EIS Executive Summary

Santos | PETRONAS

EIS Executive Summary

The respondent comments provided in this section have been collated from all stakeholder submission comments relating to EIS Executive Summary. Please refer to **Attachment A** for copies of all submissions received.

ES 1 Introduction

No submissions have been received for this section.

ES 2 The GLNG Project

No submissions have been received for this section.

ES 3 Project Objectives and Benefits

Respondent Comment

Submitter number 20 states that Santos cannot protect environment when they are proposing to emit greenhouse gases after removing vegetation that absorbs such emissions. So the stated primary objective is not possible and in conflict with the Curtis Island environment.

Santos Response

The removal of vegetation and associated greenhouse gas emissions from land clearing has been based on a conservative (i.e. high emission) scenario. Santos will avoid land clearing to the extent practicable by preferentially selecting drilling locations that have already been cleared and minimising where clearing is required refer to **Attachment K** for further details. Additionally, on a global scale, LNG is a relatively moderate greenhouse gas emitting fuel, and as such forms an important part in any greenhouse gas reduction strategy.

Respondent Comment

Submitter number 20 states that Curtis Island is a sub tropical island containing a national park and significant NO GO zones. Due to its fragile environment, industrial use is incompatible with the existing environmental use.

Santos Response

Parts of Curtis Island have been included within the State Development Area for Gladstone (GSDA), in particular the Curtis Island Industry Precinct that includes provision for all activities associated with the proposed GLNG Project; i.e. "high impact industry limited to natural gas (liquefaction and storage), infrastructure facility, local infrastructure, materials transport infrastructure" within the industry precinct. Further information on these provisions is presented in Schedule 7 of the Development Scheme for the GSDA. This area does not include National Park.

Respondent Comment

Submitter number 20 states that a statement that the project will generate major benefits has not taken into account the negative effect of higher prices to be paid for toxic LNG by Australian consumers as a result of this export facility. Neither has the effect of using our toxic LNG reserves for export on future ability to produce power from such a source been taken into consideration. Considering that current estimates indicate 60 to 70 years of supply this is an important factor that must be a part of this document.

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Santos Response

Santos makes the following response to the above comment, by addressing two issues, being:

1) The toxicity of LNG; and
2) Economic impacts of the GLNG Project.

Toxicity of LNG

As outlined in EIS Section 3.3.1, LNG is non–toxic. Relevant properties of LNG include the following:

- It is mostly methane gas, typically with small concentrations of ethane, propane and butane. However, the Santos CSG is typically 95 % methane, 4 % nitrogen and 1 % carbon dioxide. The gas composition varies slightly from field to field and may change slightly over the life of the project;
- It is a cryogenic liquid (cooled to approximately -161°C) which is stored and transported at atmospheric pressure;
- In its vapour phase it is lighter than air at temperatures above -107^{o}C;
- It is colourless, odourless, non-toxic and non-persistent in the environment;
- As a liquid it does not explode or burn; and
- It is stored and transported at atmospheric pressure.

Economic Impacts of the GLNG Project

On 17 September 2009 the Queensland Government released a draft policy framework for the emerging liquefied natural gas (LNG) industry entitled “Blueprint for Queensland's LNG Industry”. The purpose of the Blueprint is to provide the community with a clear understanding of the Queensland Government’s plans to develop the coal seam gas to LNG export industry. The Blueprint is a comprehensive policy framework covering all aspects of policy which may affect the development of the industry, and includes measures to ensure the supply of domestic gas to Queensland homes and industry.

The Blueprint outlined two domestic gas reservation policy options being considered by government, including:

1) A Gas Reservation Policy, whereby gas producers will be required to sell or make available to the domestic market the equivalent of between 10 % and 20 % of gas production; and
2) A Prospective Gas Production Land Reserve, which involved:
    a) Holding back from the market certain prospective gas production areas in order to amalgamate/secure areas for orderly future use;
    b) Stricter application of the requirements that applicants demonstrate, during the assessment of applications for a petroleum lease or a potential commercial area (both of which halt automatic relinquishment), the appropriateness of the area sought for the proposed activities;
    c) Where more active management of relinquishment results in an area being handed back, the State considering if it should then be put back out to the market with a condition that it is to be used only to supply the domestic market; and
    d) Basing decisions to condition such leases for domestic use only on regular estimation of gas supply and demand, combined with market soundings of the availability of gas.

On 14 November 2009 the Queensland Government announced its decision to set aside future gas fields for future domestic supply if needed (second option) and its rejection of the option to require a percentage of gas from all fields to go to domestic supply (first option).

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Respondent Comment

Submitter number 20 states that the number of employees post construction differs significantly from early estimates of employees in Santos literature and the impact on the economy appears to be substantially enhanced from those numbers and would appear that we need some transparency and honest assessment of this calculation.

Santos Response

Santos has conducted numerous public consultation sessions throughout the EIS process with a view to keeping the community informed about the project's progress. While Santos has endeavoured to provide exact projections within the EIS, the exact number of employees will not be defined until front end engineering design (FEED) is completed. Notwithstanding this, the project will provide significant economic benefit to the Australian economy as detailed in EIS Sections 6.15, 7.15 and 8.15, which describe the anticipated economic impacts resulting from the project.

Respondent Comment

Submitter number 20 states that there needs to be a strict procedure in place and penalty of say $1,000,000 per day per incident to ensure that the environmental management is honestly adhered to in view of the fact that this site is adjoining marine protection and environmentally sensitive areas.

Santos Response

The State and Commonwealth Governments have set in place numerous statutory instruments to protect Australia's environment. Santos will comply with all relevant statutory approvals and obligations. It will comply with any conditions imposed, including the lodgement of a financial assurance.

ES 4 The Proponent

No submissions have been received for this section.

ES 5 Commitment to Environmental Management

No submissions have been received for this section.

ES 6 Project Need

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. vigorously opposes any short term development that will compromise the natural environment and future generation's ability to produce adequate food and fibre.

Santos Response

EIS Section 1.6.1 discusses the need for the GLNG Project and EIS Section 1.6.2 discusses the costs and benefits associated with the project.

EIS Executive Summary

Respondent Comment

Submitter number 20 states that the issue of Australia's future LNG need also requires serious consideration as Santos' interest is only dollars and profit and not necessarily in the Australian national interest. This important aspect has been totally ignored in this document.

Santos Response

The issue raised by the submitter is a matter of government policy rather than specific to the GLNG Project. On 17 September 2009 (following the public release of the GLNG EIS) the Queensland Government released a draft policy framework for the emerging liquefied natural gas (LNG) industry entitled "Blueprint for Queensland's LNG Industry". The purpose of the Blueprint is to provide the community with a clear understanding of the Queensland Government's plans to develop the coal seam gas to LNG export industry. The Blueprint is a comprehensive policy framework covering all aspects of policy which may affect the development of the industry, and includes measures to ensure the supply of domestic gas to Queensland homes and industry.

The Blueprint outlined two domestic gas reservation policy options being considered by government, including:

1) A Gas Reservation Policy, whereby gas producers will be required to sell or make available to the domestic market the equivalent of between 10 % and 20 % of gas production; and
2) A Prospective Gas Production Land Reserve, which involved:
    a) Holding back from the market certain prospective gas production areas in order to amalgamate/secure areas for orderly future use;
    b) Stricter application of the requirements that applicants demonstrate, during the assessment of applications for a petroleum lease or a potential commercial area (both of which halt automatic relinquishment), the appropriateness of the area sought for the proposed activities;
    c) Where more active management of relinquishment results in an area being handed back, the State considering if it should then be put back out to the market with a condition that it is to be used only to supply the domestic market; and
    d) Basing decisions to condition such leases for domestic use only on regular estimation of gas supply and demand, combined with market soundings of the availability of gas.

On 14 November 2009 the Queensland Government announced its decision to set aside future gas fields for future domestic supply if needed (second option) and its rejection of the option to require a percentage of gas from all fields to go to domestic supply (first option).

ES 7 The EIS Methodology

No submissions have been received for this section.

ES 8 EIS Legal Framework

No submissions have been received for this section.

ES 9 Public Consultation

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. urges that public consultation must continue especially at this critical stage and throughout the life of the project.

Santos Response

Santos has conducted over 300 separate stakeholder briefings including a mix of public meetings, one-on-one meetings and issue specific workshops. In addition, Santos has reached thousands of individuals through its various community engagement activities including the 1800 free-call service, GLNG website, newsletter letterbox drops, and media advertising. Santos, through its local community relations advisers, will continue to engage with key stakeholders throughout the life of the project to provide an opportunity for community input and feedback. Refer to EIS Section 9 for details of community engagement activities undertaken leading up to the release of the EIS in June 2009. **Attachment K** provides details of community engagement activities undertaken as part of the EIS Supplement process.

ES 10 Assessment of Project Alternatives

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. suggests that there should be as near as physically and legally possible a common corridor for gas lines. The environment will be altered and in places, considerably damaged if all the proposals for gas lines are not rationalised.

Santos Response

The gas transmission pipeline (GTP) route proposed by Santos in March 2009 between the CSG field and the LNG facility on Curtis Island, including the northern pipeline deviation, was described and assessed in the EIS.

In the EIS supplement, route alternatives have been described which were identified by Santos subsequent to the exhibition of the EIS as a result of further engineering, geotechnical, environmental and other investigations. These alternatives have been assessed in the EIS Supplement (**Attachment E**).

At the time of completion of the EIS the government had announced its preference for an "Energy Corridor" for common user infrastructure between the Gladstone State Development Area (GSDA) and the Callide Range (now known as the 'Callide Infrastructure Corridor State Development Area' [CICSDA]). The route was not finalised until the CICSDA was gazetted on 1 October 2009.

Further refinement of the common corridor route within the GSDA has also occurred since the completion of the EIS.

Assessment of the CICSDA and the impact of changes to the common corridor route within the GSDA have been included in the EIS Supplement. This assessment is included in the reports forming **Attachment E**.

It is Santos preference to utilise the common corridor route, but this is dependent on the government's resumption of the underlying land interests and negotiation with the various proponents as to the applicable terms and conditions of access.

Respondent Comment

Central Highlands Regional Council (CHRC) states that an increase of about 65 - 70 truck loads per day (140 movements per day) will be very significant. The number and type of vehicle movements associated with other components of the project have not been set out. These include, but are not limited to, the development of the wells in the CSG field, relocation of workers camp(s) and ongoing maintenance of both the pipeline and wells. Ideally the CHRC would expect that travel routes are planned so that maximum use is made of both the Dawson and Carnarvon Highways so that use of CHRC roads is minimized.

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Central Highlands Regional Council believes that the transportation assessment has ignored the impact of vehicle loading on the pavement. The need for pavement upgrades depends far more on the type of traffic using the road, based on the number of Equivalent Standard Axles (ESAs) that will traverse the road over a defined period.

Central Highlands Regional Council also stated that once it has been determined which CHRC roads will be used for transport of materials and equipment, the existing pavements will need to be investigated to determine current pavement strengths and, based on the expected ESAs, road upgrades undertaken. Since the need for upgrading will be entirely for the Project there should be no cost imposition on the CHRC ratepayers.

Santos Response

Santos will consult with the council regarding the impacts of the GLNG Project on road infrastructure to determine an appropriate contribution by Santos toward road maintenance, upgrade and rehabilitation and other mitigation measures.

The costings included in the EIS and **Attachment C** are indicative only and are not suggestive of the level of contribution that should be made by Santos in relation to these works. The extent of any contribution to be made by Santos will be a matter for discussion and resolution between Santos and the local council.

Respondent Comment

Submitter number 20 states that there is no report on testing of soil in the harbour floor on the proposed pipeline route to consider if there is any toxic substance that could contaminate other areas of the harbour and the Great Barrier Reef should any matters be indentified.

Santos Response

EIS Section 8.7.3.3 outlines the marine sediment investigation undertaken for the proposed pipeline crossing.

The analytical parameters tested as part of the investigation were in accordance with the requirements of the National Ocean Disposal Guidelines for Dredged Materials (NODGDM 2002) and the Department of Environment and Resource Management (formerly Queensland Environmental Protection Agency) and are listed below:

- Physical: particle size analysis (PSA);
- Metals: trace elements and metaloids;
- Nutrients: nitrate and nitrite, nitrite, ammonia, nitrate, total kjeldahl nitrogen (TKN), total nitrogen and total phosphorus;
- Organics: total petroleum hydrocarbons (TPH), BTEX (benzene, toluene, ethyl-benzene, m+p xylenes, o-xylene), polycyclic aromatic hydrocarbons (PAHs), and phenolic compounds;
- Other Organics: Total organic carbon (TOC), tributyltin (TBT), organochlorine (OC) pesticides, organophosphate (OP) pesticides, polychlorinated biphenyls (PCB), phenoxyacetic acid herbicides, triazine herbicides, carbamate pesticides;
- Acid Sulfate Soils: Indicative field test (ph_{Field} and pH_{Fox}) and chromium suite analysis; and
- Radionuclides.

The results of the sampling and analysis program are detailed in EIS Appendix R3.

Respondent Comment

Gladstone Ports Corporation states that there is a lack of commitment in regards to the Port Curtis Crossing to a preferred option for pipeline crossing delivery in accordance with the discussions undertaken with government agencies.

Santos Response

Since the public release of the GLNG EIS, a preferred gas transmission pipeline route and methodology have been identified for the crossing between the mainland (Friend Point) and Curtis Island (Laird Point). Santos is currently in negotiations to establish a mutually suitable alignment with the DIP and the other LNG proponents on the location of the common corridor through the GSDA and across Port Curtis. Santos will continue to work with all proponents to minimise potential impacts associated with the installation of the pipeline.

Respondent Comment

Gladstone Ports Corporation states that there is a lack of commitment in regards to pipe delivery from the port to the hinterland. The option for truck transfer introduces an increased traffic demand at Port Central and through the road network in Gladstone.

Santos Response

It is acknowledged that trucking of pipe sections out of the Gladstone Port through Gladstone would increase traffic on the Gladstone road network. Santos has revised its transport and logistics strategy in response to stakeholder concerns. This includes the construction and operation of additional mainland marine facilities, which will reduce the amount of traffic generated from Auckland Point (Port Central). Material loading/unloading facilities at Fisherman's Landing (temporary only), the south bank of the Calliope River and potentially adjacent to the existing RG Tanna wharves are proposed, in addition to the proposed Port Central site, which will be predominantly used for the transport of personnel. This strategy is aimed at separating personnel movements from material (including pipe) movements. **Attachment L** provides further details, including an assessment of impacts.

As a result of the revised strategy (plus other project description changes as described in Part 1 - Section 2 of this EIS Supplement report), Santos has re-assessed the transport impacts.

Santos is also considering Port Alma as another option for the transport of pipeline materials. These materials will be offloaded from the ships at the existing Port Alma facility and trucked to a proposed laydown area on the Bajool – Port Alma Road. From the laydown area the pipe will be trucked to various locations along the gas transmission pipeline route. If Port Alma is selected for importation of the pipe materials this would further alleviate the traffic impacts in Gladstone. Santos understands that as part of the Port Alma option being considered, the Bajool – Port Alma road may need to be upgraded. Santos will work with the relevant agencies (e.g. local council and DTMR) to determine the appropriate contribution by Santos to this upgrade work. Refer to **Attachment H** for a more detailed description and impact assessment of this Port Alma option.

10.3 LNG Facility

Respondent Comment

Submitter number 13 states that it appears that no consideration has been given to the sand fly situation on Curtis Island with regards to the workers being confined to the island 24 hours a day for the duration of their working time.

Submitter number 13 also stated that the damage done by up to 2,000 workers constantly moving about in one area has not been estimated.

Submitter number 13 asked what has been organised by way of recreation activities for these workers during their rest periods or is it intended to work them around the clock with just enough time to eat and sleep.

Santos Response

Appropriate mitigation measures to control sandflies on Curtis Island have been encompassed into Santos' EPC contractor's scope of work.

The construction accommodation facility (CAF) will have a variety of recreational activities available and a designated lifestyle co-ordinator will arrange activities to suit the needs of workers on Curtis Island. Excursions and other scheduled activities will be planned for staff days off, as well as scheduled ferries back to the mainland.

On-site workers will be confined to the project's footprint whilst on Curtis Island.

Respondent Comment

Submitter number 20 states that serious consideration needs to be given to relocation to the Port Alma site to mitigate potential damage in the event of a Veranus Island type incident or worse still if an explosion of a tanker were to occur in Gladstone its residents could potentially be annihilated and just as devastating would be the serious impact on the economy of the state of Queensland in view of the fact that other industry located in very close proximity would be seriously affected.

Santos Response

The Queensland Government's strategic planning has identified Gladstone and the Curtis Island Industry Precinct as a preferred location for LNG development. In addition, site selection evaluations were undertaken as part of GLNG's feasibility study into the possible development of a land-based LNG and export facility at a number of ports on the Queensland coast. Gladstone was selected as the preferred site based on safety factors as well as social, environmental, economic and risk factors. Refer to EIS Section 2.3.1 for further details.

As detailed in EIS Section 3.3.1, LNG is stored and transported at atmospheric pressure. Consideration of safety issues was assessed along with other threats in a series of risk assessments conducted by Santos. These issues have been considered and incorporated in security planning arrangements during construction and operational phases.

Respondent Comment

Submitter number 20 states that terrorism is a serious threat to such an installation and the recent Australian incident involving plots against the military shows just how vulnerable this site may be. This toxic LNG facility and in particular tankers would be a prime target for terrorism as it is impossible to protect it from small plane and small boat attacks without serious military type protection that has not been identified in this document.

Santos Response

LNG is non-toxic, as outlined in EIS Section 3.3.1.

Consideration of terrorism issues was assessed along with other threats in a series of risk assessments conducted by Santos. Due to the sensitivity of the material in the risk assessment, this information could

not be provided in the publicly available EIS. These issues have been considered and incorporated into security planning arrangements to be implemented during construction and operations phases. This information has been made available to the relevant State and Commonwealth agencies for assessment.

Respondent Comment

Submitter number 20 states that this document lacks serious consideration of safety as no modelling has been provided to:

- *Indicate how a Veranus Island type incident would impact on Curtis Island, adjacent industry, and the residents of Gladstone;*
- *Indicate how an escape of toxic LNG (or other gases stored on site) would plume in all wind and weather conditions and the subsequent impact on Curtis Island, the adjoining industry and the residents of Gladstone; and*
- *Indicate how a shipping incident in Gladstone Harbour would affect adjoining industry and the residents of Gladstone. In particular if the shipping incident ruptured a gas tanker and the resultant damage from such an explosion.*

This document does not identify any procedure to handle any of the incidents mentioned above. In the event of any of the above there would be absolute chaos without a plan for the community and industry.

Santos Response

EIS Section 10.3 (including Tables 10.3.3, 10.3.4 and 10.3.5) considered scenarios similar in nature to the referenced Veranus Island incident (essentially a catastrophic loss of containment). Results for these scenarios were presented in EIS Appendix FF.

These issues identified in the modelling have been considered and incorporated in safety planning arrangements during construction and operational phases and the material has been made available to the relevant State and Commonwealth agencies for assessment.

It is understood the Veranus Island incident was a pipeline rupture that occurred as a result of poor practices leading to pipeline corrosion. Santos' maintenance regime will minimise the risk of corrosion (amongst other things) through adoption of strict controls such as pigging operations and cathodic protection.

Respondent Comment

Submitter number 20 states that it would appear that if there were additional costs (which at this point have not been proven) to locate at Port Alma then the dollar is more important than safety and well being of the community and the economy of Queensland and this issue needs to be addressed as the Queensland Government should be protecting its citizens and its future.

Santos Response

The Queensland Government's strategic planning has identified Gladstone and the Curtis Island Industry Precinct as a preferred location for LNG development.

In addition, site selection evaluations were undertaken as part of GLNG's feasibility study into the possible development of a land-based LNG and export facility at a number of ports on the Queensland coast. Gladstone was selected as the preferred site based on safety factors as well as social, environmental, economic and risk factors. Please refer to EIS Section 2.3.1 for further details.

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Respondent Comment

Submitter number 20 states that there does not appear to be any report on the contents of soil on the harbour floor to ascertain if toxic chemicals or other products are contained in soil proposed to be dredged from the harbour. Such a report should be mandatory to ensure that the remainder of the harbour and the Great Barrier Reef are not exposed to unnecessary destruction.

Santos Response

EIS Section 8.7.3.3 outlines Santos' marine sediment investigation for the proposed dredge area in Port Curtis.

The analytical parameters tested as part of the investigation were in accordance with the requirements of the National Ocean Disposal Guidelines for Dredged Materials (NODGDM 2002) and the Department of Environment and Resource Management (formerly Queensland Environmental Protection Agency) and are listed below:

- Physical: particle size analysis (PSA);
- Metals: trace elements and metaloids;
- Nutrients: nitrate and nitrite, nitrite, ammonia, nitrate, total kjeldahl nitrogen (TKN), total nitrogen and total phosphorus;
- Organics: total petroleum hydrocarbons (TPH), BTEX (benzene, toluene, ethyl-benzene, m+p xylenes, o-xylene), polycyclic aromatic hydrocarbons (PAHs), and phenolic compounds;
- Other Organics: Total organic carbon (TOC), tributyltin (TBT), organochlorine (OC) pesticides, organophosphate (OP) pesticides, polychlorinated biphenyls (PCB), phenoxyacetic acid herbicides, triazine herbicides, carbamate pesticides;
- Acid Sulfate Soils: Indicative field test (ph_{Field} and pH_{Fox}) and chromium suite analysis; and
- Radionuclides.

The results of the sampling and analysis program are detailed in EIS Appendix R3.

Respondent Comment

Submitter number 20 states that no modelling has been carried out to show the effect on harbour flows resulting from cutting a deep channel in this shallow harbour that will allow less water to naturally flow to important areas of the harbour that will affect recreational boating along with the marine habitat of the harbour. No modelling has been carried out to show the flow effect of an additional shipping channel on the Great Barrier Reef waters and affect on coral from such flows.

Santos Response

EIS Section 8.7.4.5 describes the hydrodynamic modelling used to show the impact on harbour flows with further detail contained in EIS Appendix R2.

As part of the EIS Supplement studies, additional investigations have been conducted on the potential effects on soft coral/sponge communities which are outlined in **Attachment F5**. Impacts from the dredging operations will be limited to the vicinity of the dredging operation within Port Curtis and there will be no impacts to the Great Barrier Reef as this is located well outside of Port Curtis.

Respondent Comment

Gladstone Ports Corporation has stated there is a lack of commitment to the construction techniques option. The option to stick build has a significant impact on the workforce numbers.

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Santos Response

The base case for the EIS is stick build and accordingly the assessment of the impact used this base case. This is a worst case scenario in terms of environmental and social impact as a modularised plant would require fewer workers and therefore would have similar or less environmental impacts.

The likely final scenario is a combination of stick build and modular construction methodologies.

Respondent Comment

Gladstone Ports Corporation has stated regarding the construction workforce accommodation alternatives, should the option not to accommodate the workforce on Curtis Island be the ultimate decision, then the traffic volumes generated through Port Central will require a review.

Santos Response

In response to stakeholder comments, Santos has revised its Curtis Island accommodation strategy.

The EIS assessed 100 % of the construction workforce being housed on Curtis Island. As result of a number of submissions, the EIS Supplement has now re-assessed the impacts by developing an accommodation scenario based on the experiences of Bechtel (Santos' FEED Contractor for LNG Facility) in the area. This scenario is detailed in Section 4.6 of **Attachment F5**.

This new scenario has a 65:35 (%) imported to local worker split. It is assumed that all of the local workers and 20 % of the imported workers will reside in and around Gladstone. The remaining 80 % of the imported workers will reside in a CAF on Curtis Island. This gives an overall estimated split of 52 % of the workers on a CAF on Curtis Island and 48 % being based in and around Gladstone (refer **Attachment F6**). Traffic impacts associated with this scenario have been assessed and are reported in **Attachment C**.

Respondent Comment

Gladstone Ports Corporation has stated regarding the dredged material placement facility that the option of placement of the dredged material into areas on Curtis Island has been eliminated by combined consideration by the GPC and Government agencies. This conclusion is due to the need to retain the site at Laird Point for the development of future industries and the proposal to use this area as an access corridor.

Santos Response

The Queensland Government and the Gladstone Ports Corporation (GPC) are presently reviewing the dredged material management plan for Port Curtis to plan for the long term dredging and dredged material disposal that may be required to provide safe and efficient access to existing and proposed port facilities in the harbour for the foreseeable future. The plan considers dredging and dredged material disposal required for industrial and port related projects currently proposed for Gladstone. As part of the plan, the GPC is considering a single dredged material disposal area, which will be large enough to accommodate the combined dredged material from all of these projects in a manner which is consistent with GPC's long term port development objectives.

The GPC and the Queensland Government are presently undertaking an environmental assessment of the overall plan and to obtain the necessary approvals before adopting and implementing the plan. If the plan is approved, the dredging and the associated dredge material placement for the GLNG Project will be undertaken in accordance with the plan, provided the timing of the approval is consistent with the GLNG Project requirements. The cumulative impacts from the use of the Western Basin reclamation area for the placement of dredge material from all of the relevant projects proposed for Port Curtis are

given in the WBDD Project's EIS (http://www.gpcl.com.au/Project_Western_Basin_Dredging_&_Disposal.html). A summary of the cumulative impacts is provided in Appendix B of **Attachment J**.

If for some reason, the GPC's strategic dredging and disposal project is delayed or does not proceed, a plan specific to the GLNG Project has been prepared to manage the project's dredge material. The EIS Section 2.3.9 identified a range of sites on and around Curtis Island for the potential location of a dredge material placement facility (DMPF), with the emphasis being on land-based placement and the containment of fine material. Laird Point was put forward as the proposed site because of its smaller footprint due to wall heights (as compared to the Boatshed Point site); reduced visual amenity impact; and greater distance from seagrass meadows (as compared to the Boatshed Point site). The Laird Point site was assessed in EIS Section 8.17. Results of further investigations relating to the proposed DMPF at Laird Point in response to EIS submissions are provided in **Attachment G**.

On 18 August 2009 (since the GLNG EIS was prepared), the Queensland Government and Australia Pacific LNG (APLNG) announced Laird Point on Curtis Island as the site for APLNG's proposed LNG facility. This site is the same area proposed for the GLNG DMPF.

Santos recognises the conflict in proposed land use of Laird Point for the APLNG Project and the proposed GLNG DMPF. If the site was used for the DMPF, it is unlikely that it would be able to be used for the construction of an LNG facility in the short to medium term. Whilst the site may be able to be used over the longer term for an LNG facility with the implementation of suitable engineering works, it is not likely that this would meet the time frame requirements for the APLNG Project.

Despite the announcement by the Queensland Government and APLNG, GLNG does not consider it to be a foregone conclusion that the site will ultimately be used for the construction of an LNG facility as the development of the site, as for all proponents currently, will depend on a range of factors. For example, it is recognised that at some point in the future there may be consolidation of the LNG projects in the Gladstone area and that not all currently proposed LNG projects are likely to proceed. If this occurs, it is possible that the Laird Point site may not be required for the construction of an LNG facility in the short to medium term.

Furthermore, in the event that the GPC proposal to use the Western Basin reclamation area for the disposal of the dredge material does not proceed or is delayed, Laird Point remains a viable stand-alone option for disposal of dredge material arising from the GLNG Project, and the only viable alternative dredge material placement facility at this time, for the LNG industry.

GLNG is seeking approval for the DMPF at Laird Point subject to the following two conditions:

- The CG being satisfied that the site is not required for another LNG facility in the short to medium term; and
- The CG being satisfied that the dredge material placement facilities at Fisherman's Landing are not available to be utilised within the time required to commence construction of the GLNG Project.

ES 11 Project Description

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. is concerned that the large scale of the development has the potential to severely damage the natural environment, especially the river systems, and that so much damage could be done to the existing environment that the changes may be irreversible.

Santos Response

Site selection evaluations for the GLNG Project were undertaken as part of the Santos feasibility study into the possible development of a land-based LNG and export facility on the Queensland coast.

Gladstone was selected as the preferred site based on social, environmental, economic and risk factors. Please refer to EIS Section 2.3.1 for further details.

Additionally, for pipeline construction and CSG field activities, all reasonable measures to avoid, mitigate, or offset the impacts of the proposal have been outlined and are included throughout the EIS and its supplement.

ES 12 Project Schedule

Respondent Comment

Queensland Department of Transport and Main Roads states that Maritime Safety Queensland (MSQ) considers the Gladstone Liquefied Natural Gas (GLNG) Environmental Impact Statement (EIS) submitted by Santos to be a most comprehensive and professionally prepared document. We have every confidence in the proponent continuing to liaise closely towards resolution of any identified matters. These comments have been approved by the Regional Harbour Master Gladstone, Pilotage Manager Gladstone, and Director Maritime Services on behalf of Captain John Watkinson, General Manager MSQ.

Santos Response

Santos appreciates your support and feedback on our EIS.

Respondent Comment

Queensland Department of Transport and Main Roads states that Maritime Safety Queensland (MSQ) as a State agency within the Department of Transport and Main Roads must be recognised as the appropriate concurrence authority for maritime matters as they relate to safety of navigation and prevention of ship sourced pollution. The proponent and their consultants should continue to work closely with the relevant MSQ contact regarding the level of detail required in ongoing assessments and marine related aspects of the project.

Santos Response

Santos will work closely with the relevant MSQ contacts whilst finalising the design of the GLNG Project.

Respondent Comment

Queensland Department of Transport and Main Roads states that to ensure safety of navigation risk assessments must apply to the interaction of large foreign going trading vessels, smaller commercial and fishing/charter craft and recreational vessels to ensure safety of navigation. These results should also be appropriately reflected throughout the EIS, its findings and recommendations.

Port simulation modelling which includes a cumulative risk analysis of how this project integrates within projected shipping activity increases in the port of Gladstone is relevant to assessment of this proposal.

Santos Response

Santos has undertaken a transit risk assessment with other LNG proponents and participation by GPC and MSQ, which included assessment of interaction with other vessels. Santos is working with MSQ and other proponents on navigation simulations to determine safe port protocols which will include separation distances from other vessels to allow for appropriate safety mitigation measures in the event of a failure from another vessel.

ES 13 Environmental Impacts and Management Strategies – Coal Seam Gas Fields

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. states that the EIS and resultant EMP will have to be detailed and strictly adhered to if we are not to leave the area in an extremely damaged condition.

Santos Response

EIS Sections 6.3 and 6.8 describe the existing environment that includes the topography, geology and soils of the CSG field study area and provide the results of the impact assessment undertaken. These sections also propose a series of mitigation measures to minimise the impact of proposed CSG field development activities on soils and terrain related environmental values.

Additionally, the revised draft EMPs (**Attachment B**) outline possible avoidance and mitigation measures.

13.5 Groundwater

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. acknowledges Santos has installed very sophisticated water monitoring apparatus and programmes, however is still unsure of what some of the resultant outcomes would be. To damage the large natural springs would be disastrous.

Santos Response

Santos has undertaken further investigations about the impact of groundwater extraction from the coal seam measures since the preparation of the EIS (see **Attachment D2**) The studies undertaken in **Attachment D2** indicate that no impact is expected for the springs from Hutton Creek to Dawson River (see section 4.7 of the report).

13.6 Associated Water Management

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. states the EIS does not detail how the associated water will be cleaned e.g. RO or chemical treatment. Care will have to be taken that irrigating with this water does not contaminate the soil. More concern is what will be done with the toxic salts that will be removed from the water before most of it can be used. It considers that the project should not be allowed to go ahead until a completely satisfactory answer to this disposal of the resultant toxic salts is found.

Santos Response

Santos has undertaken additional investigations in relation to the management of associated water since the publication of the EIS. An impact assessment has been undertaken and is set out in **Attachment D2** (Sections 8 & 9) and **Attachment D3** (Section 3) to determine whether the selected management options are viable (including their priority of use) having regard to the impacts and their management including discharge to surface waters. The reports have concluded that they are viable subject to the conditions and mitigation measures set out in those documents.

Brine containment ponds will be utilised for "containment then disposal" of brine produced as a by-product of reverse osmosis water treatment. A definitive final containment option has not been selected for brine management. A series of final containment options are currently proposed and are subject to further investigation (refer to **Attachment D3**, Section 3.4). These include:

- Inject brine into suitable underlying (basement) formations or preferably depleted coal seams, where technically and economically the best option; otherwise
- Brine evaporation (or crystallisation) using the storage ponds, and encapsulated or transferred to a registered landfill site.

Where any ponds built and operated over the life of the project trigger regulated dam criteria, the regulated dam decommissioning guidelines will be implemented upon closure of the pond.

13.8 Greenhouse Gas Emissions

Respondent Comment

Submitter number 20 states that the toxic LNG plant on Curtis Island will produce greenhouse gases and no modelling has been carried out to include the current Gladstone air table with emissions from the proposed toxic LNG plant.

Santos Response

Air quality modelling was undertaken and is included in **Attachment J1**. The results show the impact of GLNG to be minimal on the Regional Air Shed. Specifically, predicted exceedances of EPP (Air) objectives are isolated to small areas in close proximity to existing industrial facilities. The predicted ambient NO_2 concentrations stay below the air objectives at sensitive receptor locations and do not significantly change from the previous assessment in the EIS.

Respondent Comment

Submitter number 20 states that a significant plume burning off toxic LNG is proposed to operate at intervals and will light up the night sky for a significant distance and there has been no modelling to show the effect on the residents of Gladstone. There has also been no modelling to show the effect on the Turtle rookery on Curtis Island as turtles are vulnerable to light when nesting and this could have a significant impact on the turtle population on the east coast of Australia. There has also been no modelling to show the effect on the adjoining national park and endangered species and their flight patterns from such a substantial light and noise source.

Santos Response

As outlined in EIS Section 3.3.1 LNG is non-toxic.

Upset scenarios were provided by Santos to represent the possible situations that may lead to gas release through the flares. These include the following scenarios:

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Situation	Description	Mitigation Measures
Scheduled maintenance:	Scheduled shut-down and start-up for maintenance inspection, which occurs every three years, and lasts for 3 hours. This upset condition has been modelled by assuming that the refrigeration compressors and power generation turbines for one train are taken off-line during maintenance, and the gas for this train is diverted to the emergency flare.	Commitment to schedule maintenance requiring shut-down and start-up outside of turtle hatching season (early December and late March), or during daylight hours.
Controlled relief:	Due to blocked outlets to the propane compressors (typically approximately 15 minute duration). This scenario has not been modelled as likelihood of occurrence is rare, and may never happen during the lifetime of the facility's operation.	The rarity of this event means that it is highly unlikely to coincide with turtle hatching.
Emergency shut down:	Rare or may never happen during the lifetime of the project. This scenario has not been modelled.	The rarity of this event means that it is highly unlikely to coincide with turtle hatching.
Warm ship load out:	Load-out of LNG to a ship when the ship is warm, occurring probably once in three years. It will take approximately 24 hours to cool the ship down using LNG, much of which will be boiled off and recycled back to the LNG Facility for re-liquefaction. This scenario has not been modelled as much of the methane gas is recycled back to the LNG Facility.	The rarity of this event means that it is highly unlikely to coincide with turtle hatching.

A Dugong and Turtle Management Plan has been developed as part of the EIS Supplement, and is provided in **Attachment F5**.

EIS Section 8.8.5.1 notes that flaring will only occur during plant upset conditions or scheduled shut down and start up for maintenance. A flare pilot will remain on at all times. EIS Section 8.8.5.2 describes the scenarios when flaring could occur.

Visual assessment (EIS Section 8.12) estimated that the flare stack may be partially visible from Curtis Island South End and Facing island townships. As identified by Figures 8.12.1 of the EIS and Figure 2.1 of the Turtle and Dugong Management Plan (**Attachment F5**), the turtle nesting beach on Curtis Island lies just outside of the range of direct line of sight of the flare stack and associated flaring activities. However, the potential for impacts to hatchling turtles from LNG facility flaring events are likely to be low based on the following:

- There is a recognised spectral intensity that lies outside of the recognised range of the most disruptive light waves for turtle hatchlings;
- The distance from the flare stack to the turtle nesting beach is greater than 8 km;
- There is no direct line of site between the stack and turtle nesting beach; and
- A flaring event (estimated to be infrequent, two to three times a year) would have to occur at night and during turtle hatching season.

Following final design of the LNG facility, including the gas flare stack and in the event that there is pollution from light glow or a direct line of site from the LNG facility a turtle nesting monitoring program will be implemented. **Attachment F5**, outlining mitigation measures proposed to be undertaken by Santos to minimise light pollution and potential impacts to nesting turtles and hatchlings on the beaches. These include:

- Ensuring that all lighting with the LNG Facility is minimised during design phase by:
  - Reduction in the intensity of light glow using low pressure sodium (LPS) lights;
  - Using timers to reduce the amount of time the lights are used;
  - Installing movement sensor lights; and
  - Restricting the height of available light or applying shrouds to control direction.

- Following finalisation of the design, other mitigation measures may include the use of light hoods. Avoiding flaring where possible for maintenance purposes at night during the turtle nesting and hatching season; and
- Monitoring the nesting beaches in consultation with DERM for disorientation if upset flaring occurs at night for extended periods during turtle hatchling season.

13.10 Land Use and Infrastructure

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. requests that development should not be located on stock routes, road reserves, C & W reserves etc. where it will damage native vegetation.

Santos Response

Santos will ensure that all impacts to stock routes from the development of the CSG fields and associated pipeline infrastructure will be mitigated through a consultative approach with relevant state government agencies prior to undertaking any activities that may pose impacts occurring. Santos understands that a program aimed at identifying and protecting stock routes throughout Queensland has been recently completed and will undertake to liaise with the appropriate government representatives regarding any and all impacts that may result from the GLNG Project.

Santos will apply appropriate measures to any activities occurring on road reserves and camping and water reserves.

13.15 Traffic and Transport

Respondent Comment

Central Highlands Regional Council states that consideration should also be given to either an agreement or agreed protocol between Santos and CHRC that would enable a review of level of road usage and maintenance regime throughout the life the project.

Santos Response

Santos will consult with the council regarding the impacts of the GLNG Project on road infrastructure to determine an appropriate contribution by Santos toward road maintenance, upgrade and rehabilitation and other mitigation measures. The costings included in **Attachment C** are indicative only and are not suggestive of the level of contribution that should be made by Santos in relation to these works. The extent of any contribution to be made by Santos will be a matter for discussion and resolution between Santos and the local council.

13.17 Cumulative Impacts

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. states that if we don't handle cumulative impacts of all proposed projects correctly, we could find our rivers and ecosystems overwhelmed and beyond our capacity to repair.

Santos Response

Santos notes your comment and intends to implement the mitigation measures referred to in the EIS and this supplement to minimise the prospect of this outcome. Additionally, **Attachment J** outlines a cumulative impact assessment.

Respondent Comment

Queensland Gas Company believes that the most likely cumulative development scenario for the Gladstone-based CSG-to-LNG projects is the concurrent construction and operation of the GLNG and QC LNG projects. Therefore, realistic cumulative environmental impact assessment should be focussed on the potential development of these two projects involving construction of gas field infrastructure, pipelines, LNG plants and ancillary infrastructure in Queensland between 2011 and 2015.

Queensland Gas Company notes the recent release of the Draft Port of Gladstone Western Basin Master Plan (August 2009) and Development Scheme for the Callide Infrastructure Corridor State Development Area (June 2009). We believe that these two significant documents contain certain assumptions regarding the rate and scale of the LNG industry in Queensland which are not consistent with QGC's analysis of the LNG market opportunities available. We also note that these planning documents have the potential to significantly affect the location of infrastructure for the GLNG and QC LNG projects, the assessment of their individual and cumulative impacts, and development outcomes.

Santos Response

Santos appreciates your feedback in regards to cumulative impacts of the LNG industry in Gladstone. Additional assessment of the cumulative impacts has been undertaken following the publication of additional material since the publication of the EIS. **Attachment J** is an updated cumulative impact assessment for the project.

ES 14 Environmental Impacts and Management Strategies – Gas Transmission Pipeline

14.3 Nature Conservation

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. states that the main problems for the gas transmission pipeline that will have to be carefully planned include:

1) Sighting the ROW carefully to avoid impacting on endangered or vulnerable REs; and

2) The clearing of remnant vegetation within the ROW to minimize disturbance.

Santos Response

Clearing of vegetation within the ROW is to be undertaken in accordance with a number of practices to reduce impacts as outlined in EIS Sections 7.4.5.1; 7.4.5.2; Section 4.2 of EIS Appendix N2; and 3.1.3 of EIS Appendix N2. In addition specific actions are outlined in EIS Section 12.6.8 of the gas transmission pipeline EMP. Actions outlined to reduce impact include:

- The route has been selected to avoid disturbance to endangered, vulnerable and rare (EVR) flora species as far as possible and to minimise fragmentation and habitat disturbance of protected fauna species;

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- The sites of accommodation facilities, additional work areas, storage areas and access roads will be selected to avoid clearing of significant remnant vegetation;
- A pre-construction vegetation survey will be completed in targeted areas of the ROW to identify for flagging individual EVR species and trees that contain hollows that may be avoided during construction;
- Appropriate permits for the clearing of vegetation, including any marine vegetation, will be obtained prior to the commencement of construction;
- The location of vegetation to be retained will be clearly indicated on all construction drawings.
- Flagging of clearing boundaries though areas of significant vegetation will be completed during the pre-construction pegging of the pipeline alignment;
- Construction activities will be scheduled for the dry season wherever possible;
- A biodiversity offset strategy and management plan will be developed and implemented for significant vegetation communities over an appropriate time frame to accomplish the following specific aims:
  - Identification of suitable potential offset areas with ecological values analogous to impacted ecological communities;
  - Assessment of the ecological value and equivalence of offsets to ensure suitable offset extent, species assemblage, floristic structure and ecological integrity utilising an appropriate biometric field methodology;
  - Development of appropriate management prescriptions to ensure long term viability of offsets (such as pest control, livestock management, access exclusion, ameliorative plantings and fire regime management);
  - Placement of appropriate covenants for future conservation and management of offsets; and
  - Development of appropriate monitoring and maintenance activities and performance review processes to ensure long term viability of the offsets.
- The process of developing a suitable biodiversity offset management plan will be an iterative process with State and Commonwealth regulatory bodies;
- Disturbance will generally be restricted to the 40 m ROW which will be reduced to 30 m within area wherever ‘Endangered’ or ‘Of Concern’ REs are present;
- Physical barriers will be installed around significant vegetation areas in order to restrict access and avoid disturbance;
- Trenching will occur progressively to minimise the length of time the trench is open;
- Clearing of hollow bearing trees will be avoided as far as possible;
- Areas of vegetation to be cleared will be restricted to the minimum width required. Areas to be cleared will be clearly delineated, prior to commencement. Clearing of all remnant regional ecosystems;
- Clearing and disturbance in riparian and marine areas will be controlled by:
  - Education of all personnel on procedures for working in these environments;
  - Reviewing and accepting detailed procedures to be submitted prior to commencing these activities; and
  - Continuous monitoring of these sensitive operations to ensure compliance with the procedures.
- Where agreed by the landholder, removed vegetation will be respread over the ROW;
- Trees and shrubs will be allowed to regenerate naturally on cleared areas not required to be kept clear for pipeline protection and maintenance (subject to landholder agreement);
- Fauna escape ramps or ladders will be placed at regular intervals along the open trench;

- Where habitat is to be cleared, appropriate mitigation measures will be implemented, including adopting a protocol to ensure fauna spotters are present during clearing of woodland vegetation and any other areas of faunal habitat;
- Liaison with wildlife rescue organisations or individuals;
- Minimise speed limits in high-potential areas for faunal impact; and
- Where local land practices permit, large scale burning of cleared vegetation will be avoided and timber should be stacked in piles to provide fauna habitat and assist revegetation (subject to landholder agreement).

14.4 Surface Water

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. states that methods of stream crossings will have to be carefully planned. Steps will have to be taken to lesson erosion and disturbance to riparian corridors. These corridors are extremely important for habitat trees and travel between areas for local animals.

Santos Response

Methods for crossing streams due to GLNG Project related activities are outlined in EIS Section 7.5 as well as EIS Section 12.16.11. Below is an extract from the gas transmission pipeline EMP.

- "Watercourse crossing points will be selected to, where practicable:
  - Minimise the extent of clearing of riparian vegetation;
  - Avoid unstable and/or steep incised banks;
  - Avoid bends in the channel and confluence with other channels; and
  - Avoid permanent and semi-permanent waterholes, and artesian springs."

14.17 Cumulative Impacts

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. states that cumulative impacts must be taken into consideration as this could be the first of many proposals.

Santos Response

Santos appreciates your feedback in regards to cumulative impacts of the LNG industry in Gladstone. Additional assessment of the cumulative impacts has been undertaken following the publication of additional material since the publication of the EIS. **Attachment J** is an updated cumulative impact assessment for the project.

ES 15 Environmental Impacts and Management Strategies – LNG Facility

15.10 Land Use and Infrastructure

Respondent Comment

Submitter number 13 states that the small settlement of Southend has been severely underestimated in this EIS. There are 105 dwellings with approximately 20 permanent residents and up to 300 seasonal residents. Given the inaccuracies of the EIS it would appear that this area has been glossed over and not properly studied.

Santos Response

The assessment of the project through the EIS process indicates that the project would be unlikely to result in measurable negative impacts to South End or South End residents and those with holiday homes there.

15.16 Traffic and Transport

Respondent Comment

Gladstone Ports Corporation states that the option to utilise the marina for the commencement of ferry operations is not acceptable to the Port due to increased traffic operation through the marina and the limitation on vehicle parking areas.

Santos Response

Santos would like to retain the option of the use of the marina facilities; especially in the very early stages of mobilisation and will continue to liaise with GPC on these issues. A detailed assessment of this is outlined in **Attachment L.**

Respondent Comment

Queensland Department of Transport and Main Roads states that the EIS needs to more appropriately highlight the potential hazards and risks of bunker spills from collision or other accidents, including arrangements for investments in Maritime infrastructure tools to mitigate the safety of navigation and ship sourced pollution marine incidents.

Santos Response

Santos considers that the likelihood of bunker fuel spills is low based on the fact that all modern LNG carriers are double hulled, and that they will be powered by gas turbines with no or very limited quantities of bunker fuel carried.

Santos is taking steps to ensure the safety of LNG transportation, and will continue to engage with MSQ to ensure they are satisfied that the proposed transportation processes minimise the potential for shipping accidents and the potential for bunker spills.

This includes appropriate pilotage on tug assistance measures as outlined in section 14.15.17 of **Attachment B4**.

15.19 Noise and Vibration

Respondent Comment

Submitter number 13 states that as residents we have been told that noise monitoring has shown that we do not get any industry noises from the mainland industries. This is in fact false as we get quite a bit of noise especially in the early morning from industry in the upper areas of the harbour. We have no reason to think that the small natural rise of the range mentioned is going to stop noises from the LNG precinct either. More serious investigation needs to be undertaken considering that certain noises from the proposed plant could be quite high.

Santos Response

The noise measurements obtained at South End (Poinciana Avenue) and documented in the EIS Section 8.10 indicate that existing industry noise is audible at this location.

As part of the EIS Supplement additional noise modelling has been conducted including additional receptors. Refer to **Attachment F4** for details.

Based on the current plant design and noise mitigation provided by Bechtel, the noise criteria would be achieved at all noise sensitive receivers, except Tide Island, during prevailing weather conditions. During neutral weather conditions there is a 6 dBA exceedence of the noise criteria at Tide Island.

The GLNG Project noise consultant (Heggies) considers that with implementation of further noise mitigation measures, consistent with the type specified in the GLNG EIS study, the applicable noise criteria would be able to be achieved at Tide Island.

ES 16 Sustainability

Respondent Comment

Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc. states that State and Federal Government must insist on an overall development plan for the basin and incorporated into long-term planning.

Unless all the development proposals are drawn into this plan, we could end up with the situation where the future productivity of the entire Surat and Bowen Basins are severely degraded for future generations.

Therefore until the following has occurred, we would find ourselves unable to support this EIS in its present form:

1) *The overall planning is done.*
2) *A solution to the safe disposal of the toxic salts is found.*
3) *It is clearly proved that the quality of our rivers will not be compromised.*
4) *It is proven that the underground waters will not be contaminated or depleted.*
5) *Adequate offsets have been allowed to mitigate the environmental damage that will occur.*

Santos Response

Santos believes that the EIS and the EIS Supplement address the issues that have been raised by *Wildlife Preservation Society of Queensland - Upper Dawson Branch Inc.* In addition to identifying the impacts on the environment that arise from this development, appropriate mitigation and monitoring measures will be implemented to ensure that the impacts are minimised (in particular see the EMPs in **Attachment B** which detail these measures).

ES 17 Environmental Management Plans

Respondent Comment

Queensland Police Service to be provided with final EMPs with project approval.

Santos Response

Santos will work closely with the Queensland Police Service (QPS) whilst finalising the design of the GLNG Project.