacts.</li> </ul> <p><i>Note: To avoid doubt, if a condition of another approval held by the proponent requires a Water Mouse Environmental Management Plan, the proponent may simultaneously meet the relevant requirements of both conditions by submitting a single plan. The plan may also be prepared in consultation with the Gladstone Ports Corporation in accordance with conditions imposed for the Gladstone Western Basin Dredging and Disposal Project (EPBC 2009/4904).</i></p>	<p>The Department approved the 'GLNG Curtis Island Facility: Water Mouse Survey and Habitat Assessment' on 21 March 2011.</p>
<p>33. The Water Mouse Environmental Management Plan must be submitted for the approval of the Minister within six months of this Approval. The approved plan must be implemented.</p>	

Condition	Compliance Notes
<p>34. Within six months of this approval, the proponent must</p> <p>(a) contribute an initial amount of \$150 000 towards preparation of a long term marine turtle management plan; and</p> <p>(b) participate in industry wide discussions with the Gladstone Ports Corporation and other port users (including LNG proponents) with a view to establishing a long term marine turtle management plan and future funding requirements for the plan.</p> <p>35. If terms of the long term marine turtle management plan cannot be agreed on an industry wide basis (within the Port of Gladstone) within six months of this approval, then the proponent must prepare a long term marine turtle management plan in consultation with other LNG proponents who have confirmed an intention to establish an LNG Facility on Curtis Island.</p>	<p>GLNG committed \$150,000 towards the preparation and subsequent implementation of the Long Term Turtle Management Plan (LTTMP). Document reference number: 3301-GLNG-4-1.3-0049.</p> <p>GLNG participated in industry wide discussions with the Gladstone Ports Corporation and other port users including the other LNG Proponents (QGC and APLNG) with the view to establishing a LTTMP and required funding arrangements. However as the terms of the LTTMP could not be agreed on an industry wide basis within the time frames set by the Department, the LNG Proponents (GLNG, QGC and APLNG) have collectively prepared a LNG Industry LTTMP. Document reference numbers: SEWPaC letter_23/07/2013_QCLNG-COR-QGC-010360] - Chronology of engagement by LNG Proponents and financial contributions towards LTTMP;</p> <p>The three LNG proponents, QCLNG, APLNG and GLNG jointly prepared a LTTMP.</p> <p>The LTTMP was approved by the Department on 3 July 2014.</p> <p>Revision 4 of the LTTMP was approved by the Department on 3 August 2015.</p> <p>The three proponents have entered into a collective acquisition agreement to jointly engage a consultant to implement the recommendations contained in the LTTMP. Eco Logical Australia Pty Ltd was engaged in April 2016 to implement the LTTMP recommendations.</p>

Condition	Compliance Notes
<p>36. The plan (in either case referred to in 34 and 35 above), must include:</p> <p>(a) a program to establish comprehensive baseline information on populations of marine turtles that utilise the beaches and nearby waters of Curtis and Facing Island (including the Green Turtle (<i>Chelonia mydas</i>), the Loggerhead Turtle (<i>Caretta caretta</i>) and the Flatback Turtle (<i>Natator depressus</i>);</p> <p>(b) a monitoring program to measure and detect changes to the marine turtle populations over a period of at least 10 years from commencement of the program. Monitoring methods must have the ability to detect changes at a statistical power of 0.8, or an alternative statistical power as determined in writing by the Minister;</p> <p>(c) the identification of significant activities relating to the construction and operation of LNG facilities (or in the case of an industry wide plan, activities within the Port of Gladstone) with the potential to cause adverse impacts on marine turtles;</p> <p>(d) management measures including operating controls and design features to help manage and avoid adverse impacts to marine turtles shown to be adversely impacted by LNG operations (or in the case of an industry wide plan, activities conducted within the Port of Gladstone). In relation to the LNG operations, management measures will include any reasonable and practicable measures found necessary or desirable to minimise disturbance to marine turtles from gas flaring, and from lighting of the LNG plant and ships moored at the loading berth (except where the adoption of measures would be in contravention of health and safety legislative requirements).</p> <p>(e) Identification of annual contributions by the proponent, other LNG proponents who have confirmed an intention to establish an LNG Facility on Curtis Island and, in the case of an industry wide plan, contributions by other port users.</p>	
<p>37. The Marine Turtle Management Plan must be submitted for the approval of the Minister at least 3 months before the planned date of the commissioning of the first LNG train. The approved Plan must be implemented.</p>	

Condition	Compliance Notes
<p>38. Within 60 days of each anniversary of the approval of the plan the proponent must provide a review report (“the Report”) on the effectiveness of the management measures and operating controls directed at avoiding impacts on the marine turtle species.</p> <p>Note: The review report may be provided by the Gladstone Ports Corporation or another entity on behalf of the proponent.</p>	<p>An LTTMP 2016 Annual Report was prepared and submitted to DoTE on 5 September 2016.</p>
<p>39. If an impact on any of the marine turtle species is identified, the report must recommend improvements to the conduct of those operations and activities which are found to have a causal connection with the identified impact, and provide the report to the Minister in writing within 30 days of identifying the impact. The Minister may require improvements to be implemented.</p> <p><i>Note: To avoid doubt, if a condition of another approval held by the proponent requires a Marine Turtle Management Plan, the proponent may simultaneously meet the relevant requirements of both conditions by submitting a single plan. The plan may also be prepared and implemented in consultation with the Gladstone Ports Corporation or other bodies.</i></p>	
<p>40. Unless the proponent advises the Department that it cannot decommission the site because of lawful continuing use rights by a third party (that might include the State of Queensland), at least five years before the planned date of cessation of operations of the LNG Facility and associated infrastructure on Curtis Island the proponent must develop a Decommissioning Plan. The Plan must:</p> <p>(a) ensure that, following the cessation of operations at the LNG Facility and associated infrastructure on Curtis Island, decommissioning arrangements are prepared;</p> <p>(b) define a timetable for the future implementation of decommissioning including for:(i) the removal of remnant infrastructure and works that interfere with natural coastal processes, and human recreational and commercial activities; (ii) the return of sediment levels and water quality in the immediate area of theLNG Facility to pre-construction background levels; and (iii) the rehabilitation of the LNG Facility and associated sites to their natural state, and their ongoing management during rehabilitation.</p>	<p>Not applicable as the LNG Facility is still in the operations phase.</p>

Condition	Compliance Notes
<p>41. If decommissioning does not commence on the date proposed in the initial Decommissioning Plan, the proponent must review the decommissioning plan before each subsequent third anniversary of the date of the submission of the initial decommissioning plan over the operational life of the LNG facility. The proponent must advise the Minister in writing of the outcomes of this review, including any proposed changes to the Decommissioning Plan. Any proposed changes to the Decommissioning Plan must be approved in writing by the Minister.</p>	
<p>42. The Decommissioning Plan must be submitted for the approval of the Minister. Decommissioning must not occur without approval. Subject to condition 40 the approved Plan must be implemented on decommissioning.</p>	
<p>43. Within 20 business days of commencement of the action, the proponent must advise the Department in writing of the actual date of commencement.</p>	<p>GLNG advised the Department on 20 May 2011, that construction commenced on 27 April 2011.</p>
<p>44. 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 substantial commencement of the action, the action must not commence without the written agreement of the Minister.</p>	<p>Not applicable.</p>
<p>45. 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.</p>	<p>Revised plans have been submitted for approval as required.</p>
<p>46. If the Minister approves a revised plan, then that plan must be implemented instead of the plan originally approved.</p>	
<p>47. The proponent must implement the revised plan on approval of the Minister.</p>	
<p>48. Until the Minister has approved the revised plan, the proponent must continue to implement the original plan.</p>	
<p>49. 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, specified revisions to a plan approved by the Minister under these conditions.</p>	<p>Not applicable.</p>

Condition	Compliance Notes
50. If the Minister makes a request for revisions 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.	
51. The proponent must implement the revised plan, on written approval of the Minister.	
52. Until the Minister has approved the revised plan, the proponent must continue to implement the original plan.	
53. 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 any plan, unless otherwise agreed in writing between the proponent and the Minister.	Plans have been provided to the Minister in accordance with this condition.
54. 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.	Not applicable.
55. The proponent must comply with all environmental authorisations issued by the State, including conditions of an environmental authority issued under the EP Act.	Please refer to Section 4 for a list of all incidents recorded against Queensland environmental authorisations and reported to the relevant State Department as potential non-compliances.
56. 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 applicable.
57. 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 (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.	No independent audit was requested by the Department during the 2016 AER Period.





Condition	Compliance Notes
58. Before the audit begins, the following must be approved by the Department: (a) the independent auditor; and (b) the audit criteria.	
59. 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); and (g) certification by the independent auditor of the findings of the audit report.	
60. The financial cost of the audit will be borne by the proponent.	
61. The proponent must: (a) implement any recommendations in the audit report, as directed in writing by the Department; (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.	

Condition	Compliance Notes
<p>62. 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:</p> <p>(a) actions taken by the proponent to ensure compliance with these conditions; and</p> <p>(b) actions taken to prevent a recurrence of any non-compliance, or implement any other recommendation to improve compliance, identified in the audit report.</p> <p><i>Note: To avoid doubt, independent third party auditing may include audit of the proponent's performance against the requirements of any plan required under these conditions.</i></p>	
<p>63. The proponent must, when first aware of a non-compliance of any condition of this approval, or a plan required to be approved by the Minister under these conditions:</p> <p>(a) report the non-compliance and remedial action to the Department within five business days; and</p> <p>(b) bring the matter into compliance within a reasonable timeframe agreed to, in writing by the Department.</p>	<p>Please refer to Section 4 for a list of all potential non-compliances with the EPBC Approval reported to the Department in accordance with condition 63.</p>
<p>64. The proponent must:</p> <p>(a) maintain accurate records substantiating all activities associated with or relevant to these conditions of approval, including measures taken to implement a plan approved by the Minister under these conditions; and</p> <p>(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 of approval.</p> <p><i>Note: Summaries of audits carried out under these conditions, or under section 458 of the EPBC Act, will be posted on the Department's website. The results of such audits may also be publicised through the general media.</i></p>	<p>All required records are maintained in a central compliance database and are available to the Department upon request.</p>

Condition	Compliance Notes
<p>65. The proponent must:</p> <p>(a) provide the Minister with a financial assurance in the amount and form required from time to time by the Minister for activities to which these conditions apply; and</p> <p>(b) review and maintain the amount of financial assurance based on proponent reporting on compliance with these conditions, and any auditing of the activities.</p>	<p>Not applicable.</p>
<p>66. The financial assurance is to remain in force until the Minister is satisfied that no claim is likely to be made on the assurance.</p> <p><i>Note: The financial assurance may be used for rehabilitation of habitat and other purposes not addressed adequately by the proponent during the life of the project.</i></p>	
<p>67. The proponent must produce an Annual Environmental Return which:</p> <p>(a) addresses compliance with these conditions;</p> <p>(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;</p> <p>(c) identifies all non-compliances with these conditions; and</p> <p>(d) identifies any amendments needed to plans to achieve compliance with these conditions.</p>	<p>This document: Annual Environmental Return 2016 EPBC No 2008/4057 LNG Facility <a href="#">3310-GLNG-5-1.3-0XXX</a>.</p>
<p>68. The proponent must publish the Annual Environmental Return on the Internet within 20 business days of each anniversary date of this approval. In complying with this publication requirement, the proponent must ensure that it has obtained the relevant confidentiality and intellectual property rights of third parties.</p>	<p>The Annual Environmental Return 2016 will be published on the GLNG website by 19 November 2016.</p>
<p>69. 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.</p>	<p>All required records are maintained in a central database and are available to the Department upon request.</p>



Condition	Compliance Notes
70. 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.	Approved plans are available on the Santos GLNG Project website.
71. 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 during the 2016 AER Period.