

## Appendix F

## Proponent Commitments

The Terms of Reference requires a list of all commitments made in the EIS, together with a reference to the relevant section in the EIS. The following tables of Santos' commitments are grouped into the following sections reflective of the EIS structure:

- Table F.1 Santos Commitments within Sections 1 to 5 of the EIS;
- Table F.2 Santos Commitments within Section 6 of the EIS – CSG Fields;
- Table F.3 Santos Commitments within Section 7 of the EIS – Gas Transmission Pipeline;
- Table F.4 Santos Commitments within Section 8 of the EIS – LNG facility; and
- Table F.5 Santos Commitments within Sections 9, 10 and 16 of the EIS.

## Santos Commitments within Sections 1 to 5 of the EIS

**Table F.1 Santos Commitments within Sections 1 to 5 of the EIS**

Commitment	Relevant Section in EIS
<b>INTRODUCTION</b>	
Santos will apply the Santos Environmental, Health and Safety Management System (EHSMS) to all the project's components.	1.2.3.3
Santos will obtain all relevant approvals required for the project, including those described in Table 1.9.1 and Table 1.9.2 and comply with all applicable laws.	Table 1.9.1 & Table 1.9.2
<b>PROJECT ALTERNATIVES</b>	
Santos will investigate the use of alternative drilling techniques in environmentally sensitive areas, in areas of particular aesthetic significance, or in areas subject to conflicting land use.	2.1.2
Santos will make all reasonable endeavours to use the same trench or adjacent trenches for the possible water supply pipeline (from the mainland) and gas transmission pipeline to minimise the extent of seabed disturbance where possible.	2.3.5
<b>PROJECT DESCRIPTION</b>	
Santos will develop ongoing impact assessment protocols (to be incorporated into Santos' EHSMS) which are to: <ul style="list-style-type: none"> <li>• Identify which elements of the CSG fields development will have a potential impact on the environment;</li> <li>• Identify existing sensitive environmental features;</li> <li>• Specify the site selection criteria to be applied according to the type and location of the development proposed;</li> <li>• Outline the proposed timing and scope of field work required, so that the proposed development to be located in accordance with the relevant site selection criteria; and</li> <li>• Identify mitigation measures which will be employed to minimise any impacts on the environment.</li> </ul>	3.6.2.2
<b>TRANSPORTATION</b>	
Santos will contribute to road intersection upgrades described in Section 4.7.4 as appropriate.	4.7.4 & Table 4.7.1

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Santos will contribute a portion of the bring-forward cost of upgrading relevant sections of roads described in Sections 4.8.3 as appropriate.	4.8 and Table 4.8.3
Santos will contribute to the cost of pavement maintenance of the state controlled road network caused by heavy vehicle traffic attributed to the GLNG Project.	Table 4.9.1
Santos will consult with relevant landholders and regulatory agencies when designing and planning any new access tracks. Santos will consult with any affected residents or landholders and prepare a traffic management plan in accordance with Main Roads Standard Specification MRS11.02 Provision for Traffic and the Manual of Uniform Traffic Control Devices (MUTCD) prior to impacting on access to or across any roads. The MUTCD will be used to manage project traffic generally.	4.13.2.1; 4.13.2.3, 4.14.1.1 and 4.14.2
Santos will use appropriate techniques for railway crossings including boring or HDD crossings having regard to the specifications within AS 4799-200: <i>Installation of Underground Utility Services and Pipelines within Railway Boundaries</i> .	4.13.2.3
Santos will comply with vehicle mass limits as prescribed by the <i>Transport Infrastructure Act 1994</i> .	4.14.1.2
Santos will make all reasonable endeavours to ensure project related movements will be restricted to approved access tracks.	4.14.2
In managing transportation Santos will: <ul style="list-style-type: none"> <li>• Ensure heavy and oversize loads are regulated and such vehicles use the haulage routes defined by Queensland Transport;</li> <li>• Control dust as specified in MRS11.02 Provision for Traffic; and</li> <li>• Control weeds, pest and disease in accordance with DMR specification MRS11.16E – Establishment and Monitoring Works.</li> </ul>	Table 4.14.2
<b>WASTE MANAGEMENT</b>	
Santos will include a waste management plan (WMP) into the environment management plan (EMP) for each of the projects components. The WMP will develop a waste management strategy, set performance targets, require monitoring of performance, and allow for the implementation of action plans for improvement where required.	5.1, 5.4 and Appendix K
Santos will carry out on-site inductions at each project site to inform site personnel of the required waste management procedures and facilities. Santos will use its best endeavours to ensure work areas are maintained in a neat and orderly manner and all hazardous wastes will be appropriately stored in bunded areas away from watercourses or other environmentally sensitive areas, in accordance with legislative requirements.	5.4
Santos will manage waste generated during gas transmission pipeline and CSG field construction activities so that: <ul style="list-style-type: none"> <li>• All waste material will be removed from the gas transmission pipeline ROW daily and disposed of to an authorised facility as agreed to by the local authority and in accordance with EPA waste management guidelines;</li> <li>• Waste oils and drilling fluids will be stored separately from other waste and where possible recycled at a licensed facility, or otherwise disposed of at the local landfill under an approved "Disposal permit";</li> </ul>	5.3.1, 5.3.2 and 5.3.3

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<ul style="list-style-type: none"> <li>• Non recyclable general waste will be disposed of at the local landfill;</li> <li>• Sanitary waste will undergo treatment in mobile package sewage treatment plants and disposed by irrigation in accordance with the relevant authority requirements. Sludge from treatment plant/s will be disposed of at a local licensed facility;</li> <li>• Where appropriate, metals will be re-used or returned to the supplier. Other metals will be stored separately on site and recycled at the local landfill where available;</li> <li>• Where appropriate, recyclable wastes will be recycled at local facilities;</li> <li>• Vegetation waste will be cleared, stockpiled, mulched and reused for rehabilitation purposes;</li> <li>• Hydrotest water will be treated and disposed of in accordance with approval conditions; and</li> <li>• Putrescible waste will be stored in covered containers and disposed of at the local landfill.</li> </ul>	
<p>Santos will ensure the following actions will be undertaken during operational activities within the CSG fields:</p> <ul style="list-style-type: none"> <li>• Compressor station operations: <ul style="list-style-type: none"> <li>– Implementation of a preventative maintenance program to ensure gas turbines are operating efficiently to minimise CO emissions and un-combusted hydrocarbons;</li> <li>– Optimisation of gas turbine operations to minimize time periods of operation at low efficiency levels that may result in excess GHG emissions and higher than normal levels of NOx emissions;</li> <li>– Implementation of a quantifiable monitoring and measuring program; and</li> <li>– Associated Water will be reused where possible.</li> </ul> </li> <li>• Electrical equipment and batteries will be stored separately on site and collected by recycling contractors;</li> <li>• Non recyclable general waste will be disposed of at the local landfill;</li> <li>• Where appropriate, recyclable waste will be recycled at local facilities;</li> <li>• Brine containment ponds will likely be required to manage Reverse Osmosis (RO) Brine prior to its safe disposal (crystallisation and encapsulation or transfer to licensed landfill sites);</li> <li>• Rubber and tyres will be stored separately from other waste, and where appropriate will be reused and recycled or disposed of at an approved facility;</li> <li>• Sanitary waste will undergo on site treatment and disposal by irrigation. Sludge from treatment plant will be disposed of at a local licensed facility; and</li> <li>• Waste chemicals, solvents, oils and lubricants will be stored separately from other waste and disposed of at an approved facility.</li> </ul>	5.3.1.2
<p>Santos will develop and implement an EMP to minimise the environmental impact associated with construction activities for all project components.</p>	5.3.2.1 and 5.3.3.1
<p>Santos will ensure any contaminated soil/gravel will (where possible) be land farmed on site or be disposed of by a licensed contractor at a licensed facility.</p>	5.3.2.1
<p>Santos will ensure any sludge from pigging operations is disposed of by a licensed contractor at a licensed facility.</p>	5.3.2.2

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Commitment	Relevant Section in EIS
<p>Santos will ensure construction and operational wastes from the LNG facility will be managed as follows:</p> <ul style="list-style-type: none"> <li>• Concrete will be, where possible, reused on site or recycled at a local facility;</li> <li>• Non recyclable general waste will be disposed of at the local landfill;</li> <li>• Recyclable waste will be segregated into bins and skips and removed from the site by authorised recycling contractors;</li> <li>• Packing materials including plastics and pallets will, where possible, reused on site, or recycled at a local facility;</li> <li>• Paint residues will be collected and transported off-site for treatment at a local licensed facility;</li> <li>• Putrescible waste will be stored in covered containers and disposed of at the local landfill;</li> <li>• Where appropriate, recyclable waste including paper and cardboard will be recycled at local facilities;</li> <li>• Where appropriate, all metals will be re-used or returned to the supplier. All other metals will be stored separately on site and recycled at the local landfill;</li> <li>• Timber waste will be, where possible, reused on site or recycled at a local facility;</li> <li>• Sanitary waste will be treated at an on-site sewage treatment plant; and</li> <li>• Vegetation waste will be cleared, stockpiled, mulched and reused for rehabilitation purposes.</li> </ul>	5.3.3.1, 5.3.3.2, 5.4.2 and 5.4.4
Santos will regularly water trafficked areas to reduce the quantity of dust generated by the movement of equipment and vehicles during construction works. Santos will pave any major, long term access roads.	5.3.3.1
Santos will ensure fuel and chemical storage areas are sealed and bunded in accordance with relevant Australian Standards.	5.3.3.1
Santos will store and transport regulated wastes in accordance with the regulatory waste tracking process. Santos will develop and provide appropriate training to all relevant employees and contractors for the management of regulated wastes.	5.3.3.1, and 5.4.4.1
Waste oils and grease from the LNG facility on-site activities will be reused or recycled if possible, or collected and disposed off-site by licensed waste contractors. Storage of waste oils and greases on-site prior to collection will be conducted in accordance with accepted industry practices, with measures put in place to prevent unauthorised off-site discharges.	5.3.3.2, 5.4.2
Santos will comply with any discharge criteria established by the relevant regulatory agencies for the discharge of any liquid effluent via the nearby seawater outfalls from the LNG facility sediment ponds.	5.3.3.2
Waste storage facilities associated with gas cleaning treatment activities will be located within bunded areas.	5.3.3.2
Santos will treat sewage from the accommodation facilities at an on-site sewage treatment plant. The treatment will include primary and secondary treatment followed by chlorination. Plant effluent will be routed to an irrigation system for disposal. Santos will fence, mark with warning notices and manage the irrigation area to minimise surface runoff and groundwater contamination.	5.3.3.2

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Commitment	Relevant Section in EIS
Santos will implement waste management strategies to minimise the unauthorised release of fuels or any other chemical spills during the construction and operation of the project.	5.4.1
Santos will separate solid waste streams into various components at the point of their production by providing bins for re-usable or recyclable materials. A number of areas will be allocated within the LNG facility for the collection of large quantities of waste to segregate wastes for recycling.	5.4.3

## Santos Commitments within Section 6 of the EIS- CSG Fields

Table F.2 Santos Commitments within Section 6 of the EIS- CSG Fields

Commitment	Relevant Section in EIS
<b>CLIMATE</b>	
Santos will ensure the EMP includes an emergency management plan which addresses foreseeable site specific climatic risks such as fire and flooding	6.2.3
<b>LAND AND CONTAMINATED LAND</b>	
Santos will take appropriate measures to grade disturbed areas to a level consistent with lands adjacent, pre-stripped topsoil replaced and erosion protection measures installed.	6.3.1.5 and Table 6.3.21
Santos will take appropriate measures to salvage topsoil from areas to be disturbed by the development of the CSG fields. Any pre-stripped topsoil material will, where necessary, be stockpiled and managed to minimise erosion and promote soil health.	6.3.1.5 and Table 6.3.21
Santos will take appropriate measures to minimise erosion on field development construction and operational sites, including sloping ground, borrow sites and in the vicinity of drainage lines, through the implementation of appropriate engineering controls (e.g. grading, diversions, trench-breakers).	6.3.1.5 and Table 6.3.21
Santos will take appropriate measures to minimise erosion of access tracks including using water sprays, upgrading tracks to applicable engineering design standards, sealing or using other appropriate measures and to minimise erosion of other areas.	6.3.1.5 and Table 6.3.21
Santos will take appropriate measures to minimise disturbance of vegetation in construction areas to the minimum practicable, with emphasis on selective clearing techniques and minimising soil disturbance. Site rehabilitation will be carried out progressively and as soon as practicable following the completion of construction in the area.	6.3.1.5 and Table 6.3.21
Santos will develop and implement appropriate measures for dealing with potentially contaminated land or affected soils including consideration of the following items: <ul style="list-style-type: none"> <li>Containing, reporting and treating hydrocarbon spillage from storage areas, diesel and chemical spills from construction equipment, transport vehicles, and industrial waste spills;</li> <li>Storage of flammable and combustible liquids and dangerous goods;</li> <li>Location of stockpiles, workshop areas, chemical stores, fuel tanks, waste disposal/storage areas and other areas providing a potential source of land and</li> </ul>	6.3.2.5, 6.3.2.6 and Table 6.3.21

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<p>groundwater on hardstand and bunded areas;</p> <ul style="list-style-type: none"> <li>Excavation of existing potentially contaminated material including segregating and analysing it prior to removal from site; and</li> <li>Waste transport and disposal of contaminated material.</li> </ul>	
Santos will take appropriate measures to decommission storage areas/compressor sites and ponds, including wastewater storage ponds in accordance with current regulatory requirements having regard to end uses agreed with the landowner.	Table 6.3.21
<b>NATURE CONSERVATION</b>	
Santos will develop and implement a program to offset cleared vegetation communities in accordance with current policies for the offsetting of significant vegetation communities. Santos will develop a biodiversity offset strategy and management plan.	6.4.5.2, 6.4.5.5 and 6.4.6.1
Santos will develop and implement measures to minimise the potential for loss or fragmentation of habitat during construction and decommissioning, including retaining habitat trees, using existing disturbed/cleared areas and locating linear features adjacent to exiting infrastructure where possible.	Table 6.4.6
Santos' will implement a management program to minimise potential weed seed and pest animal spread.	Table 6.4.6
Santos will develop and implement a program to minimise the potential for terrestrial fauna mortality or injury or other impacts during construction, operation and decommissioning, including retaining remnant vegetation and isolated stands of timber, utilising the existing road and track network, plugging shotholes, and returning cleared vegetation to the seismic line as habitat where practicable.	Table 6.4.6
Santos will develop and implement measures to minimise the potential for disturbance of threatened ecological communities and threatened species near artesian springs and major waterways. These include planning road and pipeline routes to avoid artesian springs and waterways, and, where possible, retaining minimum ecological buffers.	Table 6.4.7
Santos will implement appropriate controls during the diversion of watercourses to minimise the impact of the project on aquatic species.	Table 6.4.7
Santos will develop and implement measures to minimise the removal of riparian vegetation and disturbance of riparian soils and will include, where necessary, constructing containment dams to isolate work areas where crossings traverse flowing watercourses, and monitoring water quality upstream and downstream of disturbed areas.	Table 6.4.7
Santos will develop and implement measures to minimise the impacts of temporary damming of watercourses for the construction of crossings and obstruction of fish passage. Measures will include appropriate controls and monitoring during the diversion of watercourses.	Table 6.4.7
Santos will develop and implement measures to minimise the potential for leakage of water or gas into waterways, which may alter water quality and enhance erosion.	Table 6.4.7
Santos will implement stormwater management controls to prevent runoff from entering watercourses in order to minimise the potential for transport sediments, nutrients and contaminants to springs and watercourses in runoff from well sites and compressor stations.	Table 6.4.7
Where decommissioning activities are constructed adjacent to wet springs and watercourses, Santos will implement mitigation measures to minimise the potential to	Table 6.4.7

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transport sediments, nutrients and contaminants to these areas.	
<b>SURFACE WATER</b>	
Santos will develop and implement a water quality monitoring program incorporating mitigation measures on receiving water quality and detection of environmental change outside of regulatory limits.	6.5.5
Santos will develop and implement a stormwater management plan (including installation of appropriate infrastructure, adoption of monitoring controls and obtaining appropriate licences as required).	Table 6.5.5
Ponds and dams will be designed, operated and decommissioned in accordance with relevant guidelines and industry standards. Measures will be put in place to minimise erosion and ensure water quality meets regulatory requirements for discharge.	Table 6.5.5
<b>GROUNDWATER</b>	
Santos will monitor and report underground water level data compared to predicted water levels in accordance with the applicable legislative requirements.	6.6.2.6
Should the available drawdown in a bore decrease by 25 % then a water replacement plan/measure will be implemented.	6.6.1.5
Santos will backfill exploration wells within the CSG fields (unless they are not modified as monitoring piezometers) to prevent them from acting as direct conduits between aquifers.	6.6.1.5
Groundwater level and quality monitoring will be undertaken adjacent to the proposed associated water storage facilities to ensure the effectiveness of designs, maintenance, and management. The hydrochemistry of discharge and receiving water bodies will also be monitored.	6.6.1.5, 6.6.2.5 and Table 6.6.1
Santos will develop and implement measures to treat potentially contaminated water prior to reuse on site.	6.6.1.5
Santos will develop and implement measures to convey and store hazardous chemicals and effluents through or in suitably sealed containers or facilities.	6.6.1.5 and Table 6.6.1
Santos will develop and implement measures to store chemicals in above-ground storage tanks located within suitable secondary containment (bund) areas.	6.6.1.5
Santos will develop and implement appropriate measures to reduce the probability of uncontained hydrocarbon/fuel releases entering the water system, including consideration of the following: <ul style="list-style-type: none"> <li>Hydrocarbons/fuel storage facilities being located within a bund area;</li> <li>Site records being kept regarding clean up of spills and accurate volumes of fuel / oil; and</li> <li>Records being maintained of hydrocarbon/fuel volumes, purchased, used, disposed, and recycled.</li> </ul>	6.6.1.5
Santos will develop and implement appropriate measures to store and handle fuels and chemicals including consideration of the following measures: <ul style="list-style-type: none"> <li>Bunding of fuel, oil and chemicals storage facilities;</li> <li>Bunding of industrial waste storage tanks ;</li> <li>Inspection of bunds regularly for evidence of leakage;</li> <li>Reporting and containment of spills;</li> </ul>	6.6.1.5 and Table 6.6.1

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Commitment	Relevant Section in EIS
<ul style="list-style-type: none"> <li>• Treatment of contaminated soil;</li> <li>• Treatment of contaminated water;</li> <li>• Vehicles, plant and equipment checking for integrity of fuel tanks;</li> <li>• Monitoring and maintenance programs to be undertaken as required;</li> <li>• Refuelling practices to occur in bunded areas away from watercourses (&gt;50m);</li> <li>• Spill cleanup kits in accordance with Australian Standards (AS1940 and AS3780) to be located in convenient locations and all work vehicles; and</li> <li>• Refuelling in bunded areas.</li> </ul>	
Santos will, when decommissioning associated water storage facilities, identify the most appropriate end use including the possible use by landowners or rehabilitation.	6.6.1.5
<b>ASSOCIATED WATER MANAGEMENT</b>	
Santos will develop and implement a detailed adaptive associated water management plan as part of the operational EMP for the CSG fields.	6.7.5
<p>Santos will develop and implement appropriate measures for the construction of water gathering networks and pipelines and will consider the inclusion of measures to :</p> <ul style="list-style-type: none"> <li>• Minimise the number of watercourse crossings;</li> <li>• Use trenching techniques to cross watercourses which minimise impacts on the flow regime;</li> <li>• Implement erosion and sediment control plans as necessary;</li> <li>• Provide stormwater management infrastructure prior to commencing construction nearby watercourses; and</li> <li>• Minimise disturbance by heavy earthmoving equipment.</li> </ul>	Table 6.7.5
<p>Santos will develop and implement appropriate measures for managing the impact of contamination (elevated salinity) of soil and shallow groundwater due to seepage and uncontrolled releases including consideration of the following:</p> <ul style="list-style-type: none"> <li>• Adoption of appropriate design, construction, operation and maintenance, decommissioning/rehabilitation techniques;</li> <li>• Locating water storage facilities above EPA agreed flood levels;</li> <li>• Using HDPE lining and/or clay liner to limit seepage and potential contamination of soil profiles and shallow groundwater;</li> <li>• Establishing a monitoring system of dam performance and the effectiveness of environmental management controls; and</li> <li>• Exploring opportunities to transfer dams to landholders and/or convert to surface water harvesting dams when no longer required for project purposes.</li> </ul>	Table 6.7.5
<p>If Santos uses the storage of brine in brine containment ponds as a method to manage associated water, it will develop and implement appropriate measures including consideration of the following:</p> <ul style="list-style-type: none"> <li>• Heat exchange system to recover waste heat from compressors, to maximise evaporation rates and limit the footprint of water management dam;</li> <li>• Wind breaks to reduce salt spray;</li> <li>• Toe drains to capture seepage;</li> <li>• Remediate impacted areas and/or clay cap, mounding the rehabilitated surface to divert surface water away from the rehabilitated area.</li> </ul>	Table 6.7.5



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<p>If Santos uses discharge to Arcadia Creek and Lake Nuga Nuga/Bungil Creek via Campbell Lake or discharge line as a method to manage associated water, it will develop and implement appropriate measures including consideration of the following :</p> <ul style="list-style-type: none"> <li>• Treatment of water to background levels prior to discharge to surface waters;</li> <li>• Discharging to grade limited to flow periods only or at downstream locations where sufficient baseflow exists;</li> <li>• Establishing a water quality and river health monitoring program to detect environmental change outside of agreed limits;</li> <li>• Monthly inspection and water quality sampling at the location of discharge and up to two km downstream; and</li> <li>• Implementing erosion controls at the point of discharge.</li> </ul>	Table 6.7.5
<p>If Santos uses the injection of brine streams into suitable formations as a method to manage associated water, it will develop and implement appropriate measures including consideration of the following:</p> <ul style="list-style-type: none"> <li>• Developing a regional bore inventory to establish existing groundwater users and baseline conditions (groundwater flow and level);</li> <li>• Undertaking studies to identify underlying aquifers suitable for injection (i.e. poor quality and unlikely to be of beneficial use); and</li> <li>• Establishing a monitoring and reporting program.</li> </ul>	Table 6.7.5
<p>If Santos uses irrigation of vegetation using associated water as a method to manage associated water , it will consider the adoption of the following measures:</p> <ul style="list-style-type: none"> <li>• Implementing an adaptive irrigation and groundwater management plan to guide the ongoing modification, and where necessary re-direction of the irrigation;</li> <li>• Undertaking regular monitoring of in soil chemistry and structure appropriate management actions; and</li> <li>• Reducing the sodium adsorption ratio to an appropriate level prior to application to maintain soil structure.</li> </ul>	Table 6.7.5
<p>If Santos uses irrigation of fodder crops as a method to manage associated water, it will consider the adoption of the following measures:</p> <ul style="list-style-type: none"> <li>• Treating all associated water to an appropriate standard prior to application; and</li> <li>• Implement an adaptive irrigation and groundwater management plan</li> </ul>	Table 6.7.5
<p>If Santos discharges any associated water, which does not meet the criteria for discharge to Dawson River, it will implement measures directed at:</p> <ul style="list-style-type: none"> <li>• Treating water to background levels prior to discharge;</li> <li>• Discharging only to locations with consistent wet and dry season spring flows, or further downstream where there are higher base flows;</li> <li>• Not discharging at source during zero flow periods whenever possible;</li> <li>• Establishing water quality and river health monitoring program;</li> <li>• Undertaking regular inspection and water quality sampling at the location of discharge and up to two km downstream; and</li> <li>• Implementing erosion controls at the point of discharge.</li> </ul>	Table 6.7.5
<b>AIR QUALITY</b>	
Santos will manage air quality impacts from construction activities through the EMP which will include strategies to prevent or minimise dust emissions during construction activities,	6.8.5.2, 6.8.5.4 and Table 6.8.5

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an outline of methods to monitor the effects of construction activities, and documentation of procedures that will be implemented to mitigate any adverse off-site impacts.	
Santos will consult with the community on GLNG emissions and their impacts.	Table 6.8.5
<b>GREENHOUSE GAS EMISSIONS</b>	
Santos will avoid land clearing to the greatest extent possible by seeking drilling locations that have already been cleared and minimising the land clearing in areas where it is required.	6.9.4.1
Santos will not flare or vent associated gas, unless there are no feasible alternatives.	6.9.3.3
Santos will comply with the reporting requirements of the <i>National Greenhouse and Energy Reporting Act</i> .	6.9.3.1 and 6.9.13
Santos will implement energy efficiency measures throughout the project life.	6.9.3.3
Santos will identify opportunities to incorporate GHG minimisation strategies into the project's design and operation.	6.9.4.3, 6.9.5.4, and 6.9.5.5
To minimise the opportunity for well blow-out and the uncontrolled release of CSG into the atmosphere Santos will develop and implement measure to minimise the prospect of uncontrolled release of CSG into the atmosphere including considering : <ul style="list-style-type: none"> <li>• Providing a blow-out preventer with all flares;</li> <li>• Developing appropriate processes and procedures for dealing with such an event on site - e.g. appropriate job safety analysis and standard operating procedures;</li> <li>• Using competent of drillers and operators.</li> </ul>	Table 6.9.13
<b>NOISE AND VIBRATION</b>	
Santos will develop and implement noise management measures which may include consideration of elements such as: <ul style="list-style-type: none"> <li>• Undertaking construction work during evening and night-time periods (6.30pm to 6.30am) and on Sundays/Public Holidays in accordance with "best practice" noise management;</li> <li>• Adopting minimum offset buffer distances between noise sources and sensitive receptors to negate the need for mitigation measures and where this buffer distance is not able to be achieved, noise mitigation measures such as an enclosure or partial enclosure may be incorporated; and</li> <li>• Where existing ambient noise levels are already above the recommended noise levels, noise generated by the activities undertaken in the CSG fields will be maintained at approximately 8 or 10 dBA below the existing ambient noise level.</li> </ul>	6.10.5.2, Table 6.10.16
To minimise noise impacts on sensitive noise receptors, Santos will undertake the following: <ul style="list-style-type: none"> <li>• Select well and infrastructure locations in accordance with required offset distance guidelines;</li> <li>• Avoid use of routes near sensitive receptors for construction haulage where practicable;</li> <li>• Fit all construction equipment with noise attenuation mufflers;</li> <li>• Maintain equipment to reduce noise generation;</li> <li>• Maintain compressor equipment to minimise noise generation; and</li> <li>• Conduct rigorous preventative maintenance of equipment to minimise potential for</li> </ul>	Table 6.10.16

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upset non-scheduled outages.	
<b>LAND USE AND INFRASTRUCTURE</b>	
<p>Santos will adopt measures to minimise impacts to agricultural land including where practicable:</p> <ul style="list-style-type: none"> <li>• Avoiding good agricultural land;</li> <li>• Avoiding smaller land parcels where the relative impact will be greater;</li> <li>• Minimising the lease area required for well development;</li> <li>• Locating gathering pipelines and access roads along fence lines and property boundaries;</li> <li>• Locating development activities away from the more intensively used areas of the property;</li> <li>• Liaising with each relevant landholder regarding their site-specific land use practices and ways to minimise interference from project activities including considering the following measures: <ul style="list-style-type: none"> <li>– Speed limits for access roads;</li> <li>– Vehicles to give way to all non-project traffic while on private property including farming equipment;</li> <li>– Vehicle wash down facilities and wash down procedures;</li> <li>– Consultation to identify mutually suitable locations for infrastructure; and</li> <li>– Maintaining fences and cattle grids and keeping gates closed/open as requested by landholder.</li> </ul> </li> <li>• Rehabilitating as quickly as possible the areas no longer required following drilling and well development.</li> </ul>	6.11.5.1
<p>Santos will develop and implement appropriate measures for worker accommodation area fire management which will include consideration of implementation of the following mitigation measures:</p> <ul style="list-style-type: none"> <li>• Smoke detection in worker accommodation buildings;</li> <li>• Manual fire fighting equipment;</li> <li>• Separation of diesel storage; and</li> <li>• Emergency response procedures</li> </ul>	Table 6.11.4
<p>Santos will liaise with mining lease holders should they consider developing exploration or production wells in proximity to these leases.</p>	6.11.5.1
<p>To minimise to the extent practicable negative impacts on residents, Santos will adopt measures which may include:</p> <ul style="list-style-type: none"> <li>• Minimising proximity of field development activities to township areas;</li> <li>• identification of rural residences during the scouting phase of field development planning so that roads and well developments are located an appropriate distance away to minimise any impacts;</li> <li>• Drilling and well development activities complying with relevant construction noise regulations;</li> <li>• Fitting noise reduction devices to machinery used in the vicinity of residential areas and noise sensitive locations;</li> <li>• Implementing dust suppression measures such as watering down access roads during construction when required;</li> </ul>	6.11.5.1

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## Proponent Commitments

Commitment	Relevant Section in EIS
<ul style="list-style-type: none"> <li>• Limiting vehicle speeds on petroleum lease access roads;</li> <li>• Locating lease access roads away from residences and not utilising landholder's property access road unless no practical alternative exists;</li> <li>• Retaining CSG infrastructure (such as fencing, access tracks, hardstand areas, and dams) following decommissioning; and</li> <li>• If any millable timber is on private land that is likely to be affected by the project, liaising with the landholder to provide the opportunity for the removal of such timber prior to construction occurring.</li> </ul>	
Santos will develop and implement management strategies consistent to those contained within the Central Queensland Regional Growth Management Strategy.	6.11.5.4
<p>Santos will minimise development in high bushfire and landslide risk areas. Where development is located in these areas, Santos will develop and implement an appropriate safety management procedures to minimise the likelihood of the project initiating or spreading bushfire which may include:</p> <ul style="list-style-type: none"> <li>• Design standards to control risk of fire occurring;</li> <li>• Inspection and monitoring;</li> <li>• Clearing area around well heads of vegetation;</li> <li>• Emergency response procedures; and</li> <li>• Processes to minimise the risk of landslide such as: <ul style="list-style-type: none"> <li>– Investigating alternative sites away from landslide risk areas;</li> <li>– Utilising appropriate construction materials, equipment and techniques;</li> <li>– Ceasing work during periods of potential landslide activity (e.g. heavy rain)</li> <li>– Minimising vegetation clearing, stabilise slopes;</li> <li>– Regular inspection and monitoring; and</li> <li>– Emergency response procedures.</li> </ul> </li> </ul>	6.11.5.5
<b>VISUAL AMENITY</b>	
<p>Santos will adopt measures to reduce visual impact which may include where practicable:</p> <ul style="list-style-type: none"> <li>• Mitigation measures such as earth mounding and planting to provide visual screening where CSG facilities are located within the view shed of public roads;</li> <li>• Long term accommodation facilities being located so as not to be visible from major public roads, townships or homesteads;</li> <li>• Screening views of any new borrow pits;</li> <li>• Removing of redundant plant, equipment and other relevant infrastructure upon decommissioning; and</li> <li>• Minimisation of flaring, particularly at night</li> </ul>	6.12.4 and Table 6.12.1.
<b>CULTURAL HERITAGE (INDIGENOUS)</b>	
Santos will develop and implement cultural heritage management plans in consultation with the relevant Aboriginal Parties as required by the <i>Aboriginal Cultural Heritage Act 2003</i> (Qld) (ACHA).	6.13.1.2, 6.13.1.4 and 6.13.1.5
<b>CULTURAL HERITAGE (NON INDIGENOUS)</b>	
<p>Santos will implement measures for the protection of non-indigenous cultural heritage designed to:</p> <ul style="list-style-type: none"> <li>• Avoid State significant non-indigenous cultural heritage sites protected by the</li> </ul>	6.13.2.5

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## Proponent Commitments

Commitment	Relevant Section in EIS
<p>Queensland Heritage Act 1992;</p> <ul style="list-style-type: none"> <li>Achieve appropriate demarcation of heritage sites and restriction of access where construction works are close to the heritage site;</li> <li>Avoid locally significant sites, heritage precincts and places of historic interest unless there is no other feasible alternative, and then only when following the best practice guidelines of the Burra Charter; and</li> <li>Where works may potentially disturb sites, complete a heritage survey prior to commencement of works to establish location, level of significance and necessary management measures.</li> </ul>	
Santos will educate its staff and contractors on the location and significance of any sites to avoid disturbance.	6.13.2.5
Santos will actively involve the community as appropriate where matters of historic cultural heritage are involved.	6.13.2.5
<b>SOCIAL AND ECONOMIC</b>	
Santos will develop and implement a social management plan to monitor social impacts associated with the project and work with local services and stakeholders to develop practical solutions.	6.14.6
Santos will adopt local procurement policies in order to enhance local economic benefits.	6.14.6.4
Santos will implement its apprenticeship program in the Roma and Fairview districts where practicable, with the continued primary goal of providing permanent jobs for fully-trained apprentices.	6.14.6.5
Santos will develop and implement an Aboriginal Engagement Plan to monitor and manage potential social impacts on indigenous persons in the project area	6.14.7.2
Santos will assess local skills capacity, prospects of local training programs and interest in employment and utilise the local workforce where reasonably practicable.	Table 6.15.20
Santos will contribute to local liveability programs and will initiate a community consultation and awareness campaign to promote project benefits to the community.	Table 6.15.20
<b>DECOMMISSIONING AND REHABILITATION</b>	
Santos will develop and implement appropriate measures for the rehabilitation and decommissioning of the CSG fields which will be undertaken progressively over the life of the project.	6.16.1
<p>Rehabilitation strategies will include the following:</p> <ul style="list-style-type: none"> <li>All items of equipment to be decommissioned will be de-oiled, degassed, depressurised and isolated and decontaminated. All hazardous materials will be removed from the site in accordance with relevant handling and transportation requirements.</li> <li>All buildings and infrastructure, including the administration building, workshops, and fixed plant not required for subsequent use will be demolished and/or removed from the site and the disturbed land rehabilitated.</li> <li>All concrete footings and pads will be broken up to at least 1.5 m below the surface. The waste concrete will be crushed to produce an aggregate that can either be used on the site or sold for some other beneficial reuse.</li> <li>Sediment ponds and sumps will be drained, decontaminated, filled with backfill, topsoiled and revegetated. Any stormwater management ponds present at the time</li> </ul>	6.16.3

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## Proponent Commitments

Commitment	Relevant Section in EIS
of decommissioning will be used to assist with the provision of water for rehabilitation.	
When decommissioning, Santos will identify and assess contaminated areas of the CSG fields to determine whether they should be included in the appropriate contaminated land register and to determine whether such land requires remediation or management in accordance with the relevant legislative standards at the time	6.16.4.4
Santos will rehabilitate decommissioned borrow pits including installation, where necessary of stormwater and erosion management systems.	6.16.5

## Santos Commitments within Section 7 of the EIS- Gas Transmission Pipeline

**Table F.3 Santos Commitments within Section 7 of the EIS- Gas Transmission Pipeline**

Commitment	Relevant Section in EIS
<b>CLIMATE</b>	
Santos will ensure the EMP includes an emergency management plan, which addresses foreseeable site specific climatic risks on pipeline construction (such as fire and flooding).	7.2.3
<b>LAND</b>	
Santos will develop and implement appropriate measures for minimising erosion along the pipeline right of way including where necessary the implementation of appropriate engineering solutions (e.g. grading, mounds, diversions, trench-breakers). The control measures for erosion and sediment movement within the proposed pipeline easement will be employed both during the construction stage and subsequently during the operating life of the gas transmission pipeline.	7.3.1.5
Where long term access is required, tracks will be constructed with a gravel surface and maintained to permit all weather access. Areas disturbed for temporary (e.g. construction) access will be rehabilitated (subject to landholder requirements) which may include grading areas to a level consistent with adjacent land, replacing pre-stripped soil and adopting erosion protection measures.	7.3.1.5
Santos will develop and implement appropriate measures to minimise dust generation during construction of, and access to, the pipeline.	7.3.1.5
Santos will take appropriate measures to grade disturbed areas to a level consistent with lands adjacent, for pre-stripped topsoil to be replaced and for erosion protection measures to be installed.	7.3.1.5
Santos will develop and implement appropriate measures for managing problem soils including consideration of the following: <ul style="list-style-type: none"> <li>Where strongly or very sodic and/or dispersive soils are identified they will not be used for rehabilitation purposes;</li> <li>Sodic or dispersive soils exposed as a result of earthworks will be managed to</li> </ul>	7.3.1.5

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## Proponent Commitments

Commitment	Relevant Section in EIS
<p>control erosion; and</p> <ul style="list-style-type: none"> <li>Acid sulphate and potential acid sulphate soils will be managed in accordance with management strategies outlined in the EMP.</li> </ul>	
Putrescible and construction wastes will be disposed of off-site in an approved manner in accordance with an agreed waste management plan.	7.3.2.5
Santos will take appropriate measures to locate stockpiles, workshop areas, chemical stores, fuel tanks, waste disposal/storage areas and other areas providing a potential source of land and groundwater contaminated on hardstand and bunded as required by the appropriate Australian standards. Flammable and combustible liquids and dangerous goods will be stored, handled, used and transported in accordance with relevant Australian standards. Hydrocarbon spillage from storage areas, diesel and chemical spills from construction equipment, and industrial waste spills will be contained, reported, and treated/remediated in accordance with appropriate legislative and regulatory agency requirements	7.3.2.5
<b>NATURE CONSERVATION</b>	
Final route selection criteria will include minimisation of potential impacts on species of conservation significance, particularly from clearing activities.	7.4.5.1
<p>Santos will develop and implement appropriate measures for the management of vegetation clearing for the pipeline including consideration of the following:</p> <ul style="list-style-type: none"> <li>Restricting areas of vegetation to be cleared to the minimum width required;</li> <li>Delineating areas to be cleared prior to commencement;</li> <li>Avoiding clearing of remnant regional ecosystems where possible; and</li> <li>Clearing being undertaken in accordance with Santos EHS Management System Standard – EHS01 Land Disturbance.</li> </ul>	7.4.5.1
Santos will develop and implement a management plan to control the introduction and spread of weeds, including ongoing monitoring of the project site to identify any new incidence of weed infestation.	7.4.5.1 and Table 7.4.4
Santos will develop and implement an appropriate program to offset significant cleared vegetation communities in accordance with legislative criteria. Santos will develop a biodiversity offset strategy and management plan.	7.4.5.1 and Table 7.4.4
Santos will, where appropriate, and if habitat is to be cleared, adopt a protocol to ensure fauna spotters are present during clearing of woodland vegetation and any other areas of faunal habitat.	7.4.5.2 and Table 7.4.4
Santos will adopt measures to minimise noise emissions and potential disturbance to fauna during earthworks, vehicle movements and construction activities.	Table 7.4.4
<b>SURFACE WATER</b>	
<p>Santos will develop and implement appropriate measures for management of surface water during the construction process including consideration of :</p> <ul style="list-style-type: none"> <li>Constructing pipeline crossings of water courses in a manner that minimises stream bed and bank erosion and waterway sedimentation;</li> <li>Minimising the impact of flooding on the project, including the installation of drainage diversions and flood defence bunds prior to construction;</li> <li>Management of hydrotest water;</li> <li>Disposal of treated sewage effluent by irrigation ensuring that sensitive areas are</li> </ul>	7.5.5.1

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Commitment	Relevant Section in EIS
<p>avoided and no discharge of treated effluent occurs from wet weather storage to any waters;</p> <ul style="list-style-type: none"> <li>• A strategy for provision of water for the pipeline's construction; and</li> <li>• Monitoring of potential surface water impacts.</li> </ul>	
<b>GROUNDWATER</b>	
<p>Santos will develop and implement appropriate measures for management of groundwater during the construction process including consideration of :</p> <ul style="list-style-type: none"> <li>• Using biodegradable drilling fluids and mud for horizontal directional drilling;</li> <li>• Collecting and cleaning up significant leaks or spills of hazardous materials; and</li> <li>• Disposing of hydrotest water using approved environmental procedures.</li> </ul>	7.6.5.1
<p>A bore census, conducted where blasting or creek crossings are envisaged, will be undertaken to identify all groundwater use and users (including springs and seeps).</p>	7.6.5.2
<b>AIR QUALITY</b>	
<p>Santos will manage impacts on air quality from the pipeline construction activities through the EMP which will include strategies to prevent or minimise dust emissions during construction activities, an outline of methods to monitor the effects of construction activities, and documentation of procedures that will be implemented to mitigate any adverse off-site impacts</p>	7.8.5.2 and Table 7.8.1
<b>NOISE AND VIBRATION</b>	
<p>Santos will develop and implement noise management measures during the construction and operation of the pipeline which may include:</p> <ul style="list-style-type: none"> <li>• Limiting operation of pipe laydown areas along the rail line to daytime hours;</li> <li>• Ensuring blasting activities meet the airblast criterion of 115 dBL (maximum of 120 dBL) based at the minimum offset distances;</li> <li>• Where applicable, ensuring construction work during evening and night-time periods (6.30pm to 6.30am) and on Sundays/Public Holidays is undertaken in accordance with "best practice" noise management; and</li> <li>• Adopting noise mitigation measures in accordance with AS 2436-1981 "Guide to Noise Control on Construction, Maintenance and Demolition Sites".</li> </ul>	7.10.5.2
<b>LAND USE</b>	
<p>Santos and/or the construction contractor will consult with all landholders prior to construction commencing to minimise fragmentation or reduced property access. Following construction, the right of way and access tracks will be rehabilitated and fencing restored as required.</p>	7.11.5.1
<p>Santos will advise the Department of Primary Industries and Fisheries of any areas of State owned land likely to be affected by the pipeline construction to allow for the removal of millable timber. Santos will liaise with relevant landholders to provide the opportunity for the removal of potentially affected millable timber on private land prior to construction occurring.</p>	7.11.5.1
<p>Santos will liaise with all landholders along the pipeline corridor prior to any construction activities taking place to ensure that landholders are fully informed of the proposed nature, timing and location of the construction works and any site specific mitigation measures to be implemented.</p>	7.11.5.1



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Commitment	Relevant Section in EIS
Santos will design any railway crossings to be either bored or directionally drilled. Where the pipeline parallels a rail line it will be set back an appropriate distance (as stipulated in AS 2885) so as not to interfere with railway infrastructure or to induce electric currents in the pipe.	7.11.5.3
Santos will develop road crossing arrangements in consultation with the Department of Main Roads and/or local authorities and document them in a traffic management plan.	7.11.5.3
Santos will manage the pipeline construction so that when the pipeline is required to cross a powerline easement it will be located so as to not interfere with any pylons or other associated infrastructure.	7.11.5.3
<b>VISUAL AMENITY</b>	
Santos will develop and implement appropriate measures for the minimisation of potential visual impacts during construction, operation, decommissioning and rehabilitation of the pipeline as appropriate.	7.12.5 and Table 7.12.1
<b>CULTURAL HERITAGE (INDIGENOUS)</b>	
Santos will develop and implement cultural heritage management plans for the pipeline in consultation with the relevant Aboriginal Parties as required by the <i>Aboriginal Cultural Heritage Act 2003</i> (Qld) (ACHA).	7.13.1.4
<b>CULTURAL HERITAGE (NON-INDIGENOUS)</b>	
Santos will implement measures for the protection of non-indigenous cultural heritage for the pipeline designed to : <ul style="list-style-type: none"> <li>• Avoid State significant non-indigenous cultural heritage sites protected by the Queensland Heritage Act 1992;</li> <li>• Achieve appropriate demarcation of heritage sites and restriction of access where construction works are close to the heritage site;</li> <li>• Minimise any impact on the Kilbirnie Homestead site in consultation with relevant stakeholders including the EPA;</li> <li>• Avoid locally significant sites, heritage precincts and places of historic interest unless there is no other feasible alternative, and then only when following the best practice guidelines of the Burra Charter; and</li> <li>• Where works may potentially disturb sites, undertake a heritage survey to establish location, level of significance and necessary management measures.</li> </ul>	7.13.2.5
Santos will educate its staff and contractors on the location and significance of the heritage sites to avoid disturbance.	7.13.2.5
<b>SOCIAL AND COMMUNITY</b>	
Santos will develop and implement appropriate measures for communication processes to inform communities of pipeline project activities both prior to and during construction.	7.14.6
Santos will develop a social management plan to monitor social impacts associated with the pipeline development including working with local service providers and stakeholders to develop solutions to significant impacts.	7.14.6
Santos will develop and implement an Aboriginal Engagement Plan to monitor and manage potential social impacts on indigenous persons in the pipeline development	7.14.7.2
<b>REHABILITATION AND DECOMMISSIONING</b>	
Santos will develop and implement appropriate measures for the rehabilitation and	7.16.2

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## Proponent Commitments

Commitment	Relevant Section in EIS
decommissioning of the gas transmission pipeline in accordance with the appropriate standards and industry codes of practice including measures for the pipeline ROW to be rehabilitated as soon as possible after completion of the pipeline installation. Rehabilitation works will include re-profiling, ripping, topsoil replacement, spreading of cleared vegetation and seeding.	
The pipeline will be decommissioned in accordance with legislative requirements, Australian Standards, and relevant industry codes of practice applicable at the time. A decommissioning plan will be prepared in consultation with relevant landholders and regulators.	7.16.2

## Santos Commitments within Section 8 of the EIS- LNG Facility

**Table F.4 Santos Commitments within Section 8 of the EIS- LNG Facility**

Commitment	Relevant Section in EIS
<b>CLIMATE</b>	
As part of the Santos EHSMS an emergency management plan will be developed to address all foreseeable site specific risks such as fire and flooding and cyclone-associated storm surge.	8.2.3
<b>LAND</b>	
Santos will develop and implement measures to minimise dust generation, erosion and sediment loss from disturbed areas during construction.	8.3.1.5 and Table 8.3.8
<p>Santos will develop and implement appropriate measures for dealing with potentially contaminated land or problem soils including consideration of the following items:</p> <ul style="list-style-type: none"> <li>Containing and treating hydrocarbon spillage from storage areas, fuel or chemical spills;</li> <li>Storage of flammable and combustible liquids and dangerous goods in accordance with the relevant Australian Standards and Santos' EHSMS.</li> <li>Treating actual acid sulphate soils disturbed during construction in accordance with an agreed acid sulphate management plan;</li> <li>Recording activities or incidents that have the potential to result in land contamination;</li> <li>Locating stockpiles, workshop areas, chemical stores, fuel tanks, waste disposal/storage areas and other uses providing a potential source of land and groundwater contamination on hardstand and bunded areas;</li> <li>Minimising the risk of spills during transport of fuel/chemicals and building materials to and from Curtis Island;</li> <li>Salvaging topsoil from areas to be disturbed by the construction of the LNG facility and associated infrastructure and reusing it in site rehabilitation and landscaping;</li> <li>Managing putrescible waste generated during construction and operations so that it is not disposed of on site but is transferred off-site to an approved waste</li> </ul>	8.3.1.5, 8.3.2.5 and Table 8.3.11

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Commitment	Relevant Section in EIS
management facility; and <ul style="list-style-type: none"> <li>• Evaluating excavation works in areas of known or suspected potential soil contamination for naturally elevated trace metals concentrations to determine requirements for soil disposal.</li> </ul>	
<b>NATURE CONSERVATION</b>	
Santos will develop and implement appropriate measures for dealing with impacts to native vegetation including consideration of the following measures: <ul style="list-style-type: none"> <li>• Restricting areas of vegetation to be cleared to the minimum area required and clearly delineating such areas;</li> <li>• Where clearing of vegetation is within or in close proximity to riparian communities, implementing erosion and sedimentation mitigation measures; and</li> <li>• Possible staging of clearance of expansive stands of woodland vegetation to reduce disruption for fauna dispersal.</li> </ul>	8.4.5.1
Santos will develop and implement a management program to offsetting cleared significant vegetation communities in accordance with legislative criteria. Santos will develop a biodiversity offset strategy and management plan.	8.4.5.1
Santos will develop and implement a management plan for the appropriate measures to manage the introduction and spread of weeds will be implemented, including ongoing monitoring of the project site to identify any new incidence of weed infestation.	8.4.5.1
Santos will develop and implement appropriate measures for inclusion in the environmental management plan and the dredging management plan to address impacts on marine flora and fauna (benthic substrate, marine subtidal communities and seagrass meadows) and salt pan, saltmarsh, mangrove and intertidal communities from: <ul style="list-style-type: none"> <li>• Dredging activities</li> <li>• Construction of the access road and bridge and the gas transmission pipeline crossing of Port Curtis</li> <li>• Construction and use of the dredged material placement facility;</li> <li>• Noise impacts associated with piling, shipping and dredging (including consideration of such impacts on migratory birds);</li> <li>• Lighting and flaring (including impacts on migratory birds and turtle nesting);</li> <li>• The impact of shipping activities including appropriate quarantine clearances</li> </ul>	8.4.5.3 and Table 8.4.10
<b>SURFACE WATER</b>	
Santos will develop and implement appropriate measures for management of surface water during the construction and operation of the LNG facility including consideration of: <ul style="list-style-type: none"> <li>• Treatment methods in relation to groundwater with higher background levels of dissolved metals exposed as a result of dewatering;</li> <li>• Erosion and sediment controls to minimise the risk to off-site water quality from disturbed areas;</li> <li>• Stormwater runoff controls to minimise likely contamination, including from process and chemicals/hydrocarbon storage areas;</li> <li>• Protecting surface water quality from the disposal of construction, operational and decommissioning wastes;</li> <li>• Disposal of hydrostatic testing water;</li> <li>• Disposal of treated sewage effluent from the construction workforce on the</li> </ul>	8.5.5.1 and 8.5.6 and Table 8.5.2

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Commitment	Relevant Section in EIS
<p>mainland at an approved waste water treatment facility; and</p> <ul style="list-style-type: none"> <li>The management of the irrigation area for treated sewage effluent from the operational workforce to minimise surface run off.</li> </ul>	
Santos will develop and implement appropriate measures for the management and reporting of hydrocarbon spillage from storage areas, diesel and chemical spills from construction equipment, transport vehicles, and industrial waste spills	Table 8.5.2
Santos will develop and implement appropriate measures for management of for acid sulfate soil management for the construction and decommissioning phases of the LNG facility.	Table 8.5.2
Santos will develop and implement a water quality monitoring program in conjunction with the regulatory agencies.	Table 8.5.2
<b>GROUNDWATER</b>	
Santos will determine the characteristics of any groundwater removed during excavations and will adopt appropriate measures for the management of that water.	8.6.5.1
Santos will design fuel, chemical and industrial waste storage areas, workshop areas, vehicle and equipment wash-down areas, and equipment and machinery repair areas to control and prevent spillage outside bunded areas.	8.6.5.1 and Table 8.6.1
<b>COASTAL ENVIRONMENT</b>	
Operational procedures and wastewater/stormwater treatment measures will be implemented to minimise water quality impacts from discharges from the LNG facility.	Table 8.7.3.5
Santos will develop and implement appropriate measures for management of impacts from dredging/ construction/ maintenance dredging/ decommissioning activities on water quality and mobilisation of contaminants through the dredging management plan.	Table 8.7.3.5
<b>AIR QUALITY</b>	
<p>Santos will develop and implement appropriate measures for the management of impacts on air quality from the LNG facility including consideration of:</p> <ul style="list-style-type: none"> <li>Strategies to prevent or minimise dust emissions;</li> <li>Monitoring the effects of construction activities;</li> <li>Monitoring of NO<sub>x</sub> emissions from the operation of the LNG facility; and</li> <li>Provision of air emissions data as appropriate for use in the EPA health risk assessment a part of its "Clean and Healthy Air for Gladstone" project.</li> </ul>	8.8.5.2, 8.8.5.3 and Table 8.8.13
Santos will participate in education of the community on GLNG air emissions and their impacts.	Table 8.8.13
<b>NOISE AND VIBRATION</b>	
<p>Santos will implement noise management measures during the construction and operation of the LNG facility including:</p> <ul style="list-style-type: none"> <li>Limiting construction work during evening and night-time periods (6.30pm to 6.30am) and on Sundays/Public Holidays;</li> <li>Meeting low frequency noise criteria and short-term intrusive noise criteria;</li> <li>Applying "Safe Working Distances" for pile driving activities; and</li> <li>Where the existing ambient noise level is already above the recommended noise levels, develop controls so that noise generated by the LNG facility will be</li> </ul>	8.10.1.5 and 8.10.1.7

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Commitment	Relevant Section in EIS
maintained approximately 8 or 10 dBA below the existing ambient noise levels.	
Santos will use a soft start to piling where dugong or dolphin are observed within shallow water areas to be piled	8.10.2.4 and Table 8.10.16
Sonar devices on dredges will have operating frequencies above 200 kHz to minimise the impact upon dolphin and dugong.	8.10.2.4 and Table 8.10.16
<b>LAND USE AND INFRASTRUCTURE</b>	
The construction workforce will be prohibited from visiting South End during their roster period. They will be restricted to the project site whilst on the island and will be ferried back to the mainland when they are off roster.	8.11.5.1
A project-specific materials offloading facility will be constructed adjacent to the facility site to ensure that there will be no disruption to South End residents from the transfer of workforce personnel, plant and equipment to the site.	8.11.5.1
Santos will develop and implement appropriate measures for management of boating and shipping activities including consideration of: <ul style="list-style-type: none"> <li>Prohibiting boating activities around the product loading facility during the loading of ships;</li> <li>Limiting activities around the product loading facility when ships are not loading; and</li> <li>Excluding public access to the site and to the intertidal areas along the site's frontage to Port Curtis.</li> </ul>	8.11.5.1
<b>VISUAL AMENITY</b>	
Santos will develop and implement appropriate measures for the minimisation of potential visual impacts of the LNG facility site from surrounding viewpoints.	8.12.5 and Table 8.12.10
<b>CULTURAL HERITAGE (INDIGENOUS)</b>	
Santos will develop and implement cultural heritage management plans for the LNG facility in consultation with the relevant Aboriginal Parties as required by the <i>Aboriginal Cultural Heritage Act 2003</i> (Qld) (ACHA).	8.13.1.5
<b>CULTURAL HERITAGE (NON INDIGENOUS)</b>	
Santos will implement measures for the protection of non-indigenous cultural heritage including: <ul style="list-style-type: none"> <li>Avoidance of locally significant sites, heritage precincts and places of historic interest unless there is no other feasible alternative, and then only when following the best practice guidelines of the Burra Charter;</li> <li>Procedures for managing unexpected cultural heritage material or sites that may be encountered during construction; and</li> <li>Implementing a tiered approach of avoidance and adoption of mitigation measures where necessary.</li> </ul>	8.13.2.5
Santos will educate its staff and contractors on the location and significance of the sites.	8.13.2.5
<b>SOCIAL AND COMMUNITY</b>	
Santos will develop and implement an appropriate social management plan to monitor and manage the social impacts associated with the LNG facility which will include consideration of the following: <ul style="list-style-type: none"> <li>Working with local service providers and stakeholders to develop practical</li> </ul>	8.14.6 and Table 8.14.21

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Commitment	Relevant Section in EIS
<p>solutions to identified impacts;</p> <ul style="list-style-type: none"> <li>• Consultation with local boaters and fishers in the area and monitor issues arising from activities;</li> <li>• Ongoing community engagement regarding the construction and operation of the LNG facility; and</li> <li>• Investment in skills development and training in the community.</li> </ul>	
<p>Santos will develop and implement an Aboriginal Engagement Plan to monitor and manage potential social impacts on indigenous persons in the area of the LNG facility.</p>	8.14.7.2
<b>DECOMMISSIONING AND REHABILITATION</b>	
<p>Santos will develop appropriate rehabilitation and decommissioning plans for the LNG facility in conjunction with regulatory agencies at least five years prior to closure including consideration of the following items:</p> <ul style="list-style-type: none"> <li>• Isolation and disconnection of power, water and telecommunications on the site;</li> <li>• Isolation, de-oiling, degassing, depressurising and decontamination of items of equipment to be decommissioned;</li> <li>• Removal of hazardous materials having regard to handling and transportation requirements;</li> <li>• Demolition of buildings and infrastructure; and</li> <li>• Appropriate treatment of concrete footings and pads and their disposal.</li> </ul>	8.16.1 and 8.16.3
<p>At the time of decommissioning, Santos will identify and assess any contaminated areas to determine whether it should be included in the appropriate contaminated land register and to determine whether such land requires remediation or management in accordance with the relevant legislative standards at the time.</p>	8.16.4.4
<p>Following closure of the facility, the existing environmental monitoring program will be maintained until all decommissioning and rehabilitation works have been completed, success criteria met and rehabilitation goals achieved.</p>	8.16.3.1, through to 8.16.3.5
<b>MARINE DREDGING AND PLACEMENT FACILITY</b>	
<p>Santos will develop and implement a dredging management plan (DMP) incorporating appropriate environmental management strategies and monitoring programs for the design, construction and operation of the dredging and dredge material placement facility. The DMP will include consideration of the following :</p> <ul style="list-style-type: none"> <li>• Management of the use of surface soils and suitable underlying soil/rock materials material to construct bund walls for the dredged material placement facility, including mitigation measures to manage off-site impacts such as erosion and sedimentation;</li> <li>• Measures to address potential acid sulfate soil impacts;</li> <li>• Protection of foreshore/intertidal zone areas outside of the immediate zone of works to minimise habitat loss;</li> <li>• Measures to manage impacts on seagrass meadows and the marine environment;</li> <li>• Monitoring programs to identify impacts from the construction and operation of the dredging and dredge material placement facility;</li> <li>• Management of discharges from the facility (including dredge effluent from the dewatering process and stormwater runoff), including, where necessary development of a surface water management strategy prior to construction;</li> </ul>	8.17.1, 8.17.7.3, 8.17.6.2, 8.17.6.3, 8.17.10 , 8.17.13.3 and 8.17.17

## Appendix F

## Proponent Commitments

Commitment	Relevant Section in EIS
<ul style="list-style-type: none"> <li>• Management of dust and emissions during the construction; and</li> <li>• Rehabilitation measures to render the site suitable for its intended future use following consultation with relevant stakeholders, including regulatory agencies.</li> </ul>	

## Santos Commitments from Sections 9, 10 and 16 of the EIS

Table F.5 Santos Commitments within Sections 9, 10 and 16 of the EIS

Commitment	Relevant Section in EIS
<b>COMMUNITY CONSULTATION</b>	
Santos will maintain ongoing community consultation activities and will provide regular updates to community groups during construction and operations.	9.3.5
<b>HAZARD AND RISK</b>	
<p>Santos will implement an appropriate occupational health and safety plan based on Santos' protocol EHSMS10-Contractor and Supplier Management. which will include consideration of:</p> <ul style="list-style-type: none"> <li>• Appropriate systems, processes, procedures and skills;</li> <li>• Procedures for emergency situations and shut-down; and</li> <li>• Training of operators prior to commissioning.</li> </ul>	10.4.5
<p>The following security planning will be undertaken for the project:</p> <ul style="list-style-type: none"> <li>• Security plans associated with the site will be prepared and updated on a continuing basis and at a minimum, reviewed annually;</li> <li>• Security awareness training will be undertaken by all personnel employed at the LNG facility;</li> <li>• Security drills and exercises will be scheduled and conducted on at least a yearly basis;</li> <li>• Where necessary, site security facilities will use electronic and solid-state technology and will comply with the relevant Australian Standards; and</li> <li>• A maritime security plan will be developed for project shipping within Port Curtis.</li> </ul>	10.4.7
<p>Santos will develop and implement an integrated safety management system (safety case) which will include consideration of:</p> <ul style="list-style-type: none"> <li>• Comprehensive fire and gas detection and control system;</li> <li>• Emergency planning;</li> <li>• Process safety;</li> <li>• Incident management;</li> <li>• Emergency response plans;</li> <li>• Availability of equipment, resources and personnel to effectively respond to foreseeable emergencies</li> </ul>	10.4.8
<b>SUSTAINABILITY ASSESSMENT</b>	
Santos will evaluate sustainability opportunities through cost/benefit analyses and sustainability scoring and implement opportunities through a sustainability implementation	16.4.2

**Appendix F****Proponent Commitments**

Commitment	Relevant Section in EIS
plan.	
Throughout the project, best practice sustainability measures will be employed to reduce natural resource consumption.	16.6.3