Contents

Executive Summary 02
1. Introduction 04
2. Construction Overview 06
2.1 Upstream Project 07
Main Export Pipeline Commissioned 08
2.2 Downstream Project 10
LNG Tank Hydrostatic Test 11
3. Safety, Health, Environment and Social Management 12
3.1 Approach 13
3.2 Federal and State Impact Assessment Approvals 14
3.3 Management of Change 15
3.4 Verification and Assurance 16
3.5 Conformance 18
3.6 Environment and Social Milestones 18
Our Safety Case, a Case for Safe Operations 19
4. Labour and Working Conditions 20
4.1 Hazard Management 22
4.2 Safety Performance 23
The Module Yard in Batam, Successful Response to a Safety Challenge 26
4.3 Shift Work and FIFO Regimes 27
4.4 Diversity 28
4.5 Training 29
4.6 Wellbeing and Accommodation 30
4.7 Transition to Operations 31
4.8 Key Performance Indicators 31
5. Pollution Prevention and Abatement 32
5.1 Air Emissions 33
5.2 Noise and Vibration 35
5.3 Waste Management 36
5.4 Environmental Incidents, Notifications and Investigations 41
5.5 Spill Prevention and Response 44
5.6 Key Performance Indicators 44
6. Biodiversity Conservation 45
6.1 Ecological Management 46
Protecting the Fitzroy River Turtle 47
6.2 Quarantine 48
6.3 Weed, Plant Pathogen and Pest Management 49
6.4 Reinstatement 50
6.5 Offset Strategy 51
6.6 Great Barrier Reef World Heritage Area 54
6.7 Key Performance Indicators 54
7. Sustainable Resource Management 55
7.1 Agricultural Land 56
7.2 Water Management 56
Harvesting the Benefits of Coexistence 58
7.3 Raw Materials 61
7.4 Gas Industry Social Environmental Research Alliance (GISERA) 62
7.5 Key Performance Indicators 63
8. Community, Stakeholders and Social Management 64
8.1 Stakeholder Communication and Consultation 65
8.2 Local Content 67
8.3 Community Grievance and Dispute Resolution 68
8.4 Collaborative Industry Initiatives 69
Learning to Love Science and Technology 70
8.5 Community Investment 71
8.6 Land Access 82
8.7 Indigenous People 83
8.8 Cultural Heritage 84
8.9 Key Performance Indicators 85
Appendix – Glossary of Terms and Abbreviations 86
Executive summary

“2014 was a year of achievement and we are well placed for first LNG in 2015. Looking forward, we are on the verge of a brand new export industry for Queensland, and one that can help to make a real difference in the growing economies of Australia and Asia through the provision of reliable, cleaner sources of energy.”

Page Maxson, CEO, Australia Pacific LNG

Environmental and Social Performance

The shareholders of Australia Pacific LNG aim to develop the business in a sustainable manner by identifying and assessing potential impacts, and introducing sustainable practices and solutions to manage them. This approach, detailed in the Project’s Environmental Impact Statement, reflects the existing practices of the Project’s joint venture partners, Origin Energy, ConocoPhillips and Sinopec, and is integral in developing the Project in a transparent, accountable and sustainable manner. This, the sixth Environmental and Social Report for the Project, covers the period July to December 2014 and provides updates on the Project’s progress, safety and environment management, and benefits to local and regional communities.

Construction Overview

As at 31 December 2014 the Project employed 12,024 full time equivalents (FTE). Upstream employed 6,833 FTE including Operations and Project delivery while 5,143 FTE were engaged in Downstream Operations and Project delivery.

Construction progressed steadily in the second half of 2014, with the Upstream Project reaching 90 percent completion of its total Project development on gas fields and pipelines. The drilling program, gathering network and construction of new facilities progressed, with 1,019 wells drilled. The 530 km main pipeline is complete and commissioning progressed on target for the introduction of gas.

Construction of the LNG facility on Curtis Island reached 86 percent completion. Module fabrication was completed and the module yard in Batam, Indonesia, closed following the last shipment departing in October. Work on the LNG Tanks continues on schedule. The permanent operations buildings reached 99 percent completion.

Safety, Health and Environment Management

The Project health and safety goal remains zero injuries across all activities. Sadly, a contract worker was fatally injured on our Project in September. Further attention to safety will continue through employee awareness programs and vigilance in relation to the Life Saving Rules.

Despite seeing a continued improvement over the first half of 2014, with the Total Recordable Injury Frequency Rate (TRIFR) improving by 3 percent from 3.8 to 3.7, the Project safety practices and focus must continue to improve.

The responsibility of managing environmental impact is taken seriously. Strict government environmental regulations result in the thorough and transparent management of water (produced, storm and waste), emissions (waste, greenhouse gases and dust), land, and biodiversity. There were 21 environmental incidents reported to the Regulatory Authorities during the reporting period. The majority of these incidents (19) were classified as minor, temporary impacts with no lasting effects to habitats, species or ecosystems. Two incidents were classified moderate (short term impacts) involving a release of CSG produced water to a road reserve and a release of alkaline water to a watercourse.

Biodiversity Conservation

The rehabilitation effort continued with 632 ha being reinstated in the reporting period, bringing the total to 4,995 ha of reinstated land representing approximately 60 percent of all areas disturbed to date.

The offset commitments (protecting areas of endangered vegetation and threatened fauna) progressed with Australia Pacific LNG announcing the Monte Christo offset and continuing the transplantation of listed species removed from site areas to the Inverness offset property.
Sustainable Resource Management
During the reporting period 6,422 Ml of CSG water was produced, a 75 percent increase over the previous period. The Project's effort to apply treated CSG water to beneficial use continues to expand following the commencement of operations of the Fairymeadow Road Irrigation Pipeline in the previous period. This provides irrigation water to seven landholders for 13 properties, applying 4,454 Ml of CSG water to beneficial use, representing an increase of 70 percent over the previous period and 69 percent of all water produced.

Community, Stakeholders and Social Management
Stakeholder engagement activities for the reporting period included 139 formal engagement sessions and 1,580 informal engagement events including informal presentations, emails, telephone calls, walk-ins to regional offices and sponsored community events. Engagement activities also included employment and information displays, sponsorship events, specific Indigenous events, and individual meetings with local government and community members.

Approximately 76 percent of the total Project expenditure occurred in Australia, bringing substantial benefits to the national and local economies.

To contribute positively to local communities, the Project develops partnerships to encourage sustainable development aiming to deliver benefits long beyond the life of the Project. The framework for these partnerships is detailed in our Social Impact Management Plans. Australia Pacific LNG continues to support a range of community initiatives, including a rental assistance scheme, a vocational education training program, affordable community housing and a CSG industry schools program. During the last six months, Australia Pacific LNG has invested AUD$3.8 million in community projects, bringing the total investment in this area to AUD$30 million since the start of the Project.

Page Maxson
Chief Executive Officer
Australia Pacific LNG
1. Introduction

Australia Pacific LNG is a Coal Seam Gas (CSG) to Liquefied Natural Gas (LNG) project delivering a cleaner, greener sustainable energy source. Australia Pacific LNG is the largest producer of CSG in Australia, supplying gas to power stations to produce lower emissions electricity, and to major industrial customers, homes and businesses in South East Queensland.

Australia Pacific LNG is an incorporated joint venture consisting of Origin (37.5%), ConocoPhillips (37.5%) and Sinopec (25%). Origin is responsible for construction and operation of the gas fields and pipeline. ConocoPhillips is responsible for construction and operation of the LNG plant facility and associated facilities infrastructure.

At 31 December the Project employed approximately 12,000 full time equivalent (FTE) in Australia. Once operational, the Project will generate over 2,000 direct jobs, boosting regional and national economies throughout the life of the Project. Importantly, Queensland will have a new, long-term gas processing and export industry generating significant benefits at regional, state and national levels.

The Australia Pacific LNG Project consists of:

- further development of Australia Pacific LNG’s gas fields in the Surat and Bowen basins in south western and central Queensland
- construction of a 530 km high pressure gas pipeline from the gas fields to an LNG Facility near Gladstone in Queensland
- an LNG Facility on Curtis Island near Gladstone, the first two trains having a combined processing capacity of approximately nine million tonnes per annum (Mtpa).

Australia Pacific LNG remains on track for completion of Train 1 in mid-2015, with sustained LNG production from the third quarter of calendar year 2015.

Australia Pacific LNG executed a sale and purchase agreement—Australia’s largest LNG sales agreement by annual volume—with Sinopec for 7.6 Mtpa of LNG for 20 years. An agreement for the sale and purchase of approximately 1.0 Mtpa for 20 years has also been signed with Kansai Electric.

Rigorous management systems are applied to manage environmental and social impacts of the Project. The Environmental and Social Report, released every six months, provides updates on the construction activity and the sustainable approach to developing the Project. This, the sixth report for the Project, covers the period between July and December 2014 (S2 2014). It details the Project’s construction progress, workforce safety and health, environmental impact management activities, and benefits to local and regional communities.

As construction progresses, and components of the Project move to commissioning and operations, sections of the report are evolving to reflect the current state of activities. Most of the key actions set in the Environmental and Social Management Plan (ESMP) have been completed. The remaining key actions related to on-going processes are included in the main text of the relevant subsections where they will be updated for each reporting period. All Environmental and Social (E&S) milestones set in the ESMP for the Upstream Project have been completed. Only one E&S Milestone for the Downstream Project, the approval of the Safety Case, remains to be completed.
### Project Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Project based on Australia’s largest 2P CSG reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Two trains, each with a nameplate production capacity of 4.5 Mtpa</td>
</tr>
<tr>
<td>JV Interests</td>
<td>Origin Energy 37.5%; ConocoPhillips 37.5%; Sinopec 25%</td>
</tr>
<tr>
<td>Cost</td>
<td>AUD$24.7 billion to first LNG (two LNG trains)</td>
</tr>
<tr>
<td>Reserves (as at 31 December 2014)</td>
<td>2P 14,091 PJ, 3P 17,459 PJ – Additional 2,679 PJ (2C) of contingent resources</td>
</tr>
<tr>
<td>Off-take Agreement</td>
<td>7.6 Mtpa LNG supply for 20 years to JV partner, Sinopec 1.0 Mtpa LNG supply for 20 years to Kansai Electric</td>
</tr>
<tr>
<td>Timing</td>
<td>First gas: Train 1 expected mid calendar year 2015, and sustained production from third quarter calendar year 2015</td>
</tr>
</tbody>
</table>

![Project Location Map](image)

**Figure 1.1 Project location**
2. Construction Overview

<table>
<thead>
<tr>
<th>Project Component</th>
<th>Percent complete on 31 December 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td>90%</td>
</tr>
<tr>
<td>Downstream</td>
<td>86%</td>
</tr>
</tbody>
</table>

Origin manages the construction and operation of the Upstream Project, including the development of CSG resources and delivery of gas to feed the LNG plant. The Upstream Project involves drilling and completing CSG wells, construction of field gas and water gathering networks, gas processing and water treatment facilities, electricity infrastructure, and gas transmission pipeline infrastructure.

The CSG fields comprise wells and associated surface facilities, gas gathering and water gathering pipeline systems, seven new gas processing facilities, two new associated water treatment facilities, water storage ponds and treated water and brine disposal facilities.

ConocoPhillips manages the construction and operation of the LNG facilities on Curtis Island. Bechtel is the engineering, procurement and construction contractor for the LNG plant and much of the related infrastructure.

The LNG facilities comprise two gas processing trains, two LNG storage tanks, and standard infrastructure services, including power, water, telecommunications and sewage disposal. The gas processing trains remove impurities, then chill and condense the gas to liquid at low pressure enabling its transportation to customers in China and Japan.

Mainland support and temporary construction facilities are located in the Gladstone area. The LNG plant is situated on Curtis Island, 11 kilometres north-west of the city of Gladstone, Queensland.

One of Australia Pacific LNG’s gas wells
2.1 Upstream Project

Upstream

The Upstream Project’s key achievements during the reporting period included:

**Drilling**
- 200 development wells were drilled bringing the cumulative wells drilled total to 1,019
- 31 development wells were fracture stimulated.

**Gathering**
A total of 613 diameter kilometres of pipe have been installed and 807 wells were mechanically completed and handed over to commissioning by the end of December.

Overall Condabri and Orana have progressed to the stage where all of the construction works have been completed.

The well bank for the Reedy Creek and Combabula fields continues ahead of commissioning requirements.

**Facilities**
In total nine gas trains have achieved mechanical completion. Four of these trains are available for continuous operation, and three are now exporting gas. The remaining six trains at Eurombah Creek, Condabri North and Combabula are all progressing with mechanical completion dates forecast ahead of plan. The last of the outstanding construction punchlist items were completed at Reedy Creek, Orana and Condabri South.

Condabri North: Train 1 achieved mechanical completion on 18 December, six weeks ahead of plan. Train 2 progressed 10 percent in December and is now over 76 percent complete and tracking ahead of plan.

Combabula: The progress on all three of the trains continues to exceed each of their respective plans, with Train 1 progress currently at 60 percent, which is more than 12 percent ahead of the plan.

**Water Treatment Facilities (WTF)**
Condabri WTF: Overall WTF progress as at 31 December was 96.6 percent complete. The Work Site Transfer for the Condabri Central Water Treatment Facility was completed and accepted by Operations.

Reedy Creek WTF: Overall WTF progress was 93.2 percent complete. The project achieved the first filtrate water from the Reverse Osmosis (RO) facility on 12 December (67 days ahead of the baseline target) and exported first water to the permeate treatment plant on 14 December (77 days ahead of the baseline target).

Reedy Creek Permeate Injection: The construction of the Permeate Treatment Facility (PTF) (mechanical completion) was completed. Minor punchlist items remain. Pre-commissioning was completed on 5 December.

**Pipeline and Electricity Supply**
Commissioning of the 530 km main gas transmission pipeline and associated facilities continued with minor works remaining prior to the introduction of gas.

The Combabula Power Station is continuing to supply power to the field. Gas engines commissioning was completed and the station is operating on gas.

The Eurombah Creek Power Station gas commissioning was delayed until after the Christmas break.
Reinstated pipeline right of way
Main export pipeline commissioned

Once bustling areas of intense construction activity, Australia Pacific LNG’s 530 km high pressure main export pipeline, and 190 km of high pressure lateral pipelines, today are nowhere to be seen, except for the important signage showing their underground location.

According to Australia Pacific LNG pipelines project manager, Graeme Hogarth, that is the ideal outcome.

"With rehabilitation well progressed, the legacy of a successful pipeline project is ultimately the restored right-of-way aligning with the existing landscape contours revegetated with appropriate grasses and ground cover," Mr Hogarth said.

"There’s been a huge effort by many teams, working in conditions that were often hot and difficult, and to tight schedules; and at the end of the day we have achieved a fantastic result, with the export pipeline and associated infrastructure ready by the end of 2014."

The main high pressure gas transmission pipeline to Gladstone was successfully completed by the end of June 2014, and gas was introduced into the main pipeline from Condabri Central on 30 September 2014.

This is the result of nearly five years of sustained focus and effort from Origin and the principal pipeline contractor MCJV. During the project, there was continuous improvement as the job progressed in areas of safety, environment, quality and production.

Meanwhile the infield pipeline system is on schedule to finalise construction, part of which is already in service.

The infield pipeline system gathers gas from the various gas processing facilities and delivers it into the main pipeline system as well as connecting to Origin's Darling Downs Pipeline.

Pipelines Project Manager, Graeme Hogarth
2.2 Downstream Project

Downstream

By the end of the reporting period, all modules were shipped and set. LNG tank construction continued ahead of schedule with welding complete on all inner tank rings. Roof module installation was completed on Tank A, which was also hydrostatically tested in July. Roof module installation commenced on Tank B.

All pile driving, the pipe rack support frame on the loading platform and the gangway tower were completed during the period.

The Downstream Project’s key achievements during the reporting period included:

- The final Train 1 Module set on foundations in July
- The fire water tank hydrotested in September
- Completion of all module fabrication in Batam with final modules shipped in October
- The LNG Jetty was completed in October and Subcontractor demobilised from site in November
- Nitrogen purge of Tank A in December
- The permanent buildings reached 99 percent completion.
The two 160,000 m³ LNG storage tanks installed at the Australia Pacific LNG Facility required hydrostatic testing (hydrotesting) to demonstrate structural integrity and safety prior to filling with LNG.

The tanks were filled and hydrotested between June and August 2014 respectively with the release of hydrotest water occurring over four days for each tank. Firstly, each tank was filled with potable water, and then an inspection and monitoring program undertaken to detect potential leaks and assess settlement. After test completion, the hydrotest water was released to the marine environment via an approved discharge point.

Given the sensitive environment of Gladstone Harbour, an extensive assessment of the potential impacts was undertaken including modelling of the discharge. The Environmental Authority conditions also required that Water Quality Monitoring be conducted in the harbour to assess the environmental response to the release. Monitoring in the receiving environment was conducted prior to, during, and after each release of hydrotest water.

Spatial monitoring of the plume resulting from release waters confirmed that the extent of the mixing zone was well predicted, but with higher dilution rates occurring closer to the release point. Water-quality monitoring results confirmed that release parameter concentrations were in compliance with the limits specified by the Environmental Authority. Monitoring confirmed no significant impacts to marine water quality, or any associated marine ecological values of the area, occurred as a result of the hydrostatic test water release. All measured parameters returned to within background concentrations within the duration and spatial extent predicted by the model.
3. Safety, Health, Environment and Social Management

Australia Pacific LNG recognises environmental management, workplace health and safety, and community engagement are integral to the success of the Project, and integrates these priorities into day-to-day operations.
3.1 Approach

The Australia Pacific LNG Environmental and Social Management Plan (ESMP) articulates the Project’s approach to the management of environmental and social issues. The ESMP is supported by the Health Safety Environment and Sustainable Development (HSE and SD) Management System (MS) Standard and topic-related sub-plans.
3.1.1 Policies, Principles and Systems

Australia Pacific LNG’s commitment to managing its activities for the protection of the health and safety of people, the environment and the community is formalised and communicated in its Health, Safety, Environment and Sustainable Development Policy.

The sustainable development aspects of the policy are achieved by integrating Australia Pacific LNG’s Sustainability Principles when planning activities. The Upstream and Downstream Operators have integrated these Sustainability Principles into their culture, management systems, and activities prior to and during the Project’s construction phase, and operations.

3.1.2 Compliance Register

Australia Pacific LNG and its Upstream and Downstream Operators utilise a common information and data register to record reporting of compliance with the Project’s Environmental Impact Statement (EIS) commitments and approval conditions.

A working group, comprising staff from Australia Pacific LNG, Upstream and Downstream Operators, monitors updates to the compliance register, meeting monthly to review status and issues arising from its usage.

3.1.3 Environmental and Social Management Plans

The Upstream and Downstream Operators have developed and implemented Environmental Management Plans (EMP)s and Social Impact Management Plans (SIMP)s. These plans have been designed to mitigate environmental and social impacts during construction and operation, and reflect conditions imposed throughout the approvals process. These plans define contractors’ and subcontractors’ Project requirements, and are tailored to specific scopes of work.

Each plan identifies environmental and social impacts to be mitigated and managed, and the party responsible for implementation.

The SIMPs identify strategies aiming at mitigating social impacts, and include a monitoring framework and a community engagement strategy for the communities Australia Pacific LNG operates within.

3.1.4 Incident Notification and Reporting

Incident notification and reporting are handled as part of the respective incident management processes managed for Australia Pacific LNG by the Project Operators.

Incidents are reported according to the Australia Pacific LNG Incident Notification Procedure.

Australia Pacific LNG’s Health, Safety and Environment (HSE) team reviews, analyses and reports Project incidents as well as HSE and Sustainable Development performance on a monthly basis to management, shareholders and lenders. Reporting occurs in the event of significant incidents or breaches of conditions or regulations.

Major incidents are subject to immediate notification to shareholders and the Independent Environment and Social Consultant as per the schedule specified in Section 10.8.3 of the ESMP.

3.2 Federal and State Impact Assessment Approvals

The State of Queensland and Australian Federal Government subjected the Project to a full environmental and social assessment process. This review resulted in a comprehensive set of conditions related to environmental and social issues.

The EIS executive summary provides an overview of the Project impact assessment process and stakeholder consultation for non-technical readers.

Approximately 1,600 conditions were imposed on the sanction of the Project under State and Commonwealth laws, in addition to a large number of voluntary commitments made by the Project in the EIS process.

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3.3 Management of Change

Australia Pacific LNG, the Project Operators, contractors, and subcontractors are required to apply appropriate change management procedures for all changes or deviations to agreed Project scope and objectives. The overall scope and objectives are governed by cost & schedule baselines and design & philosophy documents.

The Australia Pacific LNG Project Change Management Procedure defines how changes to the Project outside of Operator delegations are managed across the Upstream and Downstream projects on behalf of Australia Pacific LNG. This includes changes to technical design, compliance or licence application requirements not envisaged in the initial Project scope, and compliance with required environmental and social standards committed under the Syndicated Facility Agreement with the lenders.

Upstream

Three Project Change Notices (PCNs) related to environmental and social issues were approved, and are being implemented.

1. Emu State Forest realignment of flowlines - an ecological survey for Emu State Forest identified two flowlines partially located inside Endangered Regional Ecosystem (ERE) 11.9.5 Brigalow, which is a Threatened Ecological Community (TEC). Realigning these flowlines will reduce the estimated clearing required of ERE11.9.5 Brigalow from 2.25 ha to 1.27 ha.

2. Gypsum application for amelioration of sodic soils in gathering construction - in the short to medium term gypsum incorporation into the sodic soils leads to more stable soil aggregates and reduces the tendency of soils to disperse, improving drainage and resistance to erosion. Well-structured soils with good drainage support the germination and survival of preferred plant species. In the long term, improved drainage allows salts to leach out of the root zone supporting sustainable rehabilitation with pre-disturbance vegetation. The long term benefits will be the capability of the land to carry the suitable species and vegetation cover, and this is more likely to be achieved when compared against a non-modified sodic soil.

3. Limiting future development in surplus land on Rockwood - the proposed offset area is located outside of any planned infill or Exploration and Appraisal (E&A) areas and is directly north of an existing approved offset area. The environmental offset will be protected from clearing for a minimum of 10 years, and managed as a habitat for threatened plant species. The offset area will be protected using a Voluntary Declaration under the Vegetation Management Act 1999 and/or a statutory covenant under the Land Title Act 1994. Once secured as an offset, Australia Pacific LNG will need to amend the relevant Environmental Authority to exclude petroleum activities from this identified area. These protection mechanisms will restrict the use of these areas for all purposes other than conservation and enhancement of environmental value.

Downstream

No significant change related to environmental and social aspects occurred.
3.4 Verification and Assurance

The Australia Pacific LNG HSE & SD Assurance Plan describes the activities that Australia Pacific LNG Corporate Office undertakes to fulfills its assurance, oversight, and communication roles on behalf of shareholders for operator activities and performance in the areas associated with HSE & SD. These include targeted Operator Health, Safety and Environment Management Systems (HSEMS) implementation and compliance audits, pre-construction and operational readiness reviews, environmental and social condition compliance audits, and Atlas data verification. To eliminate duplication on audit schedule and to minimise ‘audit fatigue’, Australia Pacific LNG leverages the operator’s own assurance activities as much as possible through:

- participating in an observer capacity in identified operator HSE and SD audits, workshops and reviews
- performing a quality assurance review of identified operator-initiated HSE and SD audits, workshops and reviews.

All Australia Pacific LNG initiated HSE and SD audits are undertaken using a methodology consistent with the requirements of ISO 19011:2003 Guidelines for Quality and/or Environmental Management Systems Auditing.

The Upstream and Downstream Operators have developed and implemented HSE assurance plans, procedures and programs to verify that controls developed to mitigate health, safety, environmental and social impacts during construction and operation are implemented and effective. Assurance activities are planned in consideration of construction and operational activities with the greatest HSE and SD risk along with other factors including:

- outcomes of previous audits undertaken
- operator incidents and emergencies and results of investigations into root causes and contributing factors
- the scheduling of independent third party audits and regulator-initiated audits
- the Project development program.

3.4.1 Independent Environmental and Social Consultant Review

The Independent Environmental and Social Consultant (IESC), Lummus Consultants International, conducted a review of the Upstream and Downstream components of the Project in November 2014. The reviewing team travelled to the LNG Facility construction site on Curtis Island, and inspected key aspects of construction of the two LNG trains, the LNG tanks, and the administration and plant control buildings. With respect to the Upstream Project the review included site visits to two of the key offset areas where transplantation of listed species removed from the pipeline corridor are taking place, the Dukes Plain offset property located to the South of Biloela and the Inverness offset property located on the ranges west of Gladstone.

Lummus Consultants noted “These visits indicated that proper application of offsets and mitigation measures are being implemented as identified through assessment, screening and management planning.” Lummus consultants also noted “management of these properties, both day-to-day and in respect of the mid and long-term strategies is excellent, and the offsets are confirmed as representing significant long-term obligations.”

Overall, Lummus consultants confirmed that a substantial package of appropriate mitigation measures has been identified through the environmental and social screening and assessment processes, and these have been transferred to management plans and procedures and are being appropriately implemented.

3.4.2 Regulators’ Audits

An on-site audit of the Walloons Environmental Authority (EA), commenced during the previous reporting period remains in the final reporting stage. No issues were communicated to Australia Pacific LNG at the audit close out meeting.
3.4.3 Operator and Shareholder Audits

In July, Australia Pacific LNG initiated a Level 3 audit of both Operators to independently assess compliance with our primary government approvals. 863 conditions were assessed with a 98 percent compliance rate compared to an 85 percent compliance rate when a similar audit was conducted in 2012. Both Operators developed Corrective Action Plans to address areas of non-compliance.

**Upstream**

Three third party audits were concluded in this period. Gilbert Gully Environmental Authority (EA) (EPPG0034013) & Ramyard Wolleebee EA (EPPG00672313). These were submitted to the Queensland Department of Environment and Heritage Protection (EHP) on 5 August. Narrows Pipeline Crossing (EPPG00912213) final audit, following rehabilitation, was submitted to Queensland Department of Environment and Heritage Protection (EHP) on 28 July. All non-compliances identified were reported as being low risk and of an administrative nature. Any outstanding corrective actions continue to be monitored and progressed through to closure.

For the six months ended 31 December the Upstream Operator conducted six business assurance reviews over environmental, health and safety, and social responsibility processes. These reviews addressed the following processes:

- Aviation safety
- The annual safety report compliance
- The environmental offset process
- Design of the Safety Management Plans
- A review of the operational HSSE assurance process
- Disturbance approval process.

Any outstanding actions continue to be monitored and progressed through to closure.

In addition, a range of activities including self-assessments, inspections, and monitoring programs continue.

**Downstream**

The Downstream Operator conducted a single Level 2 audit. The Environmental Close Out audit of the Batam Module Yard which was undertaken in September. This audit revealed only minor non-conformances with the site environmental management plan and housekeeping procedures. These findings were rectified prior to the closure of the Module Yard.

Lummus Independent Environment and Social Consultants visiting the Inverness Offset area
3.5 Conformance

3.5.1 Non-Conformances

Protection of the environment continues to be a priority for Australia Pacific LNG, which has a corporate goal of maintaining zero regulatory shutdowns and finable incidents.

A non-conformance is a situation inconsistent with conditions of approval or formal commitments made by Australia Pacific LNG. Non-conformances are recorded during audits or inspections conducted by Regulators, Shareholders, Australia Pacific LNG, Operators or Contractors.

All non-conformances for this period were related to Upstream activities due to the vast area and complexity of the Upstream Project.

Upstream

The Upstream Operator received four warning notices following the reporting of incidents to the Regulators. The notices related to two instances of sediment release, incorrectly completed waste tracking certificates and the discharge of treated sewage effluent to land during wet weather.

No Penalty Infringement Notices (PINs) or fines were imposed between 1 July and 31 December 2014.

The Upstream Operator received an information request form from the Queensland Department of Environment and Heritage Protection (EHP) for failing to submit all prescribed information with Waste Transport Certificates (WTCs). This was identified as a non-compliance with the Environmental Protection Regulation 2008 and replacing legislation. Following the information request the Upstream Operator re-submitted the WTCs with all the required information.

During this period the Upstream Operator provided two bulk submissions of outstanding WTCs to EHP. These submissions were made under the Environmental Protection Regulation 2008 specifically, for not giving the prescribed information about a trackable waste to the EHP within the prescribed timeframe. No action has been taken by EHP.

The Upstream Operator takes warning notices and compliance seriously, and seeks to correct procedural or technical oversights resulting in actions leading to the issue of a Warning Notice.

Downstream

The Downstream Operator received no warning notices from EHP during the reporting period.

3.6 Environment and Social Milestones

Environmental and social milestones are part of the Project Execution Plans for development and operation of the Upstream and Downstream components. All environmental and social milestones related to the Upstream Project component as outlined in the ESMP have been completed. The remaining ESMP milestone to be completed for the Downstream Project is the submission and approval of the Safety Case.

During this reporting period:

- Australia Pacific LNG Facility Safety Case was submitted to the Regulator in July
- A detailed administrative review was completed by the Regulator in October
- The Regulator verification audit was successfully completed on the engineering and design aspects of the LNG Facility in November
- The Regulator site familiarisation and surveillance visit was successfully completed in November.
Our Safety Case, a Case for Safe Operations

The flammable properties and large inventories of hazardous material stored on-site or contained in the process create the potential for a major incident to occur at the facility.

As a determined major hazard facility, the LNG Facility and its Operator, ConocoPhillips, are required to meet specific major hazard facility regulations, namely the development and submission of a facility-specific Safety Case. Team members from the Downstream Project and Operations, ConocoPhillips Global Engineering, and a supportive contractor worked collaboratively over a period of five years identifying facility hazards, and assessing their consequences and risks, culminating in the successful production of the Australia Pacific LNG – LNG Facility Safety Case. This accomplishment was achieved through the team members’ unwavering determination, and an awareness of the criticality of the required accuracy and thoroughness of the Safety Case content, and the requirement to meet the submission schedule in order to not impact the project’s start up schedule.

The Safety Case is a ‘case for safe operations’ to everyone involved with the facility and demonstrates performance excellence as this piece of work has now provided ConocoPhillips team members with:

- a description of the major incident hazards present at the facility and the credible major incidents that could occur, including the nature of the major incident hazards and the pathways by which major incidents could be realised
- a description of the control measures (both preventive and mitigative) implemented at the facility to manage the risks associated with the major incident hazards, including those considered critical for maintaining safety.

This team effort not only meets the requirements of the Queensland Regulations, but demonstrates a standard of safety we can all be tremendously proud of. The process has provided team members with a roadmap that describes the management systems, processes and control measures for managing major incident hazards and preventing / mitigating major incidents; core elements in our drive towards increased major hazard risk awareness; and zero process safety loss of containment events.
4. Labour and Working Conditions
Attracting and retaining a qualified workforce is crucial to the success of delivering the Australia Pacific LNG Project. The Project offers many employment opportunities, and achieving a safe and healthy workplace is the priority.

The Project engaged 12,024 full-time equivalent (FTE) employees and contractors, representing approximately a 40 percent decrease on the previous reporting period, reflecting the current state of construction with demobilisation of some of the completed components of the Project.

The Upstream Project engaged 6,833 FTEs comprising 2,939 FTEs in existing operations and 3,894 FTEs working specifically on the Upstream Project development. The Upstream workforce includes 1,530 FTE direct employees and 5,303 FTE contractors, down 46 percent from the previous period.

The Downstream Project engaged 5,143 FTEs including employees and contractors, the majority working for Bechtel. The Module Yard in Batam, Indonesia, was closed in October following the completion of module fabrication and shipping.

The Australia Pacific LNG Corporate Office engaged 48 FTEs, primarily shareholder secondees.

Exposure hours decreased from 23,082,432 hours in the previous period to 20,308,788 hours. The decrease in exposure hours of approximately 12 percent reflects current Project activity with some key construction components having been completed (Figure 4.1).
4.1 Hazard Management

Downstream and Upstream Operators manage hazards through a positive behaviour-based safety management strategy.

**Upstream**

Individual tasks are managed through the use of procedures, Job Hazard Analysis and/or Permit to Work.

Regular monthly reporting records hazard management activities across the Upstream Operator sites and facilities. Table 4.1 lists hazard management activities.

Environmental risks have been identified through a series of workshops that align with the LNG Risk Management Framework.

Level 1 Environment Risk Registers exist for the Upstream Project at a business unit level.

<table>
<thead>
<tr>
<th>Hazard Management Type</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager site visits</td>
<td>1,827</td>
</tr>
<tr>
<td>Injuries (no treatment cases and higher)</td>
<td>327</td>
</tr>
<tr>
<td>Observations</td>
<td>14,921</td>
</tr>
<tr>
<td>Near Misses</td>
<td>355</td>
</tr>
<tr>
<td>Life Saving Rule breaches</td>
<td>123</td>
</tr>
<tr>
<td>Emergency Response Drills</td>
<td>1,702</td>
</tr>
<tr>
<td>Safety Inspections</td>
<td>73,814</td>
</tr>
<tr>
<td>Drug and alcohol tests conducted</td>
<td>329,802</td>
</tr>
<tr>
<td>Training conducted</td>
<td>7,355</td>
</tr>
</tbody>
</table>

* Not all hazard management activities conducted were recorded. Table 4.1 represents recorded hazard management activities.

**Downstream**

Safety Management Tools—Safety Task Analysis and Risk Reduction Talk (STARRT) cards, Job Hazard Analysis (JHA), Job Safety Analysis (JSA), Job Safety and Environmental Analysis (JSEA), manager walk-throughs, and toolbox talks—are used on the Curtis Island LNG facility construction site and the Module Yard site in Batam in Indonesia to build a strong safety culture and positive work habits.

Additionally, leading and lagging safety indicators are tracked and used to promote an ongoing safety focus, and celebrated when milestones are achieved. Table 4.2 lists activities conducted by Bechtel and its subcontractors to help improve awareness and manage hazards during the reporting period.

<table>
<thead>
<tr>
<th>Hazard Management Type</th>
<th>Curtis Island</th>
<th>Batam</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tool Box meetings</td>
<td>2,632</td>
<td>19,155</td>
<td>21,787</td>
</tr>
<tr>
<td>JSAs/JHAs/JSEAs</td>
<td>7,215</td>
<td>21,477</td>
<td>28,692</td>
</tr>
<tr>
<td>Safety Inspections</td>
<td>14,746</td>
<td>60,423</td>
<td>75,169</td>
</tr>
<tr>
<td>Emergency Response Drills</td>
<td>42</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>Orientations</td>
<td>3,712</td>
<td>74</td>
<td>3,786</td>
</tr>
<tr>
<td>Manager site visits/walk throughs</td>
<td>5,009</td>
<td>8,098</td>
<td>13,107</td>
</tr>
<tr>
<td>Personal Tasks hazard ID or STARRT's</td>
<td>11,170</td>
<td>43,471</td>
<td>54,641</td>
</tr>
</tbody>
</table>

Table 4.1 Upstream Hazard Management

Table 4.2 Downstream Hazard Management
It is with great sadness that a contract worker was fatally injured on our Project in September. The incident was the subject of comprehensive investigation which has resulted in modifications to equipment and related work practices across the industry to further enhance safety.

The Project’s key safety indicator—the rolling 12-month Total Recordable Injury Frequency Rate (TRIFR)—continued to improve in the second half of 2014, standing at 3.68 at the end of December. This measure shows approximately 3 percent improvement over the previous six-months.

Project activity peaked in May 2014 with over 20,000 workers on APLNG job sites. At the end of this reporting period, exposure hours decreased by approximately 12 percent as activities progressed through the construction phase, and site hazards associated with the increase in activity also changed. During this period, Australia Pacific LNG incurred 70 recordable injuries representing a steady downward trend in the 12-month rolling recordable injury rate (refer to Figure 4.2).
There were 70 recordable injury cases compared to 89 injuries recorded in the previous period. Of these, one was a fatal injury, 13 were lost time cases (LTC), 15 restricted work cases (RWC), and 41 medical treatment cases (MTC).

For the same period there were 627 first aid cases (FAC). Refer to Figures 4.3 and 4.4.

Hands continue to be the most commonly injured body part accounting for 44 percent of all injuries in the Project. In the Queensland CSG-LNG sector, hands are the most commonly injured body part comprising approximately 36 percent of all injuries. Both Operators have taken measures over the past year to address hand injuries. The Upstream Project achieved encouraging improvement with their efforts with hand injuries accounting for 37 percent. For the Downstream Project, hand injuries accounted for 59 percent. The Downstream Project reported a renewed focus on hand injury prevention.
High Potential Incidents

There were 14 High Potential Incidents (HPIs) during the reporting period.

The Upstream Project recorded six HPIs including a drilling fluid spill, fall from height, vehicle collision, vehicle load drop to road side and dropped objects. One of these HPIs resulted in the fatal injuries of a worker.

The Downstream Project recorded eight HPIs including multiple instances of dropped weight incidents, unstable flanges on pipe, unearthing of a high voltage cable during excavation, and breach of the critical lift procedure.

Upstream

The Upstream Project TRIFR improved by approximately 12 percent over the previous period to 4.5 (compared to 4.8). This improvement was encouraging as it was achieved during a period of high construction activity with high risk exposure of many components of the Project when transitioning from construction to commissioning.

This improvement was driven by an increased focus on contractor management, safety management plan simplification ensuring consistent standards across the business, and implementation of the ‘Game On’ program from Pipelines into other Upstream activities.

Downstream

Twenty-two recordable safety incidents occurred at the Curtis Island construction site. The Module Yard in Batam in Indonesia documented one recordable safety incident, although the site was demobilised with no lost time injuries recorded.

The TRIFR for the Downstream Project fluctuated slightly each month, and stood at 2.6 at the end of December (compared to 2.6 in the previous reporting period).
A large portion of the LNG Facility on Curtis Island was modularised with the fabrication taking place at the Batam Island Module Yard in Indonesia.

A total of 69 modules were completed, requiring 14 million man hours, 20,000 tonnes of steel, 120,000 LM of pipe, and 63,656 encapsulated linear meters/encapsulated square metres (ELM/ESM) of insulation with more than half of this quantity being cryogenic and anti-sweat insulation.

One of the greatest challenges faced on site was the 4,000 local workers lacking formal safety training and appropriate culture on safety standards. In order to overcome these challenges we first had to teach the workers that safety is not a priority in the workplace but a value. The success of the safety program was achieved through a series of programs, campaigns and initiatives that were aimed at engaging, educating and training the local hired workers and supervision to a level of safety that not only met our minimum requirements, but exceeded them. One safety program implemented was the Motorcycle Defensive Riding Program, which improved the roadworthiness of the workers’ motorbikes through maintenance workshops; increased driver competence with formal defensive riding training; and achieved a significant reduction in incidents. Results showed five months without a major road related injury, an improvement in safety awareness, and a dramatic decrease in the number of motorcyclists riding without a helmet.

The Module Yard was also faced with a number of construction challenges that not only increased the difficulty of training in such an environment, but made the successful application of safe work practices more important. Challenges included:

- More than 50 mobile cranes on site working simultaneously;
- More than 100 boom lifts operating daily
- More than 200 critical lifts >50 tonnes)
- More than 4,000 tonnes of scaffold erected, modified and dismantled
- 69 heavy haul land transports and load outs onto floating barges
- More than 150 confined space entries
- More than 3,000 large bore pipe spools manually placed and located into their final positions using chain blocks, lever blocks and pipe rollers
- A workforce with little experience in oil and gas industry safety standards.

The instilled belief that safety is a value was reflected in all activities and yielded positive results. This was illustrated through the project’s exemplary safety performance of zero Lost Time Injuries with over 14 million man hours worked, and a low Total Recordable Incident Rate with only two Medical Treatment Cases and seven Restricted Work Cases. Furthermore, the project is extremely proud to have overcome the cultural and language barriers that were faced in what was an extremely challenging scope of work, which took place for the first time in this part of the world with zero Lost Time Injuries. Knowing that everyone who worked on our project has experienced an exceptionally strong safety culture is a great achievement, and means that people will be able to continue with these safe behaviours in future endeavours.

Safety Statistics Board in the Module Yard

Final module arrives at Curtis Island
4.3 Shift Work and FIFO Regimes

The Australia Pacific LNG Project requires a large and diverse workforce. The Project’s routine operations include sites requiring extended work hours, including those operating at 24 hours a day, seven days a week.

The ‘hours of work’ and ‘rest breaks’ of Australia Pacific LNG and its Operators and contractors personnel are governed by a number of directives, procedures and agreements.

Australia Pacific LNG recognises fatigue as an occupational health and safety risk affecting health, increasing workplace injury risk, and reducing performance and productivity. It impacts on workplace safety and operational capabilities.

Upstream operations and drilling completions predominantly work a 14-days on and 14-days off roster. Across construction activities for the Upstream Project, the predominant roster is 21-days on and seven-days off. People working under these shift roster arrangements generally work a 12-hour period followed by a 12-hour rest period. Across the Upstream Project, site-based rostered employees are offered a charter flight between Brisbane and Roma or Miles at the start of their Fly-in, Fly-out (FIFO) work cycle. The employees are then transported via bus or pool vehicle to site accommodation.

The Miles Airport upgrade enables commercial sized aircrafts to fly into the region. This has increased the number of flights and the carrying capacity of planes available to Upstream employees and contractors. In turn, this has reduced the number of employees driving to site (Drive-in, Drive-out – DIDO), and therefore reduced the associated travel risk and travel hours driving.

At the end of December 2014, approximately 670 workers (including only employees and contractors directly hired by the Upstream Operator and excluding those hired by major Contractors) were working under the FIFO/DIDO regime.

Downstream construction employees and contractors currently work a 58-hour week, comprising five ten-hour shifts Monday through Friday and an additional eight-hour shift on Saturday. FIFO workers operate on shifts consisting of 28-days on and seven-days off, working six days per week. 55 percent (2,656 workers) of the construction workforce was on a FIFO regime. The percentage has increased over this reporting period due to the peak construction phase of the Project.

Workers assemble at Combabula accommodation facility
4.4 Diversity

The majority of the Project workforce are Australian permanent residents. There are 243 expatriates (180 Downstream and 63 Upstream) working in Australia.

The Project employs 1,204 women, excluding women employed by major subcontractors engaged by the Upstream Project.

The workforce is mostly local or regional. For the Downstream Project, approximately 30 percent (1,549 workers) come from the Gladstone area. The Upstream Project sources approximately 57 percent of its workers from Queensland, totalling 3,012 personnel at 31 December.

4.4.1 Indigenous Employment

Approximately 210 full time equivalent (FTE) positions in the Project are filled by Indigenous people. In addition, approximately 65 indigenous people are also employed as cultural heritage monitors on a part-time, casual basis. Upstream employment rates for Indigenous people—either employed directly by the Operators or through the principal contractors—have declined from peak employment in the second half of 2013 due to the completion of some components of the Project, such as the Pipeline construction.

In the Downstream Project, Indigenous employment has increased since the last reporting period, which is consistent with the maintained staffing levels for the principal contractor on site.

Figure 4.5 show the number of Indigenous people employed by the Project to date.
4.5 Training

Project training, awareness and competency requirements for Health, Safety and Environment are set out in the Australia Pacific LNG Health, Safety and Environment and Sustainable Development Plan.

These requirements include environment and social aspects, and are designed to meet:

- Relevant Queensland and Australian Government requirements
- Environmental Impact Statement (EIS) commitments

Induction training remains the key requirement for all new employees and contractors. During the reporting period, 10,337 learning interventions were recorded. Individual Project employees/contractors may have completed more than one type of induction, depending on their role.

The various HSE induction courses were completed by 3,232 attendees as indicated:

- HSEL Online Induction (Module 0) – 2,053
- HSEL Module 0: HSE Induction - 63
- HSEL Module 0 & 1 (Abridged for Commissioning) - 164
- Drilling & Completions: HSE Induction Module 1 - 893
- HSEL Module 1: Leading HSE - 59.

The Health, Safety and Environmental Learning (HSEL) Online Induction course introduced in May 2014 together with the instructor led HSE Module 1 course was an initiative implemented by the Drilling & Completions team. This model of having an online Module 0 and then an instructor led Module 1 course was recognised as the most efficient way to ensure safety compliance.

The Project Field Readiness Program (seven day training program for field based staff consisting of 22 courses) was attended by 146 employees or contractors, and included Environmental Awareness training.

New environmental awareness related courses that took place during the reporting period and were attended by Project staff included Environmental Management Awareness, Environmental legislation & Duty of Care, Erosion & Sediment Control and Waste Management.

The Regional Learning Centre (Binda-Nalkana - “Place of Learning") located at Condamari Central and opened in November 2014 enables Project/site based employees/contractors to undertake learning at site without having to travel to Brisbane. Plans are underway to relocate the Project Field Readiness Program to Binda Nalkana.

The following HSE training has also occurred: apply first aid, confined space entry, working at heights, and fire team member. E-learning modules have been developed for HSE Management System procedures and new e-learning modules are currently in development. Vendor training is progressing well with many vendor training packages delivered.

Downstream

The fourth Operations Technician Foundations Training Program was completed in December 2014, providing 80 operations personnel with oil and gas fundamental knowledge and skills. The current focus is the completion of the On-the-Job Training component of the Operations Technician Training Program, which coincides with pre-commissioning and commissioning activities on Curtis Island under the direction of Bechtel. The Operator Training Simulator arrived in Gladstone in September, and is currently being used to train Operations Specialist, and Control Room personnel. Management of Major Emergencies (MOME) training has been conducted with all participants deemed competent and Bechtel personnel are currently undergoing MOME training.

The following HSE training has also occurred: apply first aid, confined space entry; working at heights, and fire team member. E-learning modules have been developed for HSE Management System procedures and new e-learning modules are currently in development. Vendor training is progressing well with many vendor training packages delivered.
4.6 Wellbeing and Accommodation

The importance of maintaining and improving employee and contractor health and wellness is recognised by Australia Pacific LNG. Office-based health and wellness programs consist of educational topics, work station ergonomics, exercise / fitness programs, and wellness campaigns.

The majority of field-based workers live in Temporary Accommodation Facilities (TAFs) near worksites. These may be camps, hotel, motel accommodation and Australia Pacific LNG provided housing. In addition to providing housing and food, TAFs provide access to gym equipment, including weights and cardiovascular equipment. TAFs also include sporting facilities and TAF staff support employees and contractors with gym routines and exercise programs.

Healthy food choices are an important aspect to maintaining a fit workforce. Healthy and “heart smart” eating options are available.

Several locations include a fully staffed medical clinic. The primary purpose of the clinics is to attend to worksite incurred injuries however the clinics have the ability to manage non work related medical conditions as well. Personal health and wellbeing on the jobsite is supported at every location.

The availability of medical facilities on site ensures many workers do not have to leave the jobsite to seek medical attention. During the period, the Upstream Project recorded 5,719 visits to on-site medical clinics, with 90 percent of all visits being non-work related. The Downstream Operator recorded 1,020 visits to the Curtis Island medical clinic with approximately 60 percent of admissions being non-work related.

HSE and medical staff support the Operators’ Health and Wellness Programs by delivering a series of wellness topics or programs to employees and contractors. This is done by providing educational materials, access to medical providers, access to exercise equipment and healthy food options, all of which support high employee morale at the remote work locations.

The number of workers directly employed by the Upstream Operator, excluding workers hired by major Contractors, living in camps at the end of the reporting period was 617.

The Upstream Project delivers practical programs designed to encourage people to make informed decisions about health and safety, and to prevent or minimise ill health and injuries. Programs encourage physical activity, nutrition and other healthy habits.

Wellness initiatives in the Upstream Project included:

- July - Know Your Health Age: Stay Ahead of the Game
- August - Health Risks: Know Your Opposition
- September - Heat Stress Awareness: Keep Your Cool in the Field
- October - Healthy Hearing: Make Sure You Hear the Calls
- November - Men’s Health Awareness: Have a Health Game Plan
- December - Alcohol & Drug Awareness: Be at the Top of Your Game.

Further awareness initiatives are planned for 2015, including mental health, communicable disease, and fatigue management.

The number of workers living in the Curtis Island TAF at the end of December decreased slightly to 2,656, although this fluctuates depending on the shift rotation.
### 4.7 Transition to Operations

**Upstream**

The Upstream Operations workforce continued to grow. An additional 103 employees commenced work during the reporting period. New roles included Operators, Maintenance, and Instrumentation & Electrical (I&E) Technicians at locations across Condabri, Reedy Creek, Talinga, and Spring Gully.

Increased technical competency and leadership capability remains a focus for both the operational and maintenance teams.

**Downstream**

The Operations’ workforce continued to grow as an additional 11 persons, including supervisory and operations positions, were added bringing the total Operations team to 321. ConocoPhillips continued to focus on establishing the right culture and technical expertise before the facility starts operation in 2015. The first round of HSE Culture Framework Workshops have been rolled out to operational staff, with more to be rolled out in 2015 to both employees and contractors. The development of management systems has been a key focus during the reporting period, with training and implementation of these systems scheduled for the first half of 2015.

### 4.8 Key Performance Indicators

#### Safety Performance

<table>
<thead>
<tr>
<th></th>
<th>TRIFR:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated</td>
<td>3.68</td>
<td></td>
</tr>
<tr>
<td>Upstream</td>
<td>4.48</td>
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<tr>
<td>Downstream</td>
<td>2.64</td>
<td></td>
</tr>
</tbody>
</table>

#### Number of High Potential Incidents:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td>6</td>
</tr>
<tr>
<td>Downstream</td>
<td>8</td>
</tr>
</tbody>
</table>

#### Diversity

**Number of Australia Pacific LNG and contractor workforce sourced from the local area:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td>3,021*</td>
</tr>
<tr>
<td>Downstream</td>
<td>1,549**</td>
</tr>
</tbody>
</table>

**Number of workers in FIFO/DIDO regime:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td>670*</td>
</tr>
<tr>
<td>Downstream</td>
<td>2,656</td>
</tr>
</tbody>
</table>

**Number of expatriates (457 visas):**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td>63**</td>
</tr>
<tr>
<td>Downstream</td>
<td>180</td>
</tr>
</tbody>
</table>

### Safety Performance

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td>794</td>
</tr>
<tr>
<td>Downstream</td>
<td>410</td>
</tr>
</tbody>
</table>

**Number of Indigenous employees / contractors engaged by the Project:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td>66^</td>
</tr>
<tr>
<td>Downstream</td>
<td>144</td>
</tr>
</tbody>
</table>

**Community Participation**

**Number of local residents participating in skills development programs offered by Australia Pacific LNG:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td>76</td>
</tr>
<tr>
<td>Downstream</td>
<td>59</td>
</tr>
</tbody>
</table>

**Number of apprenticeships:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td>6</td>
</tr>
<tr>
<td>Downstream</td>
<td>0</td>
</tr>
</tbody>
</table>

**Number of scholarships given by the Australia Pacific LNG Project:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
<td>25</td>
</tr>
<tr>
<td>Downstream</td>
<td>0</td>
</tr>
</tbody>
</table>

---

* This includes all directly hired Upstream personnel sourced in Queensland

** For the Downstream Project this includes all workers sourced from the Gladstone region

† This excludes Workers employed by Contractors

‡ 63 directly sponsored by the Upstream Operator

^ There are approximately an additional 65 Indigenous people who work on a part-time, casual basis as cultural heritage monitors.
5. Pollution Prevention and Abatement

Australia Pacific LNG’s sustainability commitment describes the Project’s approach to sustainable development, and specifically refers to principles designed to minimise environmental impact and prevent pollution.

In combination with relevant laws and regulations, Australia Pacific LNG sustainability principles have guided the development of the sub-plan for prevention and abatement of pollution. Mitigation measures in this plan are based on the nature of the existing environmental conditions, and sensitive environmental and human receptors that might be potentially impacted by the Project, as identified during the EIS process.
5.1 Air Emissions

Air emissions associated with CSG operations are combustion gases (oxides of nitrogen, carbon monoxides, carbon dioxides and trace hydrocarbons) and minor fugitive methane emissions. During the construction stage, emissions are also generated by the use of diesel fuel for electricity generation, land and marine transport. Dust is also considered in this section.

5.1.1 Greenhouse gas emissions

The majority of greenhouse gas (GHG) emissions from the CSG gas industry occur at the end-use of the gas where it is burned as fuel. Only a minor fraction of emissions originate from the gas production and processing phases. Data provided in this section refers only to emissions from construction and commissioning activities, and production and processing of the gas. These emissions are measured as tonnes of carbon dioxide equivalent released to the atmosphere.

Construction and commissioning activities generate GHG emissions through the use of diesel for land and marine transport, local power generators and flaring of gas. Production and processing of gas produces emissions from sources such as fuel consumption. Australia Pacific LNG gas plants are designed to significantly reduce emissions intensity.

Overall, compared to S1 2014 there was a reduction in Greenhouse Gas Emissions (Figure 5.1).

Emissions calculations from the LNG plant operations will be established using National Greenhouse and Energy Reporting Act compliant methodologies, and will continue to be reported to the Regulator.

![Figure 5.1: Australia Pacific LNG Project Wide GHG Emissions*](image)

* Greenhouse gas emissions data is unaudited at the time of publication. Historical data may change from report to report following audit results.
GHG emissions remained at higher than expected long term levels during the reporting period as the Upstream assets continued through the peak construction and commissioning phase. For each new gas field there is a period where gas production ramps up prior to the relevant gas plant being commissioned where higher flaring rates are necessary for a sustained period. This is a once off requirement prior to gas plant commissioning and sustained higher flaring rates are not expected to be required once the plants are commissioned. During the reporting period flaring at the Orana and Reedy Creek gas fields commenced in preparation of bringing on their respective gas plant facilities.

Flaring at the gas processing plants will be minimised through precise field automation, telemetry monitoring and control. The flares used at the Condabri development are designed to operate with 98 percent combustion efficiency, meaning 98 percent of methane gas sent to a flare is combusted to produce primarily carbon dioxide and water. Only small volumes of oxides of nitrogen, methane and carbon monoxide will be emitted.

The use of diesel fuel related to plant construction, power generation, and vehicle and vessel movements generate the majority of air emissions created by Downstream construction activities. GHG emissions are very similar to the last reporting period, demonstrating that the level of on-site activities has remained constant, as the bulk earthworks are finalised and the focus shifts to works directly related to constructing the plant.

CSG fugitive emissions come from infrastructure, and minor venting of methane where it is not practicable to flare.

Australia Pacific LNG supported a joint Australian CSG fugitive emission study undertaken by the Commonwealth Scientific and Industrial Research Organisation (CSIRO). The results of this study were released on 31 July 2014 by the Federal Department of the Environment. As part of this study, the CSIRO surveyed 43 wells – six in NSW and 37 in Queensland – operated by a range of CSG companies.

The work focused on CSG wells to better understand how asset integrity or activities such as hydraulic fracturing influence emission volumes. The objectives of the measurements were to quantify methane emissions from well leases, identify where the emissions originate, measure leaks from individual pieces of equipment and check well casings for leakage. This is the first study of its kind on methane fluxes (emission rates) from Australian CSG production.

The study confirmed the emissions range is consistent with the current emission estimates for general equipment leaks and tends to confirm equipment leaks comprise only a very small proportion of GHG emissions from CSG production. The evidence suggests GHG emissions from CSG production and processing are broadly in line with previous estimates. This confirms our current approach to estimating minor emissions sources is accurate, and the uncertainty of the overall emissions from CSG production and processing is relatively low.


Australia Pacific LNG is in consultation with stakeholders to assess what other similar studies can be completed that will be equally beneficial to understanding industry performance in greenhouse gas reporting.
5.1.3 Dust

A dust deposition monitoring program is in place across gas field sites. Results are assessed as a rolling 30-day average. There were six landowner and community complaints relating to dust within the reporting period mostly associated with dust caused by rig movements and vehicles on local roads impacting nearby properties. All complaints were addressed with dust suppression activities to the satisfaction of the complainant. Dust suppression activities typically involve use of water tankers to spray unsealed roads.

During dry weather, dust suppression is conducted using water-spraying from trucks using rainwater gathered in collection ponds (if available) or reticulated mains water. Dust emissions have been minimised through implementation of controls outlined in the Project Environmental Management Plan. No dust complaints were received.

Airborne noise and vibration have the potential to impact the surrounding community and environment if not properly managed.

Noise and vibration may be generated during construction and operation of the gas production wells, gas pipelines, the LNG plant and associated infrastructure. Increased traffic during construction is another source of noise, but mitigation measures have been adopted. There were six noise complaints within the reporting period. Noise monitoring, mitigation procedures and noise agreements were implemented to resolve the majority of these complaints.

5.2 Noise and Vibration

5.2.1 Noise Monitoring

The Upstream Operator is implementing a gas field wide noise monitoring program to verify the Project’s noise management practices and ensure noise levels are in line with the requirements of the relevant noise management guidelines.

Noise monitoring has been conducted during key gas field activities such as Gas Processing Facility (GPF) commissioning and operation, well installation and construction works.

Noise monitoring results have been used to guide improvements in best practice noise mitigation techniques and ensure continued efforts to minimise noise wherever possible.

Noise monitoring for the Downstream Project is complaint-based as set out in the EIS. As part of the EIS process, baseline noise levels were determined. While periodic noise monitoring has been undertaken by subcontractors, no noise complaints have been logged since the Project began.
5.3 Waste Management

The Project developed waste management plans aiming to eliminate, reduce, reuse, recycle, treat, and dispose of waste appropriately.

5.3.1 Unregulated Wastes

#### Upstream

Construction waste rates have lowered as a result of the Project entering the commissioning phase. Notwithstanding the reduction in construction waste, demobilisation waste contributed to an overall increase in ‘General Waste’.

Figure 5.2 shows the main waste categories, tonnage and disposal methods.
Waste management is an important component of sustainability on the LNG facility construction site. The site continues to use the Gladstone Area Water Board (GAWB) pipeline for wastewater disposal, and has one company handling regulated and unregulated waste from Curtis Island and mainland facilities during construction.

Waste generation on the LNG Plant site significantly decreased for food waste (64 percent), paper, wood and textiles (54 percent), and metals and scrap metals (69 percent). Refer to Figure 5.3.

Figure 5.3 Downstream Project Unregulated Wastes and Disposal Methods

Waste categories in tonnes and disposal methods

- Other Domestic Waste → landfill
- Paper, Wood and Textiles → recycle
- Metals and Scrap Metals → recycle
- Food Waste → landfill
- Construction Waste → landfill
- Cardboard → recycle

Waste Segregation on Curtis Island
5.3.2 Waste Water

**Upstream**

Waste water includes untreated and treated sewage considered unsuitable for irrigation. This water was sent for offsite processing and reuse. The volumes of treated and untreated septic waste disposed during the period were 1,861 Kl and 1,178 Kl respectively (Refer to Figure 5.4).

Interceptor pit water and completion fluids were taken to Origin on-site water treatments facilities for processing and reuse.

**Downstream**

Australia Pacific LNG has partnered with the Gladstone Area Water Board and Gladstone Regional Council to construct two pipelines to supply water and dispose of sewage from Curtis Island. The Downstream Operator reported 103,047 Kl of septic waste for the period.
5.3.3 Regulated Wastes (Hazardous Materials)

Waste disposal of hazardous materials is highly regulated and governed by the Environmental Protection Regulation 2008 (Queensland). Details—including waste type, quantity, waste transporter and disposal location—are recorded and provided to the administering authority.

Upstream

Liquid Regulated Waste

The Liquid Regulated Waste data for this reporting period includes drilling muds and mud additives. The majority of regulated waste liquid is drilling muds, contributing 98 percent of the total regulated liquid waste. It should be noted that the majority of drilling muds are benign, and processed to develop compost material for reuse.

Solid Regulated Waste

Treated timber pallets (CCA treated) contributed to 79 percent of the total amount of solid regulated waste generated by LNG. The increase in disposal of CCA treated timber pallets can be attributed to a general clean out of laydown yards.

A breakdown of regulated wastes for the Upstream Project can be seen in Figure 5.4 and Figure 5.5.
**Downstream**

All regulated wastes - except for sewage disposed via the sewerage system - are stored and monitored on-site at Curtis Island until they can be disposed by the waste management contractor. Sewage constitutes the largest component of regulated liquid waste from the Curtis Island construction site. It is transported to Gladstone via the GAWB pipeline and treated at a licensed facility prior to re-use as water supply to a nearby Alumina refinery.

Oily water and waste oil, oily rags, and waste drums are the major regulated solid waste streams originating from Downstream construction activities (refer to Figure 5.6 and Figure 5.7).

Additionally, soil contaminated with asbestos containing material (ACM) continues to be managed as a regulated waste stream, as a consequence of the remediation of the stockpiles. The stockpiles being rehabilitated by the facility were contaminated by mulch containing asbestos in 2013 when the Principal Contractor was notified by a subcontractor that material brought on site for use in erosion control socks was found to contain building remnants, including shards of bonded asbestos cement sheeting.

These waste streams are all managed in the same manner as the contaminated soil waste process; i.e. they are stored on-site in specified bunded areas, and then transferred off-site to certified waste management facilities. Minor quantities of batteries and tyres are also generated and disposed appropriately.
5.4 Environmental Incidents, Notifications and Investigations

Protection of the environment continues to be a priority for Australia Pacific LNG. Our corporate goal is to ‘Maintain zero regulatory shutdown or fine incidents’. During this reporting period, Australia Pacific LNG recorded 21 environmental incidents. Appropriate remedial actions were undertaken for each of these incidents.

Environmental Incidents Summary

The environmental incident frequency rate (ERIFR) has decreased by 22 percent over the past six months. Our current ERIFR is 1.83 compared to 2.35 at the end of the previous period.

The most common environmental reportable incident is an uncontrolled release to the environment including hydrocarbon spills and sediment releases. Hydrocarbon spills are typically very small in nature and sediment releases are usually the result of a significant rain event that is above the design criteria for erosion control devices installed.

Environmental compliance with government approvals continues to be a focus area for Australia Pacific LNG and both Operators. The environmental compliance working group meets monthly to ensure understanding of the current and future obligations.

The total number of reportable environmental incidents was 21, a significant reduction when compared with 54 incidents in the previous reporting period, notwithstanding a 13 percent decrease in exposure hours.

The following categories of reportable incidents occurred during the reporting period:
- Hydrocarbon spills
- Drilling fluid spill
- Sediment discharge
- Water quality exceedances
- Turbid water discharges
- Untreated sewage effluent discharge
- Biosecurity incident.

The level of risk associated with each incident was rated using a matrix that included safety, health, environmental, regulatory, and legal and public considerations. The majority of incidents (19) were classified as Severity 1, the lowest category (causing minor local impacts and no lasting effects). Two incidents were classified Severity 2 (moderate short term impacts to habitat, species or ecosystems, or short term impacts to resources and disruptions to activities of other beneficial users/community and no lasting effects). Refer to Figure 5.8 and Figure 5.9.

All incidents were recorded and investigated to determine and communicate causes and potential prevention measures and solutions.

Figure 5.8 Environmental Incidents by Severity Level

Figure 5.9 Environmental Incidents by Project Component

<table>
<thead>
<tr>
<th>Severity</th>
<th>No. of Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity 1</td>
<td>19</td>
</tr>
<tr>
<td>Severity 2</td>
<td>2</td>
</tr>
<tr>
<td>Severity 3</td>
<td>0</td>
</tr>
<tr>
<td>Severity 4</td>
<td>0</td>
</tr>
<tr>
<td>Severity 5</td>
<td>0</td>
</tr>
</tbody>
</table>
There were 16 reportable incidents recorded by the Upstream Operator. Fourteen incidents had a consequence ranked as Severity 1 (minor) and two incidents classified as Severity 2 (moderate). These two incidents involved a release of CSG produced water to a road reserve and a release of alkaline water to a watercourse.

The list of reportable environmental incidents is described in Table 5.1.

<table>
<thead>
<tr>
<th>Incident</th>
<th>Contaminant (substance)</th>
<th>State (solid, liquid or gas)</th>
<th>Quantity (kg, L or m³)</th>
<th>Receiving environment (land, water or air)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hydrocarbon (Shell Mysella S5 N40 Engine Oil)</td>
<td>Liquid</td>
<td>200-250 L</td>
<td>Land</td>
</tr>
<tr>
<td>2</td>
<td>Sediment</td>
<td>Solid</td>
<td>1.8 m³</td>
<td>Land / Water</td>
</tr>
<tr>
<td>3</td>
<td>CSG Water</td>
<td>Liquid</td>
<td>14,000 L</td>
<td>Land</td>
</tr>
<tr>
<td>4</td>
<td>Diesel</td>
<td>Liquid</td>
<td>1,352 L</td>
<td>Land</td>
</tr>
<tr>
<td>5</td>
<td>Untreated Sewage Effluent</td>
<td>Liquid</td>
<td>2,758 L</td>
<td>Land</td>
</tr>
<tr>
<td>6</td>
<td>Hydraulic Oil</td>
<td>Liquid</td>
<td>230 L</td>
<td>Land</td>
</tr>
<tr>
<td>7</td>
<td>Water diluted “Vital Strike” (Chemical product)</td>
<td>Liquid</td>
<td>300 L</td>
<td>Water</td>
</tr>
<tr>
<td>8</td>
<td>Sediment</td>
<td>Solid</td>
<td>2.4 m³</td>
<td>Water</td>
</tr>
<tr>
<td>9</td>
<td>Oil (Hydrocarbon)</td>
<td>Liquid</td>
<td>5 L</td>
<td>Land</td>
</tr>
<tr>
<td>10</td>
<td>Sediment</td>
<td>Solid</td>
<td>130 m³</td>
<td>Land</td>
</tr>
<tr>
<td>11</td>
<td>CSG Water</td>
<td>Liquid</td>
<td>12,000 L</td>
<td>Land</td>
</tr>
<tr>
<td>12</td>
<td>Alkaline Water</td>
<td>Liquid</td>
<td>2,100 L</td>
<td>Water</td>
</tr>
<tr>
<td>13</td>
<td>Brine Water</td>
<td>Liquid</td>
<td>2,000 L</td>
<td>Land</td>
</tr>
<tr>
<td>14</td>
<td>CSG Water</td>
<td>Liquid</td>
<td>5,000 L</td>
<td>Land</td>
</tr>
<tr>
<td>15</td>
<td>Drilling Fluid</td>
<td>Liquid</td>
<td>240 L</td>
<td>Land / Water</td>
</tr>
<tr>
<td>16</td>
<td>Sediment</td>
<td>Solid</td>
<td>0.5 m³</td>
<td>Water</td>
</tr>
</tbody>
</table>

Table 5.1 Upstream Project Reportable Spills Inventory
Downstream

There were five reportable incidents recorded by the Downstream Project involving two instances of reportable turbid water overflowing spillways following heavy rain events, one instance of turbid water overflowing into the clean water drain, one instance of diesel fuel loss from a temporary generator and one instance of a hydraulic oil leak from a crane (Table 5.2).

A fire ant nest was discovered at the ferry terminal at the Fisherman’s Landing Northern Expansion (FLNE).

Biosecurity Queensland was notified and appropriate action was taken by the Principal Contractor’s Project Joint Execution Team (PJET). Fire ant inspections continue at FLNE by PJET and on site, and no fire ants have been recorded on the Curtis Island site. All incidents were recorded, notified to regulators and investigated. All incidents were actual consequence severity ranked 1 (minor).

Table 5.2 Downstream Project Reportable Spills Inventory

<table>
<thead>
<tr>
<th>Incident</th>
<th>Contaminant (substance)</th>
<th>State (solid, liquid or gas)</th>
<th>Quantity (kg, L or m³)</th>
<th>Receiving environment (land, water or air)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hydraulic oil</td>
<td>Liquid</td>
<td>350 L</td>
<td>Land</td>
</tr>
<tr>
<td>2</td>
<td>Diesel</td>
<td>Liquid</td>
<td>100 - 400 L</td>
<td>Land</td>
</tr>
</tbody>
</table>

Impacts on Fauna

In addition to the reportable environmental incidents, Australia Pacific LNG is required to notify the Regulatory Authorities of instances of fauna injury and deaths associated with Project activities or occurring within Project sites.

During the reporting period, the Upstream Operator notified the Regulatory Authorities of six notifiable fauna deaths involving species in accordance with the relevant, approved Species Management Plan. Species reported included: one Short-Beaked Echidna, one Rough Frog and four Brigalow Scaly-Foots.

At Curtis Island, seven reportable fauna deaths occurred on site, being an Eastern Striated Pardalote, a Green Tree Snake, a Green Sea Turtle, a Coastal Carpet Python, an Australian Owlet-Nightjar, an Emerald Pidgeon, and a Spotted Python.
Multiple emergency response exercises were conducted for production operation infrastructure which included scenarios on pond failure, hydrocarbons, sewage and hazardous material (such as chlorine and hydrochloric acid) spills. Spill response trailers were delivered to Reedy Creek and Condabri during the reporting period. Two additional trailers have been purchased for Talinga and Spring Gully and will be delivered during Q1 2015. Site teams are being trained on the trailer and its contents. Spills Responder Training and First Responder Spills Training commenced in the reporting period.

Spill prevention and response awareness updates and information are included in regular toolbox meetings.

A wet weather preparation campaign to prevent sediment-laden water and other spills from wet weather events was launched in October 2014. It included awareness and communication with toolbox presentations, posters and actions to complete wet weather preparation action plans for all major field sites for the wet season.

Operations completed a number of spill prevention and response training exercises. Joint-industry operators were invited for a regional spill exercise on 27 August, in the Gladstone Harbour, led by Maritime Safety Queensland and supported by Gladstone Ports Corporation. ConocoPhillips environmental representatives joined the other LNG proponents’ environmental representatives for observations and feedback during the drill. A total of 80 Operations Technicians and four Operations Superintendents completed Hazmat training at the Queensland Fire & Emergency Service’s training facility at Whyte Island, Brisbane. Exercises are planned for 2015, aligned with the Australia Pacific LNG Downstream Facility Emergency Response Plan and Spill Contingency Plan.
As part of the Australia Pacific LNG Project approval process by the State and Federal Government, biodiversity impacts were identified and assessed, and mitigation measures were determined.

Biodiversity conservation involves analysis of potential impacts to biodiversity. Where potential impacts are identified, mitigation measures or offsets are determined to reduce risks to acceptable levels. These measures include the protection of high biodiversity values and related potential impacts across the diverse terrestrial, aquatic, coastal and marine ecosystems affected by the Project.
6.1 Ecological Management

Upstream

Prior to conducting activities involving significant land disturbance, an assessment of the condition, type and ecological value of vegetation in the area is undertaken. This is referred to as the field ecological assessment. Following this, a pre-construction field environmental scout is undertaken.

A field environmental scout also confirms the suitability of infrastructure layout in accordance with the Environment Protection and Biodiversity Conservation (EPBC) Act 1999 and other applicable regulatory requirements as well as relevant plans for threatened and endangered species. These requirements are specified in the Australia Pacific LNG Environmental Constraints Planning and Field Development Protocol.

There were no reportable incidents regarding ecological management.

Downstream

No additional vegetation clearing works were conducted during the period. To date, an area of 188 ha has been cleared. This clearing has occurred primarily on terrestrial vegetation, with only minor areas of marine plants (mangroves) being affected. The Environmental Authority provides the Downstream Operator with the right to clear 298 ha. The clearing represents 63 percent of the total allocated area during the construction of the LNG facility.

Eleven fauna (snakes, rats and birds) were relocated to adjacent bushland, and three Torresian Crow chicks and 22 Torresian crow eggs were removed from site to carers.

Nest boxes in retained vegetation around the LNG Facility were surveyed in June 2014, with the findings submitted to Department of Environment and Heritage Protection (EHP) in September 2014 as required under the approved Species Management Program (CFCD05). This survey found evidence of utilisation by target fauna in 33.8 percent of the boxes assessed, compared to 50.6% in 2012 and 46.8 percent on 2013. Nest boxes were found to provide an effective short-term tool to offset the loss of hollow-bearing trees for indigenous hollow-dependant fauna. However, research indicates that the long-term effectiveness of such programs is estimated to be five years with significant deterioration of the boxes observed between eight to ten years after establishment. This was the final assessment required under the Fauna Management Plan, specifying surveys were to be conducted before, during, and after clearing works.

Migratory Shorebird monitoring was conducted in October and December 2014. During both surveys no disturbances to roosting or foraging behaviour associated with construction activities were observed.

Quarterly mangrove monitoring continued in accordance with the Receiving Environment Monitoring Program.

No Water Mouse surveys were conducted during this period.
The Fitzroy Basin Association and Australia Pacific LNG have funded Greening Australia to continue their Fitzroy River Turtle Conservation Program.

The Fitzroy River is one of six major river systems making up the Fitzroy Basin, which covers an area of 140,000 square kilometres in central Queensland.

The Fitzroy River turtle is only found in Fitzroy Basin waterways. The conservation program aims to locate nest eggs of this vulnerable species, and protect them from predators including rats, foxes, and dogs.

Without intervention, predators can destroy 90 to 100 percent of eggs in a breeding season. Research indicates the Fitzroy River turtle has an aging population with little recruitment of juveniles, making extinction a real possibility for the species.

Paul Humphreys from Greening Australia said the turtle team has been searching river banks for freshly laid nests, collecting data, and installing nest protection.

“Over 30 nests have already been located and protected, each containing 15 to 20 eggs. Some of these have successfully hatched and there are more to come in the next few weeks,” Mr Humphreys said.

Origin Senior Environmental Specialist, Laura Hahn said the $25,000 funding was provided as part of Australia Pacific LNG’s Offsets Program and Pipeline Threatened Fauna Management Plan.

“We’re very pleased to be supporting this important conservation program again this year,” Laura said. “The Fitzroy River Turtle nest protection project is part of Australia Pacific LNG’s wider offset program, which includes protecting and enhancing strategic properties with vegetation and habitat of state and national significance. The program also includes relocation of endangered and vulnerable species into protected areas.”

Find out more at www.greeningaustralia.org.au
6.2 Quarantine

Upstream

A baseline audit was undertaken to evaluate the current practices of the Upstream Operator’s personnel, Contractors and Third-party providers of weed washdowns and inspections. The outcomes of this program are discussed in section 6.3.

Biosecurity packages have been developed, and are supported, by ongoing education and training, including an e-learning Module and improved weed identification guides.

The Department of Agriculture notified Australia Pacific LNG of increased monitoring of imported cargo of a Contractor following the detection of soil on a container from Malaysia in July. Australia Pacific LNG has addressed the issue with both the Contractor responsible and with the Queensland Department of Agriculture, Fisheries and Forestry (DAFF). No further issues were identified.

Downstream

The LNG facility has an overarching biosecurity plan for the Downstream activities. This plan serves as a guideline for the biosecurity management plans used in Gladstone and Batam by subcontractors during Project construction.

The implementation of the Biosecurity Management Plan for the Module Yard in Batam, Indonesia continued until the facility was closed at the conclusion of the module program. The plan sets out measures to ensure the delivery of pre-assembled modules to the Australian first port of entry in Brisbane or Gladstone, uncontaminated by biosecurity risk material.

One important aspect of this plan is the Australia Pacific LNG Sail Away Clearance Checklist. This checklist requires a thorough review of customs clearance documentation, cleanliness of the modules, final wash down and re-checks for contamination, pre-departure inspection by DAFF, and other criteria. The checklist is designed to prevent biosecurity risk material entering Australia via the module transport barge.

An estimated 3,900 international shipments have been moved to Australia since the Project began. To date, there have been no significant breaches of the DAFF quarantine procedures. All modules, substations, packages, and barges were thoroughly inspected with HSE and Preservation teams for cleanliness and ballast compliance. This work and the establishment of relationships with Quarantine ensured 100 percent compliance, achieving Quarantine self-assessment status in Australia for seamless deliveries.
6.3 Weed, Plant Pathogen and Pest Management

The Upstream and Downstream Operators have developed Biosecurity Management Plans, which include weed hygiene procedures. These plans set out controls to reduce weed propagation. Procedures have been incorporated into contractor management plans to ensure these plans are implemented.

Upstream

Australia Pacific LNG continued to implement pest management programs and actions for existing weed and pest issues. No weed, pest or pathogen incidents were recorded during the reporting period.

As part of our commitment to continuous improvement, an independent Audit of the Vehicle Weed hygiene practices was undertaken at numerous sites. The audit also included an assessment of the third party weed washdown companies certifying weed washdowns for Origin. The audit was able to assess the level of weed hygiene for 55 Origin and Contractor vehicles and 12 weed washdown providers. While some areas for improvement were identified, the audit determined that there was a high level of compliance with approved procedures.

A weed identification guide specific to the Surat and Bowen basin has been prepared to increase the awareness of the highest risk weeds to the project. The weed identification guide has been developed to enable personnel to recognise species including Chilean Needle Grass, Rats-tail Grasses and the prickly shrub species such as Prickly Acacia. Further development of the guide is underway to include additional species that occur or could occur in the region.

Downstream

No weed propagation incidents have occurred to date.

Chilean Needlegrass

Nassella neesiana

Family: POACEAE

Pest Class: Class 1, WoNS

GRASSES

Tussock-forming grass growing 30-100 cm tall. Leaf blades 2-8.5 mm wide. Leaf-blade surface is ribbed, can be hairy or hairless. Seed-head 5-30 cm long, held upright or drooping. Flowers spring to summer. Single awn, 4-9 cm long and twisted.

Distinguishing Features: The presence of the corona on the seed distinguishes this species from other similar grasses. When not in flower, it can be very difficult to identify.
6.4 Reinstatement

Reinstatement is the process of bringing the construction earthen landscape back to the original profile of the surrounding environment, including the stabilisation of the disturbance site. Stabilisation can include seeding with grasses of a suitable species in their applicable environment; i.e. improved pasture returned where improved pasture was disturbed. The reinstatement task is built into the process of construction.

The Upstream Project reinstated 632 ha of disturbed areas including well leases and flowlines. Reinstatement works are underway for Gas Processing Facilities, with 104 ha being reinstated across Combabula, Reedy Creek, Condabri and Orana GPFs, bringing the total of reinstatement completed to over 4,995 ha representing approximately 60 percent of all areas disturbed. The main pipeline corridor has been completely reinstated. Figure 6.1 shows the progress of reinstatement in relation to total disturbed areas.
6.5 Offset Strategy

Australia Pacific LNG adopts a strategic approach to offsets, which provides environmental benefits with improved biodiversity outcomes and increased confidence of conservation outcomes. This strategic approach to offsetting has been adopted in-line with government recommendations.

At least three strategic offset sites are required to compensate for Project impacts on:

- Brigalow and semi-evergreen vine thicket and fauna habitat
- Cycas megacarpa (cycads)
- World Heritage Area, shorebirds, water mouse and fisheries.

Additional small offsets are expected to be required for significant impacts on Brigalow and semi-evergreen vine thicket flora species.

6.5.1 Offset Progress

Australia Pacific LNG recognises the development of its LNG facility on Curtis Island, along with supporting infrastructure and services, increases the management requirements for maintaining terrestrial and marine biodiversity.

Under the EPBC Act, offsets compensate for the impacts associated with development. Offsets include protection of at-risk environmental assets, restoration or extension of habitat for species threatened by development, or improvement of the values of a place with a high degree of heritage value.

Environmental offsets for the Project comprises both land-based sites (direct offsets) and contributions to other activities such as removing threatening processes and research (indirect offsets). Australia Pacific LNG’s offsets aim to secure strategic environmental areas with the following priorities: Great Barrier Reef World Heritage values, threatened ecological communities, endangered and of concern remnant and high value regrowth vegetation, marine habitat, wetlands, watercourses, threatened flora and habitat for threatened fauna.

Substantial progress towards providing direct offsets and indirect offsets has been made in the last six months. Australia Pacific LNG continues supporting terrestrial and marine biodiversity research through the Gas Industry Social and Environmental Research Alliance (GISERA). Current projects with biodiversity impacts include:

- Priority threat identification, management and appraisal (terrestrial biodiversity)
- Fire ecology of grassy woodlands (terrestrial biodiversity)
- Habitat selection by two focal species
- Ensuring biodiversity offset success (optimising seed sourcing for one plant)
- An integrated study of the Gladstone marine system (marine environment).

Australia Pacific LNG is on track to provide a substantial portfolio of direct and indirect offsets to compensate for unavoidable Project impacts on environmental values. These offsets represent a long-term commitment, and will involve many years of on-ground management as suitable sites are secured.
Direct Offsets

Over the last six months substantial progress has been made on the establishment and implementation of management on Australia Pacific LNG’s direct offset sites.

In December 2014, the Dukes Plain Offset and Rehabilitation Management Plan was submitted to the Australian Government detailing the conservation outcomes and management objectives for Brigalow and semi-evergreen vine thicket threatened ecological communities and threatened fauna habitat. The Dukes Plain Offset and Rehabilitation Management Plan has been developed with inputs from the results of extensive field surveys and advice from scientific experts. On-ground management activities are currently being implemented across the Dukes Plain offset and rehabilitation areas.

In August and September 2014, 261 Cycas megacarpa individuals were successfully translocated to the Inverness offset area secured through an agreement with the landholder in July 2014. In addition, a total of 1,600 salvaged and propagated Rutidosis lanata individuals were translocated to the Rockwood offset area in September 2014.

Indirect Offsets

Australia Pacific LNG continued support for the conservation of the Fitzroy River turtle through a nest protection program during September to December 2014. The program involved the location and protection of nests along a seven kilometre stretch of the Fitzroy River. As a result 41 nests were protected and an estimated minimum of 300 new hatchlings safely left the nests and returned to the environment. The predation rate observed in the survey area was successfully reduced to 53 percent, an improvement on the 65 percent obtained last season, and significantly better that the 90 to 100 percent predation rates observed in previous seasons where no protection activities occurred.
The Monte Christo offsets property purchase, jointly made with two other LNG proponents, was developed to protect and remove threatening processes from land containing Great Barrier Reef World Heritage values, remnant vegetation and significant marine habitat. The property was secured with an official announcement made in August 2014.

The offsets property meets the offsets obligations of Australia Pacific LNG’s Curtis Island activities and the Narrows Crossing. It provides confirmed habitat for State and nationally listed threatened fauna species, significant areas of marine and fish habitat, confirmed migratory shorebird habitat, and significant areas of declared wetlands. Cattle grazing and forestry will no longer be permitted in the offsets property, enabling improvement to ecological value. The offsets property satisfies all Federal and State offset requirements for the LNG facility. The property will be managed by the State government.

Federal and State approval for the LNG facility and Narrows Crossing Pipeline habitat offsets was granted in September 2013 and April 2014 respectively.

The Monte Christo offset will allow for an integrated whole-of-island management approach by Department of National Parks, Recreation, Sports and Racing and enable improved environmental outcomes. Over time, due to the significant investment by the Queensland LNG industry, approximately 60 percent of Curtis Island will be converted from a property impacted by past land uses for forestry and cattle grazing into a well-managed integrated Conservation Estate.

This offsets property purchase was used as a case study in the recent World Wide Fund for Nature Australia publication, *Building Nature’s Safety Net 2014: A decade of protected area achievements in Australia*, where the benefit of the offset in protecting the critically endangered Dawson Yellow Chat was recognised. This is one of several species with improved protection arising from the offset even though it is not directly impacted by the project.

*A Long Term Marine Turtle Management Plan* was approved by the Australian Department of the Environment in July 2014. This plan builds on existing programs funded by Australia Pacific LNG including GISERA and the Western Basin Dredging Environmental Review and Monitoring Program.
6.6 Great Barrier Reef World Heritage Area

The Great Barrier Reef covers an area of 348,000 square kilometres, stretching down the north-eastern coastline of Australia. Inscribed on the World Heritage List in 1981, it contains 400 types of coral, 1,500 species of fish and 4,000 types of mollusc.

Both the Australian and Queensland Governments have formally agreed to undertake a comprehensive strategic assessment of the Great Barrier Reef World Heritage Area and adjacent coastal zone. Australia Pacific LNG continues to work with the governments through the Queensland Resources Council (QRC) Working Group which is coordinating industry involvement. The strategic assessment takes a ‘big picture’ approach to environment and heritage protection to determine areas to be protected, areas where sustainable development can proceed, the type of development that will be allowed and the conditions under which development can occur.


The report also states that the Australian and Queensland Governments are investing AUD$2 billion for the protection of the reef over the next decade.

LNG proponents in the area are making considerable contributions to protect the reef and better understand the issues occurring.

LNG projects are contributing:

- more than AUD$86 million over 25 years towards protection
- AUD$33 million to the Great Barrier Reef Marine Park Authority (GBRMPA) for management of the Great Barrier Reef
- AUD$10 million to long-term turtle management.

Following the 38th session of the World Heritage Committee on 15 June 2014, the Committee advised it has deferred its decision on whether to add the Great Barrier Reef to the List of World Heritage in Danger until 2015.

The Committee’s concerns over the site relate to planned coastal developments, including development of ports and LNG facilities. It has asked Australia to submit an updated report on the state of conservation of the site by 1 February 2015.

World Heritage Centre Director Kishore Rao stated the decision adopted by the Committee welcomed the progress made by Australia in managing the Reef. He said UNESCO is confident the overall direction towards next year’s decision is a positive one.

6.7 Key Performance Indicators

<table>
<thead>
<tr>
<th>Hectares of net disturbance*</th>
<th>Upstream</th>
<th>8,026 ha</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Downstream</td>
<td>188 ha</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Disturbance of remnant vegetation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
</tr>
<tr>
<td>Downstream</td>
</tr>
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<table>
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<th>Disturbance of high value regrowth in hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
</tr>
<tr>
<td>Downstream</td>
</tr>
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<thead>
<tr>
<th>Hectares of successfully completed reinstatement*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
</tr>
<tr>
<td>Downstream</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Areas of offset established and protected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
</tr>
<tr>
<td>Downstream</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of complaints received related to weed management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream</td>
</tr>
<tr>
<td>Downstream</td>
</tr>
</tbody>
</table>

*These KPI values represent total value from Project Inception – All other KPIs in this subsection refer to the reporting period only.
An objective of Australia Pacific LNG is to ensure resources are used, developed, and protected within the Project in a way and at a rate enabling people and communities, including Indigenous peoples, to provide for their present and future social, economic, and cultural wellbeing.
Australia Pacific LNG aims to avoid or reduce loss of access to Good Quality Agricultural Land (GQAL) by locating surface infrastructure away from such land where practicable. During this reporting period, 415 ha of land disturbed was classed as GQAL, representing 56 percent of the total area disturbed in the period.

Water is extracted from the target coal formations to allow the production of coal seam gas. Low permeability rock strata that overlay and underlay the CSG formations, known as aquitards, protect the adjacent aquifers used by others from the effects of the resultant coal depressurisation. The Upstream Operator has implemented its groundwater monitoring plan to detect pressure changes in these aquifers.

The vast majority of CSG water production during the reporting period was generated from the Australia Pacific LNG CSG fields of Talinga and Orana, Spring Gully, Condabri, and Combabula and Reedy Creek. Minor volumes of CSG water were also produced from the Peat field and appraisal wells developed as part of the exploration program.

The total volume of CSG water production for the reporting period was 6,422 mega litres (Ml) representing approximately a 75 percent increase on the previous period, reflecting the increase in the number of CSG wells brought online. Refer to figure 7.1.

CSG water is temporarily stored in ponds, prior to desalination treatment and supply for beneficial use including irrigation, aquifer injection, project, and construction uses. Any treated water unable to be beneficially used is released under license to natural streams.

Figure 7.1 Total CSG Water Production by Reporting Period

<table>
<thead>
<tr>
<th></th>
<th>S1 2012</th>
<th>S2 2012</th>
<th>S1 2013</th>
<th>S2 2013</th>
<th>S1 2014</th>
<th>S2 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Megalitres (Ml)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>0</td>
<td>1,000</td>
<td>3,000</td>
<td>4,000</td>
<td>5,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Total Produced CSG Water in Ml</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7.2.2 Supply of Treated CSG Water to Beneficial Use

The quantity of treated CSG water available for beneficial use has increased with the commencement of operation of the Condabri water treatment facilities. The quantity of treated CSG water supplied for beneficial use also increased significantly on the previous year following the commencement of the Fairymeadow Road Irrigation Scheme in the previous period, and the operational Aquifer Injection scheme at Spring Gully. The operation of the Fairymeadow Road Irrigation Scheme has meant that no releases to the Condamine River have occurred during the reporting period.

The volume of treated CSG water supplied for beneficial use was 4,454 Ml which represents a 70 percent increase on the previous reporting period and 69 percent of the volume of treated CSG water. This is a similar proportion to the previous period of 72 percent (Figure 7.2).

Aquifer Injection

Spring Gully

The primary beneficial use scheme for Spring Gully is aquifer injection. During the reporting period an 8.1 Ml/d aquifer injection scheme comprising a permeate treatment facility (PTF) and three injection bores into the Precipice aquifer was constructed and commissioned. The scheme commenced operations in December 2014. The scheme is supplemented by irrigation of a 300 ha Pongamia plantation, project consumption, and a contingency for release to Eurombah Creek.

Condabri

The primary beneficial use scheme for treated CSG produced from the Condabri WTF is the supply for irrigation purposes by landowners connected to the Fairymeadow Road Irrigation Pipeline (FRIP) and for construction activities. Excess treated CSG water production is sent via the FRIP to Monreagh Dam. The plant became operational in December 2014. Assessment of the potential to supplement the Condabri beneficial use scheme with aquifer injection commenced during the reporting period with the Condabri aquifer injection trial. The first stage of the trial was completed in September 2014 with the assessment of the injection potential of the Gubberamunda sandstone. Approximately 3.2 Ml of treated surface water was injected into the Gubberamunda sandstone during this stage of the trial. This water will be pumped out during the first half of 2015 and samples collected for laboratory analysis to assess potential geochemical changes in water quality due to injection. The second stage of the trial using treated CSG water commenced on 28 October 2014 into the Precipice aquifer.

Reedy Creek

The Reedy Creek WTF, PTF, 12 injection bores and eight monitoring bores were constructed during the reporting period. Commissioning of the scheme commenced in December 2014.

Figure 7.2: CSG Water Supplied for Beneficial Use in Relation to Total Water Produced

- Produced water left in ponds or discharged to creeks
- Total water supplied for beneficial use
- % of total water production supplied for beneficial use
Harvesting the benefits of coexistence

Miles landowner Ash Geldard this year harvested his first crop of wheat grown with water sourced from Australia Pacific LNG’s Fairymeadow Road Irrigation Pipeline.

The Geldard family has farmed the ‘Cullingral’ property, between Miles and Chinchilla, for over 100 years. “Cullingral”, Ash says, “has traditionally been dry land farmed. Drought has always been our biggest risk – a risk we essentially had no way to mitigate.”

But this year, Ash diversified farming techniques to include centre pivot broad acre irrigation, using coal seam gas water treated to Australian irrigation standards at Australia Pacific LNG’s Condabri and Talinga Water Treatment Facilities.

Saline water piped from the gas wells to the treatment facilities is filtered using reverse osmosis to remove the salts and produce treated water.

The water is distributed through a 22 km pipeline that runs along Fairymeadow Road near Miles, and either provided direct to participating landholders, or sent to the 1,873 ML Monreagh Dam that provides a storage buffer to balance water production and demand.

Ash is one of seven local landholders participating in Australia Pacific LNG’s Fairymeadow Road Irrigation Pipeline (FRIP) scheme. The landholders signed up to take advantage of a consistent supply of reliable quality irrigation water.

Ash said the irrigation scheme created an opportunity to diversify Cullingral’s crops (wheat, barley, cotton, sorghum, pulses and sunflowers) and hopefully win long-term supply agreements with international buyers.

Ash believes there’s an opportunity to forge ‘preferred supplier status’ with Asian buyers in China or elsewhere, and to win a premium price by being able to guarantee supply, from year-to-year.

For now, Ash is pleased to see the successful transformation of a dry field back in May, to a golden harvest several months later.

The FRIP scheme began operating in April 2014, and is expected to safely and productively make beneficial use of the vast majority of water produced at the Australia Pacific LNG’s Condabri and Talinga gas fields over the next 15 to 20 years.
7.2.3 Groundwater Monitoring System

Upstream

A network of deep groundwater monitoring bores has been established to provide a regional groundwater monitoring system for the Australia Pacific LNG Project. The network includes over 150 dedicated monitoring bores installed by Australia Pacific LNG, with a total of 80 km of drilling. Dedicated monitoring bores will be augmented by existing Government bores and landholder production bores.

Of the planned network, only eight dedicated monitoring bores remained to be drilled at the start of 2015. These bores are required to be drilled prior to 31 December 2016.

At the end of the reporting period 20 Queensland Government and landholder bores had been equipped with automatic groundwater level data logger instrumentation.

In addition to these monitoring bores, there is a network of shallow sentinel monitoring bores designed to ensure the integrity of produced water and brine storage ponds.

Most completed monitoring bores are now equipped with groundwater level loggers and dedicated sampling pumps as variously required.

Downstream

Groundwater monitoring was undertaken on the Curtis Island site from 2010 to 2014. The purpose of the study was to collate and analyse the groundwater monitoring data taken prior to and during construction at the site, to identify trends and to review geotechnical data in order to develop a hydrogeological conceptual model of the site and any ongoing monitoring recommendations. This included the collation and analysis of historic groundwater data for the 38 monitoring bores installed across the site prior to and during construction.

The Groundwater Monitoring Summary and Conceptualisation Report was finalised in the last quarter of 2014. Based on the conceptual model and review of the location of monitoring bores a number of opportunities were presented for future consideration for any future installation of groundwater bores and the undertaking of a monitoring program during operations.
7.2.4 Make Good Agreements

The Surat Underground Water Impact Report (UWIR) initially identified 47 bores for make good agreements with Australia Pacific LNG as the responsible tenure holder involving 26 landowners. Throughout the course of ongoing operations and assessments, various bores have been added or removed from the make good assessment list with refinements to the understanding of geological and bore details, or changes to the responsible tenure holder and immediately impacted area. Currently, 43 bores are confirmed or under assessment for make good amongst 27 landowners. Make good agreements have been completed with 10 of these landowners, two of those completed in this reporting period.

There is ongoing communication with the regulatory authorities and negotiations continue with landowners.

7.2.5 Hydraulic Fracturing

The use of hydraulic fracturing means that fewer wells are required. Most of our current CSG production is in high permeability (or high flow areas) where hydraulic fracturing is not always required. However, over time we will produce in lower permeability areas where hydraulic fracturing will be necessary. During the reporting period 31 development wells required hydraulic fracturing. This constitutes approximately 15 percent of all development well drilled.

7.2.6 Ground Subsidence Monitoring System

Ground motion is monitored using direct, on-ground instrumentation and remote Interferometric Synthetic Aperture Radar (InSAR). The on-ground instrumentation includes tiltmeters and extensometers. Tiltmeters are designed to measure very small changes from the horizontal level, either on the ground or in structures. Extensometers are designed to measure displacement and are ideal for subsidence monitoring.

A geodetic monitoring network was established in 2013. This network comprises 57 permanent survey marks across Australia Pacific LNG tenure.

To date, the Upstream Operator has not detected any systemic ground motion resulting from gas field activities.
7.3 Raw Materials

The principal raw materials required for Upstream construction activities are water and gravel. Gravel is used in construction of access roads and well pads.

The Upstream Project used 1,169 Ml of water sourced from bores, storm water captured in sediment dams, Reverse Osmosis (RO) water, CSG water, municipal water supply, and bottled spring water.

Raw materials used in construction consist predominantly of components for making concrete such as cement, aggregate material and water. At the end of the reporting period, approximately 14,182 m³ of concrete had been used on Curtis Island. These materials are sourced from quarries in Queensland, of which approximately half consists of cement. The remaining half is aggregate material (Refer to Figure 7.3).

The Gladstone Area Water Board (GAWB) pipeline continued to supply reticulated water services to the Project site on Curtis Island. GAWB supplied the site with 361 Ml of water, a marginal decrease from the previous reporting period.

![Figure 7.3: Downstream Project Raw Materials](image)
7.4 Gas Industry Social Environmental Research Alliance (GISERA)

7.4.1 Project Updates

Surface and Groundwater
The four research projects in this portfolio look at maximising the re-injected amount of treated coal seam gas water into aquifers. Initial results identified clay mobilisation as a significant source of reinjection clogging, a process that reduces the volume of water that can be re-injected. The overall progress for the four projects is approximately 65 percent.

Greenhouse Gas Footprint
It is not clear how much methane seeps out of the ground under natural circumstances. This has been identified by scientists, the general public and the natural gas industry as an important knowledge gap. The current project in the greenhouse gas footprint portfolio addresses this gap.

“The research aims to do three things. The first is to determine and refine the best method to detect and measure methane seeping from underground in the Surat Basin; the second is to identify background sources of methane – is it natural seepage from coal seams or from biological processes occurring in wetlands, swamps, rivers and dams; and finally, to provide a methane emissions data set from soils, rivers and agriculture on a regional scale,” says Professor Damian Barrett, from CSIRO, who is leading this research project.

Findings from this research will provide a methane emissions data set that can be used to compare against changes in methane emission as coal seam gas production in the Surat Basin increases. CSIRO is investigating fugitive methane emissions from coal seam gas production facilities in NSW and Queensland. Results from both investigations will add to the bigger picture of assessing the coal seam gas industry’s whole-of-lifecycle greenhouse gas emission footprint.

The progress for this project is approximately 40 percent.

Agricultural Land Management
The five research projects underway in this portfolio are examining the practical implications and opportunities for farmers when operating their existing farming or grazing business alongside the coal seam gas industry. Key questions being investigated include the amount of land affected by CSG development, the impacts on farm production and productivity, the impact of surface infrastructure on farm operations, and the long term impacts on farm productivity and soil quality.

“The initial input from producers at workshops held in Dalby, Chinchilla and Roma has helped to identify the key concerns and shape these research projects. For example, the issues of dust, light and noise from gas industry activity have highlighted the importance of proper farm design and planning for roads and traffic”, said CSIRO farming systems expert, Dr Neil Huth, who is heading up these projects.

Terrestrial Biodiversity
There are two projects underway in this portfolio. The first project aims to document potential threats to biodiversity and cost-effective responses across the development region. The second project uses ants to help determine how fire affects the amount and distribution of plants and animals in regions impacted by coal seam gas activities.

The progress for this project is approximately 25 percent.
**Marine Environment**

Marine environment research aims to improve the understanding of the vulnerable components of the marine ecosystem to minimise impacts from LNG developments around Gladstone Harbour.

Turtles around Gladstone Harbour have been tagged and tracked using two types of technology - acoustic and satellite systems.

“By studying the movements of these turtles, and interpreting the data we get, we’ll be able to identify feeding areas and transit paths that turtles use to get from one part of the harbour to the next,” says Dr Russ Babcock, CSIRO Marine and Atmospheric Research.

The progress for this project is approximately 75 percent.

**Social and Economic**

The three research projects underway in social and economic research aims to identify what communities want and need to help inform and support changes occurring in coal seam gas development regions.

The *Community Functioning and Well-being* project has identified community resilience as an important aspect for the continued prosperity and function of a community beyond CSG. There are five factors that are important in helping community groups to be resilient.

Drawing on the insights gained from the Community function and well-being project, as well as others in this research portfolio, the understanding community aspirations research project is designed to identify the diverse values, interests and aspirations that underpin community expectations. The project also aims to understand the extent these perspectives reflect and how they may inform the economic and policy options for the region.

The progress for this project is approximately 70 percent.

Further details about GISERA’s activities can be found on the GISERA website: www.gisera.org.au

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**7.5 Key Performance Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume of CSG Water produced</td>
<td>6,422 MI</td>
</tr>
<tr>
<td>Volume of water injected to aquifers</td>
<td>11.8 Ml</td>
</tr>
<tr>
<td>Volume of CSG water applied to beneficial use</td>
<td>4,454 MI</td>
</tr>
<tr>
<td>Volume of salt recovered for beneficial/commercial use</td>
<td>0</td>
</tr>
<tr>
<td>Number of ‘Make good’ agreements finalised</td>
<td>2</td>
</tr>
</tbody>
</table>
8. Community, Stakeholders and Social Management

Australia Pacific LNG will be distinguished through stakeholder engagement strategies that strive for positive and practical outcomes that help to address impact, share the benefits of the Project, and respond to identified stakeholder needs and issues. Stakeholder engagement reflects the diversity of stakeholders and uses innovative, practical partnerships to achieve mutually beneficial outcomes in the Project area.
8.1 Stakeholder Communication and Consultation

The Stakeholder Engagement Strategy articulates Australia Pacific LNG’s commitments and approach to stakeholder engagement, and describes how this commitment will be managed across the gas fields, pipeline and LNG facility components for the life of the Project.

These stakeholders are broadly classified as:
- Community
- Government
- Traditional / Indigenous owner groups
- Landowners
- Suppliers and contractors
- Employees of Australia Pacific LNG, and its shareholders ConocoPhillips, Sinopec and Origin
- Lenders, including export credit agencies and commercial banks that provide financing for certain elements of the Project
- Non-government organisations and other special interest groups
- Owners/Investors in the shareholders of Australia Pacific LNG (Origin, ConocoPhillips and Sinopec).

Engagement with the communities is a priority for the Upstream Project. The Upstream Operator held 97 formal engagements with key community groups through Council representations and general community meetings at Roma, Miles, Chinchilla, Dalby, Toowoomba, Yuleba, Biloela and Condamine. In addition, 13 sponsored community events were supported, along with 996 informal engagements including emails, telephone calls and walk-ins to regional offices. Regional Community Consultative Committee (RCCC) meetings for the Western Downs, Maranoa and Banana Shire regions continued as the key forum for exchanging community insights, priority issues and Project information.

Enquiries

The Upstream Project enables stakeholder contact by maintaining a range of information channels including regional office walk-ins, the Origin and Australia Pacific LNG websites, email enquiry channels, and a Project information hotline. The majority of enquiries related to employment and supplier opportunities and various requests for information regarding the Project.

Figure 8.1 summarises enquiries for Upstream.

Figure 8.1: Upstream Project Topics of Enquiry

Topics of Enquiry
- General Project Information
- Employment
- Procurement
- Community Investment
- Stakeholder Engagement
- Education and Training
- Environmental Concerns
- Community Health and Safety
- Social Commitments and Infrastructure
Community relations activity included 42 formal stakeholder engagement events with the participation of 162 stakeholders, 536 informal stakeholder engagements (emails, telephone calls and walk-ins), nine sponsored community events and two collaborative engagement activities. Topics of enquiries are shown in Figure 8.2.
Local content encompasses employment, procurement, training and development, and contracting of people, goods and services who are considered by Australia Pacific LNG to be nationals or national companies operating within Australia, including the immediate area where the Project is located. It includes any service or maintenance element forming part of materials purchase.

Since 2011, the Local Content Team has referred over 600 businesses to the Department of State Development, Infrastructure and Planning for business diagnostics and development. The range of services include writing capability statements (approximately 220 companies), being pre-qualified to supply to the Project (approximately 90 companies), building competitiveness through contract management and the tendering process. In addition, the referrals have resulted in business matching with other opportunities within the region. As the Project moves to the operations and maintenance phase, the Team will continue to build local capability through collaboration with State and Local governments.

Australia Pacific LNG has adopted the Queensland Resources and Energy Sector Code of Practice for Local Content.

At the end of December 2014 the cumulative expenditure for the Project sourced in Australia reached AUD$17 billion, approximately 76 percent of all project spend (Figure 8.3).

The Local Content benefits have predominantly remained within Queensland with over 50 percent of all project spend being local. The Queensland spend has provided significant benefits within the areas managed by local Regional Councils in the Surat Basin where the gas and water facilities are located and in Gladstone where the LNG facility is being constructed.

Figure 8.3: Project Spending and Local Supply Data
8.3 Community Grievance and Dispute Resolution

Australia Pacific LNG, the Project Operators, and contractors record and respond to all community complaints from landowners and community members. All complaints are responded to within 48 hours and investigated in a fair and transparent manner in an effort to affect a timely resolution with the complainant.

During this reporting period, Australia Pacific LNG registered 69 complaints compared with 78 complaints received in the previous period.

Complaints were predominantly related to community concerns about noise, dust, traffic and transport and workforce. (Refer to Figure 8.4 and Figure 8.5). At the end of the reporting period, 86 percent of all complaints received had been closed out.

All community complaints for this reporting period were received by the Upstream Operator, due to the vast area covered by the Upstream Project and by the much larger number of directly affected stakeholders. The Downstream Project did not receive any community complaints.

![Figure 8.4: Community Complaint Categories](image)

![Figure 8.5: Total Number of Complaints by Reporting Period](image)
8.4 Collaborative Industry Initiatives

Regional Community Consultative Committees

Australia Pacific LNG is involved in four Regional Community Consultative Committees in Maranoa (jointly with Santos), Western Downs, Banana Shire and Gladstone (jointly with Santos and QGC).

The purpose of the committees is to foster open and transparent dialogue between Australia Pacific LNG and the community by providing a mechanism for information exchange and the collaborative development of solutions to social impacts.

Members represent a broad cross-section of the community in each region, including representatives from local council, government departments, welfare groups, local chambers of commerce and the general public.

Community Programs

The Upstream Project continued its support of the ‘CSG Industry Schools Program’ and the ‘I Can Indigenous Student Retention Program’, which are jointly funded with other proponents.

The Project also committed to one new collaborative industry initiative, the Thornhill Indigenous Training Centre upgrade. Australia Pacific LNG committed $482,000 to the $1.2 million upgrade of the Gidarjil Development Corporation’s Thornhill Indigenous Training Centre to deliver CSG-LNG industry-focused training, including programs in camp management, hospitality, transport and security. The upgrade is also funded with contributions from QGC and Gidarjil. Due for completion in 2015, the expansion will more than double the capacity of the centre to 240 trainees per year, of which 15 percent of placements will be reserved for Indigenous peoples from the Western Downs, Maranoa and Banana Shire for the next five years. As part of the partnership, Gidarjil will maintain and strengthen links with employers across the gas fields region with the aim of supporting the majority of graduates into employment.

Bell State School students Destiny Page (left) and Nicole Blanck create battery powered robots.
Learning to love science and technology

Over a thousand secondary students from more than 40 Surat Basin schools learned about the power of engineering, the wonders of science, and tried a trade as part of the 2014 Science, Technology, Engineering and Maths (STEM) Schools Program.

The CSG industry-funded $400,000 program raises the profile, awareness and participation in science, technology, engineering and maths among secondary students in the Surat Basin region.

The program was open to students from 35 state schools and six Catholic and independent schools throughout the Surat Basin, from Dalby to Roma and surrounding communities.

Engaging and entertaining science programs are delivered by approved third-party educational program providers.

These programs include the Wonders of Science program run by the Academy of Technology Sciences and Engineering, the Power of Engineering program run by Power of Engineering Inc., the Try A Trade program run by Construction Skills Queensland and QMI Solutions, and Re-Engineering Australia’s F1 in Schools Technology Challenge.

Chinchilla State High School student Dale Schulz said he really enjoyed the Try A Trade program. “I love finding out how things work so it was great being able to pick up some tools and pull an engine apart, and then put it all back together again,” Dale said.

The Schools Program is managed by the Department of Education, Training and Employment, and funded by Australia Pacific LNG, QGC, Arrow Energy and Santos GLNG, which have each contributed $100,000.

Origin Regional Community Relations Manager Scott Bird said the three-year program had proved extremely successful in its first two years of operation and would continue in 2015.

“Young people are naturally very curious about science and these activities are a really effective way to build early enthusiasm and engagement with these important subjects: science, technology, engineering, and maths,” Scott said.
8.5 Community Investment

Four social impact management themes underpin Australia Pacific LNG’s community investment: social infrastructure, partnerships, sponsorships and donations, and employee-giving and volunteering (Figure 8.6).

**COMMUNITY INVESTMENT**

**SOCIAL INFRASTRUCTURE**
- Large scale investment in ‘hard’ infrastructure
- Informed by local and state government plans/priorities

**PARTNERSHIPS**
- Focus on sustainable community development
- Programs to build capacity and address social impacts

**SPONSORSHIPS AND DONATIONS**
- Assistance to small scale community events and projects
- Support community connectedness and build relationships

**EMPLOYEE-GIVING AND VOLUNTEERING**
- Support for employees to volunteer and give to local projects/organisations
- Support integration of workforce into community

In addition, the following priority areas form the basis of all activity and initiatives undertaken by Australia Pacific LNG in any of the identified social impact management themes seen in Figure 8.7.

<table>
<thead>
<tr>
<th>SKILLS, EDUCATION AND TRAINING</th>
<th>Supporting community capacity building through local skills development and adding to local education opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMUNITY SAFETY HEALTH AND WELLBEING</td>
<td>Supporting safer and healthier communities (including efforts by ambulance, healthcare, police and emergency services) and public welfare activities</td>
</tr>
<tr>
<td>SUSTAINABLE POPULATION GROWTH</td>
<td>Supporting projects that assist to manage population influx in a responsible and sustainable manner</td>
</tr>
<tr>
<td>NATURAL RESOURCE STEWARDSHIP</td>
<td>Supporting the protection and enhancement of productivity in our natural resources including agriculture, land, water and biodiversity</td>
</tr>
</tbody>
</table>

**Figure 8.6 Community investment categories**

**Figure 8.7 Priority areas for community investment**
To date, over AUD$35 million has been committed by Australia Pacific LNG to community investment projects and AUD$30 million has actually been spent (Figure 8.8). Investments are targeted at priority areas identified through the Social Impact Management Plan consultation process.

The Project continued investing in measures to mitigate impacts and create community development opportunities across a range of areas, including housing, training, community safety and community capacity building.

Upstream community investment expenditure from July to December 2014 was approximately AUD$3.5 million, taking the total funds expensed to date to AUD$13.3 million. The Project committed to new programs in the areas of emergency services, community safety and Indigenous training. It also investigated a number of programs for potential commitment in 2015 to support regional economic development objectives and to address remaining housing affordability impacts in Western Downs.

Upstream also continued to deliver the projects listed in Table 8.1 in order to help mitigate social impacts, ensure community capacity to sustain project operations and to share project value. Figure 8.9 shows the Upstream Project community investment areas and values for the reporting period.

A complete list of community investment programs managed by the Upstream Project is in Table 8.1.
Downstream

Downstream community investment expenditure from July to December 2014 was AUD$237,424, taking the total funds expended to date to AUD$16.6 million. The Downstream Project committed to new programs across the areas of environmental, marine, business and management, education and training programs and employment for the Aboriginal and Torres Strait Islander community; supporting Gladstone students to travel to the University of Queensland for science based study; and supporting a program and committee in developing a common, structured view on what stakeholders see as Gladstone’s future.

Figure 8.10 show the Downstream Operator’s community investments areas and values for the reporting period.

Miles State High School students Rebecca Grace and Shayla Johnson get to grips with the combustion engine.
### Table 8.1 Upstream Community Investment Projects

<table>
<thead>
<tr>
<th>Region</th>
<th>Initiative</th>
<th>Description</th>
<th>Target Group</th>
<th>Duration of Investment</th>
<th>Status</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Downs</td>
<td>Horizon Housing – Miles</td>
<td>Program partner, Horizon Housing, completed the development of nine homes in March 2013, which were rented and sold at a significant discount to local residents.</td>
<td>Lower income earners needing housing</td>
<td>Completed in 2013</td>
<td>Completed</td>
<td>$2,050,000</td>
</tr>
<tr>
<td>Maranoa</td>
<td>Horizon Housing – Roma</td>
<td>Program partner, Horizon Housing, will develop in Roma up to 18 affordable dwellings over two phases, also supported by Maranoa Regional Council.</td>
<td>Lower income earners needing housing</td>
<td>Under construction 2014-2015</td>
<td>In progress</td>
<td>$1,875,000</td>
</tr>
<tr>
<td>Western Downs</td>
<td>Housing Case Management</td>
<td>Funded for a Housing Officer at Murilla Community Centre in Miles and Chinchilla Family Support Centre.</td>
<td>Lower income earners needing housing</td>
<td>Two years 2011-2012</td>
<td>Completed</td>
<td>$150,000</td>
</tr>
<tr>
<td>Western Downs</td>
<td>WDRC Town Planning Support</td>
<td>Funded an engineer to work for two years with Western Downs Regional Council (WDRC) to assist with town planning and timely approval of development applications linked to population growth.</td>
<td>General Community</td>
<td>Two years 2013-2014</td>
<td>Completed</td>
<td>$260,000</td>
</tr>
<tr>
<td>Maranoa Western Downs Banana Shire</td>
<td>REMPLAN Data Access</td>
<td>The Project provided financial support to Regional Development Australia (RDA) to access ‘REPLAN’ data to assist Local Government in forward planning.</td>
<td>Local Government</td>
<td>Once off investment 2013</td>
<td>Completed</td>
<td>$25,000</td>
</tr>
<tr>
<td>Western Downs</td>
<td>Miles Water and Sewerage Upgrade</td>
<td>Funding to support the Western Downs Regional Council increase the water and sewerage network capacity in Miles, as part of the Queensland Government Royalties for the Regions program.</td>
<td>General Community</td>
<td>2014-2015</td>
<td>In progress</td>
<td>$1,290,000</td>
</tr>
<tr>
<td>Maranoa</td>
<td>Roma Sewerage Upgrade</td>
<td>Funding to support the Maranoa Regional Council to increase capacity of the sewerage treatment facility, as part of the Queensland Government Royalties for the Regions program.</td>
<td>General Community</td>
<td>2014-2015</td>
<td>In Progress</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>Western Downs</td>
<td>Rent Connect Officer</td>
<td>Funding for a Housing Officer at Murilla Community Centre Miles and Chinchilla Family Support Centre.</td>
<td>General Community</td>
<td>One year 2012</td>
<td>Completed</td>
<td>$65,000</td>
</tr>
<tr>
<td>Western Downs</td>
<td>Rent Subsidy - Miles</td>
<td>A short term initiative to subsidise rent for participating properties while market rents were impacted by high demand.</td>
<td>Lower income earners needing housing</td>
<td>Two years 2012-2013</td>
<td>Completed</td>
<td>$72,000</td>
</tr>
<tr>
<td>Maranoa</td>
<td>Roma Airport Upgrade</td>
<td>The Roma airport was upgraded to cater for increased number of travellers to the region and reduce road traffic, contributing to safer travel.</td>
<td>General Community</td>
<td>Once off investment 2011</td>
<td>Completed</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Region</td>
<td>Initiative</td>
<td>Description</td>
<td>Target Group</td>
<td>Duration of Investment</td>
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<tr>
<td>Maranoa</td>
<td>Roma Airport Extension</td>
<td>Additional funding to support the expansion of airport facilities and amenities.</td>
<td>General Community</td>
<td>2014-2015</td>
<td>In progress</td>
<td>$500,000</td>
</tr>
<tr>
<td>Maranoa</td>
<td>Roma Community Hub</td>
<td>Centralisation of community services from six locations to one to improve community service delivery and support local community.</td>
<td>General Community</td>
<td>Once off investment</td>
<td>Completed</td>
<td>$500,000</td>
</tr>
<tr>
<td></td>
<td>Queensland Fire and Emergency Services (QFES) Communications Enhancement</td>
<td>A partnership with QGC to address communication black spots that emergency services experience between the towns of Roma, Injune, Taroom, Wandoan and Mitchell.</td>
<td>General Community</td>
<td>Once off investment</td>
<td>In progress</td>
<td>$100,000</td>
</tr>
<tr>
<td>Western Downs</td>
<td>Chinchilla Kindergarten Expansion</td>
<td>Funding contributed to the relocation and expansion of the Chinchilla Community Kindergarten, doubling its capacity for 2014.</td>
<td>General Community</td>
<td>Once off investment</td>
<td>Completed</td>
<td>$400,000</td>
</tr>
<tr>
<td>Maranoa</td>
<td>Roma Parenting Van</td>
<td>The mobile parenting space provides a clean and safe room for parenting for use at shows and events throughout the Maranoa Region.</td>
<td>General Community</td>
<td>Once off investment</td>
<td>Completed</td>
<td>$95,000</td>
</tr>
<tr>
<td>Western Downs</td>
<td>Community Sponsorships</td>
<td>The project supports small scale, local community programs focused on skills and education, community cohesion, sustainable population growth, natural resource stewardship and health and safety.</td>
<td>General Community</td>
<td>Ongoing since 2012</td>
<td>In progress</td>
<td>$488,000 to date</td>
</tr>
<tr>
<td>Western Downs</td>
<td>Community Support Program</td>
<td>This program provides support to community centres in Miles and Chinchilla to cater for an increased demand in services during the Project’s period of peak impact.</td>
<td>General Community</td>
<td>Two years</td>
<td>In progress</td>
<td>$225,000</td>
</tr>
<tr>
<td>Western Downs</td>
<td>NGO Capacity Building Program</td>
<td>Targeting community centres in Chinchilla, Miles, Dalby and Tara, the program aims to build capacity in the areas of governance and funding sustainability.</td>
<td>General Community</td>
<td>One year 2013-2014 with a one year extension option</td>
<td>In progress</td>
<td>$188,000</td>
</tr>
<tr>
<td>Western Downs</td>
<td>Miles Ahead</td>
<td>To provide support to local businesses to successfully address changes in the business environment associated with the CSG industry.</td>
<td>Business Community</td>
<td>Two years</td>
<td>Completed</td>
<td>$240,000</td>
</tr>
<tr>
<td>Western Downs</td>
<td>Miles Training Centre</td>
<td>To provide financial support for the fit out of the Trade Training Centre as part of its workforce and training strategies.</td>
<td>Youth in the Community</td>
<td>Once off investment</td>
<td>Completed</td>
<td>$113,000</td>
</tr>
<tr>
<td></td>
<td>I Can Indigenous schools retention program</td>
<td>An Indigenous school student retention program run across the gas fields in partnership with the Gold Coast Titans NRL team’s Titans 4 Tomorrow community development arm.</td>
<td>Indigenous high school students</td>
<td>Three years 2013-2015</td>
<td>In progress</td>
<td>Up to $600,000</td>
</tr>
<tr>
<td>Region</td>
<td>Initiative</td>
<td>Description</td>
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<tr>
<td>Maranoa Western Downs</td>
<td>Education Qld Schools Program</td>
<td>Partnership with QGC, Santos and Arrow to build local workforce capacity by enhancing student interest in science, mathematics, engineering and technology in 41 schools across the Surat Basin.</td>
<td>High school students</td>
<td>Three years</td>
<td>In progress</td>
<td>Up to $300,000</td>
</tr>
<tr>
<td>Banana Shire</td>
<td>CSG School Program, Queensland Minerals and Energy Academy (QMEA)</td>
<td>To educate high school students in CSG-related engineering opportunities by promoting relevant subjects within the curriculum.</td>
<td>High school students</td>
<td>Three years</td>
<td>Completed</td>
<td>$250,000</td>
</tr>
<tr>
<td>Maranoa Western Downs</td>
<td>Community Skills Scholarship (CSS)</td>
<td>CSS provides up to $13,500 to apprentices within the gas fields region to help them complete their apprenticeships locally. Since 2007 more than 100 scholarships have been awarded.</td>
<td>Apprentices in the community</td>
<td>Ongoing since 2007</td>
<td>In progress</td>
<td>$2,000,000 committed to date</td>
</tr>
<tr>
<td>Banana Shire</td>
<td>Count Me In (YWCA)</td>
<td>Identifying females in the Surat Basin willing to work but currently outside of the workforce, identifying barriers to employment, and providing targeted training.</td>
<td>Women in the Community</td>
<td>Two phases</td>
<td>Completed</td>
<td>$200,000</td>
</tr>
<tr>
<td>Maranoa Western Downs</td>
<td>Careers in Gas website</td>
<td>Jointly funded website to provide a single portal for advertising jobs in the gas fields region and the CSG/LNG industry.</td>
<td>General Community</td>
<td>Three years</td>
<td>Completed</td>
<td>$35,000</td>
</tr>
<tr>
<td>Banana Shire</td>
<td>Wesley Research Institute Health Partnership</td>
<td>This partnership (jointly funded with Australia Pacific LNG Downstream) will research regional health issues to help shape private and public investment in health improvement initiatives.</td>
<td>General Community</td>
<td>Two years</td>
<td>In progress</td>
<td>$500,000*</td>
</tr>
<tr>
<td>Maranoa Western Downs</td>
<td>GISERA Research Partnership (Social &amp; Economic stream)</td>
<td>This research partnership with the CSIRO aims to measure social and economic impacts and opportunities associated with the CSG industry.</td>
<td>General Community</td>
<td>Three years</td>
<td>In progress</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Banana Shire</td>
<td>CARS (Caring About Road Safety)</td>
<td>Developed in response to local concerns and delivered in partnership with the Royal Automobile Club of Queensland (RACQ), the CARS program equips new drivers with safe driving strategies.</td>
<td>High school students</td>
<td>Ongoing since 2007</td>
<td>In progress</td>
<td>$210,000 to date</td>
</tr>
<tr>
<td>Banana Shire</td>
<td>Taroom Weed Wash Down Facility</td>
<td>Co-funded with Banana Shire Council, the upgrade of the Taroom weed wash down facility aims to prevent the spread of weeds from vehicles.</td>
<td>General Community</td>
<td>2013</td>
<td>Completed</td>
<td>$400,000</td>
</tr>
<tr>
<td>Region</td>
<td>Initiative</td>
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<tr>
<td>Maranoa, Western Downs and Banana Shires</td>
<td>Thornhill Indigenous Training Centre Upgrade</td>
<td>Funding to more than double the capacity of the existing training facility delivering camps facilities and hospitality training for Indigenous trainees. For the first five years, 15% of training participation will be from Western Downs, Maranoa and Banana Shire.</td>
<td>Indigenous Trainees</td>
<td>2014-2015</td>
<td>In Progress</td>
<td>$482,000</td>
</tr>
<tr>
<td>Maranoa, Western Downs and Banana Shires</td>
<td>Police Citizens Youth Club (PCYC) Driving Simulators</td>
<td>Funding for four driver training simulators to support education programs for at-risk drivers identified by Queensland Police Service, including youth, Indigenous drivers and participants in the Under the Limit program.</td>
<td>Youth/Indigenous/General Community</td>
<td>Once-off Investment in 2014</td>
<td>Completed</td>
<td>$207,500</td>
</tr>
<tr>
<td>Maranoa, Western Downs and Banana Shires</td>
<td>QFES Equipment Partnership</td>
<td>Partnership to address equipment needs across the Surat Basin for Queensland Fire and Emergency Service, incorporating the rural and urban fire services and the State Emergency Service (SES).</td>
<td>General Community</td>
<td>2014-2015</td>
<td>In Progress</td>
<td>$663,700</td>
</tr>
</tbody>
</table>

**Total Committed by Upstream**

| All Projects | $17,489,200 |

* Shared sponsorship with the Downstream Project for the total of AUD$1,000,000
<table>
<thead>
<tr>
<th>Region</th>
<th>Initiative</th>
<th>Description</th>
<th>Target Group</th>
<th>Duration of Investment</th>
<th>Status</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gladstone</td>
<td>Gladstone Affordable Housing</td>
<td>Seed funding for development of affordable housing options, and funds to Urban Land Development Authority (ULDA) to fast-track affordable residential land development.</td>
<td>Lower income earners needing housing</td>
<td>Once off investment 2012</td>
<td>Completed</td>
<td>$6,500,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Gladstone Foundation</td>
<td>Perpetual trust fund established with the Public Trustee of Queensland to provide social infrastructure to the Gladstone Region.</td>
<td>Community General</td>
<td>Once off investment 2012</td>
<td>Completed</td>
<td>$5,000,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Mary Rivers Microfinance</td>
<td>To offer business mentoring and microenterprise loans to start-up and eligible businesses aimed at ensuring economic stability and enrichment.</td>
<td>Aboriginal and Torres Strait Islanders</td>
<td>Three years 2012-2015</td>
<td>Ongoing</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Rental Assistance Program</td>
<td>Rental subsidies are made available to eligible applicants from the region’s emergency services, medical, educational and welfare sectors to assist in ensuring the continuity and stability of these services during the economical challenging period of population influx.</td>
<td>Police, Fire, Ambulance, Healthcare, Education workers</td>
<td>Two years 2012-2014</td>
<td>Completed</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Wesley Research Institute Health Partnership</td>
<td>This partnership (jointly funded with Australia Pacific LNG Downstream) will research regional health issues to help shape private and public investment in health improvement initiatives.</td>
<td>Community General</td>
<td>Two years 2013-2015</td>
<td>In progress</td>
<td>$500,000*</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Queensland Symphony Orchestra</td>
<td>A program aimed at cultural enrichment. Music students are able to work closely with professional musicians to enhance their skills. The entire orchestra performs a free concert for the Gladstone community.</td>
<td>School students, general public</td>
<td>Three years 2012-2015</td>
<td>Ongoing</td>
<td>$450,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Energy Skills Queensland</td>
<td>Gladstone and Queensland Workforce Skilling Strategies provide pre-employment skilling programs in areas of identified skill shortages which have direct links to the expansion of the CSG-LNG industry.</td>
<td>Under-represented, unemployed, Indigenous and migrant groups</td>
<td>Three years 2012-2015</td>
<td>Ongoing</td>
<td>$300,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Port Curtis Harbourwatch</td>
<td>Secondary schools science program enhancing students understanding and practice in marine ecological research.</td>
<td>Secondary School Students</td>
<td>Three years 2013-2016</td>
<td>Ongoing</td>
<td>$218,284</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Gladstone Chamber of Commerce and Industry</td>
<td>A suite of campaigns and programs aimed at local small business capacity development.</td>
<td>Business General</td>
<td>Three years 2013-2016</td>
<td>Ongoing</td>
<td>$210,900</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Education Queensland Industry Partnership</td>
<td>A schools-based trainee / apprentice program that assists students to complete Year 12 while also getting started on a trade skills pathway with local businesses.</td>
<td>Year 11/12 students</td>
<td>Three years 2012-2015</td>
<td>Ongoing</td>
<td>$150,000</td>
</tr>
<tr>
<td>Region</td>
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<tr>
<td>Gladstone</td>
<td>Energy Skills Queensland</td>
<td>Indigenous pre-employment and vocational training programs chosen in consultation with industry and tailored to suit the local region's labour market demands for traffic control, trades assistant / civil construction and other local jobs.</td>
<td>Aboriginal and Torres Strait Islanders</td>
<td>2014</td>
<td>Completed</td>
<td>$150,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Youth Inclusion Program</td>
<td>Support for a range of programs and events aimed at social inclusion, cultural learning and community leadership.</td>
<td>Young People</td>
<td>2014-2015</td>
<td>Ongoing</td>
<td>$145,900</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Quoin Island Sanctuary</td>
<td>Financial support for the marine turtle rehabilitation facility located on Quoin Island in the Gladstone Harbour.</td>
<td>Environment and Community</td>
<td>Two years 2013-2015</td>
<td>Ongoing</td>
<td>$140,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>QMEA</td>
<td>Schools-based program raising awareness of career opportunities within the energy sector. Within the education curriculum the program promotes the professional pathways into the industry.</td>
<td>Year 11/12 students, teacher Professional Development</td>
<td>2011-2015</td>
<td>Ongoing</td>
<td>$112,500</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Harbour Festival</td>
<td>Sponsorship of a key annual community event held in Gladstone celebrating the Harbour.</td>
<td>Community General</td>
<td>2011-2015</td>
<td>Ongoing</td>
<td>$80,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>2011-2014 ‘NAIDOC’ Week Celebrations</td>
<td>Support for 2014 ‘NAIDOC’ Week celebrations in Gladstone.</td>
<td>Aboriginal and Torres Strait Islander</td>
<td>2011-2014</td>
<td>Completed</td>
<td>$57,500</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Volunteer Marine Rescue</td>
<td>Support for the fit-out of new headquarters of the Gladstone Volunteer Marine Rescue Service.</td>
<td>General Community</td>
<td>2013</td>
<td>Completed</td>
<td>$54,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>FutureEye Vision 2035</td>
<td>This partnership, in collaboration with a number of Gladstone based partners, supports a program and committee to develop a common, structured view on what stakeholders see as Gladstone’s future.</td>
<td>General Community</td>
<td>2014-2015</td>
<td>In progress</td>
<td>$50,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Exodus Tutorial Centre</td>
<td>Sponsorship of a program aiming to improve literacy levels of students in years 5 to 7.</td>
<td>School Students</td>
<td>2013</td>
<td>Completed</td>
<td>$45,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>OBD Community Safety Program</td>
<td>Joint industry initiative supporting increased Police presence in the Gladstone entertainment precinct on Friday and Saturday nights aimed at preventing antisocial behaviour.</td>
<td>Community General</td>
<td>2013</td>
<td>Completed</td>
<td>$40,633</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Botanic to Bridge and Healthy Living Expo</td>
<td>Sponsorship of a key annual community event held in Gladstone promoting healthy active lifestyles through a fun run.</td>
<td>General Community</td>
<td>2011-2014</td>
<td>Completed</td>
<td>$40,385</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Year of Cycling</td>
<td>A program of events held throughout the region aimed at promotion of cycling to achieve a healthy active lifestyle to the community.</td>
<td>Community</td>
<td>2012</td>
<td>Completed</td>
<td>$30,000</td>
</tr>
<tr>
<td>Region</td>
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<tr>
<td>Gladstone</td>
<td>Cultural Diversity Forum</td>
<td>Sponsorship of an annual event aimed at improved integration of culturally and linguistically diverse people.</td>
<td>General Community</td>
<td>2012-2013</td>
<td>Completed</td>
<td>$29,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Road to a Dream</td>
<td>Seed funding to undertake critical safety upgrades and allow for further expansion of existing sporting facilities in Agnes Waters.</td>
<td>Community General</td>
<td>2013</td>
<td>Completed</td>
<td>$25,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>QPS subsidised housing</td>
<td>Subsidised rental properties leased to the Queensland Police Service (QPS) enabling accommodation of new officers posted to Gladstone.</td>
<td>Queensland Police Service</td>
<td>2013</td>
<td>Completed</td>
<td>$24,620</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Gladstone Multicultural Festival 2012</td>
<td>Sponsorship of a local community event aimed at improved integration of culturally and linguistically diverse people.</td>
<td>General Community</td>
<td>2012</td>
<td>Completed</td>
<td>$22,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Mount Larcom Showgrounds</td>
<td>Purchase of new grandstand seating to allow the expansion of the showground’s capacity in holdings and functionality.</td>
<td>Community General</td>
<td>2013</td>
<td>Completed</td>
<td>$22,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Port Curtis Coral Coast Traditional Owners</td>
<td>Collaborative development of strategies to maximise the potential of local Aboriginal and Torres Strait Islander business involvement in the Operations phase of the Project.</td>
<td>Aboriginal and Torres Strait Islander</td>
<td>2013</td>
<td>Completed</td>
<td>$19,700</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Science Schools Foundation; The ConocoPhillips Science Experience 2015</td>
<td>Sponsorship to support students from Gladstone to travel to Brisbane to participate in the science focused educational program at University of Queensland St Lucia campus.</td>
<td>Secondary School Students</td>
<td>2014</td>
<td>Completed</td>
<td>$15,335</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Red Frogs Gladstone</td>
<td>Sponsorship of community group working to reduce instances of drug use and alcoholism in young people.</td>
<td>Young People</td>
<td>2013</td>
<td>Completed</td>
<td>$15,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Gidarjil Development Corporation; Marine Training Centre</td>
<td>Sponsorship for an Environmental training centre, with facilities in Gladstone and Bundaberg that will deliver environmental, marine, business and management, education and training programs and coordinate employment opportunities for participants.</td>
<td>Aboriginal and Torres Strait Islander</td>
<td>2014</td>
<td>Once off</td>
<td>$15,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Mount Larcom and District Show Society</td>
<td>Sponsorship of a key annual community event held in the Gladstone region celebrating the regions diversity and agricultural history.</td>
<td>General Community</td>
<td>2012</td>
<td>Completed</td>
<td>$13,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Central Region Road Safety Week</td>
<td>A program of events and initiatives held throughout the region aimed at promotion of road safety and driver awareness.</td>
<td>Community General</td>
<td>2014</td>
<td>Completed</td>
<td>$12,500</td>
</tr>
<tr>
<td>Region</td>
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<tr>
<td>Gladstone</td>
<td>Seniors Week</td>
<td>A program of events and initiatives held throughout the region celebrating the aged.</td>
<td>Aged Community</td>
<td>2013</td>
<td>Completed</td>
<td>$11,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Gladstone EnviroKids</td>
<td>An educational program aimed at fostering knowledge and commitment to environmental sustainability.</td>
<td>Secondary Students</td>
<td>2013</td>
<td>Completed</td>
<td>$11,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Queensland Symphony Orchestra Performance</td>
<td>Sponsorship of a community event.</td>
<td>General Community</td>
<td>2012</td>
<td>Completed</td>
<td>$10,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Co-ordinated Community Response Domestic and Family Violence (CCRDFV) Family Fun Day</td>
<td>Sponsorship of a community event to raise awareness of domestic and family violence.</td>
<td>General Community</td>
<td>2013</td>
<td>Completed</td>
<td>$10,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Air your Dirty Laundry</td>
<td>Sponsorship of a community event to raise awareness of domestic and family violence.</td>
<td>General Community</td>
<td>2012</td>
<td>Completed</td>
<td>$10,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Menagerie Art Exhibition</td>
<td>Sponsorship of the Gladstone Regional Art Gallery hosting a touring contemporary Aboriginal sculpture exhibition.</td>
<td>General Community</td>
<td>2013</td>
<td>Completed</td>
<td>$10,000</td>
</tr>
<tr>
<td>Gladstone</td>
<td>Community Sponsorships</td>
<td>The project supports small-scale local community programs focused on skills and education, community cohesion, sustainable population growth, natural resource stewardship, and health and safety.</td>
<td>Community General</td>
<td>Ongoing since 2012</td>
<td>In progress</td>
<td>$146,229</td>
</tr>
</tbody>
</table>

**Total Committed by Downstream All Projects All partnership and sponsorship programs.** $17,196,486

* Shared sponsorship with the Upstream Project for the total of AUD$1,000,000
8.6 Land Access

Australia Pacific LNG acknowledges the Project construction and operation affects a range of land tenures, and interaction with a significant number of landholders is required to access land for the gas fields infrastructure, transmission pipeline, and LNG facilities.

The Project negotiates compensation agreements, purchases or leases land to secure access for infrastructure and facilities.

Moderate development is generally six wells or less per landowner property, including localised infrastructure (gathering systems, ponds). Major development reflects the installation of major infrastructure facilities and or development of greater than six wells per landowner property.

The location of major facilities in the gas fields is the primary reason for land purchases or leases.

Access to land for the LNG Plant and the main Pipeline Project has been concluded.

8.6.1 Compensation Agreements

Activities conducted on the land include construction, operation and maintenance of the gas wells, flowlines, ponds, and camps.

Ninety one compensation agreements were completed during the reporting period. These agreements secured access to:

- 162 development well sites
- 21 exploration and appraisal well sites
- 10 ground water monitoring bores.

At the end of December 2014, compensation agreements were in place for 967 Phase 1 wells, including 211 wells associated with properties owned by Australia Pacific LNG.

8.6.2 Legacy Cases

Legacy cases are those where access was denied by the landholder, notwithstanding an agreed process being in place, until resolution of outstanding matters. At the end of the reporting period four legacy cases were resolved and none remained outstanding.
8.7 Indigenous People

Australia Pacific LNG is committed to continued engagement and negotiations with Aboriginal and Torres Strait Island parties to develop and implement approved Cultural Heritage Management Plans and various Native Title agreements for the Project.

Two sets of Native Title compensation negotiations have been undertaken by Australia Pacific LNG:
- Right to Negotiate (RTN) - applicable in the gas fields
- Indigenous Land Use agreements (ILUA) - generally used for the main transmission pipelines and LNG facility.

To acquire additional gas exploration and production tenements, Australia Pacific LNG chose an RTN process under the Native Title Act (1993) with three affected Native Title groups: Bigambul, Mandandanji and Iman. Australia Pacific LNG commenced a further RTN for the addition of excluded land into Authority to Prospect 592. This affected three Native Title groups, Iman, Mandandanji and Bidjara peoples. These negotiations were completed in the reporting period.

ILUA negotiations are required to establish transmission pipeline routes and infrastructure, land tenure for gas processing plants, and grant of seabed leases.

Australia Pacific LNG has negotiated Cultural Heritage Management Plans (CHMPs) with all Native Title groups within Project operating areas for both Upstream and Downstream components.

8.7.1 Indigenous Land Use Agreement Negotiations

All ILUAs for the mainline pipeline and gas fields of the project are now complete.

8.7.2 Indigenous Engagement

Meetings were also held with various enterprises including Iman Operations Limited, Mandandanji Limited, Muddy Waters, Bigambul peoples and South West Projects about business and employment opportunities on the project. Other smaller and individual meetings were held to discuss various Native Title, Cultural Heritage and business and employment opportunities.

8.7.3 Indigenous Business Participation

Amongst the identified Indigenous suppliers on the Upstream Operator Vendor list are:
- St George Handy Store (a wholly-owned Indigenous business)
- Roma Security Service (Roma Security Service is 50 percent indigenously owned and operated, trading for over 20 years in Roma).
- RBY Projects (involved in construction and rehabilitation of leases for Australia Pacific LNG in the Upstream Project area)
- CRC Electrical (Electrical Instrumentation)
- Muddy Waters Weed Hygiene (weed hygiene wash down services to the Upstream Operator and other businesses in the Chinchilla area).

Indigenous earthmoving and civil construction contractor RBY have continued involvement with the Project with 35 percent of their workforce (45 FTE Indigenous employees) involved in construction and rehabilitation of leases for Australia Pacific LNG in the Upstream Project area. RBY are pre-qualified to undertake work for the Upstream Operator.

Muddy Waters, a wholly-owned subsidiary of Mandandanji Pty Ltd, continue to be a preferred supplier for weed hygiene wash-down services to the Upstream Operator. Muddy Waters also provides these services for other CSG proponents and businesses in Chinchilla and the surrounding areas.

Ongoing efforts to provide opportunities to Traditional Owner businesses will continue with assistance provided to groups to assist with capability and performance.
The Aboriginal Cultural Heritage Act requires a proponent to comply with the Duty of Care. This can be achieved through agreements with the Traditional Owner groups. These groups were identified and Australia Pacific LNG has negotiated Cultural Heritage Management Plans (CHMPs) with relevant Traditional Owner groups.

Cultural Heritage remains a priority on active work sites and identification awareness training based on information provided by Traditional Owner groups within the Project area are a key component of site orientation throughout the Project sites.

Personnel undertaking work causing ground disturbance such as excavations, road maintenance, or clear and grade activities must complete scientific cultural heritage identification training. This full-day course is provided by the Project Archaeologist, and covers practical identification of artefacts and other possible culturally significant items, including scar trees and ceremonial places. It also covers the legislative and social requirements for protection and management of Cultural Heritage.

### 8.8.1 Cultural Heritage Management Plans

CHMPs set out processes and plans to manage and protect cultural heritage across the Project. These plans include a communication protocol, management structure and survey process to ensure cultural heritage is protected. Nine CHMPs have been negotiated with all Traditional Owner groups. All these are in place and are being implemented across the Project.

### 8.8.2 Pre-Construction Surveys

Each CHMP states that a full archaeological survey is required for major infrastructure works and scouts accompanied by Traditional Owners are required for smaller infrastructure including flow lines, lease pads, and access tracks.

During the reporting period, 252 days of scouting were undertaken with Traditional Owners present.
8.8.3 Chance Findings

The process for protection, preservation and management of chance findings is detailed in each CHMP. A chance finding occurs when a potential cultural heritage site or artefact is discovered or unearthed during construction activity. Any person who locates an artefact or object must comply with Project policies developed to conform to the CHMPs and Duty of Care guidelines under the Aboriginal Cultural Heritage Act (2003).

On three occasions, work crews found potential artefacts, and stopped the job until Traditional Owners confirmed the artefacts were not related to Cultural Heritage.

The Project continued to engage with Traditional Owners to survey for cultural heritage artefacts on all Project sites.

### 8.9 Key Performance Indicators

<table>
<thead>
<tr>
<th>Number of social behaviour incidents*</th>
<th>Upstream 14</th>
<th>Downstream 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of community complaints</td>
<td>Upstream 69</td>
<td>Downstream 0</td>
</tr>
<tr>
<td>Percent of community complaints closed out within the reporting period</td>
<td>Upstream 85%</td>
<td>Downstream N/A</td>
</tr>
<tr>
<td>Number of biosecurity incidents</td>
<td>Upstream 1</td>
<td>Downstream 1</td>
</tr>
</tbody>
</table>

**Access to Land**

| Number of legacy cases resolved in the period | 4 |
| Number of landholder complaints** | 8 |
| Number of ongoing litigation cases | 0 |
| Number of cases mediated | 0 |

<table>
<thead>
<tr>
<th>Indigenous Peoples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Indigenous groups providing goods and services to the Project</td>
</tr>
<tr>
<td>Downstream 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cultural Heritage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of non-compliance incidents with Cultural Heritage Management Plans</td>
</tr>
<tr>
<td>Number of chance findings (cultural heritage objects) in the reporting period</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial contributions supporting the Community Investment strategy for the reporting period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream AUD$3,490,000</td>
</tr>
<tr>
<td>Downstream AUD$237,424</td>
</tr>
</tbody>
</table>

*Social behaviour incidents refers to workforce behaviour complaints as detailed in Section 8.3.

**Complaints related to land access and compensation as detailed in Section 8.3
### Appendix – Glossary of Terms and Abbreviations

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia Pacific LNG</td>
<td>Australia Pacific LNG Pty Limited</td>
</tr>
<tr>
<td>APPEA</td>
<td>Australian Petroleum Production and Exploration Association</td>
</tr>
<tr>
<td>ADWG</td>
<td>Australian Drinking Water Guideline</td>
</tr>
<tr>
<td>ATLAS</td>
<td>Customised proprietary compliance and tracking database based on an ATLAS Borealis system of information management</td>
</tr>
<tr>
<td>Bechtel</td>
<td>Bechtel Corporation, the EPC Contractor of the LNG Plant and the Shared Facilities (other than the LNG storage tanks)</td>
</tr>
<tr>
<td>CAS</td>
<td>Community Advisory Service (Gladstone)</td>
</tr>
<tr>
<td>CAR</td>
<td>Corrective Action Request</td>
</tr>
<tr>
<td>CARS</td>
<td>Origin ‘Caring About Road Safety’ Program</td>
</tr>
<tr>
<td>CHMP</td>
<td>Cultural Heritage Management Plan</td>
</tr>
<tr>
<td>CG</td>
<td>Queensland Coordinator General</td>
</tr>
<tr>
<td>CO2</td>
<td>Carbon Dioxide</td>
</tr>
<tr>
<td>COP Australia</td>
<td>ConocoPhillips Australia Pty Ltd, a wholly-owned subsidiary of ConocoPhillips, and the Downstream Operator</td>
</tr>
<tr>
<td>CSG</td>
<td>Coal Seam Gas</td>
</tr>
<tr>
<td>CSIRO</td>
<td>Commonwealth Scientific and Industrial Research Organisation</td>
</tr>
<tr>
<td>DAFF</td>
<td>Queensland Department of Agriculture, Fisheries and Forestry</td>
</tr>
<tr>
<td>DIDO</td>
<td>Drive-in Drive-out work regime</td>
</tr>
<tr>
<td>Downstream Operating Agreement</td>
<td>The operating agreement between Australia Pacific LNG and the Downstream Operator, pursuant to which the Downstream Operator manages the construction of, and operates and maintains, the LNG Plant and the Shared Facilities on behalf of the Borrower and the Shared Facilities Provider</td>
</tr>
<tr>
<td>Downstream Operator</td>
<td>ConocoPhillips Australia Pty Ltd</td>
</tr>
<tr>
<td>Downstream Project</td>
<td>The design, construction, testing, commissioning and operation of the LNG Plant and Shared Facilities</td>
</tr>
<tr>
<td>EA</td>
<td>Environmental Authority</td>
</tr>
<tr>
<td>EHP</td>
<td>Queensland Department of Environment and Heritage Protection</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>EMP</td>
<td>Environmental Management Plan</td>
</tr>
<tr>
<td>EPBC Approval</td>
<td>‘EPBC Approval’ means the approval granted to Australia Pacific LNG under the <em>Environment Protection and Biodiversity Conservation Act 1999</em> (Cth) dated 21 February 2011 and bearing the title ‘Australia Pacific LNG Project - Development of a LNG Plant and Ancillary Onshore and Marine Facilities on Curtis Island - EPBC 2009/4977’</td>
</tr>
<tr>
<td>EPC</td>
<td>Engineering, Procurement and Construction</td>
</tr>
<tr>
<td>ESMP</td>
<td>Environmental and Social Management Plan</td>
</tr>
<tr>
<td>EVNT</td>
<td>Endangered, Vulnerable and Near Threatened Species</td>
</tr>
<tr>
<td>FAC</td>
<td>First Aid Case</td>
</tr>
<tr>
<td>FIFO</td>
<td>Fly-in-fly-out work regime</td>
</tr>
<tr>
<td>FTE</td>
<td>Full Time Equivalent</td>
</tr>
</tbody>
</table>
| Gas Production System | Gas Production System means all wells, valves, compressors, vessels, meters, equipment, pipelines, facilities, installations and apparatus which, in the judgment of the Seller, are from time to time required to: 

(a) produce and gather Natural Gas; 

(b) separate water and other constituents from that Natural Gas for the purpose of producing Gas; or 

(c) compress and deliver Gas to the Delivery Points. |
<p>| GAWB | Gladstone Area Water Board |
| GISERA | Gas Industry Social and Environmental Research Alliance |
| GLDMG | Gladstone Local Disaster Management Group |
| GLNG | Gladstone LNG Project |
| GPC | Gladstone Ports Corporation |
| GQAL | Good Quality Agricultural Land |
| GRC | Gladstone Regional Council |
| HDD | Horizontal Directional Drilling |</p>
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE</td>
<td>Health, Safety and Environment</td>
</tr>
<tr>
<td>HSSE</td>
<td>Health, Safety, Security and Environment</td>
</tr>
<tr>
<td>HPI</td>
<td>High Potential Incident – A near miss safety incident with a likely potential consequence of a fatality</td>
</tr>
<tr>
<td>IESC</td>
<td>Independent Environment and Social Consultant</td>
</tr>
<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
</tr>
<tr>
<td>ILUA</td>
<td>Indigenous Land Use Agreement</td>
</tr>
<tr>
<td>LNG</td>
<td>Liquefied Natural Gas</td>
</tr>
<tr>
<td>LNG Plant</td>
<td>The gas liquefaction facility to be built by the Downstream Operator and certain ancillary facilities (but not including the Shared Facilities)</td>
</tr>
<tr>
<td>LNG Facilities</td>
<td>The LNG Plant plus Shared Facilities</td>
</tr>
<tr>
<td>LTC</td>
<td>Lost Time Case</td>
</tr>
<tr>
<td>Make Good Agreement</td>
<td>If an existing water bore is affected by a CSG operation, the responsible CSG company must undertake reparation measures to restore the bore’s capacity to supply water, or provide the bore owner with an alternative water supply or monetary compensation</td>
</tr>
<tr>
<td>ML</td>
<td>Megalitres</td>
</tr>
<tr>
<td>MTC</td>
<td>Medical Treatment Case</td>
</tr>
<tr>
<td>Mtpa</td>
<td>Million metric tons per year</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Government Organisation</td>
</tr>
<tr>
<td>NOx</td>
<td>Nitrogen Oxides</td>
</tr>
<tr>
<td>OSBL</td>
<td>Outside Battery Limits</td>
</tr>
<tr>
<td>OCIS</td>
<td>Origin Collective Intelligence System</td>
</tr>
<tr>
<td>Origin</td>
<td>Origin Energy Limited</td>
</tr>
<tr>
<td>PIN</td>
<td>Penalty Infringement Notice</td>
</tr>
<tr>
<td>Project</td>
<td>The ‘Project’ comprises the development, construction, operation, maintenance, and ownership of Australia Pacific LNG’s CSG fields, the construction of a gas transmission pipeline(s), together with the construction of LNG facilities and associated port infrastructure to export LNG to international markets</td>
</tr>
<tr>
<td>QCLNG</td>
<td>Queensland Curtis LNG Project</td>
</tr>
<tr>
<td>Queensland Environmental Authority</td>
<td>‘Queensland Environmental Authority’ means the level 1 environmental authority (chapter 5A activities) permit granted to Australia Pacific LNG under the Environmental Protection Act 1994 (Qld)</td>
</tr>
<tr>
<td>RCCC</td>
<td>Regional Community Consultative Committee</td>
</tr>
<tr>
<td>Recordable Injuries</td>
<td>Injuries or illnesses of work related nature involving medical treatment cases, restricted work cases or lost time cases</td>
</tr>
<tr>
<td>RFSU</td>
<td>Ready for Start Up</td>
</tr>
<tr>
<td>RTN</td>
<td>Right to Negotiate</td>
</tr>
<tr>
<td>RWC</td>
<td>Restricted Work Case</td>
</tr>
<tr>
<td>S1</td>
<td>Semester One</td>
</tr>
<tr>
<td>S2</td>
<td>Semester Two</td>
</tr>
<tr>
<td>Shared Facilities</td>
<td>The power generation facilities, utilities, storage tanks, loading lines and arms, jetty, docks, buildings, helipads, communications facilities, land and water rights, and other facilities and infrastructure to be developed on Curtis Island to be used initially by the LNG Plant but in the future may be used in connection with LNG processing trains developed by one or more other developers</td>
</tr>
<tr>
<td>SD</td>
<td>Sustainable Development</td>
</tr>
<tr>
<td>SIMP</td>
<td>Social Impact Management Plan</td>
</tr>
<tr>
<td>Sinopec</td>
<td>China Petroleum &amp; Chemical Corporation</td>
</tr>
<tr>
<td>STARRT</td>
<td>Safety Task Analysis and Risk Reduction Talk</td>
</tr>
<tr>
<td>Train One</td>
<td>The first LNG train to be constructed under the EPC Contract</td>
</tr>
<tr>
<td>Train Two</td>
<td>The LNG train to be constructed following the taking of FID to develop a second train</td>
</tr>
<tr>
<td>TRIFR</td>
<td>Total Recordable Injury Frequency Rate. The ratio of recordable injuries or illnesses per million hours worked averaged over a 12-month period</td>
</tr>
<tr>
<td>Upstream Project</td>
<td>The design, construction, testing, commissioning, and operation of CSG fields, a high pressure gas pipeline network, and transmission pipelines for supply of gas to the LNG Plant</td>
</tr>
<tr>
<td>Upstream Operator</td>
<td>Origin Energy</td>
</tr>
<tr>
<td>UWIR</td>
<td>Underground Water Impact Report</td>
</tr>
<tr>
<td>YTD</td>
<td>Year to Date</td>
</tr>
<tr>
<td>WTF</td>
<td>Water Treatment Facility</td>
</tr>
</tbody>
</table>
Curtis Island LNG Facility